3600 ALAMEDA AVENUE PROJECT

Draft Environmental Impact Report

Prepared for
City of Oakland

July 2023

ESA

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CHAPTER 1
Introduction

This Draft Environmental Impact Report (Draft EIR) has been prepared pursuant to the California Environmental Quality Act (CEQA) and the State CEQA Guidelines to analyze potential physical environmental impacts of the proposed 3600 Alameda Avenue Project (Project).[1] This chapter provides and overview of the Project and the environmental review process, a description of the purpose of this Draft EIR and opportunities for public comment, and an explanation of how this Draft EIR is organized.

1.1 Project Overview

The Project would redevelop an approximately 23.9-acre site located at 3600 Alameda Avenue in Oakland, California, and would include construction of an approximately 430,000-square-foot, Class A, LEED Silver industrial facility.[2] The facility would be able to accommodate a variety of uses that may consist of manufacturing, research and development, warehousing, or industrial operations. However, for the purposes of the conservative analyses presented in Chapter 4, the end use is assumed to be a distribution warehouse.

The Project would create a new connection of 37th Avenue with Alameda Avenue, and a realignment of Alameda Avenue. Sidewalks surrounding the Project site would be re-constructed, and the Alameda Avenue realignment would result in widened sidewalks, a new bike path, and enhanced public access to the shoreline and San Francisco Bay Trail (Bay Trail).

The new distribution warehouse facility would include up to 30,000 square feet of accessory office space, and an approximately 10,000 square-foot café/restaurant. The Project would include an employee parking lot, a truck parking lot with 48 loading dock doors, in addition to extensive landscaped buffers and amenity space surrounding the Project site.

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1 The *California Environmental Quality Act* can be found in the California Public Resources Code, Section 21000 et seq. The State CEQA Guidelines, formally known as the *Guidelines for California Environmental Quality Act*, can be found in the California Code of Regulations Title 14, Division 6, Chapter 3, Section 15000 et seq.

2 The analysis presented in this Draft EIR assumes an approximately 430,000 square foot project building. Since the time of Draft EIR development, the Project Applicant has since put forth a revised proposal for an approximately 424,320 square foot project building. Therefore, this Draft EIR describes a modestly larger structure and thus serves as a conservative analysis.

1.2 Environmental Review Process

1.2.1 Use of this EIR and Type of EIR

CEQA requires that all State and local government agencies consider the environmental consequences of projects over which they have discretionary authority. Consistent with CEQA, this Draft EIR is a public information document that assesses the potential physical environmental impacts that could result from construction and use of the 3600 Alameda Avenue Project, recommends mitigation measures to lessen or eliminate adverse impacts, and examines feasible alternatives to the Project. The Draft EIR's key purpose is to inform decision makers at the City of Oakland (City) and other responsible agencies, as well as the public. The City is the Lead Agency for purposes of CEQA, and will review and consider the information contained in this Draft EIR prior to taking action on the Project.

This Draft EIR provides information to be used in the planning and decision-making process. It is not the purpose of an EIR to recommend approval or denial of a project. The City has made this Draft EIR available for review and comment, as indicated in the Notice of Availability issued with this document and explained in Section 1.2.4, *Public Review of this Draft EIR*, below.

1.2.2 Scope of the EIR

This Draft EIR describes the Project and the existing environmental setting. It analyzes and discloses the direct and indirect potentially significant impacts that could result from construction and operation of the Project. The existing environmental setting (baseline) for the purpose of environmental review consists of conditions present on the Project site, its surroundings, and the region in April 2020, when the City published the Notice of Preparation (NOP) and began preparation of this Draft EIR. The NOP is included as Appendix A.

This Draft EIR concentrates the environmental analysis on the following topics that have the potential to have significant impacts on the environment:

- Air Quality
- Biological Resources
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Noise
- Transportation and Circulation.

In accordance with CEQA Guidelines Section 15128, this Draft EIR includes Section 4.7, *Effects Not Found to Be Significant*, which provides substantial evidence to support the determination for each of the topics listed below (i.e., those not addressed in full detail in this Draft EIR and listed above) that (1) CEQA standards triggering preparation of further environmental review do not exist; and (2) impacts under these topics would be less than significant with incorporation of appropriate City Standard Conditions of Approval (SCAs):

- Aesthetics, Shadow, and Wind
- Agricultural and Forestry Resources
- Cultural Resources
- Energy
- Geology and Soils
- Hydrology and Water Quality

- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

1.2.3 Notice of Preparation and EIR Scoping

The City of Oakland published an NOP on April 4, 2022, pursuant to State CEQA Guidelines section 15082, indicating that an EIR would be prepared for the 3600 Alameda Avenue Project and inviting comments on the scope of the Draft EIR's analysis. The public comment period regarding the scope of the Draft EIR began on April 4, 2022 and ended on May 3, 2022, resulting in a 30-day comment period. The NOP was sent to property owners within 300 feet of the Project site, responsible and trustee agencies, organizations and other interested parties. A copy of the NOP was sent to the State Clearinghouse, to solicit statewide agency participation in determining the scope of the EIR, and to the County Clerk, who posted the NOP for 30 days.

During the comment period, a public scoping session was conducted by the Oakland Planning Commission on April 20, 2022, to provide a forum for public agencies and interested persons or groups to offer comments regarding the scope of the EIR. Oral and written comments received during the comment period addressed a range of CEQA-related topics; the most frequently raised scoping topics included construction noise, vibration, light pollution, and hazardous materials release; operational noise and air quality issues associated with Project traffic, parking, trucks; operational light pollution; pedestrian and bicycle safety associated with proposed street extensions; traffic congestion and emergency evacuation issues associated with Project passenger vehicle and truck traffic; and various issues associated with cut through traffic. The NOP and copies of all written scoping comments submitted are included in Appendix A. All of the comments have been taken into consideration in preparation of this Draft EIR.

1.2.4 Public Review of this Draft EIR

This Draft EIR is available for public review and comment July 10th through August 24th, as identified in the Notice of Availability/Notice of Completion (NOA/NOC) accompanying this document.

This Draft EIR and all supporting technical documents and reference materials are available for public review at the offices of the Oakland Planning and Building Department, located at 250 Frank Ogawa Plaza, Suite 2114, Oakland under Case PLN21223-ER01. The Draft EIR can also be found at https://www.oaklandca.gov/resources/current-environmental-review-ceqa-eir-documents-2011-present.

As indicated above, during the public review period, the City will hold public hearings where oral comments on the Draft EIR may be stated in the record.

Written comments may also be submitted to the City of Oakland Planning and Building Department at the address indicated on the notice or by email to pvollmann@oaklandca.gov.

As indicated in the notice accompanying this Draft EIR, the City need not consider certain comments filed after the close of the public comment period.

1.2.5 Final EIR

Following the public review and comment period on this Draft EIR, the City will prepare responses to comments received on the environmental analysis. The comments, responses, and any necessary revisions to the text of this Draft EIR will be prepared as a Responses to Comments document and made available to all persons who provided comments. The Draft EIR and its appendices, together with the Responses to Comments document will constitute the Final EIR, which shall be considered for certification by the City of Oakland Planning Commission. Before approval of the Project, the City, as lead agency and the decision-making entity, is required to certify that this EIR has been completed in compliance with CEQA, that the information in the EIR has been considered, and that the EIR reflects the independent judgment of the City. CEQA requires decision makers to balance the benefits of a project against its unavoidable environmental consequences. If environmental impacts are identified as significant and unavoidable, the City may still approve the project if it finds that social, economic, or other benefits outweigh the unavoidable impacts. The City would then be required to state in writing the specific reasons for approving the project, based on information in the EIR and other information sources in the administrative record. This reasoning is called a "statement of overriding considerations" (PRC Section 21081; State CEQA Guidelines Section 15093).

In addition, the City as lead agency must adopt a mitigation monitoring and reporting program describing the measures that were made a condition of project approval to avoid or mitigate significant effects on the environment (PRC Section 21081.6; State CEQA Guidelines Section 15097). The Standard Conditions of Approval and Mitigation Monitoring and Reporting Program (SCAMMRP) is adopted at the time of project approval and is designed to ensure compliance with the project description, any recommendations identified in City-approved technical reports, EIR mitigation measures, and with all SCAs set forth herein during and after project implementation. If the City decides to approve the Project, it would be responsible for verifying that the SCAMMRP for this Project is implemented.

The EIR will be used primarily by the City and other responsible agencies during approval of future discretionary actions and permits.

1.3 Organization of this Draft EIR

This Draft EIR document is organized as follows:

- **Chapter 1, Introduction** – This chapter includes a brief overview of the Project and the environmental review process, a description of the purpose of this Draft EIR and opportunities for public comment, and an explanation of how this Draft EIR is organized.
- **Chapter 2, Summary** – This chapter summarizes the Draft EIR, including a brief description of the Project based on the detailed description in Chapter 3 and summaries of the environmental impact findings from the Project analyses presented in Chapter 4. Pursuant to

CEQA Section 15123, the Summary presents: (1) each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect; and (2) areas of controversy known to the City including issues raised by agencies and the public.

- **Chapter 3, Project Description** – This chapter describes the whole of the Project, including off-site improvements and infrastructure proposed to support the Project. The chapter describes the physical location of the site, the site's boundaries, and the Project Applicant's objectives, as well as the proposed uses and the physical design of the Project, its operational characteristics, and its phasing and construction processes. Consistent with State CEQA Guidelines Section 15124, this chapter also describes: (1) a list of the agencies that are expected to use the EIR in their decision making; (2) a list of permits and other approvals required to implement the Project; and (3) a list of related environmental review and consultation requirements required by federal, state, or local laws, regulations, or policies.

- **Chapter 4, Environmental Setting, Impacts, and Standard Conditions of Approval** – This chapter starts with an introduction that describes key environmental analysis terms used in this document and the analysis, including the impact classifications; applicability of significance criteria; the organization of each technical section of Chapter 4; and the cumulative analysis approach and setting.

  Following the introduction of the chapter, the analysis of each environmental topic is presented in a separate subsection. Each topical subsection describes the existing environmental setting of the Project site area, as well as the regulatory framework, and the significance criteria and methodology used to analyze each environmental topic. The chapter then presents results of the environmental analysis, including potential environmental impacts of the Project and the level of significance associated with each impact. Standard Conditions of Approval that would reduce the significance of potentially significant impacts to the extent feasible are described. The chapter then identifies the level of significance of each impact following incorporation of Standard Conditions of Approval. This chapter also includes a cumulative analysis to evaluate whether the Project's incremental effect is cumulatively considerable when combined with other projects causing related impacts.

  This chapter also includes Section 4.7, *Effects Not Found to Be Significant*. This section describes and evaluates the topics listed in Section 1.2.2, above. The analysis of each environmental topic applies a similar approach to Sections 4.1 through 4.6. The analysis provides the substantial evidence to support the determination that, for each of the specified topics, the Project would not have a significant impact on the environment.

- **Chapter 5, Project Variant** – This chapter describes and evaluates a variant to the Proposed Project so that it may be incorporated into the Project in the event the necessary land can be acquired and the necessary approvals can be obtained.

- **Chapter 6, Alternatives** – This chapter describes and evaluates alternatives that would feasibly attain most of the Project objectives as well as reduce or avoid significant environmental impacts associated with the Project. This chapter also describes alternatives that were considered but were rejected as infeasible and briefly explains the reasons underlying this determination.

- **Chapter 7, Impact Overview and Growth Inducement** – This chapter lists all Significant and Unavoidable Impacts and discusses Significant Irreversible Environmental Changes, and Growth-Inducing Impacts.

- **Chapter 8, Report Preparers** – This chapter identifies the preparers of this Draft EIR. Persons and documents consulted during preparation of the analysis are listed at the end of each section in Chapter 4 and the Appendices.

- **Appendices** – A series of appendices includes supporting background information relevant to the impact analyses contained in this Draft EIR.

CHAPTER 2
Summary

2.1 Introduction

As provided by Section 15123 of the California Environmental Quality Act (CEQA) Guidelines (CEQA Guidelines), this chapter provides a summary of the 3600 Alameda Avenue Project (Project) and its consequences. This chapter is intended to summarize in a stand-alone section the Project described in Chapter 3, *Project Description*, the impacts and Standard Conditions of Approval (SCAs) discussed in Chapter 4, *Environmental Setting, Impacts, and Standard Conditions of Approval*, and the alternatives analysis presented in Chapter 6, *Alternatives*.

This Draft Environmental Impact Report (Draft EIR) has been prepared to evaluate the anticipated environmental effects of the Project in conformance with the provisions of CEQA and the CEQA Guidelines. The lead agency, the City of Oakland (City), is the public agency that has the principal responsibility for implementing the Project, which includes design review, approval of a tentative parcel map, and other approvals (referred to collectively hereafter as the Project).

2.2 Project Location

The Project site is located at 3600 Alameda Avenue near the Fruitvale neighborhood in the City of Oakland. The site is bordered by Fruitvale Ave on the west, Alameda Avenue on the south, 37th Avenue on the eastern, and Boehmer Street on the north.[1] The Project would consist of redevelopment of an approximately 23.9-acre site that is currently occupied by the former Owens-Illinois Glass Company Plant 20, which manufactured container glass and cardboard packaging material. Construction of the plant began in 1936, underwent several major expansions, and added glass recycling to its operations in 1988 when the company was renamed Owens-Brockway. Operations of Plant 20 ceased in 2015. The Project site is mostly hardscape including the former plant with minimal vegetation.

Existing uses in the Project vicinity include commercial and industrial uses to the east and west of the site as well as commercial and residential uses to the north. The Oakland Estuary is south of the Project site.

The Project site is accessible from Interstate 880, approximately 450 feet north of the site. Multiple transit routes serve the Project site including Alameda-Contra Costa County Transit District

[1] Generally, the street network in the Project vicinity does not align with a north–south/east–west orientation. This analysis assumes that Fruitvale Avenue is a north-south street and East 7th Street is an east-west street.

(AC Transit) Lines 19, 51A, 78, 851, and O along Fruitvale Avenue. The nearest bus stops to the Project site are on northbound Fruitvale Avenue between East 8th and East 9th Streets under the I-880 overpass and on southbound Fruitvale Avenue just north of East 9th Street. In addition, the Fruitvale Bay Area Rapid Transit District (BART) station is approximately 0.3 miles north of the Project site.

2.3 Project Description

The Project would construct an approximately 430,000 square foot industrial facility that would be able to accommodate a variety of uses that may consist of manufacturing, research and development, warehousing, or industrial uses.[2] The new facility would include up to 30,000 square feet of accessory office space, 25,000 of which would be split between the northwest corner of the building at the main entrance, the central-northern portion of the building, and the northeastern corner of the building depending on the number of tenants occupying the building. An additional 5,000 square feet of accessory office space would be provided at a mezzanine level. The Project would have a 42-foot clear height with a floor area ratio (FAR) of 0.42.

In addition to the industrial building, the Project would include 295 parking spaces in an employee parking lot north and east of the building and a landscaped buffer between the parking lot and the northern Project site boundary. To the south of the industrial building, the Project would construct a loading dock with 48 dock doors and 228 trailer parking stalls. The Project would also include an outdoor eating area adjacent to Fruitvale Avenue for use by project employees and would reserve a parcel in the southeastern corner of the site which could be developed as either restaurant or retail uses in the future. For the purposes of a conservative analyses Project operations is assumed to include an approximately 10,000 square-foot café/restaurant at that location.

The Project would also make improvements to the site including reconstruction of all sidewalks surrounding the property, realign Alameda Avenue to enhance shoreline and Bay Trail access, re-open Boehmer Street to create a new connection between 36th and 37th Avenues, and extend 37th Avenue to Alameda Avenue. The Project would create an intersection at Alameda Avenue and 37th Avenue and improve the Fruitvale Avenue corridor to improve pedestrian safety. The potential future extension of East 7th Street by creating a new public right-of-way from Fruitvale Avenue to Boehmer Street for a connection through to 37th Avenue, is analyzed as a variant to the Project. This Project variant was initially part of the Project but was amended to be analyzed as a variant due to the infeasibility of its implementation at this time, as further explained in the Project Description Chapter of this document.

Project construction would demolish all existing structures and surface parking lots. Construction activities would also include excavation and shoring, foundation and below-grade construction,

[2] The analysis presented in this Draft EIR assumes an approximately 430,000 square foot project building. Since the time of Draft EIR development, the Project Applicant has since put forth a revised proposal for an approximately 424,320 square foot project building. Therefore, this Draft EIR describes a modestly larger structure and thus serves as a conservative analysis.

and building construction including finishing interiors. Project construction is expected to commence in the first quarter of 2024 and occur over approximately 17 months.

2.4 Impacts of the Project

As provided by CEQA Guidelines Section 15123(b)(1), an EIR must provide a summary of the impacts, mitigation measures, and significant impacts after mitigation for a proposed Project. This information is presented in Chapter 4, *Environmental Setting, Impacts, and Standard Conditions of Approval*, of this EIR, and summarized in **Table 2-1** at the end of this chapter.

No Project impacts were identified for several topics including; mineral resources; wildfire; aesthetics (wind); agriculture and forestry resources; air quality (health risk to new receptors); biological resources (riparian habitat or other sensitive natural communities, conflict with a habitat conservation plan); geological resources (fault rupture, landslides, landfills, wastewater disposal); hydrology (flood hazards); land use (conflict with a natural communities conservation plan); noise (state and regulatory agency noise standards, operational vibration, airport related noise); and population and housing (displacement).

With Standard Conditions of Approval (SCAs) applied, the Project would result in impacts that would not require additional measures to mitigate the impact—i.e., that would be "less than significant"—for all remaining topics including aesthetics; air quality; biological resources; cultural resources; energy; greenhouse gas emissions; geology, soils, and paleontological resources; hazards and hazardous materials; hydrology and water quality ; land use; noise and vibration ; population and housing; public services; recreation; transportation and circulation; tribal cultural resources; and utilities and service systems.

Mitigation measures in addition to SCAs are required to reduce potentially significant environmental impacts of the Project to biological resources (nesting birds and roosting bats).

2.5 Alternatives to the Project

Chapter 6, *Alternatives to the Project*, analyzes a range of reasonable alternatives to the Project, including the No Project Alternative (Alternative 1), and the No Street Extension Alternative (Alternative 2). Project impacts that would be significant and unavoidable have not been identified; accordingly, the focus of the alternatives analysis is on assessing: (1) the extent to which the alternative would avoid or lessen the identified less-than-significant (with or without SCAs) environmental effects of the Project identified in Chapter 4, *Environmental Setting, Impacts, and Standard Conditions of Approval*; and (2) whether the alternatives meet the basic objectives of the Project.

The analysis of the alternatives, including a comparison of alternatives to the Project, is presented in Chapter 6, which provides a summary of impact levels within all environmental topic areas. Based on the evaluation described in Chapter 6, the No Project Alternative would be environmentally superior to the Project. However, the No Project Alternative would not meet any of the basic objectives of the Project. CEQA requires that a second alternative be identified when

the "No Project" alternative is the environmentally superior alternative (CEQA *Guidelines*, Section 15126.6(e)). Therefore, based on its combined slight reduction in construction-related air quality and noise impacts and its ability to meet most of the basic objectives of the Project (though would do so to a lesser degree for objectives pertaining to creating network connections and consistency with the Central Estuary Area Plan), the No Street Extension Alternative would be the Environmentally Superior Alternative for the purpose of this analysis. However, note that although the alternatives identified reduce impacts, they would not substantially lessen or avoid significant environmental effects of the Project because the Project itself would not result in significant impacts.

2.6 Comments on Notice of Preparation

In accordance with the CEQA Guidelines, the City distributed a Notice of Preparation of an EIR (NOP) for the EIR to affected agencies and the public for the required 30-day period. The public comment period regarding the scope of the Draft EIR began on April 4, 2022, ending on May 3, 2022, resulting in a 30-day comment period. The NOP and comments submitted during the EIR scoping comment period are included in Appendix A of this Draft EIR.

2.7 Areas of Controversy

Section 15123(b)(2) of the State CEQA Guidelines requires that an EIR summary identify areas of controversy known to the Lead Agency (City of Oakland), including those issues and concerns identified by agencies, organizations, and individuals in response to the City's Notice of Preparation (NOP) published on April 2, 2022. Areas of potential controversy or interest regarding the Project, based on the number of public comments received, address:

- Aesthetics (light pollution associated with Project construction and operation);
- Air quality (operational air quality associated with Project traffic, parking, and trucks);
- Hazards and hazardous materials (risk of release during construction);
- Noise (construction noise and vibration, and operational noise associated with Project traffic, parking, and trucks); and
- Transportation (increased congestion, pedestrian and bicycle safety associated with proposed street extensions, emergency evacuation issues associated with Project passenger vehicle and truck traffic, various issues associated with cut through traffic).

The NOP and comments received in response to the NOP are included in Appendix A.

2.8 Issues to Be Resolved

CEQA Guidelines Section 15123(b)(3) requires that an EIR present the issues to be resolved including the choice among alternatives and whether or how to mitigate identified significant effects. The major issues to be resolved for the Project include decisions by the City of Oakland, as the Lead Agency, as to whether:

- This EIR adequately describes the environmental impacts of the Project;
- Additional mitigation measures need to be applied to the Project;
- Feasible alternatives exist that would achieve the objectives of the Project and reduce significant environmental impacts; and
- The Project should or should not be approved.

TABLE 2-1
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.1, *Air Quality*		
Impact AIR-1: Project construction would not generate average daily emissions in excess of 54 pounds per day of ROG, NOX, or PM2.5 or 82 pounds per day of PM10. (Criterion 1) (*Less than Significant with SCAs*)	**SCA AIR-1: Dust Controls – Construction Related** (*Standard Condition of Approval 20*) **Requirement:** The project applicant shall implement all of the following applicable dust control measures during construction of the project: a) Water all exposed surfaces of active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever feasible. b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). c) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited. d) Limit vehicle speeds on unpaved roads to 15 miles per hour. e) All demolition activities (if any) shall be suspended when average wind speeds exceed 20 mph. f) All trucks and equipment, including tires, shall be washed off prior to leaving the site. g) Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel. **Enhanced Controls:** All "Basic" controls listed above plus the following controls if the project involves: • Extensive site preparation (i.e., the construction site is four acres or more in size); or • Extensive soil transport (i.e., 10,000 or more cubic yards of soil import/export).] h) Apply and maintain vegetative ground cover (e.g., hydroseed) or non-toxic soil stabilizers to disturbed areas of soil that will be inactive for more than one month. Enclose, cover, water twice daily, or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.). i) Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. j) When working at a site, install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of the site, to minimize wind-blown dust. Windbreaks must have a maximum 50 percent air porosity. k) Post a publicly visible large on-site sign that includes the contact name and phone number for the project complaint manager responsible for responding to dust complaints and the telephone numbers of the City's Code Enforcement unit and the Bay Area Air Quality Management District. When contacted, the project complaint manager shall respond and take corrective action within 48 hours. l) All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.1, *Air Quality* (continued)		
Impact AIR-1 (cont.)	**SCA AIR-2: Criteria Air Pollutants – Construction Related** (*Standard Condition of Approval 21*) **Requirement:** The project applicant shall implement all of the following applicable basic control measures for criteria air pollutants during construction of the project as applicable: a) Idling times on all diesel-fueled commercial vehicles over 10,000 lbs. shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations). Clear signage to this effect shall be provided for construction workers at all access points. b) Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes and fleet operators must develop a written policy as required by Title 23, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations"). c) All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. Equipment check documentation should be kept at the construction site and be available for review by the City and the Bay Area Air Quality District as needed. d) Portable equipment shall be powered by grid electricity if available. If electricity is not available, propane or natural gas generators shall be used if feasible. Diesel engines shall only be used if grid electricity is not available and propane or natural gas generators cannot meet the electrical demand. e) Low-VOC (i.e., ROG) coatings shall be used that comply with BAAQMD Regulation 8, Rule 3: Architectural Coatings. f) All equipment to be used on the construction site shall comply with the requirements of Title 13, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations") and upon request by the City (and the Air District if specifically requested), the project applicant shall provide written documentation that fleet requirements have been met. **Enhanced Controls:** All "Basic" controls listed above plus the following controls if the project involves: • Construction activities with average daily emissions exceeding the CEQA thresholds for construction activity, currently 54 pounds per day of ROG, NOx, or $PM_{2.5}$ or 82 pounds per day of PM_{10}. g) Criteria Air Pollutant Reduction Measures **Requirement:** The project applicant shall retain a qualified air quality consultant to identify criteria air pollutant reduction measures to reduce the project's average daily emissions below 54 pounds per day of ROG, NOx, or $PM_{2.5}$ or 82 pounds per day of PM_{10}. Quantified emissions and identified reduction measures shall be submitted to the City (and the Air District if specifically requested) for review and approval prior to the issuance of building permits and the approved criteria air pollutant reduction measures shall be implemented during construction. h) Construction Emissions Minimization Plan	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.1, *Air Quality* (continued)		
Impact AIR-1 (cont.)	**Requirement:** The project applicant shall prepare a Construction Emissions Minimization Plan (Emissions Plan) for all identified criteria air pollutant reduction measures. The Emissions Plan shall be submitted to the City (and the B if specifically requested) for review and approval prior to the issuance of building permits. The Emissions Plan shall include the following: i. An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment identification number, engine model year, engine certification (tier rating), horsepower, and engine serial number. For all Verified Diesel Emissions Control Strategies (VDECS), the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, CARB verification number level, and installation date. ii. A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract.	
Impact AIR-2: Project operation would not generate average daily emissions of 54 pounds per day of ROG, NOX, or PM2.5 or 82 pounds per day of PM10; or result in maximum annual emissions of 10 tons per year of ROG, NOX, or PM2.5 or 15 tons per year of PM10. (Criterion 2) *(Less than Significant)*	None required	Less Than Significant
Impact AIR-3: Project construction would not contribute to CO concentrations that exceed the CAAQS of 9 ppm averaged over eight hours and 20 ppm for one hour. (Criterion 3) *(Less than Significant)*	None required	Less Than Significant
Impact AIR-4: The Project would not create new sources of TACs during Project construction or operation that would expose existing sensitive receptors in the vicinity to health risk levels in excess of the City's project-level thresholds. (Criterion 4) (*Less than Significant with SCAs*)	**SCA AIR-3: Diesel Particulate Matter Controls – Construction Related** (*Standard Condition of Approval 22*) ***a. Diesel Particulate Matter Reduction Measures*** **Requirement:** The project applicant shall implement appropriate measures during construction to reduce potential health risks to sensitive receptors due to exposure to diesel particulate matter (DPM) from construction emissions. The project applicant shall choose **one** of the following methods: i. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with current guidance from the California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment to determine the health risk to sensitive receptors exposed to DPM from project construction emissions. The HRA shall be submitted to the City (and the Air District if specifically requested) for review and approval. If the HRA concludes that the health risk is at or	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.1, *Air Quality* (continued)		
Impact AIR-4 (cont.)	below acceptable levels, then DPM reduction measures are not required. If the HRA concludes that the health risk exceeds acceptable levels, DPM reduction measures shall be identified to reduce the health risk to acceptable levels as set forth under subsection b below. Identified DPM reduction measures shall be submitted to the City for review and approval prior to the issuance of building permits and the approved DPM reduction measures shall be implemented during construction. OR ii. All off-road diesel equipment shall be equipped with the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type (Tier 4 engines automatically meet this requirement) as certified by CARB. The equipment shall be properly maintained and tuned in accordance with manufacturer specifications. This shall be verified through an equipment inventory submittal and Certification Statement that the Contractor agrees to compliance and acknowledges that a significant violation of this requirement shall constitute a material breach of contract. ***b. Construction Emissions Minimization Plan (if required by a above*** **Requirement:** The project applicant shall prepare a Construction Emissions Minimization Plan (Emissions Plan) for all identified DPM reduction measures (if any). The Emissions Plan shall be submitted to the City (and the Bay Area Air Quality District if specifically requested) for review and approval prior to the issuance of building permits. The Emissions Plan shall include the following: i. An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment identification number, engine model year, engine certification (tier rating), horsepower, and engine serial number. For all VDECS, the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, CARB verification number level, and installation date. ii. A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract. **SCA AIR-4: Stationary Sources of Air Pollution - Toxic Air Contaminants** (*Standard Condition of Approval 24*) **Requirement:** The project applicant shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to on-site stationary sources of toxic air contaminants. The project applicant shall choose one of the following methods: a. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment requirements to determine the health risk associated with proposed stationary sources of pollution in the project. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then health risk reduction measures are not required. If the HRA concludes the health risk exceeds acceptable levels, health risk reduction measures shall be identified to reduce the health risk to acceptable levels. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. The approved risk reduction measures shall be implemented during construction and/or operations as applicable. OR	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.1, *Air Quality* (continued)		
Impact AIR-4 (cont.)	b. The project applicant shall incorporate the following health risk reduction measures into the project. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City: i. Installation of non-diesel fueled generators, if feasible, or; ii. Installation of diesel generators with an EPA-certified Tier 4 engine or engines that are retrofitted with a CARB Level 3 Verified Diesel Emissions Control Strategy, if feasible. **SCA AIR-5: Truck-Related Risk Reduction Measures – Toxic Air Contaminants** (*Standard Condition of Approval 25*) ***a. Truck Loading Docks*** **Requirement:** The project applicant shall locate proposed truck loading docks as far from nearby sensitive receptors as feasible. ***b. Truck Fleet Emission Standards*** **Requirement:** The project applicant shall comply with all applicable California Air Resources Board (CARB) requirements to control emissions from diesel engines and demonstrate compliance to the satisfaction of the City. Methods to comply include, but are not limited to, new clean diesel trucks, higher-tier diesel engine trucks with added Particulate Matter (PM) filters, hybrid trucks, alternative energy trucks, or other methods that achieve the applicable CARB emission standard. Compliance with this requirement shall be verified through CARB's Verification Procedures for In-Use Strategies to Control Emissions from Diesel Engines. **SCA AIR-6: Asbestos in Structures** (*Standard Condition of Approval 26*) **Requirement:** The project applicant shall comply with all applicable laws and regulations regarding demolition and renovation of Asbestos Containing Materials (ACM), including but not limited to California Code of Regulations, Title 8; California Business and Professions Code, Division 3; California Health and Safety Code sections 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended. Evidence of compliance shall be submitted to the City upon request.	
Impact AIR-5: The Project would not create or expose sensitive receptors to substantial odors affecting a substantial number of people. (Criterion 6) *(Less than Significant)*	None required	Less Than Significant
Impact AIR-6: Construction and operation of the Project would not conflict with or obstruct implementation of the applicable air quality plan. (Appendix G criterion a) *(Less than Significant with SCAs)*	**SCA AIR-1: Dust Controls – Construction Related.** See above. **SCA AIR-2: Criteria Air Pollutants – Construction Related.** See above. **SCA TRANS-3: Transportation and Parking Demand Management.** See Transportation and Circulation below.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.1, *Air Quality* (continued)		
Impact AIR-1.CU: Construction and operational activities associated with the Project would not result in a cumulatively considerable increase in emissions for which the SFBAAB is in non-attainment under an applicable federal or State ambient air quality standard. (Criteria 1 and 2) *(Less than Significant with SCAs)*	**SCA AIR-1: Dust Controls – Construction Related.** See above. **SCA AIR-2: Criteria Air Pollutants – Construction Related.** See above.	Less Than Significant
Impact AIR-2.CU: Construction and operational activities associated with the Project would not contribute considerably to cumulative emissions of TACs and PM2.5 that could expose sensitive receptors to substantial pollutant concentrations or health risks above the City's cumulative thresholds. (Criterion 4) *(Less than Significant)*	None required	Less Than Significant
Impact AIR-3.CU: Construction and operational activities associated with the Project would not contribute considerably to cumulative emissions of TACs and $PM_{2.5}$ that could expose sensitive receptors to substantial pollutant concentrations or health risks above the City's cumulative thresholds. (Criterion 4) (*Less than Significant with SCAs*)	**SCA AIR-3: Diesel Particulate Matter Controls – Construction Related.** See above. **SCA AIR-4: Stationary Sources of Air Pollution - Toxic Air Contaminants.** See above. **SCA AIR-5: Truck-Related Risk Reduction Measures – Toxic Air Contaminants.** See above. **SCA AIR-6: Asbestos in Structures.** See above.	Less Than Significant
Impact AIR-4.CU: The Project, in combination with other cumulative projects, would not create or expose sensitive receptors to substantial odors affecting a substantial number of people. (Criterion 6) (*Less than Significant*)	None required	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.2, *Biological Resources*		
Impact BIO-1: Implementation of the Project would not have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (nesting birds and roosting bats). (*Less-than-Significant Impact, with SCAs and Mitigation*)	**SCA BIO-2: Tree Removal During Bird Breeding Season.** *(Standard Condition of Approval 29)* **Requirement:** To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of birds shall not occur during the bird breeding season of February 1 to August 15 (or during December 15 to August 15 for trees located in or near marsh, wetland, or aquatic habitats). If tree removal must occur during the bird breeding season, all trees to be removed shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Pre-removal surveys shall be conducted within 15 days prior to the start of work and shall be submitted to the City for review and approval. If the survey indicates the potential presence of nesting raptors or other birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the California Department of Fish and Wildlife and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest. **Mitigation Measure BIO-1: Worker Environmental Awareness Program Training.** Project-specific Worker Environmental Awareness Program (WEAP) training shall be developed by a qualified biologist and provided to all Project personnel prior to the start of Project demolition/construction or tree removal work. The training can be provided in a brochure or as a video. The WEAP training shall generally include, but not be limited to, education about the following: a) Environmental rules and regulations, and penalties for non-compliance. b) Avoidance measures and a protocol to follow, including a communication chain, if nesting birds or roosting bats are encountered. **Mitigation Measure BIO-2: Avoid and Minimize Impacts on Nesting Birds.** The Project Applicant shall take adequate measures to avoid inadvertent take of raptor nests and other nesting birds protected under the Migratory Bird Treaty Act when in active use. This shall be accomplished by taking the following steps. a) If vegetation removal and/or construction is proposed during the nesting season (February 15 to August 31), a pre-construction survey for nesting raptors and other migratory birds shall be conducted by a qualified biologist within 7 days prior to the onset of vegetation removal and/or construction, to identify any active nests in the Project area and in the vicinity of proposed construction. Surveys shall be performed for the Project area, vehicle and equipment staging areas, and suitable habitat within 150 feet of the Project area boundary to locate any active passerine (e.g., songbird) nests and within 250 feet of the Project area boundary to locate any active raptor (bird of prey) nests. b) If no active nests are identified during the survey period, or if development is initiated during the non-breeding season (September 1 to February 14), construction may proceed with no restrictions. c) If bird nests are found, the qualified biologist shall establish an adequate no-disturbance buffer zone around the nest location. Construction activities and/or vegetation removal shall be restricted within the no-disturbance buffer zone until the qualified biologist has confirmed that any young birds have fledged and are able to leave the construction area. Required setback distances for the no-disturbance buffer zone shall be established by the qualified biologist and may vary depending on species, line-of-sight between the nest and the construction activity, and the birds' sensitivity to disturbance. Buffer sizes shall initially be 200 feet for raptors and 50 feet for other birds, but may be modified, as appropriate, by the qualified biologist based on site conditions. As deemed necessary by the qualified biologist, the no-disturbance buffer zone shall be fenced with temporary orange construction fencing.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.2, *Biological Resources* (continued)		
Impact BIO-1 (cont.)	d) Any birds that begin nesting within the Project area and survey buffers amid construction activities shall be assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases; however, should birds nesting nearby begin to show disturbance associated with construction activities, no-disturbance buffer zones shall be established as determined by the qualified wildlife biologist. e) Any work that must occur within established no-disturbance buffer zones around active nests shall be monitored by a qualified biologist. If adverse effects in response to Project work within the buffer are observed and could compromise the nest's success, work within the no-disturbance buffer shall halt until the nest occupants have fledged. f) A report of findings shall be prepared by the qualified biologist and submitted to the City for review and approval prior to initiation of construction within any no-disturbance buffer zone during the nesting season. The report shall either confirm absence of any active nests or shall confirm that any young within a designated no-disturbance zone and construction can proceed. **Mitigation Measure BIO-3: Avoid and Minimize Impacts on Roosting Bats.** A qualified biologist who is experienced with bat surveying techniques (including auditory sampling methods), behavior, roosting habitat, and identification of local bat species shall be consulted prior to demolition or building relocation activities to conduct a pre-construction habitat assessment of the Project area (focusing on buildings to be demolished or relocated) to characterize potential bat habitat and identify potentially active roost sites. No further action is required should the pre-construction habitat assessment not identify potential bat roosting habitat or signs of potentially active bat roosts within the Project area (e.g., guano, urine staining, dead bats, etc.). The following measures shall be implemented should potential bat roosting habitat or potentially active bat roosts be identified during the habitat assessment in buildings to be demolished within the study area: a) In areas identified as potential roosting habitat during the habitat assessment, initial building demolition shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15, to the extent feasible. These periods avoid the bat maternity roosting season and period of winter torpor.[3] b) Buildings with potential bat roosting habitat or active (outside of maternity and winter torpor seasons) roosts shall be disturbed only under clear weather conditions when precipitation is not forecast for three days and when daytime temperatures are at least 50 degrees Fahrenheit. c) The demolition or relocation of buildings containing or suspected of containing potential bat roosting habitat or active bat roosts shall be done under the supervision of the qualified biologist. When appropriate, buildings shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost, likely in the evening and after bats have emerged from the roost to forage. Under no circumstances shall active maternity roosts be disturbed until the roost disbands at the completion of the maternity roosting season or otherwise becomes inactive, as determined by the qualified biologist. d) If avoidance of the bat maternity roosting season and period of winter torpor, defined under a), above, is infeasible, the qualified biologist shall conduct pre-construction surveys of potential bat roost sites identified during the initial habitat assessment no more than 14 days prior to building demolition.	

[3] Torpor refers to a state of decreased physiological activity with reduced body temperature and metabolic rate.

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.2, *Biological Resources* (continued)		
Impact BIO-1 (cont.)	e) If active bat roosts or evidence of roosting is identified during pre-construction surveys for building demolition, the qualified biologist shall determine, if possible, the type of roost and species. A no-disturbance buffer shall be established around roost sites until the start of the seasonal windows identified above, or until the qualified biologist determines roost sites are no longer active. The size of the no-disturbance buffer would be determined by the qualified biologist and would depend on the species present, roost type, existing screening around the roost site (such as dense vegetation or a building), as well as the type of construction activity that would occur around the roost site.	
Impact BIO-2: Implementation of the Project would not have a substantial adverse effect on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS. (*No Impact*)	None required	No Impact
Impact BIO-3: Implementation of the Project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less than Significant with SCAs*)	**SCA HYD-1: State Construction General Permit.** See Hydrology and Water Quality below. **SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects.** See Hydrology and Water Quality below. **SCA HYD-3: Vegetation Management on Creekside Properties.** See Hydrology and Water Quality below. **SCY HYD-4: Creek Protection Permit.** See Hydrology and Water Quality below. **SCA UTIL-5: Storm Drain System.** See Utilities and Service Systems below.	Less Than Significant
Impact BIO-4: Implementation of the Project would not interfere substantially with the movement of a native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. *(Less than Significant with SCAs)*	**SCA BIO-1: Bird Collision Reduction Measures.** *(Standard Condition of Approval 28)* **Requirement:** The project applicant shall submit a Bird Collision Reduction Plan for City review and approval to reduce potential bird collisions to the maximum feasible extent. The Plan shall include all of the following mandatory measures, as well as applicable and specific project Best Management Practice (BMP) strategies to reduce bird strike impacts to the maximum feasible extent. The project applicant shall implement the approved Plan. Mandatory measures include all of the following: i. For large buildings subject to federal aviation safety regulations, install minimum intensity white strobe lighting with three second flash instead of solid red or rotating lights. ii. Minimize the number of and co-locate rooftop-antennas and other rooftop structures. iii. Monopole structures or antennas shall not include guy wires. iv. Avoid the use of mirrors in landscape design.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.2, *Biological Resources* (continued)		
Impact BIO-4 (cont.)	v. Avoid placement of bird-friendly attractants (i.e., landscaped areas, vegetated roofs, water features) near glass unless shielded by architectural features taller than the attractant that incorporate bird friendly treatments no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule), as explained below. vi. Apply bird-friendly glazing treatments to no less than 90 percent of all windows and glass between the ground and 60 feet above ground or to the height of existing adjacent landscape or the height of the proposed landscape. Examples of bird-friendly glazing treatments include the following: • Use opaque glass in windowpanes instead of reflective glass. • Uniformly cover the interior or exterior of clear glass surface with patterns (e.g., dots, stripes, decals, images, abstract patterns). Patterns can be etched, fritted, or on films and shall have a density of no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule). • Install paned glass with fenestration patterns with vertical and horizontal mullions no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule). • Install external screens over non-reflective glass (as close to the glass as possible) for birds to perceive windows as solid objects. • Install UV-pattern reflective glass, laminated glass with a patterned UV-reflective coating, or UV-absorbing and UV-reflecting film on the glass since both most birds can see ultraviolet light, which is invisible to humans. • Install decorative grilles, screens, netting, or louvers, with openings no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule). • Install awnings, overhangs, sunshades, or light shelves directly adjacent to clear glass which is recessed on all sides. • Install opaque window film with a pattern/design which also adheres to the "two-by-four" rule for coverage. vii. Reduce light pollution. Examples include the following: • Extinguish nighttime architectural illumination treatments during bird migration season (February 15 to May 15 and August 15 to November 30). • Install time switch control devices or occupancy sensors on non-emergency interior lights that can be programmed to turn off during non-work hours and between 11:00 p.m. and sunrise. • Reduce perimeter lighting whenever possible. • Install full cut-off, shielded, or directional lighting to minimize light spillage, glare, or light trespass. • Do not use beams of lights during the spring (February 15 to May 15) or fall (August 15 to November 30) migration. viii. Develop and implement a building operation and management manual that promotes bird safety. Example measures in the manual include the following:	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.2, *Biological Resources* (continued)		
Impact BIO-4 (cont.)	• Donation of discovered dead bird specimens to an authorized bird conservation organization or museums (e.g., UC Berkeley Museum of Vertebrate Zoology) to aid in species identification and to benefit scientific study, as per all federal, state and local laws. • Distribution of educational materials on bird-safe practices for the building occupants. Contact Golden Gate Audubon Society or American Bird Conservancy for materials. • Asking employees to turn off task lighting at their work stations and draw office blinds, shades, curtains, or other window coverings at end of work day. • Install interior blinds, shades, or other window coverings in windows above the ground floor visible from the exterior as part of the construction contract, lease agreement, or CC&R. • Schedule nightly maintenance during the day or to conclude before 11 p.m., if possible.	
Impact BIO-5: Implementation of the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. *(Less than Significant with SCAs*)	**SCA BIO-3: Tree Permit.** *(Standard Condition of Approval 30)* ***a. Tree Permit Required.*** **Requirement:** Pursuant to the City's Tree Protection Ordinance (OMC chapter 12.36), the project applicant shall obtain a tree permit and abide by the conditions of that permit. ***b. Tree Protection During Construction.*** **Requirement:** Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist: i. Before the start of any clearing, excavation, construction, or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the project's consulting arborist. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree. ii. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the project's consulting arborist from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree. iii. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the project's consulting arborist from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the project's consulting arborist. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.2, *Biological Resources* (continued)		
Impact BIO-5 (cont.)	iv. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration. v. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Department and the project's consulting arborist shall make a recommendation to the City Tree Reviewer as to whether the damaged tree can be preserved. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed. vi. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations. ***c. Tree Replacement Plantings.*** **Requirement:** Replacement plantings shall be required for tree removals for the purposes of erosion control, groundwater replenishment, visual screening, wildlife habitat, and preventing excessive loss of shade, in accordance with the following criteria: i. No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered. ii. Replacement tree species shall consist of Sequoia sempervirens (Coast Redwood), Quercus agrifolia (Coast Live Oak), Arbutus menziesii (Madrone), Aesculus californica (California Buckeye), Umbellularia californica (California Bay Laurel), or other tree species acceptable to the Tree Division. iii. Replacement trees shall be at least twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate. iv. Minimum planting areas must be available on site as follows: • For Sequoia sempervirens, three hundred fifteen (315) square feet per tree; • For other species listed, seven hundred (700) square feet per tree. In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee in accordance with the City's Master Fee Schedule may be substituted for required replacement plantings, with all such revenues applied toward tree planting in City parks, streets and medians. vi. The project applicant shall install the plantings and maintain the plantings until established. The Tree Reviewer of the Tree Division of the Public Works Department may require a landscape plan showing the replacement plantings and the method of irrigation. Any replacement plantings which fail to become established within one year of planting shall be replanted at the project applicant's expense.	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.2, *Biological Resources* (continued)		
Impact BIO-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative impacts on biological resources. *(Less than Significant with SCAs)*	**SCA BIO-1: Bird Collision Reduction Measures.** See above. **SCA BIO-2: Tree Removal During Birding Season.** See above. **SCA BIO-3: Tree Permit.** See above. **SCA HYD-1: State Construction General Permit.** See Hydrology and Water Quality below. **SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects.** See Hydrology and Water Quality below. **SCA HYD-3: Vegetation Management on Creekside Properties.** See Hydrology and Water Quality below. **SCY HYD-4: Creek Protection Permit.** See Hydrology and Water Quality below. **SCA UTIL-5: Storm Drain System.** See Utilities and Service Systems below. **Mitigation Measure BIO-1: Worker Environmental Awareness Program Training.** See above. **Mitigation Measure BIO-2: Minimize Impacts to Nesting Birds.** See above. **Mitigation Measure BIO-3: Avoid and Minimize Impact on Roosting Bats.** See above.	Less Than Significant
EIR Section 4.3, *Greenhouse Gas Emissions*		
Impact GHG-1: The Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (Criterion 1) *(Less than significant with SCAs)*	**SCA GHG-1: Greenhouse Gas (GHG) Reduction Plan.** *(Standard Condition of Approval 42)* ***a. Greenhouse Gas (GHG) Reduction Plan Required*** **Requirement:** The project applicant shall retain a qualified air quality consultant to develop a Greenhouse Gas (GHG) Reduction Plan for City review and approval and shall implement the approved GHG Reduction Plan. The goal of the GHG Reduction Plan shall be to increase energy efficiency and to reduce GHG emissions to at least the amount that would be achieved by committing to all of the emissions reductions strategies identified on the ECAP Consistency Checklist as the City's project-level implementation of its Equitable Climate Action Plan (adopted in 2020), which calls for reducing city-wide GHG emissions by 56 percent below 2005 levels by 2030 and 83 percent by 2050. The GHG Reduction Plan shall include, at a minimum, (a) a detailed quantified GHG emissions inventory for the project taking into consideration energy efficiencies included as part of the project (including proposed mitigation measures, project design features, those strategies being implemented and other City requirements), (b) for each ECAP Consistency Checklist strategy that the project will not meet, a quantified calculation of the additional GHG emission reductions that would have occurred had it implemented the GHG emissions reduction measure consistent with the ECAP Consistency Checklist, (c) a quantified strategy for achieving an GHG emission reduction equivalent to the reduction that would have resulted from complying with the ECAP Consistency Checklist strategy, and (d) requirements for ongoing monitoring and reporting to demonstrate that the additional GHG reduction measures are being implemented. If the project is to be constructed in phases, the GHG Reduction Plan shall provide GHG emission scenarios by phase.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.3, *Greenhouse Gas Emissions* (continued)		
Impact GHG-1 (cont.)	Potential additional GHG reduction measures to be considered include, but are not be limited to, measures recommended in BAAQMD's latest CEQA Air Quality Guidelines, the California Air Resources Board Scoping Plan (December 2008, as may be revised), the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures (August 2010, as may be revised), the California Attorney General's website, and Reference Guides on Leadership in Energy and Environmental Design (LEED) published by the U.S. Green Building Council. The types of allowable GHG reduction measures include the following (listed in order of City preference): (1) physical design features; (2) operational features; and (3) the payment of fees to fund GHG-reducing programs (i.e., the purchase of "carbon credits") as explained below. The allowable locations of the GHG reduction measures include the following (listed in order of City preference): (1) the project site; (2) off-site within the City of Oakland; (3) off-site within the San Francisco Bay Area Air Basin; then (4) off-site within the State of California. As with preferred locations for the implementation of all GHG reductions measures, the preference for carbon credit purchases include those that can be achieved as follows (listed in order of City preference): (1) within the City of Oakland; (2) within the San Francisco Bay Area Air Basin; then (3) within the State of California. The cost of carbon credit purchases shall be based on current market value at the time purchased and shall be based on the project's net difference operational emissions estimated in the GHG Reduction Plan for the project as compared to the Checklist baseline. For physical GHG reduction measures to be incorporated into the design of the project, the measures shall be included on the drawings submitted for construction-related permits. ***b. GHG Reduction Plan Implementation During Construction*** **Requirement:** The project applicant shall implement the GHG Reduction Plan during construction of the project. For physical GHG reduction measures to be incorporated into the design of the project, the measures shall be implemented during construction. For physical GHG reduction measures to be incorporated into off-site projects, the project applicant shall obtain all necessary permits/approvals and the measures shall be included on drawings and submitted to the City Planning Director or his/her designee for review and approval. These off-site improvements shall be installed prior to completion of the subject project (or prior to completion of the project phase for phased projects). For GHG reduction measures involving the purchase of carbon credits, evidence of the payment/purchase shall be submitted to the City for review and approval prior to completion of the project (or prior to completion of the project phase, for phased projects). ***c. GHG Reduction Plan Implementation After Construction*** **Requirement:** The project applicant shall implement the GHG Reduction Plan after construction of the project (or at the completion of the project phase for phased projects). For operational GHG reduction measures to be incorporated into the project or off-site projects, the measures shall be implemented on an indefinite and ongoing basis. The project applicant shall satisfy the following requirements for ongoing monitoring and reporting to demonstrate that the additional GHG reduction measures are being implemented. The GHG Reduction Plan requires regular periodic evaluation over the life of the project (generally estimated to be at least 40 years) to determine how the Plan is achieving required GHG emissions reductions over time, as well as the efficacy of the specific additional GHG reduction measures identified in the Plan.	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.3, *Greenhouse Gas Emissions* (continued)		
Impact GHG-1 (cont.)	**Annual Report.** Implementation of the GHG reduction measures and related requirements shall be ensured through compliance with Conditions of Approval adopted for the project. Generally, starting two years after the City issues the first Certificate of Occupancy for the project, the project applicant shall prepare each year of the useful life of the project an Annual GHG Emissions Reduction Report ("Annual Report"), for review and approval by the City Planning Director or his/her designee. The Annual Report shall be submitted to an independent reviewer of the City's choosing, to be paid for by the project applicant. The Annual Report shall summarize the project's implementation of GHG reduction measures over the preceding year, intended upcoming changes, compliance with the conditions of the Plan, and include a brief summary of the previous year's Annual Report results (starting the second year). The Annual Report shall include a comparison of annual project emissions to the Checklist baseline emissions reported in the GHG Plan. The GHG Reduction Plan shall be considered fully attained when project emissions are less than the Checklist baseline, as confirmed by the City through an established monitoring program. Monitoring and reporting activities will continue at the City's discretion, as discussed below. **Corrective Procedure.** If the third Annual Report, or any report thereafter, indicates that, in spite of the implementation of the GHG Reduction Plan, the project is not achieving the GHG reduction goal, the project applicant shall prepare a report for City review and approval, which proposes additional or revised GHG measures to better achieve the GHG emissions reduction goals, including without limitation, a discussion on the feasibility and effectiveness of the menu of other additional measures ("Corrective GHG Action Plan"). The project applicant shall then implement the approved Corrective GHG Action Plan. If, one year after the Corrective GHG Action Plan is implemented, the required GHG emissions reduction target is still not being achieved, or if the project applicant fails to submit a report at the times described above, or if the reports do not meet City requirements outlined above, the City may, in addition to its other remedies, (a) assess the project applicant a financial penalty based upon actual percentage reduction in GHG emissions as compared to the percent reduction in GHG emissions established in the GHG Reduction Plan; or (b) refer the matter to the City Planning Commission for scheduling of a compliance hearing to determine whether the project's approvals should be revoked, altered or additional conditions of approval imposed. The penalty as described in (a) above shall be determined by the City Planning Director or his/her designee and be commensurate with the percentage GHG emissions reduction not achieved compared to the applicable numeric significance thresholds described in the GHG Reduction Plan. In determining whether a financial penalty or other remedy is appropriate, the City shall not impose a penalty if the project applicant has made a good faith effort to comply with the GHG Reduction Plan. The City would only have the ability to impose a monetary penalty after a reasonable cure period and in accordance with the enforcement process outlined in Planning Code Chapter 17.152. If a financial penalty is imposed, such penalty sums shall be used by the City solely toward the implementation of the Equitable Climate Action Plan. Timeline Discretion and Summary. The City shall have the discretion to reasonably modify the timing of reporting, with reasonable notice and opportunity to comment by the applicant, to coincide with other related monitoring and reporting required for the project.	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.3, *Greenhouse Gas Emissions* (continued)		
Impact GHG-1 (cont.)	**SCA AIR-3: Diesel Particulate Matter Controls – Construction Related.** See above. **SCA AES-3: Landscape Plan.** See Aesthetics, Shadow, and Wind below. **SCA AIR-2: Criteria Air Pollutant Controls - Construction Related.** See Air Quality above. **SCA AIR-3: Diesel Particulate Matter Controls - Construction Related.** See Air Quality above. **SCA TRANS-2: Bicycle Parking** *(Standard Condition of Approval 76)* **Requirement:** The project applicant shall comply with the City of Oakland Bicycle Parking Requirements (chapter 17.118 of the Oakland Planning Code). The project drawings submitted for construction-related permits shall demonstrate compliance with the requirements. **SCA TRANS-3: Transportation and Parking Demand Management Plan.** See Transportation and Circulation below. **SCA TRANS-4: Plug-In Electric Vehicle (PEV) Charging Infrastructure** *(Standard Condition of Approval 81)* ***a. PEV-Ready Parking Spaces*** **Requirement:** The applicant shall submit, for review and approval of the Building Official and the Zoning Manager, plans that show the location of parking spaces equipped with full electrical circuits designated for future PEV charging (i.e., "PEV-Ready) per the requirements of Chapter 15.04 of the Oakland Municipal Code. Building electrical plans shall indicate sufficient electrical capacity to supply the required PEV-Ready parking spaces. ***b. PEV-Capable Parking Spaces*** **Requirement:** The applicant shall submit, for review and approval of the Building Official, plans that show the location of inaccessible conduit to supply PEV-capable parking spaces per the requirements of Chapter 15.04 of the Oakland Municipal Code. Building electrical plans shall indicate sufficient electrical capacity to supply the required PEV-capable parking spaces. ***c. ADA-Accessible Spaces*** **Requirement:** The applicant shall submit, for review and approval of the Building Official, plans that show the location of future accessible EV parking spaces as required under Title 24 Chapter 11B Table 11B-228.3.2.1, and specify plans to construct all future accessible EV parking spaces with appropriate grade, vertical clearance, and accessible path of travel to allow installation of accessible EV charging station(s). **SCA UTIL-1: Construction and Demolition Waste Reduction and Recycling.** See Utilities and Service Systems below. **SCA UTIL-3: Green Building Requirements.** See Utilities and Service Systems below.	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.3, *Greenhouse Gas Emissions* (continued)		
Impact GHG-2: The Project would not fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions. (Criterion 2) *(Less than Significant with SCAs)*	**SCA GHG-1: GHG Reduction Plan.** See above. **SCA UTIL-3: Green Building Requirements.** See Utilities and Service Systems below.	Less Than Significant
EIR Section 4.4, *Hazards and Hazardous Materials*		
Impact HAZ-1: The Project would not create a significant hazard to the public or the environment through the routine transport, use, disposal, or accidental release of hazardous materials. The project site is located in a site that is on Government Code Section 65962.5 5. (Criteria 1, 2, and 5) *(Less than Significant with SCAs)*	**SCA HAZ-1: Hazardous Materials Related to Construction.** *(Standard Condition of Approval 43)* **Requirement:** The Project Applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential negative effects on groundwater, soils, and human health. These shall include, at a minimum, the following: a. Follow manufacture's recommendations for use, storage, and disposal of chemical products used in construction; b. Avoid overtopping construction equipment fuel gas tanks; c. During routine maintenance of construction equipment, properly contain and remove grease and oils; d. Properly dispose of discarded containers of fuels and other chemicals; e. Implement lead-safe work practices and comply with all local, regional, state, and federal requirements concerning lead (for more information refer to the Alameda County Lead Poisoning Prevention Program); and f. If soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the Project Applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notifying the City and applicable regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate. **SCA HAZ-2: Hazardous Building Materials and Site Contamination.** *(Standard Condition of Approval 44)* ***a. Hazardous Building Materials Assessment*** **Requirement:** The Project Applicant shall submit a comprehensive assessment report to the Bureau of Building, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACMs), lead-based paint, polychlorinated biphenyls (PCBs), and any other building materials or stored materials classified as hazardous materials by state or federal law. If lead-based paint, ACMs, PCBs, or any other building materials or stored materials classified as hazardous materials are	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.4, *Hazards and Hazardous Materials* (continued)		
Impact HAZ-1 (cont.)	present, the Project Applicant shall submit specifications prepared and signed by a qualified environmental professional, for the stabilization and/or removal of the identified hazardous materials in accordance with all applicable laws and regulations. The Project Applicant shall implement the approved recommendations and submit to the City evidence of approval for any proposed remedial action and required clearances by the applicable local, state, or federal regulatory agency. ***b. Environmental Site Assessment Required*** **Requirement:** The Project Applicant shall submit a Phase I Environmental Site Assessment report, and Phase II Environmental Site Assessment report if warranted by the Phase I report, for the project site for review and approval by the City. The report(s) shall be prepared by a qualified environmental assessment professional and include recommendations for remedial action, as appropriate, for hazardous materials. The Project Applicant shall implement the approved recommendations and submit to the City evidence of approval for any proposed remedial action and required clearances by the applicable local, state, or federal regulatory agency. ***c. Health and Safety Plan Required*** **Requirement:** The Project Applicant shall submit a Health and Safety Plan for the review and approval by the City in order to protect project construction workers from risks associated with hazardous materials. The Project Applicant shall implement the approved Plan. ***d. Best Management Practices (BMPs) Required for Contaminated Site*** **Requirement:** The Project Applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential soil and groundwater hazards. These shall include the following: i. Soil generated by construction activities shall be stockpiled on-site in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state, and federal requirements. ii. Groundwater pumped from the subsurface shall be contained on-site in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building. **SCA HAZ-3: Hazardous Materials Business Plan.** *(Standard Condition of Approval 45)* **Requirement:** The Project Applicant shall submit a Hazardous Materials Business Plan for review and approval by the City, and shall implement the approved Plan. The approved Plan shall be kept on file with the City and the Project Applicant shall update the Plan as applicable. The purpose of the Hazardous Materials Business Plan is to ensure that employees are adequately trained to handle hazardous materials and provides information to the Fire Department should emergency response be required. Hazardous materials shall be handled in accordance with all applicable local, state, and federal requirements. The Hazardous Materials Business Plan shall include the following: a. The types of hazardous materials or chemicals stored and/or used on-site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids. b. The location of such hazardous materials.	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.4, *Hazards and Hazardous Materials* (continued)		
Impact HAZ-1 (cont.)	c. An emergency response plan including employee training information. d. A plan that describes the manner in which these materials are handled, transported, and disposed. **SCA AIR-7: Asbestos in Structures.** See Air Quality above. **SCA HYD-1: State Construction General Permit.** See Hydrology and Water Quality below.	
Impact HAZ-2: The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, hospital, or daycare center resulting in a significant impact (Criteria 3 and 4) *(Less than Significant with SCAs)*	**SCA HAZ-1: Hazardous Materials Related to Construction.** See above. **SCA HAZ-2: Hazardous Building Materials and Site Contamination.** See above. **SCA HAZ-3: Hazardous Materials Business Plan.** See above. **SCA AIR-7: Asbestos in Structures.** See Air Quality above.	Less Than Significant
Impact HAZ-3: The Project would provide adequate emergency access and would not fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Criteria 6 and 9) *(Less than Significant with SCAs)*	**SCA TRANS-1: Construction Activity in the Public Right-of-Way** *(Standard Condition of Approval 75)* ***a. Obstruction Permit Required*** **Requirement:** The project applicant shall obtain an obstruction permit from the City prior to placing any temporary construction-related obstruction in the public right-of-way, including City streets, sidewalks, bicycle facilities, and bus stops. ***b. Traffic Control Plan Required*** **Requirement:** In the event of obstructions to vehicle or bicycle travel lanes, bus stops, or sidewalks, the project applicant shall submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit. The project applicant shall submit evidence of City approval of the Traffic Control Plan with the application for an obstruction permit. The Traffic Control Plan shall contain a set of comprehensive traffic control measures for auto, transit, bicycle, and pedestrian accommodations (or detours, if accommodations are not feasible), including detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. The Traffic Control Plan shall be in conformance with the City's Supplemental Design Guidance for Accommodating Pedestrians, Bicyclists, and Bus Facilities in Construction Zones. The project applicant shall implement the approved Plan during construction. ***c. Repair of City Streets*** **Requirement:** The project applicant shall repair any damage to the public right-of way, including streets and sidewalks, caused by project construction at his/her expense within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to approval of the final inspection of the construction-related permit. All damage that is a threat to public health or safety shall be repaired immediately.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.4, *Hazards and Hazardous Materials* (continued)		
Impact HAZ-4: The Project would not be located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport, public use airport, or private airstrip, and would not result in a significant safety hazard for people residing or working in the Project area. (Criteria 6 and 9) (*Less than Significant*)	None Required	Less Than Significant
Impact HAZ-1.CU: The Project, combined with cumulative development in the project vicinity, would not result in significant cumulative impacts relative to hazards and hazardous materials. *(Less than Significant with SCAs)*	**SCA HAZ-1: Hazardous Materials Related to Construction.** See above. **SCA HAZ-2: Hazardous Building Materials and Site Contamination.** See above. **SCA HAZ-3: Hazardous Materials Business Plan.** See above. **SCA AIR-7: Asbestos in Structures.** See Air Quality above. **SCA HYD-1: State Construction General Permit.** See Hydrology and Water Quality below. **SCA TRANS-1: Construction Activity in the Public Right-of-Way.** See above.	Less Than Significant
EIR Section 4.5, *Noise and Vibration*		
Impact NOI-1: Construction of the Project would not generate noise in violation of the noise ordinances of the Cities of Oakland or Alameda. (Criteria 1, 2 and 3) *(Less than Significant with SCAs)*	**SCA NOI-1: Construction Days/Hours.** *(Standard Condition of Approval 62)* **Requirement:** The project applicant shall comply with the following restrictions concerning construction days and hours: a. Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that pier drilling and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. b. Construction activities are limited to between 9:00 a.m. and 5:00 p.m. on Saturday. In residential zones and within 300 feet of a residential zone, construction activities are allowed from 9:00 a.m. to 5:00 p.m. only within the interior of the building with the doors and windows closed. No pier drilling or other extreme noise generating activities greater than 90 dBA are allowed on Saturday. c. No construction is allowed on Sunday or federal holidays. Construction activities include, but are not limited to, truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.5, *Noise and Vibration* (continued)		
Impact NOI-1 (cont.)	Any construction activity proposed outside of the above days and hours for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case-by-case basis by the City, with criteria including the urgency/emergency nature of the work, the proximity of residential or other sensitive uses, and a consideration of nearby residents'/occupants' preferences. The project applicant shall notify property owners and occupants located within 300 feet at least 14 calendar days prior to construction activity proposed outside of the above days/hours. When submitting a request to the City to allow construction activity outside of the above days/hours, the project applicant shall submit information concerning the type and duration of proposed construction activity and the draft public notice for City review and approval prior to distribution of the public notice. **SCA NOI-2: Construction Noise.** (*Standard Condition of Approval 63)* **Requirement:** The project applicant shall implement noise reduction measures to reduce noise impacts due to construction. Noise reduction measures include, but are not limited to, the following: a. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds) wherever feasible. b. Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures. c. Applicant shall use temporary power poles instead of generators where feasible. d. Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction. e. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented. **SCA NOI-3: Extreme Construction Noise.** *(Standard Condition of Approval 64)* ***a. Construction Noise Management Plan Required*** **Requirement:** Prior to any extreme noise generating construction activities (e.g., pier drilling, pile driving and other activities generating greater than 90 dBA), the project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-specific noise attenuation measures to further reduce construction impacts associated with extreme noise generating activities. The project applicant shall implement the approved Plan during construction. Potential attenuation measures include, but are not limited to, the following: i. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.5, *Noise and Vibration* (continued)		
Impact NOI-1 (cont.)	ii. Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; iii. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; iv. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and v. Monitor the effectiveness of noise attenuation measures by taking noise measurements. ***b. Public Notification Required*** **Requirement:** The project applicant shall notify property owners and occupants located within 300 feet of the construction activities at least 14 calendar days prior to commencing extreme noise generating activities. Prior to providing the notice, the project applicant shall submit to the City for review and approval the proposed type and duration of extreme noise generating activities and the proposed public notice. The public notice shall provide the estimated start and end dates of the extreme noise generating activities and describe noise attenuation measures to be implemented. **SCA NOI-4: Project-Specific Construction Noise Reduction Measures.** *(Standard Condition of Approval 65)* **Requirement:** The project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-specific noise attenuation measures to further reduce construction noise impacts on adjacent receptors along Elmwood Avenue. The project applicant shall implement the approved Plan during construction. **SCA NOI-5: Construction Noise Complaints.** *(Standard Condition of Approval 66)* **Requirement:** The project applicant shall submit to the City for review and approval a set of procedures for responding to and tracking complaints received pertaining to construction noise, and shall implement the procedures during construction. At a minimum, the procedures shall include: a. Designation of an on-site construction complaint and enforcement manager for the project; b. A large on-site sign near the public right-of-way containing permitted construction days/hours, complaint procedures, and phone numbers for the project complaint manager and City Code Enforcement unit; c. Protocols for receiving, responding to, and tracking received complaints; and d. Maintenance of a complaint log that records received complaints and how complaints were addressed, which shall be submitted to the City for review upon the City's request.	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.5, *Noise and Vibration* (continued)		
Impact NOI-2: Stationary sources associated with the operation of the Project would not generate noise in violation of the City of Oakland Noise Ordinance. (Criterion 4) *(Less than Significant with SCAs)*	**SCA NOI-6: Operational Noise** (Standard Condition of Approval 68) **Requirement:** Noise levels from the project site after completion of the project (i.e., during project operation) shall comply with the performance standards of chapter 17.120 of the Oakland Planning Code and chapter 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the City.	Less Than Significant
Impact NOI-3: The Project would not generate noise that would result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. (Criterion 5) *(Less than Significant)*	None required	Less Than Significant
Impact NOI-4: The Project would not be inconsistent with the land use compatibility guidelines of the Oakland General Plan for the proposed land uses. (Criterion 7) *(Less than Significant)*	None required	Less Than Significant
Impact NOI-5: Project construction would not expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration. (Criterion 9) *(Less than Significant with SCAs)*	**SCA NOI-7: Vibration Impacts on Adjacent Structures or Vibration-Sensitive Activities.** *(Standard Condition of Approval 70)* **Requirement:** The project applicant shall submit a Vibration Analysis prepared by an acoustical and/or structural engineer or other appropriate qualified professional for City review and approval that establishes pre-construction baseline conditions and threshold levels of vibration that could damage the structure and/or substantially interfere with activities located adjacent to Elmwood Avenue. The Vibration Analysis shall identify design means and methods of construction that shall be utilized in order to not exceed the thresholds. The applicant shall implement the recommendations during construction.	Less Than Significant
Impact NOI-1.CU: Construction and operational activities associated with the Project would not result in a cumulatively considerable increase in emissions for which the SFBAAB is in non-attainment under an applicable federal or state ambient air quality standard. (Criteria 1, 2, 3 and 4) *(Less than Significant with SCAs)*	**SCA NOI-1: Construction Days/Hours.** See above. **SCA NOI-2: Construction Noise.** See above. **SCA NOI-3: Extreme Construction Noise.** See above. **SCA NOI-4: Project-Specific Construction Noise Reduction Measures.** See above. **SCA NOI-5: Construction Noise Complaints.** See above. **SCA NOI-6: Operational Noise.** See above. **SCA NOI-7: Vibration Impacts on Adjacent Structures or Vibration-Sensitive Activities.** See above.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.6, *Transportation and Circulation*		
Impact TRANS-1: The Project would not cause substantial additional VMT per worker. (Criterion 1) *(Less than Significant)*	None required	Less Than Significant
Impact TRANS-2: The Project would not conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths. (Criterion 2) *(Less than Significant with SCAs)*	**SCA TRANS-3: Transportation and Parking Demand Management** *(Standard Condition of Approval 78)* ***a. Transportation and Parking Demand Management (TDM) Plan Required*** **Requirement:** The project applicant shall submit a Transportation and Parking Demand Management (TDM) Plan for review and approval by the City. i. The goals of the TDM Plan shall be the following: • Reduce vehicle traffic and parking demand generated by the project to the maximum extent practicable. • Achieve the following project vehicle trip reductions (VTR): – Projects generating 50 to 99 net new a.m. or p.m. peak hour vehicle trips: 10 percent VTR – Projects generating 100 or more net new a.m. or p.m. peak hour vehicle trips: 20 percent VTR • Increase pedestrian, bicycle, transit, and carpool/vanpool modes of travel. All four modes of travel shall be considered, as appropriate. • Enhance the City's transportation system, consistent with City policies and programs. ii. The TDM Plan should include the following: • Baseline existing conditions of parking and curbside regulations within the surrounding neighborhood that could affect the effectiveness of TDM strategies, including inventory of parking spaces and occupancy if applicable. • Proposed TDM strategies to achieve VTR goals (see below). iii. For employers with 100 or more employees at the subject site, the TDM Plan shall also comply with the requirements of Oakland Municipal Code Chapter 10.68 Employer-Based Trip Reduction Program. iv. The following TDM strategies must be incorporated into a TDM Plan based on a project location or other characteristics. When required, these mandatory strategies should be identified as a credit toward a project's VTR.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

<table>
<tr><th>Impacts, Criterion, and Significance</th><th>Standard Conditions of Approval and Mitigation Measures</th><th>Significance after Incorporation of Standard Conditions of Approval and Mitigation</th></tr>
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<tr><td>Impact TRANS-2 (cont.)</td><td>
<table>
<tr><th>Improvement</th><th>Required by code or when …</th></tr>
<tr><td>Bus boarding bulbs or islands</td><td>• A bus boarding bulb or island does not already exist, and a bus stop is located along the project frontage; and/or
• A bus stop along the project frontage serves a route with 15 minutes or better peak hour service and has a shared bus-bike lane curb</td></tr>
<tr><td>Bus shelter</td><td>• A stop with no shelter is located within the project frontage; or
• The project is located within 0.10 miles of a flag stop with 25 or more boardings per day</td></tr>
<tr><td>Concrete bus pad</td><td>• A bus stop is located along the project frontage and a concrete bus pad does not already exist</td></tr>
<tr><td>Curb extensions or bulb-outs</td><td>• Identified as an improvement within site analysis</td></tr>
<tr><td>Implementation of a corridor-level bikeway improvement</td><td>• A buffered Class II or Class IV bikeway facility is in a local or county adopted plan within 0.10 miles of the project location; and
• The project would generate 500 or more daily bicycle trips</td></tr>
<tr><td>Implementation of a corridor-level transit capital improvement</td><td>• A high-quality transit facility is in a local or county adopted plan within 0.25 miles of the project location; and
• The project would generate 400 or more peak period transit trips</td></tr>
<tr><td>Installation of amenities such as lighting; pedestrian-oriented green infrastructure, trees, or other greening landscape; and trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.</td><td>• Always required</td></tr>
<tr><td>Installation of safety improvements identified in the Pedestrian Master Plan (such as crosswalk striping, curb ramps, count down signals, bulb outs, etc.)</td><td>• When improvements are identified in the Pedestrian Master Plan along project frontage or at an adjacent intersection</td></tr>
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</td><td></td></tr>
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TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

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<tr><td>Impact TRANS-2 (cont.)</td><td>
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<tr><th>Improvement</th><th>Required by code or when …</th></tr>
<tr><td>In-street bicycle corral</td><td>• A project includes more than 10,000 square feet of ground floor retail, is located along a Tier 1 bikeway, and on-street vehicle parking is provided along the project frontages.</td></tr>
<tr><td>Intersection improvements[4]</td><td>• Identified as an improvement within site analysis</td></tr>
<tr><td>New sidewalk, curb ramps, curb and gutter meeting current City and ADA standards</td><td>• Always required</td></tr>
<tr><td>No monthly permits and establish minimum price floor for public parking[5]</td><td>• If proposed parking ratio exceeds 1:1000 sf. (commercial)</td></tr>
<tr><td>Parking garage is designed with retrofit capability</td><td>• Optional if proposed parking ratio exceeds 1:1.25 (residential) or 1:1000 sf. (commercial)</td></tr>
<tr><td>Parking space reserved for car share</td><td>• If a project is providing parking and a project is located within downtown. One car share space reserved for buildings between 50 – 200 units, then one car share space per 200 units.</td></tr>
<tr><td>Paving, lane striping or restriping (vehicle and bicycle), and signs to midpoint of street section</td><td>• Typically required</td></tr>
<tr><td>Pedestrian crossing improvements</td><td>• Identified as an improvement within site analysis</td></tr>
<tr><td>Pedestrian-supportive signal changes[6]</td><td>• Identified as an improvement within operations analysis</td></tr>
<tr><td>Real-time transit information system</td><td>• A project frontage block includes a bus stop or BART station and is along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better</td></tr>
<tr><td>Relocating bus stops to far side</td><td>• A project is located within 0.10 mile of any active bus stop that is currently near-side</td></tr>
</table>
</td><td></td></tr>
</table>

[4] Including but not limited to visibility improvements, shortening corner radii, pedestrian safety islands, accounting for pedestrian desire lines.
[5] May also provide a cash incentive or transit pass alternative to a free parking space in commercial properties.
[6] Including but not limited to reducing signal cycle lengths to less than 90 seconds to avoid pedestrian crossings against the signal, providing a leading pedestrian interval, provide a "scramble" signal phase where appropriate.

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

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<tr><td>Impact TRANS-2 (cont.)</td><td>
<table>
<tr><th>Improvement</th><th>Required by code or when …</th></tr>
<tr><td>Signal upgrades[7]</td><td>• Project size exceeds 100 residential units, 80,000 sf. of retail, or 100,000 sf. of commercial; and
• Project frontage abuts an intersection with signal infrastructure older than 15 years</td></tr>
<tr><td>Transit queue jumps</td><td>• Identified as a needed improvement within operations analysis of a project with frontage along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better</td></tr>
<tr><td>Trenching and placement of conduit for providing traffic signal interconnect</td><td>• Project size exceeds 100 units, 80,000 sf. of retail, or 100,000 sf. of commercial; and
• Project frontage block is identified for signal interconnect improvements as part of a planned ITS improvement; and
• A major transit improvement is identified within operations analysis requiring traffic signal interconnect</td></tr>
<tr><td>Unbundled parking</td><td>• If proposed parking ratio exceeds 1:1.25 (residential)</td></tr>
</table>
v. Other TDM strategies to consider include, but are not limited to, the following:
• Inclusion of additional long-term and short-term bicycle parking that meets the design standards set forth in chapter five of the Bicycle Master Plan and the Bicycle Parking Ordinance (chapter 17.117 of the Oakland Planning Code), and shower and locker facilities in commercial developments that exceed the requirement.
• Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority bikeways, on-site signage and bike lane striping.
• Installation of safety elements per the Pedestrian Master Plan (such as crosswalk striping, curb ramps, count down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials, in addition to safety elements required to address safety impacts of the project.
</td><td></td></tr>
</table>

[7] Including typical traffic lights, pedestrian signals, bike actuated signals, transit-only signals

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.6, *Transportation and Circulation* (continued)		
Impact TRANS-2 (cont.)	• Installation of amenities such as lighting, street trees, and trash receptacles per the Pedestrian Master Plan, the Master Street Tree List and Tree Planting Guidelines (which can be viewed at http://www2.oaklandnet.com/oakca1/groups/pwa/documents/report/oak042662.pdf and http://www2.oaklandnet.com/oakca1/groups/pwa/documents/form/oak025595.pdf, respectively) and any applicable streetscape plan. • Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements. • Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency). • Provision of a transit subsidy to employees or residents, determined by the project applicant and subject to review by the City, if employees or residents use transit or commute by other alternative modes. • Provision of an ongoing contribution to transit service to the area between the project and nearest mass transit station prioritized as follows: (1) Contribution to AC Transit bus service; (2) Contribution to an existing area shuttle service; and (3) Establishment of new shuttle service. The amount of contribution (for any of the above scenarios) would be based upon the cost of establishing new shuttle service (Scenario 3). • Guaranteed ride home program for employees, either through 511.org or through separate program. • Pre-tax commuter benefits (commuter checks) for employees. • Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants. • On-site carpooling and/or vanpool program that includes preferential (discounted or free) parking for carpools and vanpools. • Distribution of information concerning alternative transportation options. • Parking spaces sold/leased separately for residential units. Charge employees for parking, or provide a cash incentive or transit pass alternative to a free parking space in commercial properties. • Parking management strategies including attendant/valet parking and shared parking spaces. • Requiring tenants to provide opportunities and the ability to work off-site. • Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite (e.g., working four, ten-hour days; allowing employees to work from home two days per week). • Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours.	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
EIR Section 4.6, *Transportation and Circulation* (continued)		
Impact TRANS-2 (cont.)	The TDM Plan shall indicate the estimated VTR for each strategy, based on published research or guidelines where feasible. For TDM Plans containing ongoing operational VTR strategies, the Plan shall include an ongoing monitoring and enforcement program to ensure the Plan is implemented on an ongoing basis during project operation. If an annual compliance report is required, as explained below, the TDM Plan shall also specify the topics to be addressed in the annual report. ***b. TDM Implementation – Physical Improvements*** **Requirement:** For VTR strategies involving physical improvements, the project applicant shall obtain the necessary permits/approvals from the City and install the improvements prior to the completion of the project. ***c. TDM Implementation – Operational Strategies*** **Requirement:** For projects that generate 100 or more net new a.m. or p.m. peak hour vehicle trips and contain ongoing operational VTR strategies, the project applicant shall submit an annual compliance report for the first five years following completion of the project (or completion of each phase for phased projects) for review and approval by the City. The annual report shall document the status and effectiveness of the TDM program, including the actual VTR achieved by the project during operation. If deemed necessary, the City may elect to have a peer review consultant, paid for by the project applicant, review the annual report. If timely reports are not submitted and/or the annual reports indicate that the project applicant has failed to implement the TDM Plan, the project will be considered in violation of the Conditions of Approval and the City may initiate enforcement action as provided for in these Conditions of Approval. The project shall not be considered in violation of this Condition if the TDM Plan is implemented but the VTR goal is not achieved.	
Impact TRANS-3: The Project would not substantially induce additional automobile travel by increasing physical roadway capacity in congested areas i.e., adding new mixed-flow lanes or adding new roadways to the network. (Criterion 3) (*Less than Significant*)	None required	Less Than Significant
Impact TRANS-1.CU: The Project, combined with cumulative development in the Project vicinity, would not result in a cumulatively considerable transportation impact. (Criteria 1, 2, and 3) (*Less than Significant with SCAs*)	**SCA TRANS-3: Transportation and Parking Demand Management.** See above.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.2, *Aesthetics, Shadow, and Wind*		
Impact AES-1: The Project would not have a substantial adverse effect on a public scenic vista or substantially damage scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic buildings, located within a state or locally designated scenic highway (Criterion 1 and 2). *(Less than Significant)*	None required	Less Than Significant
Impact AES-2: The Project would not substantially degrade the existing visual character or quality of the site and its surroundings (Criterion 3). *(Less than significant with SCAs)*	**SCA AES-1: Trash and Blight Removal** *(Standard Condition of Approval 16)* **Requirement:** The project applicant and his/her successors shall maintain the property free of blight, as defined in chapter 8.24 of the Oakland Municipal Code. For nonresidential and multi-family residential projects, the project applicant shall install and maintain trash receptacles near public entryways as needed to provide sufficient capacity for building users. **SCA AES-2: Graffiti Control** *(Standard Condition of Approval 17)* **Requirement:** a. During construction and operation of the project, the project applicant shall incorporate best management practices reasonably related to the control of graffiti and/or the mitigation of the impacts of graffiti. Such best management practices may include, without limitation: i. Installation and maintenance of landscaping to discourage defacement of and/or protect likely graffiti-attracting surfaces. ii. Installation and maintenance of lighting to protect likely graffiti-attracting surfaces. iii. Use of paint with anti-graffiti coating. iv. Incorporation of architectural or design elements or features to discourage graffiti defacement in accordance with the principles of Crime Prevention Through Environmental Design (CPTED). v. Other practices approved by the City to deter, protect, or reduce the potential for graffiti defacement. b. The project applicant shall remove graffiti by appropriate means within seventy-two (72) hours. Appropriate means include the following: i. Removal through scrubbing, washing, sanding, and/or scraping (or similar method) without damaging the surface and without discharging wash water or cleaning detergents into the City storm drain system.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.2, *Aesthetics, Shadow, and Wind* (continued)		
Impact AES-2 (cont.)	ii. Covering with new paint to match the color of the surrounding surface. iii. Replacing with new surfacing (with City permits if required) **SCA AES-3: Landscape Plan** *(Standard Condition of Approval 18)* ***a. Landscape Plan Required*** **Requirement:** The project applicant shall submit a final Landscape Plan for City review and approval that is consistent with the approved Landscape Plan. The Landscape Plan shall be included with the set of drawings submitted for the construction-related permit and shall comply with the landscape requirements of chapter 17.124 of the Planning Code. Proposed plants shall be predominantly drought-tolerant. Specification of any street trees shall comply with the Master Street Tree List and Tree Planting Guidelines (which can be viewed at http://www2.oaklandnet.com/oakca1/groups/pwa/documents/report/oak042662.pdf and http://www2.oaklandnet.com/oakca1/groups/pwa/documents/form/oak025595.pdf, respectively), and with any applicable streetscape plan. ***b. Landscape Installation*** **Requirement:** The project applicant shall implement the approved Landscape Plan unless a bond, cash deposit, letter of credit, or other equivalent instrument acceptable to the Director of City Planning, is provided. The financial instrument shall equal the greater of $2,500 or the estimated cost of implementing the Landscape Plan based on a licensed contractor's bid. ***c. Landscape Maintenance*** **Requirement:** All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. The property owner shall be responsible for maintaining planting in adjacent public rights-of-way. All required fences, walls, and irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.	
Impact AES-3: The Project would not create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area (Criterion 4). *(Less than significant with SCAs)*	**SCA AES-4: Lighting** (Standard Condition of Approval 19) **Requirement:** Proposed new exterior lighting fixtures shall be adequately shielded to a point below the light bulb and reflector to prevent unnecessary glare onto adjacent properties.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.2, *Aesthetics, Shadow, and Wind* (continued)		
Impact AES-4: The Project would not cast shadow that substantially impairs a nearby use reliant on sunlight, including the following functions: a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors; the beneficial use of any public or quasi-public open space; a historic resource; or result in an exception to the policies in the General Plan, Planning Code, or Uniform Building Code, and the exception causes there to be a fundamental conflict with policies and regulations addressing the provision of adequate light related to appropriate uses (Criterion 5, 6, 7, 8, and 9). *(Less than significant)*	None required	Less Than Significant
Impact AES-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative aesthetic impacts. *(Less than Significant with SCAs)*	**SCA AES-1: Trash and Blight Removal.** See above. **SCA AES-2: Graffiti Control.** See above. **SCA AES-3: Landscape Plan.** See above. **SCA AES-4: Lighting.** See above.	Less Than Significant
Effects Found Not to Be Significant Section 4.7.4, *Cultural Resources*		
Impact CUL-1: The Project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5. (Criterion 1) *(Less than Significant)*	None required	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.4, *Cultural Resources* (continued)		
Impact CUL-2: The Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. (Criterion 2) *(Less than Significant with SCAs)*	**SCA CUL-1: Archaeological and Paleontological Resources – Discovery During Construction.** (*Standard Condition of Approval 32*) **Requirement:** Pursuant to CEQA Guidelines section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Work may proceed on other parts of the project site while measures for the cultural resources are implemented. In the event of data recovery of archaeological resources, the project applicant shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practicable. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant. The project applicant shall implement the ARDTP at his/her expense. In the event of excavation of paleontological resources, the project applicant shall submit an excavation plan prepared by a qualified paleontologist to the City for review and approval. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by a qualified paleontologist, as appropriate, according to current professional standards and at the expense of the project applicant.	Less Than Significant
Impact CUL-3: The Project would not disturb any human remains, including those interred outside of formal cemeteries. (Criterion 3) *(Less than Significant with SCAs)*	**SCA CUL-2: Human Remains – Discovery During Construction.** (*Standard Condition of Approval 34*) **Requirement:** Pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the project site during construction activities, all work shall immediately halt and the project applicant shall notify the City and the Alameda County Coroner. If the County Coroner determines that an investigation of the cause of death is required or that the remains are Native American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance, and avoidance measures (if applicable) shall be completed expeditiously and at the expense of the project applicant.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.4, *Cultural Resources* (continued)		
Impact CUL-1.CU: The Project, combined with cumulative development in the project vicinity and citywide, would not contribute to cumulative adverse impacts on historical resources. *(Less than Significant)*	None required	Less Than Significant
Impact CUL-2.CU: The Project, combined with cumulative development in the project vicinity and citywide, would not contribute to cumulative adverse impacts on archaeological resources and human remains. *(Less than Significant with SCAs)*	**SCA CUL-1: Archaeological and Paleontological Resources – Discovery During Construction.** See above. **SCA CUL-2: Human Remains – Discovery During Construction.** See above.	Less Than Significant
Effects Found Not to Be Significant Section 4.7.5, *Energy*		
Impact ENE-1: Construction and operation of the Project would not result in potentially significant environmental impact due to the wasteful, inefficient, and/ or unnecessary use of energy, and adequate capacity would be available to serve the Project's demand. (Criteria 1 and 4) (*Less than Significant with SCAs*)	**SCA AIR-2: Criteria Air Pollutant Controls – Construction Related.** See Air Quality above. **SCA GHG-1: SCA GHG-1: Greenhouse Gas (GHG) Reduction Plan.** See Greenhouse Gas Emissions above. **SCA TRANS-2: Bicycle Parking.** See Greenhouse Gas Emissions above. **SCA TRANS-3: Transportation and Parking Demand Management.** See Transportation and Circulation above. **SCA TRANS-4: Plug-In Electric Vehicle (PEV) Charging Infrastructure.** See Greenhouse Gas Emissions above. **SCA UTIL-3: Green Building Requirements.** See Utilities and Service Systems below.	Less Than Significant
Impact ENE-2: The Project would not conflict with or obstruct adopted energy conservation plans or violate energy efficiency standards. (Criteria 2 and 3) *(Less than Significant with SCAs)*	**SCA GHG-1: SCA GHG-1: Greenhouse Gas (GHG) Reduction Plan.** See Greenhouse Gas Emissions above. **SCA UTIL-3: Green Building Requirements.** See Utilities and Service Systems below.	Less Than Significant
Impact ENE-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative energy impacts. *(Less than Significant with SCAs)*	**SCA AIR-2: Criteria Air Pollutant Controls – Construction Related.** See Air Quality above. **SCA GHG-1: SCA GHG-1: Greenhouse Gas (GHG) Reduction Plan.** See Greenhouse Gas Emissions above. **SCA TRANS-2: Bicycle Parking.** See Greenhouse Gas Emissions above. **SCA TRANS-3: Transportation and Parking Demand Management.** See Transportation and Circulation above.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.5, *Energy (continued)*		
Impact ENE-1.CU (cont.)	**SCA TRANS-4: Plug-In Electric Vehicle (PEV) Charging Infrastructure.** See Greenhouse Gas Emissions above. **SCA UTIL-3: Green Building Requirements.** See Utilities and Service Systems below.	
Effects Found Not to Be Significant Section 4.7.6, *Geology, Soils, and Paleontological Resources*		
Impact GEO-1: The Project would not expose people or structures to substantial risk of loss, injury, or death involving seismic hazards such as ground shaking and seismic-related ground failure such as liquefaction, differential settlement, collapse, or lateral spreading. (Criteria 1.b and 1.c) *(Less than Significant with SCAs)*	**SCA GEO-1: Construction-Related Permit(s).** *(Standard Condition of Approval 36)* **Requirement:** The project applicant shall obtain all required construction-related permits/approvals from the City. The project shall comply with all standards, requirements and conditions contained in construction-related codes, including but not limited to the Oakland Building Code and the Oakland Grading Regulations, to ensure structural integrity and safe construction. **SCA GEO-2: Seismic Hazards Zone (Landslide/Liquefaction).** *(Standard Condition of Approval 39)* **Requirement:** The project applicant shall submit a site-specific geotechnical report, consistent with California Geological Survey Special Publication 177 (As amended), prepared by a registered geotechnical engineer for City review and approval containing at a minimum a description of the geological and geotechnical conditions at the site, an evaluation of site-specific seismic hazards based on geological and geotechnical conditions, and recommended measures to reduce potential impacts related to liquefaction and/or slope stability hazards. The project applicant shall implement the recommendations contained in the approved report during project design and construction.	Less Than Significant
Impact GEO-2: The Project would not result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways. (Criterion 2) *(Less than Significant with SCAs)*	**SCA HYD-1: State Construction General Permit.** See Hydrology and Water Quality below. **SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects.** See Hydrology and Water Quality below. **SCA UTIL-5: Storm Drain System.** See Utilities and Service Systems below.	Less Than Significant
Impact GEO-3: The Project would not be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code or corrosive soil, creating substantial risks to life or property. (Criterion 3) *(Less than Significant with SCAs)*	**SCA GEO-1: Construction-Related Permit(s).** See above. **SCA GEO-2: Seismic Hazards Zone (Landslide/Liquefaction).** See above.	Less Than Significant
Impact GEO-4: The Project would not be located above a well, pit, swamp, mound, tank vault, or unmarked sewer line, creating substantial risks to life or property. (Criterion 4) *(Less than Significant with SCAs)*	**SCA GEO-1: Construction-Related Permit(s).** See above. **SCA GEO-2: Seismic Hazards Zone (Landslide/Liquefaction).** See above. **SCA HAZ-2: Hazardous Building Materials and Site Contamination.** See Hazards and Hazardous Materials above.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.6, *Geology, Soils, and Paleontological Resources* (continued)		
Impact GEO-5: The Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Criterion 7) *(Less than Significant with SCAs)*	**SCA CUL-1: Archeological and Paleontological Resources – Discovery During Construction.** See Cultural Resources above.	Less Than Significant
Impact GEO-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative impacts to geology, soils, seismicity, or paleontology. *(Less than Significant with SCAs)*	**SCA GEO-1: Construction-Related Permit(s).** See above. **SCA GEO-2: Seismic Hazards Zone (Landslide/Liquefaction).** See above. **SCA HAZ-2: Hazardous Building Materials and Site Contamination.** See Hazards and Hazardous Materials above. **SCA HYD-1: State Construction General Permit.** See Hydrology and Water Quality below. **SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects.** See Hydrology and Water Quality below. **SCA UTIL-5: Storm Drain System.** See Utilities and Service Systems below. **SCA CUL-1: Archeological and Paleontological Resources – Discovery During Construction.** See Cultural Resources above.	Less Than Significant
Effects Found Not to Be Significant Section 4.7.7, *Hydrology and Water Quality*		
Impact HYD-1: The Project would not violate water quality standards; substantially alter the existing drainage pattern of the site that would result in erosion, siltation, or flooding on- or offsite that could affect receiving water quality; otherwise substantially degrade water quality; or fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16). (Criteria 1, 3, 7, 12, and 13) (*Less than Significant with SCAs*)	**SCA HYD-1: State Construction General Permit** *(Standard Condition of Approval 50)* **Requirement:** The project applicant shall comply with the requirements of the Construction General Permit issued by the State Water Resources Control Board (SWRCB). The project applicant shall submit a Notice of Intent (NOI), Stormwater Pollution Prevention Plan (SWPPP), and other required Permit Registration Documents to SWRCB. The project applicant shall submit evidence of compliance with Permit requirements to the City. **SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects** *(Standard Condition of Approval 54)* ***a. Post-Construction Stormwater Management Plan Required*** **Requirement:** The project applicant shall comply with the requirements of Provision C.3 of the Municipal Regional Stormwater Permit issued under the National Pollutant Discharge Elimination System (NPDES). The project applicant shall submit a Post-Construction Stormwater Management Plan to the City for review and approval with the project drawings submitted for site improvements, and shall implement the approved Plan during construction. The Post-Construction Stormwater Management Plan shall include and identify the following: i. Location and size of new and replaced impervious surface; ii. Directional surface flow of stormwater runoff; iii. Location of proposed on-site storm drain lines;	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.7, *Hydrology and Water Quality* (continued)		
Impact HYD-1 (cont.)	iv. Site design measures to reduce the amount of impervious surface area; v. Source control measures to limit stormwater pollution; vi. Stormwater treatment measures to remove pollutants from stormwater runoff, including the method used to hydraulically size the treatment measures; and vii. Hydromodification management measures, if required by Provision C.3, so that post-project stormwater runoff flow and duration match pre-project runoff. ***b. Maintenance Agreement Required*** **Requirement:** The project applicant shall enter into a maintenance agreement with the City, based on the Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement, in accordance with Provision C.3, which provides, in part, for the following: i. The project applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and ii. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The maintenance agreement shall be recorded at the County Recorder's Office at the applicant's expense. **SCA HYD-3: Vegetation Management on Creekside Properties.** *(Standard Condition of Approval 57)* **Requirement:** The project applicant shall comply with the following requirements when managing vegetation prior to, during, and after construction of the project: a. Identify and leave "islands" of vegetation in order to prevent erosion and landslides and protect habitat; b. Trim tree branches from the ground up (limbing up) and leave tree canopy intact; c. Leave stumps and roots from cut down trees to prevent erosion; d. Plant fire-appropriate, drought-tolerant, preferably native vegetation; e. Provide erosion and sediment control protection if cutting vegetation on a steep slope; f. Fence off sensitive plant habitats and creek areas if implementing goat grazing for vegetation management; g. Obtain a Tree Permit before removing a Protected Tree (any tree 9 inches diameter at breast height or dbh or greater and any oak tree 4 inches dbh or greater, except eucalyptus and Monterey pine); h. Do not clear-cut vegetation. This can lead to erosion and severe water quality problems and destroy important habitat;	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.7, *Hydrology and Water Quality* (continued)		
Impact HYD-1 (cont.)	i. Do not remove vegetation within 20 feet of the top of the creek bank. If the top of bank cannot be identified, do not cut within 50 feet of the centerline of the creek or as wide a buffer as possible between the creek centerline and the development; j. Do not trim/prune branches that are larger than 4 inches in diameter; k. Do not remove tree canopy; l. Do not dump cut vegetation in the creek; m. Do not cut tall shrubbery to less than 3 feet high; and n. Do not cut short vegetation (e.g., grasses, ground-cover) to less than 6 inches high. **SCA HYD-4: Creek Protection Plan.** *(Standard Condition of Approval 58)* ***a. Creek Protection Plan Required*** **Requirement:** The project applicant shall submit a Creek Protection Plan for review and approval by the City. The Plan shall be included with the set of project drawings submitted to the City for site improvements and shall incorporate the contents required under section 13.16.150 of the Oakland Municipal Code including Best Management Practices ("BMPs") during construction and after construction to protect the creek. Required BMPs are identified below in sections (b), (c), and (d). ***b. Construction BMPs*** **Requirement:** The Creek Protection Plan shall incorporate all applicable erosion, sedimentation, debris, and pollution control BMPs to protect the creek during construction. The measures shall include, but are not limited to, the following: i. On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the creek. ii. The project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent biodegradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected. iii. Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible. iv. All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted. v. Install filter materials (such as sandbags, filter fabric, etc.) acceptable to the City at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.7, *Hydrology and Water Quality* (continued)		
Impact HYD-1 (cont.)	vi. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains. vii. Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek. viii. Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the creek or storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site. ix. Gather all construction debris on a regular basis and place it in a dumpster or other container which is emptied or removed at least on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution. x. Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work. xi. Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek, street, gutter, or storm drains. xii. All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Control Board (RWQCB). xiii. Temporary fencing is required for sites without existing fencing between the creek and the construction site and shall be placed along the side adjacent to construction (or both sides of the creek if applicable) at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of the City. ***c. Post-Construction BMPs*** **Requirement:** The project shall not result in a substantial increase in stormwater runoff volume or velocity to the creek or storm drains. The Creek Protection Plan shall include site design measures to reduce the amount of impervious surface to maximum extent practicable. New drain outfalls shall include energy dissipation to slow the velocity of the water at the point of outflow to maximize infiltration and minimize erosion. ***d. Creek Landscaping*** **Requirement:** The project applicant shall include final landscaping details for the site on the Creek Protection Plan, or on a Landscape Plan, for review and approval by the City. Landscaping information shall include a planting schedule, detailing plant types and locations, and a system to ensure adequate irrigation of plantings for at least one growing season. Plant and maintain only drought-tolerant plants on the site where appropriate as well as native and riparian plants in and adjacent to riparian corridors. Along the riparian corridor, native plants shall not be disturbed to the maximum extent feasible. Any areas disturbed along the riparian corridor shall be replanted with mature native riparian vegetation and be maintained to ensure survival.	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.7, *Hydrology and Water Quality* (continued)		
Impact HYD-1 (cont.)	***e. Creek Protection Plan Implementation*** **Requirement:** The project applicant shall implement the approved Creek Protection Plan during and after construction. During construction, all erosion, sedimentation, debris, and pollution control measures shall be monitored regularly by the project applicant. The City may require that a qualified consultant (paid for by the project applicant) inspect the control measures and submit a written report of the adequacy of the control measures to the City. If measures are deemed inadequate, the project applicant shall develop and implement additional and more effective measures immediately. **SCA UTIL-5: Storm Drain System.** See Utilities and Service Systems below.	
Impact HYD-2: The Project would not result in substantially depleted groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or lowering the local groundwater table. (Criterion 2) *(Less than Significant)*	None required	Less Than Significant
Impact HYD-3: The Project would not result in substantial flooding on- or off-site, create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems, or create or contribute substantial runoff which would be an additional source of polluted runoff. (Criteria 4, 5, and 6) (*Less than Significant with SCAs*)	**SCA HYD-1: State Construction General Permit.** See above. **SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects.** See above. **SCA HYD-4: Creek Protection Plan.** See above. **SCA UTIL-5: Storm Drain System.** See Utilities and Service Systems below.	Less Than Significant
Impact HYD-4: The Project would not expose people or structures to a substantial risk of loss, injury, or death involving flooding. (Criteria 10, and 11) *(Less than Significant)*	None required	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.7, *Hydrology and Water Quality* (continued)		
Impact HYD-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative impacts on surface water or groundwater quality. *(Less than Significant with SCAs)*	**SCA HYD-1: State Construction General Permit.** See above. **SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects.** See above. **SCA HYD-3: Vegetation Management on Creekside Properties.** See above. **SCA HYD-4: Creek Protection Plan.** See above. **SCA UTIL-5: Storm Drain System.** See Utilities and Service Systems below.	Less Than Significant
Effects Found Not to Be Significant Section 4.7.8, *Land Use and Planning*		
Impact LUP-1: The Project would not physically divide an established community. (Criterion 1) *(Less than Significant)*	None required	Less Than Significant
Impact LUP-2: The Project would not result in a fundamental conflict between adjacent or nearby land uses. (Criterion 2) *(Less than Significant)*	None required	Less Than Significant
Impact LUP-3: The Project would not fundamentally conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect and result in a physical change in the environment. (Criterion 3) *(Less than Significant)*	None required	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.8, *Land Use and Planning* (continued)		
Impact LUP-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in or contribute to a significant cumulative impact to land use and planning. *(Less than Significant)*	None required	Less Than Significant
Effects Found Not to Be Significant Section 4.7.10, *Population and Housing*		
Impact POP-1: The Project would not induce substantial population growth in a manner not contemplated in the General Plan, either directly or indirectly, such that additional infrastructure is required. (Criterion 1) *(Less than Significant)*	**SCA POP-1: Jobs/Housing Impact Fee.** *(Standard Condition of Approval 71)* **Requirement:** The project applicant shall comply with the requirements of the City of Oakland Jobs/Housing Impact Fee Ordinance (chapter 15.68 of the Oakland Municipal Code).	Less Than Significant
Impact POP-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in or contribute to a significant cumulative impact to population and housing. *(Less than Significant)*	**SCA POP-1: Jobs/Housing Impact Fee.** See above.	Less Than Significant
Effects Found Not to Be Significant Section 4.7.11, *Public Services*		
Impact PUB-1: The Project would not result in an increase in demand for fire protection and emergency medical response services that would require new or physically altered fire protection facilities to maintain acceptable service ratios, response times, or other performance objectives, construction of which could have significant physical environmental impacts. (Criterion 1.a) *(Less than Significant with SCAs)*	**SCA PUB-1: Capital Improvements Impact Fee.** *(Standard Condition of Approval 73)* **Requirement:** The project applicant shall comply with the requirements of the City of Oakland Capital Improvements Fee Ordinance (chapter 15.74 of the Oakland Municipal Code).	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.11, *Public Services* (continued)		
Impact PUB-2: The Project would not result in an increase in demand for police services that would require new or physically altered police facilities to maintain acceptable service ratios, response times, or other performance objectives, construction of which could have significant physical environmental impacts. (Criterion 1.b) *(Less than Significant with SCAs)*	**SCA PUB-1: Capital Improvements Impact Fee.** See above.	Less Than Significant
Impact PUB-3: The Project would not result in an increase in new students for public schools at a level that would require new or physically altered school facilities to maintain acceptable service ratios or other performance objectives, construction of which would have significant physical environmental impacts. (Criterion 1.c) *(Less than Significant)*	None required	Less Than Significant
Impact PUB-4: The Project would not result in an increase in demand for other public facilities, including libraries, at a level that would require new or physically altered library facilities in order to maintain acceptable service ratios or other performance objectives, construction of which would have significant physical environmental impacts. (Criterion 1.d) *(Less than Significant with SCAs)*	**SCA PUB-1: Capital Improvements Impact Fee.** See above.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.11, *Public Services* (continued)		
Impact PUB-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in an adverse cumulative increase in demand for public services that would require new or physically altered governmental facilities, construction of which could have significant physical environmental impacts. *(Less than Significant with SCAs)*	**SCA PUB-1: Capital Improvements Impact Fee.** See above.	Less Than Significant
Effects Found Not to Be Significant Section 4.7.12, *Recreation*		
Impact REC-1: The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated or require the construction or expansion of recreational facilities which could have a substantial adverse physical effect on the environment. (Criteria 1 and 2) *(Less than Significant with SCAs)*	**SCA REC-1: Access to Parks and Open Space.** *(Standard Condition of Approval 74)* **Requirement:** The project applicant shall submit a plan for City review and approval to enhance bicycle and pedestrian access from the project site and adjacent areas to Fruitvale Bridge Park. Examples of enhancements may include, but are not limited to, new or improved bikeways, bike parking, traffic control devices, sidewalks, pathways, bulb-outs, and signage. The project sponsor shall install the approved enhancements during construction and prior to completion of the project. **SCA PUB-1: Capital Improvements Impact Fee.** See Public Services above.	Less Than Significant
Impact REC-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative impacts to recreation. *(Less than Significant with SCAs)*	**SCA REC-1: Access to Parks and Open Space.** See above. **SCA PUB-1: Capital Improvements Impact Fee.** See Public Services above.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.13, *Tribal Cultural Resources*		
Impact TRI-1: The Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074. (Criterion 4) *(Less than Significant with SCAs)*	**SCA CUL-1: Archaeological and Paleontological Resources – Discovery During Construction.** See Cultural Resources above. **SCA CUL-2: Human Remains – Discovery During Construction.** See Cultural Resources above.	Less Than Significant
Impact TRI-1.CU: The Project, combined with cumulative development in the project vicinity and citywide, would not contribute to cumulative adverse impacts on archaeological resources, human remains, and tribal cultural resources. *(Less than Significant with SCAs)*	**SCA CUL-1: Archaeological and Paleontological Resources – Discovery During Construction.** See Cultural Resources above. **SCA CUL-2: Human Remains – Discovery During Construction.** See Cultural Resources above.	Less Than Significant
Effects Found Not to Be Significant Section 4.7.14, *Utilities and Service Systems*		
Impact UTIL-1: The Project would not result in exceedance of EBMUD's wastewater discharge limitations or exceed the capacity of the existing wastewater treatment system, and would not result in a significant environmental effect related to the construction of new wastewater treatment facilities or expansion of existing facilities. (Criteria 1 and 4) *(Less than Significant with SCAs)*	**SCA UTIL-3: Green Building Requirements** *(Standard Condition of Approval 85)* ***a. Compliance with Green Building Requirements During Plan-Check*** **Requirement:** The project applicant shall comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the City of Oakland Green Building Ordinance (chapter 18.02 of the Oakland Municipal Code). i. The following information shall be submitted to the City for review and approval with the application for a building permit: • Documentation showing compliance with Title 24 of the current version of the California Building Energy Efficiency Standards. • Completed copy of the final green building checklist approved during the review of the Planning and Zoning permit. • Copy of the Unreasonable Hardship Exemption, if granted, during the review of the Planning and Zoning permit. • Permit plans that show, in general notes, detailed design drawings, and specifications as necessary, compliance with the items listed in subsection (ii) below. • Copy of the signed statement by the Green Building Certifier approved during the review of the Planning and Zoning permit that the project complied with the requirements of the Green Building Ordinance. • Signed statement by the Green Building Certifier that the project still complies with the requirements of the Green Building Ordinance, unless an Unreasonable Hardship Exemption was granted during the review of the Planning and Zoning permit.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.14, *Utilities and Service Systems* (continued)		
Impact UTIL-1 (cont.)	• Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance. ii. The set of plans in subsection (i) shall demonstrate compliance with the following: • CALGreen mandatory measures. • At least LEED Silver per the appropriate checklist approved during the Planning entitlement process. • All green building points identified on the checklist approved during review of the Planning and Zoning permit, unless a Request for Revision Plan-check application is submitted and approved by the Bureau of Planning that shows the previously approved points that will be eliminated or substituted. • The required green building point minimums in the appropriate credit categories. ***b. Compliance with Green Building Requirements During Construction*** **Requirement:** The project applicant shall comply with the applicable requirements of CALGreen and the Oakland Green Building Ordinance during construction of the project. The following information shall be submitted to the City for review and approval: i. Completed copies of the green building checklists approved during the review of the Planning and Zoning permit and during the review of the building permit. ii. Signed statement(s) by the Green Building Certifier during all relevant phases of construction that the project complies with the requirements of the Green Building Ordinance. iii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance. ***c. Compliance with Green Building Requirements After Construction*** **Requirement:** Prior to the finalizing the Building Permit, the Green Building Certifier shall submit the appropriate documentation to City staff and attain the minimum required point level. **SCA UTIL-4: Sanitary Sewer System** *(Standard Condition of Approval 87)* **Requirement:** The project applicant shall prepare and submit a Sanitary Sewer Impact Analysis to the City for review and approval in accordance with the City of Oakland Sanitary Sewer Design Guidelines. The Impact Analysis shall include an estimate of pre-project and post-project wastewater flow from the project site. In the event that the Impact Analysis indicates that the net increase in project wastewater flow exceeds City-projected increases in wastewater flow in the sanitary sewer system, the project applicant shall pay the Sanitary Sewer Impact Fee in accordance with the City's Master Fee Schedule for funding improvements to the sanitary sewer system.	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.14, *Utilities and Service Systems* (continued)		
Impact UTIL-2: The Project would not require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects. (Criterion 2) *(Less than Significant with SCAs)*	**SCA UTIL-5: Storm Drain System** *(Standard Condition of Approval 88)* **Requirement:** The project storm drainage system shall be designed in accordance with the City of Oakland's Storm Drainage Design Guidelines. To the maximum extent practicable, peak stormwater runoff from the project site shall be reduced by at least 25 percent compared to the pre-project condition. **SCA HYD-1: Construction General Permit.** See Hydrology and Water Quality above. **SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects.** See Hydrology and Water Quality above.	Less Than Significant
Impact UTIL-3: The Project would not exceed water supplies available to serve the Project from existing entitlements and resources, and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects. (Criterion 3) *(Less than Significant with SCAs)*	**SCA UTIL-3: Green Building Requirements.** See above.	Less Than Significant
Impact UTIL-4: The Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs and would not require or result in construction of landfill facilities or expansion of existing facilities, and would not violate applicable federal, State, and local statutes or regulations related to solid waste. (Criteria 5 and 6) *(Less than Significant with SCAs)*	**SCA UTIL-1: Construction and Demolition Waste Reduction and Recycling.** *(Standard Condition of Approval 82)* **Requirement:** The project applicant shall comply with the City of Oakland Construction and Demolition Waste Reduction and Recycling Ordinance (chapter 15.34 of the Oakland Municipal Code) by submitting a Construction and Demolition Waste Reduction and Recycling Plan (WRRP) for City review and approval, and shall implement the approved WRRP. Projects subject to these requirements include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3 type construction), and all demolition (including soft demolition) except demolition of type R-3 construction. The WRRP must specify the methods by which the project will divert construction and demolition debris waste from landfill disposal in accordance with current City requirements. The WRRP may be submitted electronically at www.greenhalosystems.com or manually at the City's Green Building Resource Center. Current standards, FAQs, and forms are available on the City's website and in the Green Building Resource Center. **SCA UTIL-2: Recycling Collection and Storage Space** *(Standard Condition of Approval 84)* **Requirement:** The project applicant shall comply with the City of Oakland Recycling Space Allocation Ordinance (chapter 17.118 of the Oakland Planning Code). The project drawings submitted for construction-related permits shall contain recycling collection and storage areas in compliance with the Ordinance. For residential projects, at least two (2) cubic feet of storage and collection space per residential unit is required, with a minimum of ten (10) cubic feet. For nonresidential projects, at least two (2) cubic feet of storage and collection space per 1,000 square feet of building floor area is required, with a minimum of ten (10) cubic feet. **SCA UTIL-3: Green Building Requirements.** See above.	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS, STANDARD CONDITIONS OF APPROVAL, MITIGATION MEASURES, AND RESIDUAL IMPACTS

Impacts, Criterion, and Significance	Standard Conditions of Approval and Mitigation Measures	Significance after Incorporation of Standard Conditions of Approval and Mitigation
Effects Found Not to Be Significant Section 4.7.14, *Utilities and Service Systems* (continued)		
Impact UTIL-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in or contribute to a significant cumulative impact on the capacity of EBMUD's wastewater systems or the City's stormwater drainage system; water supplies; or generation of solid waste. *(Less than Significant with SCAs)*	**SCA UTIL-1: Construction and Demolition Waste Reduction and Recycling.** See above. **SCA UTIL-2: Recycling Collection and Storage Space.** See above. **SCA UTIL-3: Green Building Requirements.** See above. **SCA UTIL-4: Sanitary Sewer System.** See above. **SCA UTIL-5: Storm Drain System.** See above. **SCA HYD-1: Construction General Permit.** See Hydrology and Water Quality above. **SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects.** See Hydrology and Water Quality above.	Less Than Significant

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CHAPTER 3
Project Description

This chapter describes all components and characteristics of the proposed 3600 Alameda Avenue Project (Project) proposed by Prologis (Project Applicant) and serves as a basis for the analysis that follows in subsequent chapters of this Draft EIR. This chapter provides an overview of existing conditions on and around the Project site, although existing conditions are described in greater detail in each environmental analysis section in Chapter 4. In addition to describing the Project and providing an overview of existing conditions, this chapter lists the Project Applicant's Project Objectives and the discretionary approvals required by the City of Oakland and various other agencies.

3.1 Project Location

The Project site is an approximately 23.9-acre parcel located at 3600 Alameda Avenue generally between Fruitvale Avenue to the west and 37th Avenue to the east in Oakland (**Figure 3-1**). The Project site is in the Central Estuary Area Plan's Central Estuary Industrial Zone-6 (D-CE-6) zoning district and has an Estuary Policy Plan (EPP) Heavy Industry General Plan land use designation (Assessor's Parcel Number [APN] 033 2250-011-04). The site is bordered by Alameda Avenue and the Oakland Estuary to the south; Fruitvale Avenue, commercial/industrial uses, and residential uses to the west; a building supply warehouse store (Home Depot) with associated surface parking to the east; and a mixed-use residential neighborhood and I-880 to the north.

3.2 Existing Site Conditions

3.2.1 Existing Project Site Uses

The Project site is predominantly flat and currently occupied by the former Owens-Brockway Glass manufacturing facility, which was used to manufacture glass containers from 1938 until the cessation of manufacturing operations in 2015. Multiple manufacturing structures, totaling approximately 1.24 million square feet, currently occupy the site.

The Project site is mostly covered by the existing structures and paving, with little existing vegetation. There is one tree in the Project site interior and several on-site trees at the existing facility entrance along Alameda Avenue. A row of street trees lines the east side of 37th Avenue and extends along the Project site boundary to Alameda Avenue.

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SOURCE: ESA, 2022

3600 Alameda Industrial Project

Figure 3-1
Project Location

ESA

3.2.2 Existing Surrounding Uses

Existing surrounding uses are primarily industrial, commercial (e.g., retail, gym, and restaurants), and residential uses. Commercial uses (a roofing company) and residential housing occupy the area to the north, between the Project site and Interstate 880 (I-880). The southern portion of the Project site is bounded by Alameda Avenue and the Oakland Estuary's Tidal Canal (estuary) that separates the City of Oakland from the City of Alameda. East of the Project site, Alameda Avenue moves inland, and industrial uses occupy the area between Alameda Avenue and the waterfront. Directly east of the Project site, existing uses include the commercial building supply warehouse store (Home Depot) and fitness center (24-Hour Fitness), both surrounded by a parking lot. To the west, across Fruitvale Avenue, land uses are mostly light industrial and residential.

3.2.3 Existing General Plan Designations and Zoning

The General Plan land use designation for the Project site located at 3600 Alameda Avenue is Estuary Policy Plan Heavy Industrial (EPP HI). The EPP HI designation applies specifically to the former Owens-Brockway facility and describes the desired character of future development at the site be primarily heavy industrial uses. The maximum intensity allowed in the EPP HI-designated area is a floor area ratio (FAR) of 0.75 per parcel.

The zoning designation for the Project site is D-CE-6 (Central Estuary District Industrial Zone – 6). The intent of the D-CE-6 designation is to create, preserve, and enhance areas of the Central Estuary for a wide variety of businesses and related commercial and industrial establishments that may have the potential to generate off-site impacts (e.g., noise, light, odor, and traffic). This zoning designation allows for heavy industrial and manufacturing uses, transportation facilities, warehousing and distribution, and similar related uses all of which are consistent with this Project. Maximum intensity allowed in the D-CE-6 -designated area is FAR of 2.0 per parcel.

3.3 Project Characteristics

3.3.1 Project Program

The Project Applicant is proposing to demolish all existing structures on the Project site and construct an approximately 430,000 square foot, 56-foot-tall industrial building with a FAR of approximately 0.42 (see **Figure 3-2**).[1] The Project Applicant proposes the Project on a speculative basis as the end user and nature of the use is unknown at this time. For the purposes of the conservative analyses presented in Chapter 4 of this document, the end use is assumed to be a distribution warehouse.

[1] The analysis presented in this Draft EIR assumes an approximately 430,000 square foot project building. Since the time of Draft EIR development, the Project Applicant has since put forth a revised proposal for an approximately 424,320 square foot project building. Therefore, this Draft EIR describes a modestly larger structure and thus serves as a conservative analysis.

SOURCE: HPA Architecture, 2023

3600 Alameda Industrial Project

Figure 3-2
Project Site Plan

ESA

The Project would create a new connection of 37th Avenue with Alameda Avenue, and a realignment of Alameda Avenue. The Alameda Avenue realignment would result in widened sidewalks and a new bike path within the Bay Trail. The Project would re-open Boehmer Street to create a new connection between 36th and 37th Avenues. It would also include a new driveway at the northwest corner of the site onto Fruitvale Avenue at its intersection with East 7th Street (see Section 3.3.3 below).

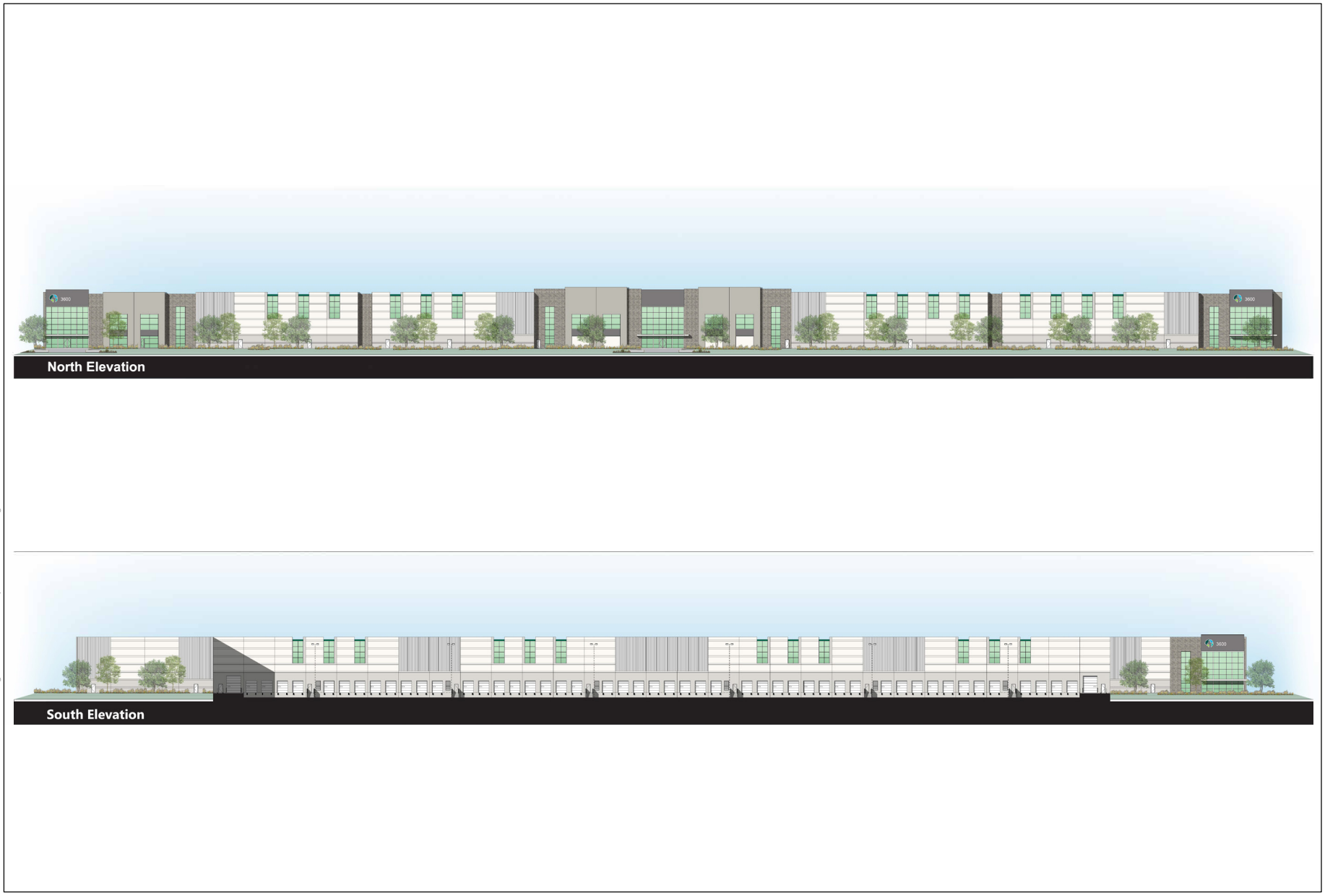
The main distribution warehouse building entrance and employee amenity space would be located at the northwest corner of the building fronting onto Fruitvale Avenue. The new facility would include up to 30,000 square feet of accessory office space, 25,000 square feet of which would be split between the northwest corner of the building at the main entrance, the central-northern portion of the building, and the northeastern corner of the building, depending on the number of tenants occupying the building. An additional 5,000 square feet of accessory office space would be provided at a mezzanine level. In addition, the Project would include an employee parking lot to the north and east of the building as well as loading docks and associated trailer parking areas in the southern portion of the Project site. An approximately one-acre portion of the site at the southeast corner at the intersection of Alameda Avenue and the proposed extension of 37th Avenue, would remain open to provide for a possible future development as retail use or a restaurant. For the purposes of the analyses presented in Chapter 4 of this document, Project operations is assumed to include an approximately 10,000 square-foot café/restaurant at that location. See **Figure 3-3** and **Figure 3-4**.

3.3.2 Open Space and Landscaping

An employee parking lot on the north side of the proposed building and a 20-foot-wide landscaping area would result in an overall 91-foot buffer between the proposed building and the northern Project site boundary. The land dedicated to the City for a potential future East 7th Street extension would provide an additional buffer between the proposed project building and the residential uses to the north. West of the proposed industrial building, along Fruitvale Avenue, the Project would include a landscaped strip. The main building entrance at the northwest corner of the building along Fruitvale Avenue would include an employee amenity area providing outdoor furniture, lighting, and seating to be utilized during breaks and lunchtimes. Additional seating would be provided in a landscaped area at the southeast corner of the building. Publicly accessible art would be located along the Project frontage.

3.3.3 Access, Parking, and Circulation

Automobile access would be provided via five driveways. The driveway onto Fruitvale Avenue at its intersection with East 7th Street, and the driveway at the intersection of 36th Avenue and Boehmer Street, would be limited to passenger vehicles. There would be two driveways on 37th Avenue, the northmost of which would also be limited to passenger vehicles. There would be one driveway on Alameda Avenue near the center of the Project site. Trucks would access the site via the south driveway on 37th Avenue and the driveway on Alameda Avenue.



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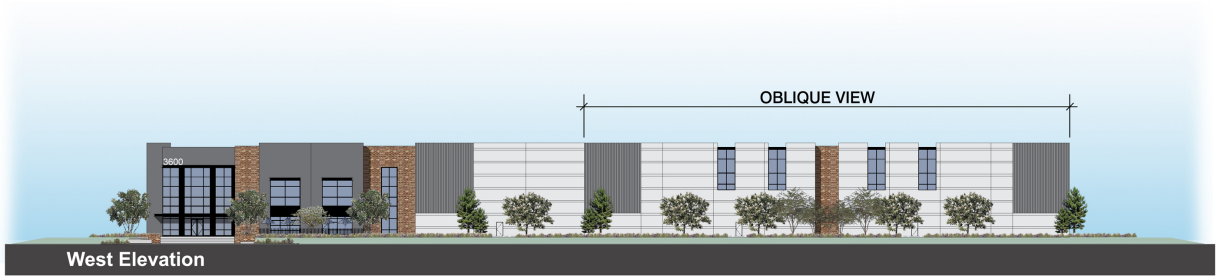
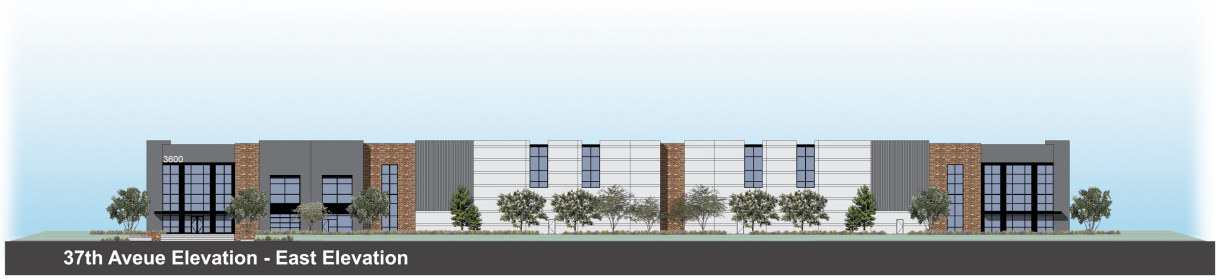
SOURCE: HPA Architecture, 2023

3600 Alameda Industrial Project

Figure 3-3
Project Elevations

ESA





SOURCE: HPA Architecture, 2022

3600 Alameda Industrial Project

Figure 3-4
Project Elevations

ESA

The Project would re-open Boehmer Street, which is currently closed and gated, to create a new connection between 36th and 37th Avenues. The Project Applicant is proposing to dedicate the right-of-way on 37th Avenue to the City and extend 37th Avenue, which is currently a cul-de-sac, through to Alameda Avenue. This extension would implement a new intersection at Alameda Avenue and 37th Avenue and provide a new north-south connection. These changes to the street network were envisioned in the Central Estuary Plan (CEAP) *Policy Connection G* that call for a connection from the southeastern end of 37th Avenue to Alameda Avenue.

The Project Applicant is also proposing to dedicate rights-of-way for East 7th Street to the City for a potential future east-west street network connection. The Project, as originally proposed, included development of this new east-west network connection between Fruitvale Avenue and 37th Avenue. However, at the time this Draft EIR is published, it is not feasible to establish an intersection at East 7th Street and Fruitvale Avenue since the intersection would trigger upgrades to the Union Pacific Rail Road (UPRR) line, which would require a taking of private property rights from an adjacent property on East 7th Street. Therefore, this Draft EIR analyzes the driveway-only connection to Fruitvale Avenue as an interim state and as depicted in Figure 3-2. The potential future extension of East 7th Street west of Fruitvale Avenue is analyzed as a Project Variant (see Section 3.5, below). The Project proposes to re-construct all sidewalks surrounding the property, as well as modify the existing roadways around the Project site. The Project would shift Alameda Avenue approximately 100 feet inland to increase public access to the estuary shoreline and the Bay Trail. This realignment would result in new pedestrian sidewalks and bike facilities. The Project would also improve the Fruitvale Avenue pedestrian corridor by constructing a new sidewalk on the corner of East 7th Street and Fruitvale Avenue.

The Project would include an employee parking lot along the north and east sides of the building providing a total of 295 auto parking spaces. The auto parking spaces would be comprised of 140 standard spaces, 27 electric vehicle (EV) spaces, 118 spaces equipped for future electric charging stations (EV-capable spaces), 4 accessible car spaces, 1 EV accessible car space, 4 accessible van spaces, and 1 EV van space, and 1 EV ambulatory parking space. This equates to 10 percent EV spaces (30), and an additional 40 percent EV-capable spaces. The south side of the building would include a loading dock area with 48 dock doors and a parking lot accommodating 228 trailer stalls.

3.3.4 Utilities and Other Improvements

The Project would construct new water and sewer laterals that would connect to existing water and sewer lines in Alameda Avenue. Stormwater would be collected and treated on-site and routed to an existing storm drain line in Alameda Avenue. The Project would either underground electricity lines in compliance with the City's Standard Conditions of Approval or tie in to existing overhead electricity lines located along Alameda Avenue if undergrounding is prohibited.

The Project would result in new impervious surfaces and associated stormwater treatment requirements would apply to the entire site. Stormwater management-related site design measures would include directing roof runoff into vegetated areas; directing runoff from sidewalks, walkways, and/or patios onto vegetated areas; and directing runoff from driveways and/or

uncovered parking lots onto vegetated areas. The Project would implement source control measures to minimize sources of runoff pollution including measures to minimize run-on to and run-off from the loading area.

3.3.5 Hazardous Materials

The Project site is developed and has been disturbed with continuous heavy industrial use from 1938 to 2015. Since March 2021, the Project Applicant has performed environmental due diligence to characterize potential soil and groundwater contamination on the site and to address site remediation, including preparation of a Phase II site assessment. The Phase II environmental site assessment was conducted at the site between March and June of 2021 and determined that perchloroethylene (PCE) and trichloroethylene (TCE) were present in onsite soil vapor, as well as benzene which is the primary contaminant of concern in soil vapor at the site. In addition, benzene was detected in an onsite groundwater monitoring well. Furthermore, onsite soil samples indicated the presence of cadmium, arsenic, lead, chlorinated volatile organic compounds (VOCs), and total petroleum hydrocarbons gasoline (TPHg).

Polychlorinated biphenyls (PCBs) that resulted from an exploded transformer have been identified in concrete and soil in the basement area of two buildings on the Project site. The Project Applicant is working with the United States Environmental Protection Agency (U.S. EPA) to mitigate PCBs and has prepared a Polychlorinated Biphenyl Cleanup Plan (see Section 4.4, *Hazards and Hazardous Materials*).

The Project has been designed to minimize exposure to subsurface contamination by placing the new proposed building outside of the perimeter of the areas that have been identified as the most heavily contaminated. The most heavily contaminated areas would be used for trailer parking with a durable ground cover.

3.3.6 Sustainability

The Project would comply with the City of Oakland's Green Building Ordinance and the Project building is designed to be LEED certified. The Project would not provide a natural gas connection consistent with the City of Oakland's Municipal Code Chapter 15.37 requiring all-electric construction in newly constructed buildings. In addition, the Project would comply with the Plug-In Electric Vehicle (PEV) Charging Infrastructure requirements and would construct full circuit infrastructure for PEV charging stations for 10 percent of the total parking spaces and conduits for future expansion of PEV spaces for an additional 30 percent of the total parking space. Furthermore, the Project would plant a greater number of trees than it would remove, in accordance with the requirements of the City's Tree Preservation Ordinance.

3.3.7 Project Construction

Project construction would demolish all existing structures and surface parking lots. Construction activities would also include excavation and shoring, foundation and below-grade construction, and building construction including finishing interiors. Project construction is expected to commence in the first quarter of 2024 and occur over approximately 17 months.

The Project would include demolition of approximately 1,240,000 square feet of existing structures on the Project site, all of which would be reused onsite to fill existing voids and basements except for a small amount of stained concrete requiring approximately 5-10 truckloads of material to be removed due to staining. Approximately 4,800 cubic yards of soil and debris would be off-hauled and approximately 10,000 cubic yards of fill would be imported. Based on an Environmental Site Assessment and a Geotechnical Investigation Report prepared for the Project site, groundwater depth on the Project site is estimated to be approximately 8 to 15 feet below the current ground surface (see Section 4.4, *Hazards and Hazardous Materials*). Proposed grading would include cuts and fills of about 3 feet to accommodate a shallow foundation system.[2] Nonetheless, if groundwater is encountered during construction, dewatering would be required.

3.4 Project Objectives

The following objectives have been identified for the Project:

- Achieve increased economic benefit from the site.
- Create a modern warehouse that contributes to the aesthetics of the Project site.
- Facilitate the evolution of a transforming industrial workplace.
- Create a new efficient and updated warehouse which implements green building design and construction practices capable of achieving Leadership in Energy and Environmental Design (LEED™) certification for the industrial building within the Project.
- Encourage productive use of the City's industrial land which is currently underutilized.
- Support and retain existing industrial uses and employment in the City of Oakland's industrial sector.
- Receive ACDEH and EPA approval to remediate the environmental conditions to allow for safe usage of the site.
- Help achieve the goals of the Central Estuary Area Plan (CEAP) through creating network connections and maintaining industrial uses.
- Upgrade the Bay Trail network and its connection to points to the north and south.

3.5 Project Variant

As introduced in Section 3.3.3 above, the Project Applicant is proposing to dedicate rights-of-way for East 7th Street to the City for a potential future east-west street network connection. This Draft EIR analyzes the potential future east-west network connection as a variant to the Project that may or may not be included as part of the Project because the implementation is beyond the control of the Project Applicant at this time. A description of the Project Variant and why the implementation is uncertain at this time is described below and analyzed in Chapter 5.0, *Project Variant*.

[2] Kleinfelder, 2021. *Geotechnical Investigation Report Industrial Warehouse Site 3600 Alameda Avenue Oakland, California*, May 26, 2021.

Under the Project Variant, the City would accept the dedication and implement the extension of East 7th Street at a future date as feasible. Instead of a driveway-only connection from the Project site to Fruitvale Avenue, the Project Variant would extend East 7th Street by creating a new public right-of-way from its current terminus at Fruitvale Avenue east to 36th Avenue where it would connect with Boehmer Street. This would complete the east-west street network connection from Fruitvale Avenue through to 37th Avenue along the north side of the Project site resulting network connections surrounding the Project site. These changes to the street network were envisioned in the CEAP *Policy Connection C* that calls for a central connector between Fruitvale Avenue and 37th Avenue as well as *Policy Connection G* described above.[3]

3.6 Discretionary Actions and Other Planning Considerations

The Project requires several discretionary permits and approvals. As Lead Agency for the Project, the City of Oakland is responsible for the majority of approvals required for development, and for preparation of this Draft Focused EIR.

3.6.1 Actions by the City of Oakland

The City of Oakland approvals needed for the Project may include the following, without limitation:

- Bureau of Planning—Regular Design Review, CEQA determination, Tentative Parcel Map, Creek Protection Permit, Tree Permit
- Building Department—demolition permit, grading permit, approval of Post-Construction Stormwater Control Plan demonstrating compliance with Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) Municipal Regional Permit (MRP)
- Department of Transportation: other related off-site work permits (e.g., public right-of-way improvements, and tie backs) as well as encroachment permits
- All other necessary development permits and entitlements from the City

3.6.2 Actions by Other Agencies

In addition, the Project may rely on or require review and approval by several public agencies and jurisdictions that have authority over specific aspects of the Project. The approvals needed for the Project may include the following, without limitation:

- Bay Area Air Quality Management District (BAAQMD) – Issuance of permits for asbestos abatement activities, if any, and emergency generator.

[3] Note the CEAP Policy Connection C calls for a connection from the eastern end of Ford Street to the southwestern end of 37th Avenue. The connection would require right-of-way acquisition, which would run through the Project site. The alternate location along East 7th Street would achieve the Policy Connection goal of providing "a central connector between Fruitvale Avenue and 37th Avenue from which new development could be accessed if large-scale properties in the area were to develop in the future."

- Bay Conservation and Development Commission (BCDC) – Issuance of permit/approval for construction within 100 feet of the shoreline.
- California Regional Water Quality Control Board (RWQCB) – National Pollutant Discharge Elimination System (NPDES) permit for stormwater discharge.
- East Bay Municipal Utility District (EBMUD) – Grant a Special Discharge Permit to discharge construction dewatering to the sanitary sewer and/or approval of new service requests and new water meter installations; Approval of water line, water hookups and review of water needs.
- United States Environmental Protection Agency (US EPA) – Acceptance of a PCB Cleanup Plan.
- Alameda County Department of Environmental Health (ACDEH) – Acceptance of a Corrective Action Implementation Plan and granting of required clearances to confirm that all applicable standards, regulations, and conditions for all previous contamination at the site have been met.

CHAPTER 4
Environmental Setting, Impacts, and Standard Conditions of Approval

4.0 Introduction to the Environmental Analysis

This chapter presents the environmental analysis of the Project, prepared in accordance with CEQA, as described in Chapter 1, *Introduction*, of this Draft EIR. This chapter consists of Sections 4.1 through 4.7, which present the technical analysis of each environmental topic or factor (e.g., Section 4.3, *Greenhouse Gas Emissions*) addressed in this document. This Section 4.0, *Introduction to the Environmental Analysis*, describes key environmental analysis terms used in this document and analysis, including the impact classifications, the organization of each technical section of this chapter, and the cumulative analysis approach and setting.

4.0.1 Scope of Analysis

As described in Chapter 1, *Introduction*, the City determined that an EIR is required for the Project for compliance with CEQA. As part of the preparation of the EIR, the City identified resource topics for which the physical environmental impacts of the Project would result in no impact or less-than-significant impacts, and that required City Standard Conditions of Approval (SCAs) would reduce significant impacts to a less-than-significant level. CEQA does not require further assessment of a project's less-than-significant impacts; therefore, those resource topics are included in a separate Section 4.7, *Effects Not Found to Be Significant*. The issues addressed in Section 4.7 are listed below:

- Section 4.7.1, Aesthetics, Shadow, and Wind
- Section 4.7.2, Agriculture and Forestry Resources
- Section 4.7.3, Cultural Resources
- Section 4.7.4, Energy
- Section 4.7.5, Geology and Soils
- Section 4.7.6, Hydrology and Water Quality
- Section 4.7.7, Land Use and Planning
- Section 4.7.8, Mineral Resources
- Section 4.7.9, Population and Housing
- Section 4.7.10, Public Services

- Section 4.7.11, Recreation
- Section 4.7.12, Tribal Cultural Resources
- Section 4.7.13, Utilities and Service Systems
- Section 4.7.14, Wildfire

Refer to Section 4.7 for a discussion and the impact analysis of the Project with respect to these resource topics.

EIR Topics

The resource topic areas addressed in this chapter of the EIR is listed below:

- Section 4.1, Air Quality and Health Risk
- Section 4.2, Biological Resources
- Section 4.3, Greenhouse Gas Emissions
- Section 4.4, Hazards and Hazardous Materials
- Section 4.5, Noise
- Section 4.6, Transportation and Circulation

4.0.2 Environmental Setting and Baseline

An environmental setting establishes the baseline physical conditions or point of reference from which the environmental impacts of the Project and the alternatives to the Project are measured to determine if an impact is significant. Each section within this chapter describes an *environmental setting* and a *regulatory setting*. The environmental setting addresses the conditions that exist prior to implementation of the Project and defines relevant scientific terms associated with the environmental topic addressed in the section. The regulatory setting presents relevant information about federal, state, regional, and/or local laws, regulations, and plans or policies that pertain to the environmental topic addressed in the section.

The environmental baseline identifies the existing physical conditions on, around, and affecting the Project site. The baseline is established to provide a point of comparison between pre-Project conditions (the baseline) and post-Project conditions to determine whether the change to the existing environment caused by the Project is significant under CEQA. While stable in terms of its point in time, the baseline condition is tailored to each environmental topic area and is established by the significance criteria (discussed below). Generally, the baseline is the same as the "environmental setting," i.e., the physical environmental conditions in the vicinity of the Project, as they existed in Spring 2022, when the City published the NOP for the Project (CEQA Guidelines Sections 15125(a), 15126.2(a)).[1]

[1] The City issued the NOP for the EIR on April 4, 2022.

4.0.3 Oakland Thresholds of Significance

The City of Oakland has established local *CEQA Thresholds of Significance Guidelines* (commonly referred to as "thresholds"), which have been in general use by the City since at least 2002, parts of which were most recently updated in December 2020. The thresholds are intended to help clarify and standardize analysis and decision-making in the environmental review process in the City of Oakland. The thresholds are offered as guidance in preparing all environmental review documents and are intended to implement and supplement provisions in the CEQA Guidelines for determining the significance of environmental effects, including sections 15064, 15064.4, 15064.5, 15065, 15382 and Appendix G. (The classifications of environmental impact or significance in this Draft EIR are described in 4.0.5 below.) The thresholds are used to evaluate the potential primary and secondary environmental effects of the Project, including potential effects of mitigation measures.

4.0.4 Environmental Impacts

CEQA requires the analysis of the Project on the environment. The levels of impact classifications that the Project may have on the environment in this Draft EIR are described in 4.0.5 below (following the description below of key factors related to the level of impact classifications).

As required by section 15126.2(a) of the CEQA Guidelines, the impact analysis addresses direct, indirect, short-term, long-term, onsite and, if applicable, off-site impacts. Under CEQA, economic or social changes by themselves are not considered to be significant impacts but may be considered in linking a project to a physical environmental change, or in determining whether an impact is significant.

This EIR addresses potential adverse effects of the Project on the environment pursuant to CEQA. Potential effects of the environment on a project are legally not required to be analyzed or mitigated under CEQA. However, this document analyzes potential effects of the environment on the Project to provide information to the public and decision-makers.

Impact statements have an alpha designation that corresponds to the environmental topic, such as Impact "NOI" for noise. A number follows the alpha designation to designate the sequence of the impact. For example, "Impact NOI-1" is the first noise impact identified. All impact statements are in bold text; the impact statements also indicate the number of the significance threshold/criterion number that the impact statement pertains to, and then states the level of impact classification prior to the incorporation of any mitigation measures.

Oakland Standard Conditions of Approval

The City adopted SCAs in November 3, 2008 (Ordinance No. 12899 C.M.S) and revised through December 16, 2020, pursuant to Public Resources Code section 21083.3 and CEQA Guidelines Section 15183 (and now Section 15183.3). SCAs are identified during the CEQA analysis of a project and incorporated into projects when they receive discretionary planning-related approval. They address three aspects of a project: (1) general administrative aspects of the project approval;

(2) environmental protection measures that are incorporated into a project and designed to, and will, substantially mitigate environmental effects; and (3) other SCAs containing requirements to substantially reduce non-environmental effects of a project.

In a CEQA document, such as this EIR, the SCAs applicable to a project are considered requirements of the project and not mitigation. As specified in the City's SCA document, in this Draft EIR the SCAs are included in the regulatory setting discussion (discussed above) of the applicable environmental topic; SCAs are not repeated in the impacts discussion in their entirety, but each SCA has a sequential alpha-numeric reference unique to this Draft EIR.

Many SCAs require the preparation of project-specific technical studies, such as a Construction Noise Management Plan or Transportation Demand Management (TDM) Plan. The technical studies are sometimes required to be prepared during the CEQA review (and the results of the studies incorporated into the CEQA document) rather than after project approval. Technical studies prepared for the Project are incorporated into the environmental analysis and included in the appendices to this Draft EIR. Technical studies required by SCAs and conducted prior to project approval may include project-specific recommendations for mitigating an environmental effect. These recommendations are considered *SCA Implementation Measures* for the SCA rather than separate mitigation measures.

4.0.5 Impact Classifications

The following classifications of level of significance or impacts are used throughout this EIR:

- **Less than Significant** – The impact of the Project does not reach or exceed the defined threshold of significance. No mitigation measures or SCAs are required.
- **Less than Significant with SCAs** – The impact of the Project, factoring in the implementation of SCAs (which are considered part of the Project), does not exceed the defined threshold of significance. No mitigation measure is required.
- **Less than Significant with Mitigation** – The impact of the Project, after the implementation of identified mitigation measures, does not exceed the defined threshold of significance.
- **Potentially Significant** – The impact of the Project, after the implementation of SCAs, may reach or exceed the defined threshold of significance. However, it is not certain that, even in the theoretical worst-case conditions, a significant impact would occur. Feasible mitigation measures may or may not be identified to reduce the potentially significant impact to a less-than-significant level.
- **No Impact** – The Project would not cause a noticeable effect on the environment, as measured by the defined threshold of significance. No mitigation would be required.

4.0.6 Organization of Each Technical Analysis Section in this Chapter

This chapter includes Sections 4.1 through 4.7, which present the technical analysis of the environmental topics or factors under CEQA. Each of the components below are previously

described in detail in 4.0.2 through 4.0.5. Generally, each section in this chapter is organized in the following sequence:

- **Environmental Setting** – The initial discussion in each section is this overview of the conditions that exist prior to implementation of the Project and defines relevant scientific terms associated with the environmental topic addressed in the section (described further in Section 4.0.2 above).
- **Regulatory Setting** – Each section discusses the regulatory setting and presents relevant information about federal, state, regional, and/or local laws, regulations, plans or policies and SCAs associated with the environmental topic (described further in Section 4.0.2 above).
- **Significance Criteria** – This part of each section lists the Oakland significance criteria associated with the environmental topic addressed in the section as specified in the *Oakland Thresholds of Significance* document. This section also discusses the *Approach to Analysis*, which presents the analytical methods and key assumptions used in the evaluation of effects of the Project. Where applicable, this section also summarizes *Topics Considered and No Impact Determined* because a particular issue (significance criterion) would not be affected by the Project or does not pertain to the Project or its setting.
- **Impacts of the Project** – This part of each section presents and discusses in detail the environmental impact analysis for all aspects of the Project. Where applicable, impacts associated with mitigation measures are also identified and discussed. For each significance criterion (or groups of related criteria within an environmental topic), the impact statement precedes the discussion of each impact analysis and summarizes the potential for the Project to have an impact. SCAs are identified. The impact determination is stated at the close of the impact analysis discussion.
- **Cumulative Analysis** – The cumulative analysis for each environmental topic generally is included at the end of each section. Each analysis starts with the geographic context of each cumulative analysis and summarizes the cumulative context (described in detail in Section 4.0.7 below). Each significance criterion on the environmental topic addressed in each section is typically addressed under a single bold impact statement if the cumulative impact is less than significant. However, more than one cumulative impact statement may be warranted if certain criteria result in a significant impact.
- **References** – Each section includes a list of all persons and documents consulted or relied on for that analysis. All references cited in this Draft EIR are compiled as an *Administrative References Record* for public reference.

4.0.7 Cumulative Analysis

Definitions

In accordance with CEQA and the Oakland Thresholds, this Draft EIR includes a cumulative analysis to evaluate whether the Project's incremental effect is cumulatively considerable when combined with other projects causing related impacts.

CEQA defines cumulative as "two or more individual effects which, when considered together, are considerable, or which can compound or increase other environmental impacts." The cumulative impact from several projects is the change in the environment, which results from the

incremental impact of a project when added to other *closely related past, present, and reasonably foreseeable probable future projects* (referred to collectively in this Draft EIR as "cumulative development").

Pursuant to CEQA Guidelines section 15130, this Draft EIR analyzes the potential cumulative effects of the Project combined with cumulative development. If a cumulative effect is identified, the analysis then evaluates whether the Project's contribution to the cumulative effect is *cumulatively considerable*, which is a significant impact. Specifically, a cumulatively considerable contribution means that the incremental effects of an individual project are significant when viewed in connection with the effects of cumulative development.

Geographic Scope

The geographic scope used to assess cumulative impacts may vary depending on the specific environmental topic being analyzed. For example, considerations for cumulative public services effects are different from those used to assess cumulative air quality. Only development within the public service areas and providers of the Project site could contribute to a cumulative public services effect; on the other hand, all development within the air basin contributes to regional emissions of criteria pollutants. Accordingly, the geographic scope of each cumulative analysis discussion can vary and is described at the start of the cumulative impact analysis.

Cumulative Development and Assumptions

CEQA Guidelines section 15130(b)(1) identifies two approaches to cumulative impacts analyses to account for the cumulative development. Consistent with CEQA, the City's adopted thresholds describes a combination of both the *forecast method* (i.e., a projection or model) and/or *list method* (i.e., a list containing past, present, and reasonably foreseeable future projects).

The analyses in this Draft EIR employ a list-based approach and projections-based approach, depending on the environmental topic analyzed. For instance, the cumulative analysis of impacts to historical architectural resources considers individual projects that are anticipated in the Project site vicinity that may affect historical architectural resources also affected by the Project. By comparison, the cumulative population and housing analysis relies on a projection of overall citywide growth and other reasonably foreseeable projects, which is the typical methodology the City applies to analysis of population and housing impacts.

Cumulative development in this Draft EIR is generally established using the City of Oakland's Major Projects list dated May 2022 (see Appendix B), together with past, present, existing, approved, pending and reasonably foreseeable future projects (summarized consistently in the cumulative analyses in this EIR as "past, present, and reasonably foreseeable") beyond the Project site.[2]

[2] The City of Oakland published the most recent Major Development Projects List in May 2023, since publication of the NOP for this Draft EIR in April 2022. There are no new projects on the updated list within 1,00 feet of the project site.

As discussed above, cumulative projects considered in the cumulative context can vary by environmental topic; therefore, some of the Major Projects listed, or other cumulative development, may not be directly relevant to the cumulative context, depending on the environmental topic. In some cases, the cumulative context may include more development than listed in the Major Projects list. A primary example is the transportation analyses (and transportation-related traffic and air quality), which use the Alameda County Congestion Management Program travel demand model (the Countywide Travel Demand Model), which reflects traffic from projects citywide and the broader regional context. Alternatively, geology and soils cumulative impact analysis would primarily consider projects that are more localized or even site-specific, which may not, for example, include all projects on the list that are in distant Oakland areas. The cumulative discussions in each topical section throughout Chapter 4 describe the cumulative context considered for each topic.

Cumulative Projects in the Vicinity of the Project Site

Cumulative projects are those located closest to the Project site. According to the May 2022 map of current projects (Appendix B), the only cumulative project within approximately 1,000 feet of the Project site is a sound wall at 3927 Wattling Street. This minor project, which would construct a new 904-foot long, 16-foot-tall sound wall separating a new residential development from the railroad, was approved in October 2019.

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4.1 Air Quality

4.1.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts on air quality. The section first includes a description of the existing environmental setting as it relates to air quality in the Project vicinity and the region and provides a regulatory framework that discusses applicable state and local regulations. The section then includes an evaluation of potential impacts of the Project on air quality, health risk, and odors.

The information and analysis in this section is based on a review of the Project; applicable local policies and regulations; guidance on performing air quality and health risk analyses from the Bay Area Air Quality Management District (BAAQMD or District) and the Office of Environmental Health Hazard Assessment (OEHHA) using emission factors, emissions estimation and dispersion models from the United States Environmental Protection Agency (U.S. EPA), California Air Resources Board (CARB) and the BAAQMD.

The California Environmental Quality Act (CEQA) requires the analysis of potential adverse effects of a project on the surrounding environment. A CEQA evaluation is generally not required to consider potential effects of the environment on a project's future users or local residents, except when the project may exacerbate existing hazards or existing conditions.[1] Though not required by CEQA, the BAAQMD *California Environmental Quality Act Air Quality Guidelines (CEQA Guidelines)* recommend evaluating the potential effects of existing air quality conditions on the project (BAAQMD, 2017a) which may be used to provide information to decision-makers and the public. However, as the Project would not introduce any sensitive receptors to the site, this evaluation was not necessary.

4.1.2 Environmental Setting

Topography and Climate

Climate and meteorological conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants. The Project site is located in the City of Oakland and is within the boundaries of the San Francisco Bay Area Air Basin (SFBAAB or Bay Area). The SFBAAB encompasses the nine-county region including all of Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin, and Napa Counties, and the southern portions of Solano and Sonoma Counties.

The climate of the Bay Area is determined largely by a high-pressure system that is often present over the eastern Pacific Ocean off the west coast of North America. During winter, the Pacific high-pressure system shifts southward, allowing an increased number of storm systems to pass through the region. During summer and early fall, when fewer storms pass through the region,

[1] *California Building Industry Association v. Bay Area Air Quality Management District* (December 17, 2015) 62 Cal.4th 369.

emissions generated in the Bay Area accumulate as a result of the more stable atmospheric conditions. The combination of abundant sunshine, the restraining influences of topography and subsidence inversions creates conditions conducive to the formation of photochemical pollutants, such as ground-level ozone and secondary particulates, including nitrates and sulfates.

More precisely, the Project lies within the Northern Alameda and Western Contra Costa Counties climatological subregion. This subregion extends from Richmond to San Leandro with San Francisco Bay as its western boundary, and its eastern boundary defined by the Oakland-Berkeley Hills. In this subregion, marine air traveling through the Golden Gate, as well as across San Francisco and the San Bruno Gap (a gap in the Coastal Range between the ocean and the San Francisco Airport), is a dominant weather factor. Average wind speeds vary from season to season with the strongest average winds occurring during summer and the lightest average winds during winter. Summer temperatures in Oakland average at a low of 57°F and a high of 72°F, while winter temperatures average at a low of 46°F and a high of 59°F. Rainfall is highly variable and confined almost exclusively to the "Wet Season" period from early November to mid-April. Oakland averages 24 inches of precipitation annually, but because much of the area's rainfall is derived from the fringes of mid-latitude storms, a shift in the annual storm track of a few hundred miles can mean the difference between a very wet year and near drought conditions (BAAQMD, 2017a).

Air Pollutants of Concern

Air pollutants of concern within the SFBAAB include criteria air pollutants and toxic air contaminants (TACs).

Criteria Air Pollutants

Criteria air pollutants are a group of six common air pollutants for which the U.S. EPA has set ambient air quality standards. Criteria air pollutants include ground level ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), particulate matter (PM), and lead. PM is classified by particle size—PM_{10} consists of particulate matter that is 10 microns[2] or less in diameter, while $PM_{2.5}$ refers to the subset of PM_{10} that is less than 2.5 microns or less in diameter. Most of the criteria air pollutants are directly emitted; however, ozone is a secondary pollutant that is formed in the atmosphere by chemical reactions between nitrogen oxides (NOx), and reactive organic gases (ROG) in the presence of sunlight as discussed below. In addition to the criteria air pollutants identified by the U.S. EPA, California has added four criteria air pollutants including visibility reducing particles, sulfates, hydrogen sulfide, and vinyl chloride.

Ozone

Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving ROG (also referred to by some regulatory agencies as volatile organic compounds [VOCs]) and NO_X in the presence of sunlight. The main sources of ROG and NO_X, often referred to as ozone precursors, are the evaporation of solvents, paints, and fuels and combustion processes (including motor vehicle engines). In the Bay Area, automobiles are the single largest source of ozone precursors. Short-term exposure to ozone can irritate the eyes and

[2] A micron is one-millionth of a meter.

constrict the airways. According to the U.S. EPA and CARB, besides causing shortness of breath, ozone can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema; increase frequency of asthma attacks; cause coughing and sore or scratchy throat; make the lungs more susceptible to infection; and cause chronic obstructive pulmonary disease. Exposure to higher concentrations of ozone may also be linked to permanent lung damage, such as abnormal lung development in children (U.S. EPA, 2021a; CARB, 2022a). EPA states that the people most at risk from breathing air containing ozone include those with asthma, children, older adults, and people who are active outdoors, especially outdoor workers (U.S. EPA, 2021a).

Nitrogen Dioxide (NO_2) and Nitrogen Oxides (NOx)

NO_2 is a major component of the group of gaseous nitrogen compounds commonly referred to as NO_X, which also includes nitric oxide (NO). NO_x is a reddish-brown gas produced by fuel combustion in motor vehicles, industrial stationary sources, ships, aircraft, and rail transit. NO is converted to NO_2 when it reacts with ozone or undergoes photochemical reactions in the atmosphere. Therefore, NO_2 emissions from combustion sources are typically evaluated based on the amount of NO_X emitted from the source. NO_2 is a concern for air quality because it acts as a respiratory irritant and is a precursor of ozone (U.S. EPA, 2021b). Short-term exposures can aggravate respiratory diseases, particularly asthma, leading to respiratory symptoms such as coughing, wheezing, or difficulty breathing. Longer exposures to elevated concentrations of NO_2 may contribute to the development of asthma and potentially increase susceptibility to respiratory infections, requiring hospital admissions and visits to emergency rooms. Infants and children are particularly at risk from exposure to NO_2 because of their more rapid breathing rate for their body weight and their typically greater duration of outdoor exposure. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease (CARB, 2022b).

Particulate Matter (PM)

Sources of PM, such as wood burning in fireplaces, demolition, and construction activities, are more local, while other sources, such as vehicular traffic, have a more regional effect. As discussed above, PM_{10} and $PM_{2.5}$ represent fractions of PM that can be inhaled into the air passages and lungs causing adverse health effects, particularly at concentrations above the federal and state ambient air quality standards. $PM_{2.5}$ (including diesel exhaust particles) is thought to have greater effects on health because these particles are so small and thus can penetrate to the deepest parts of the lungs. Larger dust particles (diameter greater than 10 microns) settle out of the ambient air rapidly and are filtered by human breathing passages; therefore, this dust is of more concern as a soiling nuisance rather than as a health hazard. Scientific studies have suggested links between fine particulate matter and numerous health problems including asthma, bronchitis, and acute and chronic respiratory symptoms such as shortness of breath and painful breathing.

Carbon Monoxide (CO)

CO is an odorless, colorless gas usually formed as the result of the incomplete combustion of fuels. The single largest source of CO is motor vehicles, which have their highest emissions during low travel speeds, idling, stop-and-go driving, cold starts, and hard acceleration. When

inhaled at high concentrations, CO combines with hemoglobin in the blood and reduces the blood's oxygen-carrying capacity. The most common effects of CO exposure are fatigue, headaches, confusion, and dizziness caused by inadequate oxygen delivery to the brain. Short-term exposure to elevated CO may result in reduced oxygen to the heart, accompanied by chest pain, also known as angina (U.S. EPA, 2021c). For people with cardiovascular disease, short-term CO exposure can further reduce their body's already compromised ability to respond to the increased oxygen demands of exercise, exertion, or stress. Inadequate oxygen delivery to the heart muscle leads to chest pain and decreased exercise tolerance. Unborn babies, infants, elderly people, and people with anemia or with a history of heart or respiratory disease are most likely to experience health effects with exposure to elevated levels of CO (CARB, 2022c).

Other Criteria Pollutants

SO_2 is a combustion product of sulfur or sulfur-containing fuels such as coal and diesel. SO_2 is also a precursor to the formation of PM, atmospheric sulfate, and atmospheric sulfuric acid that could precipitate downwind as acid rain. According to U.S. EPA, short-term exposures to SO_2 can harm the human respiratory system and make breathing difficult (U.S. EPA, 2022). It can irritate lung tissue and increase the risk of acute and chronic respiratory disease (BAAQMD, 2017a).

Leaded gasoline (phased out in the United States beginning in 1973), lead based paint (on older houses and cars), smelters (metal refineries), and manufacture of lead storage batteries have been the primary sources of lead released into the atmosphere. Lead has a range of adverse neurotoxic health effects, which puts children at special risk. Some lead-containing chemicals cause cancer in animals. Lead levels in the air have decreased substantially since leaded gasoline was eliminated. Ambient lead concentrations are only monitored on an as-warranted, site-specific basis in California.

In addition to the above pollutants, California also regulates emissions of hydrogen sulfide, sulfates, visibility-reducing particles, and vinyl chloride; however, these are not considered impactful for the Project.

Toxic Air Contaminants (TACs)

In addition to criteria air pollutants, sources from individual projects emit TACs, a diverse group of air pollutants that may cause chronic and acute adverse effects on human health, including birth defects, neurological damage, cancer, and death. TACs are air pollutants that may lead to serious illness or increased mortality, even when present in relatively low concentrations. There are over 200 TACs with varying degrees of toxicity identified by state of California (CARB, 2021). Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another. In 1998, CARB classified diesel particulate matter (DPM) as a TAC, citing its potential to cause cancer and other health problems (CARB, 1998). The U.S. EPA concluded that long-term exposure to diesel engine exhaust is likely to pose a lung cancer risk to humans and can also contribute to other acute and chronic health effects (U.S. EPA, 2002). The BAAQMD regulates TACs by using a risk-based approach as opposed to establishing ambient concentration standards. This risk-based approach

utilizes a health risk assessment (HRA) to determine the specific sources and TACs to control as well as the level of control necessary to reduce risk to acceptable levels. An HRA analyzes exposure to toxic substances and human health risks based on the dose and potency of the toxic substances.[3]

Diesel Particulate Matter (DPM)

CARB identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans. The exhaust from diesel engines includes hundreds of different gaseous and particulate components, many of which are toxic. Mobile sources such as trucks and buses are among the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled highways.

Existing Air Quality

Ambient Air Monitoring Data

The BAAQMD operates a regional monitoring network that measures the ambient concentrations of the six criteria air pollutants. Existing and probable future levels of air quality in Oakland can generally be inferred from historical ambient air quality data based on measurements conducted by the BAAQMD at its nearby monitoring stations. The monitoring stations closest to the Project site are located at 9925 International Boulevard and 1100 21st Street in West Oakland. The International Boulevard station is located approximately 3.6 miles southeast of the Project site while the Oakland West station is approximately 4.3 miles to the northwest of the Project site. Both the International Boulevard and Oakland West stations monitor ozone, $PM_{2.5}$ and NO_2 concentrations. PM_{10} is not measured at either monitoring station in Oakland.

Pollutants of concern in the Bay Area include O_3 and PM as the SFBAAB is in non-attainment with respect to the federal and state standards for these pollutants (as explained in detail under Section 4.1.3, *Regulatory Setting*, below). **Table 4.1-1** shows a five -year summary of monitoring data (2016 through 2020) for these pollutants from the International Boulevard station, as well as for NO_2, an ozone precursor. Due to the proximity of the Project site to the International Boulevard station, air quality measurements collected at this station are understood to be generally representative of conditions in the vicinity of the Project site. Table 4.1-1 also compares measured pollutant concentrations with the California Ambient Air Quality Standards (CAAQS or "state standards") and the National Ambient Air Quality Standards (NAAQS or "national standards") (see Section 4.1.3, *Regulatory Setting*, below).

[3] An HRA is required for stationary source permitting approval if the BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk. In these instances, a HRA for the source in question must be prepared. Such an assessment generally evaluates acute (short-term) effects, chronic (long-term) effects, and the increased risk of cancer as a result of exposure to one or more TACs.

TABLE 4.1-1
HIGHEST MEASURED AIR POLLUTANT CONCENTRATIONS AT THE INTERNATIONAL BOULEVARD MONITORING STATION (2016–2020)

Pollutant	Standard[a]	Monitoring Data by Year[a]				
		2016	2017	2018	2019	2020
Ozone						
Highest 1-Hour Average (ppm)	0.090	0.082	**0.136**	0.061	**0.098**	0.090
Days Exceeding State Standard		0	**2**	0	**1**	0
Highest 8-Hour Average (ppm)	0.070	0.057	**0.100**	0.052	**0.073**	0.066
Days Exceeding State Standard		0	**2**	0	**2**	0
Days Exceeding National Standard	0.070	0	**2**	0	0	0
Fine Particulate Matter						
Highest 24-Hour Average (μg/m^3)	35	15.5	**70.2**	**172.1**	24.7	**167.7**
Measured Days over National Standard		0	**7**	**13**	0	**11**
State Annual Average (μg/m^3)	12	6.1	9.4	11.8	6.7	11.4
National Annual Average (μg/m^3)	12.0	6.1	9.3	11.7	6.7	11.4
Carbon Monoxide						
Highest 8-Hour Average (ppm)	9	2.2	2.1	3.1	1.7	NA
Measured Days over State Standard		0	0	0	0	NA
Nitrogen Dioxide						
Highest Hourly Average (ppm)	0.18	0.059	0.065	0.073	0.062	0.059
Measured Days over State Standard		0	0	0	0	0

NOTES:
μg/m^3 = micrograms per cubic meter; ppm = parts per million; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter
Bold indicates values that exceed the ambient air quality standard.

[a] Generally, national and state standards are not to be exceeded more than once per year.

SOURCE: CARB, 2022d.

Existing Health Risk in the Surrounding Area

As discussed previously, the U.S. EPA and CARB recognize that exposure to elevated levels of ground-level ozone and PM can be a cause of respiratory and cardiovascular health effects. Through its Community Air Risk Evaluation (CARE) program, BAAQMD compiled estimates of TAC emissions in the SFBAAB for all major source categories including oil refineries, power plants, landfills, dry cleaners, gasoline stations, on-road vehicles, off-road vehicles and equipment, ships, and trains. BAAQMD's cancer-risk weighted emissions inventory shows that a small subset of TACs account for approximately 95 percent of the total cancer risk from air pollutants in the Bay Area, and that DPM is by far the largest driver of cancer risk from TACs. CARE estimates are based on the cancer risk calculation methods adopted by the California EPA's OEHHA in 2015.

The BAAQMD provides a publicly available inventory of TAC-related health risks for permitted stationary sources throughout the Bay Area as well as for freeways, rail and major roadways. This

inventory presents community risk and hazards from screening tools and tables that are intentionally conservative (that is, health protective). The screening-level risk factors derived from the BAAQMD's tool are intended to indicate whether additional review related to the impact is necessary and are not intended to be used to assess precise risk levels for all projects. The BAAQMD's Google Earth-based inventory of stationary source risks and hazards, most recently updated in 2018, indicates that there is only one existing permitted stationary source within 1,000 feet of the Project site boundaries – the emergency generator at the Home Depot to the east of the Project site (BAAQMD, 2022). Mobile sources of TACs in the vicinity include traffic on Interstate 880 (I-880), Fruitvale Avenue and High Street.

The Bay Area has benefited from dramatic reductions in public exposure to TACs over time. Based on ambient air quality monitoring, the estimated lifetime cancer risk from all TACs for Bay Area residents declined from 4,100 cases per million in 1990 to 690 cases per million people in 2014. This represents an 83 percent decrease between 1990 and 2014. The cancer risk from DPM, which accounts for most of the cancer risk from TACs as discussed above, has declined substantially over the past 15 to 20 years as a result of CARB regulations and BAAQMD programs to reduce emissions from diesel engines. However, DPM still accounts for roughly 82 percent of the total cancer risk related to TACs (BAAQMD, 2017b).

CalEnviroScreen is a mapping tool developed by the Office of Environmental Health Hazard Assessment (OEHHA), on behalf of the California Environmental Protection Agency (CalEPA), which identifies California communities by census tract that are disproportionately burdened by, and vulnerable to, multiple sources of pollution. It uses environmental, health, and socioeconomic information available from state and federal government sources to produce scores for every census tract in the state. The scores are mapped so that different communities can be compared. An area with a high score is one that experiences a much higher pollution burden than areas with low scores. The Project site is located in an area with the highest CalEnviroScreen score between 90 and 100 (OEHHA, 2021).

Odorous Emissions

Though offensive odors from stationary sources rarely cause any physical harm, they still remain unpleasant and can lead to public distress generating citizen complaints to local governments. The occurrence and severity of odor impacts depend on the nature, frequency and intensity of the source; wind speed and direction; and the sensitivity of receptors. The BAAQMD's CEQA Guidelines recommend that odor impacts be considered for any proposed new odor sources located near existing receptors, as well as any new sensitive receptors located near existing odor sources. Generally, increasing the distance between the receptor and the odor source would mitigate odor impacts. The BAAQMD provides examples of odor sources, which include wastewater treatments plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants. There are no odor sources in the vicinity of the Project site.

Sensitive Receptors

Air quality does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. More sensitive population groups include the elderly and the young; those with respiratory disease, such as asthma and chronic obstructive pulmonary disease; and those with other environmental or occupational health exposures (e.g., indoor air quality) that affect cardiovascular or respiratory diseases. The BAAQMD defines sensitive receptors as children, adults, and seniors occupying or residing in residential dwellings, schools, daycare centers, hospitals, and senior-care facilities. Workers are not considered sensitive receptors because they have other legal protections; specifically, employers must follow regulations set forth by the Occupation Safety and Health Administration (OSHA) to ensure the health and well-being of their employees (OSHA, 2011).

The proximity of sensitive receptors to motor vehicles is an air pollution concern, especially in heavily urbanized areas, including the Project vicinity, where roadway volumes are higher than most other parts of the Bay Area. Vehicles also contribute to particulate matter emissions by generating road dust and through suspended particulate from brake and tire wear.

Existing sensitive receptors in the vicinity of the Project site include residential uses. The nearest residences are located to the north of the Project site along Elmwood Avenue and 36th Avenue less than 100 feet from the Project site boundary. Residential uses are also located to the northwest across Fruitvale Boulevard and approximately 500 feet to the south across the Tidal Canal, in the City of Alameda. The area to the east and southeast of the Project site, through which Project trucks would travel to access the Project site is primarily commercial and industrial. There are no schools or daycares in the immediate vicinity of the Project site. The Lazear Charter Academy is located approximately 1,400 feet to the northwest; Arise High School and Ascend Elementary School are located approximately 1,750 feet and 1,400 feet to the north, respectively. The Lazear Academy and Ascend Elementary School have grades from transitional kindergarten (TK) to 8th grade. Arise High School has grades 9 through 12.

4.1.3 Regulatory Setting

Clean Air Act and National Ambient Air Quality Standards

The federal Clean Air Act (CAA) requires U.S. EPA to establish national ambient air quality standards to protect public health and the environment. NAAQS are classified as either primary or secondary. Primary standards are meant to provide public health protection, including protecting the health of sensitive populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

U.S. EPA has set NAAQS for several criteria air pollutants: ozone, NO_2, SO_2, CO, PM (PM_{10} and $PM_{2.5}$), and lead. **Table 4.1-2** summarizes the current NAAQS and indicates the principal sources for each of these pollutants.

TABLE 4.1-2
STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS AND THE SAN FRANCISCO BAY AREA AIR BASIN'S ATTAINMENT STATUS

Pollutant	Averaging Time	National Standards		California Standards	
		Concentration	Attainment Status	Concentration	Attainment Status
Ozone	1 hour	—	—	0.09 ppm	Nonattainment
	8 hours	0.07 ppm	Nonattainment	0.070 ppm	Nonattainment
CO	1 hour	35 ppm	Attainment	20 ppm	Attainment
	8 hours[a]	9.0 ppm	Attainment	9.0 ppm	Attainment
NO_2	1 hour	0.100 ppm	Unclassified	0.18 ppm	Attainment
	Annual Avg.	0.053 ppm	Attainment	0.030 ppm	Attainment
Sulfur Dioxide	1 hour	0.075 ppm	Attainment	0.25 ppm	Attainment
	24 hours	0.14 ppm	Attainment	0.04 ppm	Attainment
	Annual Avg.	0.030 ppm	Attainment	—	—
PM_{10}	24 hours	150 µg/m^3	Nonattainment	50 µg/m^3	Nonattainment
	Annual Avg.	—	—	20 µg/m^3	Nonattainment
$PM_{2.5}$	24 hours	35 µg/m^3	Nonattainment	—	—
	Annual Avg.	12 µg/m^3	Unclassified/ Attainment	12 µg/m^3	Nonattainment
Lead	Monthly Avg.	—	—	1.5 µg/m^3	Attainment
	Quarterly	1.5 µg/m^3	Attainment	—	—
Hydrogen Sulfide	1 hour	—	—	0.03 ppm	Unclassified
Sulfates	24 hours	—	—	25 µg/m^3	Attainment
Visibility-Reducing Particles	8 hours	—	—	Extinction of 0.23/km; visibility of 10 miles or more	Unclassified
Vinyl Chloride	24 hours	—	—	0.01 ppm	—

NOTES:
µg/m^3 = micrograms per cubic meter; ppm = parts per million; Avg. = Average; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter; PM_{10} = particulate matter 10 microns or less in diameter

[a] A more-stringent 8-hour carbon monoxide state standard exists around Lake Tahoe (6 ppm).

SOURCE: BAAQMD, 2017c.

U.S. EPA classifies geographic areas as either attainment or non-attainment for each criteria air pollutant, based on whether the NAAQS have been achieved. Air districts in areas that are designated non-attainment must prepare regional air quality plans, discussed in further detail below, to be included in the overall State Implementation Plan. Areas that have a "maintenance" designation have been non-attainment for a certain criteria pollutant but have been re-designated as attainment. As shown in Table 4.1-2, the SFBAAB has been classified as a non-attainment area for violation of the state 1-hour and 8-hour ozone standards, the federal ozone 8-hour standard, the state PM_{10} 24-hour and annual average standards, the state $PM_{2.5}$ annual average standard, and the federal $PM_{2.5}$ 24-hour standard.

Hazardous Air Pollutants

Federal law uses the term "hazardous air pollutants" (HAPs) to refer to the same types of compounds that are referred to as TACs under state law; refer to the discussion of state-identified TACs, below. Currently, 187 substances are regulated as HAPs. The federal CAA requires U.S. EPA to identify the National Emission Standards for Hazardous Air Pollutants (NESHAPs) to protect public health and welfare. More than 125 types of stationary sources are regulated under the NESHAPS, while mobile-source emissions of HAPs are regulated through vehicle and fuel standards.

State

California Clean Air Act and California Ambient Air Quality Standards

At the state level, CARB oversees California air quality policies and regulations. California has adopted its own air quality standards, known as CAAQS, as shown in Table 4.1-2. California's ambient standards are at least as protective as the NAAQS and are often more stringent.

In 1988, California enacted the California CAA (California Health and Safety Code Section 39600 et seq.), which called for the designation of areas as attainment or non-attainment based on state ambient air quality standards (i.e., the CAAQS), rather than the federal standards. The California CAA requires each air district in which CAAQS are exceeded to prepare a plan that documents reasonable progress toward attainment. If an air basin (or portion thereof) exceeds the CAAQS for a particular criteria air pollutant, it is considered to be non-attainment for that criteria air pollutant until the area can demonstrate compliance. As indicated in Table 4.1-2, the SFBAAB is classified as non-attainment for 8-hour ozone, 1-hour ozone, annual average PM_{10}, 24-hour PM_{10}, and annual average $PM_{2.5}$.

With respect to the criteria air pollutants identified only by the state of California (sulfates, visibility-reducing particles, and vinyl chloride), the Project would either not generate these pollutants during construction or day-to-day operations; or such emissions would be accounted for as part of the pollutants estimated in this analysis (visibility-reducing particles are associated with PM emissions and sulfates are associated with SO_2). Consequently, these topics are not discussed further.

Toxic Air Contaminants

The California Health and Safety Code defines TACs as air pollutants that may cause or contribute to an increase in mortality or in serious illness, or that may pose a present or potential hazard to human health. The State Air Toxics Program was established in 1983 under AB 1807. A total of 243 substances have been designated as TACs under California law; they include the 187 (federal) HAPs adopted in accordance with state law. The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) seeks to identify, quantify, and evaluate risks from air toxics sources; however, AB 2588 does not regulate air toxics emissions.

Following the designation of DPM emissions from diesel-fueled engines as a TAC, in 2000, CARB approved its comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from

both new and existing diesel-fueled vehicles and engines. Further regulations of diesel emissions by CARB include the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression Ignition Diesel Engines and Equipment Program. All of these regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment (refer to the detailed discussion below).

Community Air Protection Program (AB 617)

AB 617 was promulgated into state law in 2017. The purpose of this legislation is for CARB to establish the Community Air Protection Program (CAPP). CARB's objective in implementing the CAPP is to reduce human health risk levels by reducing air toxics exposure in communities most impacted by TAC emissions. CARB requires that air districts "must initiate community partnerships and undertake a robust public process in developing and implementing the community emissions reduction programs." There have been 17 designated communities throughout the state targeting emissions reductions, community monitoring or both. The majority of AB 617 communities have both reduction and monitoring designations. The state legislature has provided a funding mechanism to support early actions allowing for deployment of cleaner technologies for designated communities as well as grants to promote community participation in both the monitoring and emissions reductions aspects of the program. Other aspects of the program include accelerated retrofit of pollution controls on industrial stationary sources, an increase in financial penalties, and increased transparency and availability of emissions and air quality information thereby driving air pollution control efforts statewide with a goal of improved intra-Air District communication and cooperation.

The Project site is located within East Oakland which was designated a CAPP community in 2021. East Oakland was selected amongst high priority communities in the Bay Area due to longstanding air quality challenges, environmental justice issues, and health inequities. The East Oakland community is home to major goods movement and transportation corridors, as well as air pollution sources associated with industry and the trucking industries. Data shows residents of this community have lower life expectancies and higher mortality rates from lung diseases due to constant exposure to air pollution. This community has a higher rate of asthma emergency room visits and cardiovascular disease than most of California. It also has some of the highest unemployment and housing cost burdens and some of the lowest educational attainment and life expectancy in the State.

East Oakland organizations have partnered with the BAAQMD to build community capacity, increase understanding of local air pollution and environmental justice issues, and bring together cross-agency partnerships necessary for improving environmental health and local air quality improvement. The BAAQMD is partnering with Communities for a Better Environment and other community-based organizations to create a community-based Steering Committee to develop the East Oakland AB 617 Community Emissions Reduction Plan.

California Air Resources Board On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an Airborne Toxic Control Measure (ATCM) to limit idling by heavy-duty diesel motor vehicles to reduce public exposure to DPM and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure prohibits such vehicles from idling for more than five minutes at any given time.

In 2008, CARB approved the Truck and Bus Regulation to reduce NO_X, PM_{10}, and $PM_{2.5}$ emissions from existing diesel vehicles operating in California. The requirements, amended in December 2010, apply to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating greater than 14,000 pounds. For the largest trucks in the fleet (those with a gross vehicle weight rating greater than 26,000 pounds), fleet owners could choose one of two methods to comply with the Truck and Bus Regulation's requirements:

- ***Method 1*:** The fleet owner could retrofit or replace engines, starting with the oldest engine model year, to meet 2010 engine standards or better. These retrofits or replacements are phased over 8 years, starting in 2015, and the entire fleet would be retrofitted or replaced by 2023. Thus, all trucks operating in California for fleet operators choosing this option must meet or exceed the 2010 engine emissions standards for NO_X and PM by 2023.
- ***Method 2*:** Starting in 2012, fleet owners choosing this option were required to retrofit a portion of their fleet with diesel particulate filters achieving at least 85 percent removal efficiency, so that by January 1, 2016, their entire fleet would be equipped with diesel particulate filters. However, diesel particulate filters do not typically lower NO_X emissions. Thus, fleet owners choosing this method would still have to comply with the 2010 engine emission standards for their trucks and buses by 2020. As of January 1, 2020, this requirement is enforced by the California Department of Motor Vehicles (DMV) through the vehicle registration process.

Senate Bill (SB) 1, the Road Repair and Accountability Act of 2017, was signed into law on April 28, 2017. SB 1 authorizes the DMV to check that vehicles are compliant with or exempt from CARB's Truck and Bus Regulation. As of January 1, 2020, if a vehicle is not compliant with the rule, DMV will no longer register that vehicle.

In addition to limiting exhaust from idling trucks, CARB promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation adopted by CARB on July 26, 2007, aims to reduce emissions by calling for installation of diesel soot filters and encouraging the retirement or replacement, or repowering of older, dirtier engines with newer emission-controlled models. Implementation is staggered based on fleet size (the total of all off-road horsepower under common ownership or control). The largest fleets were to begin compliance by January 1, 2014. Each fleet must demonstrate compliance through one of two methods:

- ***Method 1*:** Calculate and maintain fleet-average emissions targets. This method encourages the retirement or repowering of older equipment and rewards the introduction of newer cleaner units into the fleet.

- ***Method 2*:** Meet the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies (e.g., engine retrofits) on a certain percentage of the total fleet horsepower. The compliance schedule requires full implementation of BACT turn-overs or retrofits by 2023 in all equipment in large and medium fleets and across 100 percent of small fleets by 2028.

Regional

BAAQMD has jurisdiction over the SFBAAB and monitors and regulates air quality in the region by inspecting and issuing permits for stationary sources of air pollution, responding to citizen complaints, and executing programs to reduce air pollution throughout the region.

BAAQMD Air Quality Plans

As demonstrated in Table 4.1-2, the SFBAAB is designated as nonattainment for both the federal and state ozone and PM standards. As a result, BAAQMD is required to prepare air quality plans under the CAA and the California CAA to meet the federal and state air quality standards in areas that are designated non-attainment. Maintenance plans are required for attainment areas that had previously been designated non-attainment to ensure continued attainment of the standards. Because of the SFBAAB's classification as "serious" non-attainment for the 1-hour ozone standard, BAAQMD is required to update its air quality plan every three years to reflect progress toward meeting attainment status.

In April 2017, BAAQMD adopted the most recent update to its Clean Air Plan (CAP), the *2017 Clean Air Plan*, whose primary goals are to protect public health and to protect the climate (BAAQMD, 2017b). The 2017 CAP updates the Bay Area 2010 CAP and complies with state air quality planning requirements, as codified in the California Health and Safety Code (although the 2017 plan was delayed beyond the three-year update requirement of the code). State law requires the CAP to include all feasible measures to reduce emissions of ozone precursors and to reduce the transport of ozone precursors to neighboring air basins.

The 2017 CAP contains 85 measures to address reduction of several pollutants: ozone precursors, PM, air toxics, and GHGs. Other measures focus on a single type of pollutant: super GHGs such as methane and black carbon that consist of harmful fine particles that affect public health.

BAAQMD CEQA Guidelines and Thresholds of Significance

The *BAAQMD CEQA Air Quality Guidelines* is an advisory document that provides lead agencies, consultants, and project proponents with procedures for assessing air quality impacts and preparing environmental review documents. The document describes the criteria that BAAQMD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for use in determining whether projects would have significant adverse environmental impacts, identifies methods for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts.

BAAQMD updated the 1999 CEQA Air Quality Guidelines in 2010. In May 2011, BAAQMD adopted an updated version of its thresholds of significance for use in determining the significance

of projects' environmental effects under CEQA (Thresholds), and published its CEQA Guidelines for consideration by lead agencies. The 2011 CEQA Guidelines Thresholds lowered the previous (1999) thresholds of significance for annual emissions of ROG, NO_X, and PM_{10}, and set a standard for $PM_{2.5}$. The 2011 CEQA Guidelines also include methods for evaluating risks and hazards for the siting of stationary sources and of sensitive receptors.

The BAAQMD resolution adopting the significance thresholds in 2010 and 2011 was set aside by the Alameda County Superior Court on March 5, 2012. On August 13, 2013, the California Court of Appeals issued a full reversal of the Superior Court's judgment, and on December 17, 2015, the California Supreme Court reversed in part the appellate court's judgment and remanded the case for further consideration consistent with the Supreme Court opinion. The California Supreme Court ruled unanimously that CEQA review is focused on a project's impact on the environment "and not the environment's impact on the project" (*California Building Industry Association v. Bay Area Air Quality Management District* [December 17, 2015] 62 Cal.4th 369). The Supreme Court confirmed that "agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future residents or users." The Court also held that when a project has "potentially significant exacerbating effects on existing environmental hazards" those impacts are properly within the scope of CEQA because they can be viewed as impacts of the project on "existing conditions" rather than impacts of the environment on the project.

BAAQMD most recently updated its *CEQA Air Quality Guidelines* in May 2017. These guidelines provide recommend quantitative significance thresholds along with direction on recommended analysis methods. BAAQMD states that the quantitative significance thresholds are "advisory and should be followed by local governments at their own discretion," and that lead agencies are fully within their authority to develop their own thresholds of significance. However, BAAQMD offers these thresholds for lead agencies to use in order to inform environmental review for development projects in the Bay Area. Lead agencies may also reference the *CEQA Thresholds Options and Justification Report* developed by BAAQMD staff in 2009. This option provides lead agencies with a justification for continuing to rely on the BAAQMD 2011 thresholds.

BAAQMD Rules and Regulations

Emissions sources associated with the Project would be subject to regulatory requirements in the BAAQMD rules and regulations listed below:

> **Regulation 2, Rules 1 (General Permit Requirements), 2 (New Source Review), and 5 (New Source Review of Toxic Air Contaminants).** Under these rules, all stationary sources that have the potential to emit TACs above a certain level are required to obtain permits from BAAQMD. These rules provide guidance for the review of new and modified stationary sources of TAC emissions, including evaluation of health risks and potential mitigation measures. The regulation also reduces health risks by requiring improved pollution control when existing sources are modified or replaced. If it is determined that a facility's emissions would exceed BAAQMD's threshold of significance for TACs, the source would then be required to implement BACT for Toxics to reduce emissions. Sources of HAPs may also be required to implement Maximum Achievable Control Technology. The proposed emergency generator would be subject to these rules.

Regulation 6, Rule 6. Controls trackout of solid material onto public paved roads from three types of sites: large bulk material sites, large construction sites, and large disturbed area sites.

Regulation 8, Rule 3. Regulates the quantity of VOCs in architectural coatings supplied, sold, offered for sale, applied, solicited for application, or manufactured.

Regulation 9, Rule 8. Imposes emissions limits on spark-ignited engines powered by waste and fossil-derived fuels, compression-ignited engines, and dual fuel pilot compression-ignited engines. limits the hours of operation for emergency standby engines, which must be equipped with a non-resettable totalizing meter that measures either hours of operation or fuel usage.

Regulation 11, Rule 2. Controls emissions of asbestos to the atmosphere during demolition, renovation, milling, and manufacturing and prohibits the use of asbestos on certain roadways, in molded insulating materials, and on buildings during construction, alteration, and/or repair. The rule also prohibits visible emissions from any operation involving the demolition, renovation, removal, manufacture, or fabrication of asbestos-containing products and specifies procedures to be implemented during these activities. This rule also includes required procedures for waste disposal and requirements for waste disposal sites to prevent emissions from asbestos-containing materials.

Metropolitan Transportation Commission/Association of Bay Area Governments Sustainable Communities Strategy

The Metropolitan Transportation Commission (MTC) is the federally recognized Metropolitan Planning Organization for the nine-county Bay Area, which includes Alameda County and the City of Oakland. On July 18, 2013, *Plan Bay Area* was jointly approved by the Association of Bay Area Governments' (ABAG's) Executive Board and by MTC (MTC & ABAG, 2013). The plan includes the region's Sustainable Communities Strategy (SCS), as required under SB 375, and the Regional Transportation Plan. Though the purpose of the SCS is to lay out how the region will meet GHG emissions reduction targets set by CARB, by concentrating future growth within Priority Development Areas (PDAs) and Transit Priority Areas (TPAs), the reduction in VMT will also reduce criteria air pollutant emissions.[4]

On July 26, 2017, MTC adopted *Plan Bay Area 2040*, a focused update that builds upon the growth pattern and strategies developed in the original *Plan Bay Area* (2013), but with updated planning assumptions that incorporate key economic, demographic, and financial trends since the original plan was adopted (MTC & ABAG, 2017).

Most recently, on October 21, 2021, the MTC and ABAG jointly adopted Plan Bay Area 2050 as the official regional long-range plan for the Bay Area. Plan Bay Area 2050 connects the elements of housing, the economy, transportation and the environment through 35 strategies that will make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. In the short-term, the plan's Implementation Plan identifies more than 80 specific actions for MTC, ABAG and partner organizations to implement over the next five years to make headway on each of the 35 strategies (MTC & ABAG, 2021). It will be several years before the

[4] To be eligible for designation as a Priority Development Area, an area must be within an existing community, near existing or planned fixed transit or served by comparable bus service, and planned for more housing. A Transit Priority Area is an area within one-half mile of an existing or planned major transit stop such as a rail transit station, a ferry terminal served by transit, or the intersection of two or more major bus routes.

regional transportation model and county transportation models are updated to reflect Plan Bay Area 2050 (the models currently incorporate data from Plan Bay Area 2040).

The Project site is located within the Fruitvale and Dimond Areas PDA as defined by Plan Bay Area 2050 and is therefore consistent with the region's Sustainable Communities Strategy (MTC, 2022).

Local

City of Oakland General Plan

Land Use and Transportation Element (LUTE)

The LUTE of the Oakland General Plan (City of Oakland, 2007a) accounts for the air quality considerations of land use compatibility decisions with an objective to minimize land use compatibility conflicts (Objective I/C4), including the following policies:

> ***Policy I/C4.1: Protecting Existing Activities*.** Existing industrial, residential, and commercial activities and areas which are consistent with long term land use plans for the City should be protected from the intrusion of potentially incompatible land uses.
>
> ***Policy I/C4.2: Minimizing Nuisances*.** The potential for new or existing industrial or commercial uses, including seaport and airport activities, to create nuisance impacts on surrounding residential land uses should be minimized through appropriate siting and efficient implementation and enforcement of environmental and development controls. Where residential development would be located above commercial uses, parking garages, or any other uses with a potential to generate odors, the odor-generating use should be properly vented (e.g., located on rooftops) and designed (e.g., equipped with afterburners) so as to minimize the potential for nuisance odor problems.

Open Space, Conservation, and Recreation (OSCAR) Element

The OSCAR Element of the Oakland General Plan contains the following air quality objective and policies that would apply to the Project (City of Oakland, 1996).

> **Objective CO-12: Air Resources.** To improve air quality in Oakland and the surrounding Bay Region.
>
> ***Policy CO-12.4: Design of Development to Minimize Air Quality Impacts*.** Require that development projects be designed in a manner which reduces potential adverse air quality impacts. This may include: (a) the use of vegetation and landscaping to absorb CO and to buffer sensitive receptors; (b) the use of low-polluting energy sources and energy conservation measures; and (c) designs which encourage transit use and facilitate bicycle and pedestrian travel.
>
> ***Policy CO-12.5: Use of Best Available Control Technology*.** Require new industry to use best available control technology to remove pollutants, including filtering, washing, or electrostatic treatment of emissions.
>
> ***Policy CO-12.6: Control of Dust Emissions*.** Require construction, demolition, and grading practices which minimize dust emissions. These practices are currently required by the City and include the following:

- Avoiding earth moving and other major dust generating activities on windy days.
- Sprinkling unpaved construction areas with water during excavation, using reclaimed water where feasible (watering can reduce construction-related dust by 50 percent).
- Covering stockpiled sand, soil, and other particulates with a tarp to avoid blowing dust.
- Covering trucks hauling dirt and debris to reduce spills. If spills do occur, they should be swept up promptly before materials become airborne.
- Preparing a comprehensive dust control program for major construction in populated areas or adjacent to sensitive uses like hospitals and schools.
- Operating construction and earth-moving equipment, including trucks, to minimize exhaust emissions.

Policy CO-12.7: Regional Air Quality Planning. Coordinate local air quality planning efforts with other agencies, including adjoining cities and counties and the public agencies responsible for monitoring and improving air quality. Cooperate with regional agencies such as the BAAQMD, the MTC, the ABAG, and the Alameda County Congestion Management Agency in developing and implementing regional air quality strategies. Continue to work with BAAQMD and the California Air Resources Board in enforcing the provisions of the California and federal Clean Air Acts, including the monitoring of air pollutants on a regular and ongoing basis.

Oakland Municipal Code

Per the City of Oakland Municipal Code, Title 15 Buildings and Construction, Chapter 15.36 Demolition Permits, 15.36.100 Dust Control Measures:

> *"Best Management Practices" shall be used throughout all phases of work, including suspension of work, to alleviate or prevent fugitive dust nuisance and the discharge of smoke or any other air contaminants into the atmosphere in such quantity as will violate any city or regional air pollution control rules, regulations, ordinances, or statutes. Water or dust palliatives or combinations of both shall be applied continuously and in sufficient quantity during the performance of work and at other times as required. Dust nuisance shall also be abated by cleaning and sweeping or other means as necessary. A dust control plan may be required as condition of permit issuance or at other times as may be deemed necessary to assure compliance with this section. Failure to control effectively or abate fugitive dust nuisance or the discharge of smoke or any other air contaminants into the atmosphere may result in suspension or revocation of the permit, in addition to any other applicable enforcement actions or remedies. (Ord. 12152 Section 1, 1999).*

The City of Oakland has implemented Green Building principles in city buildings through the following programs: Civic Green Building Ordinance (Ordinance No. 12658 C.M.S., 2005), requiring, for certain large civic projects, techniques that minimize the environmental and health impacts of the built environment through energy, water and material efficiencies and improved indoor air quality, while also reducing the waste associated with construction, maintenance and remodeling over the life of the building; Green Building Guidelines (Resolution No. 79871, 2006) which provides guidelines to Alameda County residents and developers regarding construction and remodeling; and Green Building Education Incentives for private developers.

These actions reduce natural gas use in buildings, which reduces criteria pollutant emissions from natural gas combustion.

As of March 2017, Chapter 15.04, Part 11 of the City's Municipal Code requires all new multifamily and non-residential buildings to include full circuit infrastructure for plug-in electric vehicle (PEV) charging stations for at least 10 percent of the total parking spaces. In addition, inaccessible conduits for future expansion of PEV spaces must be installed for 90 percent of the total parking at multi-family buildings and 10 percent of the total parking at non-residential buildings. The new requirements are designed to accelerate the installation of vehicle chargers to address demand. The replacement of gasoline and diesel vehicles with electric vehicles will reduce criteria air pollutants associated with traditional vehicle fuel combustion.

As of December 1, 2020, the Oakland City Council voted to amend the City's Municipal Code to prohibit the use of fossil fuel gas in all newly constructed buildings. This includes the use of natural gas in both residential and commercial buildings. The ordinance allows for developers who can demonstrate that it is not feasible for a new building to go 100 percent electric to apply for a waiver.

City of Oakland Energy and Climate Action Plan

In July 2020, via Resolution 88267, Oakland City Council adopted the 2030 Equitable Climate Action Plan (ECAP), a comprehensive plan to achieve the 2030 GHG reduction target and increase Oakland's resilience to the impacts of the climate crisis, both through a deep equity lens (City of Oakland, 2020a). Alongside the 2030 ECAP, Council also adopted a goal to achieve community-wide carbon neutrality no later than 2045 (City of Oakland, 2020b). Achieving carbon neutrality will require complete decarbonization (ensuring that all mechanical systems run on clean electricity) of Oakland's building sector. The 2030 ECAP includes a set of 40 Actions projected to result in a 60 percent reduction in GHG emissions by 2030, relative to Oakland's 2005 emission levels. Actions are split into seven sectors: Transportation and Land Use, Buildings, Material Consumption and Waste, Adaptation, Carbon Removal, City Leadership, and Port of Oakland.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to reducing impacts on air quality and health risk that apply to the Project are listed below. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to air quality and health risk. Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

SCA AIR-1: Dust Controls – Construction Related (*Standard Condition of Approval 20*)

Requirement: The project applicant shall implement all of the following applicable dust control measures during construction of the project:

a) Water all exposed surfaces of active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site.

Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever feasible.

b) Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).

c) All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d) Limit vehicle speeds on unpaved roads to 15 miles per hour.

e) All demolition activities (if any) shall be suspended when average wind speeds exceed 20 mph.

f) All trucks and equipment, including tires, shall be washed off prior to leaving the site.

g) Site accesses to a distance of 100 feet from the paved road shall be treated with a 6- to 12-inch compacted layer of wood chips, mulch, or gravel.

Enhanced Controls: All "Basic" controls listed above plus the following controls if the project involves:

- Extensive site preparation (i.e., the construction site is four acres or more in size); or
- Extensive soil transport (i.e., 10,000 or more cubic yards of soil import/export).

h) Apply and maintain vegetative ground cover (e.g., hydroseed) or non-toxic soil stabilizers to disturbed areas of soil that will be inactive for more than one month. Enclose, cover, water twice daily, or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).

i) Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress.

j) When working at a site, install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of the site, to minimize wind-blown dust. Windbreaks must have a maximum 50 percent air porosity.

k) Post a publicly visible large on-site sign that includes the contact name and phone number for the project complaint manager responsible for responding to dust complaints and the telephone numbers of the City's Code Enforcement unit and the Bay Area Air Quality Management District. When contacted, the project complaint manager shall respond and take corrective action within 48 hours.

l) All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

SCA AIR-2: Criteria Air Pollutants – Construction Related (*Standard Condition of Approval 21*)

Requirement: The project applicant shall implement all of the following applicable basic control measures for criteria air pollutants during construction of the project as applicable:

a) Idling times on all diesel-fueled commercial vehicles over 10,000 lbs. shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations). Clear signage to this effect shall be provided for construction workers at all access points.

b) Idling times on all diesel-fueled off-road vehicles over 25 horsepower shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to two minutes and fleet operators must develop a written policy as required by Title 23, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations").

c) All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation. Equipment check documentation should be kept at the construction site and be available for review by the City and the Bay Area Air Quality District as needed.

d) Portable equipment shall be powered by grid electricity if available. If electricity is not available, propane or natural gas generators shall be used if feasible. Diesel engines shall only be used if grid electricity is not available and propane or natural gas generators cannot meet the electrical demand.

e) Low-VOC (i.e., ROG) coatings shall be used that comply with BAAQMD Regulation 8, Rule 3: Architectural Coatings.

f) All equipment to be used on the construction site shall comply with the requirements of Title 13, Section 2449, of the California Code of Regulations ("California Air Resources Board Off-Road Diesel Regulations") and upon request by the City (and the Air District if specifically requested), the project applicant shall provide written documentation that fleet requirements have been met.

Enhanced Controls: All "Basic" controls listed above plus the following controls if the project involves:

- Construction activities with average daily emissions exceeding the CEQA thresholds for construction activity, currently 54 pounds per day of ROG, NOx, or $PM_{2.5}$ or 82 pounds per day of PM_{10}.

g) Criteria Air Pollutant Reduction Measures

Requirement: The project applicant shall retain a qualified air quality consultant to identify criteria air pollutant reduction measures to reduce the project's average daily emissions below 54 pounds per day of ROG, NOx, or $PM_{2.5}$ or 82 pounds per day of PM_{10}. Quantified emissions and identified reduction measures shall be submitted to the City (and the Air District if specifically requested) for review and approval prior

to the issuance of building permits and the approved criteria air pollutant reduction measures shall be implemented during construction.

h) Construction Emissions Minimization Plan

Requirement: The project applicant shall prepare a Construction Emissions Minimization Plan (Emissions Plan) for all identified criteria air pollutant reduction measures. The Emissions Plan shall be submitted to the City (and the B if specifically requested) for review and approval prior to the issuance of building permits. The Emissions Plan shall include the following:

i. An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment identification number, engine model year, engine certification (tier rating), horsepower, and engine serial number. For all Verified Diesel Emissions Control Strategies (VDECS), the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, CARB verification number level, and installation date.

ii. A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract.

SCA AIR-3: Diesel Particulate Matter Controls – Construction Related (*Standard Condition of Approval 22*)

a. Diesel Particulate Matter Reduction Measures

Requirement: The project applicant shall implement appropriate measures during construction to reduce potential health risks to sensitive receptors due to exposure to diesel particulate matter (DPM) from construction emissions. The project applicant shall choose **one** of the following methods:

i. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with current guidance from the California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment to determine the health risk to sensitive receptors exposed to DPM from project construction emissions. The HRA shall be submitted to the City (and the Air District if specifically requested) for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then DPM reduction measures are not required. If the HRA concludes that the health risk exceeds acceptable levels, DPM reduction measures shall be identified to reduce the health risk to acceptable levels as set forth under subsection b below. Identified DPM reduction measures shall be submitted to the City for review and approval prior to the issuance of building permits and the approved DPM reduction measures shall be implemented during construction.

OR

ii. All off-road diesel equipment shall be equipped with the most effective Verified Diesel Emission Control Strategies (VDECS) available for the engine type (Tier 4 engines automatically meet this requirement) as certified by CARB. The equipment shall be properly maintained and tuned in accordance with manufacturer specifications. This shall be verified through an equipment

inventory submittal and Certification Statement that the Contractor agrees to compliance and acknowledges that a significant violation of this requirement shall constitute a material breach of contract.

b. Construction Emissions Minimization Plan (if required by a above

Requirement: The project applicant shall prepare a Construction Emissions Minimization Plan (Emissions Plan) for all identified DPM reduction measures (if any). The Emissions Plan shall be submitted to the City (and the Bay Area Air Quality District if specifically requested) for review and approval prior to the issuance of building permits. The Emissions Plan shall include the following:

i. An equipment inventory summarizing the type of off-road equipment required for each phase of construction, including the equipment manufacturer, equipment identification number, engine model year, engine certification (tier rating), horsepower, and engine serial number. For all VDECS, the equipment inventory shall also include the technology type, serial number, make, model, manufacturer, CARB verification number level, and installation date.

ii. A Certification Statement that the Contractor agrees to comply fully with the Emissions Plan and acknowledges that a significant violation of the Emissions Plan shall constitute a material breach of contract.

SCA AIR-4: Stationary Sources of Air Pollution - Toxic Air Contaminants (*Standard Condition of Approval 24*)

Requirement: The project applicant shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to on-site stationary sources of toxic air contaminants. The project applicant shall choose **one** of the following methods:

a. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with California Air Resources Board (CARB) and Office of Environmental Health and Hazard Assessment requirements to determine the health risk associated with proposed stationary sources of pollution in the project. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then health risk reduction measures are not required. If the HRA concludes the health risk exceeds acceptable levels, health risk reduction measures shall be identified to reduce the health risk to acceptable levels. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. The approved risk reduction measures shall be implemented during construction and/or operations as applicable.

OR

b. The project applicant shall incorporate the following health risk reduction measures into the project. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City:

   i. Installation of non-diesel fueled generators, if feasible, or;

ii. Installation of diesel generators with an EPA-certified Tier 4 engine or engines that are retrofitted with a CARB Level 3 Verified Diesel Emissions Control Strategy, if feasible.

SCA AIR-5: Truck-Related Risk Reduction Measures – Toxic Air Contaminants (*Standard Condition of Approval 25*)

a. Truck Loading Docks

Requirement: The project applicant shall locate proposed truck loading docks as far from nearby sensitive receptors as feasible.

b. Truck Fleet Emission Standards

Requirement: The project applicant shall comply with all applicable California Air Resources Board (CARB) requirements to control emissions from diesel engines and demonstrate compliance to the satisfaction of the City. Methods to comply include, but are not limited to, new clean diesel trucks, higher-tier diesel engine trucks with added Particulate Matter (PM) filters, hybrid trucks, alternative energy trucks, or other methods that achieve the applicable CARB emission standard. Compliance with this requirement shall be verified through CARB's Verification Procedures for In-Use Strategies to Control Emissions from Diesel Engines.

SCA AIR-6: Asbestos in Structures (*Standard Condition of Approval 26*)

Requirement: The project applicant shall comply with all applicable laws and regulations regarding demolition and renovation of Asbestos Containing Materials (ACM), including but not limited to California Code of Regulations, Title 8; California Business and Professions Code, Division 3; California Health and Safety Code sections 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended. Evidence of compliance shall be submitted to the City upon request.

4.1.4 Environmental Impacts and Mitigation Measures

Significance Criteria

Appendix G of the CEQA Guidelines contain the following criteria for the evaluation of a project's air quality impacts. The Project would result in a significant air quality impact if it would:

1. Conflict with or obstruct implementation of the applicable air quality plan;
2. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard;
3. Expose sensitive receptors to substantial pollutant concentrations; or
4. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The City of Oakland has established thresholds of significance for CEQA impacts which are consistent with those in Appendix G of the CEQA Guidelines. These adopted thresholds are presented below and have been used in the analysis.

The Project would have a significant impact on the environment if it would:

1. During project construction result in average daily emissions of 54 pounds per day of ROG, NO_X, or $PM_{2.5}$ or 82 pounds per day of PM_{10};

2. During project operation result in average daily emissions of 54 pounds per day of ROG, NO_X, or $PM_{2.5}$ or 82 pounds per day of PM_{10}; or result in maximum annual emissions of 10 tons per year of ROG, NO_X, or $PM_{2.5}$ or 15 tons per year of PM_{10};

3. Contribute to CO concentrations exceeding the California Ambient Air Quality Standards (CAAQS) of nine ppm averaged over eight hours and 20 ppm for one hour;

4. For new sources of TACs, during either project construction or project operation expose sensitive receptors to substantial levels of TACs under project conditions resulting in (a) an increase in cancer risk level greater than 10 in 1 million, (b) an increase in non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average $PM_{2.5}$ concentration of greater than 0.3 micrograms per cubic meter ($\mu g/m^3$); or, under cumulative conditions, during either project construction or project operation expose existing sensitive receptors to substantial levels of TACs resulting in (a) a cancer risk level greater than 100 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ concentration of greater than 0.8 $\mu g/m^3$ [NOTE: Pursuant to the BAAQMD CEQA Guidelines, when siting new TAC sources consider receptors located within 1,000 feet. For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers. The cumulative analysis should consider the combined risk from all TAC sources.];

5. Expose new sensitive receptors to substantial ambient levels of TACs associated with project construction or project operation resulting in (a) a cancer risk level greater than 10 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) annual average $PM_{2.5}$ concentration of greater than 0.3 $\mu g/m^3$; or, under cumulative conditions, expose new sensitive receptors to substantial ambient levels of TACs during either project construction or project operation resulting in (a) a cancer risk level greater than 100 in a million, (b) a non-cancer risk (chronic or acute) hazard index greater than 10.0, or (c) annual average $PM_{2.5}$ concentration of greater than 0.8 $\mu g/m^3$ [NOTE: Pursuant to the BAAQMD CEQA Guidelines, when siting new sensitive receptors consider TAC sources located within 1,000 feet including, but not limited to, stationary sources, freeways, major roadways (greater than 10,000 vehicles per day), truck distribution centers, airports, seaports, ferry terminals, and rail lines. For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers.]; or

6. Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people.

Specifically, Appendix G criterion (b) "Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard" is addressed through the City's criteria 1, 2 and 3 above. Appendix G criterion (c) is addressed through the City's criteria 4 and 5 above and Appendix G criterion (d) is addressed through the City's criterion 6. In addition, the analysis below also addresses Appendix G air quality criterion (a) "Conflict with or obstruct implementation of the applicable air quality plan."

The City's thresholds of significance pertaining to air quality are generally based on the thresholds adopted by the BAAQMD in June 2010 and included in the 2017 Guidelines. Pursuant to CEQA, lead agencies must apply appropriate thresholds based on substantial evidence in the record. The City's thresholds rely upon the technical and scientific basis for BAAQMD's 2010 thresholds.

Approach to Analysis

Project-related air quality impacts fall into two categories: short-term impacts due to construction, and long-term impacts due to project operation. During construction of the Project, criteria air pollutants would be generated primarily from the combustion of fuel in construction equipment and vehicle trips associated with worker commute, material delivery, and hauling. In addition, construction activities would affect local particulate concentrations due to fugitive dust generated from ground disturbance activities and vehicle travel on unpaved surfaces. The Project would be constructed over 17 months starting in the first quarter of 2024[5] and would involve demolition of several vacant existing buildings totaling 1.24 million square feet and the construction of a single building providing approximately 430,000 square feet of space.[6] The Project would also include offsite improvements to re-open Boehmer Street to create a new connection between 36th and 37th Avenues, and extend 37th Avenue south up to Alameda Avenue along the eastern boundary of the Project site.

Operational emissions from the Project would be generated primarily from increase in vehicle trips (primarily truck trips), operation of material handling equipment at the Project site, operation of the emergency backup generator for routine testing and maintenance, and other area sources (such as landscaping, use of architectural coatings for maintenance activities, etc.). The Project would not provide a natural gas connection consistent with the City of Oakland's Municipal Code Chapter 15.37 requiring all-electric construction in newly constructed buildings. Therefore, there would be no criteria air pollutant emissions associated with energy use in the Project building. Material handling equipment used within the warehouse building would be powered by propane while the yard tractors used in the trailer parking area would be diesel-fueled. The end user and nature of the use is unknown at this time but, for the purposes of this analysis, is assumed to be a distribution warehouse facility with no refrigeration.

[5] The analysis presented in this section assumes construction to begin in late 2022 and to be completed by mid-2024 as anticipated at the time the analysis was conducted. A later construction start date would result in lower emissions than presented in this analysis because emissions are expected to decrease over time due to improvements in technology and regulatory requirements.

[6] The analysis presented in this section assumes an approximately 427,000 square foot project building. The slightly larger proposed structure would not result in a meaningful increase in the estimates presented here. In addition, this Draft EIR assumes an approximately 430,000 square foot project building. Since the time of Draft EIR development, the Project Applicant has since put forth a revised proposal for an approximately 424,320 square foot project building. Therefore, this Draft EIR, including this Air Quality section, describes a modestly larger structure and thus serves as a conservative analysis.

Construction Impacts

Construction Criteria Air Pollutant Emissions

Criteria air pollutant emissions generated from construction activities include:

- Exhaust emissions from fuel combustion for mobile heavy-duty diesel and gasoline-powered equipment (including construction equipment, on-road haul trucks and vendor trucks and employee vehicles);
- Particulate matter from soil disturbance during site preparation and grading activities (also known as fugitive dust); and
- Evaporative emissions of ROG from paving activity and the application of architectural coatings.

Construction emissions were estimated using the latest version of the California Emissions Estimator Model (CalEEMod version 2020.4.0). CalEEMod is an emissions estimation/evaluation model that was developed in collaboration with the air quality management districts of California. Project-specific inputs to the model included types and sizes of land uses proposed for construction, site area, demolition area, infill and off-haul volumes, starting year of construction and construction schedule, duration of the various construction phases, types, number and activity level of equipment used under each phase as well as the number of worker and truck trips associated with each phase.

Total Project construction emissions as derived using CalEEMod are divided by the total number of workdays over the construction period (taking into account any overlapping phases) to derive average daily emissions. Estimated average daily construction-related emissions of criteria air pollutants are then compared to City's significance thresholds discussed above to determine significance of impacts.

All assumptions, calculations and CalEEMod inputs and outputs used in the estimation of construction emissions are included in Appendix C.

Construction Health Risk

An HRA was completed to evaluate increase in health risks to nearby off-site receptors (i.e., residents) from exposure to construction TACs from the Project. The HRA focused on DPM emissions and estimated cancer risks, chronic health hazards, and $PM_{2.5}$ concentrations at off-site residences and schools/pre-schools located within 1,000 feet of the Project site. The HRA was conducted using guidelines from the BAAQMD, CAPCOA and OEHHA, and analyzes the potential health risk and hazard impacts at the receptor that would be exposed to the maximum risk and hazard.

For construction activities, DPM exposure represents the primary health hazard. As discussed earlier, DPM is a complex mixture of chemicals and particulate matter identified by the state as a TAC with potential cancer and chronic non-cancer effects. DPM emissions would be generated by the operation of off-road construction equipment (e.g., excavators, loaders, cranes, graders) and on-road diesel-fueled heavy-duty vehicles. Although other exposure pathways exist (i.e., ingestion, dermal contact), the inhalation pathway is the dominant exposure pathway from DPM

for both cancer risk and chronic non-cancer health effects. Consequently, the HRA only evaluates the inhalation cancer and chronic non-cancer effects of DPM inhalation.

Average annual DPM emissions for each year of construction of the Project were estimated based on CalEEMod outputs. Annual DPM emissions for each construction year were averaged over the number of construction workdays within each year to generate an annual DPM emission rate for each construction year. PM_{10} is conservatively used as a surrogate for DPM. Similarly, exhaust $PM_{2.5}$ emission rates were also calculated for each construction year.

The AERMOD (version 18081) dispersion model was used to convert construction DPM and $PM_{2.5}$ emission rates derived above to annual DPM and $PM_{2.5}$ concentrations. A receptor grid was placed around the Project site to cover all sensitive receptors up to 1,000 feet from the Project site boundaries. In addition to residential receptors, the receptor grid includes schools and daycares. Modeling inputs and assumptions for the AERMOD run can be found in Appendix C. The annual concentration resulting from the dispersion modeling was applied to the yearly DPM and $PM_{2.5}$ emission rates estimated using CalEEMod, to represent the DPM and $PM_{2.5}$ concentrations at each receptor for each construction year.

Finally, the calculated DPM concentrations at the receptors for each construction year were applied to the OEHHA unit risk methodologies to calculate the potential increase in lifetime cancer risk, chronic non-cancer risk and $PM_{2.5}$ concentrations from the Project's construction activities over the construction duration (OEHHA, 2015). The maximum impacted receptor was identified and the estimated increase in lifetime cancer risk was compared to the City and BAAQMD project-level threshold of 10 in one million.

Non-cancer health hazards for chronic diseases are expressed in terms of a hazard index (HI), a ratio of TAC concentration to reference exposure level (REL), below which no adverse health effects are expected, even for sensitive individuals. OEHHA has recommended an ambient concentration of 5 $\mu g/m^3$ as the chronic inhalation REL for DPM exhaust. The maximum HI, calculated as the ratio of maximum annual DPM concentration to the REL is compared to the City and BAAQMD threshold of 1.0, to determine significance. The estimated maximum annual $PM_{2.5}$ concentrations is compared to the City and BAAQMD threshold of 0.3 $\mu g/m^3$ to evaluate impacts.

OEHHA equations and the health impact calculations are detailed in Appendix C.

Operational Impacts

Operational Criteria Air pollutants

Once operational, the Project would result in criteria air pollutant emissions from the following sources:

- Employee and truck trips generated by the Project uses
- Operation of material handling equipment at the warehouse
- Area sources
- Testing of the emergency generator.

Each of these sources is further discussed below.

Mobile Sources. Increased vehicle emissions associated with the Project would notably be from the truck traffic serving the Project uses and form a major source of operational emissions. The average daily trip generation data for truck trips and other vehicle trips were derived from the transportation analysis in Section 4.6, *Transportation and Traffic*. Although the Project would be a warehouse and is expected to generate large number of truck trips, the VMT assessment for the Project only includes the VMT generated by passenger vehicles and does not include the VMT generated by the trucks, consistent with SB743 requirements. Therefore, default trip lengths in CalEEMod were used. In addition to exhaust emissions, vehicles would also generate PM_{10} and $PM_{2.5}$ emissions from entrained road dust and tire and brake wear.

Material Handling Equipment. Based on data provided by the Project Applicant, this analysis assumes the operation of five propane-fueled forklifts within the warehouse operating for 4 hours per day and two diesel-fueled yard tractors in the trailer parking area to the south of the warehouse operating eight hours per day. The warehouse is assumed to be operational 365 days a year.

Area Sources. CalEEMod defaults were used to estimate area source emissions from the Project's operational uses such as landscaping activities, use of consumer products such as cleaning products, and architectural coatings used in building maintenance.

Emergency Generator. The Project would include one 350 hp emergency generator, which would need to be tested regularly for maintenance. The emergency generator would be subject the BAAQMD's permitting requirements and testing would be limited to a maximum of one hour per day and 50 hours per year.

Operational emissions were estimated using the CalEEMod. Inputs and assumptions used in modeling are detailed in Appendix C.

Emissions from operations were assumed to occur 365 days a year (i.e., annual emissions were divided by 365 days to arrive at average daily emissions). Impacts were determined by comparing the Project emissions to the City's significance thresholds for operation detailed earlier.

Operational Health Risk

Emissions of TACs, primarily DPM during operation, would result from heavy-duty truck trips generated by the Project, operation of diesel-fueled material handling equipment at the Project site and operation of the proposed emergency generator for testing and maintenance purposes. Truck trips to the Project site would be diesel-fueled and would expose receptors in the Project vicinity and along truck access routes to DPM emissions. Operational truck trips were modeled in AERMOD as three line-area sources:

- Along Alameda Avenue to High Street carrying 100 percent of the total inbound and outbound truck trips,
- Along Oakport Street from I-880 to High Street carrying 35 percent of the inbound truck traffic, and

- Along Coliseum Way from High Street to northbound I-880 carrying 35 percent of the outbound truck traffic.

Emissions from trucks idling at the Project site would be subject to CARB idling regulations per California Code of Regulations Section2485, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling. The emergency generator was modeled as a point source (stack) conservatively placed closer to the northern side of the building. It was modeled as being vented through the rooftop of the 36 feet high warehouse building with a stack height of 3.66 meters and stack height of 0.183 meters (San Francisco Department of Public Health [SF DPH] & SF Planning, 2020).

Emissions generated from idling of trucks within the parking area and at the loading docks as well as the operation of the yard tractors to move parked trailers around was modeled as an area source. Concentrations modeled in AERMOD were used in conjunction with OEHHA risk assessment parameters to estimate operational health risks assuming an operational exposure of 30 years.

Consistency with Clean Air Plan

As discussed above, the applicable air quality plan is the BAAQMD's 2017 CAP, which identifies measures to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce GHG emissions. Consistency with the CAP can be determined if a project were to support the goals of the plan, include applicable control measures from the plan and would not disrupt or hinder implementation of any plan control measures.

BAAQMD guidance states that lead agencies should consider three questions in assessing consistency with the 2017 CAP:

1. Would the project support the primary goals of the Clean Air Plan?
2. Does the project include applicable control measures from the Clean Air Plan?
3. Does the project disrupt or hinder implementation of control measures identified in the Clean Air Plan?

To support the primary goals, the CAP recommends specific control measures and actions. The 2017 CAP includes 85 control measures aimed at reducing air pollution in the SFBAAB. A tabular comparison of applicable control measures in the 2017 CAP and existing implementation mechanisms or elements of the Project was completed to determine whether the Project would support the primary goals of the 2017 CAP and whether the Project would include all applicable control measures. A qualitative assessment of whether the Project would disrupt or hinder implementation of any 2017 CAP control measure was also completed.

Non-CEQA Impacts of the Environment on the Project

As discussed in the Regulatory Setting,[7] CEQA does not generally require lead agencies to consider how existing environmental conditions might impact a project's users or residents, except where the proposed project would exacerbate an existing environmental condition. Accordingly, the identified significance criteria related to exposure of sensitive receptors to substantial pollutant concentrations are valid only to the extent that the proposed project would in some way exacerbate air quality conditions. The Project does not introduce any new sensitive receptors on-site that would be exposed to existing emissions. Therefore, this is not discussed further in the analysis presented below.

Cumulative Impacts

Criteria Air Pollutants

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to, by itself, result in a geographic area being in nonattainment of ambient air quality standards. Instead, in areas of nonattainment, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. If a project's contribution to the cumulative impact is considerable, then the project's cumulative impact on air quality would be considered significant. As it relates to the project area, the SFBAAB is in nonattainment for each of the criteria air pollutants, with each considered to be existing cumulatively significant adverse air quality impacts, against which the Air District must determine if emission of criteria air pollutants from the project, would have a cumulatively considerable effect. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels at which a project's individual emissions would be cumulatively considerable. Therefore, per the BAAQMD CEQA Guidelines, if a project exceeds the identified project-level significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts to the region's existing air quality conditions. If a project generates emissions less than the identified significance thresholds, its emissions would not be considered cumulatively considerable, resulting in a less than significant adverse air quality impact to the region's existing air quality conditions.

Cumulative Health Risk Assessment

The cumulative HRA includes a tabulation of risks from the construction and operation of the Project plus risks from off-site sources (stationary and mobile) in the vicinity of the Project's off-site Maximally Exposed Individual Receptor (MEIR). BAAQMD recommends that the cumulative health risk analysis include other air emissions sources within a "zone of influence" of 1,000 feet surrounding the Project site. As such, this evaluation includes combined health risks from all sources of TACs and $PM_{2.5}$ within 1,000 feet of the Project MEIR.

The BAAQMD recommends that sources screened for consideration in the cumulative analysis include BAAQMD-permitted stationary sources, roadways with more than 10,000 vehicles per

[7] *California Building Industry Association v. Bay Area Air Quality Management District,* 62 Cal.4th 369. Opinion Filed December 17, 2015.

day, highways, rail, major roadways and any other major source of emissions within the zone of influence. BAAQMD provides tools for screening background health risk impacts for permitted stationary sources, major roadways and highways, and rail. The cumulative analysis relies on these tools. BAAQMD's Health Risk Calculator with Distance Multipliers was used to determine the impact from each permitted source to the MEIR.

In addition, the cumulative analysis also considered health risks from future sources proposed as part of other projects within 1,000 feet of the Project site within both the cities of Oakland and Alameda. The Major Projects List provided by both the cities of Alameda and Oakland were consulted to identify future projects proposed within 1,000 feet of the Project site's boundaries. The total cumulative risks to the MEIR is compared to the City's cumulative health risk thresholds to determine significance of impacts.

Topics Considered and No Impact Determined

The Project would have no impact to the following topic based on the Project characteristics, its geographical location, and underlying site conditions. Therefore, this topic is not addressed further in this document for the following reasons:

- ***Health Risk Exposure to New Sensitive Receptors*** (Criterion 5). The Project would not introduce any land uses to the site that would be considered sensitive to air quality and health risk and thus would not introduce new sensitive receptors to the site. Therefore, there would be no impact related to this criterion.

Project Impacts and Discussion

Impact AIR-1: Project construction would not generate average daily emissions in excess of 54 pounds per day of ROG, NO_X, or $PM_{2.5}$ or 82 pounds per day of PM_{10}. (Criterion 1) (*Less than Significant with SCAs*)

Project-related construction activities would generate air pollutant emissions from the use of heavy-duty construction equipment, truck trips transporting materials and equipment, and from construction workers traveling to and from the Project site. Mobile source emissions, primarily NO_X, would be generated from the use of equipment such as excavators, bulldozers, wheeled loaders, scrapers, and cranes during the demolition, grading, and site prep construction phases. During the finishing phases, paving operations and the application of asphalt, architectural coatings (i.e., paints) and other building materials would release ROG. Project-related demolition, excavation, grading, and other construction activities may also cause wind-blown dust that could contribute particulate matter into the local atmosphere. Construction emissions can vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions.

Fugitive Dust

Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute particulate matter into the local atmosphere. As discussed in the Environmental Setting section above, construction dust can be an irritant causing watering eyes or

irritation to the lungs, nose, and throat. Depending on exposure, adverse health effects can occur due to this particulate matter in general as well as due to specific contaminants such as lead or asbestos that may be constituents of dust.

The BAAQMD considers implementation of the best management practices (BMPs) as part of its recommended mitigation measures for fugitive dust sufficient to ensure that construction-related fugitive dust is reduced to a less-than-significant level, and thus does not have quantitative significance thresholds for fugitive dust from construction activities. The BAAQMD-recommended basic mitigation measures to reduce fugitive dust emissions are included as part of SCA AIR-1: Dust Controls – Construction Related. If the Project is approved by the City, SCA AIR-1 would be adopted as an enforceable condition of approval and required to be implemented during construction of the Project to help ensure less-than-significant impacts from fugitive dust. Therefore, required implementation of SCA AIR-1 as part of the Project would ensure compliance with BAAQMD's basic dust control mitigation measures and the impact of the Project's fugitive dust emissions would be less than significant.

Criteria Air Pollutants

Construction-related criteria air pollutant emissions as estimated using CalEEMod are summarized in **Table 4.1-3**. Average daily emissions from Project construction were calculated by dividing the total emissions generated over the construction period by the total number of workdays. Estimates of PM include only exhaust emissions as the BAAQMD does not require inclusion of fugitive dust emissions in comparing Project construction emissions with recommended significance thresholds. Impacts from fugitive dust emissions are considered qualitatively as discussed above.

TABLE 4.1-3
PROJECT AVERAGE DAILY CONSTRUCTION EMISSIONS

	Pounds per Day			
	ROG	**NOx**	**Exhaust PM_{10}**	**Exhaust $PM_{2.5}$**
Project Emissions	10.9	9.3	0.3	0.3
City and BAAQMD Significance Thresholds	54	54	82	54
Exceeds Threshold?	No	No	No	No

NOTE: ROG = Reactive Organic Gases; NOx = Nitrogen Oxides; PM_{10} = Particulate Matter less than 10 microns; $PM_{2.5}$ = Particulate Matter less than 2.5 microns.

SOURCE: Table compiled by Environmental Science Associates in 2023.

Estimated emissions, as shown in Table 4.1-3, do not exceed the City's significance thresholds for construction for any of the pollutants analyzed. In addition, the Project would be required to comply with SCA AIR-2: Criteria Air Pollutants – Construction Related which includes BMPs to reduce criteria air pollutants from construction equipment and vehicles. Therefore, criteria air pollutant impacts from Project construction would be less than significant.

SCA AIR-1: Dust Controls – Construction Related.

SCA AIR-2: Criteria Air Pollutants – Construction Related.

Mitigation: None required.

Impact AIR-2: Project operation would not generate average daily emissions of 54 pounds per day of ROG, NO_X, or $PM_{2.5}$ or 82 pounds per day of PM_{10}; or result in maximum annual emissions of 10 tons per year of ROG, NO_X, or $PM_{2.5}$ or 15 tons per year of PM_{10}. (Criterion 2) (*Less than Significant*)

Operation of the Project would result in an increase in criteria air pollutant and precursor emissions, including ROG, NO_X, PM_{10} and $PM_{2.5.}$ Emissions would be generated from a variety of sources including onsite area sources (e.g., operation of landscape maintenance equipment, maintenance application of paint and other architectural coatings, use of consumer products such as cleaning products), operation of material handling equipment, routine testing of the proposed emergency generator, and on-road vehicle trips to and from the Project site.

As discussed above in the *Approach to Analysis* section above, operational emissions associated with the Project were calculated using the most recent version of the CalEEMod program using inputs detailed in Appendix C. **Table 4.1-4** presents the average daily unmitigated operational emissions of criteria air pollutants from the Project. The table also compares the Project emissions to the City's average daily and annual significance thresholds.

TABLE 4.1-4
PROJECT AVERAGE DAILY AND ANNUAL OPERATIONAL EMISSIONS

	Operational Emissions			
	ROG	**NOx**	**Total PM_{10}**	**Total $PM_{2.5}$**
Area Sources	10.9	<0.01	<0.01	<0.01
Energy Use	0.0	0.0	0.0	0.0
Mobile Sources	4.4	36.0	11.5	3.3
Offroad Equipment and Truck Idling	1.0	11.8	0.1	0.1
Emergency Generator Testing	0.1	0.2	0.01	0.01
Project Average Daily Emissions – Total	***16.4***	***47.9***	***11.6***	***3.4***
City/BAAQMD Significance Thresholds	54	54	82	54
Exceeds Threshold?	No	No	No	No
Project Annual Emissions	2.8	6.6	2.1	0.6
City/BAAQMD Significance Thresholds	10	10	15	10
Exceeds Threshold?	No	No	No	No

NOTE: ROG = Reactive Organic Gases; NOx = Nitrogen Oxides; PM_{10} = Particulate Matter less than 10 microns; $PM_{2.5}$ = Particulate Matter less than 2.5 microns.

SOURCE: Table compiled by Environmental Science Associates in 2023.

As shown in Table 4.1-4, the Project's operational emissions would not exceed City's mass average daily or annual significance thresholds for ROG, NO_X, PM_{10}, and $PM_{2.5}$. Thus, the Project would result in a less-than-significant impact with respect to operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$.

Mitigation: None required.

Impact AIR-3: The Project would not contribute to CO concentrations that exceed the CAAQS of 9 ppm averaged over eight hours and 20 ppm for one hour. (Criterion 3) (*Less than Significant*)

Regional ambient air quality monitoring data, including those presented in Table 4.1-1, demonstrate that CO concentrations within West Oakland and the air basin at large are well below standards, despite long-term upward trends in regional VMT. In recent years, the potential for localized increases in carbon monoxide concentrations from increased traffic has been greatly reduced due to improvements in vehicle exhaust controls since the early 1990s and the use of oxygenated fuels.

The BAAQMD's recommended approach for determining if a Project would contribute to CO concentrations exceeding the CAAQS of 9 ppm averaged over eight hours and 20 ppm for one hour is to use screening criteria. If the Project meets all of the BAAQMD's screening criteria, the Project would result in a less-than-significant impact to air quality with respect to local CO concentrations. Pursuant to the BAAQMD CEQA Guidelines' screening criteria for CO, localized CO concentrations should be estimated for projects in which (a) project-generated traffic would conflict with an applicable congestion management program established by the county congestion management agency or (b) project-generated traffic would increase traffic volumes at affected intersections to more than 44,000 vehicles per hour (or 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited, such as tunnels, parking garages, bridge underpasses, natural or urban street canyons, and below-grade roadways). In Oakland, only the MacArthur Maze portion of Interstate 580 exceeds the 44,000 vehicles per hour screening criteria, which is approximately two miles northwest of the Project site and would therefore not result in elevated CO concentrations at the Project site. Further, ambient CO standards have not been exceeded in the Bay Area for over a decade, largely due to reformulated fuels in California and vehicle emissions controls, as discussed above. Therefore, development under the Project would not be required to estimate localized CO concentrations as it would not contribute to CO concentrations exceeding CAAQS. The impact would be less than significant and no mitigation measures are required.

Mitigation: None required.

Impact AIR-4: The Project would not create new sources of TACs during Project construction or operation that would expose existing sensitive receptors in the vicinity to health risk levels in excess of the City's project-level thresholds. (Criterion 4) (*Less than Significant with SCAs*)

As discussed earlier, the Project would generate TACs primarily in the form of DPM, during both construction and operation. An HRA was prepared to evaluate the increase in health risks to nearby receptors from exposure to Project construction and operational emissions. In addition, exposure to asbestos in the existing structures during demolition activities could also expose workers and nearby residents to health risks. Asbestos is designated as a TAC by CARB.

Construction

Table 4.1-5 presents the maximum health risks from exposure to uncontrolled DPM and $PM_{2.5}$ emissions from Project construction. The table includes lifetime excess cancer risk (chances per million), chronic HI, and average annual $PM_{2.5}$ concentration at the maximally impacted residential and school receptors.

TABLE 4.1-5
PROJECT CONSTRUCTION HEALTH RISKS

	Health Risks		
	Lifetime Excess Cancer Risk, chances per million	**Hazard Index, unitless**	**Annual Average $PM_{2.5}$ Concentration, $\mu g/m^3$**
Resident - Infant	4.7	0.013	0.01
School Receptor - Child	0.03	<0.001	<0.01
BAAQMD Significance Thresholds	10	1.0	0.3
Exceeds Threshold?	No	No	No

NOTE: $\mu g/m^3$ = micrograms per cubic meter

SOURCE: Table compiled by Environmental Science Associates in 2023.

The maximum impacted residential receptor from Project construction emissions would be at Universal Transverse Mercator (UTM) (568132.3, 4180726.9) at 3413 Elmwood Avenue and the maximum impacted school receptor would be at Ascend Elementary School.

As shown in Table 4.1-5, the increase in lifetime cancer risk, non-cancer risk (HI) and $PM_{2.5}$ annual average concentration from exposure to uncontrolled Project construction emissions would be less than the respective City's project-level thresholds at both the maximum impacted residential and school receptors. Therefore, health risk impacts of Project construction would be less than significant.

Impacts from asbestos exposure during demolition activities would be reduced to a less than significant level with the required implementation of SCA AIR-6, Asbestos in Structures as part of the Project would ensure compliance with CARB and BAAQMD requirements and result in a less-than-significant impact.

Operation

Table 4.1-6 presents the maximum health risks from exposure to uncontrolled DPM and $PM_{2.5}$ emissions from Project operation.

TABLE 4.1-6
PROJECT OPERATIONAL HEALTH RISKS

	Health Risks		
	Lifetime Excess Cancer Risk, chances per million	**Hazard Index, unitless**	**Annual Average $PM_{2.5}$ Concentration, $\mu g/m^3$**
Resident - Infant	3.1	0.001	0.01
School Receptor - Child	0.1	<0.001	<0.01
BAAQMD Significance Thresholds	10	1.0	0.3
Exceeds Threshold?	No	No	No

NOTE: $\mu g/m^3$ = micrograms per cubic meter

SOURCE: Table compiled by Environmental Science Associates in 2023.

The maximum impacted residential receptor from Project operational emissions would be at Universal Transverse Mercator (UTM) (568232.3, 4180686.9) located along 36th Avenue to the north of the Project site and the maximum impacted school receptor would be at Ascend Elementary School.

As shown in Table 4.1-6, the increase in lifetime cancer risk, non-cancer risk (HI) and $PM_{2.5}$ annual average concentration from exposure to uncontrolled Project operational emissions would be less than the respective project-level City thresholds at both the maximum impacted residential and school receptors. Therefore, health risk impacts of Project construction would be less than significant. The Project would be required to comply with SCA AIR-4, Stationary Sources of Air Pollution – Toxic Air Contaminants and SCA AIR-5, Truck-Related Risk Reduction Measures – Toxic Air Contaminants to reduce risks from stationary sources of pollution and truck activity. This HRA satisfies requirement a) of SCA AIR-3, Diesel Particulate Matter Controls – Construction Related.

SCA AIR-3: Diesel Particulate Matter Controls – Construction Related.

SCA AIR-4: Stationary Sources of Air Pollution - Toxic Air Contaminants.

SCA AIR-5: Truck-Related Risk Reduction Measures – Toxic Air Contaminants.

SCA AIR-6: Asbestos in Structures.

Mitigation: None required.

Impact AIR-5: The Project would not create or expose sensitive receptors to substantial odors affecting a substantial number of people. (Criterion 6) (*Less than Significant*)

The use of diesel-fueled heavy equipment for Project construction could potentially create objectionable odors that may affect receptors in the immediate vicinity. Construction-related odors would be localized and temporary and the use of low-VOC surface coating materials in accordance with BAAQMD Rules and Regulations would reduce potentially objectionable odors from painting operations. Construction odor would disperse rapidly with distance and is not anticipated to be perceptible beyond the Project site boundaries.

The Project would not include any operational sources of odor that receptors in the vicinity may find objectionable. This impact would therefore be less than significant.

Mitigation: None required.

Impact AIR-6: Construction and operation of the Project would not conflict with or obstruct implementation of the applicable air quality plan. (Appendix G criterion a) (*Less than Significant with SCAs*)

The most recently adopted air quality plan for the SFBAAB is the 2017 CAP. The 2017 CAP is a road map that demonstrates how the Bay Area will implement all feasible measures to attain ambient air quality standards in accordance with the requirements of the California CAA. It also provides a control strategy to reduce ozone, PM, air toxics, and GHGs.

BAAQMD recommends that consistency of a project with the applicable air quality plan be determined with respect to the following considerations.

- Support the primary goals of the CAP;
- Include applicable control measures from the CAP; and
- Avoid disrupting or hindering implementation of control measures identified in the CAP.

The primary goals of the 2017 CAP are to attain air quality standards, reduce population exposure to air pollutants, to protect public health in the Bay Area, and to reduce GHG emissions and protect the climate. Any project that would not support these goals would not be considered consistent with the 2017 CAP. The recommended measure for determining project support of these goals is consistency with BAAQMD-approved CEQA thresholds of significance. Therefore, if the Project would not result in significant and unavoidable air quality impacts, after the application of all SCAs and feasible mitigation, it would be considered consistent with the 2017 CAP.

As discussed in detail under Impacts AIR-1 and AIR-2 above, the Project would not result in emissions exceeding the applicable BAAQMD thresholds either during construction or operation. Therefore, the Project would be considered to support the primary goals of the 2017 CAP.

The 2017 CAP includes 85 control measures aimed at reducing air pollutants and GHGs in the SFBAAB. These control measures are grouped into various categories and include stationary- and area-source measures, mobile-source measures, transportation control measures, land use measures, and energy and climate measures. The CAP recognizes that, to a great extent, community design dictates individual travel mode and that a key long-term control strategy to reduce emissions of criteria pollutants, air toxics, and GHG emissions from motor vehicles is to channel future Bay Area growth into communities where goods and services are located nearby and people have a range of viable transportation options. Many of the CAP measures address stationary sources and will be implemented by BAAQMD using its permit authority, and therefore, are not suited for implementation through project approval actions. The measures that are appropriate for implementation through project approvals are identified below.

Table 4.1-7 identifies the 2017 CAP measures that may apply to the Project. This table identifies each applicable control strategy and correlates it with specific elements of the Project to determine consistency.

As demonstrated in Table 4.1-7, with the required implementation of City SCAs, the Project would be consistent with all applicable control measures in the 2017 CAP.

The Project involves development to the existing site that is zone for industrial uses and would not cause the disruption, delay, or otherwise hinder the implementation of any air quality plan control measure.

The proposed Project would maintain the existing character of the area with availability of local transit. It would not preclude the extension of a transit line or a bike path or any other transit improvement. Thus, the Project would not disrupt or hinder implementation of control measures identified in the 2017 CAP.

SCA AIR-1: Dust Controls – Construction Related.

SCA AIR-2: Criteria Air Pollutants – Construction Related.

SCA TRANS-3: Transportation and Parking Demand Management. (See Section 4.6)

Mitigation: None required.

TABLE 4.1-7
PROJECT CONSISTENCY WITH POTENTIALLY APPLICABLE 2017 CLEAN AIR PLAN CONTROL MEASURES

2017 CAP Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Project Consistent with Measure?
SS21—New Source Review of Toxic Air Contaminants	SS21 requires a health impact review for new and modified sources that emit toxic air contaminants (TACs) in excess of trigger levels as regulated by BAAQMD Regulation 2, Rule 5 (Rule 2-5). It also establishes risk thresholds for mitigation and permit approval.	The Project would include a new emergency generator which would be required to comply with all applicable rules of BAAQMD Regulation 2 including Rules 1, 2 and 5.	Yes.
SS25—Coatings, Solvents, Lubricants, Sealants and Adhesives	SS25 will reduce emissions of ROG from architectural coatings and other materials by proposing more stringent ROG limits as appropriate.	The Project would comply with all applicable BAAQMD rules and regulations regarding ROG emission limits.	Yes.
SS36—Particulate Matter from Trackout	SS36 developed Regulation 6, Particulate Matter; Rule 6: Trackout (Rule 6-6) to address mud and dirt that can be "tracked out" from construction sites, bulk material storage, and disturbed surfaces onto public paved roads where vehicle traffic will pulverize the mud and dirt into fine particles and entrain them into the air.	Construction activities associated with the Project would implement BMPs required by the BAAQMD, as part of SCA AIR-1, which would reduce trackout.	Yes, with implementation of SCA AIR-1
SS38—Fugitive Dust	SS38 reduces particulate matter (PM_{10} & $PM_{2.5}$) fugitive dust emissions from traffic and other operations on construction sites, large disturbed surfaces, and other sources of fugitive PM emissions.	Construction activities associated with the Project would implement dust control BMPs required by the BAAQMD as part of SCA AIR-1.	Yes, with implementation of SCA AIR-1.
TR3—Local and Regional Bus Service	TR3 aims to reduce emissions by improving existing transit service in the region's core transit systems, and include new bus rapid transit lines in San Francisco, Oakland and Santa Clara County.	The Project is located within the Fruitvale and Dimond Areas Priority Development Area (PDA) as defined by Plan Bay Area and is therefore consistent with the region's Sustainable Communities Strategy. Existing transit service to the Project site is provided by AC Transit Lines 19, 51A and O to the bus stop located on Fruitvale Avenue, approximately 0.2 miles north of the Project site. The Applicant would also be required to provide subsidized transit passes to employees as part of the mandatory TDM Plan.	Yes.
TR5—Transit Efficiency and Use	TR5 will improve transit efficiency and make transit more convenient for riders through continued operation of 511 Transit, full implementation of Clipper® fare payment system and the Transit Hub Signage Program.	Existing transit service to the Project site is provided by AC Transit Lines 19, 51A and O to the bus stop located on Fruitvale Avenue, approximately 0.2 miles north of the Project site. The Clipper® fare payment system can be used on AC Transit, and routes and schedules are available on 511 Transit.	Yes.

TABLE 4.1-7 (CONTINUED)
PROJECT CONSISTENCY WITH POTENTIALLY APPLICABLE 2017 CLEAN AIR PLAN CONTROL MEASURES

2017 CAP Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Project Consistent with Measure?
TR8—Ridesharing	TR8 will promote ridesharing services and incentives through the implementation of the 511 Regional Rideshare Program, as well as local rideshare programs implemented by Congestion Management Agencies. These activities will include marketing rideshare services, operating a rideshare information call center and website, and provide vanpool support services. In addition, this measure includes provisions for encouraging car sharing programs.	Ridesharing services to the Project site are available through the 511 Regional Rideshare Program as well as other private rideshare programs.	Yes.
TR9—Bicycle and Pedestrian Access and Facilities	The bicycle component of TR9 strives to expand bicycle facilities serving employment sites, educational and cultural facilities, residential areas, shopping districts, and other activity centers. Typical improvements include bike lanes, routes, paths, and bicycle parking facilities. The bicycle component also includes a bike share pilot project that was developed to assess the feasibility of bicycle sharing as a first- and last-mile transit option. The pedestrian component of this measure is intended to improve pedestrian facilities and encourage walking by funding projects that improve pedestrian access to transit, employment sites, and major activity centers. Improvements may include sidewalks/paths, benches, reduced street width and intersection turning radii, crosswalks with activated signals, curb extensions/bulbs, buffers between sidewalks and traffic lanes, and street trees.	The Project would add sidewalks on both sides on the re-opened Boehmer Street between 36th and 37th Avenues, and the extended 37th Avenue from the current cul-de-sac south of Boehmer Street to Alameda. It would also include sidewalks on both sides of the relocated portion Alameda Avenue along the Project frontage. It would also provide a 12-foot Class I shared-used path on the south side of the street adjacent to the Estuary, which would be part of the San Francisco Bay Trail, and a Class 2B buffered bicycle lanes in both directions.	Yes.
TR13—Parking Policies	This control measure encourages parking policies and programs in local plans, e.g., reduce minimum parking requirements; limit the supply of off-street parking in transit-oriented areas; unbundle the price of parking spaces; support implementation of demand-based pricing in high-traffic areas.	The Project provides parking in excess of both the minimum parking required by the City for the site as well as the parking demand for the Project. However, the Project is required to implement mandatory TDM measures (SCA TRANS-3) with the goal to achieve 20 percent vehicle trip reduction, which would support compliance with this control measure (see Appendix K).	Yes.

TABLE 4.1-7 (CONTINUED)
PROJECT CONSISTENCY WITH POTENTIALLY APPLICABLE 2017 CLEAN AIR PLAN CONTROL MEASURES

2017 CAP Control Measure	Measure Description	Existing or Proposed Implementation Mechanism	Project Consistent with Measure?
TR14—Cars and Light Trucks	This control measure summarizes actions by the BAAQMD, MTC, local businesses, city and county governments, and state and federal agencies to expand the use of Zero Emission Vehicles and Plug-in Electric passenger vehicles and light-duty trucks within the Bay Area.	Consistent with efforts by the BAAQMD, MTC and the City of Oakland's municipal code to expand the use of Zero Emissions Vehicles, the Project would designate a minimum of 10 percent of total parking spaces as "EV Ready" for the future installation of chargers. An additional 10 percent of the spaces will be required to be wired for future EV charging with any inaccessible conduits installed at the time of construction.	Yes.
TR22—Construction, Freight and Farming Equipment	TR22 directs the BAAQMD to work to reduce emissions from off-road equipment used in the construction, freight handling and farming industries by pursuing the following strategies: (1) offering financial incentives between 2017 and 2030 to retrofit engines with diesel particulate filters or upgrade to equipment with electric or Tier IV off-road engines; (2) work with the California Air Resources Board, the California Energy Commission and others to develop more fuel-efficient off-road engines and drive trains; and (3) work with local communities to encourage use of renewable electricity and fuels.	As shown in Table 4.1-3, the Project's average daily construction emissions would be less than the City's project level thresholds for ROG, NOx, exhaust PM10 and exhaust $PM_{2.5}$. The Project would further reduce emissions from off-road construction equipment through the implementation of SCA AIR-2, Criteria Air Pollutants, which would require best management practices to be implemented.	Yes.
EN2—Decrease Energy Use	EN2 would decrease electricity demand through the adoption of additional energy efficiency policies and programs.	The Project building would be compliant with the most recent 2019 Title 24 standards and would obtain a LEED Silver certification. In addition, almost all of the SCAs identified in Air Quality and GHG sections and many of the SCAs identified in the Transportation and Circulation section would also reduce energy use.	Yes.
BL1—Green Buildings	BL1 seeks to increase energy efficiency and the use of on-site renewable energy—as well as decarbonize existing end uses—for all types of existing and future buildings.	Consistent with City ordinance 13632, the Project would be constructed as all-electric building with no natural gas infrastructure. In addition, the Project would be consistent with the 2019 Title 24 standards for energy efficiency which includes mandatory "solar-ready" requirements for non-residential buildings.	Yes.
BL2—Decarbonize Buildings	BL2 seeks to reduce greenhouse gas emissions, criteria pollutants and TACs by limiting the installation of space- and water-heating systems and appliances powered by fossil fuels.	Consistent with City ordinance 13632, new construction associated with the Project would be all-electric and would reduce GHG emissions, criteria pollutants and TACs. Natural gas infrastructure would not be provided to the Project site.	Yes.

SOURCE: Table complied by Environmental Science Associates in 2022 based on BAAQMD, 2017b.

4.1.5 Cumulative

The geographic scope for cumulative effects on air quality is within the SFBAAB. Localized impacts such as health risk consider sources and other cumulative projects within a 1,000-foot zone of influence as defined by the BAAQMD.

Impact AIR-6 above, addresses potential impacts with respect to the Project's consistency with the BAAQMD 2017 CAP (Appendix G criterion a). Because the 2017 CAP focuses on reducing population exposure to air pollutants throughout the region, the assessment in Impact AIR-6 is a cumulative analysis as it assesses consistency with a region wide air quality plan. Therefore, a separate cumulative assessment of consistency with the 2017 CAP is not required.

Impact AIR-1.CU: Construction and operational activities associated with the Project would not result in a cumulatively considerable increase in emissions for which the SFBAAB is in non-attainment under an applicable federal or State ambient air quality standard. (Criteria 1 and 2) (*Less than Significant with SCAs*)

As discussed earlier, the SFBAAB is a non-attainment area for ozone, PM_{10} and $PM_{2.5}$ under federal and state air quality standards. Therefore, a significant cumulative air quality impact exists. The analysis below focuses on the potential for the Project's construction and operational activities to result in a cumulatively considerable contribution of emissions of ROG and NOx (ozone precursors) as well as PM_{10} and $PM_{2.5}$. Construction-related emissions of these pollutants would be considered cumulatively considerable if the estimated average daily emissions from these activities would exceed emission thresholds set forth by BAAQMD.

The BAAQMD's thresholds of significance for both construction and operation adopted by the City were developed with consideration of individual project emission levels that would be cumulatively considerable. If a project exceeds the identified project significance levels, then its emissions would also be cumulatively considerable. The analysis in Impact AIR-1 demonstrates that, with implementation of SCAs AIR-1 and AIR-2, the Project's construction emissions would not exceed the City and BAAQMD's project-level emission thresholds for ROG, NO_X, PM_{10} or $PM_{2.5}$. Likewise, the analysis under Impact AIR-2 shows that the Project's operational emissions would not exceed emission thresholds for ROG, NO_X, PM_{10} or $PM_{2.5}$. Therefore, the Project's contribution to the cumulative air quality impact of the area would be less than significant during both construction and operation.

SCA AIR-1: Dust Controls – Construction Related.

SCA AIR-2: Criteria Air Pollutants – Construction Related.

Mitigation: None required.

Impact AIR-2.CU: The Project would not contribute to cumulative CO concentrations that exceed the CAAQS of 9 ppm averaged over eight hours and 20 ppm for one hour. (Criterion 3) (*Less than Significant*)

Monitored levels of CO throughout the Bay Area are well below state and national ambient air quality standards, despite long-term upward trends in regional VMT. Based on the BAAQMD's screening criteria for CO analysis, increase in traffic volumes at affected intersections to more than 44,000 vehicles per hour could result in an exceedance of the standards. Project plus cumulative traffic at all intersections affected by the Project would be well below this level resulting in a less than significant cumulative impact.

Mitigation: None required.

Impact AIR-3.CU: Construction and operational activities associated with the Project would not contribute considerably to cumulative emissions of TACs and $PM_{2.5}$ that could expose sensitive receptors to substantial pollutant concentrations or health risks above the City's cumulative thresholds. (Criterion 4) (*Less than Significant with SCAs*)

In addition to a project's individual TAC/health risk impacts during construction and operation, consistent with BAAQMD recommendations, the City's Criterion 4 requires evaluation of the potential cumulative health risks to existing sensitive receptors from existing and reasonably foreseeable future sources of TACs in addition to health risks from the Project. The method for determining cumulative health risk requires the tallying of health risk from permitted stationary sources, major roadways, and any other identified substantial sources of TACs in the vicinity of a project site (i.e., within a 1,000-foot radius) and then adding the individual sources to determine whether the City's cumulative health risk thresholds are exceeded.

As the Project does not include sensitive receptors, a cumulative screening analysis was conducted for the residential MEIR identified in the construction HRA for the Project. Health risks from permitted stationary sources within 1,000 feet of the MEIR were obtained from BAAQMD's Stationary Sources Risk and Hazards web tool. Background health risks from highway, rail, and major roadways were also obtained from BAAQMD. In addition, the cumulative analysis also considered future sources, primarily emergency generators, proposed as part of projects within 1,000 feet of the MEIR within the City of Oakland. The City of Alameda is located more than 1,000 feet from the MEIR. Based on the City of Oakland Planning Bureau's major projects' list, there are no future projects proposed within 1,000 feet of the project's MEIR that could contribute to cumulative health risk. **Table 4.1-8** shows the cumulative health risks to the residential MEIR from the various sources.

TABLE 4.1-8
CUMULATIVE HEALTH IMPACTS TO OFF-SITE MEIR

Source	Source Type	Distance to MEIR (feet)	Cancer Risk (persons per million)	Chronic Hazard Impact	$PM_{2.5}$ Concentration ($\mu g/m^3$)
Existing Permitted Stationary Sources (BAAQMD Plant Number) within 1,000 feet					
The Home Depot (3490)	Generators	330	0.36	0.00	0.00
Proposed Projects within 1,000 feet[a]					
None					
Mobile Sources					
		Highways	40.5	--	0.62
		Major Roadways	11.0	--	0.02
		Railroad	3.3	--	0.04
Project Sources					
		Project Construction	4.6	<0.1	<0.1
		Project Generator Operation	3.2	<0.1	<0.1
		Cumulative Impacts[b]	**63.0**	**0.02**	**0.68**
		City of Oakland Cumulative Significance Threshold	100	10	0.8
		Exceeds Cumulative Significance Thresholds?	No	No	No

NOTES:
[a] Risks posed by the generators are conservatively assumed to be at the maximum permitted value, but would likely be less.
[b] Cumulative totals may not add up due to rounding.

SOURCE: Appendix C.

The screening analysis shows that health risks to the receptors in the Project vicinity would be less than the City's cumulative thresholds and thus, less than significant.

SCA AIR-3: Diesel Particulate Matter Controls – Construction Related.

SCA AIR-4: Stationary Sources of Air Pollution - Toxic Air Contaminants.

SCA AIR-5: Truck-Related Risk Reduction Measures – Toxic Air Contaminants.

SCA AIR-6: Asbestos in Structures.

Mitigation: None required.

Impact AIR-4.CU: The Project, in combination with other cumulative projects, would not create or expose sensitive receptors to substantial odors affecting a substantial number of people. (Criterion 6) (*Less than Significant*)

Odors generated by individual projects from the combustion of diesel in construction equipment would be localized and short-term in nature and hence less than significant. Besides, there are no cumulative projects in the vicinity of the Project site. The Project would not include any operational sources of odor that receptors in the vicinity may find objectionable, nor are there any

existing or proposed sources of odor in the Project vicinity that would lead to a cumulative odor impact. This impact would therefore be less than significant.

Mitigation: None required.

4.1.6 References

Bay Area Air Quality Management District (BAAQMD). 2017a. *California Environmental Quality Act Air Quality Guidelines.* May 2017. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

BAAQMD. 2017b. *Clean Air Plan, Spare the Air, Cool the Climate*. April 19, 2017. Accessed December 2020. https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en.

BAAQMD. 2017c. *Air Quality Standards and Attainment Status*. Updated January 5, 2017. Accessed April 24, 2022. https://www.baaqmd.gov/about-air-quality/research-and-data/air-quality-standards-and-attainment-status.

BAAQMD. 2022. *Stationary Source Screening Map*. updated 2018. Accessed April 2022. https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=845658c19eae4594b9f4b805fb9d89a3.

CARB. 1998. *Report to the Air Resources Board on the Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant*. April 22, 1998. Accessed April 2022. https://ww2.arb.ca.gov/sites/default/files/classic/toxics/dieseltac/part_a.pdf?_ga=2.152804090.2137726386.1650827342-1245246421.1562184877.

CARB. 2021. CARB Identified Toxic Air Contaminants. Accessed April 2022. https://ww2.arb.ca.gov/resources/documents/carb-identified-toxic-air-contaminants.

CARB. 2022a. Ozone & Health. Accessed April 2022. https://ww2.arb.ca.gov/resources/ozone-and-health.

CARB. 2022b. Nitrogen Dioxide & Health. Accessed April 2022. https://ww2.arb.ca.gov/resources/nitrogen-dioxide-and-health.

CARB. 2022c. Carbon Monoxide & Health. Accessed April 2022. https://ww2.arb.ca.gov/resources/carbon-monoxide-and-health.

CARB. 2022d. iADAM Air Quality Data Statistics, Top 4 Summary: Top 4 Measurements and Days Above the Standard. Accessed April 2022. https://www.arb.ca.gov/adam/topfour/topfour1.php.

City of Oakland. 1996. *Open Space, Conservation and Recreation (OSCAR) Element of the Oakland General Plan*. 1996. Accessed April 2022. https://cao-94612.s3.amazonaws.com/documents/oak035254.pdf.

City of Oakland. 2005. *Ordinance No. 12658 – Adopt an Ordinance Establishing Green Building (E.g., Sustainable Site Development, Water Savings, Energy Efficiency Materials Selection and Indoor Environmental Quality) Requirements for Certain City Projects*. May 17, 2005. Accessed March 2022. https://cao-94612.s3.amazonaws.com/documents/Green-Building-Ordinance-12658_CMS.pdf.

City of Oakland. 2007a. *Land Use and Transportation Element of the Oakland General Plan*. March 24, 1998, amended June 21, 2007. Accessed April 2022. https://www.oaklandca.gov/resources/land-use-and-transportation-element.

City of Oakland. 2007b. *Oakland City Planning Commission Staff Report*. September 9, 2007. Accessed March 2022. http://www2.oaklandnet.com/oakca1/groups/ceda/documents/webcontent/dowd009191.pdf.

City of Oakland. 2020a. *Resolution Adopting the 2030 Oakland Equitable Climate Action Plan*. July 28, 2020. Accessed April 2022. https://cao-94612.s3.amazonaws.com/documents/Council-Resolution-88267-Adoption-of-2030-ECAP.pdf.

City of Oakland. 2020b. A Resolution of the Oakland City Council to Adopt a Goal to Achieve Carbon Neutrality by 2015, Resolution No. 88268. July 28, 2020. Accessed April 2022. https://cao-94612.s3.amazonaws.com/documents/Council-Resolution-88268-Adoption-of-2045-Carbon-Neutrality-Goal.pdf.

Metropolitan Transportation Commission (MTC). 2022. Priority Development Areas (Plan Bay Area 2050). Accessed April 2022. https://opendata.mtc.ca.gov/datasets/priority-development-areas-plan-bay-area-2050/explore?location=37.476065%2C-122.151715%2C12.06.

MTC and Association of Bay Area Governments (ABAG). 2013. *Bay Area Plan – Strategy for A Sustainable Region*. July 13, 2013. Accessed April 2022. http://files.mtc.ca.gov/pdf/Plan_Bay_Area_FINAL/Plan_Bay_Area.pdf.

MTC and ABAG. 2017. *Plan Bay Area 2040*. Adopted July 26, 2017. Accessed April 2022. https://mtc.ca.gov/sites/default/files/Final_Plan_Bay_Area_2040.pdf.

MTC and ABAG. 2021. *Plan Bay Area 2050*. Adopted October 21, 2021. Accessed April 2022. https://planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf.

Occupational Safety and Health Administration (OSHA). 2011. *Indoor Air Quality in Commercial and Institutional Buildings*. 2011. Accessed April 2022. https://www.osha.gov/sites/default/files/publications/3430indoor-air-quality-sm.pdf.

Office of Environmental Health Hazard Assessment (OEHHA). 2015. *Guidance Manual for Preparation of Health Risk Assessments*. February 2015. Accessed April 2022. https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf.

OEHHA. 2021. CalEnviroScreen 4.0 Mapping Tool. Accessed May 2022. https://oehha.ca.gov/calenviroscreen/maps-data.

San Francisco Department of Public Health (SFDPH) and San Francisco Planning Department (SF Planning). 2020. *The San Francisco Citywide Health Risk Assessment: Technical Support Documentation*. February 2020. Accessed October 2021. https://www.sfdph.org/dph/files/EHSdocs/AirQuality/Air_Pollutant_Exposure_Zone_Technical_Documentation_2020.pdf.

U.S. Environmental Protection Agency (EPA). 2002. *Health Assessment Document for Diesel Engine Exhaust*. May 2002. Accessed April 2022. https://cfpub.epa.gov/ncea/risk/recordisplay.cfm?deid=29060.

U.S. EPA. 2021a. Health Effects of Ozone Pollution. Last updated May 5, 2021. Accessed April 2022. https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution.

U.S. EPA. 2021b. Nitrogen Dioxide (NO_2) Pollution. September 8, 2016; last updated June 7, 2021. Accessed April 2022. https://www.epa.gov/no2-pollution/basic-information-about-no2.

U.S. EPA. 2021c. Carbon Monoxide (CO) Pollution in Outdoor Air. Last updated June 7, 2021. Accessed April 2022. https://www.epa.gov/co-pollution/basic-information-about-carbon-monoxide-co-outdoor-air-pollution.

U.S. EPA. 2022. Sulfur Dioxide (SO_2) Pollution. June 28, 2018; last updated March 9, 2022. Accessed April 2022. https://www.epa.gov/so2-pollution/sulfur-dioxide-basics.

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4.2 Biological Resources

4.2.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts related to biological resources. The section first includes a description of the existing environmental setting as it relates to biological resources in the Project vicinity and provides a regulatory framework that discusses applicable state and local regulations. The section then includes an evaluation of potential impacts of the Project related to biological resources and identifies mitigation measures that would reduce any significant impacts.

The information and analysis in this section is based on a review of the Project, applicable local policies, and goals and policies related to the protection of biological resources in the City of Oakland General Plan.

This section uses the following terms:

- **Project area:** This area is synonymous with the limits of work (e.g., ground disturbance) and includes work in the public right-of-way just outside of the Project site boundaries. It defines the area in which direct and indirect impacts on biological resources could occur.
- **Study area:** The study area is the Project area plus a 250-foot buffer, which encompasses the area within which indirect impacts on biological resources could occur (e.g., disturbance from light or noise).

4.2.2 Environmental Setting

Regional and Local Setting

The Project area is in the San Francisco Bay Bioregion, which has a mild Mediterranean climate with generally warm, dry summers and cool, wet winters. This region includes marine, freshwater, and terrestrial resources from Point Arena to the Santa Cruz Mountains and extends from the continental shelf to the delta of the Sacramento and San Joaquin Rivers (USGS, 2017).

The Project area is predominantly flat and is currently occupied by the former Owens-Brockway Glass manufacturing facility. The site is built out, has minimal vegetation, and has been in continuous heavy industrial use since 1938, until the cessation of glass manufacturing operations in 2015. The Project area is mostly covered by existing structures and paving with little existing vegetation. There are nine trees in the Project area, including five Chinese Elms at the existing facility entrance along Alameda Avenue, at the west edge, a small Blackwood Acacia near the corner of Alameda and Fruitvale Avenues, a Monterey Pine and California Sycamore at 37th Avenue near its intersection with Alameda Avenue, and one Monterey Pine in the interior between buildings (see Appendix D). A row of street trees lines the east side of 37th Avenue and extends along the Project boundary to Alameda Avenue. The setting around the Project area is similarly urbanized, including industrial and commercial enterprises, residences, parking lots and roads to the northwest, northeast, and southeast. The Oakland Estuary, which is bordered by a narrow (30-foot) band of riprap and upland habitat, is present immediately southwest of Alameda Avenue.

Developed habitat provides little habitat for wildlife; however, common wildlife such as house mouse (*Mus musculus*), raccoon (*Procyon lotor*), and Virginia opossum (*Didelphis virginiana*) could use these areas to forage for human food waste, shelter from predators and weather, or disperse. Birds commonly found in such areas include non-native species, such as house sparrow (*Passer domesticus*), rock pigeon (*Columba livia*), and European starling (*Sturnus vulgaris*), as well as native species habituated to human disturbance, including Anna's hummingbird (*Calypte anna*), bushtit (*Psaltriparus minimus*), dark-eyed junco (*Junco hyemalis*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), and California towhee (*Melozone crissalis*). These species may disperse, forage, or nest in the trees and landscape vegetation in the Project area. The Oakland Estuary provides resting and foraging habitat for waterbirds such as belted kingfisher (*Megaceryle alcyon*), spotted sandpiper (*Actitis macularius*), brown pelican (*Pelecanus occidentalis*), and mallard (*Anas platyrhynchos*) (Friends of Sausal Creek, 2016). The lack of cover, tidal influence, and narrow shoreline likely preclude waterbirds from nesting on the shoreline.

Special-Status and Protected Species

The term *special-status species* refers to plant and wildlife species that are considered sufficiently rare that they require special consideration and/or protection and should be, or currently are, listed as rare, threatened, or endangered by the federal and/or state governments. Such species are legally protected under the federal and/or state Endangered Species Acts or other regulations or are species that are considered sufficiently rare by the regulatory and scientific community to qualify for protection. The term *special-status species* includes the following:

- Species listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (FESA) (Code of Federal Regulations Title 50, Section 17.12 [listed plants] and Section 17.11 [listed animals] and various notices in the *Federal Register* [FR] [proposed species]);
- Species that are candidates for possible future listing as threatened or endangered under the FESA (61 FR 40, February 28, 1996);
- Species listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (California Code of Regulations Title 14, Section 670.5);
- Plants listed as rare or endangered under the California Native Plant Protection Act (California Fish and Game Code [CFGC] Section 1900 et seq.);
- Species designated by CDFW as California Species of Special Concern (SSC);[1]
- Bats identified by the Western Bat Working Group (WBWG) as medium- or high-priority species.

[1] A California SSC is one that: has been extirpated from the state; meets the state definition of threatened or endangered but has not been formally listed; is undergoing or has experienced serious population declines or range restrictions that put it at risk of becoming threatened or endangered; and/or has naturally small populations susceptible to high risk from any factor that could lead to declines that would qualify it for threatened or endangered status.

- Animals fully protected under the CFGC (Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]);[2]
- Species that meet the definitions of rare and endangered under CEQA. CEQA Section 15380 provides that a plant or animal species may be treated as "rare or endangered" even if not on one of the official lists (CEQA Guidelines Section 15380);
- Raptors (birds of prey), which are specifically protected by CFGC Section 3503.5, thus prohibiting the take, possession, or killing of raptors, including owls, their nests, and their eggs;[3]
- Plants considered by CDFW and the California Native Plant Society (CNPS) to be "rare, threatened or endangered in California" (California Rare Plant Rank 1A, 1B, and 2); and
- Anadromous[4] species managed and regulated under the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

The potential for the study area to support special-status plant or wildlife species was assessed based on review of the following sources:

- Historic and current aerial imagery available on Google Earth;
- Subscription-based biological resource databases including the CDFW California Natural Diversity Database (CNDDB; CDFW, 2022), CNPS Rare Plant Inventory (CNPS, 2022), and a USFWS Information for Planning and Consultation Official Species List (USFWS, 2022a) and USFWS ECOS Critical Habitat Mapper (USFWS, 2022b); and
- City of Oakland General Plan (City of Oakland, 1996)

The CNDDB and CNPS databases were queried based on a search of the Oakland East 7.5-minute U.S. Geological Survey quadrangle. The USFWS *Official List of Federal Endangered and Threatened Species that Occur in or May Be Affected by the Projects* was queried based on the Project area (refer to Appendix E, *Plant and Wildlife Species Lists for the Project Area*, for database reports). The results of these queries formed the basis for analysis of which special-status and protected species have the potential to occur in the study area (refer to **Table 4.2-1**).

Special-Status Plants

Based on fully developed baseline conditions, no special-status plants species are expected to occur in the study area.

[2] The *fully protected* classification was California's initial effort in the 1960s to identify and provide additional protection to those animals that were rare or faced possible extinction. The designation can be found in the CFGC.

[3] The inclusion of birds protected by CFGC Section 3503.5 recognizes the fact that these birds are substantially less common in California than most other birds, having lost much of their habitat to development, and that the populations of these species are therefore substantially more vulnerable to further loss of habitat and to interference with nesting and breeding than most other birds. It is noted that a number of raptors are already specifically listed by federal and state wildlife authorities as threatened or endangered.

[4] Anadromous fish species originate in freshwater habitat, spend most of their lives in the sea, and return to freshwater to spawn.

TABLE 4.2-1
SPECIAL-STATUS SPECIES' POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Common Name *Scientific Name*	Status	General Habitat Requirements	Potential for Species Occurrence
Fish			
Tidewater goby *Eucyclogobius newberryi*	FE/SSC/—	Coastal lagoons, estuaries, and marshes.	**None.** Extirpated from San Francisco Bay.
Longfin smelt *Spirinchus thaleichthys*	CT/ST,SSC/—	Found throughout the nearshore coastal waters and open waters of San Francisco Bay-Delta including the river channels and sloughs of the Delta. Spawns in the Delta.	**None.** This species is documented consistently within open water habitat of San Francisco Bay and may enter the waters adjacent to the Project area. The Project would not disturb the waterfront area.
Amphibians			
Foothill yellow-legged frog *Rana boylii*	—/SE/—	Partly shaded, usually perennial, shallow streams and riffles with a rocky substrate in a variety of habitats. Needs at least some cobble-sized substrate for egg laying. Needs at least 15 weeks to attain metamorphosis.	**None.** No suitable habitat in study area.
California red-legged frog *Rana draytonii*	FT/SSC/—	Streams, freshwater pools, and ponds with overhanging vegetation. Also found in woods adjacent to streams. Requires permanent or ephemeral water sources such as reservoirs and slow-moving streams and needs pools of >0.5 m depth for breeding. May aestivate in rodent burrows or cracks during dry periods.	**None.** No suitable habitat in study area.
Reptiles			
Western pond turtle *Emys marmorata*	—/SSC/—	Ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Requires basking sites and suitable upland habitat for egg laying. Nest sites most often characterized as having gentle slopes (<15%) with little vegetation or sandy banks. Primarily in foothills and lowlands.	**None.** No suitable habitat in study area.
Alameda whipsnake *Masticophis lateralis euryxanthus*	FT/ST/—	Primarily associated with scrub and chaparral habitat. Uses grassland and woodland habitats adjacent to core scrub habitat. Require open areas to maintain optimal body temperature.	**None.** No suitable habitat in study area.
Birds			
Cooper's hawk *Accipiter cooperii*	—/WL/—	Nests in riparian areas and oak woodlands, and hunts songbirds at woodland edges. Increasingly found nesting in neighborhood street trees.	**Low.** Suitable nesting habitat in mature trees within study area; however, foraging opportunities low relative to other parts of the City (e.g., parks, riparian habitat, and residential neighborhoods). No CNDDB observations within 5 miles of the Project area.
Golden eagle *Aquila chrysaetos*	BCC/FP,WL/—	Nests in cliffs, canyons and large trees in open habitats	**None.** No suitable habitat in study area.

TABLE 4.2-1 (CONTINUED)
SPECIAL-STATUS SPECIES' POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Common Name *Scientific Name*	Status	General Habitat Requirements	Potential for Species Occurrence
Birds (cont.)			
Yellow rail *Coturnicops noveboracensis*	—/SSC/—	Nests on damp ground or up to 15 cm above ground among grasses and sedges near shallow marshes and wet meadows, where only the highest tides inundate.	**None.** No suitable habitat in study area.
Peregrine falcon (nesting) *Falco peregrinus*	FDL/SDL,FP/—	Breeds near water at varied nest sites, including natural cliff ledges and potholes, tall metropolitan buildings and bridges, and former nests of common raven and osprey on electric transmission towers and boat navigation channel markers (towers).	**High.** A pair has nested annually since 2010 on the Fruitvale Bridge, approximately 250 feet from Project area. May also forage in study area.
California black rail *Laterallus jamaicensis coturniculus*	—/ST,FP/—	Nests and forages in tidal emergent wetland with pickleweed.	**None.** No suitable habitat in study area.
Alameda song sparrow *Melospiza melodia pusillula*	—/SSC/—	Inhabits brackish marshes of east San Francisco Bay, perching and nesting in dense vegetation along tidal channels.	**None.** No suitable habitat in study area.
California Ridgway's rail *Rallus obsoletus obsoletus*	FE/SE,FP/—	Nests and forages in emergent wetlands with pickleweed, cordgrass, and bulrush.	**None.** No suitable habitat in study area.
Mammals			
Pallid bat *Antrozous pallidus*	—/SSC/WBWG: High	Roosts in crevices in cliffs, buildings or bridges in areas adjacent to open space for foraging. Occurs across California; associated with lower elevations.	**Moderate.** Roosting habitat present in abandoned buildings on Project area or under Fruitvale Bridge.
Townsend's big-eared bat *Corynorhinus townsendii*	—/SSC/WBWG: High	Throughout California in a wide variety of habitats. Commonly roosts in caverns and abandoned buildings, and large tree hollows (i.e., a couple of cubic feet). Sensitive to human disturbance.	**None.** No suitable habitat in study area.
Berkeley kangaroo rat *Dipodomys heermanni berkeleyensis*	—/*/—	Open grassy hilltops and open spaces in chaparral and blue oak/digger pine woodlands. Needs fine, deep, well-drained soil for burrowing.	**None.** No suitable habitat in study area.
Silver-haired bat *Lasionycteris noctivagans*	—/*/WBWG: Medium	Primarily a coastal and montane forest dweller that roosts beneath exfoliating bark, but has also been found in buildings, mines, abandoned woodpecker holes and bird nests, and rarely under rocks. Forages over or near standing water. Uncommon in San Francisco Bay Area.	**None.** No suitable habitat in study area.
Hoary bat *Lasiurus cinereus*	—/*/WBWG: Medium	Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding. Roosts in dense foliage of medium to large trees. Feeds primarily on moths; requires water. Could forage over San Francisco Bay.	**None.** No suitable habitat in study area.

TABLE 4.2-1 (CONTINUED)
SPECIAL-STATUS SPECIES' POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Common Name *Scientific Name*	Status	General Habitat Requirements	Potential for Species Occurrence
Mammals (cont.)			
San Francisco dusky-footed woodrat *Neotoma fuscipes annectens*	—/SSC/—	Regional subspecies with range limited to San Francisco Bay Area. Inhabits forests with moderate canopy cover and brushy understory. Evergreen or live oaks and other thick-leaved trees and shrubs are important habitat components for this highly arboreal species.	**None.** No suitable habitat in study area.
Alameda Island mole *Scapanus latimanus parvus*	—/SSC/—	Only known from Alameda Island. Found in a variety of habitats, especially annual and perennial grasslands. Prefers moist, friable soils. Avoids flooded soils.	**None.** Outside of species' known range and no suitable habitat in study area.
American badger *Taxidea taxus*	—/SSC/—	Grasslands, savannas, deserts, timberline mountain meadows.	**None.** No suitable habitat in study area.
Plants			
Bent-flowered fiddleneck *Amsinckia lunaris*	—/—/1B.2	Cismontane woodland, valley and foothill grassland, coastal bluff scrub. Blooms March – June	**None.** No suitable habitat in study area.
Pallid manzanita *Arctostaphylos pallida*	FT/SE/1B.1	Siliceous shale, sandy, or gravelly substrate; broadleafed upland forest, closed-cone coniferous forest, chaparral, cismontane woodland, and coastal scrub. Known from fewer than 10 occurrences in the Contra Costa Hills and Diablo Range. Blooms December – March	**None.** No suitable habitat in study area.
Alkali milk-vetch *Astragalus tener* var. *tener*	—/—/1B.2	Grows in playas, valley and foothill grasslands in adobe clay, and vernal pools in alkaline soils. Blooms March – June	**None.** No suitable habitat in study area.
Point Reyes salty bird's-beak *Chloropyron maritimum* ssp. *palustre*	—/—/1B.2	Coastal salt marshes and swamps. Blooms June – October	**None.** No suitable habitat in study area.
Robust spineflower *Chorizanthe robusta* var. *robusta*	FE/—/1B.1	Dunes, openings, coastal habitats within coastal strand, foothill woodland, and northern coastal scrub habitats; 0 - 150m. Blooms April – September.	**None.** No suitable habitat in study area.
Presidio clarkia *Clarkia franciscana*	FE/SE/1B.1	Coastal scrub, valley and foothill grassland. Blooms May – July	**None**. No suitable habitat in the study area.
Western leatherwood *Dirca occidentalis*	—/—/1B.2	Mesic habitats. Broadleafed upland and closed-cone coniferous forest, chaparral, cismontane woodland, North coast coniferous forest, riparian forest and woodland. Blooms January – March	**None.** No suitable habitat in study area.

TABLE 4.2-1 (CONTINUED)
SPECIAL-STATUS SPECIES' POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Common Name *Scientific Name*	Status	General Habitat Requirements	Potential for Species Occurrence
Plants (cont.)			
Tiburon buckwheat *Eriogonum luteolum* var. *caninum*	—/—/1B.2	Chaparral, coastal prairie, valley and foothill grasslands, sandy to gravelly sites, usually on sandy to gravelly soils, strict serpentine endemic. Blooms May – September	**None.** No suitable habitat in study area.
Jepson's coyote thistle *Eryngium jepsonii*	—/—/1B.2	Valley and foothill grassland, vernal pools. Present only in vernal pools and seasonal wetlands. Blooms April – August 3 – 300m.	**None.** No suitable habitat in study area.
Minute pocket moss *Fissidens pauperculus*	—/—/1B.2	Coastal coniferous forest with damp coastal soils.	**None.** No suitable habitat in study area.
Fragrant fritillary *Fritillaria liliacea*	—/—/1B.2	Coastal prairie, valley grassland, northern coastal scrub, wetland-riparian; weak affinity for serpentine. Blooms February – April	**None.** No suitable habitat in study area.
Dark-eyed gilia *Gilia millefoliata*	—/—/1B.2	Coastal dunes. Blooms April – July	**None.** No suitable habitat in study area.
Diablo helianthella *Helianthella castanea*	—/—/1B.2	Broadleafed upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Usually rock, axonal soils; often in partial shade. Blooms March – June	**None.** No suitable habitat in study area.
Loma Prieta hoita *Hoita stroblina*	—/—/1B.1	Mesic habitats. Usually serpentinite soils in chaparral and cismontane and riparian woodland. Affinity for serpentine soil: strong indicator. Blooms May – July	**None.** No suitable habitat in study area.
Kellogg's horkelia *Horkelia cuneata* var. *sericea*	—/—/1B.1	Openings in closed-cone coniferous forest, maritime chaparral, coastal scrub, sandy or gravelly soil. Blooms February - July	**None.** No suitable habitat in study area.
Oregon meconella *Meconella oregana*	—/—/1B.1	Coastal prairie and coastal scrub. Blooms March – April	**None.** No suitable habitat in study area.
Woodland woollythreads *Monolopia gracilens*	—/—/1B.2	Mixed evergreen forest, broadleaved upland forest, redwood forest, and chaparral, and valley and foothill grasslands. Affinity to serpentine soil. 60 – 1,360m. Blooms March – July	**None.** No suitable habitat in study area.
San Francisco popcorn flower *Plagiobothrys diffusus*	—/SE/1B.1	Coastal prairie, valley, and foothill grassland; historically on grasslands with marine influence. Blooms March – June	**None**. No suitable habitat in the study area.

TABLE 4.2-1 (CONTINUED)
SPECIAL-STATUS SPECIES' POTENTIAL TO OCCUR WITHIN THE STUDY AREA

Common Name *Scientific Name*	Status	General Habitat Requirements	Potential for Species Occurrence
Plants (cont.)			
Adobe sanicle *Sanicula maritima*	—SR/1B.1	Moist clay or ultramafic/serpentine soil in chaparral, coastal prairie, meadows, seeps, and valley and foothill grassland. Affinity to serpentine soils: weak indicator. Blooms February – May	**None.** No suitable habitat in study area.
Most beautiful jewelflower *Streptanthus albidus* ssp. *peramoenus*	—/—/1B.2	Serpentine soils in chaparral, cismontane woodland, and valley and foothill grassland. Blooms April - September	**None.** No suitable habitat in study area.
Northern slender pondweed *Stuckenia filiformis* ssp. *alpina*	—/—/2B.2	Marshes and swamps, in shallow, clear water of lakes and drainage channels. 15–2,310m. Blooms May – July	**None.** No suitable habitat in study area.
Saline clover *Trifolium hydrophilum*	—/—/1B.2	Marshes and swamps, valley and foothill grassland (mesic, alkaline), vernal pools. Blooms April – June	**None.** No suitable habitat in study area.

NOTES:
CNDDB = California Natural Diversity Database; DPS = distinct population segment

KEY:
STATUS: Federal/State/Other (CNPS CRPR, Western Bat Working Group, Xerces Society for Invertebrate Conservation)

Federal (U.S. Fish and Wildlife Service)

FDL = delisted
FE = listed as endangered (in danger of extinction) by the federal government
FT = listed as threatened (likely to become endangered within the foreseeable future) by the federal government
FC = candidate to become a *proposed* species
BGEPA = Bald and Golden Eagle Protection Act
MMPA = Marine Mammal Protection Act

State (CDFW)

SE = listed as endangered by the State of California
ST = listed as threatened by the State of California
SC = state candidate for listing
* = Special Animals List
SSC = California Species of Special Concern
FP = state fully protected
SDL = delisted
SR = state rare (plants)

Other

California Native Plant Society (CNPS) California Rare Plant Rank (CRPR)
1A = Presumed extirpated in California; Rare or extinct in other parts of its range.
1B = Rare, threatened, or endangered throughout range; Most species in this rank are endemic to California.
2A = Extirpated in California, but common in other parts of its range.
2B = Rare, threatened, or endangered in California but common in other parts of its range.

An extension reflecting the level of threat to each species is appended to each rarity category as follows:
.1 = Seriously endangered in California
.2 = Fairly endangered in California

Western Bat Working Group (WBWG)
Medium = Need more information about the species, possible threats, and protective actions to implement
High = Imperiled or at high risk of imperilment

Xerces Society for Invertebrate Conservation (XSIC)
CI = Critically imperiled
IM = Imperiled
VU = Vulnerable
DD = Data Deficit

International Union for Conservation of Nature (IUCN) Red List
LC = Least concern
NT = Near threatened
VU = Vulnerable
EN = Endangered
CR = Critically endangered

SOURCE: Data compiled by Environmental Science Associates

Special-Status Wildlife

Special-status wildlife species that have potential to occur in the study area include peregrine falcon (*Falco peregrinus*), a CDFW fully protected species known to nest on the Fruitvale Bridge, and pallid bat (*Antrozous pallidus*), a California species of special concern that roosts in abandoned buildings (**Table 4.2-1**). In addition, birds protected by the Migratory Bird Treaty Act (MBTA) and CFGC Sections 3503-3513, such as Cooper's hawk (*Accipiter cooperii*), may be present in the study area and are discussed below.

Nesting Birds and Raptors

Most bird species that could occur in the Project area are protected by the MBTA and by CFGC Sections 3503–3513. Protected species that have been documented in the study area include Anna's hummingbird (*Calypte anna*), bushtit (*Psaltriparus minimus*), song sparrow (*Melospiza melodia*), black phoebe (*Sayornis nigricans*), house finch (*Haemorhous mexicanus*), California towhee (*Melozone crissalis*).[5] The trees and shrubs in the study area provide suitable nesting and foraging habitat for these species, which are tolerant of urban activity. The MBTA and CFGC are discussed in more detail below.

Sensitive Natural Communities

Sensitive natural communities are designated by various resource agencies such as CDFW, or in local policies and regulations. They are generally considered to have important functions or values for wildlife and/or are recognized as declining in extent or distribution and are considered threatened enough to warrant some level of protection. CDFW tracks these communities of conservation concern through its *California Sensitive Natural Community List*. Natural communities with ranks of S1 to S3 are considered sensitive natural communities, to be addressed in the environmental review processes of CEQA and its equivalents.

There are no CDFW sensitive natural communities in the study area.

Critical Habitat Designations

USFWS can designate critical habitat for species that have been listed as threatened or endangered. *Critical habitat* is defined in FESA Section 3(5)(A) as those lands (or waters) within a listed species' current range that contain the physical or biological features that are considered essential to its conservation. The designated habitat should contain elements necessary for the primary biological needs of the species, including breeding, foraging, dispersal, migration, shelter, and growth of juveniles. The critical habitat designation serves to identify specific areas that are considered essential to the conservation of a listed species through special management or protection under FESA Section 7, which requires that federal agencies must not fund, carry out, or authorize projects that would destroy or adversely affect critical habitat.

There is no critical habitat in the study area.

[5] Birds of the Sausal Creek Watershed: A Checklist. Published by Friends of Sausal Creek, April 2016.

4.2.3 Regulatory Setting

Federal

Endangered Species Act

The U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service are the designated federal agencies responsible for administering the FESA. The FESA defines species as "endangered" and "threatened" and provides regulatory protection for any species thus designated. FESA Section 9 prohibits the "take" of species listed by USFWS as threatened or endangered. As defined in the FESA, *taking* means "… to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in such conduct."

FESA Section 7(a)(2) requires all federal agencies, including USFWS, to evaluate projects authorized, funded, or carried out by federal agencies with respect to any species proposed for listing or already listed as endangered or threatened and the species' critical habitat, if any is proposed or designated. Federal agencies must undertake programs for the conservation of endangered and threatened species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat."

As defined in the FESA, "individuals, organizations, states, local governments, and other non-federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding."

Migratory Bird Treaty Act

The MBTA is the domestic law that affirms and implements a commitment by the United States to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. Unless and except as permitted by regulations, the MBTA makes it unlawful at any time, by any means, or in any manner to intentionally pursue, hunt, take, capture, or kill migratory birds in the United States. The law also applies to the intentional disturbance and removal of nests occupied by migratory birds or their eggs during the breeding season.

Federal Regulation of Wetlands and Other Waters

The regulations and policies of various federal agencies (e.g., U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and U.S. Fish and Wildlife Service) mandate that the filling of wetlands be avoided unless it can be demonstrated that there is no practicable alternative to filling. The USACE has primary federal responsibility for administering regulations that concern wetlands and other waters under the statutory authority of the Clean Water Act (section 404) and the Rivers and Harbors Act (sections 9 and 10). No federal jurisdictional waters occur in the Project area.

State

In addition to CEQA, the primary state planning, treatment, and review mechanisms for biological resources in the study area are CESA; CFGC Sections 3503, 3503.5, and 3511; and the Clean Water Act Section 401. Each is summarized below.

California Endangered Species Act

The CESA closely parallels the conditions of the FESA; however, it is administered by CDFW. CESA prohibits the "taking" of listed species except as otherwise provided in state law. Unlike the FESA, CESA applies the take prohibitions to species petitioned for listing (state candidates). State lead agencies are required to consult with CDFW to ensure that any actions are not likely to jeopardize the continued existence of any state-listed species or result in destruction or degradation of required habitat. CDFW is required to coordinate with USFWS for actions that involve both federally listed and state-listed species.

Under CFGC Section 2081, CDFW may authorize individuals or public agencies to import, export, take, or possess any endangered, threatened, or candidate species in the state of California. These acts that are otherwise prohibited may be authorized through permits or memoranda of understanding if:

1. The take is incidental to an otherwise lawful activity;
2. Impacts of the authorized take are minimized and fully mitigated;
3. The permit is consistent with any regulations adopted pursuant to any recovery plan for the species; and
4. The applicant ensures adequate funding to implement the measures required by CDFW.

CDFW makes this determination based on the best scientific and other information that is reasonably available and includes consideration of the species' capability to survive and reproduce.

California Fish and Game Code Sections 3503, 3503.5, and 3513

Under these Fish and Game Code sections, a project operator is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds of prey; the taking or possessing of any migratory non-game bird; the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or non-game birds; or the taking of any non-game bird under CFGC Section 3800. CFGC Section 3513 adopts the U.S. Department of the Interior's take provisions under the MBTA.

State Regulation of Wetlands and Other Waters

The state's authority in regulating activities in wetlands and waters resides primarily with the State Water Resources Control Board. The state board, acting through the San Francisco Bay Regional Water Quality Control Board under Clean Water Act section 401, must certify that a Corps Clean Water Act section 404 and Rivers and Harbors Act section 10 permit action meets state water quality objectives. Any condition of water quality certification is then incorporated

into the Corps' section 404/10 permit authorized for the Project. No state jurisdictional waters occur in the Project area.

Local

City of Oakland General Plan

The *Open Space, Conservation, and Recreation (OSCAR) Element* of the City of Oakland General Plan was adopted in 1996. OSCAR policies pertaining to natural resources with potential relevance to the Project include the following (City of Oakland, 1996):

Objective OS-12: Street Trees. To "green" Oakland's residential neighborhoods and commercial areas with street trees.

Policy OS-12.1: Street Tree Selection. Incorporate a broad and varied range of tree species which is reflected on a city-maintained list of approved trees. Street tree selection should respond to the general environmental conditions at the planting site, including climate and micro-climate, soil types, topography, existing tree planting, maintenance of adequate distance between street trees and other features, the character of existing development., and the size and context of the tree planting area.

Policy OS-12.2: Street Tree Maintenance. Maintain street trees to promote their natural forms, eliminate hazardous conditions, provide adequate vertical clearance over streets and sidewalks, and abate pest and disease problems.

Policy OS-12.3: Street Tree Removal. Remove street trees only if they are hazardous, severely and incurably infested with insects or blight, or are severely and irreversibly damaged and deformed. Provide replacement trees in all cases where the site is suitable for street trees.

Objective CO-4: Water Supply. To maintain a water supply sufficient to meet local needs while minimizing the need to develop new water supply facilities.

Policy CO-4.2: Drought-Tolerant Landscaping. Require use of drought-tolerant plants to the greatest extent possible and encourage the use of irrigation systems which minimize water consumption.

Policy CO-7.4: Tree Removal. Discourage the removal of large trees on already developed sites unless removal is required for biological, public safety, or public works reasons.

Oakland Municipal Code

City of Oakland Protected Tree Ordinance

The City of Oakland Protected Tree Ordinance (OMC Chapter 12.36) permits removal of protected trees under certain circumstances. To grant a tree removal permit, the City must determine that removal is necessary in order to accomplish one of the following objectives:

- To ensure public health and safety,
- To avoid an unconstitutional taking of property,
- To take reasonable advantage of views,

- To pursue acceptable professional practice of forestry or landscape design, or
- To implement the vegetation management prescriptions in the S-11 site development review zone.

Protected trees include the following:

> *Quercus agrifolia* (California or coast live oak) measuring four inches diameter at breast height (dbh) or larger, and any other tree measuring nine inches dbh or larger except *Eucalyptus* spp. and *Pinus radiata* (Monterey pine); provided, however, Monterey pine trees on City property and in development-related situations where more than five Monterey pine trees per acre are proposed to be removed are considered protected trees.

Creek Protection, Stormwater Management, and Discharge Control Ordinance

The City's Creek Protection, Stormwater Management, and Discharge Control Ordinance (Chapter 13.16 of the Oakland Municipal Code) prohibits activities that would result in the discharge of pollutants to Oakland's waterways or in damage to creeks, creek functions, or habitat. The Ordinance requires the use of standard BMPs to prevent pollution or erosion to creeks and/or storm drains. Additionally, a creek protection permit is required for any construction work on creekside properties. The Ordinance establishes comprehensive guidelines for the regulation of discharges to the City's storm drain system and the protection of surface water quality. Under the ordinance, the City of Oakland Public Works Agency issues permits for storm drainage facilities that would be connected to existing City drainage facilities. The Ordinance includes enforcement provisions to provide more effective methods to deter and reduce the discharge of pollutants to the storm drain system, local creeks, and San Francisco Bay.

As described in Section 4.7.6, *Hydrology and Water Quality*, the Project area is bordered by an artificial tidal canal that is a part of the Oakland Estuary, which is connected to San Francisco Bay. The Estuary is considered a waterway under the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16). As described in Chapter 3, *Project Description*, the Project would include a realignment of Alameda Avenue, including new pedestrian sidewalks and bike facilities, and increased public access to the estuary shoreline and the Bay Trail. This construction work would occur within the BCDC jurisdiction, which is generally the first 100 feet inland from the shoreline of the Oakland Estuary. In addition, this work would occur as close as one foot from the top of the bank. As the Project would include exterior work within 20 feet of the top of bank of the Oakland Estuary, the Project would be required to obtain a Category IV Creek Protection Permit through submittal of a Creek Protection Plan and accompanying hydrology report[6]. The Creek Protection Plan may include, but is not limited to, implementation of litter prevention measures, dust control measures, methods of cleaning tools and equipment, construction site fencing, sediment and erosion control measures, wet weather protection, and emergency

[6] City Municipal Code 13.16.130.E, Reclassification of Category, permits the Chief of Building Services to reclassify a Creek Protection Permit application for Category IV Creek Protection Permits. If the applicant can demonstrate to the reasonable satisfaction of the Chief of Building Services that development or work shall not cause adverse impacts to the creek (including without limitation: erosion, bank failure, increased runoff, sediment loading, transfer or pollutants, or damage to the natural habitat, riparian vegetation or wildlife), then an application for Categories II, III or IV may be reclassified. There is the potential for the Project Creek Permit application to be downgraded to Category II should the applicant demonstrate that there would be no new runoff through compliance with C3 requirements.

preparations for construction-related spills. See Section 4.7.6.2 for further discussion of the Creek Protection Plan requirements.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to reducing impacts on biological resources and applicable to the Project are listed below. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts on biological resources. Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

SCA BIO-1: Bird Collision Reduction Measures. *(Standard Condition of Approval 28)*

Requirement: The project applicant shall submit a Bird Collision Reduction Plan for City review and approval to reduce potential bird collisions to the maximum feasible extent. The Plan shall include all of the following mandatory measures, as well as applicable and specific project Best Management Practice (BMP) strategies to reduce bird strike impacts to the maximum feasible extent. The project applicant shall implement the approved Plan. Mandatory measures include all of the following:

i. For large buildings subject to federal aviation safety regulations, install minimum intensity white strobe lighting with three second flash instead of solid red or rotating lights.

ii. Minimize the number of and co-locate rooftop-antennas and other rooftop structures.

iii. Monopole structures or antennas shall not include guy wires.

iv. Avoid the use of mirrors in landscape design.

v. Avoid placement of bird-friendly attractants (i.e., landscaped areas, vegetated roofs, water features) near glass unless shielded by architectural features taller than the attractant that incorporate bird friendly treatments no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule), as explained below.

vi. Apply bird-friendly glazing treatments to no less than 90 percent of all windows and glass between the ground and 60 feet above ground or to the height of existing adjacent landscape or the height of the proposed landscape. Examples of bird-friendly glazing treatments include the following:

- Use opaque glass in windowpanes instead of reflective glass.
- Uniformly cover the interior or exterior of clear glass surface with patterns (e.g., dots, stripes, decals, images, abstract patterns). Patterns can be etched, fritted, or on films and shall have a density of no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule).
- Install paned glass with fenestration patterns with vertical and horizontal mullions no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule).

- Install external screens over non-reflective glass (as close to the glass as possible) for birds to perceive windows as solid objects.
- Install UV-pattern reflective glass, laminated glass with a patterned UV-reflective coating, or UV-absorbing and UV-reflecting film on the glass since both most birds can see ultraviolet light, which is invisible to humans.
- Install decorative grilles, screens, netting, or louvers, with openings no more than two inches horizontally, four inches vertically, or both (the "two-by-four" rule).
- Install awnings, overhangs, sunshades, or light shelves directly adjacent to clear glass which is recessed on all sides.
- Install opaque window film with a pattern/design which also adheres to the "two-by-four" rule for coverage.

vii. Reduce light pollution. Examples include the following:

- Extinguish nighttime architectural illumination treatments during bird migration season (February 15 to May 15 and August 15 to November 30).
- Install time switch control devices or occupancy sensors on non-emergency interior lights that can be programmed to turn off during non-work hours and between 11:00 p.m. and sunrise.
- Reduce perimeter lighting whenever possible.
- Install full cut-off, shielded, or directional lighting to minimize light spillage, glare, or light trespass.
- Do not use beams of lights during the spring (February 15 to May 15) or fall (August 15 to November 30) migration.

viii. Develop and implement a building operation and management manual that promotes bird safety. Example measures in the manual include the following:

- Donation of discovered dead bird specimens to an authorized bird conservation organization or museums (e.g., UC Berkeley Museum of Vertebrate Zoology) to aid in species identification and to benefit scientific study, as per all federal, state and local laws.
- Distribution of educational materials on bird-safe practices for the building occupants. Contact Golden Gate Audubon Society or American Bird Conservancy for materials.
- Asking employees to turn off task lighting at their work stations and draw office blinds, shades, curtains, or other window coverings at end of work day.
- Install interior blinds, shades, or other window coverings in windows above the ground floor visible from the exterior as part of the construction contract, lease agreement, or CC&R.
- Schedule nightly maintenance during the day or to conclude before 11 p.m., if possible.

SCA BIO-2: Tree Removal During Bird Breeding Season. *(Standard Condition of Approval 29)*

Requirement: To the extent feasible, removal of any tree and/or other vegetation suitable for nesting of birds shall not occur during the bird breeding season of February 1 to August 15 (or during December 15 to August 15 for trees located in or near marsh, wetland, or aquatic habitats). If tree removal must occur during the bird breeding season, all trees to be removed shall be surveyed by a qualified biologist to verify the presence or absence of nesting raptors or other birds. Pre-removal surveys shall be conducted within 15 days prior to the start of work and shall be submitted to the City for review and approval. If the survey indicates the potential presence of nesting raptors or other birds, the biologist shall determine an appropriately sized buffer around the nest in which no work will be allowed until the young have successfully fledged. The size of the nest buffer will be determined by the biologist in consultation with the California Department of Fish and Wildlife and will be based to a large extent on the nesting species and its sensitivity to disturbance. In general, buffer sizes of 200 feet for raptors and 50 feet for other birds should suffice to prevent disturbance to birds nesting in the urban environment, but these buffers may be increased or decreased, as appropriate, depending on the bird species and the level of disturbance anticipated near the nest.

SCA BIO-3: Tree Permit. *(Standard Condition of Approval 30)*

a. Tree Permit Required.

Requirement: Pursuant to the City's Tree Protection Ordinance (OMC chapter 12.36), the project applicant shall obtain a tree permit and abide by the conditions of that permit.

b. Tree Protection During Construction.

Requirement: Adequate protection shall be provided during the construction period for any trees which are to remain standing, including the following, plus any recommendations of an arborist:

i. Before the start of any clearing, excavation, construction, or other work on the site, every protected tree deemed to be potentially endangered by said site work shall be securely fenced off at a distance from the base of the tree to be determined by the project's consulting arborist. Such fences shall remain in place for duration of all such work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of logs, brush, earth and other debris which will avoid injury to any protected tree.

ii. Where proposed development or other site work is to encroach upon the protected perimeter of any protected tree, special measures shall be incorporated to allow the roots to breathe and obtain water and nutrients. Any excavation, cutting, filing, or compaction of the existing ground surface within the protected perimeter shall be minimized. No change in existing ground level shall occur within a distance to be determined by the project's consulting arborist from the base of any protected tree at any time. No burning or use of equipment with an open flame shall occur near or within the protected perimeter of any protected tree.

iii. No storage or dumping of oil, gas, chemicals, or other substances that may be harmful to trees shall occur within the distance to be determined by the project's

consulting arborist from the base of any protected trees, or any other location on the site from which such substances might enter the protected perimeter. No heavy construction equipment or construction materials shall be operated or stored within a distance from the base of any protected trees to be determined by the project's consulting arborist. Wires, ropes, or other devices shall not be attached to any protected tree, except as needed for support of the tree. No sign, other than a tag showing the botanical classification, shall be attached to any protected tree.

iv. Periodically during construction, the leaves of protected trees shall be thoroughly sprayed with water to prevent buildup of dust and other pollution that would inhibit leaf transpiration.

v. If any damage to a protected tree should occur during or as a result of work on the site, the project applicant shall immediately notify the Public Works Department and the project's consulting arborist shall make a recommendation to the City Tree Reviewer as to whether the damaged tree can be preserved. If, in the professional opinion of the Tree Reviewer, such tree cannot be preserved in a healthy state, the Tree Reviewer shall require replacement of any tree removed with another tree or trees on the same site deemed adequate by the Tree Reviewer to compensate for the loss of the tree that is removed.

vi. All debris created as a result of any tree removal work shall be removed by the project applicant from the property within two weeks of debris creation, and such debris shall be properly disposed of by the project applicant in accordance with all applicable laws, ordinances, and regulations.

c. Tree Replacement Plantings.

Requirement: Replacement plantings shall be required for tree removals for the purposes of erosion control, groundwater replenishment, visual screening, wildlife habitat, and preventing excessive loss of shade, in accordance with the following criteria:

i. No tree replacement shall be required for the removal of nonnative species, for the removal of trees which is required for the benefit of remaining trees, or where insufficient planting area exists for a mature tree of the species being considered.

ii. Replacement tree species shall consist of Sequoia sempervirens (Coast Redwood), Quercus agrifolia (Coast Live Oak), Arbutus menziesii (Madrone), Aesculus californica (California Buckeye), Umbellularia californica (California Bay Laurel), or other tree species acceptable to the Tree Division.

iii. Replacement trees shall be at least twenty-four (24) inch box size, unless a smaller size is recommended by the arborist, except that three fifteen (15) gallon size trees may be substituted for each twenty-four (24) inch box size tree where appropriate.

iv. Minimum planting areas must be available on site as follows:

- For Sequoia sempervirens, three hundred fifteen (315) square feet per tree;
- For other species listed, seven hundred (700) square feet per tree.

v. In the event that replacement trees are required but cannot be planted due to site constraints, an in lieu fee in accordance with the City's Master Fee Schedule may

be substituted for required replacement plantings, with all such revenues applied toward tree planting in City parks, streets and medians.

vi. The project applicant shall install the plantings and maintain the plantings until established. The Tree Reviewer of the Tree Division of the Public Works Department may require a landscape plan showing the replacement plantings and the method of irrigation. Any replacement plantings which fail to become established within one year of planting shall be replanted at the project applicant's expense.

4.2.4 Environmental Impacts and Mitigation Measures

Significance Criteria

Based on the City of Oakland thresholds of significance guidelines (City of Oakland 2020b), for the purposes of this EIR, a biological resources impact would be significant if implementing the Project would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS;
3. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
6. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Approach to Analysis

The impact analysis is based on the resources, references, and data collection methods identified in the *Local and Regional Setting* discussion in Section 4.2.1, *Environmental Setting*. The analysis addresses potential direct and indirect impacts from construction or operation of the Project, defined as follows:

Direct impacts are those that could occur at the same time and place as project implementation, such as the removal of habitat as a result of ground disturbance.

Indirect impacts are those that could occur either at a later time or at a distance from the project area, but that are reasonably foreseeable, such as the loss of an aquatic species as a result of upstream effects on water quality or quantity.

Direct and indirect impacts on biological resources may vary in duration; they may be temporary, short term, or long term.

Using the significance criteria listed above, the analysis considers the potential impacts of the Project on suitable habitat, special-status species, sensitive natural communities, wetlands, and wildlife corridors, and potential Project conflicts with local policies affecting biological resources. Mitigation measures are identified, as necessary, to reduce impacts to less-than-significant levels.

Topics Considered and No Impact Determined

The Project would have no impact to the following topic based on the Project characteristics, its geographical location, and underlying site conditions. Therefore, this topic is not addressed further in this document for the following reasons:

- ***Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*** There are no adopted or approved local, regional, or state habitat conservation plans applicable to the Project area; therefore, the following significance threshold does not apply to the Project and is not discussed further

Project Impact and Discussion

Impact BIO-1: Implementation of the Project would not have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (nesting birds and roosting bats). (*Less than Significant Impact, with SCAs and Mitigation*)

The study area does not include suitable habitat or is outside of the known geographic or elevation range, for the majority of the terrestrial species documented in the CNDDB and CNPS searches. As a developed site, the Project area provides minimal habitat for sensitive species; however, the study area includes suitable habitat for, and is within the known range of, the following species: Cooper's hawk, peregrine falcon, and pallid bat. In addition, birds protected by the MBTA and CFGC Section 3503 have potential to occur in the study area. Therefore, the following analysis is limited to potential impacts on these wildlife species.

Nesting Birds

Construction

The Project would involve infill development located in a highly urbanized area with ongoing baseline disturbance, including busy road and bridge traffic, unhoused people living in recreational vehicles along Alameda Avenue, and boating on the Oakland Estuary. Although species present in the study area are likely to have adapted to fairly high levels of disturbance in this developed portion of the City, construction within the Project area could result in direct or indirect impacts on one or two special-status birds, and nesting birds protected by the MBTA and CFGC Section 3503. The existing vacant structures on the project site provide significant nesting

opportunities due to the complexity and dilapidation of the structures and access to interiors. Birds protected by the MBTA could nest on the building roof, under eaves, on flat surfaces associated with the stacks and lattice work and inside the building if there is ingress and egress, as well as in trees and shrubs. Direct impacts on nesting birds could result from the removal of trees and vegetation and/or demolition of buildings while an active bird nest is present. In addition, earth moving, building demolition, operation of heavy equipment, and increased human presence could result in noise, vibration, and visual disturbance that could indirectly result in nest failure (disturbance, avoidance, or abandonment that leads to unsuccessful reproduction), or could cause flight behavior that would expose an adult or its young to predators. These activities could cause birds that have established a nest before the start of construction to change their behavior or even abandon an active nest, putting their eggs and nestlings at risk for mortality.

Impacts during the non-breeding season generally are not considered significant, primarily because of the birds' mobility and ability to access other comparable foraging habitat in the region. However, impacts during the breeding season would have a potentially significant impact.

The Project would involve removal of seven trees located in the Project site interior, at the intersection of Alameda Avenue and Fruitvale Avenue, and at the existing entrance at Alameda Avenue, which would be done in accordance with the conditions of SCA BIO-1, Tree Removal During Breeding Season, thereby reducing direct impacts on birds nesting in trees to be removed. In addition, potential impacts to nesting birds could occur during building demolition or construction, unrelated to the removal of trees during the avian nesting season, hence, Mitigation Measures BIO-1, Worker Environmental Awareness Program Training, and BIO-2, Avoid and Minimize Impact on Nesting Birds, are additionally required to mitigate direct and indirect impacts on birds nesting in or on buildings and undisturbed vegetation both in the Project area and within the greater study area.

Implementation of SCA BIO-2, Mitigation Measure BIO-1, and Mitigation Measure BIO-2 would reduce construction-related impacts by limiting construction to the non-nesting season when feasible or, if avoiding the nesting season is not feasible, conducting pre-construction surveys for nesting birds and establishing no-disturbance buffers around any active nests until birds have fledged and are able to leave the area; and reporting findings to the City prior to initiation of construction. Therefore, implementation of this mitigation measure would reduce potential impacts on nesting birds to less than significant.

Mitigation Measure BIO-1, Worker Environmental Awareness Program Training, and **Mitigation Measure BIO-2, Avoid and Minimize Impacts on Nesting Birds**, would reduce construction-related impacts to less than significant.

> **SCA BIO-2: Tree Removal During Bird Breeding Season.**
>
> **Mitigation Measure BIO-1: Worker Environmental Awareness Program Training.** Project-specific Worker Environmental Awareness Program (WEAP) training shall be developed by a qualified biologist and provided to all Project personnel prior to the start of Project demolition/construction or tree removal work. The training can be provided in

a brochure or as a video. The WEAP training shall generally include, but not be limited to, education about the following:

a) Environmental rules and regulations, and penalties for non-compliance.

b) Avoidance measures and a protocol to follow, including a communication chain, if nesting birds or roosting bats are encountered.

Mitigation Measure BIO-2: Avoid and Minimize Impacts on Nesting Birds. The Project Applicant shall take adequate measures to avoid inadvertent take of raptor nests and other nesting birds protected under the Migratory Bird Treaty Act when in active use. This shall be accomplished by taking the following steps.

a) If vegetation removal and/or construction is proposed during the nesting season (February 15 to August 31), a pre-construction survey for nesting raptors and other migratory birds shall be conducted by a qualified biologist within 7 days prior to the onset of vegetation removal and/or construction, to identify any active nests in the Project area and in the vicinity of proposed construction. Surveys shall be performed for the Project area, vehicle and equipment staging areas, and suitable habitat within 150 feet of the Project area boundary to locate any active passerine (e.g., songbird) nests and within 250 feet of the Project area boundary to locate any active raptor (bird of prey) nests.

b) If no active nests are identified during the survey period, or if development is initiated during the non-breeding season (September 1 to February 14), construction may proceed with no restrictions.

c) If bird nests are found, the qualified biologist shall establish an adequate no-disturbance buffer zone around the nest location. Construction activities and/or vegetation removal shall be restricted within the no-disturbance buffer zone until the qualified biologist has confirmed that any young birds have fledged and are able to leave the construction area. Required setback distances for the no-disturbance buffer zone shall be established by the qualified biologist and may vary depending on species, line-of-sight between the nest and the construction activity, and the birds' sensitivity to disturbance. Buffer sizes shall initially be 200 feet for raptors and 50 feet for other birds, but may be modified, as appropriate, by the qualified biologist based on site conditions. As deemed necessary by the qualified biologist, the no-disturbance buffer zone shall be fenced with temporary orange construction fencing.

d) Any birds that begin nesting within the Project area and survey buffers amid construction activities shall be assumed to be habituated to construction-related or similar noise and disturbance levels and no work exclusion zones shall be established around active nests in these cases; however, should birds nesting nearby begin to show disturbance associated with construction activities, no-disturbance buffer zones shall be established as determined by the qualified wildlife biologist.

e) Any work that must occur within established no-disturbance buffer zones around active nests shall be monitored by a qualified biologist. If adverse effects in response to Project work within the buffer are observed and could compromise the nest's success, work within the no-disturbance buffer shall halt until the nest occupants have fledged.

f) A report of findings shall be prepared by the qualified biologist and submitted to the City for review and approval prior to initiation of construction within any no-

disturbance buffer zone during the nesting season. The report shall either confirm absence of any active nests or shall confirm that any young within a designated no-disturbance zone and construction can proceed.

Operations

Operational activities associated with the Project post-construction are unlikely to indirectly impact nesting birds due to the baseline level of human disturbance already occurring in and adjacent to the study area and the similar levels of operational disturbance pre- and post-construction. Birds nesting in these areas are assumed to be habituated to such disturbance, and therefore, the impacts of human disturbance would be less than significant.

Mitigation: None required.

Roosting Bats

Construction

Pallid bat, a California species of special concern, may be present onsite and roosting in the existing abandoned Owens-Brockway Glass manufacturing facility. Construction activities could result in direct impacts on roosting bats if they were disturbed, killed, or injured by demolition of a structure in which they were roosting. If roosting bats are present, construction or demolition noise could result in disturbance, avoidance, or abandonment of roosts resulting in unsuccessful reproduction. If building demolition were to occur during periods of winter torpor or maternity roosting, any bats present would likely not survive the disturbance. Disturbance of special-status bat species would be a potentially significant impact. Therefore, **Mitigation Measure BIO-3**, **Avoid and Minimize Impacts on Roosting Bats**, by which a qualified biologist shall perform a pre-construction assessment of the Project area to identify any potentially active roost sites, is required to reduce this impact to less than significant.

Mitigation Measure BIO-3: Avoid and Minimize Impacts on Roosting Bats. A qualified biologist who is experienced with bat surveying techniques (including auditory sampling methods), behavior, roosting habitat, and identification of local bat species shall be consulted prior to demolition or building relocation activities to conduct a pre-construction habitat assessment of the Project area (focusing on buildings to be demolished or relocated) to characterize potential bat habitat and identify potentially active roost sites. No further action is required should the pre-construction habitat assessment not identify potential bat roosting habitat or signs of potentially active bat roosts within the Project area (e.g., guano, urine staining, dead bats, etc.).

The following measures shall be implemented should potential bat roosting habitat or potentially active bat roosts be identified during the habitat assessment in buildings to be demolished within the study area:

a) In areas identified as potential roosting habitat during the habitat assessment, initial building demolition shall occur when bats are active, approximately between the periods of March 1 to April 15 and August 15 to October 15, to the extent feasible. These periods avoid the bat maternity roosting season and period of winter torpor.[7]

[7] Torpor refers to a state of decreased physiological activity with reduced body temperature and metabolic rate.

b) Buildings with potential bat roosting habitat or active (outside of maternity and winter torpor seasons) roosts shall be disturbed only under clear weather conditions when precipitation is not forecast for three days and when daytime temperatures are at least 50 degrees Fahrenheit.

c) The demolition or relocation of buildings containing or suspected of containing potential bat roosting habitat or active bat roosts shall be done under the supervision of the qualified biologist. When appropriate, buildings shall be partially dismantled to significantly change the roost conditions, causing bats to abandon and not return to the roost, likely in the evening and after bats have emerged from the roost to forage. Under no circumstances shall active maternity roosts be disturbed until the roost disbands at the completion of the maternity roosting season or otherwise becomes inactive, as determined by the qualified biologist.

d) If avoidance of the bat maternity roosting season and period of winter torpor, defined under a), above, is infeasible, the qualified biologist shall conduct pre-construction surveys of potential bat roost sites identified during the initial habitat assessment no more than 14 days prior to building demolition.

e) If active bat roosts or evidence of roosting is identified during pre-construction surveys for building demolition, the qualified biologist shall determine, if possible, the type of roost and species. A no-disturbance buffer shall be established around roost sites until the start of the seasonal windows identified above, or until the qualified biologist determines roost sites are no longer active. The size of the no-disturbance buffer would be determined by the qualified biologist and would depend on the species present, roost type, existing screening around the roost site (such as dense vegetation or a building), as well as the type of construction activity that would occur around the roost site.

Impact BIO-2: Implementation of the Project would not have a substantial adverse effect on riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS. (*No Impact*)

The study area is not within critical habitat for any federally threatened or endangered species (USFWS, 2022b). The study area also is not within or in the immediate vicinity of any riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations, or by CDFW or USFWS. Sausal Creek enters the Oakland Estuary via a culvert under Alameda Avenue approximately 30 feet from the Project area. The nearest daylighted section of Sausal Creek is approximately 0.75 miles upstream from the culvert (USFWS, 2022c). There is no undeveloped habitat within the study area that could support a sensitive natural community. Therefore, the Project would have no impact on riparian habitat or sensitive natural communities.

Mitigation: None required.

Impact BIO-3: Implementation of the Project would not have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. (*Less than Significant with SCAs*)

The Project area is in a relatively flat, densely developed, urban area. No state-or federally jurisdictional wetlands occur in the Project area; hence, no impacts would occur to such features.

The Oakland Estuary, located between the cities of Oakland and Alameda and hydrologically connected to the San Francisco Estuary, is approximately 20 feet southwest of Alameda Avenue. The Oakland Estuary and the San Francisco Estuary are waters of the U.S. As discussed in detail in Section 4.7.6, *Hydrology and Water Quality*, the Project would control stormwater on-site and would not include any non-stormwater discharges to the storm drain system. Implementation of SCA HYD-1, State Construction General Permit, SCA HYD-2, NPDES C.3 Stormwater Requirements for Regulated Projects, and SCA UTIL-5, Storm Drain System, would ensure that stormwater that could affect receiving waters is managed during Project construction and operation.

The Oakland Estuary is also considered a waterway under the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16). Because Project construction for the realignment of Alameda Avenue would occur within 20 feet of the top of bank of the Oakland Estuary, the Project Applicant would be required to prepare a Category IV Creek Protection Permit through submittal of a Creek Protection Plan and accompanying hydrology report in accordance with SCA HYD-4, Creek Protection Plan. The Creek Protection Plan may include, but is not limited to, implementation of litter prevention measures, dust control measures, methods of cleaning tools and equipment, construction site fencing, sediment and erosion control measures, wet weather protection, and emergency preparations for construction-related spills. See Section 4.7.6.2 for further discussion of the Creek Protection Plan requirements. The Project would also be subject to SCA HYD-3, Vegetation Management of Creekside Properties, requiring vegetation management prior to, during, and after the construction, further protecting against sedimentation and erosion. With implementation of SCA HYD-1, SCA HYD-2, SCA HYD 3, SCA HYD-4, and SCA UTIL-5, the Project impact on state or federally protected wetlands and waters would be less than significant with no mitigation required.

SCA HYD-1: State Construction General Permit. See Section 4.7.6.2.

SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects. See Section 4.7.6.2.

SCA HYD-3: Vegetation Management on Creekside Properties. See Section 4.7.6.2.

SCA HYD-4: Creek Protection Plan. See Section 4.7.6.2.

SCA UTIL-5: Storm Drain System. See Section 4.7.13.2.

Mitigation: None required.

Impact BIO-4: Implementation of the Project would not interfere substantially with the movement of a native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. ***(Less than Significant)***

Native Wildlife Nursery Sites

No native wildlife nursery sites occur in the Project area. Such sites, if present in the study area, would primarily include sites suitable for communally nesting or roosting birds or individual nesting birds. Potential construction- and operations-related impacts and mitigation measures on individual nesting birds are discussed above under Impact BIO-1. No suitable habitat exists in the study area for communally nesting or roosting birds such as herons and egrets, and such wildlife nursery sites (referred to as rookeries) are not expected. Aside from individual bird nests described in Impact BIO-1, the Project would have no impact on native wildlife nursery sites.

Native Wildlife Movement Corridors

The study area is located within the Pacific Flyway along the northwestern shoreline of San Francisco Bay. Although specific migratory corridors near the study area are unknown, it can be assumed that numerous birds pass overhead or in the Project vicinity during spring and fall migrations. In addition, resident birds make daily localized flights at low elevations while they forage, disperse, and flee from dangers. Although the Project area would not be expected to host a high density of birds, the Oakland Estuary is an attractant for migrating waterfowl looking for a place to feed and rest.

Construction

Construction of the Project would require heavy equipment for demolition of the existing building and construction of new buildings, and may include excavators, cranes, pile drivers, dump trucks, concrete mixers, concrete pump trucks, and other industrial machinery that generate increased noise and vibration. Construction would occur during daytime periods over 17 months, during which time birds would likely avoid the Project area and perhaps adjacent portion of the Oakland Estuary within the study area; however, migratory birds could easily find undisturbed portions of the Oakland Estuary outside of the study area. In conclusion, there would be a less than significant impact on resident and migratory bird movements due to Project construction with no mitigation required.

Operation

The portion of buildings most likely to sustain bird strikes extends from ground level to 60 feet above the ground surface (San Francisco Planning Department, 2011). Many bird collisions are also induced by artificial night lighting, particularly from large buildings, which can be especially problematic for migrating songbirds because many are nocturnal migrants. Light fields caused by uplighting can disorient or entrap birds who become reluctant to fly from the lit area to darkness (Ogden, 1996). Research suggests that fatal bird collisions also increase as light emissions increase (Verheijen, 1981).

Direct effects on migratory and resident birds moving through an area could include death or injury if birds collide with lighted structures or with transparent or reflective glass surfaces. Glass corners,

which birds may view as an open flyway to habitat on the other side, and glass facades that reflect adjacent landscape vegetation can result in bird collisions. Indirect effects on migratory birds that become disoriented or entrapped by nighttime lighting resulting in delayed arrival at breeding or wintering grounds, and reduced energy stores necessary for migration, winter survival, or subsequent reproduction (Gauthreaux, 2006).

The proposed removal and replacement of the existing manufacturing plant and build-out of a new industrial building is not expected to substantially increase the height or nighttime uplighting on the Project area relative to existing conditions nor is it expected to increase the surface area of glass. Glazing is planned for most of the north, east, and west elevations. Two-story glazing is planned for the proposed office spaces at the corners of the building and in the middle of the north elevation. The south elevation, the elevation facing the tidal canal, would not include glazing other than a small amount at the southeast corner where proposed office is planned.

The City's SCA BIO-1, Bird Collision Reduction Measures, applies to all projects which include glass as part of the building's exterior and are located immediately adjacent to a substantial water body (e.g., Oakland Estuary). While there are no intervening tall structures between the proposed building and the Oakland Estuary, the small portion of proposed south-facing glazing would be at the southeast corner which is more than 500 feet from the Tidal Canal. Truck circulation, passenger vehicle parking, Alameda Avenue, and the parcel reserved for possible future development as retail use or a restaurant would occupy the space between the proposed building and the estuary. However, in the absence of specific design details of the possible future retail space, the Project is considered to be immediately adjacent to the Oakland Estuary Tidal Canal. As such, SCA BIO-1, Bird Collision Reduction Measures, requiring the Project Applicant to prepare and submit a Bird Collision Reduction Plan for City review and approval, would apply to the southeastern portion of the building with south-facing glazing. SCA BIO-1 would also apply to any south-facing glazing proposed for the possible future retail/restaurant space. The Bird Collision Reduction Plan shall include mandatory measures and best management practice strategies to reduce bird strike impacts. With implementation of the City's SCAs, the Project impacts related to sensitive or special status species would be less than significant with no mitigation required.

SCA BIO-1: Bird Collision Reduction Measures.

Mitigation: None required.

Impact BIO-5: Implementation of the Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. *(Less than Significant with SCAs*).

The Project would involve removal of seven trees located in the Project site interior, at the intersection of Alameda Avenue and Fruitvale Avenue, and at the existing entrance at Alameda Avenue, which would be subject to SCA BIO-3, Tree Permit. Implementation of this SCA would ensure that tree removal and tree replacement plantings would be conducted in accordance with the requirements of the City's Protected Tree Ordinance. Therefore, with implementation of the

City's SCAs, the Project would not conflict with the City's Tree Protection Ordinance, and the impact would be less than significant with no mitigation required.

SCA BIO-3: Tree Permit.

Mitigation: None required.

4.2.5 Cumulative

This section presents an analysis of the cumulative effects of the Project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. Significant cumulative impacts related to biological resources could occur if the incremental impacts of the Project combined with the incremental impacts of one or more of the cumulative projects identified in Section 4.0.7, *Cumulative Impacts*.

As previously discussed, the Project would have no impact on an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. The Project will have no impact on a riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS and no impacts on jurisdictional wetlands and waters. Accordingly, the Project could not contribute to cumulative impacts related to these topics and they are not discussed further.

Impact BIO-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative impacts on biological resources. (*Less than Significant with SCAs and Mitigation Measures*)

Significant cumulative impacts related to biological resources could occur if the incremental impacts of the Project combined with the incremental impacts of one or more of the cumulative projects would cause the Project to have a cumulatively considerable impact on special-status species, wetlands, or other waters of the United States, or on other biological resources protected by federal, state, or local regulations or policies (based on the significance criteria and thresholds presented earlier). This analysis then considers whether the incremental contribution of the Project's implementation to this cumulative impact would be considerable. Both conditions must apply for a project's cumulative effects to be significant.

The geographic scope of potential cumulative impacts on biological resources encompasses the Project and biologically linked areas that share the Sausal watershed and greater San Francisco Bay. Historic development in the region has already caused substantial adverse cumulative changes to biological resources in the study area. This includes the engineering of many portions of the Sausal Creek watershed to allow urban development and the historic loss of the riparian corridors and floodplains to urban encroachment.

The potential impacts of the Project on biological resources are largely site-specific, and the overall cumulative effects would be dependent on the degree to which significant vegetation and wildlife resources are present on a particular development site and, if present, the degree to which

they are avoided, or potential impacts are addressed through various forms of mitigation. As discussed above, the Project would result in less-than-significant impacts on biological resources including special-status species. In addition, all other cumulative development has been, or will be, subject to the same City SCAs related to biology, hydrology, and water quality and would be required to comply with the same provisions of the City's Protected Tree Ordinance and Creek Protection Ordinance. Based on compliance with these requirements and Mitigation Measures BIO-1 and BIO-2, the incremental impacts of the Project, combined with impacts of other projects in the area, would not combine to cause a significant cumulative impact on biological resources to which the Project could considerably contribute. The impact would be less than significant.

SCA BIO-1: Bird Collision Reduction Measures.

SCA BIO-2: Tree Removal During Birding Season.

SCA BIO-3: Tree Permit.

SCA HYD-1: State Construction General Permit. See Section 4.7.6.2.

SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects. See Section 4.7.6.2.

SCA HYD-3: Vegetation Management on Creekside Properties. See Section 4.7.6.2.

SCY HYD-4: Creek Protection Permit. See Section 4.7.6.2.

SCA UTIL-5: Storm Drain System. See Section 4.7.13.2.

Mitigation Measure BIO-1: Worker Environmental Awareness Program Training. See Impact BIO-1.

Mitigation Measure BIO-2: Minimize Impacts to Nesting Birds. See Impact BIO-1.

Mitigation Measure BIO-3: Avoid and Minimize Impact on Roosting Bats. See Impact BIO-1.

4.2.6 References

California Department of Fish and Wildlife (CDFW). 2022. *California Natural Diversity Database.* Accessed May 2022. https://wildlife.ca.gov/Data/CNDDB.

California Native Plant Society (CNPS). 2022. Online Inventory of Rare, Threatened, and Endangered Plants of California for U.S. Geological Survey 7.5-minute topographic quadrangle for San José West. Accessed June 2022. http://www.rareplants.cnps.org/.

City of Oakland. 1996. *Open Space, Conservation, and Recreation Element (OSCAR) Element of the General Plan.* Adopted June 11, 1996. Accessed February 10, 2022. https://cao-94612.s3.amazonaws.com/documents/oak035254.pdf.

City of Oakland. 2020b. *City of Oakland CEQA Thresholds of Significance Guidelines*, December 16, 2020.

Friends of Sausal Creek. 2016. *Birds of the Sausal Creek Watershed: A Checklist*. Published by Friends of Sausal Creek. April 2016.

Gauthreaux, S. A., and C. G. Belser. 2006. Effects of Artificial Night Lighting on Migrating Birds, in *Ecological Consequences of Night Lighting*, eds. C. Rich and T. Longcore. Covelo, CA: Island Press.

San Francisco Planning Department. 2011. *Standards for Bird-Safe Buildings*. Adopted July 14, 2011.

Ogden, Lesley J. 1996. *Collision Course: The Hazards of Lighted Structures and Windows to Migrating Birds. A Special Report for the World Wildlife Fund Canada and the Fatal Light Awareness Program*. September 1996. Accessed June 2022. https://digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1002&context=flap.

U.S. Fish and Wildlife Service (USFWS). 2022a. *Official List of Federal Endangered and Threatened Species that Occur in or May Be Affected by the Project.*

USFWS. 2022b. ECOS Environmental Conservation Online System Critical Habitat Mapper. Accessed June 2022. https://ecos.fws.gov/ecp/report/table/critical-habitat.html.

USFWS. 2022c. Wetlands Mapper. Accessed June 2022. https://www.fws.gov/wetlands/data/mapper.html.

U.S. Geological Survey (USGS). 2017. Western Ecological Research Center (WERC). Bioregions of the Pacific U.S. Accessed June 2022. https://www.usgs.gov/centers/werc/science/bioregions-pacific-us.

Verheijen, F.J. 1981. Bird Kills at Lighted Man-Made Structures: Not on Nights Close to a Full Moon. *American Birds* 35(3):251–254, 1981.

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4.3 Greenhouse Gas Emissions

4.3.1 Introduction

This section assesses the potential for the Project to result in significant adverse environmental impacts from greenhouse gas (GHG) emissions. The section first includes a description of the existing environmental setting as it relates to GHG emissions and provides a regulatory framework that discusses applicable state and local regulations. This analysis considers the GHG emissions that would result from construction and operation activities associated with the Project and compares these emissions to the thresholds of significance.

4.3.2 Environmental Setting

Greenhouse Gases and Climate Change

Gases that trap heat in the atmosphere are called GHGs. GHGs allow sunlight to enter the atmosphere, but trap a portion of the outward-bound infrared radiation, which warms the air. The process is similar to the effect greenhouses have in raising the internal temperature, hence the name GHGs. Both natural processes and human activities emit GHGs. The natural accumulation of GHGs in the atmosphere regulates the Earth's temperature; however, emissions from human activities such as fossil fuel-based electricity production, the use of internal combustion engines and motor vehicles have elevated the concentration of GHGs in the atmosphere. This anthropogenic accumulation of GHGs has contributed to an increase in the temperature of the Earth's atmosphere and has contributed to global climate change.

Global climate change is a change in the average weather on earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is a disagreement as to the rate of global climate change, multiple studies published in peer-reviewed scientific journals show that 97 percent or more of actively publishing scientists agree: climate-warming trends over the past century are very likely due to human activities (NASA, 2015). The principal GHGs are carbon dioxide (CO_2), methane (CH4), nitrous oxide (N_2O), sulfur hexafluoride (SF_6), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and nitrogen trifluoride (NF_3). CO_2 is the reference gas for estimating GHG emissions.

To account for the global warming potential of different GHGs, emissions are often quantified and reported as CO_2 equivalents (CO_2e). For example, SF_6 is a GHG commonly used in the utility industry as an insulating gas in circuit breakers and other electronic equipment. SF_6, while comprising a small fraction of the total GHGs emitted annually world-wide, is a much more potent GHG with 22,800 times the global warming potential as CO_2.[1] Large emission sources are reported in million metric tons (MMT) of CO_2e (MMT CO_2e).[2]

[1] The California Emissions Estimator Model (CalEEMod) is the modeling software used chiefly for determining GHG emissions from CEQA projects. CalEEMod currently utilizes the global warming potentials from the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report (AR4).

[2] The term metric ton is commonly used in the U.S. to refer to the metric system unit, tonne, which is defined as a mass equal to 1,000 kilograms. A metric ton is approximately 1.1 short tons and approximately 2,204.6 pounds.

Global warming potential ratios are provided by the Intergovernmental Panel on Climate Change (IPCC). Historically, GHG emission inventories were calculated using ratios from the IPCC's Second Assessment Report (SAR), published in 1996. The IPCC has since updated the ratios based on the latest science in its Fourth Assessment Report (AR4) and Fifth Assessment Report (AR5), published in 2007 (IPCC, 2007) and 2014, respectively (IPCC, 2014). The California Air Resources Board (CARB) uses ratios in AR4 for the statewide GHG emissions inventory (CARB, 2021), in the 2022 Scoping Plan for Achieving Carbon Neutrality (CARB, 2022), and in the current version of the California Emissions Estimator Model (CalEEMod) that is used to calculate CO_2e values for construction as well as operations for existing and Project build-out conditions.[3]

Effects of Climate Change

Climate change refers to any significant change in measures of climate (such as temperature, precipitation, or wind) lasting for an extended period (decades or longer). The scientific community's understanding of the fundamental processes responsible for global climate change has improved over the past decade, and its predictive capabilities are advancing. However, there remain significant scientific uncertainties in, for example, predictions of local effects of climate change, occurrence, frequency, and magnitude of extreme weather events, effects of aerosols, changes in clouds, shifts in the intensity and distribution of precipitation, and changes in oceanic circulation.

The California Office of Planning and Research (OPR), California Natural Resources Agency (CNRA), and the State of California Energy Commission collaborated to prepare California's Fourth Climate Change Assessment (Fourth Assessment). Published in 2018, the Fourth Assessment finds that the potential impacts in California due to global climate change include: loss in snow pack; sea level rise; more extreme heat days per year; more high ozone days; more extreme forest fires; more severe droughts punctuated by extreme precipitation events; increased erosion of California's coastlines and sea water intrusion into the Sacramento and San Joaquin Deltas and associated levee systems; and increased pest infestation (OPR et al., 2018).

The Fourth Assessment's findings are consistent with climate change studies published by the CNRA since 2009, starting with the *California Climate Adaptation Strategy* as a response to the Governor's Executive Order S-13-2008. In 2014, the CNRA rebranded the first update of the 2009 adaptation strategy as the *Safeguarding California Plan* (CNRA, 2009; CNRA, 2014). The 2018 update to the *Safeguarding California Plan* identifies hundreds of ongoing actions and next steps state agencies are taking to safeguard Californians from climate impacts within a framework of 81 policy principles and recommendations (California Natural Resources Agency, 2018). In 2016, the CNRA released *Safeguarding California: Implementation Action Plans* in accordance with Executive Order B-30-15, identifying an agency to lead adaptation efforts in each sector (California Natural Resources Agency, 2016). In accordance with the 2009 *California Climate Adaptation Strategy*, the California Energy Commission (CEC) was directed to develop a website on climate change scenarios and impacts that would be beneficial for local decision makers. The website, known as Cal-Adapt, became operational in 2011.[4] The information provided on the

[3] Version 2020.4.0.

[4] The Cal-Adapt website address is: http://cal-adapt.org.

Cal-Adapt website represents a projection of potential future climate scenarios comprised of local average values for temperature, sea-level rise, snowpack and other data representative of a variety of models and scenarios, including potential social and economic factors. Below is a summary of some of the potential effects that could be experienced in California as a result of global warming and climate change.

Temperature Increase

The primary effect of adding GHGs to the atmosphere has been a rise in the average global temperature. The impact of human activities on global temperature is readily apparent in the observational record. Since 1895, the contiguous U.S. has observed an average temperature increase of 1.5 degrees Fahrenheit (ºF) per century. The last five-year period (2014–2018) is the warmest on record for the contiguous U.S. (NOAA, 2019), while the 20 warmest years have occurred over the past 22-year period (Climate Central, 2019).

The Fourth Assessment indicates that average temperatures in California could rise 5.6°F to 8.8°F by the end of the century, depending on the global trajectory of GHG emissions (OPR et al., 2018). According to the Cal-Adapt website, the portion of the City of Oakland in which the Project site is located could result in an average increase in temperature of approximately 6 to 9 percent (about 4.0 to 6.7°F) by 2070–2090, compared to the baseline 1961–1990 period.

With climate change, extreme heat conditions and heat waves are predicted to impact larger areas, last longer, and have higher temperatures. Heat waves, defined as three or more days with temperatures above 90°F, are projected to occur more frequently by the end of the century. Heat related illness includes a spectrum of illnesses ranging from heat cramps to severe heat exhaustion and life-threatening heat stroke (CalEPA, 2013).

Wildfires

The hotter and dryer conditions expected with climate change will make forests more susceptible to extreme wildfires. A recent study found that, if GHG emissions continue to rise, the frequency of extreme wildfires burning over approximately 25,000 acres would increase by nearly 50 percent, and the average area burned statewide each year would increase by 77 percent, by the year 2100. In the areas that have the highest fire risk, the cost of wildfire insurance is anticipated to rise by 18 percent by 2055 and the fraction of property insured would decrease (Westerling, 2018).

Air Quality

Higher temperatures, conducive to air pollution formation, would worsen air quality in California and make it more difficult for the state to achieve both national and state ambient air quality standards. Climate change may increase the concentration of ground-level ozone in particular, which can cause breathing problems, can aggravate lung diseases such as asthma, emphysema, and chronic bronchitis, and cause chronic obstructive pulmonary disease. Emissions from wildfires can lead to excessive levels of particulate matter, ozone, and volatile organic compounds. The resulting increase in fine particulate matter from wildfires is a direct threat to human health even during relatively short exposures, particularly for children, the elderly, and

people with existing respiratory problems (Kenward et a, 2013). Additionally, severe heath accompanied by drier conditions and poor air quality could increase the number of heat-related deaths, illnesses, and asthma attacks throughout the state (CalEPA, 2013).

Water Supply and Water Quality

There is a high degree of uncertainty with respect to the overall impact of global climate change on future water supplies in California. Studies indicate considerable variability in predicting precise impacts of climate change on California hydrology and water resources. Increasing uncertainty in the timing and intensity of precipitation will challenge the operational flexibility of California's water management systems. Warmer, wetter winters would increase the amount of runoff available for groundwater recharge; however, this additional runoff could occur at a time when some basins are either being recharged at their maximum capacity or are already full. Conversely, reductions in spring runoff and higher evapotranspiration because of higher temperatures could reduce the amount of water available for recharge (CNRA, 2014).

Climate change could alter water quality in a variety of ways, including through higher winter flows that reduce pollutant concentrations (through dilution) or increase erosion of land surfaces and stream channels, leading to higher sediment, chemical, and nutrient loads in rivers. Water temperature increases and decreased water flows can result in increasing concentrations of pollutants and salinity. Increases in water temperature alone can lead to adverse changes in water quality, even in the absence of changes in precipitation.

Hydrology and Sea Level Rise

Climate changes could potentially affect: the amount of snowfall, rainfall and snow pack; the intensity and frequency of storms; flood hydrographs (flash floods, rain or snow events, coincidental high tide and high runoff events); sea level rise and coastal flooding; coastal erosion; and the potential for salt water intrusion (CNRA, 2014).

Rising sea level is one of the major areas of concern related to global climate change. Two of the primary causes for a sea level rise are the thermal expansion of ocean waters (water expanding as it heats up) and the addition of water to ocean basins by the melting of land-based ice (i.e., glaciers and polar ice caps). In 2013, the state issued guidance on sea level rise based on the scientific findings from the National Academy of Science National Research Council that indicated sea levels could rise 11 inches by 2050; 36 inches by 2100; and 55 inches by the end of the century as global climate change continues (CO-CAT, 2013). Subsequent to the 2013 guidance, the state's latest guidance adopts a probabilistic approach and includes estimates of the likely range of global sea level rise under different global emission scenarios, where the "likely range" covers the central 66 percent of the probability distribution (i.e., the sea levels that fall within the range created by the value that is 17 percent likely to occur and the value that is 83 percent likely to occur). Sea level rise of this magnitude would increasingly threaten California's coastal regions with more intense coastal storms, accelerated coastal erosion, threats to vital levees, and disruption of inland water systems, wetlands, and natural habitats. Residents may also be affected if wastewater treatment is compromised by inundation from rising sea levels, given that a number of treatment plants discharge to the Bay.

Agriculture

California has a massive agricultural industry that represents 11.3 percent of total U.S. agricultural revenue. Higher CO_2 levels can stimulate plant production and increase plant water use efficiency. However, a changing climate presents significant risks to agriculture due to "potential changes to water quality and availability; changing precipitations patterns; extreme weather events including drought, severe storms, and floods; heat stress; decreased chill hours; shifts in pollinator lifecycles; increased risks from weeds, pest and disease; and disruptions to the transportation and energy infrastructure supporting agricultural production" (CNRA, 2014).

Ecosystems and Wildlife

Increases in global temperatures and the potential resulting changes in weather patterns could have ecological effects on a global and local scale. With climate change, ecosystems and wildlife will be challenged by the spread of invasive species, barriers to species migration or movement in response to changing climatic conditions, direct impacts to species health, and mismatches in timing between seasonal life-cycle events such as species migration and food availability (CNRA, 2014).

Public Health

Global climate change is also anticipated to result in more extreme heat events (OPR et al., 2018). These extreme heat events increase the risk of death from dehydration, heart attack, stroke, and respiratory distress, especially with people who are ill, children, the elderly, and the poor, who may lack access to air conditioning and medical assistance. A warming planet is expected to bring more severe weather events, worsening wildfires and droughts, a decline in air quality, rising sea levels, increases in allergens and in vector-borne diseases, all of which present significant health and wellbeing risks for California populations (CNRA, 2018).

While the possible outcomes and the feedback mechanisms involved are not fully understood and much research remains to be done, the potential for substantial environmental, social, and economic consequences over the long term may be great. All of these impacts will have either direct or indirect negative effects for the businesses of the Project and the City.

Emissions Inventories

Global Emissions

Global estimates are based on country inventories developed as part of programs of the United Nations Framework Convention on Climate Change. Worldwide emissions of GHGs in 1970 were 27 billion metric tons of CO_2e per year. Worldwide man-made emissions of GHGs in 2010 were approximately 49 billion metric tons CO_2e, including ongoing emissions from industrial and agricultural sources and emissions from land use changes (e.g., deforestation). Emissions of CO_2 from fossil fuel use and industrial processes account for 65 percent of the total while CO_2 emissions from all sources accounts for 76 percent of the total. Methane emissions account for 16 percent and N_2O emissions for 6.2 percent (IPCC, 2014).

U.S. Emissions

In 2020, the United States emitted about 5,222 MMT CO_2e. Of the major sectors nationwide, transportation accounts for the highest amount of GHG emissions (approximately 27 percent), followed by electricity (25 percent), industry (24 percent), agriculture (11 percent), and commercial and residential buildings (13 percent) (U.S. EPA, 2022).

State of California Emissions

California produced approximately 369 million metric tons of CO_2e in 2020. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2020, accounting for approximately 38 percent of total GHG emissions in the state. This sector was followed by the industrial sector (23 percent), and the electric power sector (16 percent) (CARB, 2022a).

Alameda County GHG Emissions

Emission inventories developed for Alameda County reveal that activities in the unincorporated County regions and within the County's 14 municipalities generated approximately 13.7 million gross metric tons of CO_2e emissions in 2005 (Alameda County, 2009). The transportation sector is the greatest contributor generating approximately 57 percent of these emissions while commercial/industrial sector accounts for 18 percent. The residential, direct access fuel/power purchases, and waste sectors make up 14 percent, 7 percent and 4 percent, respectively.

City of Oakland GHG Emissions

The City of Oakland published their 2017 Greenhouse Gas Emissions Inventory Report (Inventory Report) in June 2020. According to the Inventory Report, in 2017, local emissions generated within the City's limits equaled 2,643,884 MT CO_2e. In Oakland, the largest source of GHG emissions is the transportation sector (66 percent), followed by the buildings and energy sector (25.8 percent which includes electricity and natural gas use in homes, businesses, and other buildings. In addition, the material consumption and waste sector generated 4.8 percent of the City's emissions, the Port of Oakland generated 2.4 percent of city emissions, and Local Government Operations generated the final 1 percent of emissions (City of Oakland, 2020c).[5]

4.3.3 Regulatory Setting

Federal

U.S. Environmental Protection Agency "Endangerment" and "Cause or Contribute" Findings

The U.S. Supreme Court held that the United States Environmental Protection Agency (U.S. EPA) must consider regulation of motor vehicle GHG emissions. In *Massachusetts v. Environmental Protection Agency* et al., twelve states and cities, including California, together with several

[5] The City of Oakland published their 2019 Greenhouse Gas Emissions Inventory in September 2022, after the NOP for this Draft EIR was published in April 2022.

environmental organizations sued to require the U.S. EPA to regulate GHGs as pollutants under the CAA (127 S. Ct. 1438 (2007)). The Supreme Court ruled that GHGs fit within the CAA's definition of a pollutant and the U.S. EPA had the authority to regulate GHGs.

On December 7, 2009, the U.S. EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA:

- **Endangerment Finding:** The current and projected concentrations of the six key GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations.
- **Cause or Contribute Finding:** The combined emissions of these GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution that threatens public health and welfare.

These findings did not, by themselves, impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles.

Vehicle Emissions Standards

In 1975, Congress enacted the Energy Policy and Conservation Act, which established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the EPA and National Highway Traffic Safety Administration (NHTSA) are responsible for establishing additional vehicle standards. In August 2012, standards were adopted for model year 2017 through 2025 for passenger cars and light-duty trucks. By 2025, vehicles are required to achieve both 54.5 mpg (if GHG reductions are achieved exclusively through fuel economy improvements) and 163 grams of CO_2 per mile. According to the U.S. EPA, a model year 2025 vehicle would emit one-half of the GHG emissions from a model year 2010 vehicle (U.S. EPA, 2012). Notably, the State of California harmonized its vehicle efficiency standards through 2025 with the federal standards (see Advanced Clean Car program below).

In January 2017, US EPA issued it Mid-Term Evaluation of the GHG emissions standards, finding that it would be practical and feasible for automakers to meet the model year 2022-2025 standards through a number of existing technologies.

In August 2018, the US EPA revised its 2017 determination, and issued a proposed rule that maintains the 2020 Corporate Average Fuel Economy (CAFE) and CO_2 standards for model years 2021 through 2026.[6] The estimated CAFE and CO_2 standards for model year 2020 are 43.7 mpg and 204 grams of CO_2 per mile for passenger cars and 31.3 mpg and 284 grams of CO_2 per mile for light trucks, projecting an overall industry average of 37 mpg, as compared to 46.7 mpg under the standards issued in 2012. In September 2019, EPA finalized the Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program and announced its decision to withdraw the Clean Air Act preemption waiver granted to the State of California in 2013. In March 2022, the US EPA reinstated California's waiver restoring the state's authority to set and enforce more

[6] Federal Register. Vol. 83, No. 165. August 24, 2018. Proposed Rules.

stringent standards than the federal government, including California's GHG emission standards and zero emission vehicle mandate.[7]

State

California Global Warming Solutions Act (Assembly Bill 32)

The California Global Warming Solutions Act (Assembly Bill [AB] 32, 2006), as amended, sets statewide greenhouse gas (GHG) emissions caps. The California Air Resources Board (CARB) established the Climate Change Scoping Plan, which outlined a framework for achieving the emission reduction goals set in the California Global Warming Solutions Act. In 2016, SB 32 and its companion bill AB 197 established a new climate pollution reduction target of 40 percent below 1990 levels by 2030 and included provisions to ensure the benefits of state climate policies reach into disadvantaged communities.

Assembly Bill 1279 and the 2022 Scoping Plan

The California State Legislature enacted AB 1279, *The California Climate Crisis Act*, on September 16, 2022. AB 1279 establishes the policy of the State of California to achieve net zero GHG emissions as soon as possible but no later than 2045, and to achieve and maintain net negative GHG emissions thereafter. Additionally, AB 1279 mandates that by 2045, statewide anthropogenic GHG emissions are to be reduced at least 85 percent below 1990 levels. The *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan), adopted by CARB in December 2022, expands on prior scoping plans. This plan responds to more recent legislation, outlining a technologically feasible, cost-effective, and equity-focused path to achieve the State's climate target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045 and achieving carbon neutrality by 2045 or earlier (CARB 2022b).[8] The 2022 Scoping Plan outlines the strategies the State will implement to achieve carbon neutrality by reducing GHG emissions to meet the anthropogenic target, and by expanding actions to capture and store carbon through the State's natural and working lands and using a variety of mechanical approaches.

Senate Bill 375

Signed into law on October 1, 2008, SB 375 supplements GHG reductions from new vehicle technology and fuel standards with reductions from more efficient land use patterns and improved transportation. Under the law, the CARB approved GHG reduction targets in February 2011 for California's 18 federally designated regional planning bodies, known as Metropolitan Planning Organizations (MPOs). The CARB may update the targets every four years and must update them

[7] California State Motor Vehicle Pollution Control Standards; Advanced Clean Car Program; Reconsideration of a Previous Withdrawal of a Waiver of Preemption; Notice of Decision, 87 Fed. Reg. 14,332 (Mar. 14, 2022), https://www.federalregister.gov/documents/2022/03/14/2022-05227/california-state-motor-vehicle-pollution-control-standards-advanced-clean-car-program.

[8] *Carbon neutrality* means "net zero" emissions of GHGs. In other words, it means that GHG emissions generated by sources such as transportation, power plants, and industrial processes must be less than or equal to the amount of CO_2 that is stored, both in natural sinks and through mechanical sequestration. AB 1279 uses the terminology "net zero" and the 2022 Scoping Plan uses the terminology "carbon neutrality" or "carbon neutral." For purposes of the Draft 2045 CAP and this EIR, these terms mean the same thing and are used interchangeably.

every eight years. MPOs in turn must demonstrate how their plans, policies and transportation investments meet the targets set by the CARB through the Sustainable Communities Strategy.

California Building and Energy Efficiency Standards (Title 24)

The CEC first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (CCR Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce GHG emissions, increased energy efficiency and reduced consumption of electricity, natural gas, and other fuels would result in fewer GHG emissions from residential and nonresidential buildings subject to the standard. The current Title 24, Part 6 standards (2019 standards) were made effective on January 1, 2020.

California Green Buildings Standards Code (CALGreen)

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. CALGreen is intended to encourage more sustainable and environmentally friendly building practices, require low-pollution emitting substances that cause less harm to the environment, conserve natural resources, and promote the use of energy-efficient materials and equipment. Since 2011, the CALGreen Code has been mandatory for all new residential and non-residential buildings constructed in the state. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was most recently updated in 2019 to include new mandatory measures for residential and nonresidential uses; the new measures took effect on January 1, 2020.

Regional

Bay Area Air Quality Management District Clean Air Plan

Within the Bay Area, the Bay Area Air Quality Management District (BAAQMD) developed the 2017 Clean Air Plan, which lays the groundwork for the Bay Area to reach regional GHG reduction goals (BAAQMD 2017a). Additionally, the BAAQMD CEQA Air Quality Guidelines provides thresholds and guidance for greenhouse gas emissions for CEQA. The guidelines include a threshold of 10,000 metric tons per year (MT/yr) of CO_2 equivalent (CO_2e) for stationary-source projects that include land uses that would accommodate processes and equipment that emit GHG emissions and would require an Air District permit to operate. The threshold for general land use development is 1,100 MT/yr of CO_2e (BAAQMD, 2017b). BAAQMD has established no construction-related emission thresholds.

Metropolitan Transportation Commission/Association of Bay Area Governments Sustainable Communities Strategy

MTC is the federally recognized MPO for the nine county Bay Area, which includes Alameda County and the City of Oakland. On July 18, 2013, the Plan Bay Area was jointly approved by ABAG's Executive Board and by MTC. The Plan includes the region's Sustainable Communities Strategy, as required under SB 375, and the 2040 Regional Transportation Plan. The Sustainable

Communities Strategy lays out how the region will meet GHG reduction targets set by the California Air Resources Board (CARB).

As discussed in Section 4.1, *Air Quality,* on October 21, 2021, the MTC and ABAG jointly adopted Plan Bay Area 2050 as the official regional long-range plan for the Bay Area. Plan Bay Area 2050 connects the elements of housing, the economy, transportation and the environment through 35 strategies that will make the Bay Area more equitable for all residents and more resilient in the face of unexpected challenges. In the short-term, the plan's Implementation Plan identifies more than 80 specific actions for MTC, ABAG and partner organizations to implement over the next five years to make headway on each of the 35 strategies (MTC & ABAG, 2021). It will be several years before the regional transportation model and county transportation models are updated to reflect Plan Bay Area 2050 (the models currently incorporate data from Plan Bay Area 2040).

Local

City of Oakland General Plan

Land Use and Transportation Element

The Land Use and Transportation Element (which includes the Pedestrian Master Plan and Bicycle Master Plan) of the Oakland General Plan contains the following policies that address issues related to reducing transportation-related sources of GHG Emissions and their effects on Climate Change (City of Oakland, 2007):

> ***Policy T.2.1: Encouraging Transit-Oriented Development.*** Transit-oriented development should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city or commuter rail.
>
> ***Policy T.2.2: Guiding Transit-Oriented Development.*** Transit-oriented developments should be pedestrian oriented, encourage night and day time use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods.
>
> ***Policy T.3.5: Including Bikeways and Pedestrian Walks.*** The City should include bikeways and pedestrian ways in the planning of new, reconstructed, or realigned streets, wherever possible.
>
> ***Policy T.3.6: Incorporating Design Feature for Alternative Travel.*** The City will require new development, rebuilding, or retrofit to incorporate design features in their projects that encourage use of alternative modes of transportation such as transit, bicycling, and walking.
>
> ***Policy T.4.2: Creating Transportation Incentives.*** Through cooperation with other agencies, the City should create incentives to encourage travelers to use alternative transportation options.
>
> ***Policy N.3.2: Encouraging Infill Development.*** In order to facilitate the construction of needed housing units, infill development that is consistent with the General Plan should take place throughout the City.

Open Space, Conservation and Recreation Element (OSCAR)

The OSCAR Element includes policies that address GHG reduction and adaptation to global climate change. Listed below are OSCAR policies that encourage the provision of open space, which increases vegetation area (trees, grass, landscaping, etc.) to effect cooler climate, reduce excessive solar gain, and absorb CO_2; OSCAR policies that encourage stormwater management, which relates to the maintenance of floodplains and infrastructure to accommodate potential increased storms and flooding; and OSCAR policies that encourage energy efficiency and use of alternative energy sources, which directly address reducing GHG emissions (City of Oakland, 1996).

> ***Policy CO-12.1: Land Use Patterns Which Promote Air Quality.*** Promote land use patterns and densities which help improve regional air quality conditions by: (a) minimizing dependence on single passenger autos; (b) promoting projects which minimize quick auto starts and stops, such as live-work development, mixed use development, and office development with ground floor retail space; (c) separating land uses which are sensitive to pollution from the sources of air pollution; and (d) supporting telecommuting, flexible work hours, and behavioral changes which reduce the percentage of people in Oakland who must drive to work on a daily basis.
>
> ***Policy CO-12.4: Design of Development to Minimize Air Quality Impacts.*** Require that development projects be designed in a manner which reduces potential adverse air quality impacts. This may include: (a) the use of vegetation and landscaping to absorb carbon monoxide and to buffer sensitive receptors; (b) the use of low-polluting energy sources and energy conservation measures; and (c) designs which encourage transit use and facilitate bicycle and pedestrian travel.
>
> ***Policy CO.13.2: Energy Efficiency.*** Support public information campaigns, energy audits, the use of energy-saving appliances and vehicles, and other efforts which help Oakland residents, businesses, and City operations become more energy efficient.
>
> ***Policy CO.13.3: Construction Methods and Materials.*** Encourage the use of energy-efficient construction and building materials. Encourage site plans for new development which maximize energy efficiency.

Historic Preservation Element

A key Historic Preservation Element policy relevant to climate change encourages the reuse of existing building (and building materials) resources, which could reduce landfill material (a source of methane, a GHG), avoid the incineration of materials (which produces CO_2 as a by-product), avoid the need to transport materials to disposal sites (which produces GHG emissions), and eliminate the need for materials to be replaced by new product (which often requires the use of fossil fuels to obtain raw and manufacture new material) (City of Oakland, 1998).

City of Oakland GHG Reduction Targets and Climate Action Plan

In October 2018, the Oakland City Council passed Resolution 87183 adopting an interim citywide GHG emissions reduction target of 56 percent below 2005 levels by the year 2030 to keep the City on track to meet its 2050 target.

In July 2020, via Resolution 88267, Oakland City Council adopted the 2030 Equitable Climate Action Plan (ECAP), a comprehensive plan to achieve the 2030 GHG reduction target and increase Oakland's resilience to the impacts of the climate crisis, both through a deep equity lens (City of Oakland, 2020a). Alongside the 2030 ECAP, Council also adopted a goal to achieve community-wide carbon neutrality no later than 2045 (City of Oakland, 2020b). Achieving carbon neutrality will require complete decarbonization (ensuring that all mechanical systems run on clean electricity) of Oakland's building sector.

City of Oakland 2021-2026 Hazard Mitigation Plan

The City of Oakland adopted the 2021-2026 Hazard Mitigation Plan to "establish and promote a comprehensive mitigation strategy and efforts to protect the whole community and environment from identified natural and manmade hazards," including climate change (City of Oakland, 2021). As discussed in the Hazard Mitigation Plan, climate change may alter exposure and vulnerability of people, property, and critical facilities to hazards including dam failure, drought, earthquake, flood, landslide, sea-level rise, severe weather, tsunami/seiche, and wildfire. The Hazard Mitigation Plan includes a range of mitigation best practices that will mitigate risks from current hazards or help reduce new risk that could result from climate change.

Oakland Green Building Ordinance

The City of Oakland adopted mandatory green building standards for private development projects on October 19, 2010. All buildings or projects must comply with all requirements of the 2013 California Building Energy Efficiency Standards and subsequent updates to those standards, as well as meet a variety of checklist requirements. These standards indirectly reduce GHGs through design features lowering building energy use.

City of Oakland Municipal Code for Plug-in Electric Vehicle Charging Stations

Chapter 15.04, Part 11 of the City's Municipal Code requires all new multifamily and non-residential buildings to include full circuit infrastructure for plug-in electric vehicle (PEV) charging stations for at least 10 percent of the total parking spaces. In addition, inaccessible conduits for future expansion of PEV spaces must be installed 10 percent of the total parking at non-residential buildings. The new requirements are designed to accelerate the installation of vehicle chargers to address demand.

City of Oakland Ordinance Requiring All-Electric Construction in Newly Constructed Buildings

On December 1, 2020, the City of Oakland adopted Ordinance 13632 prohibiting newly constructed buildings (both residential and commercial) from connecting to natural gas or propane. Newly constructed buildings must use a permanent supply of electricity as the source of energy for all space heating, water heating (including pools and spas), cooking appliances, and clothes drying appliances.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to reducing impacts on GHG emissions and that apply to the Project are listed below. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to GHG emissions. Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

SCA GHG-1: Greenhouse Gas (GHG) Reduction Plan. *(Standard Condition of Approval 42)*

a. Greenhouse Gas (GHG) Reduction Plan Required

Requirement: The project applicant shall retain a qualified air quality consultant to develop a Greenhouse Gas (GHG) Reduction Plan for City review and approval and shall implement the approved GHG Reduction Plan.

The goal of the GHG Reduction Plan shall be to increase energy efficiency and to reduce GHG emissions to at least the amount that would be achieved by committing to all of the emissions reductions strategies identified on the ECAP Consistency Checklist as the City's project-level implementation of its Equitable Climate Action Plan (adopted in 2020), which calls for reducing city-wide GHG emissions by 56 percent below 2005 levels by 2030 and 83 percent by 2050. The GHG Reduction Plan shall include, at a minimum, (a) a detailed quantified GHG emissions inventory for the project taking into consideration energy efficiencies included as part of the project (including proposed mitigation measures, project design features, those strategies being implemented and other City requirements), (b) for each ECAP Consistency Checklist strategy that the project will not meet, a quantified calculation of the additional GHG emission reductions that would have occurred had it implemented the GHG emissions reduction measure consistent with the ECAP Consistency Checklist, (c) a quantified strategy for achieving an GHG emission reduction equivalent to the reduction that would have resulted from complying with the ECAP Consistency Checklist strategy, and (d) requirements for ongoing monitoring and reporting to demonstrate that the additional GHG reduction measures are being implemented.

If the project is to be constructed in phases, the GHG Reduction Plan shall provide GHG emission scenarios by phase.

Potential additional GHG reduction measures to be considered include, but are not be limited to, measures recommended in BAAQMD's latest CEQA Air Quality Guidelines, the California Air Resources Board Scoping Plan (December 2008, as may be revised), the California Air Pollution Control Officers Association (CAPCOA) Quantifying Greenhouse Gas Mitigation Measures (August 2010, as may be revised), the California Attorney General's website, and Reference Guides on Leadership in Energy and Environmental Design (LEED) published by the U.S. Green Building Council. The types of allowable GHG reduction measures include the following (listed in order of City preference): (1) physical design features; (2) operational features; and (3) the payment of fees to fund GHG-reducing programs (i.e., the purchase of "carbon credits") as explained below.

The allowable locations of the GHG reduction measures include the following (listed in order of City preference): (1) the project site; (2) off-site within the City of Oakland; (3) off-site within the San Francisco Bay Area Air Basin; then (4) off-site within the State of California.

As with preferred locations for the implementation of all GHG reductions measures, the preference for carbon credit purchases include those that can be achieved as follows (listed in order of City preference): (1) within the City of Oakland; (2) within the San Francisco Bay Area Air Basin; then (3) within the State of California. The cost of carbon credit purchases shall be based on current market value at the time purchased and shall be based on the project's net difference operational emissions estimated in the GHG Reduction Plan for the project as compared to the Checklist baseline.

For physical GHG reduction measures to be incorporated into the design of the project, the measures shall be included on the drawings submitted for construction-related permits.

b. GHG Reduction Plan Implementation During Construction

Requirement: The project applicant shall implement the GHG Reduction Plan during construction of the project. For physical GHG reduction measures to be incorporated into the design of the project, the measures shall be implemented during construction. For physical GHG reduction measures to be incorporated into off-site projects, the project applicant shall obtain all necessary permits/approvals and the measures shall be included on drawings and submitted to the City Planning Director or his/her designee for review and approval. These off-site improvements shall be installed prior to completion of the subject project (or prior to completion of the project phase for phased projects). For GHG reduction measures involving the purchase of carbon credits, evidence of the payment/purchase shall be submitted to the City for review and approval prior to completion of the project (or prior to completion of the project phase, for phased projects).

c. GHG Reduction Plan Implementation After Construction

Requirement: The project applicant shall implement the GHG Reduction Plan after construction of the project (or at the completion of the project phase for phased projects). For operational GHG reduction measures to be incorporated into the project or off-site projects, the measures shall be implemented on an indefinite and ongoing basis.

The project applicant shall satisfy the following requirements for ongoing monitoring and reporting to demonstrate that the additional GHG reduction measures are being implemented. The GHG Reduction Plan requires regular periodic evaluation over the life of the project (generally estimated to be at least 40 years) to determine how the Plan is achieving required GHG emissions reductions over time, as well as the efficacy of the specific additional GHG reduction measures identified in the Plan.

Annual Report. Implementation of the GHG reduction measures and related requirements shall be ensured through compliance with Conditions of Approval adopted for the project. Generally, starting two years after the City issues the first Certificate of Occupancy for the project, the project applicant shall prepare each year of the useful life of the project an Annual GHG Emissions Reduction Report ("Annual Report"), for review and approval by the City Planning Director or his/her

designee. The Annual Report shall be submitted to an independent reviewer of the City's choosing, to be paid for by the project applicant.

The Annual Report shall summarize the project's implementation of GHG reduction measures over the preceding year, intended upcoming changes, compliance with the conditions of the Plan, and include a brief summary of the previous year's Annual Report results (starting the second year). The Annual Report shall include a comparison of annual project emissions to the Checklist baseline emissions reported in the GHG Plan.

The GHG Reduction Plan shall be considered fully attained when project emissions are less than the Checklist baseline, as confirmed by the City through an established monitoring program. Monitoring and reporting activities will continue at the City's discretion, as discussed below.

Corrective Procedure. If the third Annual Report, or any report thereafter, indicates that, in spite of the implementation of the GHG Reduction Plan, the project is not achieving the GHG reduction goal, the project applicant shall prepare a report for City review and approval, which proposes additional or revised GHG measures to better achieve the GHG emissions reduction goals, including without limitation, a discussion on the feasibility and effectiveness of the menu of other additional measures ("Corrective GHG Action Plan"). The project applicant shall then implement the approved Corrective GHG Action Plan.

If, one year after the Corrective GHG Action Plan is implemented, the required GHG emissions reduction target is still not being achieved, or if the project applicant fails to submit a report at the times described above, or if the reports do not meet City requirements outlined above, the City may, in addition to its other remedies, (a) assess the project applicant a financial penalty based upon actual percentage reduction in GHG emissions as compared to the percent reduction in GHG emissions established in the GHG Reduction Plan; or (b) refer the matter to the City Planning Commission for scheduling of a compliance hearing to determine whether the project's approvals should be revoked, altered or additional conditions of approval imposed.

The penalty as described in (a) above shall be determined by the City Planning Director or his/her designee and be commensurate with the percentage GHG emissions reduction not achieved compared to the applicable numeric significance thresholds described in the GHG Reduction Plan.

In determining whether a financial penalty or other remedy is appropriate, the City shall not impose a penalty if the project applicant has made a good faith effort to comply with the GHG Reduction Plan.

The City would only have the ability to impose a monetary penalty after a reasonable cure period and in accordance with the enforcement process outlined in Planning Code Chapter 17.152. If a financial penalty is imposed, such penalty sums shall be used by the City solely toward the implementation of the Equitable Climate Action Plan.

Timeline Discretion and Summary. The City shall have the discretion to reasonably modify the timing of reporting, with reasonable notice and opportunity to comment by the applicant, to coincide with other related monitoring and reporting required for the project.

4.3.4 Environmental Impacts and Mitigation Measures

Significance Criteria

For the purposes of this EIR, a GHG emissions impact would be significant if implementation of the proposed Project would:

a) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;[9] or

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.

CEQA Guidelines Section 152064.4 gives lead agencies the discretion to determine whether to asses GHG emissions quantitatively or qualitatively. The Guidelines do not establish a bright-line quantitative threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies, or suggested by other experts, such as the CAPCOA, so long as any threshold chosen is supported by substantial evidence (refer to CEQA Guidelines Section 15064.7(c)). As discussed above, the City published its ECAP in July 2020. The Oakland ECAP meets the criteria established by the California State Office of Planning and Research in 2010 for a quailed Climate Action Plan under CEQA, by which project-level analysis can be streamlined by demonstrating compliance with a GHG reduction plan.

According to CEQA Guidelines Section 15064.4(b):

> *[I]n determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions.*

The significance of impacts shall consider the Project's impact as compared to the existing environmental setting, whether the Project exceeds a threshold of significance, and compliance with relevant GHG-related plans.[10] According to CEQA Guidelines Section 15064.4(b)(3):

> *[T]he extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions (refer to, for example, Section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions.*

[9] This threshold supersedes the BAAQMD threshold previously used by the City with the adoption of the ECAP.
[10] 14 CCR 15064.4(b).

Approach to Analysis

Emissions Estimates

Project-related GHG emissions fall into two categories: short-term emissions due to construction, and long-term, on-going emissions due to project operations. Estimated construction- and operation-related emissions are presented in **Table 4.3-1** and **Table 4.3-2**, respectively. In addition, the Project is evaluated for consistency with the Oakland ECAP.

TABLE 4.3-1
PROJECT GHG EMISSIONS FROM CONSTRUCTION

Year	MT CO_2e
2023	606.2
2024	393.2
Project Total	999.4
Project Life	40
Annual Emissions Amortized Over Project Life	25.0

NOTES:
[a] The analysis presented in this section assumes construction to begin in 2023. A later construction start date would result in lower emissions than presented in this analysis because emissions are expected to decrease over time due to improvements in technology and regulatory requirements.

SOURCE: Appendix C.

TABLE 4.3-2
TOTAL PROJECT GHG EMISSIONS

Year	MT CO_2e
Area Sources	<0.01
Electricity Use	121.8
Mobile Emissions	3,574.4
Offroad Equipment + Truck Idling	492.7
Emergency Generator	6.7
Solid Waste	263.1
Water and Wastewater	88.0
Total Operational Emissions	4,546.7
Amortized Construction Emissions (Over 40 Years)	25.0
Total Project GHG Emissions	**4,571.7**

SOURCE: Appendix C.

GHG emissions associated with construction and operation of the Project were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod is an approved emissions inventory software program that allows the user to estimate criteria pollutant and GHG emissions from land use development project.

GHG emissions would be generated during construction from use of heavy-duty construction equipment onsite, as well as vehicles transporting workers, equipment, and materials to and from the site. Consistent with city methodology, construction emissions are amortized over a project life of 40 years for consideration with operational emissions which are discussed further below. Amortized GHG emissions that would be generated from construction are presented in Table 4.3-1.

Operation of the Project would generate direct GHG emissions from vehicle trips generated to and from the Project site, testing and maintenance of the proposed emergency generator and to a smaller extent from area sources such as landscaping activities. Additionally, GHGs would be generated indirectly by electrical and water demand, and wastewater and solid waste generation.

Operational emission as estimated using CalEEMod version 2020.4.0 are presented in Table 4.3-2.

Project Impacts and Discussion

Impact GHG-1: The Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. (Criterion 1) (*Less than significant with SCAs*)

Both BAAQMD and CAPCOA consider GHG impacts to be exclusively cumulative impacts in that no single project could, by itself, result in a substantial change in climate. Therefore, the evaluation of GHG emissions impacts assesses whether the Project would make a considerable contribution to cumulative climate change effects. The City of Oakland's current adopted thresholds for GHG emissions rely upon the technical and scientific basis for the City's 2030 ECAP, which provide substantial evidence that adherence to the 2030 ECAP action items will achieve GHG emissions reduction targets of at least 56 percent below 2005 levels by 2030 and 83 percent below 2005 levels by 2050. These reduction targets are more aggressive than the state's adopted 2030 reduction target of 40 percent below 1990 levels (per AB 32). Therefore, reductions below the City of Oakland's reduction targets also meet the state's adopted 2030 goals.

The Project Applicant prepared an ECAP Consistency Checklist (ECAP Checklist) for the Project (see Appendix F). The purpose of the ECAP Checklist is to determine, for purposes of compliance with CEQA, whether a development project complies with the ECAP and the City's GHG emissions reduction targets. According to the Project's ECAP Checklist, the Project has not committed to all applicable GHG emissions reduction strategies, and would, therefore, be required to comply with SCA GHG-1, GHG Reduction Plan, that requires a project-level GHG Reduction Plan quantifying how alternative reduction measures will achieve the same or greater emissions than would be achieved by meeting the ECAP Checklist. According to the ECAP Checklist, the Project complies with all applicable ECAP Checklist items, with the exception of Checklist Item #2. Therefore, a GHG Reduction Plan (GHGRP, see Appendix G) has been prepared for the Project consistent with SCA GHG-1, that would reduce Project GHG emissions through alternative reduction measures to meet the requirements of SCA GHG-1 and achieve the same or greater emissions reductions than would be achieved by meeting the ECAP Checklist Item #2 (See Appendix F).

Regarding ECAP Checklist Item #2, while parking provided by the Project is consistent with the amount of parking allowed under the Planning Code, it exceeds the minimum parking requirements. According to the City of Oakland Planning Code Section 17.116.090, a minimum of 121 parking spaces would be required for the industrial component of the Project and 17 parking spaces would be required for the retail component of the Project. Therefore, the Project would exceed the minimum parking requirements by 157 spaces. For a conservative analysis of the GHG impacts, the GHGRP assumed that each parking space eliminated onsite would result in two fewer daily employee one-way trips, for a total of 314 fewer one-way trips per day.[11]

Based on the Transportation Memorandum prepared by Fehr & Peers, the Project would generate approximately 2,130 trips per day, 1,600 of which would be from the industrial component, and 530 of which would be generated from the retail component of the Project.[12] Of these daily trips, 1,100 would be associated with passenger automobiles, and the remainder would be associated with trucks. A reduction of 157 parking spaces would reduce the number of passenger automobile trips by 314 trips, resulting in a total of 786 passenger vehicle trips per day.

In order to determine the GHG reductions that would result from minimizing the allowable parking on the Project site, mobile source emissions were calculated for the reduced parking scenario, based on the assumption that reduced parking would reduce the number of daily automobile trips associated with the industrial component of the Project by 314 daily trips. Mobile-source emissions under the reduced parking scenario were then compared to mobile-source emissions that would result from the Project, as proposed. Overall, it was determined that reducing parking to the minimum required by Code would result in an annual reduction of 257.2 MT CO_2e.

The GHGRP identified two alternative reduction measures: (1) implement a mandatory commute trip reduction program, and (2) install rooftop solar on approximately 25 percent of the Project's roof area (160,080 square feet). As shown in **Table 4.3-3**, providing a mandatory commute trip reduction program would result in emission reductions of 180.4 MT CO_2e per year and rooftop solar over 106,080 square feet of the Project roof area would result in emission reductions of 120.1 MT CO_2e per year. Overall, the measures identified in the GHGRP would reduce GHG emissions by 300.5 MT CO_2e which is greater than the emissions that would have been reduced with implementation of ECAP Checklist Item #2 (257.2 MT CO_2e). SCA GHG-1 also contains reporting requirements and corrective procedures to ensure the implementation of the GHG Reduction Plan. Therefore, with implementation of SCA GHG-1, Project GHG emissions associated with land use development would be less than significant.

The Project would include a backup diesel emergency generator, which would represent a new stationary source of GHG emissions. According to the City's GHG thresholds, for projects that involve both a stationary source and a land use development, the stationary source emissions should be calculated separately and compared to the stationary source threshold. The air quality modeling and analysis for the Project (see Section 4.1, *Air Quality*, above) also calculated the

[11] This is a conservative assumption because it assumes that all of the project's parking spaces are fully occupied every day, and each parking space accommodates one worker's daily commute (two one-way trips).

[12] Since the office component of the Project is not a standalone use and is part of the normal operation of the warehouse, it is considered an accessory part of the warehouse and the trip generation rate for the warehouse use applies to the whole Project.

GHG emissions that would be generated by stationary sources associated with the Project. Stationary source-related emissions would total approximately 6.7 MT CO_2e annually, which is below City and BAAQMD threshold for stationary sources of 10,000 metric tons CO_2e per year. Therefore, GHG emissions associated with the Project's emergency generator (stationary source) would also be less than significant.

TABLE 4.3-3
GHGRP MEASURES

GHGRP Measure	GHG Emissions Reductions (MT CO_2e)
Implement a Mandatory Commute Trip Reduction Program[a]	180.4
Install Rooftop Solar PV System[b]	120.1
Total Reductions from GHGRP Measures	**300.5**

NOTES:
[a] Emissions reductions calculated based on the guidance included in the Handbook for Analyzing Greenhouse Gas Emissions Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity (SMAQMD, et al., 2021).
[b] Emissions reductions calculated based on the maximum solar coverage of 106,080 square feet, which is equivalent to 1,675 kW of solar capacity.

SOURCE: Appendix G.

Although not required to mitigate a significant impact related to GHG emissions, the Project would be required to implement several other City of Oakland SCAs that would contribute to minimizing potential GHG emissions from Project construction and operations. These include SCA AIR-2, Criteria Air Pollutant Controls - Construction Related, SCA AIR-3, Diesel Particulate Matter Controls - Construction Related, SCA UTIL-1, Construction and Demolition Waste Reduction and Recycling, SCA AES-3, Landscape Plan, SCA TRANS-2, Bicycle Parking, SCA TRANS-3, Transportation and Parking Demand Management Plan, SCA TRANS-4, Plug-In Electric Vehicle (PEV) Charging Infrastructure, and SCA UTIL-3, Green Building Requirements.

SCA GHG-1: GHG Reduction Plan.

SCA AES-3: Landscape Plan. See Section 4.7.1.2.

SCA AIR-2: Criteria Air Pollutant Controls - Construction Related. See Section 4.1.3.

SCA AIR-3: Diesel Particulate Matter Controls - Construction Related. See Section 4.1.3.

SCA TRANS-2: Bicycle Parking. See Section 4.6.2.

SCA TRANS-3: Transportation and Parking Demand Management Plan. See Section 4.6.2.

SCA TRANS-4: PEV Charging Infrastructure. See Section 4.6.2.

SCA UTIL-1: Construction and Demolition Waste Reduction and Recycling. See Section 4.7.13.2.

SCA UTIL-3: Green Building Requirements. See Section 4.7.13.2.

Mitigation: None required.

Impact GHG-2: The Project would not fundamentally conflict with an applicable plan, policy, or regulation adopted for the purposes of reducing greenhouse gas emissions. (Criterion 2) (*Less than Significant with SCAs*)

The Project would comply with the City of Oakland's ECAP, current City Sustainability Programs, as well as General Plan policies and regulations and other local, regional and statewide plans, policies and regulations related to GHG emissions reduction. As discussed in detail in Section 4.7, the Project would be consistent with *Plan Bay Area 2040*.

Specifically, the Project would be consistent with the state's 2017 Climate Change Scoping Plan and the City of Oakland's ECAP in that it has prepared a GHG Reduction Plan pursuant to SCA GHG-1 that would reduce Project GHG emissions the same or greater than would be achieved by meeting all of the ECAP Checklist items (see Impact GHG-1). The Project would be required to implement SCA GHG-1, which would ensure the implementation of the GHG Reduction Plan for the Project.

The 2017 Climate Change Scoping Plan is intended to guide the State to achieving its target of reducing GHG emissions to 40 percent below 1990 levels by 2030, and substantially advance toward the 2050 goal of 80 percent below 1990 levels. The 2017 Climate Change Scoping Plan outlines the various programs throughout the State that will contribute to the achievement of GHG reduction goals including the Low Carbon Fuel Standard, the Renewables Portfolio Standard, the Advanced Clean Cars Program, the Sustainable Freight Action Plan, a more stringent Cap-and-Trade Program, and other programs that will deliver climate and other benefits (CARB, 2017). The Project would not conflict or otherwise interfere with the statewide GHG reduction measures identified in CARB's 2017 Scoping Plan Update. For example, the proposed building would be constructed in conformance with California Green Building Standards (CALGreen) Code (CCR Title 24, Part 11) and the Title 24 Building Code, as discussed further below.

The 2022 Scoping Plan is the State's roadmap for achieving net zero GHG emissions by 2045 and to reduce statewide anthropogenic GHG emissions at least 85 percent below 1990 levels by 2045. The 2022 Scoping Plan also updates the statewide plan to achieve the SB 32 target of reducing emissions to 40 percent below 1990 levels by 2030. Because the Project would be built out and fully operational by 2024, well before 2030, the 2022 Scoping Plan's strategies for achieving the State's 2045 target are less relevant to the Project. Therefore, the Project's consistency with the statewide target for 2030 is the relevant statewide plans related to GHG emissions reduction for the purposes of this analysis. As discussed above, the Project would be consistent with the 2017 Climate Change Scoping Plan and statewide target for 2030 via the ECAP Checklist and SCA GHG-1.

On December 15, 2020, the Oakland City Council adopted an Ordinance, adding to the Oakland Municipal Code Chapter 15.37, "All-Electric Construction in Newly Constructed Buildings." These new regulations require all newly constructed buildings to meet the definition of an All-Electric Building, as defined therein. As a result, the Project would be designed to use a permanent supply of electricity as the source of energy for all space heating, water heating, appliances, and clothes drying appliances, and would be prohibited from having natural gas or propane plumbing installed in the building. This would lower the estimated annual operational greenhouse gas emissions from energy emission sources of the Project.

The Project would seek LEED Silver level certification consistent with the City's green building requirements, and would comply with the CALGreen Code, and Title 24 building energy and water efficiency requirements. The Project would also meet the most recently implemented Building Energy Efficiency Standards.

Furthermore, compliance with the plans, policies, and regulations discussed above would limit the Project's contribution to climate change, thereby reducing the Project's contribution to the hazards of interest discussed in the City's Hazard Mitigation Plan. Therefore, the Project would also be consistent with the Hazard Mitigation Plan.

The Project would be consistent with all applicable goals, policies and regulations adopted to reduce GHG emissions and this impact would be less than significant.

SCA GHG-1: GHG Reduction Plan.

SCA UTIL-3: Green Building Requirements. See Section 4.7.13.2.

Mitigation: None required.

4.3.5 References

Alameda County. 2009. *Alameda County Community Greenhouse Gas Emissions 2005 Roll-Up Inventory, Methodology, and Results.* Accessed April 2022. https://www.acgov.org/climate/documents/2009-02-09_County_climate_inventory-summary.pdf.

Bay Area Air Quality Management District (BAAQMD). 2017a. *Final 2017 Clean Air Plan*, April 2017. Accessed April 2022. https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en.

BAAQMD. 2017b. *BAAQMD CEQA Guidelines, California Environmental Quality Act Air Quality Guidelines*. May 2017. Accessed April 2022. http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en.

California Environmental Protection Agency (Cal EPA). 2013. *Preparing California for Extreme Heat: Guidance and Recommendations*. October 2013. Accessed April 2022. https://toolkit.climate.gov/reports/preparing-california-extreme-heat-guidance-and-recommendations.

California Air Resources Board (CARB). 2022a. *California Greenhouse Gas Emissions for 2000 to 2020.* October 26, 2022. Accessed April 2023. https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf.

CARB. 2017. *California's 2017 Climate Change Scoping Plan*. Published November 2017. Accessed February 2019. https://www.arb.ca.gov/cc/scopingplan/scopingplan.htm.

CARB. 2022b. *2022 Scoping Plan for Achieving Carbon Neutrality*. Published December 2022. Accessed April 2023. https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents.

City of Oakland. 2020a. *2030 Equitable Climate Action Plan*. Adopted June 20, 2020.

City of Oakland. 2020b. Resolution No. 88268: Resolution Approving Preliminary Planning Targets for Development of the Draft Oakland Energy and Climate Action Plan. June 20, 2020.

City of Oakland. 2020c. *2017 Greenhouses Gas Emissions Inventory Report.* June 2020. Accessed April 2022. https://cao-94612.s3.amazonaws.com/documents/2020-Oakland-GHG-Inventory-Report-2017-data-year.pdf.

City of Oakland. 2007. *Land Use and Transportation Element of the Oakland General Plan*. March 24, 1998, amended to June 21, 2007.

City of Oakland. 1998. *Historic Preservation Element of the Oakland General Plan*. March 8, 1994, amended July 21, 1998.

City of Oakland. 1996. *Open Space, Conservation, and Recreation Element (OSCAR) Element of the General Plan*. Adopted June 11, 1996.

Climate Central. 2019. *2018 Global Temperature Review: Land & Ocean.* Accessed April 2022. https://www.climatecentral.org/gallery/maps/2018-global-temp-review-land-ocean. Published February 6, 2019.

CNRA. 2018a. *Safeguarding California Plan: 2018 Update*. Accessed April 2022. http://resources.ca.gov/climate/safeguarding/.

CNRA. 2016. *Safeguarding California: Implementation Action Plans.* Accessed May 2022. https://resources.ca.gov/CNRALegacyFiles/docs/climate/safeguarding/Safeguarding%20California-Implementation%20Action%20Plans.pdf.

CNRA. 2014. *Safeguarding California: Reducing Climate Risk, an Update to the 2009 California Climate Adaptation Strategy*. Accessed April 2022. http://resources.ca.gov/climate/safeguarding/.

CNRA. 2009. *2009 California Climate Adaptation Strategy: A Report to the Governor of the State of California in Response to Executive Order S-13-2008*. Accessed April 2022. https://resources.ca.gov/CNRALegacyFiles/docs/climate/Statewide_Adaptation_Strategy.pdf.

Coastal and Ocean Working Group of the California Climate Action Team (CO-CAT). 2013. Ocean Protection Council's Science Advisory Team, and the California Ocean Science Trust (OPC), *State of California Sea-Level Rise Guidance Document March 2013 Update*. March 2013.

Intergovernmental Panel on Climate Change (IPCC). 2007. Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Accessed April 2022. https://www.ipcc.ch/assessment-report/ar4/.

IPCC. 2014. *Climate Change 2014 Synthesis Report.* Accessed April 2022. http://ipcc.ch/report/ar5/syr/.

Kenward, Alyson, PhD, Dennis Adams-Smith, Urooj Raja. 2013. *Wildfires and Air Pollution: The Hidden Health Hazards of Climate Change. Climate Central*. Accessed April 2022. http://assets.climatecentral.org/pdfs/WildfiresAndAirPollution.pdf.

National Aeronautic and Space Administration (NASA). 2015. *Scientific consensus: Earth's climate is warming.* Updated September 2015. Accessed April 2022. http://climate.nasa.gov/scientific-consensus/.

NOAA. 2019. *Assessing the U.S. Climate in 2018*. Published February 6, 2019. Accessed April 2022. https://www.ncei.noaa.gov/news/national-climate-201812.

Office of Planning and Research (OPR). 2018. *California's Fourth Climate Change Assessment.* Accessed April 2022. https://www.climateassessment.ca.gov/.

U.S. Environmental Protection Agency (U.S. EPA). 2012. *United States Environmental Protection Agency and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks*. EPA-420-F-12-051. Accessed April 2022. https://nepis.epa.gov.

U.S. EPA. 2022. *Inventory of U.S. Greenhouse Gas Emissions and Sinks.* Accessed April 2022. https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks#:~:text=In%202020%2C%20U.S.%20greenhouse%20gas,sequestration%20from%20the%20land%20sector).

Westerling, Anthony LeRoy. 2018. *Wildfire Simulations for the Fourth California Climate Assessment: Projecting Changes in Extreme Wildfire Events with a Warming Climate*. California's Fourth Climate Change Assessment, California Energy Commission. Publication number: CCCA4-CEC-2018-014.

4.4 Hazards and Hazardous Materials

4.4.1 Introduction

This section presents hazards and hazardous materials conditions in the Project vicinity and evaluates the potential for the construction or operation of the proposed Project to result in significant impacts related to exposing people or the environment to adverse hazards and hazardous materials conditions; and impairment of emergency response and access plans. The section first includes a description of the existing environmental setting as it relates to hazards and hazardous materials in the Project vicinity and provides a regulatory framework that discusses applicable state and local regulations. The section then includes an evaluation of potential impacts of the Project.

This section relies in part on the site-specific technical reports listed below, prepared in support of the Project:

- Apex. 2021. *Phase II Environmental Site Assessment, Former Owens-Brockway Glass Facility, 3600 Alameda Avenue, Oakland, California*. October 21.
- CKG. 2020. *Revised Updated Facility Closure Plan, Owens-Brockway Glass Container Inc. Facility, 3600 Alameda Avenue, Oakland, California*. May 7.
- CKG. 2021. *Application for Cleanup of Polychlorinated Biphenyls Owens-Brockway Glass Container Inc., 3600 Alameda Avenue, Oakland, California*. October 22.

4.4.2 Environmental Setting

Definitions of Hazardous Materials

Definitions of terms used in the characterization of baseline conditions, regulatory framework, and impact analysis for hazards and hazardous materials are provided below.

- **Hazardous Material:** The term "hazardous material" can have varying definitions depending on the regulatory programs. For the purposes of this Draft EIR, the term refers to both hazardous materials and hazardous wastes. The California Health and Safety Code Section 25501(n) defines hazardous material as any material that because of its quantity, concentrations, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released. Hazardous materials include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.
- **Hazardous Waste:** A "hazardous waste" is a waste that because of its quantity, concentration, or physical, chemical, or infectious characteristic, causes or significantly contributes to an increase in mortality or illness or poses substantial or potential threats to public health or the environment (42 U.S.C. 6903(5)). Hazardous wastes are further defined under the Resource Conservation and Recovery Act (RCRA) as substances exhibiting the characteristics of ignitability, reactivity, corrosivity, or toxicity. Chemical-specific concentrations used to define whether a material is a hazardous, designated, or nonhazardous

waste include Total Threshold Limit Concentrations (TTLCs), Soluble Threshold Limit Concentrations (STLCs), and Toxic Characteristic Leaching Procedure (TCLPs), listed in CCR Title 22, Chapter 11, Article 3, Section 66261, and used as waste acceptance criteria for landfills. Waste materials with chemical concentrations above TTLCs, STLCs, and TCLPs must be sent to Class I disposal facilities, which are permitted to accept hazardous waste at concentrations above TTLCs, STLCs, and TCLPs.

- **Screening Levels for Hazardous Materials in Soil, Soil Gas, or Groundwater:** The U.S. Environmental Protection Agency (USEPA) Regional Screening Levels (RSLs) and San Francisco Bay Area Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) are guidelines used to evaluate the potential risk associated with chemicals found in soil or groundwater where a release of hazardous materials has occurred. Screening levels have been established for both residential and commercial/industrial land uses, and for construction workers. Residential screening levels are the most restrictive. Soil with chemical concentrations below RSLs and ESLs generally would not require remediation and would be suitable for unrestricted uses if disposed of offsite. Commercial/industrial screening levels are generally less restrictive than residential screening levels because they are based on potential worker exposure to hazardous materials in the soil (and these are generally less than residential exposures). Screening levels for construction workers are also less restrictive than for commercial/industrial workers because construction workers are only exposed to the chemical of concern for the duration of construction, while industrial workers are assumed to be exposed over a working lifetime. Chemical concentrations below these screening levels generally would not require remediation and would be suitable for unrestricted uses. In addition, there are other more specific but similar screening levels used more narrowly focused human health or ecological risk assessment considerations.

Site Conditions

The Project site is located north of the Oakland Estuary and Alameda Avenue, with Fruitvale Avenue to the west, a former retail center to the east, and a mix of commercial, industrial, and residential land uses to the north (see Figure 3-1). The Phase II environmental site assessment (Apex, 2021), the revised updated facility Closure Plan (CKG, 2020), and the Application for Cleanup of Polychlorinated Biphenyls (CKG, 2021) conducted for the Project site include summaries of the site history; documentation of the results of the testing of building materials, soil gas, soil, and groundwater; cleanup activities; and a discussion of the results. The results summarized below are based on the Phase II assessment, the Closure Plan, and the PCB cleanup application, unless otherwise cited.

Site History

The Project site was originally developed with an asphalt refinery operated at the southwest portion of the site from 1902 until 1916. Investigations completed to date indicate that petroleum hydrocarbons associated with the former asphalt refinery have impacted soil and groundwater at the southwest corner of the site.

Construction of the former Owens-Brockway Glass Facility started in 1936, with operations beginning in 1938. The plant operated uninterrupted until October 2015. Originally, the facility included five glass melting furnaces and employed over 1,000 people. Over the years, three of the furnaces were shut down and at the time of closure in 2015, only two furnaces were operating.

Facilities included the raw materials batch house, the furnaces and furnace buildings, the glass forming building and associated machinery, and warehousing. The Project site and areas discussed below, including numbered building sites[1] and offsite parcels, are shown on **Figure 4.4-1**.

Facility Closure, Investigation, and Remediation

After the facility was closed in 2015, a facility-wide remediation (i.e., cleanup) program was initiated in which the majority of all hazardous materials were collected and removed from the site. Underground fuel storage tanks (USTs) were installed in 1936 to provide fuel storage to operate furnaces and mobile equipment but were removed in 1986. Fuel releases associated with these underground fuel storage tanks were investigated and remediated under the jurisdiction of the Alameda County Department of Environmental Health (ACDEH).

In general, the investigations indicate that facilities associated with Buildings 6 through 10 and the Mobile Equipment Maintenance area have hazardous material containing equipment or residual hazardous materials in building materials, soil, soil gas, and/or groundwater. Consequently, the ACDEH, the overseeing regulatory agency, has required further investigation and remediation regarding the areas of Buildings 6 through 10, the Mobile Equipment Maintenance Area, and the proper management of materials contained therein, including glass raw materials, batch, or treatment residue; glass forming machines with oily residues; oil-water separator and trenches; maintenance equipment; fuel and lubricant storage equipment or other equipment with grease residue. The closure plan noted that hazardous building materials, such as lead-based paint (LBP) and polychlorinated biphenyls (PCBs) are anticipated to be encountered during demolition of the buildings and structures, and that the hazardous materials will need to be properly contained, removed, and disposed of in accordance with all applicable laws and regulations.

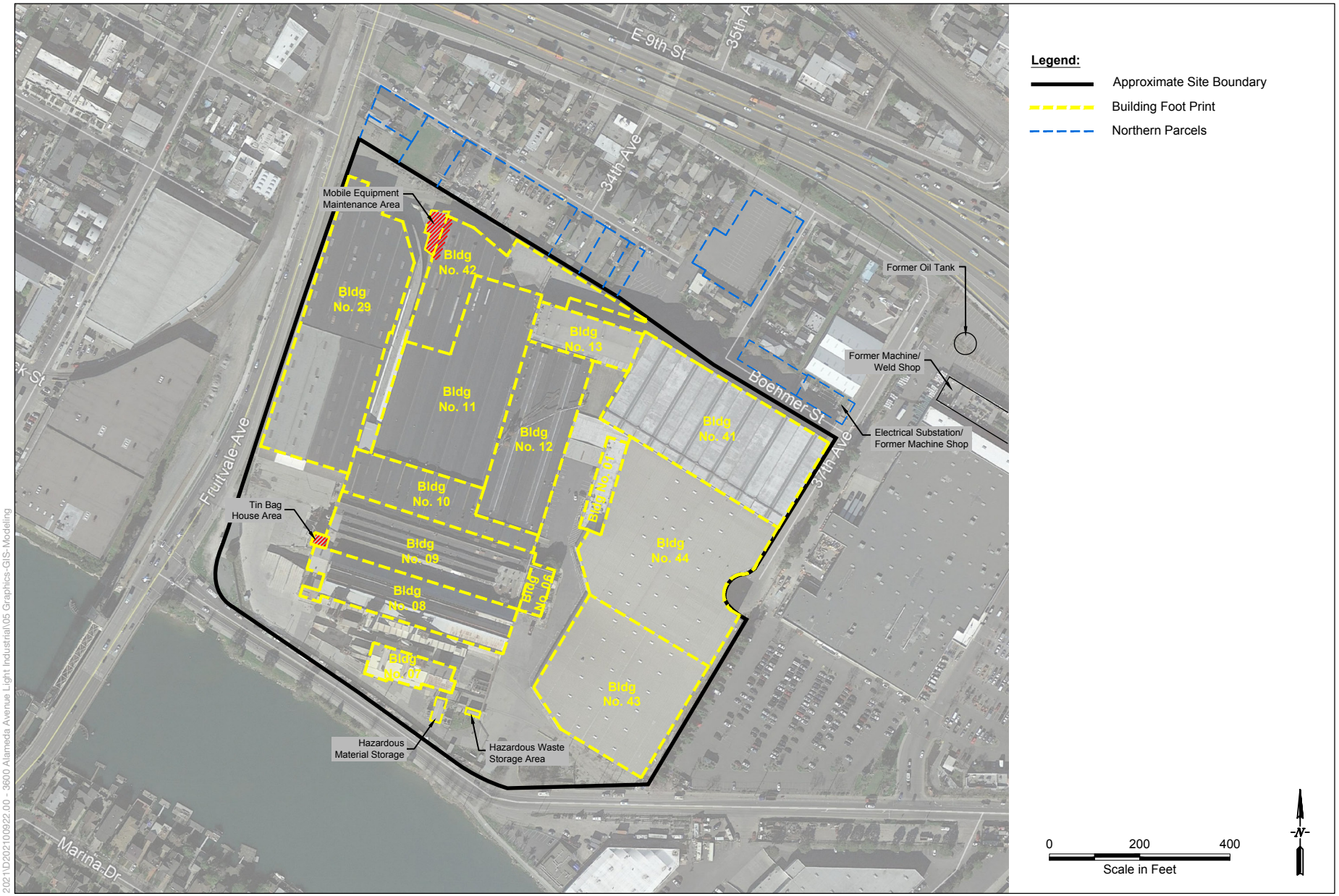
In addition, the investigations included the "Northern Parcels," which are located adjacent to and along the north border of the Project site. Although the Northern Parcels are an offsite area, they are adjacent to the Project site and are known to have contamination that has extended onto the Project site. Therefore, the Northern Parcels testing results discussed below are included in the discussion of onsite conditions.

The areas with chemical concentrations above ESLs or RSLs are summarized below by area.

Building 08 and Portion of Building 09

Building 08 and the southern portion of Building 09 have a basement area that previously contained five glass-making furnaces, which were all located within Building 08. In 1988, a glass leak at one of the furnaces caused molten glass to engulf a bank of transformers that contained polychlorinated biphenyl (PCB) oil located adjacent to the furnace. The resulting fire caused a release of PCBs, dioxins, and furans to the furnace building's basement walls, floor, and

[1] The building numbers are from the Apex Phase II assessment; other reports (e.g., CKG 2021) are known to use different building numbers,



2021\D202100922.00 - 3600 Alameda Avenue Light Industrial\05 Graphics-GIS-Modeling

SOURCE: APEX, 2021

3600 Alameda Industrial Project

Figure 4.4-1
Existing Building Designations

ESA

superstructure.[2] The incident was reported to the U.S. Environmental Protection Agency (USEPA) and investigation and cleanup oversight was provided by the State of California Department of Toxic Substances Control (DTSC). The furnace building's basement walls, floors and overhead structures were scrubbed until either PCBs were not detected or they were below the risk-based threshold determined to be protective of industrial workers. Because the cleanup goal could not be met at one location on the glass furnace building basement's southern wall, the wall was encapsulated with an epoxy sealant. The DTSC and EPA granted closure for the PCB release in 1992. Subsequent investigations indicate that residual PCB impacts remain in the furnace building basement's concrete wall and floor, as well as the soil underlying the furnace building's basement. Data collected to date indicate PCBs do not appear to be mobile in groundwater downgradient of the release. PCBs have been detected in soil beneath the building floor at concentrations above the industrial worker RSLs and ESLs, and above construction worker ESLs.[3] As discussed in Section 3.3, *Project Characteristics*, the proposed Project use is assumed to be a distribution warehouse.

Hazardous Materials Storage and Hazardous Waste Storage Areas

Areas at the southeast corner of Building 07 were used to store hazardous materials and hazardous waste. Trichloroethene (TCE) has been detected in soil vapor beneath this area at concentrations above the residential and commercial use vapor intrusion ESL. Perchloroethene (PCE) has been detected in groundwater at concentrations above the residential and commercial ESL just west of the Hazardous Materials Storage Area and just north of the nearby Building 07. Benzene has been detected in groundwater at concentrations above the residential and commercial ESL in the area in between the Hazardous Materials Waste Storage Area and the nearby Building 06.

Benzene has been detected in soil vapor at concentrations above the residential and commercial vapor intrusion ESLs centered the under Hazardous Materials Storage and Hazardous Waste Storage Areas and extending to under most of the southern and central portions of the Project site.

Mobile Equipment Maintenance Area

This area is located at the northwest corner of Building 42 and was used for vehicle maintenance. Arsenic and lead have been detected in soil at concentrations above the construction worker, residential, and commercial/industrial ESLs. The extent of arsenic and lead has been characterized and is limited to this area.

Tin Bag House Area

A bag house is an air pollution control device and dust collector system that uses fabric bag filters to remove particulates or gas released from industrial processes out of the air. The Tin Baghouse area is located at the southwest corner of Building 09 where arsenic and lead have been detected in soil at concentrations above the construction worker, residential, and commercial/industrial ESLs. The origin of the lead and arsenic is unknown, but it does not appear to be associated with hazardous materials usage at the Tin Baghouse. The extent of arsenic and lead has been

2 The dioxins and furans are a byproduct of the combustion of PCB-containing oil.

3 RSLs have not been established for construction workers.

characterized and is limited to this area. The Tin Bag House may have residues of monobutyl tin oxide on the inside of the metals surfaces. However, metal recyclers have stated that they can accept this material.

Northern Parcels Area

As previously discussed, although the Northern Parcels are not a part of the Project site, they are adjacent to the Project site and are known to have contamination that has migrated onto the Project site. Therefore, the testing results discussed below are included in the discussion of onsite conditions.

Eastern Area at Current Electrical Substation/Former Machine Shop

The current offsite electrical substation, located adjacent and north of the northeast corner of the Project site, was formerly a machine shop. In addition, a former machine and welding shop was located just further to the east and a former oil tank was located just further to the northeast. Investigations to date have concluded that chlorinated solvents, including PCE) and its chlorinated breakdown products, such as TCE, have been detected in soil vapor, soil, and groundwater at this source area and extend onto the Project site in the eastern corner area of Building 41. In addition, benzene has been detected in soil vapor at concentrations above the residential and commercial ESLs.

Central Area North of Building 13

TPH as gasoline, PCE, and TCE were detected at concentrations above their respective residential and commercial soil vapor ESLs in the central portion of the Northern Parcels area. The investigations to date concluded that area with soil vapor concentrations above the ESLs extends south onto the Project site but does not extend as far south as Building 13.

Western Area North of Building 29

Benzene has been detected in soil vapor at concentrations above the residential and commercial ESLs in the western area offsite and onsite and just north of Building 29.

Summary

As discussed above, various chemicals have been detected in soil vapor, soil, and groundwater at various locations throughout the Project site. Note that the extents of the detected chemicals are based on the samples collected to date but the presence of buildings and utilities limits the available sampling locations. In addition, the investigations also indicated residual levels of various chemicals at concentrations below ESLs or RSLs.

Proximity to Sensitive Receptors

There are no schools within 0.25 mile of the Project site. The nearest school is the Ascend Elementary School, located about 0.3 miles to the northeast. While not within 0.25 mile of the Project site, given that the Ascend Elementary School is still in proximity to the Project site and will be analyzed in Impact HAZ-2 in the Project Impacts and Discussion.

The following hospitals and medical facility are within two miles of the Project site.

- Highland Hospital at 1411 East 31st Street in Oakland, located 1.9 miles to the north.
- Kaiser Medical Offices at 2417 Central Avenue in Alameda, located 0.8 miles to the west. Note that this facility is on Alameda Island on the other side of the Oakland Estuary.

The following daycare facilities are located within two miles of the Project site.

- Tommy's Daycare 1300 Derby Avenue, Oakland
- Alameda Island Kids At Edison, 2700 Buena Vista Avenue, Oakland
- Happy Little World Child Care, 1214 Oak Street, Alameda
- Bartell Childcare and Learning Center, 2168 Vicksburg Avenue, Oakland
- Ms. Meika's Childcare, 1272 26th Avenue, Oakland
- Ping Family Child Care, 2915 East 19th Street, Oakland
- Lin's Family WeeCare, 2522 Lincoln Avenue, Alameda
- Ivette's Day Care - Ivette's Family Child Care, 1514 Fernside Boulevard, Alameda
- 24 Hr Children Center, 4700 International Boulevard, Oakland
- Advance Day Care Center, 2236 International Boulevard, Oakland

Proximity to Airports

The Project site is approximately 2.0 miles northwest of the Oakland International Airport. According to the Airport Land Use Compatibility Plan (ALUCP) for the Oakland International Airport, the Project site is not located within the Airport Influence Area, the Safety Compatibility Zone, or the Noise Compatibility Zone (Alameda County, 2010).

Emergency Response or Evacuation Plans

The Oakland Office of Emergency Services (OES) has identified a network of evacuation routes in the General Plan Safety Element (City of Oakland, City of Oakland General Plan Safety Element, 2012). Emergency Evacuation Routes are typically along major thoroughfares. Nearby Emergency Evacuation Routes include the north-south Fruitvale Avenue along the west side of the Project site and east-west San Leandro Street about three blocks north of the Project site.

Wildland Fires

Wildland fires in Oakland are a concern in the Oakland Hills, where wildlands abut residential development and steep terrain slows emergency vehicle access. The City has delineated a Wildfire Prevention Assessment District in the General Plan (City of Oakland General Plan Safety Element, 2012). The Project site is not located within an area at risk of wildland fires and is not within the City's Wildfire Prevention Assessment District.

The California Department of Forestry and Fire Protection (CAL FIRE) maps areas of significant fire hazard based on fuels, terrain, weather and other relevant factors. These zones, referred to as Fire Hazard Severity Zones, then determine the requirements for special building codes designed to reduce the ignition potential of buildings. The Project site is not located within a Very High Fire Hazard Severity Zone (CAL FIRE, 2007, 2008).

4.4.3 Regulatory Setting

Federal

The primary federal agencies with responsibility for hazardous materials management include the U.S. Environmental Protection Agency (U.S. EPA), U.S. Department of Labor Occupational Safety and Health Administration (Fed/OSHA), and the U.S. Department of Transportation (USDOT). Federal laws, regulations, and responsible agencies that are relevant to the Project are summarized in **Table 4.4-1**.

TABLE 4.4-1
FEDERAL LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible Federal Agency	Description
Hazardous Materials Management	Community Right-to-Know Act of 1986 (also known as Title III of the Superfund Amendments and Reauthorization Act (SARA))	Imposes requirements to ensure that hazardous materials are properly handled, used, stored, and disposed of and to prevent or mitigate injury to human health or the environment in the event that such materials are accidentally released.
Hazardous Waste Handling	Resource Conservation and Recovery Act of 1976 (RCRA)	Under RCRA, the U.S. EPA regulates the generation, transportation, treatment, storage, and disposal of hazardous waste from “cradle to grave.”
	Hazardous and Solid Waste Act	Amended RCRA in 1984, affirming and extending the “cradle to grave” system of regulating hazardous wastes. The amendments specifically prohibit the use of certain techniques for the disposal of some hazardous wastes.
Hazardous Materials Transportation	USDOT	USDOT has the regulatory responsibility for the safe transportation of hazardous materials. The USDOT regulations govern all means of transportation except packages shipped by mail (49 CFR).
Occupational Safety	Occupational Safety and Health Act of 1970	Fed/OSHA sets standards for safe workplaces and work practices, including the reporting of accidents and occupational injuries (29 CFR 1910).

State and local agencies often have either parallel or more stringent rules than federal agencies. In most cases, state law mirrors or overlaps federal law and enforcement of these laws is the responsibility of the state or of a local agency to which enforcement powers are delegated. For these reasons, the requirements of the law and its enforcement are discussed under either the state or local agency section.

State

The primary state agencies with responsibility for hazardous materials management in the region include the DTSC and the RWQCB within the California Environmental Protection Agency

(Cal EPA), California Occupational Safety and Health Administration (Cal/OSHA), California Department of Health Services (CDHS), California Highway Patrol (CHP), and the California Department of Transportation (Caltrans). The state laws, regulations, and responsible agencies that are relevant to the Project are summarized in **Table 4.4-2**.

TABLE 4.4-2
STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible State Agency	Description
Hazardous Materials Management	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program); CUPA (Health and Safety Code Sections 25404 et seq)	In January 1996, Cal EPA adopted regulations, which implemented a Unified Program at the local level. The agency responsible for implementation of the Unified Program is called the Certified Unified Program Agency (CUPA), which for the City of Oakland is the Alameda County Department of Environmental Health (ACDEH).
	California Fire Code, Title 24, Chapter 9 of the California Code of Regulations	The California Fire Code regulates the storage and handling of hazardous materials, including the requirement for secondary containment, separation of incompatible materials, and preparation of spill response procedures.
Hazardous Waste Handling	California Hazardous Materials Release Response Plan and Inventory Law of 1985; CUPA	The California Hazardous Materials Release Response Plan and Inventory Law of 1985 (Business Plan Act) requires that businesses that store hazardous materials onsite prepare a Hazardous Materials Business Plan (HMBP) and submit it to the local CUPA, which in this case is the ACDEH.
	California Hazardous Waste Control Act; DTSC	Under the California Hazardous Waste Control Act, California Health and Safety Code, Division 20, Chapter 6.5, Article 2, Section 25100, et seq., DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous waste in California. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; dictate the management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills. DTSC is also the administering agency for the California Hazardous Substance Account Act. California Health and Safety Code, Division 20, Chapter 6.8, Sections 25300 et seq., also known as the State Superfund law, providing for the investigation and remediation of hazardous substances pursuant to state law.
Hazardous Materials Transportation	Titles 13, 22, and 26 of the California Code of Regulations	Regulates the transportation of hazardous waste originating in and passing through the state, including requirements for shipping, containers, and labeling.
	CHP and Caltrans	These two state agencies have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies.
Occupational Safety	Cal/OSHA	Cal/OSHA has primary responsibility for developing and enforcing workplace safety regulations in California. Because California has a federally approved OSHA program, it is required to adopt regulations that are at least as stringent as those found in Title 29 of the Code of Federal Regulations (CFR). Cal/OSHA standards are generally more stringent than federal regulations.
	Cal/OSHA regulations (Title 8 CCR)	Concerning the use of hazardous materials in the workplace, Cal/OSHA regulations require employee safety training, safety equipment, accident and illness prevention programs, hazardous substance exposure warnings, and emergency action and fire prevention plan preparation.

TABLE 4.4-2 (CONTINUED)
STATE LAWS AND REGULATIONS RELATED TO HAZARDOUS MATERIALS MANAGEMENT

Classification	Law or Responsible State Agency	Description
Construction Storm Water General Permit (Construction General Permit; Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ)	RWQCB	Dischargers whose project disturbs one or more acres of soil or where projects disturb less than one acre but are part of a larger common plan of development that in total disturbs one of more acres, are required to obtain coverage under the *NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities* (Construction General Permit; Order 2009-0009-DWQ, NPDES No. CAS000002; as amended by Orders 2010-0014-DWQ and 2012-006-DWQ). Construction activity subject to this permit includes clearing, grading, grubbing, and other disturbances to the ground such as excavation and stockpiling, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of a facility. The Construction General Permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) that includes specific Best Management Practices (BMPs) designed to prevent sediment and pollutants from contacting stormwater from moving offsite into receiving waters. The BMPs fall into several categories, including erosion control, sediment control, waste management and good housekeeping, and are intended to protect surface water quality by preventing the off-site migration of eroded soil and construction-related pollutants from the construction area.
Municipal Separate Storm Sewer System (MS4) Permit NPDES No. CAS000004 and Order No. R2-2015-0049, as amended by Order R2-2019-0004	RWQCB	The MS4 permit requires permittees (in this case, Alameda County) to reduce pollutants and runoff flows from new development and redevelopment using BMPs to the maximum extent practical. The MS4 permittee also has its own development standards, also known as Low Impact Development (LID)/post-construction standards that include a hydromodification element. The MS4 permit requires specific design concepts for LID/post-construction BMPs in the early stages of a project during the entitlement and CEQA process and the development plan review process.
Underground Infrastructure	California Code of Regulations Section 4216-4216.9	Section 4216-4216.9 "Protection of Underground Infrastructure" requires an excavator to contact a regional notification center (e.g., Underground Services Alert or Dig Alert) at least two days prior to excavation of any subsurface installations. Any utility provider seeking to begin a project that could damage underground infrastructure can call Underground Service Alert, the regional notification center for southern California. Underground Service Alert will notify the utilities that may have buried lines within 1,000 feet of the project. Representatives of the utilities are then notified and are required to mark the specific location of their facilities within the work area prior to the start of project activities in the area.

Summary of Federal and State Hazardous Building Materials Regulations

As discussed in Section 4.4.2, *Environmental Setting*, the existing structures contain hazardous building materials. These hazardous materials would be removed as part of the Project. The above-listed federal and state regulations in Tables 4.2-1 and 4.2-2 list the overall regulations that regulate hazardous materials. Within those regulations are the specific hazardous materials regulations cited below that are relevant to the demolition of structures that have hazardous materials as part of their structures.

- **ACM:** CCR Title 8, Division 1, Chapter 4, Article 4, Sections 1529 and 5208; BAAQMD Regulation 11, Rule 2
- **LBP:** CCR Title 8, Division 1, Chapter 4, Article 4, Section 1532.1

- **PCBs:** RCRA: 40 CFR 761; TSCA: 15 USC 2695; California: CCR Title 22, Division 4.5, Chapter 11, Article 3, Section 66261.24
- **Mercury and/or PCBs in light tubes and switches:** CCR Title 22, Division 4.5, Chapter 12, Article 1, Sections 66262.11; 66273 et sec; and CCR Title 22, Division 4.5, Chapter 42, Sections 67426.1 through 67428.1
- **Freon (chlorofluorocarbon and hydrochlorofluorocarbon refrigerants):** California Health and Safety Code, Division 20, Chapter 6.5, Section 25143.2 and 25143.9

Local

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program)

The Unified Program, codified in Health and Safety Code Sections 25404 et seq., requires the administrative consolidation of six hazardous materials and waste programs under one agency, a Certified Unified Program Agency (CUPA). The following programs are consolidated under the unified program:

- Hazardous Materials Release Response Plans, and Inventory (also referred to as Hazardous Materials Business Plans [HMBPs])
- California Accidental Release Program
- Underground Storage Tanks
- Aboveground Petroleum Storage Spill Prevention Control and Countermeasures
- Hazardous Waste Generation and Onsite Treatment
- Uniform Fire Code Plans and Inventory Requirements

The State Secretary for Environmental Protection designated ACDEH as the local CUPA. The CUPA is charged with the responsibility of conducting compliance inspections of hazardous materials facilities in Alameda County, including the City of Oakland. These facilities handle hazardous materials, generate or treat a hazardous waste, and/or operate underground storage tanks. The CUPA uses education and enforcement to minimize the risk of chemical exposure to human health and the environment. The CUPA forwards important facility information to local fire prevention agencies that enables them to take appropriate protective action in the event of an emergency at regulated facilities. To legally store and use hazardous materials above the trigger quantities, users must apply for permits and demonstrate satisfactory compliance with regulations. The quantities that trigger disclosure are based on the maximum quantity on site at any time:

- 55 gallons, 500 pounds, or 200 cubic feet capacity for 30 days or more at any time in a year
- Any amount of hazardous waste
- Category I or II pesticides
- Explosives
- Extremely hazardous substances above the threshold planning quantity

Alameda County Sheriff's Office – Office of Emergency Services

The Alameda County Sheriff's Office – Office of Emergency Services (County OES) is the lead agency for Alameda County under the Standardized Emergency Management System (SEMS; see *Emergency Response* above under state regulations), the purpose of which is to prepare the County to respond efficiently and effectively to emergencies which threaten life, property, or the environment. The County OES administers and operates the Emergency Operations Center (EOC) from which centralized emergency management can be conducted. The EOC is activated by an on-call County OES Coordinator in the event of an emergency. Under such condition, the EOC supports and coordinates emergency response and recovery operations; coordinates and works with other appropriate federal, state and other local government agencies; and prepares and disseminates emergency public information, among other responsibilities.

The Alameda County Board of Supervisors adopted the current Emergency Operations Plan (EOP) in 2012. The Alameda County operational area includes the City of Oakland. The EOP is an extension of the State's California Emergency Plan, and provides tasks, policies, and procedures for managing multi-agency and multi-jurisdictional emergency operations, public information functions and resource management. The EOP identifies several potential threats based upon a hazard analysis, including earthquakes, wildland/urban interface fire, extreme weather, public health emergency, technological and resource emergency, hazardous material incident, terrorism, floods, and landslides.

In addition, in 2011, the County OES, with participation by 12 of the incorporated cities in Alameda County including Oakland, committed to participating with the 2010 Association of Bay Area Governments Local Hazard Mitigation Plan, *Taming Natural Disasters, Multi-Jurisdictional Local Hazard Mitigation Plan for the San Francisco Bay Area*. This serves as the County's Local Hazard Mitigation Plan pursuant to the State Disaster Mitigation Act of 2000. The document identifies the County-wide mitigation strategies to be implemented by the participating agencies to reduce hazard risk and increase resiliency throughout Alameda County.

City of Oakland General Plan

The *Safety Element* of the Oakland General Plan describes the following policies regarding hazards and hazardous materials, adopted for the purpose of avoiding or mitigating an environmental effect, and that apply to the Project (City of Oakland, 2012).

> ***Policy HM-1:*** Minimize the potential risks to human and environmental health and safety associated with the past and present use, handling, storage, and disposal of hazardous materials.
>
> ***Policy HM-2:*** Reduce the public's exposure to toxic air contaminants through appropriate land use and transportation strategies.
>
> ***Policy HM-3:*** Seek to prevent industrial and transportation accidents involving hazardous materials, and enhance the City's capacity to respond to such incidents.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to reducing impacts on hazards and hazardous materials and that apply to the Project are listed below. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to hazards and hazardous materials. Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

SCA HAZ-1: Hazardous Materials Related to Construction. *(Standard Condition of Approval 43)*

Requirement: The Project Applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential negative effects on groundwater, soils, and human health. These shall include, at a minimum, the following:

a. Follow manufacture's recommendations for use, storage, and disposal of chemical products used in construction;

b. Avoid overtopping construction equipment fuel gas tanks;

c. During routine maintenance of construction equipment, properly contain and remove grease and oils;

d. Properly dispose of discarded containers of fuels and other chemicals;

e. Implement lead-safe work practices and comply with all local, regional, state, and federal requirements concerning lead (for more information refer to the Alameda County Lead Poisoning Prevention Program); and

f. If soil, groundwater, or other environmental medium with suspected contamination is encountered unexpectedly during construction activities (e.g., identified by odor or visual staining, or if any underground storage tanks, abandoned drums or other hazardous materials or wastes are encountered), the Project Applicant shall cease work in the vicinity of the suspect material, the area shall be secured as necessary, and the applicant shall take all appropriate measures to protect human health and the environment. Appropriate measures shall include notifying the City and applicable regulatory agency(ies) and implementation of the actions described in the City's Standard Conditions of Approval, as necessary, to identify the nature and extent of contamination. Work shall not resume in the area(s) affected until the measures have been implemented under the oversight of the City or regulatory agency, as appropriate.

SCA HAZ-2: Hazardous Building Materials and Site Contamination. *(Standard Condition of Approval 44)*

a. Hazardous Building Materials Assessment

Requirement: The Project Applicant shall submit a comprehensive assessment report to the Bureau of Building, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACMs), lead-based paint, polychlorinated biphenyls (PCBs), and any other building materials or stored materials classified as hazardous materials by state or federal law. If lead-

based paint, ACMs, PCBs, or any other building materials or stored materials classified as hazardous materials are present, the Project Applicant shall submit specifications prepared and signed by a qualified environmental professional, for the stabilization and/or removal of the identified hazardous materials in accordance with all applicable laws and regulations. The Project Applicant shall implement the approved recommendations and submit to the City evidence of approval for any proposed remedial action and required clearances by the applicable local, state, or federal regulatory agency.

b. Environmental Site Assessment Required

Requirement: The Project Applicant shall submit a Phase I Environmental Site Assessment report, and Phase II Environmental Site Assessment report if warranted by the Phase I report, for the project site for review and approval by the City. The report(s) shall be prepared by a qualified environmental assessment professional and include recommendations for remedial action, as appropriate, for hazardous materials. The Project Applicant shall implement the approved recommendations and submit to the City evidence of approval for any proposed remedial action and required clearances by the applicable local, state, or federal regulatory agency.

c. Health and Safety Plan Required

Requirement: The Project Applicant shall submit a Health and Safety Plan for the review and approval by the City in order to protect project construction workers from risks associated with hazardous materials. The Project Applicant shall implement the approved Plan.

d. Best Management Practices (BMPs) Required for Contaminated Site

Requirement: The Project Applicant shall ensure that Best Management Practices (BMPs) are implemented by the contractor during construction to minimize potential soil and groundwater hazards. These shall include the following:

i. Soil generated by construction activities shall be stockpiled on-site in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state, and federal requirements.

ii. Groundwater pumped from the subsurface shall be contained on-site in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building.

SCA HAZ-3: Hazardous Materials Business Plan. *(Standard Condition of Approval 45)*

Requirement: The Project Applicant shall submit a Hazardous Materials Business Plan for review and approval by the City, and shall implement the approved Plan. The approved Plan shall be kept on file with the City and the Project Applicant shall update the Plan as applicable. The purpose of the Hazardous Materials Business Plan is to ensure that employees are adequately trained to handle hazardous materials and provides information to the Fire Department should emergency response be required.

Hazardous materials shall be handled in accordance with all applicable local, state, and federal requirements. The Hazardous Materials Business Plan shall include the following:

a. The types of hazardous materials or chemicals stored and/or used on-site, such as petroleum fuel products, lubricants, solvents, and cleaning fluids.

b. The location of such hazardous materials.

c. An emergency response plan including employee training information.

d. A plan that describes the manner in which these materials are handled, transported, and disposed.

4.4.4 Environmental Impacts and Mitigation Measures

Significance Criteria

The City of Oakland has established thresholds of significance for CEQA impacts that are consistent with those in Appendix G of the CEQA Guidelines. These adopted thresholds are presented below and have been used in the analysis.

The proposed Project would result in a significant impact relative to hazards and hazardous materials if it would:

1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

3. Create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors;[4]

4. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

5. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 5 (i.e., the "Cortese List") and, as a result, would it create a significant hazard to the public or the environment;

6. Result in less than two emergency access routes for streets exceeding 600 feet in length unless otherwise determined to be acceptable by the Fire Chief, or his/her designee, in specific instances due to climatic, geographic, topographic, or other conditions

7. Be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, and would the Project result in a significant safety hazard for people residing or working in the area; and

[4] Per the BAAQMD CEQA Guidelines, evaluate whether the project would result in persons being within the Emergency Response Planning Guidelines (ERPG) exposure level 2 for acutely hazardous air emissions either by siting a new source or a new sensitive receptor. For this threshold, sensitive receptors include residential uses, schools, parks, daycare centers, nursing homes, and medical centers.

8. Be located within the vicinity of a private airstrip, and would result in a significant safety hazard for people residing or working in the Project area;

9. Fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, or

10. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

Approach to Analysis

General

This environmental analysis of the potential impacts related to hazards and hazardous materials is based on a review of the results of the site-specific preliminary geotechnical investigation, and a review of literature and database research.

The Project would be regulated by the various laws, regulations, and policies summarized above in Section 4.4.3, *Regulatory Setting*. Compliance by the Project with applicable federal, state, and local laws and regulations is assumed in this analysis and local and state agencies would be expected to continue to enforce applicable requirements to the extent that they do so now. Note that compliance with many of the regulations is a condition of permit approval.

A significant impact would occur if, after considering the features described in the Project Description and the required compliance with regulatory requirements, a significant impact would still occur. For those impacts considered to be significant, mitigation measures are proposed to reduce the identified impacts.

Topics Considered and No Impact Determined

The Project would have no impact to the following topics based on the proposed Project characteristics, its geographical location, and underlying site conditions. Therefore, these topics are not addressed further in this document for the following reasons:

- ***Wildland Fires*** (Criterion 10). The Safety Element of the City's General Plan identifies the geographic confines of the Oakland Hills as the fire prevention and assessment district boundary, designated by the California Department of Forestry and Fire Protection (CAL FIRE) as a very high fire hazard severity zone (City of Oakland, 2012; CAL FIRE, 2007, 2008). No other areas in the City, including the Project site, are considered at high risk from wildfire. The Project site is currently developed within a highly urbanized area and flat lands near Downtown Oakland, does not contain dense vegetation, and is surrounded by other developed properties and roadways. Therefore, no impact would be associated with wildland fires.

Project Impacts and Discussion

Impact HAZ-1: The Project would not create a significant hazard to the public or the environment through the routine transport, use, disposal, or accidental release of hazardous materials. The Project site is located in a site that is on Government Code Section 65962.5 5. (Criteria 1, 2, and 5) (*Less than Significant with SCAs*)

Demolition

The Project would include the demolition of approximately 1,240,000 square feet of existing structures on the Project site. The concrete portions of demolished buildings would be tested for hazardous materials. Concrete that does not have contamination at concentrations above the regulatory action levels would be reused onsite to fill existing voids and basements, as discussed further below.

After the facility was closed, Owens-Brockway initiated a facility-wide cleanup program beginning in 2017 in which the majority of all hazardous materials were collected and removed from the site, including PCB-containing light ballasts, and mercury-containing fluorescent light tubes and fixtures. The 2020 CUPA Facility Closure Plan identifies the locations of the remaining structures, equipment, or facilities at the property that contain hazardous materials and/or contain residues of hazardous materials from previous usage.[5] As discussed in Section 4.4.2*, Environmental Setting*, in general, facilities associated with Buildings 06 through 10 are associated with residual hazardous materials impacts or hazardous material containing equipment.

Numerous soil, soil gas, and groundwater samples have been collected that characterize the nature and extent of constituents of concern (COCs) at the site. As discussed further below, some soil beneath the Building 08 and 09 basement floor has PCBs at concentrations above regulatory action levels. Soil in the areas of the Tin Bag House, and the Mobile Equipment Maintenance Area have arsenic and lead at concentrations above regulatory action levels. Soil vapor underlying portions of the Project site contains petroleum hydrocarbons and VOCs at concentrations in excess of vapor intrusion screening criteria under the commercial worker exposure scenario. A Preliminary Vapor Intrusion Conceptual Site Model (Preliminary VISCM) was prepared by Apex to evaluate vapor intrusion risk to the future worker receptor (Apex, 2023). Apex is working with ACDEH Local Oversight Program (LOP) to finalize the Preliminary VICSM, which would involve the installation of a vapor intrusion mitigation system, if necessary and required by ACDEH LOP, to protect future site users from exposure to petroleum hydrocarbon and VOC-impacted soil vapor. Groundwater has been encountered between 8 to 15 feet below ground surface (bgs) at the Project site (Kleinfelder, 2021). Concentrations of residual chemicals in groundwater (primary petroleum hydrocarbons) are above regulatory action levels.

As described in Section 4.4.2*, Environmental Setting*, some remediation has been completed for the basement of Buildings 08 and 09. The exploded transformers with PCB-containing transformer oil, and debris with PCBs, dioxins, and furans were removed from the basement, and the basement surfaces were scrubbed to remove PCBs to the extent possible. However, due to the difficulty of removing some of the contamination from the southern wall of the basement, the

[5] Note that an updated CUPA Facility Closure Plan is currently under review by the relevant regulatory agencies.

southern wall was coated with epoxy to contain and seal the PCB contamination within the concrete of the wall. Consequently, some PCB contamination is present in the basement concrete. In addition, some PCB contamination has seeped through and contaminated soil beneath the basement floor.

In summary, due to the past land uses and contamination encountered on the Project site, demolition activities will encounter building materials, soil, and soil gas, and potentially groundwater with concentrations of chemicals above regulatory action levels.

The removal of the hazardous materials will require oversight and approval of the ACDEH CUPA and other regulatory agencies (e.g., ACDEH LOP and USEPA, particularly for PCB cleanup). The closure activities to address residual hazardous materials at the site, as described in the 2020 Facility Closure Plan, will consist of selectively removing hazardous materials associated with oil cans, gear boxes, batteries, and universal waste.[6] Other facility closure activities that will be implemented include 1) implementation of the Application for Cleanup of Polychlorinated Biphenyls (PCB Cleanup Plan completed on October 25, 2022 (Apex, 2022) and conditionally approved by USEPA on December 15, 2022 (USEPA, 2022), 2) completion of any additional investigations, as required, and 3) work with the City of Oakland on redevelopment planning and demolition permitting. The Project Applicant will prepare and submit an application for a demolition permit and start the demolition process which will include hazardous building materials remedial activities as described in the PCB Cleanup Plan. All reporting and regulatory oversight related to facility closure under the CUPA and USEPA is targeted to be completed approximately eight months after all demolition activities are completed. The schedule elements may vary depending on site conditions and can be modified if needed by submitting a request to the CUPA and with CUPA concurrence.

The PCB Cleanup Plan is focused on the cleanup and encapsulation of PCBs in the former furnace basement area of Buildings 08 and 09. The USEPA-approved action levels for PCBs for this site are: (1) excavate and remove concrete and soil with concentrations above 330 milligrams per kilogram (mg/kg) and (2) eliminate the potential for construction workers to come into contact with concrete and soil with PCBs concentrations above 0.94 mg/kg. The details of the proposed PCB cleanup activities are summarized as follows:

Prior to initiation of demolition activities, the contractor will prepare and implement a dust control plan to control and collect dust generated during demolition and excavation activities. Several air monitoring stations will be established, as needed, to provide continuous monitoring for particulate matter up to 10 microns in size Particulate Matter 10 (PM_{10}) as a proxy for PCB emissions. Normal dust control will be done by applying potable water to work areas using a fine spray. If this measure is insufficient to control dust, or if the application of water creates

[6] Universal wastes are hazardous wastes that are widely produced by households and many different types of businesses. Universal wastes include televisions, computers and other electronic devices, as well as batteries, fluorescent lamps, mercury thermostats, and other mercury containing equipment, among others.

excessive ponding of water (leading to potential migration of contaminants by surface runoff or intrusion), then a foam or other more effective dust suppression product will be applied.

- Soil borings will be drilled through the basement floor to further refine the extent of soil that will need to be excavated and removed to reduce the volume of contaminated soil to be sent for offsite disposal.

- The portion of the southern wall where PCBs are sealed with epoxy will be removed using a handheld pneumatic or electric scabbling tool fitted with a dust shroud. The debris and dust generated during removal will be captured using a shop-vacuum certified for hazardous material removal. At least five confirmation samples will be collected from concrete in the removed wall area to verify all concrete with PCBs above a concentration of 330 mg/kg of PCBs have been removed. Additional concrete removal will continue, as needed, until confirmation samples are below the regulatory action level of 330 mg/kg.

- Concrete and soil in the floor area where previous sampling indicated soil contaminated with PCBs above 330 mg/kg will be broken up, excavated, and disposed of at a licensed offsite facility permitted to accept the waste. An estimated 69 tons of soil and 72 tons of concrete are anticipated for removal. The excavation will be conducted to two depths and extents. The shallow excavation will encompass an area of approximately 20 feet by 20 feet to a depth of 3 feet below the floor of the basement. The deeper excavation will encompass an area of approximately 10 feet by 10 feet to a depth of 16 feet below the floor of the basement. Dewatering will be conducted during the soil excavation, as needed, to minimize intrusion of groundwater, which varies from 0.5 to 1.5 feet below the floor of the basement, into the excavation. The excavation will be backfilled with control density fill (CDF).

- The lower part of the basement will be filled with crushed concrete debris derived from other parts of the Project site as it is generated during site demolition. The material placed in the basement will be tested to verify the materials are not hazardous in accordance with ACDEH LOP requirements. The total thickness of this crushed concrete layer is estimated to be approximately 7 feet and extend from 12 feet below ground surface (bgs) to 0.5 feet bgs. The upper 0. 5 feet will be comprised of finished hardscape.

- The walls of the basement will be left in place from a depth of 12 feet bgs to 0.5 feet bgs.

- Implementation of this plan will leave elevated concentrations of PCB in soil and concrete in the subsurface permanently in such a way that is protective of human health and the environment. Because hazardous materials will remain at concentrations above regulatory action levels, a land use restriction must be established for the property. The land use restriction will state that soil must not be disturbed in the vicinity of the PCB cover. The land use restriction will take the form of a land use covenant or deed restriction on the property. This document will include land use restrictions associated with petroleum hydrocarbon impacts from the former asphalt refinery, as well. As part of the land use restriction, a soil management plan, or similar document, will be developed to include a prohibition against excavating below the PCB cover and to provide for inspection of the PCB cover. A report detailing the condition of the PCB cover will be provided to USEPA on a quarterly basis initially, and as frequently as required by USEPA thereafter. The requirements in the soil management plan and the presence of a land use covenant or deed restriction or some other instrument normally examined during a title search will be recorded with the County of Alameda and will in perpetuity notify any potential purchaser of the existence of the PCB cover and any inspection and/or monitoring the requirements consistent with 40 CFR Section 761.61(a)(8).

As a part of regulations that drive the property-wide cleanup activities described above, the Project would be required to implement SCA HAZ-2, Hazardous Building Materials and Site Contamination, which obligates the Project Applicant to submit the Phase I and II environmental site assessments to ACDEH for approval (already completed; see the Phase I and Phase II assessments, Apex 2021). Once approved, SCA HAZ-2 requires the Project Applicant to submit to the City evidence of approval by the ACDEH for any proposed remedial action (PCB Cleanup Plan (completed on October 25, 2022; Apex 2022); Corrective Action Plan and Corrective Action Implementation Plan to be submitted), including potential site mitigation and contingency plan (SMPs) and vapor intrusion mitigation systems (to be prepared), and required clearances by the applicable local, state, or federal regulatory agency. As such, compliance with SCA HAZ-2 would ensure that the recommendations of the Phase I and II environmental site assessments and requirements for remediation by the lead environmental regulatory agencies (i.e., ACDEH LOP and USEPA) are implemented. SCA HAZ-2 would also ensure that hazardous materials are encapsulated onsite or removed from the site in a secure and safe manner to ensure environmental and health issues are resolved pursuant to applicable laws and policies, subject to applicable regulatory agency oversight.

The Project would involve the demolition and removal of existing structures on the Project site. As previously discussed, given that the buildings predate the 1970s bans on the use of asbestos-containing materials (ACM), lead-based paint (LBP), and polychlorinated biphenyls (PCBs) in building materials, hazardous building materials are present in the structures.

Numerous existing regulations require that demolition and construction activities that may disturb or require the removal of hazardous building materials must be inspected and/or tested for the presence of hazardous materials, which has been completed. Hazardous building materials must be managed and disposed of in accordance with applicable laws and regulations. The Project would also be subject to SCA AIR-7, Asbestos in Structures, and SCA HAZ-1, Hazardous Materials Related to Construction, pertaining to the removal of ACM from structures and implementation of best management practices for hazardous materials during construction, respectively.

The Project site property is listed on the Cortese List (i.e., Government Code Section 65962.5 5) due to the release of hazardous materials. With completion of the cleanup activities summarized above, the property will remain on the Cortese List due to the encapsulation of PCBs, petroleum hydrocarbons, and select metals (e.g., lead and arsenic) in soil and installation of a vapor intrusion mitigation system, if necessary and required by ACDEH LOP. The encapsulation will eliminate the direct contact human health exposure and soil to groundwater leaching pathways. If necessary, a vapor intrusion mitigation system would protect future site users from exposure to petroleum hydrocarbon and VOC-impacted soil vapor. The land use covenant or deed restriction will ensure that the encapsulated materials are not disturbed and remain isolated from people and the environment.

As discussed above, the development of the Project would be subject to ACDEH LOP, ACDEH CUPA, USEPA, DTSC, and SCA regulatory requirements pertaining to the transportation, use, handling, and disposal of hazardous materials, which would address the potential for creation of

hazardous conditions due to the routine use or accidental release of hazardous materials, resulting in impacts that would be less than significant.

Construction

After the demolition of existing structures and the cleanup and encapsulation of hazardous materials, the Project Applicant would construct the new warehouse and offices. During the construction phase, construction equipment and materials would include fuels, oils and lubricants, solvents and cleaners, cements and adhesives, paints and thinners, degreasers, cement and concrete, and asphalt mixtures, which are all commonly used in construction. The routine use or an accidental spill of hazardous materials used in construction could result in inadvertent releases, which could adversely affect construction workers, the public, and the environment.

Construction activities would be required to comply with numerous hazardous materials regulations designed to ensure that hazardous materials are transported, used, stored, and disposed of in a safe manner to protect worker safety, and to reduce the potential for a release of construction-related fuels or other hazardous materials into the environment, including stormwater and downstream receiving water bodies, including San Francisco Bay. Contractors would be required to prepare and implement Hazardous Materials Business Plans (HMBPs) that would require that hazardous materials used for construction would be used properly and stored in appropriate containers with secondary containment, as needed, to contain a potential release. The California Fire Code would also require measures for the safe storage and handling of hazardous materials. The Project Applicant would be required to implement SCA HAZ-1, Hazardous Materials Related to Construction, to ensure best management practices are followed during construction activities including those related to the use, storage, and disposal of chemical products used in construction.

As discussed in Section 4.7.5, *Geology, Soils, and Paleontological Resources*, and Section 4.7.6, *Hydrology and Water Quality*, construction contractors would be required to prepare a Stormwater Pollution Prevention Plan (SWPPP) for construction activities according to the National Pollutant Discharge Elimination System (NPDES) Construction General Permit requirements in compliance with SCA HYD-1, State Construction General Permit. The SWPPP would list the hazardous materials (including petroleum products) proposed for use during construction; describe spill prevention measures, equipment inspections, equipment and fuel storage; describe protocols for responding immediately to spills; and describe Best Management Practices (BMPs) for controlling site run-on and runoff.

In addition, the transportation of hazardous materials would be regulated by the U.S. Department of Transportation (USDOT), the California Department of Transportation (Caltrans), and the California Highway Patrol (CHP). Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the risk of an accidental release.

Finally, in the event of a spill that releases hazardous materials at the Project site, a coordinated response would occur at the federal, state, and local levels, including the City of Oakland. The Oakland Fire Department is the local hazardous materials response team. In the event of a

hazardous materials spill, the Oakland Police and Fire departments would be simultaneously notified and sent to the scene to respond and assess the situation.

Since development of the Project would be subject to the SCAs pertaining to the handling of hazardous materials related to construction activities and the remedial actions required when site contamination is encountered, and required compliance with the numerous laws and regulations discussed above that govern the transportation, use, handling, and disposal of hazardous materials would limit the potential for creation of hazardous conditions due to the use or accidental release of hazardous materials, this impact would be less than significant.

Operations

The Project Applicant is proposing to construct an approximately 430,000 square foot, 56-foot-tall industrial building proposed for use as a distribution warehouse with office spaces. Once constructed, the warehouse space and offices would use and store small quantities of chemicals typical in an office and warehouse storage setting, such as office cleaning solutions, paints and thinners, and motor fuel (e.g., vehicles and fork lifts). Few of the chemicals would be considered hazardous materials (e.g., bleach) and the anticipated volumes would be small (i.e., less than 5 gallons). The warehouse operations may store and transport hazardous materials as products for distribution. However, products that contain hazardous materials would be contained within packaging designed to prevent leakage during storage and transportation. At a minimum, the land uses may involve the use of hazardous materials and waste such as solvents or oil-based paints. SCA HAZ-3, Hazardous Materials Business Plan, would ensure that employees are adequately trained to handle hazardous materials in accordance with all applicable local, state, and federal requirements. Therefore, with implementation of SCA HAZ-1, HAZ-2, and HAZ-3, the potential impacts associated with emitting and handling hazardous substance within 0.25-mile of schools, hospitals, and daycare facilities would be appropriately managed, and the impact would be less than significant.

SCA HAZ-1: Hazardous Materials Related to Construction.

SCA HAZ-2: Hazardous Building Materials and Site Contamination.

SCA HAZ-3: Hazardous Materials Business Plan.

SCA AIR-7: Asbestos in Structures. See Section 4.1.3.

SCA HYD-1: State Construction General Permit. See Section 4.7.6.2.

Mitigation: None required.

Impact HAZ-2: The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, hospital, or daycare center resulting in a significant impact (Criteria 3 and 4) (*Less than Significant with SCAs*)

Demolition and Construction

There are two medical facilities, ten daycare facilities, and no schools within 0.25-mile of the Project site, although the Ascend Elementary School is approximately 0.3 mile northeast of the Project site. As previously discussed under Impact HAZ-1, demolition and construction activities would involve the handling and transportation hazardous materials, substances, and waste. The remediation and transportation of hazardous materials would be regulated by the USEPA, DTSC, ACDEH, USDOT, Caltrans, and the CHP, along with City of Oakland SCAs. Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications designed to minimize the risk of an accidental release. The SCAs specific to hazardous materials, described in Impact HAZ-1, are relevant here. Implementation of SCA HAZ-1, SCA HAZ-2, and SCA AIR-7 would ensure best management practices are followed during demolition and construction activities pertaining to any potentially contaminated materials, and the impact would be less than significant.

Operations

Once constructed, the warehouse space and offices would use and store small quantities of chemicals typical in an office and warehouse storage setting, such as office cleaning solutions, paints and thinners, and motor fuel (e.g., vehicles and fork lifts). Few of the chemicals would be considered hazardous materials (e.g., bleach) and the anticipated volumes would be small, generally less than 5 gallons. The warehouse operations may store and transport hazardous materials as products for distribution. However, products that contain hazardous materials would be contained within packaging designed to prevent leakage during storage and transportation. At a minimum, the land uses may involve the use of hazardous materials and waste such as cleaning solvents or oil-based paints. SCA HAZ-3, Hazardous Materials Business Plan, would ensure that employees are adequately trained to handle hazardous materials in accordance with all applicable local, state, and federal requirements. Therefore, with implementation to SCA HAZ-1, HAZ-2, and HAZ-3, the potential impacts associated with emitting and handling hazardous substance within 0.25-mile of schools, hospitals, and daycare facilities would be appropriately managed, and the impact would be less than significant.

SCA HAZ-1: Hazardous Materials Related to Construction.

SCA HAZ-2: Hazardous Building Materials and Site Contamination.

SCA HAZ-3: Hazardous Materials Business Plan.

SCA AIR-7: Asbestos in Structures. See Section 4.1.3.

Mitigation: None required.

Impact HAZ-3: The Project would provide adequate emergency access and would not fundamentally impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Criteria 6 and 9) (*Less than Significant with SCAs*)

Demolition and Construction

Nearby designated Emergency Evacuation Routes include the north-south Fruitvale Avenue along the west side of the Project site and east-west San Leandro Street about three blocks north of the Project site. Most construction activities would occur within the Project site and would not affect roadways. However, construction may result in temporary road and lane closures as equipment, materials, and workers enter and exit the Project site. The temporary increases in construction traffic and potential temporary closures of nearby roads could interfere with emergency services traffic in the Project vicinity.

The construction phase of the Project would require a traffic control plan to ensure at least two emergency access routes are available for streets exceeding 600 feet in length, per the City of Oakland's Ordinances and General Plan Policies. Construction equipment and materials would enter and exit the Project site through existing access roads. During demolition and construction activities, primary access would be from Alameda Avenue and Fruitvale Avenue, along the south and west sides of the site, respectively. The access from Fruitvale Avenue along the western side of the site has two lanes in this location and thus access would not require the closure or restriction of lanes on Fruitvale Avenue. Alameda Avenue has one lane in both directions but does have parking along the north side that could be used to assist in accessing the site. In any case, the Project Applicant would be required to implement of SCA TRANS-1, Construction Activity in the Public Right-of-Way, which would require that the Project Applicant obtain an obstruction permit prior to any temporary construction-related obstructions in the public right-of-way and prepare and submit a traffic control plan prior to construction. The traffic control plan would describe measures to control construction traffic such that emergency vehicles will continue to be able to use Fruitvale and Alameda Avenues. With implementation of the required traffic control plan and compliance with SCA TRANS-1, the impact would be less than significant.

Operations

As discussed in Section 3.3.4, *Access, Parking, and Circulation*, the Project would shift Alameda Avenue approximately 100 feet inland to increase public access to the shoreline and Bay Trail, and extend 37th Avenue, which is currently a cul-de-sac, through to Alameda Avenue, providing a new north-south connection. With the added connections, traffic flow and emergency access would be improved.

Summary

The Project would be designed to comply with the most up-to-date building and fire codes and include fire safety measures and equipment, including the provision of adequate emergency access to the Project site for emergency vehicles and personnel. Project plans would be subject to review and approval by the Oakland Fire Department. Therefore, with implementation of SCA TRANS-1 the Project would provide adequate emergency access and would not fundamentally

impair implementation of or physically interfere with an adopted emergency response or evacuation plan and the impact would be less than significant.

SCA TRANS-1: Construction Activity in the Public Right-of-Way. See Section 4.6.2.

Mitigation: None required.

Impact HAZ-4: The Project would not be located within an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport, public use airport, or private airstrip, and would not result in a significant safety hazard for people residing or working in the Project area. (Criteria 6 and 9) (*Less than Significant*)

Demolition and Construction

The Project site is approximately 2.0 miles northwest of the Oakland International Airport. While the Project site is in proximity to the Oakland International Airport, it is not within the Airport Influence Area, the Safety Compatibility Zone, or the Noise Compatibility Zone, as delineated in the ALUCP. As the Project site is not within the Airport Influence Area, the Safety Compatibility Zone, or the Noise Compatibility Zone, demolition and construction associated with the Project would not result in a safety hazard for people residing or working in the Project area. The impact would be less than significant.

Operations

As discussed above, the Project site is within 2.0 miles of the Oakland International Airport; however, the Project site is not located within any of the safety zones delineated in the ALCUP. Project operations would not result in a safety hazard to people residing or working in the area. The Project's operational impact would be less than significant.

4.4.5 Cumulative Impacts

As analyzed above, the Project would result in no impact with regard to the following criteria: being located within an airport land use plan or being within two miles of a public airport; and significant risk of loss, injury, or death involving wildland fire. Because no impact would result, the Project could not cause or contribute to any cumulative effect in these regards. Therefore, this cumulative analysis focuses on the Project's less-than-significant impacts relating to routine transport, use, or disposal of hazardous materials; accidental release of hazardous materials into the environment, handling hazardous materials near sensitive receptors (e.g., within one-quarter mile of a sensitive receptor), and emergency access and response.

This section presents an analysis of the cumulative effects of the Project in combination with other past, present, and reasonably foreseeable future projects that could cause cumulatively considerable impacts. The geographic area affected by the Project and its potential to contribute to cumulative impacts varies based on the environmental resource under consideration. Hazards and hazardous materials are generally site-specific and depend on the nature and extent of the hazardous

materials release, and existing and future soil and groundwater conditions. For example, hazardous materials incidents tend to be limited to a smaller more localized area surrounding the immediate spill location and extent of the release, and could only be cumulative if two or more hazardous materials releases spatially overlapped. The geographic scope of analysis for cumulative hazards and hazardous materials impacts encompasses and is limited to the Project site and its immediately adjacent area.

The timeframe during which the Project could contribute to cumulative hazards and hazardous materials effects includes the construction and operations phases. For the Project, the operations phase is assumed to be permanent. Impacts relative to hazardous materials are generally location- and time-specific. Hazardous materials events could only be cumulative if two or more hazardous materials releases occurred at the same time, as well as overlapping at the same location.

Impact HAZ-1.CU: The Project, combined with cumulative development in the Project vicinity, would not result in significant cumulative impacts relative to hazards and hazardous materials. (*Less than Significant with SCAs)*

Cumulative Impacts during Project Construction

Significant cumulative impacts related to hazards and hazardous materials could occur if the incremental impacts of the Project combined with the incremental impacts of one or more cumulative projects to create a substantially increased risk that people or the environment would be exposed to hazardous materials used.

Cumulative projects would be subject to the same regulatory requirements discussed above for the Project, including the implementation of health and safety plans and soil management plans, as needed. Therefore, cumulative projects involving releases of or encountering hazardous materials also would be required to remediate their respective sites to the same established regulatory standards. This would be the case regardless of the number, frequency, or size of the release(s), or the residual amount of chemicals present in the soil from previous spills. While it is possible that the Project and cumulative projects could result in releases of hazardous materials at the same time and in overlapping locations, the responsible party associated with each spill would be required to remediate site conditions to the same established regulatory standards. The residual less-than-significant effects of the Project (with SCAs) that would remain after remediation would not combine with the potential residual effects of cumulative projects to cause a potential significant cumulative impact because residual impacts would be highly site-specific. Accordingly, no significant cumulative impact with respect to the use or release of hazardous materials would result. For the above reasons, the combined effects of the construction of the Project in combination with cumulative projects would not have a cumulatively considerable contribution to a cumulative impact. In addition, both the Project and cumulative projects would be required to provide appropriate traffic control and emergency access for their projects during construction and would be required to implement the applicable City's SCAs pertaining to hazards and hazardous materials. Therefore, no significant cumulative impact related to hazards and hazardous materials is identified for Project construction.

Cumulative Impacts during Project Operation

Significant cumulative impacts related to operational hazards could occur if the incremental impacts of the Project combined with those of one or more other projects were to cause a substantial increase in risk that people or the environment would be exposed to hazardous materials used or encountered during the operations phase.

Similar to hazardous materials during construction, compliance with the laws and regulations regarding the safe transport, use, storage, and disposal of hazardous materials would reduce the Project-specific incremental impact to a less-than-significant level (with SCAs). The cumulative project components involving the handling, storage, and disposal of hazardous materials would also be required to prepare and implement HMBPs and comply with the same applicable laws and regulations, including those governing containment, site layout, and emergency response and notification procedures in the event of a spill or release. Transportation and disposal of wastes, such as spent cleaning solutions, would also be subject to regulations for the safe handling, transportation, and disposal of chemicals and wastes. As noted previously, such regulations include standards to which parties responsible for hazardous materials releases must return spill sites, regardless of location, frequency, or size of release, or existing background contaminant concentrations, to their original conditions. Therefore, compliance with existing laws and regulations and the City's SCAs regarding hazardous materials would reduce the risk of environmental or human exposure to such materials. For the above reasons, the combined effects of the Project and cumulative projects would not have a cumulatively considerable contribution to a cumulative impact. No significant cumulative impact is identified.

Summary

Site review for individual building projects and existing emergency response requirements are sufficient to ensure that a project's potential impairment of or effect on implementation of any emergency response or evacuation plans would be considered a less-than-significant impact (with SCAs). However, cumulative development in the surrounding area could increase the number of people and structures that could interfere with emergency evacuation or emergency response plans. Similar to the Project, cumulative development would be designed to comply with the most up-to-date building and fire codes and include fire safety measures and equipment, including the provision of adequate emergency access to the Project site for emergency vehicles and personnel. Cumulative development project plans would be subject to review and approval by the Oakland Fire Department. Therefore, with implementation of SCA TRANS-1, the Project and cumulative projects would not fundamentally impair implementation of or physically interfere with an adopted emergency response or evacuation plan and the impact would be less than significant. In addition, all cumulative projects would be required to comply with the same regulations and City SCAs. Therefore, the effects of the Project would not combine with cumulative development in the surrounding area to become cumulatively considerable.

SCA HAZ-1: Hazardous Materials Related to Construction.

SCA HAZ-2: Hazardous Building Materials and Site Contamination.

SCA HAZ-3: Hazardous Materials Business Plan.

SCA AIR-7: Asbestos in Structures. See Section 4.1.3.

SCA HYD-1: State Construction General Permit. See Section 4.7.6.2.

SCA TRANS-1: Construction Activity in the Public Right-of-Way. See Section 4.6.2.

Mitigation: None required.

4.4.6 References

AECOM. 2017. *Regulated Building Materials Abatement Project Manual*. May 4.

Alameda County. 2010. *Airport Land Use Compatibility Plan, Oakland International Airport*. December 15.

Apex. 2021. *Phase II Environmental Site Assessment, Former Owens-Brockway Glass Facility, 3600 Alameda Avenue, Oakland, California*. October 21.

Apex. 2023. *Preliminary Vapor Intrusion Conceptual Site Model, 3600 Alameda Redevelopment, 3600 Alameda Avenue, Oakland, California*. March 7.

California Department of Forestry and Fire Protection (CAL FIRE). 2007. *Fire Hazard Severity Zones in SRA, Adopted by CAL FIRE on November 7, 2008*.

CAL FIRE. 2008. *Oakland Very High Fire Hazard Severity Zones in LRA as Recommended by CAL FIRE*. September 3.

City of Oakland. 2012. *Safety Element of the General Plan*. Adopted March 20, 2012.

CKG. 2020. *Revised Updated Facility Closure Plan, Owens-Brockway Glass Container Inc. Facility, 3600 Alameda Avenue, Oakland, California*. May 7.

CKG. 2021. *Application for Cleanup of Polychlorinated Biphenyls Owens-Brockway Glass Container Inc., 3600 Alameda Avenue, Oakland, California*. October 22.

Kleinfelder. 2021. *Geotechnical Investigation Report, Industrial Warehouse Site; 3600 Alameda Avenue, Oakland, California.* Project No. 20214267.001A. May 26, 2021. Accessed January 20, 2022.

4.5 Noise and Vibration

4.5.1 Introduction

This section assesses the potential for the Project to result in significant adverse impacts related to noise and vibration. The section first includes a description of the existing environmental setting as it relates to noise levels in the Project vicinity and provides a regulatory framework that discusses applicable state and local regulations. The section then includes an evaluation of potential impacts of the Project related to noise and vibration.

The information and analysis in this section is based on a review of the Project; applicable local policies, regulations and standards in the general plans and noise ordinances of the cities of Oakland and Alameda; and guidance on performing noise and vibration analyses from the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA).

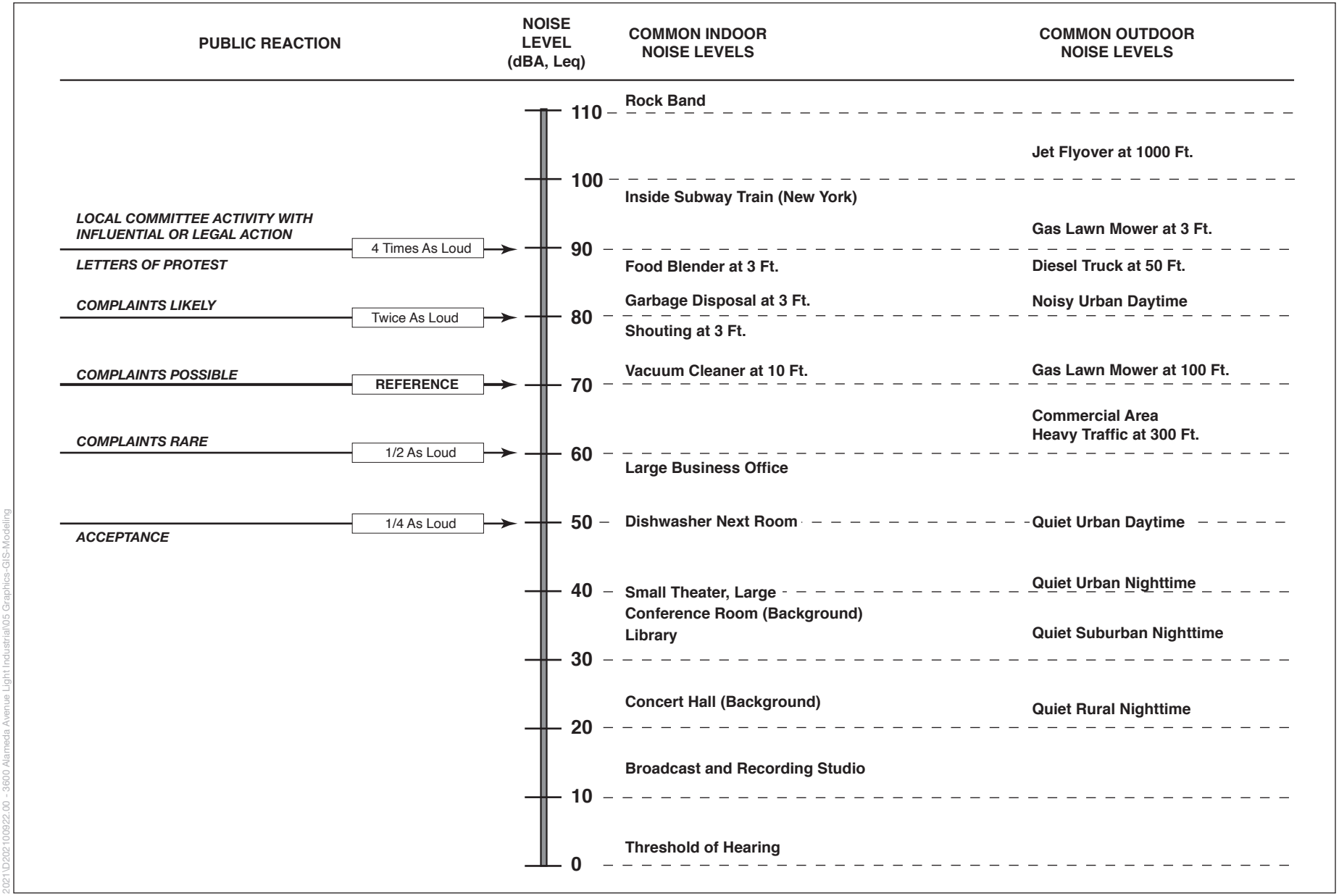
4.5.2 Environmental Setting

Noise Principles and Descriptors

Noise is generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude. When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to extremely low and extremely high frequencies. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA). A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements. Some representative noise sources and their corresponding A-weighted noise levels are shown on **Figure 4.5-1**. All noise levels presented in this report are A-weighted unless otherwise stated.



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SOURCE: ESA, 2022

3600 Alameda Industrial Project

Figure 4.5-1
Effects of Noise on People

ESA

Noise Exposure and Community Noise

An individual's noise exposure is a measure of noise over a period of time. A noise level is a measure of noise at a given instant in time. The noise levels presented on Figure 4.5-1 are representative of measured noise at a given instant in time; however, they rarely persist consistently over a long period of time. Rather, community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic. What makes community noise variable throughout a day, besides the slowly changing background noise, is the addition of short-duration, single-event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

These successive additions of sound to the community noise environment change the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The following are the most frequently used noise descriptors:

- **L_{eq}:** The equivalent-continuous sound level, used to describe noise over a specified period of time in terms of a single numerical value. The L_{eq} of a time-varying signal and that of a steady signal are the same if they deliver the same acoustic energy over a given time. May also be referred to as the "average sound level."
- **L_{max}:** The maximum, instantaneous noise level experienced during a given period of time.
- **L_{min}:** The minimum, instantaneous noise level experienced during a given period of time.
- **L_{dn}:** The average A-weighted noise level during a 24-hour day, obtained after 10 dB are added to noise levels measured between 10 p.m. and 7 a.m. to account for nighttime noise sensitivity. Also referred to as the "day-night average noise level" (DNL).
- **CNEL:** The community noise equivalent level. This is the average A-weighted noise level during a 24-hour day that is obtained after 5 dB are added to measured noise levels between 7 p.m. and 10 p.m. and 10 dB are added to noise levels between 10 p.m. and 7 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The CNEL is the metric generally used for assessment of aircraft noise. The result is normally about 0.5 dBA higher than DNL using the same 24-hour data (Caltrans, 2013).

Effects of Noise on People

Noise is generally loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity that is a nuisance or disruptive. The effects of noise on people can be placed into four general categories:

- Subjective effects (e.g., dissatisfaction, annoyance).
- Interference effects (e.g., communication, sleep, and learning interference).

- Physiological effects (e.g., startle response).
- Physical effects (e.g., hearing loss).

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. Interference effects of environmental noise refer to those effects that interrupt daily activities and include interference with human communication activities, such as normal conversations, watching television, telephone conversations, and interference with sleep. Sleep interference effects can include both awakening and arousal to a lesser state of sleep. With regard to the subjective effects, the responses of individuals to similar noise events are diverse and are influenced by many factors, including the type of noise, the perceived importance of the noise, the appropriateness of the noise to the setting, the duration of the noise, the time of day and the type of activity during which the noise occurs, and individual noise sensitivity.

Overall, there is no completely satisfactory way to measure the subjective effects of noise, nor the corresponding reactions of annoyance and dissatisfaction on people. A wide variation in individual thresholds of annoyance exists, and different tolerances to noise tend to develop based on an individual's past experiences with noise. Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted (i.e., comparison to the ambient noise environment). In general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise level will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships generally occur (Caltrans, 2013):

- Except in carefully controlled laboratory experiments, a change of 1 dB cannot be perceived.
- Outside of the laboratory, a 3 dB change in noise levels is considered to be a barely perceivable difference.
- A change in noise levels of 5 dB is considered to be a readily perceivable difference.
- A change in noise levels of 10 dB is subjectively heard as doubling of the perceived loudness.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion; hence the decibel scale was developed. Since the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, but rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dB, the combined sound level would be 53 dB, not 100 dB.

Fundamentals of Vibration

As described in the FTA's Transit Noise and Vibration Impact Assessment (FTA 2018), groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, groundborne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major

roads. Some common sources of groundborne vibration are trains; buses on rough roads; and construction activities such as blasting, pile-driving, and operation of heavy earth-moving equipment.

Several different methods are used to quantify vibration. Peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. PPV is most frequently used to describe the impacts of vibration on buildings. The root mean square (RMS) amplitude is most frequently used to describe the effect of vibration on the human body. The RMS amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (in vibration decibels [VdB]) is commonly used to measure RMS.

The relationship of PPV to RMS velocity is expressed in terms of the "crest factor," defined as the ratio of the PPV amplitude to the RMS amplitude. Peak particle velocity is typically a factor of 1.7 to 6 times greater than RMS vibration velocity (FTA, 2018). The decibel notation acts to compress the range of numbers required to describe vibration.

Typically, groundborne vibration generated by human activity attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

The effects of groundborne vibration include movement of building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, vibration can damage buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile driving during construction. Annoyance from vibration often occurs when the vibration levels exceed the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings. FTA's measure of the threshold of architectural damage for conventional sensitive structures is 0.2 inches per second (in/sec) PPV (FTA, 2018).

In residential areas, the background vibration velocity level is usually around 50 VdB (approximately 0.0013 in/sec PPV, with a crest factor of 4). This level is well below the vibration-velocity-level threshold of perception for humans, which is approximately 65 VdB. A vibration velocity level of 75 VdB is considered to be the approximate dividing line between barely perceptible and distinctly perceptible levels for many people (FTA, 2018).

Noise Sources and Levels

Transportation sources, such as automobiles, trucks, trains, and aircraft, are the principal sources of noise in the urban environment. Along major transportation corridors, noise levels can reach 80 DNL, while along arterial streets, noise levels typically range from 65 to 70 DNL. However, noise levels on roadways, like all areas, can be affected by intervening development, topography, or landscaping. Industrial and commercial equipment and operations also contribute to the ambient noise environment in their vicinities. Primary noise sources in the Project site vicinity include traffic and commercial/industrial activities. At its closest, the Project site is approximately 330 feet south of Interstate 880 (I-880). Observations during a site reconnaissance indicated that

local traffic noise is prominent and traffic along I-880 corridor is only audible during the quietest periods due to the presence of intervening structures and the distance.

To characterize the noise environment within the Project site and surrounding area, one long-term (24-hour) and two short-term (15-minute) noise measurements were conducted, and resulting data are presented in Appendix H. Long-term noise monitoring was conducted on 36th Avenue, approximately 200 feet from E 8th Street and 140 feet from the Project site's northern boundary. This location was selected based on its proximity to Project construction activities, while short-term noise monitoring was conducted at two off-site locations near sensitive land uses and primary roadways that would be used to access the Project site. **Figure 4.5-2** shows the noise measurement locations. **Table 4.5-1** presents a summary of the noise data collected during the noise monitoring effort. The table also summarizes the major noise sources observed to contribute to the ambient noise levels at the measurement locations.

Noise measurements were conducted using SoundTrack LxT® sound level meters. The meters were laboratory certified within the past year and were calibrated prior to each measurement using a laboratory certified calibrator. For short-term measurements, the sound level meter was placed on a tripod at an approximate microphone height of 5 feet. The long-term measurements necessitated a higher microphone height of approximately 8 feet to ensure equipment safety.

TABLE 4.5-1
NOISE MEASUREMENT DATA COLLECTED IN THE VICINITY OF THE PROJECT SITE

Measurement Type/Location	Observed Noise Sources	Noise Levels in dBA		
		Day-Night Level (DNL)	Daytime Hourly Average L_{eq}	Nighttime Hourly Average L_{eq}
Long-term (24-hour) Measurement				
LT-1: 36th Avenue 200 feet from E 8th Street and 140 feet from Project site	Traffic on adjacent roadways, wind	72	67	65
Short-term (15-minute) Measurements				
ST-1: 37th Avenue. 60 feet from E 8th Street. and150 feet from Interstate 880	Traffic on I-880 and adjacent roadways	--	68.3	
ST-2: Adjacent to Fruitvale Railroad Bridge120 feet from Marina Drive	Traffic	--	59.1	

SOURCE: Data collected by ESA in 2022.

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SOURCE: ESA, 2022; Google Earth, 2022

3600 Alameda Industrial Project

Figure 4.5-2
Noise Monitoring Locations

ESA

Vibration

The only sources of groundborne vibration at and in the vicinity of the Project site are heavy-duty vehicular travel (e.g., refuse trucks, haul trucks) on local roadways and loading/unloading activities at the loading docks of The Home Depot to the east of the Project site. These sources of vibration are minor and vibration levels associated with them would not be perceptible to any sensitive receptors. Trucks traveling at a distance of 50 feet typically generate groundborne vibration velocity levels of approximately 0.006 in/sec PPV, and these levels could reach approximately 0.016 in/sec PPV where trucks pass over discontinuities in the roadway (FTA, 2018).

Sensitive Receptors

Some land uses are considered more sensitive to noise than others due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. Residences, motels and hotels, schools, libraries, churches, hospitals, nursing homes, and auditoriums generally are more sensitive to noise than are commercial and industrial land uses. Sensitive receptors in the Project vicinity primarily include residential uses. The nearest residences are located to the north of the Project site along Elmwood Avenue and 36th Avenue less than 100 feet from the Project site boundary. Residential uses are also located to the northwest across Fruitvale Boulevard and approximately 500 feet to the south across the Tidal Canal in the City of Alameda. The area to the east and southeast of the Project site, through which Project trucks would travel to access the freeway is primarily commercial and industrial. There are no schools or daycares in the immediate vicinity of the Project site. The Lazear Charter Academy is located approximately 1,400 feet to the northwest; Arise High School and Ascend Elementary School are located approximately 1,750 feet and 1,400 feet to the north, respectively. The nearest noise sensitive receptors are residences located along Elmwood Avenue, that would be located as close as 40 feet from construction activities associated with offsite improvements to the north of the Project site. The nearest off-site structures that could experience building damage impacts from construction vibration are ancillary structures located as close as 10 feet from construction activities associated with off-site improvements.

4.5.3 Regulatory Setting

Federal

Federal Noise Standards

In 1972, the Noise Control Act (42 United States Code section 4901 et seq.) was passed by congress to promote limited noise environments in support of public health and welfare. It also established the U.S. Environmental Protection Agency (U.S. EPA) Office of Noise Abatement and Control to coordinate federal noise control activities. The U.S. EPA established guidelines for noise levels that would be considered safe for community exposure without the risk of adverse health or welfare effects. The U.S. EPA found that to prevent hearing loss over the lifetime of a receptor, the yearly average L_{eq} should not exceed 70 dBA, and the DNL should not exceed 55 dBA in outdoor activity areas or 45 dBA indoors to prevent interference and annoyance (U.S. EPA, 1974). In 1982, noise control was largely passed to state and local governments.

Federal regulations establish noise limits for medium and heavy trucks (more than 4.5 tons, gross vehicle weight rating) under Title 40 of the Code of Federal Regulations (CFR), Part 205, Subpart B. The federal truck passby noise standard is 80 dBA at 50 feet from the vehicle pathway centerline, under specified test procedures. These requirements are implemented through regulatory controls on truck manufacturers. There are no comparable standards for vibration, which tend to be specific to the roadway surface, the vehicle load, and other factors.

The primary federal noise standards that directly regulate noise related to the operation of the Project are with regard to noise exposure and workers. The U.S. Occupational Safety and Health Administration (OSHA) enforces regulations to safeguard the hearing of workers exposed to occupational noise. OSHA has established worker noise exposure limits that vary with the duration of the exposure and requires implementation of a hearing conservation program if employees are exposed to noise levels in excess of 85 dBA.

Federal Transit Administration Vibration Standards

The FTA has adopted vibration standards that are used to evaluate potential building damage impacts related to construction activities. The vibration damage criteria adopted by FTA are shown in **Table 4.5-2**.

TABLE 4.5-2
CONSTRUCTION VIBRATION DAMAGE CRITERIA

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Non-engineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

NOTES: in/sec = inches per second; PPV = peak particle velocity

SOURCE: FTA, 2018.

In addition, FTA has adopted standards related to human annoyance for groundborne vibration impacts for the following three land use categories: Vibration Category 1, High Sensitivity; Vibration Category 2, Residential; and Vibration Category 3, Institutional. FTA defines these categories as follows:

- *Category 1:* Buildings where vibration would interfere with operations within the building, including vibration-sensitive research and manufacturing facilities, hospitals with vibration-sensitive equipment, and university research operations. Vibration-sensitive equipment includes, but is not limited to, electron microscopes, high-resolution lithographic equipment, and normal optical microscopes.
- *Category 2:* All residential land uses and any buildings where people sleep, such as hotels and hospitals.

- *Category 3:* Institutional land uses such as schools, churches, other institutions, and quiet offices that do not have vibration-sensitive equipment, but still have the potential for activity interference.

Under conditions where there is an infrequent number of events per day, FTA has established thresholds of 65 VdB for Category 1 buildings, 80 VdB for Category 2 buildings, and 83 VdB for Category 3 buildings.[1] Under conditions where there is an occasional number of events per day, FTA has established thresholds of 65 VdB for Category 1 buildings, 75 VdB for Category 2 buildings, and 78 VdB for Category 3 buildings.[2] No thresholds have been adopted or recommended for commercial and office uses.

State

California Department of Public Health Noise Standards

The California Department of Public Health has established guidelines for evaluating the compatibility of various land uses as a function of community noise exposure. These guidelines for land use and noise exposure compatibility are shown in **Table 4.5-3**. In addition, Section 65302(f) of the California Government Code requires each county and city in the state to prepare and adopt a comprehensive long-range general plan for its physical development, with Section 65302(g) requiring a noise element to be included in the general plan. The noise element must: (1) identify and appraise noise problems in the community; (2) recognize Office of Noise Control guidelines; and (3) analyze and quantify current and projected noise levels.

The state of California also establishes noise limits for vehicles licensed to operate on public roads. For heavy trucks, the state pass-by standard is consistent with the federal limit of 80 dB. The state pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dB at 15 meters (50 feet) from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by state and local law enforcement officials.

State Vibration Standards

No state vibration standards are applicable to the Project. Moreover, according to the California Department of Transportation's (Caltrans's) *Transportation and Construction Vibration Guidance Manual (*Caltrans, 2020), there are no official Caltrans standards for vibration. However, this manual provides guidelines for assessing the potential for vibration damage to various types of buildings, ranging from 0.08 to 0.12 in/sec PPV for extremely fragile historic buildings, ruins, and ancient monuments to 0.50 to 2.0 in/sec PPV for modern industrial/commercial buildings.

[1] FTA defines "infrequent events" as fewer than 30 vibration events of the same kind per day.

[2] FTA defines "occasional events" as between 30 and 70 vibration events of the same source per day.

TABLE 4.5-3
COMMUNITY NOISE EXPOSURE (DNL OR CNEL)

Land Use	Normally Acceptable[a]	Conditionally Acceptable[b]	Normally Unacceptable[c]	Clearly Unacceptable[d]
Single-Family Homes, Duplexes, Mobile Homes	50–60	55–70	70–75	above 75
Multifamily Homes	50–65	60–70	70–75	above 75
Schools, Libraries, Churches, Hospitals, Nursing Homes	50–70	60–70	70–80	above 80
Transient Lodging—Motels, Hotels	50–65	60–70	70–80	above 75
Auditoriums, Concert Halls, Amphitheaters	—	50–70	—	above 70
Sports Arenas, Outdoor Spectator Sports	—	50–75	—	above 75
Playgrounds, Neighborhood Parks	50–70	—	67–75	above 75
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50–75	—	70–80	above 80
Office Buildings, Business and Professional, Commercial	50–70	67–77	above 75	—
Industrial, Manufacturing, Utilities, Agriculture	50–75	70–80	above 75	—

NOTES: CNEL = community noise equivalent level; DNL = day-night average noise level

[a] Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

[b] Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

[c] Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

[d] Clearly Unacceptable: New construction or development should generally not be undertaken.

SOURCE: Governor's Office of Planning and Research, *State of California General Plan Guidelines – Noise Element Guidelines*, 2017.

Local

City of Oakland

General Plan Noise Element

The Oakland General Plan Noise Element contains guidelines for determining the compatibility of various land uses with different outdoor noise environments (City of Oakland 2005). The Noise Element recognizes that some land uses are more sensitive to ambient noise levels than others, due to the amount of noise exposure (in terms of both the exposure duration and insulation from noise) and the types of typical activities. The City of Oakland uses state noise guidelines for evaluating the compatibility between various land uses and their noise environments, which are summarized in **Table 4.5-4**.

In this context, "normally acceptable" is defined as satisfactory for the specific land use, assuming that normal, conventional construction is used in buildings. "Conditionally acceptable" means that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh-air supply systems or air

conditioning, will normally suffice. "Normally unacceptable" means that new construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

TABLE 4.5-4
LAND USE NOISE COMPATIBILITY GUIDELINES – CITY OF OAKLAND

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE (L_{DN} OR CNEL, dB)					
	55	60	65	70	75	80
Residential	NA	NA	CA	NU	CU	CU
Transient lodging – motels, hotels	NA	NA	NA	CA	NU	CU
Schools, libraries, churches, hospitals, nursing homes	NA	NA	CA	NU	NU	CU
Auditoriums, concert halls, amphitheaters	CA	CA	CA	CU	CU	CU
Sports arenas, outdoor spectator sports	CA	CA	CA	CA	CU	CU
Playgrounds, neighborhood parks	NA	NA	NA	NU	CU	CU
Golf courses, riding stables, water recreation, cemeteries	NA	NA	NA	NU	NU	CU
Office buildings, business commercial and professional	NA	NA	CA	CA	NU	NU
Industrial, manufacturing, utilities, agriculture	NA	NA	NA	CA	CA	NU

NA	NORMALLY ACCEPTABLE: Development may occur without an analysis of potential noise impacts *to the proposed development* (though it might still be necessary to analyze noise impacts that the project might have *on its surroundings*).
CA	CONDITIONALLY ACCEPTABLE: Development should be undertaken only after an analysis of noise-reduction requirements is conducted and if necessary noise-mitigating features are included.
NU	NORMALLY UNACCEPTABLE: Development should generally be discouraged; it may be undertaken only if a detailed analysis of the noise-reduction requirements is conducted, and if highly effective noise mitigation features are included.
CU	CLEARLY UNACCEPTABLE: Development should not be undertaken.

SOURCE: Reproduced Figure 1 of the City of Oakland CEQA Thresholds/Criteria of Significance Guidelines, 2016, consistent with Figure 6 from the Oakland General Plan Noise Element 2005.

The Oakland Noise Element identifies maximum interior noise levels generally considered acceptable for various common land uses (with windows closed). The Noise Element includes two goals for the City:

- To protect Oakland's quality of life and the physical and mental well-being of residents and others in the City by reducing the community's exposure to noise.
- To safeguard Oakland's economic welfare by mitigating noise incompatibilities among commercial, industrial and residential land uses.
- The Noise Element also contains the following applicable policies and actions:

  Policy 1: Ensure the compatibility of existing and, especially, of proposed development projects not only with neighboring land uses but also with their surrounding noise environment.

  Action 1.1: Use the noise-land use compatibility matrix in conjunction with the noise contour maps (especially for roadway traffic) to evaluate the acceptability of residential and other proposed land uses and also the need for any mitigation or abatement measures to achieve the desired degree of acceptability.

  Action 1.2: Continue using the City's zoning regulations and permit processes to limit the hours of operation of noise-producing activities which create conflicts with residential uses and to attach noise-abatement requirements to such activities.

  Policy 2: Protect the noise environment by controlling the generation of noise by both stationary and mobile noise sources.

  Action 2.1: Review the various noise prohibitions and restrictions under the City's nuisance noise ordinance and revise the ordinance if necessary.

  Action 2.2: As resources permit, increase enforcement of noise-related complaints and also of vehicle speed limits and of operational noise from cars, trucks, and motorcycles.

  Policy 3: Reduce the community's exposure to noise by minimizing the noise levels that are received by Oakland residents and others in the city. (This policy addresses the reception of noise whereas Policy 2 addresses the generation of noise.)

  Action 3.1: Continue to use the building-permit application process to enforce the California Noise Insulation Standards regulating the maximum allowable interior noise level in new multi-unit buildings.

  Action 3.2: Review the City's noise performance standards and revise them as appropriate to be consistent with City Council policy.

Oakland Municipal Code

The City of Oakland also regulates noise through enforcement of its noise ordinance, which can be found in Section 8.18.020 of the Health and Safety Code, Section 17.120 of the Planning Code, and Chapter 12.56 of the Municipal Code.

The noise ordinance within the Health and Safety Code qualitatively addresses persistent nuisance noise, which it defines as the persistent maintenance or emission of any noise or sound produced by human, animal, or mechanical means, between the hours of 9:00 p.m. and 7:00 a.m.

next ensuing, which, by reason of its raucous or nerve-racking nature, shall disturb the peace or comfort, or be injurious to the health of any person. In addition, the code states that failure to comply with the following requirements constitutes a nuisance:

A. All construction equipment powered by internal combustion engines shall be properly muffled and maintained.

B. Unnecessary idling of internal combustion engines is prohibited.

C. All stationery noise-generating construction equipment such as tree grinders and air compressors are to be located as far as is practical from existing residences.

D. Quiet construction equipment, particularly air compressors, are to be selected whenever possible.

E. Use of pile drivers and jack hammers shall be prohibited on Sundays and holidays, except for emergencies and as approved in advance by the Building Official.

The noise ordinance within the Planning Code regulates construction noise and only operational noise from stationary sources, as cities and counties do not have regulatory authority to establish noise level limits over noise from mobile on-road sources (transportation noise), which does not include on-site construction. Transportation noise is regulated at the state and federal level by noise limits placed on vehicle manufacturers. **Table 4.5-5** presents the maximum allowable receiving noise standards applicable to long-term exposure for residential and civic land uses, for noise from stationary noise sources (not transportation noise). Section 17.120.050 states that all activities shall be so operated that the noise level inherently and regularly generated by these activities across real property lines shall not exceed the applicable values indicated in Table 5, as modified where applicable by the adjustments indicated in footnote (a) of that table. Subsection F of Section 17.120.050 further indicates that noise measurement procedures shall be conducted at a position or positions at any point on the receiver's property.

Once a structure or facility is constructed, noise from a stationary source would be limited by the standards in Table 4.5-5 (for example, between 10:00 p.m. and 7:00 a.m., residential uses may only be exposed to noises up to 45 dBA for a period of cumulative 20-minutes in a 1-hour time period). The noise ordinance states that if the measured ambient noise level exceeds the applicable standard in any category, then the stated applicable noise level shall be adjusted so as to equal the ambient noise level. In other words, if existing noise is measured to be louder than the maximum allowed (i.e., the “applicable noise level standard”), the existing noise level shall be considered the maximum allowed.

Table 4.5-6 presents noise level standards from the noise ordinance that apply to temporary exposure to short- and long-term construction noise. In this context, short-term refers to construction activities lasting less than 10 days at a time, while long-term refers to construction activities lasting greater than 10 days at a time. Given the Project’s 17-month construction schedule, the latter noise level standards would apply for daytime construction activities. Per Section 17.120.050 (G) of the Planning Code, the limits in Table 4.5-6 apply to residential and industrial/commercial land uses. In addition, active recreational areas are considered marginally sensitive to noise, with the standards for commercial and industrial land uses applied.

TABLE 4.5-5
MAXIMUM ALLOWABLE RECEIVING NOISE STANDARDS FOR SPECIFIED LAND USES, dBA[a]
(FROM STATIONARY SOURCES)

Receiving Land Use	Cumulative Number of Minutes in 1-Hour Time Period[b]	Maximum Allowable Noise Level Standards (dBA)	
		Daytime 7:00 a.m. to 10:00 p.m.	Nighttime 10:00 p.m. to 7:00 a.m.
Residential, School, Child Care, Health Care, or Nursing Home, and Public Open Space	20 (L_{33}) 10 ($L_{16.7}$) 5 ($L_{8.3}$) 1 ($L_{1.7}$) 0 (L_{max})	60 65 70 75 80	45 50 55 60 65
		Anytime	
Commercial	20 (L_{33}) 10 ($L_{16.7}$) 5 ($L_{8.3}$) 1 ($L_{1.7}$) 0 (L_{max})	65 70 75 80 85	
		Anytime	
Manufacturing, Mining, and Quarrying	20 (L_{33}) 10 ($L_{16.7}$) 5 ($L_{8.3}$) 1 ($L_{1.7}$) 0 (L_{max})	70 75 80 85 90	

NOTES:

[a] These standards are to be further reduced by 5-dBA for simple tone noise, noise consisting primarily of speech or music, or recurring impact noise. If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.

[b] L_x represents the noise level that is exceeded X percent of a given period. L_{max} is the maximum instantaneous noise level.

SOURCE: Oakland Noise Ordinance No. 11895, 1996

TABLE 4.5-6
MAXIMUM ALLOWABLE RECEIVING NOISE STANDARDS FOR TEMPORARY CONSTRUCTION OR DEMOLITION ACTIVITIES, dBA

Operation/Receiving Land Use	Daily (Weekday) 7:00 a.m. to 7:00 p.m.	Weekends 9:00 a.m. to 8:00 p.m.
Short-Term Operation (less than 10-days)		
Residential	80	65
Commercial, Industrial	85	70
Long-Term Operation (more than 10-days)		
Residential	65	55
Commercial, Industrial	70	60

NOTES:

During the hours of 7:00 p.m. to 7:00 a.m. on weekdays and 8:00 p.m. to 9:00 a.m. on weekends and federal holidays, noise levels received by any land use from construction or demolition shall not exceed the applicable nighttime operational noise level standard (see Table 4.11-8). If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level. Maximum allowable receiving standards are applied in this analysis as the maximum L_{eq}.

SOURCE: Oakland Noise Ordinance No. 11895, 1996

For nighttime construction activities during the hours of 7:00 p.m. to 7:00 a.m. on weekdays and 8:00 p.m. to 9:00 a.m. on weekends and federal holidays, noise level limits received by any land use from construction or demolition are not addressed by standards in Table 4.5-6 but, rather, according to the City of Oakland Noise Ordinance, these nighttime construction noise levels shall not exceed the applicable nighttime operational noise level standards in Table 4.5-5, which for residential uses would be 45 dBA (L_{33}) (see Table 4.5-5). The ordinance further states that if the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.

City of Alameda

The City of Alameda General Plan is the principal policy document for guiding future conservation and development within the City of Alameda. It represents the framework on which the City of Alameda must base decisions regarding growth, public services and facilities, and protection and enhancement of the community. The General Plan polices and Alameda Municipal Code provision (described below) are relevant here because the Project site is on the waterfront within close proximity to the City of Alameda and could potentially have noise impacts on sensitive receptors within the City's boundaries.

The General Plan establishes comprehensive, long-term land use policies for the City of Alameda. Consistent with state law, the General Plan includes the Land Use Element; City Design Element; Transportation Element; Open Space and Conservation Element; Parks and Recreation, Shoreline Access, Schools and Cultural Facilities Element; Safety and Noise Element; Housing Element; and specific elements/amendments relating to Alameda Point and the Northern Waterfront areas of the City of Alameda.

General Plan Safety and Noise Element

A combined Safety and Noise element for the City of Alameda General Plan (City of Alameda, 2017) became effective on January 1, 2017. The element includes the following noise policies that would be applicable to the Project:

> ***Policy SN-51:*** Maintain day and nighttime truck routes that minimize the number of residents exposed to truck noise.
>
> ***Policy SN-55:*** To the extent feasible, through the development entitlement process, require local businesses to reduce noise impacts on the community by avoiding or replacing excessively noisy equipment and machinery, applying noise-reduction technology, and following operating procedures that limit the potential for conflicts.
>
> ***Policy SN-56:*** Require noise reduction strategies in all construction projects. Require a vibration impact assessment for proposed projects in which heavy-duty construction equipment would be used (e.g., pile driving, bulldozing) within 200 feet of an existing structure or sensitive receptor. If applicable, the City shall require all feasible mitigation measures to be implemented to ensure that no damage to structures will occur and disturbance to sensitive receptors would be minimized.
>
> ***Policy SN-57:*** In making a determination of impact under the California Environmental Quality Act (CEQA), consider the following impacts to be "significant" if the proposed project causes: an increase in the L_{dn} noise exposure of 4 or more dBA if the resulting

noise level would exceed that described as normally acceptable for the affected land use, as indicated in **Table 4.5-7**, or any increase in L_{dn} of 6 dBA or more.

TABLE 4.5-7
ACCEPTABLE NOISE LEVELS IN ALAMEDA

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE – DNL or CNEL (dB)							
	50	55	60	65	70	75	80	
Residential – Low Density Single Family, Duplex, Mobile Home								
Residential – Multiple Family								
Transient Lodging – Motels, Hotels								
Schools, Libraries, Churches, Hospitals, Nursing Homes								
Auditoriums, Concert Halls, Amphitheaters								
Sports Arena, Outdoor Spectator Sports								
Playgrounds, Neighborhood Parks								
Golf Courses, Riding Stables, Water Recreation, Cemeteries								
Office Buildings, Business, Commercial, Professional								
Industrial, Manufacturing, Utilities, Agriculture								

	Normally Acceptable	Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
	Conditionally Acceptable	New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
	Normally Unacceptable	New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirement must be made and needed noise insulation features included in the design.
	Clearly Unacceptable	New construction or development generally should not be undertaken.

SOURCE: California Office of Planning and Research, 2003. General Plan Guidelines.

Alameda Municipal Code

Section 4.10 of the City of Alameda Municipal Code establishes exterior noise standards. Specifically, exterior noise levels when measured at any receiving single- or multi-family residential, school, hospital, church, public library, or commercial property situated in the City of Alameda do not conform to the provisions of this subsection when they exceed the noise level standards set forth in **Table 4.5-8**, below. In the event the measured ambient noise level exceeds the applicable noise level standard in any category in Table 4.5-8, the applicable standards shall be adjusted so as to equal said ambient noise level. Construction noise is exempted from the noise standards provided it is limited to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. on Saturdays.

TABLE 4.5-8
CITY OF ALAMEDA EXTERIOR NOISE STANDARDS

Location	Cumulative Number of Minutes in Any 1-Hour Time Period	7:00 a.m. to 10:00 p.m. Standard (dBA)	10:00 p.m. to 7:00 a.m. Standard (dBA)
Single or Multiple Family Residential, School, Hospital, Church, or Public Library Properties	30	55	50
	15	60	55
	5	65	60
	1	70	65
	0	75	70
Commercial Properties	30	65	60
	15	70	65
	5	75	70
	1	80	75
	0	85	80

SOURCE: Section 4.10 of the City of Alameda Municipal Code.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to reducing impacts on noise and vibration that apply to the Project are listed below. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to noise and vibration (City of Oakland, 2020a). Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

SCA NOI-1: Construction Days/Hours. *(Standard Condition of Approval 62)*

Requirement: The project applicant shall comply with the following restrictions concerning construction days and hours:

a. Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that pier drilling and/or other extreme noise generating

activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m.

b. Construction activities are limited to between 9:00 a.m. and 5:00 p.m. on Saturday. In residential zones and within 300 feet of a residential zone, construction activities are allowed from 9:00 a.m. to 5:00 p.m. only within the interior of the building with the doors and windows closed. No pier drilling or other extreme noise generating activities greater than 90 dBA are allowed on Saturday.

c. No construction is allowed on Sunday or federal holidays.

Construction activities include, but are not limited to, truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

Any construction activity proposed outside of the above days and hours for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case-by-case basis by the City, with criteria including the urgency/emergency nature of the work, the proximity of residential or other sensitive uses, and a consideration of nearby residents'/occupants' preferences. The project applicant shall notify property owners and occupants located within 300 feet at least 14 calendar days prior to construction activity proposed outside of the above days/hours. When submitting a request to the City to allow construction activity outside of the above days/hours, the project applicant shall submit information concerning the type and duration of proposed construction activity and the draft public notice for City review and approval prior to distribution of the public notice.

SCA NOI-2: Construction Noise. (*Standard Condition of Approval 63)*

Requirement: The project applicant shall implement noise reduction measures to reduce noise impacts due to construction. Noise reduction measures include, but are not limited to, the following:

a. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds) wherever feasible.

b. Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.

c. Applicant shall use temporary power poles instead of generators where feasible.

d. Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds,

incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.

e. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

SCA NOI-3: Extreme Construction Noise. *(Standard Condition of Approval 64)*

a. Construction Noise Management Plan Required

Requirement: Prior to any extreme noise generating construction activities (e.g., pier drilling, pile driving and other activities generating greater than 90 dBA), the project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-specific noise attenuation measures to further reduce construction impacts associated with extreme noise generating activities. The project applicant shall implement the approved Plan during construction. Potential attenuation measures include, but are not limited to, the following:

i. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;

ii. Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;

iii. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;

iv. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and

v. Monitor the effectiveness of noise attenuation measures by taking noise measurements.

b. Public Notification Required

Requirement: The project applicant shall notify property owners and occupants located within 300 feet of the construction activities at least 14 calendar days prior to commencing extreme noise generating activities. Prior to providing the notice, the project applicant shall submit to the City for review and approval the proposed type and duration of extreme noise generating activities and the proposed public notice. The public notice shall provide the estimated start and end dates of the extreme noise generating activities and describe noise attenuation measures to be implemented.

SCA NOI-4: Project-Specific Construction Noise Reduction Measures. *(Standard Condition of Approval 65)*

Requirement: The project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-specific noise attenuation measures to

further reduce construction noise impacts on adjacent receptors along Elmwood Avenue. The project applicant shall implement the approved Plan during construction.

SCA NOI-5: Construction Noise Complaints. *(Standard Condition of Approval 66)*

Requirement: The project applicant shall submit to the City for review and approval a set of procedures for responding to and tracking complaints received pertaining to construction noise, and shall implement the procedures during construction. At a minimum, the procedures shall include**:**

a. Designation of an on-site construction complaint and enforcement manager for the project;

b. A large on-site sign near the public right-of-way containing permitted construction days/hours, complaint procedures, and phone numbers for the project complaint manager and City Code Enforcement unit;

c. Protocols for receiving, responding to, and tracking received complaints; and

d. Maintenance of a complaint log that records received complaints and how complaints were addressed, which shall be submitted to the City for review upon the City's request.

SCA NOI-6: Operational Noise *(Standard Condition of Approval 68)*

Requirement: Noise levels from the project site after completion of the project (i.e., during project operation) shall comply with the performance standards of chapter 17.120 of the Oakland Planning Code and chapter 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the City.

SCA NOI-7: Vibration Impacts on Adjacent Structures or Vibration-Sensitive Activities. *(Standard Condition of Approval 70)*

Requirement: The project applicant shall submit a Vibration Analysis prepared by an acoustical and/or structural engineer or other appropriate qualified professional for City review and approval that establishes pre-construction baseline conditions and threshold levels of vibration that could damage the structure and/or substantially interfere with activities located adjacent to Elmwood Avenue. The Vibration Analysis shall identify design means and methods of construction that shall be utilized in order to not exceed the thresholds. The applicant shall implement the recommendations during construction.

4.5.4 Environmental Impacts and Mitigation Measures

Significance Thresholds

The City of Oakland has established thresholds of significance for CEQA impacts which are consistent with those in Appendix G of the CEQA Guidelines (City of Oakland, 2020b). These adopted thresholds are presented below and have been used in the analysis.

The Project would have a significant impact on the environment if it would:

1. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction noise (see Table 4.5-6), except if an acoustical analysis is performed that identifies recommended measures to reduce potential impacts;[3]
2. Generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code section 8.18.020) regarding persistent construction-related noise;
3. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise (see Table 4.5-5);
4. Generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or, if under a cumulative scenario where the cumulative increase results in a 5 dBA permanent increase in ambient noise levels in the project vicinity without the project (i.e., the cumulative condition including the project compared to the existing conditions) and a 3 dBA permanent increase is attributable to the project (i.e., the cumulative condition including the project compared to the cumulative baseline condition without the project);
5. Expose persons to interior DNL or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single-family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24);
6. Expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan (see Table 4.5-4) after incorporation of all applicable Standard Conditions of Approval;
7. Expose persons to or generate noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration [OSHA];)
8. During either project construction or project operation expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration (FTA) (see Table 4.5-3);
9. Be located within an airport land use plan and would expose people residing or working in the project area to excessive noise levels; or
10. Be located within the vicinity of a private airstrip, and would expose people residing or working in the project area to excessive noise levels.

Approach to Analysis

The methodology for analysis of noise impacts includes an assessment of both construction and operational noise impacts. To assess potential short-term construction noise impacts, sensitive receptors and their relative exposure (considering structural barriers and distance) were identified. Combined intermittent noise levels from the simultaneous operation of onsite equipment expected

[3] The acoustical analysis must identify, at a minimum, (a) the types of construction equipment expected to be used and the noise levels typically associated with the construction equipment and (b) the surrounding land uses including any sensitive land uses (e.g., schools and childcare facilities, health care and nursing homes, public open space). If sensitive land uses are present, the acoustical analysis must recommend measures to reduce potential impacts.

to be used in Project construction were estimated based on equipment noise data published by the Federal Highway Administration (FHWA) using the Roadway Construction Noise Model (RCNM).

Consistent with SCA NOI-3, a CNMP has been prepared for the Project by the Project Applicant's consultant and has been peer reviewed by ESA and the City. The approved CNMP is included as Appendix I and summarized below. The study area for evaluation of noise and vibration impacts from construction encompasses the Project site and the nearest potentially affected sensitive receptors to the proposed facilities. Applying a worst-case daytime noise level (operation of a concrete saw generating 90 dBA at 50 feet) and the most restrictive daytime noise threshold (65 dBA, L_{eq}), results in a maximum potential impact distance of 500 feet without mitigation within the City of Oakland. Beyond this distance, all daytime construction noise impacts would be less than significant. Construction noise within the City of Alameda is exempted from the noise standards provided it is limited to between the hours of 7:00 a.m. and 7:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. on Saturdays.

Construction vibration impacts are considered significant if they would either result in levels substantial enough to result in damage to nearby structures or buildings, or result in vibration levels that exceed FTA's groundborne vibration impact criteria presented in Table 4.5-2.

The study area for evaluation of operational noise and vibration impacts encompasses the Project site and receptors up to 0.5 miles away well as receptors along roadways within 0.5 miles based on incremental contribution of traffic by the Project. Operational noise issues evaluated in this section include (1) noise generated by automobile and truck traffic to and from the Project site; (2) building operations/systems such as generators, air conditioners, etc.; and (3) noise from truck idling at loading docks.

Traffic noise modeling to address the effects of the traffic generated by the Project on roadway noise was completed using the FHWA Traffic Noise Model. Traffic noise level significance is determined by comparing the increase in noise levels (traffic contribution only) to increments recognized by the City of Oakland Significance Criterion 4, above, which is a permanent increase in noise levels of 5 dBA or more or, for a cumulative increase that exceeds 5 dBA, a Project contribution to the cumulative scenario of 3 dBA or more.

Topics Considered and No Impact Determined

The Project would have no impacts related to the following topics based on the Project characteristics, its geographical location, and underlying site conditions. Therefore, these topics are not addressed further in this document for the following reasons:

- ***California Noise Insulation Standards*** (Criterion 5). The Project does not propose uses that include multi-family dwellings, hotels, motels, dormitories and long-term care facilities. Therefore, there would be no impacts related to compliance with California Noise Insulation Standards (CCR Part 2, Title 24) and this topic is not discussed further in this document.
- ***Standards Established by a Regulatory Agency*** (Criterion 7). The Project would not result in impacts with regard to noise levels in excess of applicable standards established by a

regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration [OSHA];). The Project does not propose development of heavy industrial land uses that might require operation of heavy-duty equipment or other substantial noise sources for which worker hearing protection standards of OSHA would apply. Therefore, this topic is not addressed further in this document.

- ***Operational Vibration*** (Criterion 8). The Project would not introduce new operational vibration sources (e.g., impact equipment, streetcar and rail operations, and blasting activities). Therefore, there would be no operational vibration impacts, and operational vibration is not discussed further.

- ***Airport-Related Noise*** (Criteria 9 and 10). The Project would not result in significant impacts pursuant to criteria 10 or 11 (airport-related noise impact), listed above. The Project site is not located within an airport influence area of the nearby Oakland International Airport (Alameda County Community Development Agency, 2010) or in the vicinity of a private airstrip; therefore, the Project would not result in an impact related to exposure to excessive aircraft noise. Therefore, these topics are not addressed further in this document.

Project Impacts and Discussion

Impact NOI-1: Construction of the Project would not generate noise in violation of the noise ordinances of the Cities of Oakland or Alameda. (Criteria 1 and 2) (*Less than Significant, with SCAs*)

The Project would involve demolition of several existing buildings onsite and construction of a single building providing approximately 430,000 square feet of space. The Project would also include several offsite improvements. The Project would shift Alameda Avenue approximately 100 feet inland and build new pedestrian sidewalks and bike facilities. The Project re-opens Boehmer Street to create a new connection between 36th and 37th Avenues and extend 37th Avenue southward up to Alameda Avenue along the eastern boundary of the Project site. The Project would also construct a new sidewalk improvements around the site perimeter. Construction of the Project is expected to commence in the first quarter of 2024 and last over a period of 17 months.

Construction of the Project would intermittently generate high noise levels in the vicinity of the Project site. Demolition of the existing buildings, grading and excavation, and building construction would involve the use of construction equipment that generate substantial noise. Noise impacts from construction activity would depend on the type of activity being undertaken and the distance to the receptor location. Construction noise impacts are most severe if construction activities take place during the noise sensitive hours (i.e., early morning, evening, or nighttime hours), in areas immediately adjoining noise-sensitive land uses, or when construction duration lasts over extended periods of time.

Demolition, grading, and site preparation would require equipment such as concrete saws, excavators, dumpers/tenders, air compressors, rollers, and water trucks. These activities are anticipated to be the loudest construction phases of the Project, mainly due to the use of larger off-road equipment as compared to later construction phases. Construction activities known to generate extreme noise levels such as drilling, impact pile driving, and blasting would not be

required for the Project; however, work involving concrete saws would be required for a period of 12 weeks during the demolition phase, which could generate noise levels upwards of 90 dBA as shown below.

The operation of each piece of off-road equipment on the Project site would not be constant throughout the day, as equipment would be turned off when not in use. Over a typical workday, equipment would be operating at different locations within the Project site and would not always be operating concurrently. However, for a conservative approximation of construction noise levels that the closest sensitive receptor would be exposed to, consistent with the methodology recommended by FTA, it is assumed for this analysis that the two loudest pieces of construction equipment would be operating at the same time at a point on the Project boundary closest to the sensitive receptors.

Table 4.5-9 shows typical maximum noise levels produced by various types of construction equipment that are expected to be used for Project construction. The table also shows the acoustical usage factors for each piece of equipment. The acoustical usage factor is the fraction of time in an hour that the equipment generates noise at the maximum level and is accounted for in the calculation of the hourly L_{eq} level.

TABLE 4.5-9
TYPICAL MAXIMUM NOISE LEVELS FROM CONSTRUCTION EQUIPMENT

Construction Equipment	Noise Level (dBA, L_{max} at 50 feet)	Acoustical Usage Factor (%)
Aerial Lift	75	20
Air Compressor	78	40
Backhoe	78	40
Concrete/Industrial Saw	90	20
Crushing/Processing Equipment	85	50
Dump Truck	76	40
Excavator	81	40
Forklift	75	20
Paver	77	50
Roller	80	20
Rough Terrain Forklift	75	20
Skid Steer Loader	79	40

NOTES:

These are maximum field measured values at 50 feet as reported from multiple samples. Concrete crusher processing noise level based on data from H.M. Pitt Labs, 2006.

SOURCE: FHWA, 2006.

Project construction activity would generate temporary noise impacts at nearest noise-sensitive receptors, the single-family residences along Elmwood Avenue approximately 40 feet from the Project's northern boundary. Other receptors located farther away, including receptors across the Tidal Canal within the City of Alameda, would be affected to a lesser extent. Using the reference noise levels in the Roadway Construction Noise Model (RCNM) provided in Table 4.5-9,

operation of the noisiest equipment proposed to be used for Project construction (concrete saw) could generate L_{max} noise levels of 92 dBA and 65 dBA, at distances of 40 feet and 500 feet, respectively. The combined attenuated noise level from the simultaneous operation of two concrete saws, taking into account their usage factors, would be 88 dBA, L_{eq} at the nearest sensitive receptors along Elmwood Avenue and 61 dBA, L_{eq} at the Alameda receptors. This would exceed the 65 dBA Maximum Allowable Receiving Noise Standards for Temporary Construction or Demolition Activities in the City of Oakland's noise ordinance for activities lasting longer than 10 days (shown in Table 4.5-6). Note, construction noise is exempted from the City of Alameda noise standards (shown in Table 4.5-8) provided it is limited to the hours of 7:00 a.m. to 7:00 p.m. Monday through Friday and 8:00 a.m. to 5:00 p.m. on Saturdays.

Although construction noise would cause temporary impacts to nearby residents, adherence to the City's SCAs would reduce this impact to a less-than-significant level. Required implementation of applicable City of Oakland SCAs would minimize construction noise by limiting hours of construction activities, requiring best available noise control technology and notification of any local residents of construction activities, and by tracking and responding to noise complaints. Specifically, Project construction would comply with the following SCAs: SCA NOI-1, Construction Days/Hours, which limits construction hours mirroring Noise Ordinance requirements; SCA NOI-2, Construction Noise, which requires projects to implement construction noise reduction measures; SCA NOI-3, Extreme Construction Noise, which requires the preparation of a Construction Noise Management Plan (CNMP); SCA NOI-4, Project-Specific Construction Noise Reduction Measures, which requires City approval of site-specific noise attenuation measures to reduce impacts to specific receptors; and SCA NOI-5, Construction Noise Complaints, which sets a protocol for receiving and addressing construction noise complaints from the public.

As noted above, consistent with SCA NOI-3, a CNMP has been prepared for the Project by the Project Applicant's consultant and has been peer reviewed by ESA and the City. The approved CNMP is included as Appendix I. Site-specific measures identified by the CNMP to attenuate noise include: route construction-related traffic away from sensitive receptors; prohibit unnecessary idling; use the smallest equipment capable of safely completing work; minimize impact devises; maintain and operate equipment to minimize noise; grade surface irregularities; stage noise-generating equipment at least 25 feet from the site perimeters; locate stockpiles and equipment as far as feasible from sensitive receptors; phase demolition activities to take advantage of acoustical shielding; erect temporary construction noise barriers at the site perimeter shared with the residential uses to the north and west; control noise from construction workers' radios; identify and track noise complaints using a designated on-site construction complain and enforcement manager; and construction noise monitoring. The CNMP includes a requirement to conduct noise monitoring if reliable noise complaints are received during demolition, excavation, and/or construction activities. Noise levels would be monitored at the location from which the noise complaint(s) originated and/or the worst-case façade window exposure at the complaint location by a qualified acoustical professional. If the measured noise levels during this test were to exceed the City's construction noise performance standards, an acoustical professional shall be retained to specify additional noise attenuation measures to reduce noise levels to City Standards.

The CNMP identified site-specific noise attenuation measure could include additional ground level noise barriers or noise control blanketing of the building structure.

Therefore, with adherence to SCAs NOI-1 through NOI-5, construction of the Project would not generate noise in violation of the City of Oakland Noise Ordinance and impacts would be less than significant.

SCA NOI-1, Construction Days/Hours.

SCA NOI-2, Construction Noise.

SCA NOI-3, Extreme Construction Noise.

SCA NOI-4: Project-Specific Construction Noise Reduction Measures.

SCA NOI-5, Construction Noise Complaints.

Significance: Significant and Unavoidable.

Impact NOI-2: Stationary sources associated with the operation of the Project would not generate noise in violation of the City of Oakland Noise Ordinance. (Criterion 3) (*Less than Significant with SCAs*)

Once operational, the Project would include stationary sources such as heating, ventilating, and air conditioning (HVAC) mechanical equipment and the operation of the proposed emergency generator as part of routine testing and maintenance. Such equipment would be operated within the restrictions of the City's Noise Ordinance. Chapter 17.120.050 of the City of Oakland Planning Code specifies the maximum sound level received at residential, public open spaces, and commercial land uses. Development of the Project would be required to comply with SCA NOI-6, Operational Noise, which ensures compliance with operational noise limits in the City's Noise Ordinance and would result in a less-than-significant impact with respect to noise from operational stationary sources on the Project site.

SCA NOI-6, Operational Noise.

Mitigation: None required.

Impact NOI-3: The Project would not generate noise that would result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. (Criterion 4) (*Less than Significant*)

In addition to operational noise from stationary sources discussed under Impact NOI-2, the Project would also generate operational noise impacts from an increase in Project-related traffic. The Project would generate additional vehicle trips to the Project site resulting in an increase in

traffic along the roadway network in and around the area. This would increase noise levels along roadway segments and intersections leading to the area.

Traffic noise levels along roadway segments most affected by Project traffic were determined using algorithms of the FHWA Traffic Noise Prediction Model Technical Manual and evening peak hour turning movements for Existing and Existing plus Project conditions from the traffic analysis prepared for the Project. Intersections selected for analysis were based on the presence of sensitive receptors along the roadway segments. The segments analyzed and the modeled noise increases along these segments are shown in **Table 4.5-10**, below.

TABLE 4.5-10
PEAK-HOUR TRAFFIC NOISE LEVELS (dBA) NEAR THE PROJECT SITE[a,b]

Roadway Segment	Hourly L_{eq}, dBA		
	Existing	Existing Plus Project	Difference between Existing Plus Project and Existing
E 9th Street east of Fruitvale Avenue	62.1	62.1	+0.0
E 8th Street east of Fruitvale Avenue	57.9	59.0	+1.1
Elmwood Avenue west of Fruitvale Avenue	62.3	62.6	+0.3
Fruitvale Avenue south of E 8th Street/Elmwood Avenue	67.6	67.7	+0.1
East 7th Street west of Fruitvale Avenue	58.9	58.9	+0.2
Fruitvale Avenue north of East 7th Street	67.6	67.7	+0.1
High Street north of Howard Street	68.9	69.0	+0.1

NOTES:
[a] Noise levels were determine using methodology described in FHWA Traffic Noise Model Technical Manual.
[b] Traffic noise increases greater than 5 dB is considered a significant increase in ambient noise levels according to the City of Oakland significance thresholds.

The City of Oakland considers a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project to be significant. As shown in Table 4.5-10, the increase in traffic noise from the Existing plus Project scenario compared to the Existing scenario would be less than 5 dBA at all analyzed roadway segments and would therefore result in a less-than-significant impact with respect to traffic noise along these roadway segments.

Mitigation: None required.

Impact NOI-4: The Project would not be inconsistent with the land use compatibility guidelines of the Oakland General Plan for the proposed land uses. (Criterion 6) (*Less than Significant*)

The City of Oakland's land use compatibility guidelines specify the community ambient noise level that would be considered "normally acceptable," "conditionally acceptable," "normally unacceptable," and "clearly unacceptable" for various uses. For industrial uses, an ambient noise

environment of up to 70 dBA, DNL is considered "normally acceptable" while ambient noise levels of 70 to 80 dBA, DNL are considered "conditionally acceptable". Based on noise monitoring conducted for the Project, the ambient noise level of 72 dBA, DNL measured at the receptors to the north of the Project site would attenuate to less than 70 dBA, DNL at the Project buildings and would therefore be considered normally acceptable for industrial uses. Therefore, additional SCAs related to exposure to community noise would not be required and the impact would be considered less than significant.

Mitigation: None required.

Impact NOI-5: Project construction would not expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration. (Criterion 8) (*Less than Significant with SCAs*)

The Project does not include new residential uses nor is it located adjacent to an active rail line. Therefore, the Project would not introduce new receptors that would be exposed to excessive vibration levels. However, off-site structures are located as close as 10 feet from the northern boundary of the Project site. These structures could be affected by vibration generated by the Project during construction activities. The Project would be subject to SCA NOI-7, Vibration Impacts on Adjacent Structures or Vibration-Sensitive Activities, which would require a vibration analysis for the Project. With the required implementation of this measure, vibration impacts from Project construction to adjacent structures would be reduced to a less-than-significant level.

SCA NOI-7, Vibration Impacts on Adjacent Structures or Vibration-Sensitive Activities.

Mitigation: None required.

4.5.5 Cumulative

The geographic scope for cumulative effects on noise includes the immediate vicinity with 0.5 miles of the Project site boundaries. Vibration impacts are even more localized and are experienced within 100 feet of vibration sources beyond which vibration levels rapidly attenuate with distance.

Impact NOI-1.CU: The Project, combined with cumulative development in the Project vicinity, would not result in a cumulatively considerable temporary or permanent increase in ambient noise levels in the Project vicinity. (Criteria 1, 2, 3, 4 and 8) (*Less than Significant with SCAs*)

Construction Noise and Vibration

The Project's impacts in combination with construction noise and vibration impacts from other projects in the vicinity of the Project site could lead to cumulative increase in noise at the nearby

receptors. According to the May 2022 map of current projects (Appendix B), the only cumulative project within 1,000 feet of the Project site is a sound wall at 3927 Wattling Street. This minor project, which would construct a new 904-foot long, 16-foot-tall sound wall separating a new residential development from the railroad, was approved in October 2019. Further, all projects would be required to implement applicable SCAs to reduce their construction-related noise and vibration impacts to less-than-significant levels. Also, cumulative projects in Alameda would be far enough from the Project site not to affect noise and vibration levels at receptors in the vicinity of the Project site. Cumulative construction noise and vibration impacts would be less than significant with the implementation of applicable SCAs. The Project's cumulative impact is less than significant.

Operation

As with the Project, all cumulative projects would be required to implement SCA NOI-5 to reduce noise from stationary sources. Therefore, once operational, the Project would contribute to the cumulative noise environment in the vicinity primarily through an increase in traffic. Project traffic, in combination with traffic generated by other projects proposed in the area, would lead to a cumulative increase in roadside noise levels.

Cumulative increase in traffic noise levels along roadway segments most affected by Project traffic were estimated using algorithms of the FHWA Traffic Noise Prediction Model Technical Manual and evening peak hour turning movements for 2040 and 2040 plus Project conditions from the traffic analysis prepared for the Project. The results are shown in **Table 4.5-11**, below.

TABLE 4.5-11
PEAK-HOUR CUMULATIVE TRAFFIC NOISE LEVELS (dBA) NEAR THE PROJECT

Roadway Segment	Existing (A)	Cumulative (2040) No Project (B)	Cumulative (2040) Plus Project (C)	C–A
E 9th Street east of Fruitvale Avenue	62.1	63.1	63.1	+1.0
E 8th Street east of Fruitvale Avenue	57.9	58.7	58.7	+0.8
Elmwood Avenue west of Fruitvale Avenue	62.3	63.1	63.4	+1.1
Fruitvale Avenue south of E 8th Street/Elmwood Avenue	67.6	68.5	68.6	+1.0
East 7th Street west of Fruitvale Avenue	58.9	59.7	59.9	+1.0
Fruitvale Avenue north of East 7th Street	67.6	68.5	68.7	+1.1
High Street north of Howard Street	68.9	69.8	69.8	+0.9

NOTES:
[a] Noise levels were determine using methodology described in FHWA Traffic Noise Model Technical Manual.
[b] Traffic noise increases greater than 5 dB is considered a significant increase in ambient noise levels according to the City of Oakland significance thresholds.

The City of Oakland considers a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project to be significant. As shown in Table 4.5-11, the increase in cumulative traffic noise with the Project when compared to the existing traffic noise levels would be less than the City's incremental threshold of 5 dBA along all analyzed intersections. Therefore, the cumulative impact of traffic noise would be less than significant.

SCA NOI-1, Construction Days/Hours.

SCA NOI-2, Construction Noise.

SCA NOI-3, Extreme Construction Noise.

SCA NOI-4: Project-Specific Construction Noise Reduction Measures.

SCA NOI-5, Construction Noise Complaints.

SCA NOI-6, Operational Noise.

SCA NOI-7, Vibration Impacts on Adjacent Structures or Vibration-Sensitive Activities.

Mitigation: None required.

4.5.6 References

Alameda County Community Development Agency. 2010. *Oakland International Airport – Airport Land Use Compatibility Plan*. December 2010. Accessed April 2022. https://www.acgov.org/cda/planning/generalplans/documents/OAK_ALUCP_122010_FULL.pdf.

California Department of Transportation (Caltrans). 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013. Accessed April 2022. https://www.dtsc-ssfl.com/files/lib_ceqa/ref_draft_peir/Chap4_10-Noise/Caltrans_2013a_Tech_Noise_Supplement.pdf.

Caltrans. 2020. *Transportation and Construction Vibration Guidance Manual*. April 2020. Accessed April 2022. https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf.

City of Alameda. 2017. *General Plan, Safety and Noise Element*. Note that a combined Safety and Noise element became effective on January 1, 2017. Accessed April 2022. https://www.alamedaca.gov/files/assets/public/departments/alameda/building-planning-transportation/general-plan/general-plan-chapter-8-2017.pdf.

City of Oakland. 2005. *General Plan, Noise Element*. June 21, 2005. Accessed April 2022. https://cao-94612.s3.amazonaws.com/documents/oak070995.pdf.

Federal Highway Administration (FHWA). 2006. *Construction Noise Handbook*. August 2006. Accessed April 2022. https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/.

Federal Transit Administration (FTA). 2018. *Transit Noise and Vibration Impact Assessment Manual*. September 2018. Accessed April 2022. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.

Governor's Office of Planning and Research (OPR). 2017. *State of California 2017 General Plan Guidelines*. Accessed April 2022. https://opr.ca.gov/docs/OPR_COMPLETE_7.31.17.pdf.

U.S. Environmental Protection Agency (U.S. EPA). 1974. *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety*. March 1974. Accessed March 14, 2019. https://nepis.epa.gov/Exe/ZyPDF.cgi/2000L3LN.PDF?Dockey=2000L3LN.PDF.

4.6 Transportation and Circulation

4.6.1 Introduction

This section describes the transportation and circulation conditions in the vicinity of the Project site including transit services, pedestrian and bicycle facilities, and motor vehicle traffic; discusses the State and local regulations and policies pertinent to transportation and circulation; assesses the potentially significant transportation and circulation impacts of the Project; and provides, where appropriate, mitigation measures to address those impacts.

The analysis was conducted in compliance with the City of Oakland *Transportation Impact Review Guidelines* (City of Oakland, 2017a) in effect at the time of the Notice of Preparation (NOP).

Travel behavior within the last couple of years has changed at a global level due to the COVID-19 pandemic. In Oakland and the surrounding areas, travel patterns (both amount and mode of trips) have changed significantly since a "shelter-in-place" order was issued on March 17, 2020, and subsequently modified. Unless otherwise noted, the existing conditions presented in this section, such as roadway volumes and transit schedules, are based on data collection or observations prior to the start of the pandemic. The impact analysis presented in this section is generally based on the assumption that long-term travel behavior characteristics would be similar to conditions prior to the start of the pandemic, because, at present, the medium- or long-term effects of the COVID-19 pandemic on travel behavior are uncertain and it would be speculative to estimate any potential long-term or permanent changes.

4.6.2 Environmental Setting

The existing transportation-related context in which the Project would be implemented is described below, beginning with a description of the study area and street network serving the Project site. Existing transit, bicycle, and pedestrian facilities are also described. Current conditions for roadways in the Project vicinity are summarized. This section also discusses planned changes to transportation facilities/operating conditions in Oakland near the Project site as well as applicable planning policies.

Existing Roadway Network

Existing regional freeway access to the Project site is provided via Interstate 880 (I-880). Direct vehicular access to the site is provided via local roadways: Fruitvale Avenue, which borders the site on the west, and Alameda Avenue, which borders the site on the south and terminates at the intersection with Fruitvale Avenue. Generally, the street network in the Project vicinity does not align with a north–south/east–west orientation. This analysis assumes that Fruitvale Avenue is a north-south street and East 7th Street is an east-west street.

Roadways serving the Project study area are described below.

- *I-880* is generally an eight-lane north–south freeway (in the Project vicinity, I-880 has an east-west orientation) connecting I-80 in Oakland in the north to I-280 in San Jose in the south. Access between I-880 and the Project site is provided through interchanges at 29th Avenue, Fruitvale Avenue, and 42nd Avenue/High Street. I-880 has an average daily traffic volumes (AADT) of approximately 213,700 vehicles per day just south of Fruitvale Avenue (Caltrans, 2019).

- *Fruitvale Avenue* is a two-to-four-lane north–south major arterial adjacent to the west side of the Project. It extends between Hoover Avenue in the Oakland Hills in the north and Blanding Avenue in Alameda in the south. Fruitvale Avenue north of East 12th Street and south of Alameda Avenue are designated as truck routes in the City of Oakland (Oakland, 2021).

- *Alameda Avenue* is a two-lane east–west minor arterial adjacent to the south side of the Project. It extends between Fruitvale Avenue in the west and the Oakport Street/High Street intersection in the east. Alameda Avenue is a designated truck route in the City of Oakland.

- *High Street* is a four-lane north–south street in the Project vicinity that extends between Tompkins Avenue in East Oakland in the north and Otis Drive in Alameda in the south. The segment of High Street between I-880 and I-580 is designated as a major arterial and the segments south of I-880 and east of I-580 are designated as minor arterials. Segments of High Street between International Boulevard and I-580 and between San Leandro Street and the Estuary are designated truck routes in the City of Oakland.

- *Oakport Street* is a two-lane east–west collector street in the Project vicinity. It is parallel to and south of I-880 and extends between 42nd Avenue in the west and Edgewood Drive in the east.

- *Coliseum Way* is east–west collector street that provides two to three lanes in the Project vicinity. It extends between 42nd Avenue in the west and Hegenberger Road in the east.

- *East 7th Street* is a two-lane east–west local street just west of the Project. It extends between the Embarcadero in the west and Fruitvale Avenue in the east.

- *Elmwood Avenue* is a two-lane east–west local street in the Project vicinity. It extends from the I-880/Elmwood off-ramp in the west to Fruitvale Avenue, where it jogs south and continues east to 34th Avenue and ends in a cul-de-sac east of 34th Avenue.

- *East 8th Street* is a two-lane east–west local street in the Project vicinity. It extends between Fruitvale Avenue in the west and 37th Avenue in the east.

- *East 9th Street* is a two-to-three-lane east–west local street in the Project vicinity. It extends between 23rd Avenue in the west and 37th Avenue in the east.

- *37th Avenue* is a two-lane north–south local street adjacent to the east side of the Project. It extends between Cesar Chavez Park in East Oakland in the north and ends in a cul-de-sac south of Boehmer Street and adjacent to the east side of the Project site, with a discontinuous section between East 8th and East 9th Streets across the I-880 freeway. The Project would extend 37th Avenue south to connect with Alameda Avenue.

Existing Transit Services

Transit service providers in the Project vicinity include the Alameda–Contra Costa Transit (AC Transit) which provides local and transbay bus service, and the Bay Area Rapid Transit (BART) which provides regional rail service. An overview of transit service in the Project vicinity is shown in **Figure 4.6-1** and described below.

Bus Services

AC Transit is the primary bus service provider in 13 cities and adjacent unincorporated areas in Alameda and Contra Costa Counties, with transbay service to destinations in San Francisco, San Mateo, and Santa Clara Counties. AC Transit reports serving about 175,000 riders in Alameda County on a typical weekday in 2019 (AC Transit, 2019b).

Table 4.6-1 summarizes the AC Transit lines operating in the Project vicinity as of January 2022 (AC Transit 2022). AC Transit operates Lines 19, 51A, 78, 851, and O along Fruitvale Avenue. The nearest bus stops to the Project site are on northbound Fruitvale Avenue between East 8th and East 9th Streets under the I-880 overpass and on southbound Fruitvale Avenue just north of East 9th Street. Neither stop provides any amenities.

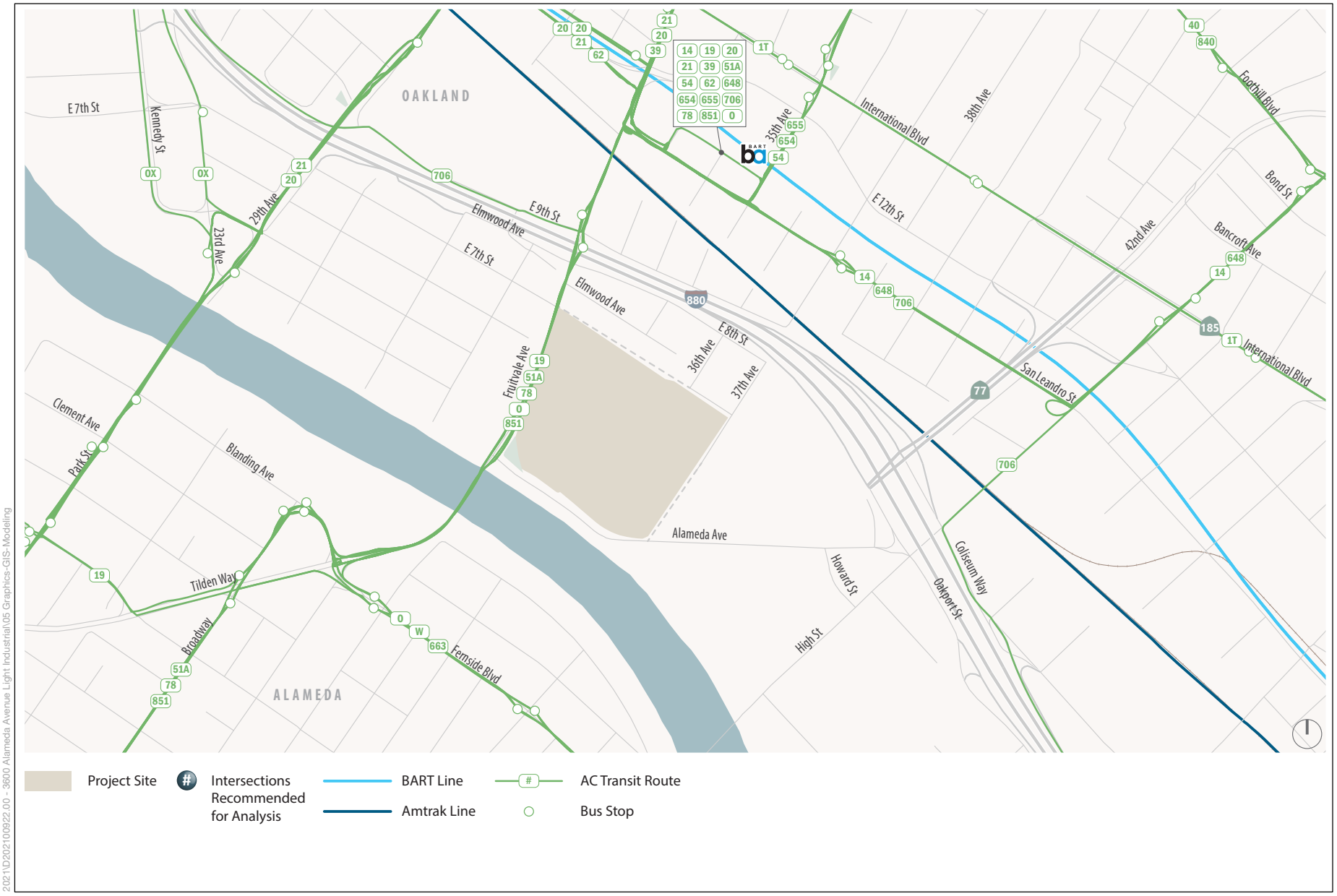
TABLE 4.6-1
AC TRANSIT LINES NEAR THE PROJECT SITE[a]

Line	Description	Weekday		Weekend	
		Hours of Operation	Headways	Hours of Operation	Headways
19	Downtown Oakland to Fruitvale BART via the Webster/Posey tubes, Marina Village Pkwy., Atlantic Ave., Buena Vista Ave., Alameda Bridgeside Center, and Fruitvale Ave.	6:45 a.m.–9:45 p.m.	60 min	6:50 a.m.–9:50 p.m.	60 min
51A	Rockridge BART to Fruitvale BART via College Ave., Broadway (Oakland), Webster St., Santa Clara Ave., and Broadway (Alameda).	5:00 a.m.–12:40 a.m.	10 min	5:30 a.m.–12:45 a.m.	15 min
78	Fruitvale BART to Alameda Seaplane Lagoon Ferry Terminal and USS Hornet Museum via Fruitvale Bridge, Alameda Bridgeside Center, Santa Clara Ave., Webster St., and Ralph Appezzato Memorial Parkway.	6:00 a.m.–11:10 a.m.	Before 7:30 p.m.: 30–60 min; After 7:30 p.m.: 90 min	N/A	N/A
851	All Nighter. Downtown Berkeley to Fruitvale BART via Southside Berkeley (UC campus), College Ave., Broadway, Uptown Oakland, Downtown Oakland, Webster St., Santa Clara Ave., Broadway, and Fruitvale Ave.	12:15 a.m.–5:00 a.m.	60 min	12:15 a.m.–5:00 a.m.	60 min
O	Fruitvale BART to Salesforce Transit Center, San Francisco, via Fruitvale Bridge, Fernside Blvd., High St., Encinal Ave., Broadway, Santa Clara Ave. and Webster St.	5:00 a.m.–10:40 p.m.	30 min	5:00 a.m.–10:40 p.m.	30 min

NOTES:

[a] Service descriptions as of January 2022.

SOURCE: AC Transit, 2022; summarized by Fehr & Peers.



2021\D202100922.00 - 3600 Alameda Avenue Light Industrial\05 Graphics-GIS-Modeling

SOURCE: Fehr & Peers, 2022

3600 Alameda Industrial Project

Figure 4.6-1
Existing Transit Service

ESA

Bay Area Rapid Transit

BART provides regional rail service between San Francisco, northern San Mateo County, the northern Santa Clara County, and the East Bay. Based on BART Monthly Ridership Reports, the average weekday ridership in 2019 was about 411,000 systemwide. The nearest BART station to the Project is the Fruitvale Station, about a 0.6-mile walking distance north of the Project. This station is served by the Dublin/Pleasanton-Daly City, Berryessa/North San Jose-Richmond, and Berryessa/North San Jose-Daly City lines.

The Fruitvale station is served by about 20 trains per hour during the peak periods. Based on BART monthly ridership reports, about 16,100 weekday daily passengers (entries plus exits) were served at the Fruitvale station in fall 2019.

Existing Bicycle Network

The City of Oakland 2019 Oakland Bike Plan (Let's Bike Oakland) identifies the following bicycle facility types.

- *Class 1 Paths* are located off-street and can serve both bicyclists and pedestrians. Recreational trails can be considered Class 1 facilities. Class 1 paths are typically 8 to 10 feet wide, excluding shoulders, and are generally paved.
- *Class 2 Bicycle Lanes* provide a dedicated area for bicyclists within the paved street width using striping and appropriate signage. These facilities are typically 5 to 6 feet wide.
- *Class 2B Buffered Bicycle Lanes* provide a dedicated area for bicyclists within the paved street, separated from the motor vehicle travel lanes by a painted buffer.
- *Class 3 Bicycle Routes* are located along streets that do not provide enough width for dedicated bicycle lanes. The street is then designated as a bicycle route using signage, informing drivers to expect bicyclists.
- *Class 3A Arterial Bicycle Routes* are located along some arterial streets where bicycle lanes are not feasible and parallel streets do not provide adequate connectivity. Speed limits as low as 25 miles per hour (mph), and shared-lane bicycle stencils, wide curb lanes, and signage are used to encourage shared use. According to the 2019 Oakland Bike Plan, New Class 3A facilities will no longer be proposed.
- *Class 3B Neighborhood Bike Routes* are located along residential streets with low traffic volumes. Assignment of right-of-way to the route, traffic calming measures, and bicycle traffic signal actuation are used to prioritize through-trips for bicycles.
- *Class 4 Protected Bicycle Lanes*, also known as cycle tracks, provide space that is exclusively for bicyclists and separated from motor vehicle travel lanes, parking lanes, and sidewalks. Parked cars, curbs, bollards, or planter boxes provide physical separation between bicyclists and moving cars. Where on-street parking is allowed, it is placed between the bikeway and the travel lanes (rather than between the bikeway and the sidewalk, as is typical for Class 2 bicycle lanes).

Figure 4.6-2 shows the existing and proposed bicycle facilities in the Project vicinity per the City's Bike Plan. Key existing bicycle facilities serving the Project site are:

- Class 2 bicycle lanes on both directions of Fruitvale Avenue
- Class 3 neighborhood bicycle route on East 7th Street west of Fruitvale Avenue
- Class 2 bicycle lanes on both directions of Alameda Avenue
- Class 1 path along the Oakland Estuary, accessible via a curb cut on the south side of Alameda Avenue located approximately 850-feet east of the intersection with Fruitvale Avenue. This facility is part of the San Francisco Bay Trail.

Existing Pedestrian Network

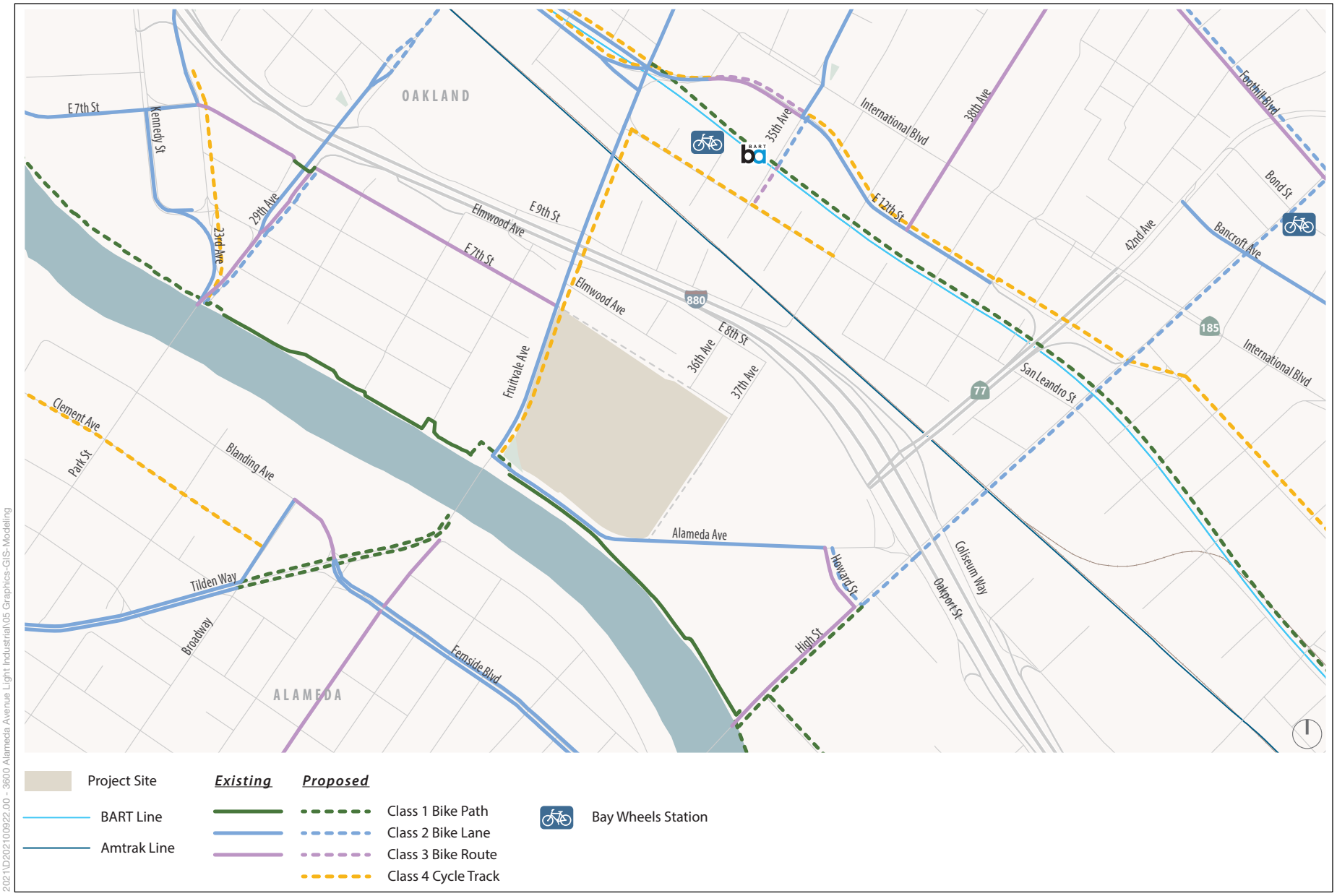
Pedestrian facilities generally include sidewalks, paths, and stairs. Other types of pedestrian facilities include marked crosswalks, curb ramps, pedestrian signal heads and buttons, lighting, curb extensions, and wayfinding signs.

Most existing streets in the Project vicinity provide sidewalks on at least one side of the street. Sidewalks along Fruitvale Avenue range from 5.5 to 10 feet wide and sidewalks along Alameda Avenue range from 6 to 10 feet wide. Other sidewalks on the adjacent streets are 5.5 to 6 feet wide. Gaps in the sidewalk network include the north side of East 8th Street adjacent to the freeway, the north side of East 7th Street between Lancaster Street and Fruitvale Avenue, and the south side of Alameda Avenue just east of the Project site.

Existing pedestrian facilities at intersections adjacent to the Project site include the following:

- The Fruitvale Avenue/East 7th Street intersection is a three-way unsignalized intersection with a side-street stop control on the eastbound East 7th Street approach and includes diagonal curb ramps with truncated domes on the northwest and southwest corners. The eastbound East 7th Street approach also provides a crosswalk marked by white lines and no marked crosswalks are provided across Fruitvale Avenue.
- The Fruitvale Avenue/Alameda Avenue intersection is signalized and includes diagonal curb ramps on the northeast and southeast corners and a parallel curb ramp on the northwest corner of the intersection. All ramps include truncated domes. The southbound Fruitvale Avenue and the westbound Alameda Avenue approaches provide crosswalks marked by white lines. Pedestrian countdown signal heads and pushbuttons are provided in all directions of marked crossings. The southbound Fruitvale Avenue approach includes a raised median and pedestrian refuge with a pushbutton.

The segment of Fruitvale Avenue between Alameda Avenue and East 16th Steet is included in the City's High Injury Network per the City of Oakland Pedestrian Master Plan, *Oakland Walks!* The Pedestrian Master Plan recommends widening sidewalks and adding high visibility crosswalks, bulb outs, improved pavement, lighting, and pedestrian signal upgrades along this segment of the corridor. The *Fruitvale Alive!* Project, as described in the Planned Transportation Network Changes section, will implement these improvements.



2021\D202100922.00 - 3600 Alameda Avenue Light Industrial\05 Graphics-GIS-Modeling

SOURCE: Fehr & Peers, 2022

3600 Alameda Industrial Project

Figure 4.6-2
Existing and Proposed Bicycle Facilities

ESA

Existing Vehicle Miles Traveled

Vehicle miles traveled, or VMT, refers to the amount and distance of automobile travel attributable to a project. In 2013, Governor Jerry Brown signed Senate Bill (SB) 743, which added Public Resources Code Section 21099 to CEQA, to change the way that transportation impacts are analyzed under CEQA to better align local environmental review with statewide objectives to reduce greenhouse gas (GHG) emissions, encourage infill mixed-use development in designated priority development areas, reduce regional sprawl development, and reduce VMT in California. Oakland adopted VMT thresholds in September 2016 to implement the directive from SB 743 (discussed in more detail in the State discussion in Section 4.6.2, *Regulatory Setting*).

Increased VMT leads to several direct and indirect impacts on the environment and human health. Among other effects, increasing VMT on the roadway network leads to increased emissions of air pollutants, including GHGs, as well as increased consumption of energy. Transportation is associated with more GHG emissions than any other sector in California. As documented in the City of Oakland Equitable Climate Action Plan (updated July 2020), 67 percent of Oakland's local GHG emissions are produced by transportation (City of Oakland, 2020). Making transportation more efficient by reducing VMT per capita is the most effective means to reduce GHG emissions per capita.

The Metropolitan Transportation Commission (MTC) Travel Model can be used to estimate VMT.[1] The model includes year 2020, which approximates existing conditions. Based on the MTC Travel Model, the existing regional average VMT per worker is 21.8, while the VMT per worker in the Project area is 21.1.

Existing Railroad Characteristics

The Union Pacific Railroad Company (UPRR) is a freight-hauling railroad company that owns and operates the rail line west of the Project site on the west side of Fruitvale Avenue. The single set of tracks is used by freight trains and primarily serve the local industrial uses. In the Project vicinity, three at-grade crossings are provided at East 7th Street, Elmwood Avenue, and East 9th Street, just west of Fruitvale Avenue. **Table 4.6-2** summarizes the characteristics of these crossings, which are public at-grade crossings. Federal Railroad Administration (FRA, 2022) data shows an average of two train movements per day, with the maximum speed of 10 mph, at these three at-grade crossings. The FRA accident/incident reports for at-grade railroad crossings report no collisions at these three at-grade railroad crossings in the last ten years.

[1] MTC VMT estimates for each TAZ in the region are published through online maps, including Simulated VMT per Capita by Place of Residence and Simulated VMT per Capita by Place of Work (at https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=5dac76d69b3d41e583882e146491568b and https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=98463b4f73ca43c5944a5c30648fd689, respectively).

TABLE 4.6-2
AT-GRADE RAILROAD CROSSING INVENTORY

Inventory	Locations		
	East 7th Street, west of Fruitvale Avenue	Elmwood Avenue, west of Fruitvale Avenue	East 9th Street, west of Fruitvale Avenue
Train Crossing Speed (mph)	5-10	5-10	5-10
# of Train Tracks	1	1	1
# of Traffic Lanes Crossing Railroad	2	2	2
Traffic Control Devices			
Advance Warning	W10-1, W10-3	W10-1	W10-1
Pavement Markings	Yes	Yes	Yes
Train Signals	No	Yes	Yes
Bells	No	Yes	Yes
Gates	No	Yes	Yes
Four Quadrant Gates	No	No	No
Overhead Warning Light	No	Yes	Yes

SOURCE: US Department of Transportation Federal Railroad Administration Crossing Inventory, 2021; summarized by Fehr & Peers, 2022.

Planned Transportation Network Changes

Changes are planned for various transportation modes in the Project vicinity, as described in this section. These are changes that are not related to the Project and would be implemented regardless of the Project. Changes that have environmental clearance and funding are assumed in the analysis of cumulative conditions in this EIR. Changes lacking final design, full approval, and/or full funding are not considered reasonably foreseeable, and therefore are not assumed in the analysis of future conditions. Planned changes by travel mode are summarized below.

Fruitvale Alive! Project

The City of Oakland's *Fruitvale Alive!* safety project includes various bicycle and pedestrian improvements along the Fruitvale Avenue corridor between East 12th Street and Alameda Avenue. The project would primarily consist of installing elevated Class 4 separated bike lanes in both directions of Fruitvale Avenue between the sidewalks and the automobile lanes by eliminating one through automobile lane. The project would also widen sidewalks, improve pedestrian crossings, add pedestrian-scale lighting along the corridor, and install new bus stops on both directions of Fruitvale Avenue at the intersection with Alameda Avenue. The *Fruitvale Alive!* project is assumed in this EIR analysis because it is designed, funded and construction started in fall 2022.

Fruitvale Bridge Land Crossing Project

The City of Oakland's *Fruitvale Bridge Land Crossing* project would complete the existing gap in the Bay Trail between Fruitvale Avenue and Lancaster Street as a Class 1 path along the

Estuary. This new segment of the Bay Trail would be accessed from the Fruitvale Avenue/ Alameda Avenue intersection. The project is assumed in this EIR analysis because it is designed, funded and construction is scheduled to start in the first quarter of 2024.

42nd Avenue & High Street I-880 Access Improvements

The project would extend 42nd Avenue from its current terminus at I-880 southbound off-ramp/ Oakport Street south to Alameda Avenue, reconfigure the High Street/Oakport Street intersection, and include associated signal, pedestrian, and bicycle improvements in the area. The project would complement the already completed I-880/High Street Interchange improvement project and would improve traffic congestion along High Street and Alameda Avenue and improve traffic access to and from I-880. The project is assumed in this EIR analysis because it is designed, funded and construction is scheduled to start in 2025.

4.6.3 Regulatory Setting

This section outlines the existing plans, policies, and regulations that relate and apply to the Project at the State, regional, and local levels.

State

Senate Bill 743

On September 27, 2013, SB 743 was signed into law, building on legislative changes from SB 375, Assembly Bill (AB) 32, and AB 1358. SB 743 began the process to modify how impacts to the transportation system are assessed for purposes of CEQA compliance. SB 743 created a shift in transportation impact analysis under CEQA from a focus on automobile delay, as measured by LOS and similar metrics, toward a focus on reducing VMT.

SB 743 also includes amendments that revise the definition of "infill opportunity zones" to allow cities and counties to opt out of traditional LOS standards established by CMPs and requires the Governor's Office of Planning and Research (OPR) to update the State CEQA Guidelines and establish criteria for determining the significance of transportation impacts. The statute states that upon certification of the new criteria, automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA, except in certain locations specifically identified in the new criteria.

The new criteria, contained in State CEQA Guidelines Section 15064.3, were certified and adopted in December 2018. Section 15064.3 states that VMT is the most appropriate metric to assess transportation impacts and that, with limited exceptions, a project's effect on automobile delay does not constitute a significant environmental impact.

State CEQA Guidelines Section 15064.3 provides that a lead agency may elect to be governed by the new provisions immediately, and that the provisions will apply statewide beginning on July 1,

2020. On September 21, 2016, the City of Oakland Planning Commission updated Oakland's CEQA Thresholds of Significance Guidelines aligning with SB 743.

Regional

Alameda County Transportation Commission Congestion Management Program

The Alameda County Transportation Commission (CTC) is a joint powers authority that plans, funds, and delivers transportation programs and projects that expand access and improve mobility to foster a vibrant and livable Alameda County. Alameda CTC also serves as the County's congestion management agency. The Alameda CTC administers a Land Use Analysis Program, which is one of the legislatively required elements of the Alameda CTC Congestion Management Program (Alameda CTC, 2021). The goals of the Land Use Analysis Program are to:

- Better integrate local land use and regional transportation investment decisions.
- Better assess the impacts of development in one community on another community.
- Promote information sharing between local governments when the decisions made by one jurisdiction will impact another.

Alameda CTC guidelines state that impacts to all modes should be considered:

- *Transit*: Effects of vehicle traffic on mixed-flow transit operations, transit capacity, transit access/egress, need for future transit service, consistency with adopted plans and circulation element needs.
- *Bicycles*: Effects of vehicle traffic on bicyclist conditions, site development and roadway improvements, and consistency with adopted plans.
- *Pedestrians*: Effects of vehicle traffic on pedestrian conditions, site development and roadway improvements, and consistency with adopted plans.
- *Other impacts and opportunities*: Noise impacts for projects near State highway facilities and opportunities to environmentally clear access improvements for transit-oriented development projects.

Local

City of Oakland General Plan

The Oakland General Plan comprises numerous elements, and those containing policies relevant to transportation resources are contained primarily in the Land Use and Transportation Element (LUTE). The goals and policies contained in the various General Plan Elements are often competing. In reviewing a project for conformity with the General Plan, the City is required to balance the competing goals and policies. This Project is reviewed for compliance with the following local plans and policies:

- General Plan LUTE.

- City of Oakland 2017 Pedestrian Master Plan, *Oakland Walks!* (incorporated into the City's General Plan)
- City of Oakland 2019 Bicycle Master Plan, *Let's Bike Oakland!* (incorporated into the City's General Plan)
- City of Oakland Public Transit and Alternative Modes Policy
- City of Oakland Complete Streets Policy
- City of Oakland 2020 Equitable Climate Action Plan
- City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards

The General Plan is a comprehensive plan for the growth and development of the City. The General Plan includes policies related to land use and circulation; housing; recreation; conservation and open space; noise; environmental hazards; and historic resources. These topics are addressed within individual elements of the General Plan: Land Use and Transportation; Pedestrian Master Plan; Bicycle Master Plan; Housing; Historic Preservation; Open Space; Conservation; Recreation; Noise; and Safety. Each is addressed separately below.

Regarding a project's consistency with the General Plan in the context of CEQA, the General Plan states the following:

> *The General Plan contains many policies which may in some cases address different goals, policies, and objectives and thus some policies may compete. The Planning Commission and City Council, in deciding whether to approve a proposed project, must decide whether, on balance, the project is consistent (i.e., in general harmony) with the General Plan. The fact that a specific project does not meet all General Plan goals, policies and objectives does not inherently result in a significant effect on the environment within the context of CEQA.*[2]

Land Use and Transportation Element

The City of Oakland, through various policy documents, states a strong preference for encouraging use of pedestrian, bicycle, and transit travel modes. The following policies are included in the LUTE (City of Oakland, 1998):

> ***LUTE Policy Framework: Encouraging Alternative Means of Transportation.*** "A key challenge for Oakland is to encourage commuters to carpool or use alternative modes of transportation, including bicycling or walking. The Policy Framework proposes that congestion be lessened by promoting alternative means of transportation, such as transit, biking, and walking, providing facilities that support alternative modes, and implementing street improvements. The City will continue to work closely with local and regional transit providers to increase accessibility to transit and improve intermodal transportation connections and facilities. Additionally, policies support the introduction of light rail and trolley buses along appropriate arterials in heavily traveled corridors, and expanded use of ferries in the bay and estuary."

[2] City Council Resolution No. 79312 C.M.S.; adopted June 2005.

Policy T3.5: Including Bikeways and Pedestrian Walks. The City should include bikeways and pedestrian walks in the planning of new, reconstructed, or realized streets, wherever possible.

Policy T3.6: Encouraging Transit. The City should encourage and promote use of public transit in Oakland by expediting the movement of and access to transit vehicles on designated "transit streets" as shown on the Transportation Plan. (Policies T3.6 and T3.7 are based on the City Council's passage of a "Transit First" policy in October 1996.)

Policy T3.7: Resolving Transportation Conflicts. The City, in constructing and maintaining its transportation infrastructure, should resolve any conflicts between public transit and single occupant vehicles in favor of the transportation mode that has the potential to provide the greatest mobility and access for people, rather than vehicles, giving due consideration to the environmental, public safety, economic development, health and social equity impacts.

Policy T4.1: Incorporating Design Features for Alternative Travel. The City will require new development, rebuilding, or retrofit to incorporate design features in their projects that encourage use of alternative modes of transportation such as transit, bicycling, and walking.

The City of Oakland is currently in the process of updating the General Plan and LUTE. However, the approved 1998 LUTE continues to be applicable to the Project.

2017 Pedestrian Master Plan

Oakland's Pedestrian Master Plan, *Oakland Walks!* was adopted June 27, 2017 and identifies policies and implementation measures that promote a walkable city. The plan's vision is built around four pillars – Safety, Equity, Responsiveness, and Vitality (City of Oakland, 2017):

- **Holistic Community Safety –** Make Oakland's pedestrian environment safe and welcoming.
- **Equity –** Recognizing a historical pattern of disinvestment, focus investment and resources to create equitable, accessible walking conditions to meet the needs of Oakland's diverse communities.
- **Responsiveness –** Develop and provide tools to ensure that Oakland creates and maintains a vibrant pedestrian environment.
- **Vitality –** Ensure that Oakland's pedestrian environment is welcoming, well connected, supports the local economy, and sustains healthy communities.

Within these four pillars *Oakland Walks!* strives for five outcomes and within each are several actions.

- **Outcome 1 Increase Pedestrian Safety** – There are ten actions within this outcome. The City will install pedestrian safety improvements in high injury corridors, develop new policies, adopt Vision Zero, upgrade signals and other infrastructure, work to reduce vehicle speeds, improve lighting, and explore ways to equitably enforce traffic laws.
- **Outcome 2 Create Streets and Places that Promote Walking** – There are nine actions within this outcome. The City will integrate safety into the design of new streets, incorporate

art into pedestrian infrastructure, plant more street trees, repair sidewalks, install accessible curb ramps and other features to improve the pedestrian environment for vulnerable populations, and provide public open space in underutilized roadways. The City will also pursue citywide programs and partnerships with nonprofits and community groups to promote walking.

- **Outcome 3 Improve Walkability to Key Destinations** – There are six actions within this outcome. The City will develop a prioritization strategy to best focus the benefits of the Safe Routes to School program, establish a similar program focused on first and last mile access to transit, support wayfinding efforts that can be used by vulnerable populations, and identify strategies for improving the walking environment in and near Caltrans-owned rights-of-way, such as underneath freeway overpasses, on and off ramps, and streets where the surface grade is un-even due to railroad tracks. Additionally, the City will use Walk Score® to improve walkability to key destinations and to enhance areas where car-ownership and usage is lower than the citywide average.

- **Outcome 4 Engage the Oakland Community in Creating Vibrant Pedestrian Environments** – There are five actions within this outcome. The City will reinvigorate existing communication methods and establish new protocols for engaging about pedestrian projects and enabling community-determined pedestrian projects. The City will also partner with groups that specialize in addressing specific vulnerable populations, for example, the Mayor's Commission on Persons with Disabilities, to understand to the experiences of persons with disabilities.

- **Outcome 5 Improve Metrics, Evaluations, Funding, and Tools for Creating Pedestrian Environments** – There are nine actions within this outcome. The City will develop and implement a host of data collection, data analysis, and data reporting efforts, as well as ensure adequate staff training in pedestrian design standards to ensure that the Plan implementation is efficient, accountable, effective, and equitably distributed.

2019 Bicycle Master Plan

The Oakland City Council adopted the Let's Bike Oakland Plan on July 9, 2019 and adoption incorporated the plan into the adopted General Plan. The adopted plan includes four main goals regarding access, health and safety, affordability, and collaboration. Each goal outlines specific objectives and actions related to the goal. The following actions are applicable to the Project (City of Oakland, 2019b):

Access Goal, Objective A: Increase access to jobs, education, retail, park and libraries, schools, recreational centers, transit, and other neighborhood destinations

Action A1: Build low-stress facilities that provide access to local destinations in every neighborhood in Oakland

Action A2: Increase the supply of bicycle parking at neighborhood destinations like schools, medical centers, grocery stores, and government offices

Action A3**:** Evaluate the potential to combine transportation-impact fees for new developments within the same neighborhood to provide continuous, high-quality bicycle facilities

Access Goal, Objective C: Support public transit service

Action C1: Design bikeways that provide first and last mile connections to transit

Action C3: Install more secure, long-term bicycle parking at Oakland's BART stations, Amtrak stations, transit center and ferry terminal

Access Goal, Objective F: Serve people with disabilities

Action F1: Ensure that bikeway designs do not create additional barriers for people with disabilities

Health & Safety Goal, Objective C: Reduce air pollution, asthma rates and greenhouse gas emissions

Action C1: Build a bicycle network that encourages Oaklanders to choose modes of transportation other than driving by providing low-stress facilities and integrating bikes with transit

Action C2: Achieve a 20 percent reduction in vehicle miles traveled annually as residents, workers and visitors meet daily needs by walking, bicycling, and using transit, consistent with the City's Energy and Climate Action Plan (2018)

Affordability Goal, Objective A: Reduce the overall household costs for all Oaklanders

Action A1: Build a bicycle network that provides low-stress bicycle facilities for people in low-income neighborhoods, encouraging the use of bicycling as low-cost transportation

Action A2: Build bikeways that provide first and last mile connections to public transit stations and major bus stops

Affordability Goal, Objective B: Reduce long-term transportation costs by reducing the need for vehicle ownership or for parking in new developments

Action B1: Update the Oakland Planning Code to eliminate parking minimums

Action B2: Revise the menu of Transportation Demand Management options to include bike share passes, fix-it stations and hydration stations

Action B3: Update Oakland's Bicycle Parking Ordinance to determine whether it reflects the type and quantity of parking needed in new developments and major renovations

Action B4: Update the Oakland Planning Code to require end-of-trip facilities such as showers and changing rooms in major non-residential developments

City of Oakland Public Transit and Alternative Modes Policy

The City of Oakland adopted the Public Transit and Alternative Modes Policy, also known as the "Transit-First Policy," in October 2006 (City Council Resolution 73036 C.M.S.). This resolution supports public transit and other alternatives to single occupant vehicles and directs the LUTE to incorporate "various methods of expediting transit services on designated streets and encouraging greater transit use." The resolution also directs the City, in constructing and maintaining its transportation infrastructure, to resolve any conflicts between public transit and single occupant

vehicles on City streets in favor of the transportation mode that provides the greatest mobility for people rather than vehicles giving due consideration to the environment, public safety, economic development, health, and social equity impacts.

City of Oakland Complete Streets Policy

The City of Oakland adopted the Complete Streets Policy to Further Ensure that Oakland Streets Provide Safe and Convenient Travel Options for all Users in January 2013 (City Council Resolution 84204 C.M.S.). This resolution, consistent with the California Complete Streets Act of 2008, directs the City of Oakland to plan, design, construct, operate, and maintain the street network in the City to accommodate safe, convenient, comfortable travel for all modes, including pedestrians, bicyclists, transit users, motorists, trucks, and emergency vehicles (City of Oakland, 2013).

Central Estuary Area Plan

The City of Oakland Central Estuary Area Plan (CEAP) was developed to provide recommendations related to land use, development, urban design, shoreline access, public spaces, regional circulation and local street improvements for the Central Estuary region and waterfront. Since the Project is within the CEAP boundaries, the following goals outlined in the CEAP are relevant to the Project (City of Oakland, 2013):

Objective C-1: Improve and clarify regional access to Oakland's waterfront.

> Interchanges along the I-880 freeway should be consolidated at arterial roadways and brought up to current standards to improve access to and within the Estuary area. […] Improved freeway interchanges are currently under construction or planned at 23rd/29th Avenues and 42nd Avenue/High Street. These projects will improve local access and circulation and help reduce congestion on I-880. Additional improvements should be considered at 5th Avenue and Fruitvale Avenue.

Objective C-2: Establish a continuous waterfront roadway system; a safe promenade for pedestrians, bicycles, and slow-moving automobiles.

> For the most part, vehicular circulation should be accommodated on existing roadways. However, a continuous waterfront roadway system is a top priority in the Estuary Policy Plan. […] All waterfront roads should be treated (sic) with appropriate landscaping, lighting, signage, rest/overview areas, and, where appropriate, parking, and other features which provide a continuous character for pleasant driving, walking, and cycling. Waterfront roads should be slow-moving and accompanied by separate or contiguous bicycling and pedestrian paths where feasible.

Objective C-3: Balance through movement with local access along the waterfront.

> The concept of the waterfront roadway system, described above, aims to properly balance local access with through movements. […] Traffic-calming methods should be incorporated into roadway design throughout the study area, to ensure that vehicular movement is managed in consideration of recreational and aesthetic values. The waterfront roadway system should not become an overflow or alleviator route to the I-880 freeway; however, it will remain part of the City's heavyweight truck route.

Objective C-4: Strengthen local circulation connections between the Oakland neighborhoods and the waterfront.

> Specifically, emphasis should be placed on improving those connections [between the waterfront and inland neighborhoods] which already exist – Washington, Broadway, Webster, Franklin, Oak, 5th, 16th, 23rd, 29th Avenues, Fruitvale, and High Streets. These links can be strengthened through alterations of street alignments or extensions of existing roadways, relocating parking areas, and improving pedestrian facilities.

Objective C-5: Promote transit service to and along the waterfront.

> Land and water-based transit services should be ex-tended to and along the waterfront. Transit services should be focused along Broadway, Washington, Franklin, Third, and Fruitvale. […] High-capacity transit service between Fruitvale BART and Alameda should be studied further. […]

Objective C-6: Improve pedestrian and bicycle circulation.

> Bicycle and pedestrian networks should be extended throughout the waterfront. By enhancing the Embarcadero and the streets parallel to the waterfront, a continuous pedestrian path and bicycle route can be established along the waterfront. Links from the waterfront roadway system to upland neighborhoods are proposed along connecting routes, including Oak, Lake Merritt Channel, 2nd Street to 3rd Street, Fifth Street and Fifth Ave, Fruitvale, and Alameda Avenue to High Street, as well as the grid of streets in the Jack London District.

The CEAP also includes policy-level recommendations for enhancing the local street network. The following policies are relevant to the Project:

Policy Connection C – C: from the eastern end of Ford Street to the southwestern end of 37th Avenue. Requires right-of-way acquisition.

> Implementation of this connection would:
>
> - Provide a central connector between Fruitvale Avenue and 37th Avenue from which new development could be accessed if large-scale properties in the area were to develop in the future.

Policy Connection F – F: from the eastern end of Elmwood Avenue to 36th Avenue. Requires right-of-way acquisition or negotiation of an easement.

> Implementation of this connection would:
>
> - Change Elmwood Avenue and 36th Avenue from cul-de-sacs into through streets;
> - Enhance emergency access;
> - Enhance local connectivity and access.

Policy Connection G – G: from the southeastern end of 37th Avenue to Alameda Avenue (or Policy Connection E – E, when this is implemented). Requires right-of-way acquisition or negotiation of an easement.

> Implementation of this connection would:
>
> - Change 37th Avenue from a cul-de-sac into a through street;

- Enhance emergency access;
- Enhance local connectivity and access (if implemented prior to Policy Connection C – C);
- Provide access to new development if largescale properties in the area were to develop in the future (if implemented in conjunction with Policy Connection C – C).

City of Oakland Equitable Climate Action Plan

The City of Oakland adopted the Oakland 2030 Equitable Climate Action Plan (ECAP) in July 2020 (City Council Resolution 87397 C.M.S.), a comprehensive equity-focused plan to achieve the 2030 GHG reduction target and increase Oakland's resilience to the impacts of the climate crisis. Since cars and trucks account for two-thirds of local emissions in Oakland, the ECAP has a focus on transportation and land use policies. The following actions are applicable to the Project:

Action TLU-1: Align All Planning Policies & Regulations with ECAP Goals and Priorities.

Remove parking minimums and establish parking maximums where feasible, ensuring public safety and accessibility.

Require transit passes bundled with all new major developments.

Action TLU-2: Align Permit and Project Approvals with ECAP Priorities. Amend Standard Conditions of Approval (SCAs), as well as mitigation measures and other permit conditions, to align with the City's GHG reduction priorities stated in this ECAP. Explore, through the Planning Commission, adoption of a threshold of significance for GHG impacts to align with this ECAP. In applying conditions on permits and project approvals, ensure that all cost-effective strategies to reduce GHG emissions from buildings and transportation are required or otherwise included in project designs, including infrastructure improvements like bicycle corridor enhancements, wider sidewalks, crossing improvements, public transit improvements, street trees and urban greening, and green stormwater infrastructure. Where onsite project GHG reductions are not cost-effective, prioritize local projects benefiting frontline communities.

Action TLU-4: Abundant, Affordable, and Accessible Public Transit. The City will work with public transit agencies to replace autos with public transit as a primary transportation mode for trips beyond walking distance, ensuring convenient, safe, and affordable public transit access within Oakland and to neighboring cities for all Oaklanders.

Action TLU-5: Create a Zero Emission Vehicle (ZEV) Action Plan. By 2021, develop a ZEV Action Plan to increase adoption of electric vehicles and e-mobility while addressing equity concerns and prioritizing investment in frontline communities. The plan must set ambitious targets for ZEV infrastructure and must be coordinated with other land use and mobility options so that ZEV ownership is not necessary for access to ZEV trips, and ZEVs increase as a percentage of all vehicles while overall vehicle miles traveled decreases. The plan must address the following sectors: medium and heavy-duty vehicle electrification, including trucks and delivery vehicles; personal vehicle charging infrastructure in multifamily buildings, including affordable buildings; curbside charging; school and transit buses; and coordination with private and public fleet operators.

Action TLU-8: Expand and Strengthen Transportation Demand Management (TDM) Requirements. Increase TDM performance requirements for new developments where

feasible to support the mode shifts necessary to achieve a low carbon transportation system. Expand the TDM program to include requirements for existing employers. Fund ongoing monitoring and enforcement of TDM requirements.

Standard Conditions of Approval

The City's Standard Conditions of Approval (SCAs) that directly pertain to transportation and circulation and that apply to the Project are listed below. If the Project is adopted by the City, all applicable SCAs will be adopted as conditions of approval and required, as applicable, of the Project to help ensure no significant impacts. Because the SCAs are incorporated as part of the Project, they are not listed as mitigation measures.

SCA TRANS-1: Construction Activity in the Public Right-of-Way (#75)

a. Obstruction Permit Required

Requirement: The project applicant shall obtain an obstruction permit from the City prior to placing any temporary construction-related obstruction in the public right-of-way, including City streets, sidewalks, bicycle facilities, and bus stops.

When Required: Prior to approval of construction-related permit

Initial Approval: Department of Transportation

Monitoring/Inspection: Department of Transportation

b. Traffic Control Plan Required

Requirement: In the event of obstructions to vehicle or bicycle travel lanes, bus stops, or sidewalks, the project applicant shall submit a Traffic Control Plan to the City for review and approval prior to obtaining an obstruction permit. The project applicant shall submit evidence of City approval of the Traffic Control Plan with the application for an obstruction permit. The Traffic Control Plan shall contain a set of comprehensive traffic control measures for auto, transit, bicycle, and pedestrian accommodations (or detours, if accommodations are not feasible), including detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. The Traffic Control Plan shall be in conformance with the City's Supplemental Design Guidance for Accommodating Pedestrians, Bicyclists, and Bus Facilities in Construction Zones. The project applicant shall implement the approved Plan during construction.

Initial Approval: Department of Transportation

Monitoring/Inspection: Department of Transportation

c. Repair of City Streets

Requirement: The project applicant shall repair any damage to the public right-of way, including streets and sidewalks, caused by project construction at his/her expense within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to approval of the final inspection of the construction-related permit. All damage that is a threat to public health or safety shall be repaired immediately.

When Required: Prior to building permit final

Initial Approval: N/A

Monitoring/Inspection: Department of Transportation

SCA TRANS-2: Bicycle Parking (#76)

Requirement: The project applicant shall comply with the City of Oakland Bicycle Parking Requirements (chapter 17.118 of the Oakland Planning Code). The project drawings submitted for construction-related permits shall demonstrate compliance with the requirements.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Planning

Monitoring/Inspection: Bureau of Building

SCA TRANS-3: Transportation and Parking Demand Management (#78)

a. Transportation and Parking Demand Management (TDM) Plan Required

Requirement: The project applicant shall submit a Transportation and Parking Demand Management (TDM) Plan for review and approval by the City.

i. The goals of the TDM Plan shall be the following:

- Reduce vehicle traffic and parking demand generated by the project to the maximum extent practicable.
- Achieve the following project vehicle trip reductions (VTR):
  - Projects generating 50 to 99 net new a.m. or p.m. peak hour vehicle trips: 10 percent VTR
  - Projects generating 100 or more net new a.m. or p.m. peak hour vehicle trips: 20 percent VTR
- Increase pedestrian, bicycle, transit, and carpool/vanpool modes of travel. All four modes of travel shall be considered, as appropriate.
- Enhance the City's transportation system, consistent with City policies and programs.

ii. The TDM Plan should include the following:

- Baseline existing conditions of parking and curbside regulations within the surrounding neighborhood that could affect the effectiveness of TDM strategies, including inventory of parking spaces and occupancy if applicable.
- Proposed TDM strategies to achieve VTR goals (see below).

iii. For employers with 100 or more employees at the subject site, the TDM Plan shall also comply with the requirements of Oakland Municipal Code Chapter 10.68 Employer-Based Trip Reduction Program.

iv. The following TDM strategies must be incorporated into a TDM Plan based on a project location or other characteristics. When required, these mandatory strategies should be identified as a credit toward a project's VTR.

Improvement	Required by code or when …
Bus boarding bulbs or islands	• A bus boarding bulb or island does not already exist, and a bus stop is located along the project frontage; and/or • A bus stop along the project frontage serves a route with 15 minutes or better peak hour service and has a shared bus-bike lane curb
Bus shelter	• A stop with no shelter is located within the project frontage; or • The project is located within 0.10 miles of a flag stop with 25 or more boardings per day
Concrete bus pad	• A bus stop is located along the project frontage and a concrete bus pad does not already exist
Curb extensions or bulb-outs	• Identified as an improvement within site analysis
Implementation of a corridor-level bikeway improvement	• A buffered Class II or Class IV bikeway facility is in a local or county adopted plan within 0.10 miles of the project location; and • The project would generate 500 or more daily bicycle trips
Implementation of a corridor-level transit capital improvement	• A high-quality transit facility is in a local or county adopted plan within 0.25 miles of the project location; and • The project would generate 400 or more peak period transit trips
Installation of amenities such as lighting; pedestrian-oriented green infrastructure, trees, or other greening landscape; and trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.	• Always required
Installation of safety improvements identified in the Pedestrian Master Plan (such as crosswalk striping, curb ramps, count down signals, bulb outs, etc.)	• When improvements are identified in the Pedestrian Master Plan along project frontage or at an adjacent intersection
In-street bicycle corral	• A project includes more than 10,000 square feet of ground floor retail, is located along a Tier 1 bikeway, and on-street vehicle parking is provided along the project frontages.

Improvement	Required by code or when …
Intersection improvements[3]	• Identified as an improvement within site analysis
New sidewalk, curb ramps, curb and gutter meeting current City and ADA standards	• Always required
No monthly permits and establish minimum price floor for public parking[4]	• If proposed parking ratio exceeds 1:1000 sf. (commercial)
Parking garage is designed with retrofit capability	• Optional if proposed parking ratio exceeds 1:1.25 (residential) or 1:1000 sf. (commercial)
Parking space reserved for car share	• If a project is providing parking and a project is located within downtown. One car share space reserved for buildings between 50 – 200 units, then one car share space per 200 units.
Paving, lane striping or restriping (vehicle and bicycle), and signs to midpoint of street section	• Typically required
Pedestrian crossing improvements	• Identified as an improvement within site analysis
Pedestrian-supportive signal changes[5]	• Identified as an improvement within operations analysis
Real-time transit information system	• A project frontage block includes a bus stop or BART station and is along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better
Relocating bus stops to far side	• A project is located within 0.10 mile of any active bus stop that is currently near-side
Signal upgrades[6]	• Project size exceeds 100 residential units, 80,000 sf. of retail, or 100,000 sf. of commercial; and • Project frontage abuts an intersection with signal infrastructure older than 15 years

3 Including but not limited to visibility improvements, shortening corner radii, pedestrian safety islands, accounting for pedestrian desire lines.

4 May also provide a cash incentive or transit pass alternative to a free parking space in commercial properties.

5 Including but not limited to reducing signal cycle lengths to less than 90 seconds to avoid pedestrian crossings against the signal, providing a leading pedestrian interval, provide a "scramble" signal phase where appropriate.

6 Including typical traffic lights, pedestrian signals, bike actuated signals, transit-only signals

Improvement	Required by code or when …
Transit queue jumps	• Identified as a needed improvement within operations analysis of a project with frontage along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better
Trenching and placement of conduit for providing traffic signal interconnect	• Project size exceeds 100 units, 80,000 sf. of retail, or 100,000 sf. of commercial; and • Project frontage block is identified for signal interconnect improvements as part of a planned ITS improvement; and • A major transit improvement is identified within operations analysis requiring traffic signal interconnect
Unbundled parking	• If proposed parking ratio exceeds 1:1.25 (residential)

v. Other TDM strategies to consider include, but are not limited to, the following:

- Inclusion of additional long-term and short-term bicycle parking that meets the design standards set forth in chapter five of the Bicycle Master Plan and the Bicycle Parking Ordinance (chapter 17.117 of the Oakland Planning Code), and shower and locker facilities in commercial developments that exceed the requirement.
- Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority bikeways, on-site signage and bike lane striping.
- Installation of safety elements per the Pedestrian Master Plan (such as crosswalk striping, curb ramps, count down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials, in addition to safety elements required to address safety impacts of the project.
- Installation of amenities such as lighting, street trees, and trash receptacles per the Pedestrian Master Plan, the Master Street Tree List and Tree Planting Guidelines (which can be viewed at http://www2.oaklandnet.com/oakca1/groups/pwa/documents/report/oak042662.pdf and http://www2.oaklandnet.com/oakca1/groups/pwa/documents/form/oak025595.pdf, respectively) and any applicable streetscape plan.
- Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements.
- Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency).

- Provision of a transit subsidy to employees or residents, determined by the project applicant and subject to review by the City, if employees or residents use transit or commute by other alternative modes.
- Provision of an ongoing contribution to transit service to the area between the project and nearest mass transit station prioritized as follows: (1) Contribution to AC Transit bus service; (2) Contribution to an existing area shuttle service; and (3) Establishment of new shuttle service. The amount of contribution (for any of the above scenarios) would be based upon the cost of establishing new shuttle service (Scenario 3).
- Guaranteed ride home program for employees, either through 511.org or through separate program.
- Pre-tax commuter benefits (commuter checks) for employees.
- Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants.
- On-site carpooling and/or vanpool program that includes preferential (discounted or free) parking for carpools and vanpools.
- Distribution of information concerning alternative transportation options.
- Parking spaces sold/leased separately for residential units. Charge employees for parking, or provide a cash incentive or transit pass alternative to a free parking space in commercial properties.
- Parking management strategies including attendant/valet parking and shared parking spaces.
- Requiring tenants to provide opportunities and the ability to work off-site.
- Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite (e.g., working four, ten-hour days; allowing employees to work from home two days per week).
- Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours.

The TDM Plan shall indicate the estimated VTR for each strategy, based on published research or guidelines where feasible. For TDM Plans containing ongoing operational VTR strategies, the Plan shall include an ongoing monitoring and enforcement program to ensure the Plan is implemented on an ongoing basis during project operation. If an annual compliance report is required, as explained below, the TDM Plan shall also specify the topics to be addressed in the annual report.

When Required: Prior to approval of planning application.

Initial Approval: Bureau of Planning

Monitoring/Inspection: N/A

b. TDM Implementation – Physical Improvements

Requirement: For VTR strategies involving physical improvements, the project applicant shall obtain the necessary permits/approvals from the City and install the improvements prior to the completion of the project.

When Required: Prior to building permit final

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

c. TDM Implementation – Operational Strategies

Requirement: For projects that generate 100 or more net new a.m. or p.m. peak hour vehicle trips and contain ongoing operational VTR strategies, the project applicant shall submit an annual compliance report for the first five years following completion of the project (or completion of each phase for phased projects) for review and approval by the City. The annual report shall document the status and effectiveness of the TDM program, including the actual VTR achieved by the project during operation. If deemed necessary, the City may elect to have a peer review consultant, paid for by the project applicant, review the annual report. If timely reports are not submitted and/or the annual reports indicate that the project applicant has failed to implement the TDM Plan, the project will be considered in violation of the Conditions of Approval and the City may initiate enforcement action as provided for in these Conditions of Approval. The project shall not be considered in violation of this Condition if the TDM Plan is implemented but the VTR goal is not achieved.

When Required: Ongoing

Initial Approval: Department of Transportation

Monitoring/Inspection: Department of Transportation

SCA TRANS-4: Plug-In Electric Vehicle (PEV) Charging Infrastructure (#81)

a. PEV-Ready Parking Spaces

Requirement: The applicant shall submit, for review and approval of the Building Official and the Zoning Manager, plans that show the location of parking spaces equipped with full electrical circuits designated for future PEV charging (i.e., "PEV-Ready) per the requirements of Chapter 15.04 of the Oakland Municipal Code. Building electrical plans shall indicate sufficient electrical capacity to supply the required PEV-Ready parking spaces.

When Required: Prior to Issuance of Building Permit

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

b. PEV-Capable Parking Spaces

Requirement: The applicant shall submit, for review and approval of the Building Official, plans that show the location of inaccessible conduit to supply PEV-capable

parking spaces per the requirements of Chapter 15.04 of the Oakland Municipal Code. Building electrical plans shall indicate sufficient electrical capacity to supply the required PEV-capable parking spaces.

When Required: Prior to Issuance of Building Permit

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

c. ADA-Accessible Spaces

Requirement: The applicant shall submit, for review and approval of the Building Official, plans that show the location of future accessible EV parking spaces as required under Title 24 Chapter 11B Table 11B-228.3.2.1, and specify plans to construct all future accessible EV parking spaces with appropriate grade, vertical clearance, and accessible path of travel to allow installation of accessible EV charging station(s).

When Required: Prior to Issuance of Building Permit

Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

SCA TRANS-5: Transportation Improvements (#77)

Requirement: The project applicant shall implement the recommended on- and off-site transportation-related improvements contained within the Transportation Impact Review for the project (e.g., signal timing adjustments, restriping, signalization, traffic control devices, roadway reconfigurations, transportation demand management measures, and transit, pedestrian, and bicyclist amenities). The project applicant is responsible for funding and installing the improvements and shall obtain all necessary permits and approvals from the City and/or other applicable regulatory agencies such as, but not limited to, Caltrans (for improvements related to Caltrans facilities) and the California Public Utilities Commission (for improvements related to railroad crossings), prior to installing the improvements. To implement this measure for intersection modifications, the project applicant shall submit Plans, Specifications, and Estimates (PS&E) to the City for review and approval. All elements shall be designed to applicable City standards in effect at the time of construction and all new or upgraded signals shall include these enhancements as required by the City. All other facilities supporting vehicle travel and alternative modes through the intersection shall be brought up to both City standards and ADA standards (according to Federal and State Access Board guidelines) at the time of construction. Current City Standards call for, among other items, the elements listed below:

a. 2070L Type Controller with cabinet accessory
b. GPS communication (clock)
c. Accessible pedestrian crosswalks according to Federal and State Access Board guidelines with signals (audible and tactile)
d. Countdown pedestrian head module switch out
e. City Standard ADA wheelchair ramps

f. Video detection on existing (or new, if required)

g. Mast arm poles, full activation (where applicable)

h. Polara Push buttons (full activation)

i. Bicycle detection (full activation)

j. Pull boxes

k. Signal interconnect and communication with trenching (where applicable), or through existing conduit (where applicable), 600 feet maximum

l. Conduit replacement contingency

m. Fiber switch

n. PTZ camera (where applicable)

o. Transit Signal Priority (TSP) equipment consistent with other signals along corridor

p. Signal timing plans for the signals in the coordination group

q. Bi-directional curb ramps (where feasible, and if project is on a street corner)

r. Upgrade ramps on receiving curb (where feasible, and if project is on a street corner)

When Required: Prior to building permit final or as otherwise specified

Initial Approval: Bureau of Building; Department of Transportation

Monitoring/Inspection: Bureau of Building

SCA TRANS-6: Transportation Impact Fee (#79)

Requirement: The project applicant shall comply with the requirements of the City of Oakland Transportation Impact Fee Ordinance (chapter 15.74 of the Oakland Municipal Code).

When Required: Prior to issuance of building permit

Initial Approval: Bureau of Building

Monitoring/Inspection: N/A

Transportation Impact Review Guidelines (TIRG)

On September 21, 2016, the City of Oakland's Planning Commission directed staff to update the City of Oakland's CEQA Thresholds of Significance Guidelines related to transportation impacts in order to implement the directive from SB 743 to modify local environmental review processes by removing automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, as a significant impact on the environment pursuant to CEQA. The Planning Commission direction aligns with the December 2018 guidance from the Governor's Office of Planning and Research and the City's approach to transportation impact analysis with adopted plans and policies related to transportation, which promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses.

Consistent with Planning Commission direction and SB 743 requirements, the City of Oakland published its revised TIRG in 2017 to guide the evaluation of the transportation impacts associated with land use development projects.

The City of Oakland's TIRG provides direction on the scope of the study that the City of Oakland requires in evaluating the potential transportation impact of proposed land use development projects. The TIRG ensures that potentially significant impacts are studied according to the City's thresholds of significance under CEQA. The Guidelines also provide direction on appropriate mitigations for significant impacts in the context of the overall policies and objectives of the City.

4.6.4 Environmental Impacts and Mitigation Measures

Project Transportation Characteristics

This section discusses various characteristics of the Project, also described in Chapter 3, *Project Description*, that affect transportation and circulation.

Proposed Project

The Project is located at the northeast corner of the Alameda Avenue/Fruitvale Avenue intersection in Oakland. The 23.9-acre site is currently occupied by several vacant buildings totaling 1.24 million square feet, which the Project would demolish. The Project would construct a single building providing approximately 430,000 square feet of space. The end user and nature of the use is unknown at this time but, for the purposes of this analysis, is assumed to be a distribution warehouse facility.

The Project would provide 295 passenger vehicle parking spaces in a surface parking lot primarily on the north and west sides of the Project site. The Project would also accommodate 228 trailer stalls and 48 loading docks on the south side of the Project site.

Automobile access to the Project site would be provided via five driveways: one driveway on Fruitvale Avenue opposite East 7th Street which would be limited to rights-in and rights-out only on Fruitvale Avenue, and one driveway on Boehmer Street opposite 34th Avenue, each limited to passenger vehicles, two driveways on 37th Avenue, the north one would be limited to passenger vehicles, and one driveway on Alameda Avenue. Trucks would access the site via the south driveway on 37th Avenue and the driveway on Alameda Avenue.

An approximately one-acre parcel on the southeast corner of the site, at the Alameda Avenue/ 37th Avenue intersection, may be developed as retail and/or restaurant in the future. This analysis assumed that the site would be developed as a 10,000 square foot restaurant or café.

Proposed Roadway Network Changes

The Project proposes several changes to the adjacent roadway network that are currently under design and subject to approval by the City of Oakland. The proposed changes include the following:

- Open Boehmer Street, which extends between 36th and 37th Avenues and is currently closed and gated, as a public street. Boehmer Street would be a 26-foot curb-to-curb street with a 5.5-foot sidewalk on the north side and a 7.5-foot sidewalk on the south side. The street would accommodate one travel lane in each direction and parking on one side of the street.
- Extend 37th Avenue from the current cul-de-sac south of Boehmer Street to Alameda Avenue along the east side of the Project site. The 37th Avenue extension would be approximately 31 to 33-foot curb-to-curb street with a minimum 5.5-foot sidewalk on the east and a six-foot sidewalk on the west side of the street, matching the existing segment of 37th Avenue. The street would accommodate one travel lane in each direction and parking on one side of the street.
- Relocate Alameda Avenue approximately 100-feet to the north, reducing the existing curvature of the roadway and creating space for expanded public access to the Oakland Estuary. The street would generally provide 54 feet curb-to-curb with a 6.5-foot landscape buffer and 5.5-foot sidewalk on the north side of the street and a 7.5-foot landscape buffer, eight-foot sidewalk, up to 28-foot landscape area, and a 12-foot Class I shared-used path on the south side of the street adjacent to the Estuary, which would be part of the San Francisco Bay Trail. Along the Project frontage, the roadway would accommodate two westbound travel lanes and one eastbound travel lane with parallel on-street parking on the north side of the street between the Project driveway and 37th Avenue. The roadway would also provide Class 2B buffered bicycle lanes in both directions.

Project Automobile Trip Generation

Trip generation is the process of estimating the number of vehicles that would likely access the Project on a typical weekday. **Table 4.6-3** summarizes the trip generation for the Project assuming that the industrial component of the Project would be developed as a distribution warehouse. The Project is estimated to generate 2,130 daily, 305 AM peak hour, and 243 PM peak hour trips on a typical weekday.

TABLE 4.6-3
PROJECT VEHICLE TRIP GENERATION SUMMARY

Project[a]	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
Industrial Distribution Warehouse (High-Cube Parcel Hub Warehouse)	1,600	123	121	**244**	143	67	**210**
Commercial (Restaurant)	530	34	27	**61**	20	13	**33**
Total	**2,130**	**157**	**148**	**305**	**163**	**80**	**243**

NOTES:

[a] See Appendix J for detailed calculations.

SOURCE: Fehr & Peers, 2023.

Appendix J, Transportation Impact Review (non-CEQA) Memorandum, provides the detailed trip generation calculations and assumptions.

Trip generation data published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual (11th Edition)* is used as a starting point to estimate the vehicle trip generation. The ITE data is primarily based on data collected at single-use suburban sites where the automobile is often the only travel mode. However, the Project site is in a medium density mixed-use environment adjacent to frequent bus service where many trips are walk, bike, or transit trips. Since the Project site is about a 0.6-mile walking distance from the Fruitvale BART Station, this analysis reduces the ITE based trip generation by about 37 percent to account for non-automobile trips. This reduction is consistent with the City of Oakland's Transportation Impact Review Guidelines (TIRG) and is based on US Census commute data for Alameda County from the 2014 5-Year Estimates of the American Community Survey (ACS), which shows that the non-automobile mode share for urban areas between 0.5 and one mile of a BART station is approximately 37 percent.

The Project trip generation estimate also accounts for the truck trip generation rates for the use as published in the ITE Trip Generation Manual. Since trucks are larger and operate slower than passenger vehicles, a passenger car equivalent (PCE) ratio of 2.0 is used to convert the truck trips to passenger vehicle trips (each truck is counted as two passenger vehicles).

The trip generation estimate summarized in Table 4.6-3 does not account for the TDM Plan required by CITY SCA TRANS-3 (provided in Appendix K), which is required to reduce the passenger car trips generated by the Project by at least 20 percent.

Non-Automobile Trip Generation

Consistent with the City of Oakland's TIRG, **Table 4.6-4** presents the trip generation estimates for all travel modes for both the industrial and commercial components of the Project combined.

TABLE 4.6-4
TRIP GENERATION BY TRAVEL MODE

Travel Mode	Mode Share Adjustment Factors[a]	Daily	Weekday AM Peak Hour	Weekday PM Peak Hour
Passenger Vehicles	0.633	1,630	227	191
Trucks	N/A[b]	500	78	52
Transit	0.236	610	80	70
Bike	0.049	130	20	10
Walk	0.062	160	20	20
Total Trips		**3,250**	**430**	**385**

NOTES:
[a] Based on the City's *Transportation Impact Review Guidelines*, assuming the Project site is in an urban environment between 0.5 and 1.0 mile from a BART station, ferry terminal, or rail station.
[b] Truck trips in PCE. See Appendix J for detailed calculations.

SOURCE: Fehr & Peers, 2023.

Significance Criteria

The following thresholds are consistent with OPR guidance and with the City's *TIRG*. The Project would have a significant impact on the environment if it would:

1. Cause substantial additional VMT per capita, per service population, or other appropriate efficiency measure. Specifically,
    - For residential uses, a project would cause substantial additional VMT if it exceeds existing regional household VMT per capita minus 15 percent.
    - For office uses, a project would cause substantial additional VMT if it exceeds the existing regional VMT per worker minus 15 percent.
    - For retail uses, a project would cause substantial additional VMT if it exceeds the existing regional VMT per worker minus 15 percent.
2. Conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths (except for automobile level of service or other measures of vehicle delay).
3. Substantially induce additional automobile travel by increasing physical roadway capacity in congested areas i.e., adding new mixed-flow lanes or adding new roadways to the network.

Approach to Analysis

Many factors affect travel behavior, including density of development, diversity of land uses, design of the transportation network, access to regional destinations, distance to high-quality transit, development scale, demographics, and transportation demand management. Typically, low-density development that is located at a great distance from other land uses and in areas with poor access to non-single occupancy vehicle travel modes, generates more automobile travel compared to development located in urban areas, where a higher density of development, a mix of land uses, and travel options other than private vehicles are available.

Given these travel behavior factors, most of Oakland has lower VMT per capita and VMT per worker ratios than the nine-county San Francisco Bay Area region. Further, within the City of Oakland, some neighborhoods may have lower VMT ratios than others.

VMT Estimate Approach

Estimating VMT requires the use of travel demand models to fully capture the length of trips on the transportation network as well as the changes in VMT behavior that may occur with the introduction of the Project. This analysis uses two travel demand models to analyze the VMT impacts of the Project. The VMT screening analysis for the Project uses the MTC Travel Model while the detailed VMT analysis for the Project uses the Alameda CTC Countywide Travel Demand Model. The following describes how the two models estimate VMT.

MTC Travel Model

Neighborhoods within Oakland are expressed geographically in transportation analysis zones, or TAZs. The MTC Travel Model includes approximately 120 TAZs within Oakland that vary in

size from a few city blocks in the downtown core, to multiple blocks in outer neighborhoods, to even larger geographic areas in lower density areas in the hills. TAZs are used in transportation planning models for transportation analysis and other planning purposes.

The MTC Travel model assigns all predicted trips within, across, to or from the nine-county San Francisco Bay Area region on the roadway network and the transit system, by mode (single-driver and carpool vehicle, biking, walking, or transit) and transit carrier (bus, rail) for a given development and network scenario.

The travel behavior from MTC Travel Model is modeled based on the following inputs:

- Socioeconomic data developed by the Association of Bay Area Governments.
- Population data created using 2000 U.S. Census and modified using the open source PopSyn software.
- Zonal accessibility measurements for destinations of interest.
- Travel characteristics and automobile ownership rates derived from the 2000 Bay Area Travel Survey.
- Observed vehicle counts and transit boardings.

The daily VMT output from the MTC Travel Model for residential and commercial uses comes from a tour-based analysis. The tour-based analysis examines the entire chain of trips over the course of a day, not just trips to and from the Project site. In this way, all the VMT for an individual resident or worker is included, not just trips to and from the person's home or workplace. For example: a resident leaves her apartment in the morning, stops for coffee, and then goes to the office. In the afternoon she heads out to lunch, and then returns to the office, with a stop at the drycleaners on the way. After work she goes to the gym to work out, and then joins some friends at a restaurant for dinner before returning home. The tour-based approach would add up the total amount driven and assign the daily VMT to this resident for the total number of miles driven on the entire "tour."

Based on the MTC Travel Model, the regional average daily VMT per worker is 21.8 under 2020 conditions and 20.3 under 2040 conditions. MTC has calculated these same metrics for all the TAZs in the nine-county Bay Area (MTC, n.d.).

Alameda CTC Travel Model

The detailed VMT evaluation for the Project is conducted using the Alameda CTC Countywide Travel Demand Model. The travel behavior forecasted by the Alameda CTC Model is based on the same inputs as described above for the MTC Model. However, the Alameda CTC Model provides increased granularity within Alameda County. For example, the MTC Model TAZ where the Project is located is represented by nine TAZs in the Alameda CTC Model. Thus, the Alameda CTC Model can better account for the Project setting and proximity to transit and provide a more refined estimate of travel behavior, including VMT, for the Project than the MTC Model. The major difference between the MTC and Alameda CTC Models is that while the MTC Model

outputs a "tour" based VMT, which as described above accounts for the distance in the entire chain of motor vehicle trips over the course of a weekday generated by a worker, the Alameda CTC Model outputs the home-work (i.e., commute) VMT per worker, which measures all of the worker commute VMT by a motor vehicle on a typical weekday between homes and workplaces.

Project Impacts and Discussion

Vehicle Miles Traveled

Impact TRANS-1: The Project would not cause substantial additional VMT per worker. (Criterion 1) (*Less than Significant*)

According to the City of Oakland's *TIRG*, VMT impacts would be less than significant for the Project if any of the identified screening criteria are met:

- *Criterion #1: Small Projects* – The Project generates fewer than 100 vehicle trips per day.
- *Criterion #2: Low-VMT Areas* – The Project meets map-based screening criteria by being in an area that exhibits below-threshold VMT, or 15 percent or more below the regional average.
- *Criterion #3: Near Transit Stations* – The Project is in a Transit Priority Area[7] or within a one-half mile of a Major Transit Corridor or Stop[8] and satisfies the following:
  - Has a floor area ratio (FAR) of more than 0.75.
  - Does not include more parking for use by residents, customers, or employees of the Project than other typical nearby uses, or more than required by the City (if parking minimums pertain to the site) or allowed without a conditional use permit (if minimums and/or maximums pertain to the site).
  - Is consistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the MTC).

Although the Project would be a warehouse and is expected to generate large number of truck trips, the VMT assessment for the Project only includes the VMT generated by passenger vehicles and does not include the VMT generated by the trucks, consistent with SB743 requirements.[9] According to the City of Oakland's TIRG, warehouse use is classified as a production, distribution, and repair (PDR) use, and it should be screened by comparing the VMT

[7] According to the California Public Resource Code, a Transit Priority Area is defined as a one-half mile area around an existing major transit stop or an existing stop along a high-quality transit corridor. Public Resources Code, § 21064.3 defines major transit stop as a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of 15 minutes or less during the morning and afternoon peak commute periods. Public Resources Code, § 21155 defines a high-quality transit corridor as a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.

[8] "Major transit stop" is defined in CEQA Section 21064.3 as a rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

[9] CEQA Guidelines, section 15064.3, subdivision (a)

per worker in the TAZ to the regional average minus 15 percent. The application of the screening criteria to the Project are discussed below:

- ***Criterion 1*:** Per Table 4.6-3, the Project would generate more than 100 trips per day and therefore does not meet Criterion #1.
- ***Criterion 2*: Table 4.6-5** shows the 2020 and 2040 total VMT per worker for the TAZ 926, the TAZ in which the Project is located, as well as the applicable VMT thresholds of 15-percent below the regional average. The 2020 and 2040 estimated average daily total VMT per worker in the Project TAZ is higher than the regional averages minus 15-percent. Thus, the Project would not meet criterion #2.[10]

TABLE 4.6-5
PROJECT VMT SCREENING SUMMARY

Geographic Area	Total VMT per Worker (2020)	Total VMT per Worker (2040)
Project TAZ (MTC Model TAZ 926)	21.1	19.4
Regional Average	21.8	20.3
Regional Average minus 15% (i.e., screening criterion)	18.5	17.3
Meet Screening Criterion?	No	No

NOTES:
[a] MTC Model results at https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=98463b4f73ca43c5944a5c30648fd689.
SOURCE: Fehr & Peers, 2022

- ***Criterion 3*:** The nearest bus stop to the Project site is on Fruitvale Avenue at I-880, about 0.2 mile north of the Project site. The bus stop is served by AC Transit Lines 19, 51A, and O during the peak commute periods. As of March 2022, Line 51A has frequent service with 10- to 12-minute headways during peak periods. Since the bus stop is served by the same bus route at an interval less than 15 minutes during peak commute hours, this segment of Fruitvale Avenue is considered a high-frequency transit corridor, and since the Project is located less than 0.5 miles from a high-frequency transit corridor, it is in a Transit Priority Area. However, the Project would not meet this criterion because it would not meet two of the following three conditions required:
  - The Project would have a FAR of 0.42, which is below 0.75. (Not Satisfied)
  - According to the City of Oakland Municipal Code Section 17.116.090, the Project is required to provide a minimum of one parking space per 3,500 square feet of industrial space. No maximum amount of parking is specified in the Code. The Project would consist of a 429,900 square feet industrial building (Since the 30,000 square feet of office is considered an accessory part of the warehouse, the parking requirement for industrial use applies to the whole Project). Thus, the Project is required to provide 123 parking spaces and the Project would provide 295 parking spaces which is greater than the 123 parking spaces required by Code. (Not Satisfied)

[10] This analysis conservatively uses the MTC Model for screening purposes. However, the Project would meet the screening criterion #2 (Low-VMT Ares) if the Alameda CTC Model were used for this screening criterion.

– The Project is located within the Fruitvale and Dimond Areas Priority Development Area (PDA) as defined by Plan Bay Area and is therefore consistent with the region's Sustainable Communities Strategy. (Satisfied)

The industrial component of the Project would not satisfy any of the City of Oakland's VMT screening criteria and requires a detailed analysis of VMT, which is described below. The commercial component of the Project would provide about 10,000 square feet of retail/restaurant space. Since the Project would provide less than 80,000 square feet of commercial space, and consistent with the TIRG, the commercial uses are considered local-serving and presumed not to generate substantial additional VMT and would have a less-than-significant impact on VMT.

Detailed VMT Evaluation

The detailed VMT evaluation for the Project is conducted using the Alameda CTC Travel Demand Model, which is described above. This analysis uses the latest version of the Alameda CTC Model, which was released in May 2019. Similar to the MTC Model, the Alameda CTC Model is based on the MTC Plan Bay Area 2040 (i.e., Sustainable Communities Strategy) transportation network and land uses for 2020 and 2040. The Model land use database was adjusted to include the Project workers. **Table 4.6-6** summarizes the home-work VMT estimates under 2020 and 2040 conditions as estimated by the Alameda CTC Model. The table also compares the home-work VMT per worker for the Project with the regionwide average and 15 percent below the regionwide average, which is the threshold used to determine the significance of the VMT impact.

TABLE 4.6-6
PROJECT VMT ANALYSIS SUMMARY

Geographic Area	Home-Work VMT per Worker (2020)	Home-Work VMT per Worker (2040)
Proposed Project (Alameda CTC Model TAZ 315)	12.9	12.6
Bay Area Region Average	18.1	18.2
Bay Area Region Average minus 15% (i.e., threshold of significance)	15.4	15.5
Significant Impact?	No	No

NOTES:
[a] MTC Model results at https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=98463b4f73ca43c5944a5c30648fd689.
SOURCE: Fehr & Peers, 2022

The home-work VMT per worker for the Project is estimated to be 12.9 under 2020 conditions and 12.6 under 2040 conditions. Both the 2020 and 2040 home-work VMT per worker for the Project would be more than 15 percent below the regionwide Bay Area average. This VMT estimate does not account for the TDM Plan (included as Appendix K) that the Project would be required to implement. Therefore, the Project has a less-than-significant impact regarding VMT.

Mitigation: None required.

Consistency with Adopted Policies, Plans, or Programs

Impact TRANS-2: The Project would not conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths. (Criterion 2) (*Less than Significant with SCAs*)

The Project, including the associated SCAs and the recommendations included in the Transportation Impact Review (non-CEQA) Memorandum (Appendix J), is consistent with applicable plans, ordinances, and policies, and would not cause a significant impact by conflicting with adopted plans, ordinances, or policies addressing the safety and performance of the circulation system, including transit, roadways, bicycle lanes, and pedestrian paths (except for automobile level of service or other measures of vehicle delay).

The 1998 LUTE, as well as the City's Public Transit and Alternative Mode and Complete Streets policies, states a strong preference for encouraging the use of non-automobile transportation modes, such as transit, bicycling, and walking. The Project would encourage the use of non-automobile transportation modes by providing employment near the Fruitvale BART Station and adjacent to AC Transit Line 51A, which is a high-frequency transit corridor.

The Project is consistent with the City's CEAP. The Project proposes to extend 37th Avenue, which is currently a cul-de-sac just south of Boehner Street, south to Alameda Avenue. This proposed north-south connection was envisioned by the CEAP in Policy Connection G-G, which calls for extending 37th Avenue to Alameda Avenue in order to enhance emergency access and local connectivity and access.

CEAP Policy Connection C-C called for extension of Ford Street between Lancaster Street west of Fruitvale Avenue and 37th Avenue and CEAP Policy Connection F-F calls for extension of Elmwood Avenue to 36th Street. The extensions of Ford Street and Elmwood Avenue as envisioned by CEAP cannot be accommodated because they would require private property acquisition which is not available. The extension of Elmwood Avenue would require a new at-grade railroad crossing, which is not feasible. The Project initially proposed to extend East 7th Street from its current terminus at Fruitvale Avenue east to Boehmer Street, as an alternative and equivalent approach to the Policy Connection C-C since an existing at grade railroad crossing already exists. However, the extension would still require upgrades to the railroad crossing which are currently infeasible since acquisition of private property would be required to implement the improvements. Given the current infeasibility of this connection, the applicant as part of the project will include the area necessary to extend E. 7th Street eastward across the project site as a dedication to the City for public right of way, so that such connection could be made in the future as feasible.

As required by SCA TRANS-3, the Project is required to implement a TDM Plan (included as Appendix K), which consists of physical improvements and operational measures that would encourage the use of non-single occupant automobile travel modes and reduce the passenger vehicle trips generated by the Project. The TDM Plan is estimated to reduce the Project generated passenger vehicle trips by about eight to 20 percent, which is consistent with the City's SCA TRANS-3, LUTE, and Equitable Climate Action Plan. As stated in SCA TRANS-3, The Project is required to implement all the measures included in the TDM Plan, which consists of all feasible measures that would reduce the vehicle traffic generated by the Project; however, the Project will

not be considered in violation of the SCA if all the mandatory measures in the TDM Plan are implemented but the VTR goal is not achieved.

The Project is consistent with both the City's 2017 Pedestrian Master Plan and 2019 Bike Plan as it would not make major modifications to the existing pedestrian or bicycle facilities in the surrounding areas and would not adversely affect installation of future facilities. Although the Project proposes to replace the existing Class 2 bicycle lanes on Alameda Avenue along the Project frontage with Class 2B buffered bicycle lanes, a recommendation in the Transportation Impact Review (non-CEQA) Memorandum would upgrade the bicycle facilities on Alameda Avenue to Class 4 separated bikeways.

The Project would generate a large number of truck trips. **Figure 4.6-3** shows the truck routes for the truck trips to and from the Project site. All trucks would use Alameda Avenue and High Street, which are the designated truck routes in the Project vicinity. Furthermore, the Transportation Impact Review (non-CEQA) Memorandum includes recommendations, such as limiting trucks on East 8th Street to minimize trucks from using a residential street.

Overall, the Project would not conflict with adopted plans, ordinances, or policies addressing the safety and performance of the circulation system. Therefore, the Project has a less-than-significant impact regarding Consistency with Adopted Policies, Plans, or Programs.

SCA TRANS-3: Transportation and Parking Demand Management.

Mitigation: None required.

Induced Automobile Traffic

Impact TRANS-3: The Project would not substantially induce additional automobile travel by increasing physical roadway capacity in congested areas i.e., adding new mixed-flow lanes or adding new roadways to the network. (Criterion 3) (*Less than Significant*)

The Project would extend 37th Avenue from the current cul-de-sac south of Boehmer Street to Alameda Avenue primarily to provide access to the Project parking facilities. This street extension is consistent with the CEAP, which envisioned providing additional east-west and north-south connections in this area in order to enhance emergency access and local connectivity and access.

As a result of this street extension, East 8th Street and 37th Avenue would also provide an alternative route for vehicles traveling between Alameda Avenue east of the Project site and Fruitvale Avenue north of the Project site or East 8th Street west of the Project site. As documented in Appendix J, Transportation Impact Review (non-CEQA) Memorandum, the Fruitvale Avenue/Alameda Avenue intersection is expected to operate with minimal delay (LOS C during both the AM and PM peak hours) after the completion of the Project; thus, motor vehicles would have little incentive to use East 8th Street and 37th Avenue. However, the Transportation Impact Review (non-CEQA) Memorandum recommends converting the 37th Avenue extension to only serve the Project site or implementing traffic calming measures on East 8th Street and 37th Avenue to disincentivize cut-through traffic on these streets.

2021\D202100922.00 - 3600 Alameda Avenue Light Industrial\05 Graphics-GIS-Modeling

SOURCE: Fehr & Peers, 2022

3600 Alameda Industrial Project

Figure 4.6-3
Project Truck Route

ESA

Although the Project would add a new roadway to the network in the Project vicinity, the new roadway would not substantially induce additional automobile travel because it is consistent with the approved CEAP, would enhance pedestrian and bicycle connectivity, and the streets adjacent to the Project site are not considered congested. Therefore, the Project has a less-than-significant impact regarding induced automobile traffic.

Mitigation: None required.

4.6.5 Cumulative Impacts

Impact TRANS-1.CU: The Project, combined with cumulative development in the Project vicinity, would not result in a cumulatively considerable transportation impact. (Criteria 1, 2, and 3) (*Less than Significant with SCAs*)

As shown in Table 4.6-6, the Project-generated home-work VMT per worker in 2040 would be below the established threshold, and would also be a less-than-significant impact under cumulative conditions. In addition, as analyzed in the previous section, the Project would not result in a significant transportation impact by conflicting with a plan, ordinance, or policy addressing the safety or performance of the circulation system, or substantially inducing additional automobile travel by increasing capacity. Thus, the Project would not contribute to significant adverse cumulative transportation impacts when considered together with past, present, and reasonably foreseeable development.

SCA TRANS-3: Transportation and Parking Demand Management.

Mitigation: None required.

4.6.6 References

AC Transit. 2020. Ridership – Fiscal Year 2018–2019. Accessed January 18, 2022. http://www.actransit.org/about-us/facts-and-figures/ridership/.

AC Transit. 2022. AC Transit Bus Line Descriptions. January 18, 2022. Accessed January 18, 2022. http://www.actransit.org/ac-transit-bus-line-descriptions/.

Alameda County Transportation Commission (CTC). 2021. *Congestion Management Program*. October 2021. Accessed March 4, 2022. https://www.alamedactc.org/wp-content/uploads/2021/12/2021_CMP_Update_FINAL.pdf.

Bay Area Rapid Transit (BART). 2018. Monthly Ridership Reports. Accessed January 18, 2022. https://www.bart.gov/about/reports/ridership.

California Department of Transportation (Caltrans). 2019. Traffic Volumes on the State Highway System. Accessed April 1, 2022. https://dot.ca.gov/-/media/dot-media/programs/traffic-operations/documents/census/aadt/2019-traffic-volumes.xlsx.

City of Oakland. 1996. *Resolution Declaring the City of Oakland's Support of Public Transit and Other Alternatives to Single-Occupant Vehicles*. October 29, 1996. Accessed March 4, 2022. http://www2.oaklandnet.com/oakca1/groups/pwa/documents/report/oak028550.pdf.

City of Oakland. 1998. *Envision Oakland – City of Oakland General Plan Land Use and Transportation Element*. March 1998. Accessed March 4, 2022. https://www.oaklandca.gov/resources/land-use-and-transportation-element.

City of Oakland. 2013a. *Central Estuary Area Plan*. April 5, 2013. Accessed March 4, 2022. https://www.oaklandca.gov/documents/final-central-estuary-area-plan.

City of Oakland. 2013b. *Resolution Adopting a Complete Streets Policy to Further Ensure that Oakland Streets Provide Safe and Convenient Travel Options for All Users*. January 3, 2013. Accessed March 4, 2022. https://www.oaklandca.gov/documents/resolution-adopting-a-complete-streets-policy-to-further-ensure-that-oakland-streets-provide-safe-and-convenient-travel-options-for-all-users-84204-cms.

City of Oakland. 2017a. *City of Oakland Transportation Impact Review Guidelines*. April 14, 2017. Accessed March 18, 2022. https://cao-94612.s3.amazonaws.com/documents/oak063581.pdf.

City of Oakland. 2017b. *Oakland Walks! 2017 Pedestrian Plan Update*. 2017. Accessed March 6, 2022. https://www.oaklandca.gov/resources/pedestrian-plan-update.

City of Oakland. 2019. *Let's Bike Oakland, 2019 Oakland Bike Plan*. May 2019. Accessed March 6, 2022. https://www.oaklandca.gov/resources/bicycle-plan.

City of Oakland. 2020. *Equitable Climate Action Plan.* July 2020. Accessed March 4, 2022. https://cao-94612.s3.amazonaws.com/documents/Oakland-ECAP-07-24.pdf.

City of Oakland. 2021a. Fruitvale Alive! Accessed March 3, 2022. https://www.oaklandca.gov/projects/fruitvale-alive.

City of Oakland. 2021b. Oakland Truck Route Map. January 20, 2021. Accessed March 18, 2022. https://www.arcgis.com/home/webmap/viewer.html?webmap=8cd63bb6e50042d994d2e29e8308c950&extent=-122.3566,37.6323,-122.0192,37.9202.

City of Oakland. 2022a. *Waterfront Trails Update*. Accessed May 9, 2022. https://cao-94612.s3.amazonaws.com/documents/Info-Memo-Waterfront-Trails-Update.pdf.

City of Oakland. 2022b. *42nd Avenue & High Street I-880 Access Improvements*. Accessed August 29, 2022. https://www.oaklandca.gov/projects/42nd_high.

Federal Railroad Administration Office of Safety Analysis. n.d. Highway-Rail Grade Crossing Accident/Incident Reports. Accessed March 18, 2021. https://safetydata.fra.dot.gov/OfficeofSafety/publicsite/query/invdetl.aspx.

Institute of Transportation Engineers (ITE). 2021. *Trip Generation Manual, 11th Edition*. September 2021.

Metropolitan Transportation Commission (MTC). n.d. Travel Demand Model Results. Accessed October 2022. https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=98463b4f73ca43c5944a5c30648fd689.

4.7 Effects Not Found to Be Significant

4.7.1 Introduction

California Environmental Quality Act (CEQA) Guidelines Section 15128, *Effects Not Found to Be Significant*, allows environmental issues for which there is no likelihood of significant impact to be "scoped out," and not analyzed further in an EIR. This chapter presents the analysis of all topics in the CEQA Environmental Checklist (Appendix G of the CEQA Guidelines) with the following exceptions: Air Quality, Biological Resources, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Noise, and Transportation and Circulation. These potentially significant impacts were analyzed in detail and included in Chapter 4 of this Draft EIR.

As detailed in the sections that follow, all other impacts were found to be less than significant or less than significant with implementation of SCAs. The environmental setting and baseline, Oakland thresholds of significance, environmental impacts and impact classifications described in Section 4.0, *Introduction to the Environmental Analysis*, are the same for the topic areas analyzed in this chapter. Also as described in Section 4.0, if the City determines to grant discretionary planning-related approval of the Project, all SCAs identified in this chapter would be incorporated into the Project. Therefore, all SCA's identified in this chapter are included in the Executive Summary and proposed as part of the Project to reduce potential impacts to a less than significant level.

4.7.2 Aesthetics, Shadow, and Wind

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
I.	**AESTHETICS, SHADOW, AND WIND —** The Project would have a significant impact on the environment if it would:				
1)	Have a substantial adverse effect on a scenic vista;[1]	☐	☐	☒	☐
2)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state or locally designated scenic highway;	☐	☐	☒	☐
3)	Substantially degrade the existing visual character or quality of the site and its surroundings;	☐	☐	☒	☐
4)	Create a new source of substantial light or glare which would substantially and adversely affect daytime or nighttime views in the area;	☐	☐	☒	☐
5)	Introduce landscape that would now or in the future cast substantial shadows on existing solar collectors (in conflict with California Public Resource Code sections 25980-25986);	☐	☐	☒	☐

[1] **NOTE**: Only impacts to scenic views enjoyed by members of the public generally (but not private views) are potentially significant.

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
6) Cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors;	☐	☐	☒	☐
7) Cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space;	☐	☐	☒	☐
8) Cast shadow on an historic resource, as defined by CEQA Guidelines section 15064.5(a), such that the shadow would materially impair the resource's historic significance by materially altering those physical characteristics of the resource that convey its historical significance and that justify its inclusion on or eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, Local Register of historical resources, or a historical resource survey form (DPR Form 523) with a rating of 1-5;	☐	☐	☒	☐
9) Require an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, and the exception causes a fundamental conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses; or	☐	☐	☒	☐
10) Create winds that exceed 36 mph for more than one hour during daylight hours during the year.[2]	☐	☐	☐	☒

4.7.2.1 Environmental Setting

Visual Resources

The Project site is predominantly flat and is currently occupied by 1.24 million square feet of building space that previously comprised the Owens-Brockway Glass manufacturing facility. The entire site is currently developed with minimal vegetation. Given the urban nature of the Project setting, views from publicly accessible vantage points around the Project site are primarily limited to the immediate developments adjacent to the site because existing buildings generally obscure longer-range views.

Existing uses in the Project vicinity include large box industrial and commercial (e.g., retail, gym, and restaurants) developments. The area north of the site includes single-family residential uses. In addition, the site is bounded on the south by Alameda Avenue and the Oakland Estuary.

[2] **NOTE**: The wind analysis only needs to be done if the project's height is 100 feet or greater (measured to the roof) and one of the following conditions exist: (a) the project is located adjacent to a substantial water body (i.e., Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located in Downtown. Downtown is defined in the Land Use and Transportation Element of the General Plan (page 67) as the area generally bounded by West Grand Avenue to the north, Lake Merritt and Channel Park to the east, the Oakland Estuary to the south and I-980/Brush Street to the west. The wind analysis must consider the project's contribution to wind impacts to on- and off-site public and private spaces. Only impacts to public spaces (on- and off-site) and off-site private spaces are considered CEQA impacts. Although impacts to on-site private spaces are considered a planning-related non-CEQA issue, such potential impacts still must be analyzed.

Light and Glare

The Project site is in a built-out urban environment that has existing sources of light and glare typical for an urban setting. Light and glare are also associated with streetlights.

Shadow

Solar panels, also known as photovoltaic solar panels, absorb sunlight as a source of energy to generate electricity. Likewise, solar thermal collectors, commonly known as solar hot water panels, turn the sun's radiation into heat and then transfer that heat into air or water. The nearest solar collectors to the Project site are approximately 315 feet northwest, at 610 Lancaster Street.

Public Open Spaces

There are several public parks or open spaces in the vicinity of the Project site that are owned and managed by the Oakland Department of Parks, Recreation, and Youth Development. The Fruitvale Bridge Park is across Alameda Avenue from the Project site along the waterfront. In addition, Josie de la Cruz Park (1637 Fruitvale Avenue) and Cesar Chavez Park (Foothill Boulevard and Bridge Avenue) are located approximately 0.62 and 0.72 miles from the Project site, respectively.

Historic Resources

As described in Section 4.7.3, *Cultural Resources*, the properties adjacent to and in the vicinity of the Project site do not meet the conditions for consideration as historical resources for the purposes of CEQA.

4.7.2.2 Regulatory Setting

California Scenic Highway Program

The California Scenic Highway Program protects scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to identified scenic highways. "Officially Designated State Scenic Highways" must have a scenic corridor protection program, or its equivalent adopted by the local jurisdiction, to preserve the scenic quality of the corridor and address land use, development density, earthmoving, landscaping, building design, and outdoor advertising, including billboards, within the corridor. There are no officially designated or eligible State scenic highways within or adjacent to the Project site.

California Building Standards Code Title 24

Parts 1 and 6 – Outdoor Lighting Zones

In 2001, the California Legislature passed a bill requiring the California Energy Commission (CEC) to adopt energy-efficient standards for outdoor lighting for both the public and private sector. In November 2003, the CEC adopted changes to the Building Energy Efficiency Standards within Title 24. The standards specify outdoor lighting requirements for residential and non-residential development, and are on a three-year update and renewal cycle, along with the other parts of Title 24. The intent of these standards is to improve the quality of outdoor lighting and

reduce the impacts of light pollution, light trespass and glare. The standards regulate lighting characteristics, such as maximum power and brightness, shielding, and use of sensor controls to turn lighting on and off. Different lighting standards have been established for four lighting zone classifications. Based on population figures in the 2000 Census, areas can be designated by this State specification system as LZ1 (dark), LZ2 (low), LZ3 (medium), or LZ4 (high). Lighting standards for dark and rural areas are stricter for example, to provide appropriate protection from new sources of light pollution and light trespass. According to the U.S. Census Bureau, the entire Project area is defined as an urban area and is therefore designated as LZ3 per the CEC classification standards (CEC, 2018).

City of Oakland General Plan

Land Use and Transportation Element (LUTE)

The following City of Oakland General Plan Land Use and Transportation Element policies are relevant to the aesthetics and lighting impacts of the Project (City of Oakland, 2007):

Objective I/C4: Minimize land use compatibility conflicts in commercial and industrial areas through achieving a balance between economic development values and community values.

Policy I/C4.3: Reducing Billboards. Billboards should be reduced or eliminated in commercial and residential areas in Oakland neighborhoods through mechanisms that minimize or do not require the expenditure of City funds.

Objective T6: Make streets safe, pedestrian accessible, and attractive.

Policy T6.2: Improving Streetscapes. The City should make major efforts to improve the visual quality of streetscapes. Design of the streetscape, particularly in neighborhoods and commercial centers, should be pedestrian-oriented and include lighting, directional signs, trees, benches, and other support facilities.

Policy T6.5: Protecting Scenic Routes. The City should protect and encourage enhancement of the distinctive character of scenic routes within the City, through prohibition of billboards, design review, and other means.

Objective N1: Provide for healthy, vital, and accessible commercial areas that help meet local consumer needs in neighborhoods.

Policy N1.5: Designing Commercial Development. Commercial development should be designed in a manner that is sensitive to surrounding residential uses.

Objective N8: Direct urban density and mixed-use housing development to locate near transit or commercial corridors, transit stations, the Downtown, waterfront, underutilized properties where residential uses do not presently exist but may be appropriate, areas where this type of development already exists and is compatible with desired neighborhood character, and other suitable locations.

Policy N8.2: Making Compatible Interfaces between Densities. The height of development in urban residential and other higher density residential areas should step down as it nears lower density residential areas to minimize conflicts at the interface between the different types of development.

Objective N9: Promote a strong sense of community within the City of Oakland, and supporting and enhance the district character of different areas of the City, while promoting linkages between them.

***Policy N9.5: Marking Significant Sites*.** Identify locations of interest and historic significance by markers, signs, public art, landscape, installations, or by other means.

Open Space, Conservation and Recreation Element (OSCAR)

The Open Space, Conservation and Recreation Element (OSCAR) promotes the preservation and good design of open space, and the protection of natural resources to improve aesthetic quality in Oakland. The following OSCAR objectives and policies are relevant to the aesthetics impacts of the Project (City of Oakland, 1996):

Objective CO-9: Landform. To retain Oakland's natural features and topography wherever possible and recognize their important role in defining the character and image of the City and its neighborhoods.

***Policy OS-9.3: Gateway Improvements*.** Enhance neighborhood and City identity by maintaining or creating gateways. Maintain view corridors and enhance the sense of arrival at the major entrances to the City, including freeways, BART lines, and the airport entry. Use public art, landscaping, and signage to create stronger City and neighborhood gateways.

Objective OS-10: Scenic Resources. Protect scenic views and improve visual quality.

***Policy OS-10.1: View Protection*.** Protect the character of existing scenic views in Oakland, paying particular attention to: (a) views of the Oakland Hills from the flatlands; (b) views of downtown and Lake Merritt; (c) views of the shoreline; and (d) panoramic views from Skyline Boulevard, Grizzly Peak Road, and other hillside locations.

***Policy OS-10.2: Minimizing Adverse Visual Impacts*.** Encourage site planning for new development which minimizes adverse visual impacts and takes advantage of opportunities for new vistas and scenic enhancement.

***Policy OS-10.3: Underutilized Visual Resources*.** Enhance Oakland's underutilized visual resources, including the waterfront, creeks, San Leandro Bay, architecturally significant buildings or landmarks, and major thoroughfares.

Objective OS-11: Civic Open Spaces. To maintain and develop plazas, pocket parks, pedestrian walkways, and rooftop gardens in Oakland's major activity centers, and enhance the appearance of these and other public spaces with landscaping and art.

***Policy OS-11.2: New Civic Open Space*.** Create new civic open spaces at BART Stations, in neighborhood commercial areas, on parking garages, and in other areas where high-intensity redevelopment is proposed.

***Policy OS-11.3: Public Art Requirements*.** Continue to require public art as a part of new public buildings or facilities. Consider expanding the requirement or creating voluntary incentives to private buildings with substantial public spaces.

***Policy OS-11.4: Siting Public Art*.** Site public art with sensitivity to its surroundings. Locate public art in a manner which does not reduce useable open space in City parks or impede recreational activities.

Objective OS-12: Street Trees. "Green" Oakland's residential neighborhoods and commercial areas with street trees.

***Policy OS-12.1: Street Tree Selection*.** Incorporate a broad and varied range of tree species which is reflected on a city-maintained list of approved trees. Street tree selection should respond to the general environmental conditions at the planting site, including climate and micro-climate, soil types, topography, existing tree planting, maintenance of adequate distance between street trees and other features, the character of existing development, and the size and context of the tree planting area.

Historic Preservation Element

In March 1994, the Oakland City Council adopted the Historic Preservation Element of the Oakland General Plan (amended July 21, 1998). The following Historic Preservation Element goal addresses historic resources and visual resources (City of Oakland, 1998):[3]

Goal 2: To preserve, protect, enhance, perpetuate, use, and prevent the unnecessary destruction or impairment of properties or physical features of special character or special historic, cultural, educational, architectural or aesthetic interest or value. Such properties or physical features include buildings, building components, structures, objects, districts, sites, natural features related to human presence, and activities taking place on or within such properties or physical features.

Scenic Highways Element

The Scenic Highways Element of the Oakland General Plan seeks to protect and enhance the distinctive character of scenic routes within the City. I-580 is identified as a designated scenic route in the Scenic Highways Element. I-980 is identified as a route that could be considered for possible future designation (City of Oakland, 1974).

Oakland Municipal Code

The following provisions of the Oakland Municipal Code are relevant to aesthetics:

Title 8: Health and Safety

Chapter 8.10: Graffiti. This chapter is to protect public and private property from acts of defacement by graffiti.

Chapter 8.24: Property Blight. This chapter requires a level of maintenance of residential, commercial, and industrial property that will protect and preserve the livability, appearance, and social and economic stability of the City.

Title 12: Streets, Sidewalks and Public Places

Chapter 12.36: Protected Trees. It is the interest of the City of Oakland and the community to protect and preserve trees by regulating their removal; to prevent unnecessary tree loss and minimize environmental damage from improper tree removal; to encourage appropriate tree replacement plantings; to effectively enforce tree preservation regulations; and to promote the appreciation and understanding of trees.

[3] See also Section 4.7.4, *Cultural Resources*, for a more detailed discussion of the Historic Preservation Element.

Title 17: Planning

The Oakland Planning Code, Title 17 of the Oakland Municipal Code, includes design review procedures and also outlines sign limitations, height restrictions, usable open space requirements, and minimum yards for developments located in each zone. The following would apply to the Project:

Chapter 17.124: Landscaping and Screening Standards. This chapter prescribes standards for development and maintenance of planting, fences, and walls; for the conservation and protection of property; and through improvements of the appearance of individual properties, neighborhoods, and the City.

Chapter 17.136: Design Review Procedure. In accordance with Chapter 17.136 of the Oakland Planning Code, future individual cumulative development projects would be subject to Design review. Design review considers the visible features of a project and the project's relationship to its physical surroundings. Although independent of CEQA and the EIR process, design review is focused on ensuring quality design, and on avoiding potentially adverse aesthetic effects. Projects are evaluated based on site, landscaping, height, bulk, arrangement, texture, materials, colors, appurtenances, potential shadowing effects on adjacent properties, and other characteristics.

Oakland Outdoor Lighting Standards

The City of Oakland Outdoor Lighting Standards is applicable to private development projects on public rights-of-way. As such, the requirements in the standard are assumed to apply to all new streetscape improvements. Requirements include general glare, light trespass, and light pollution mitigation measures, such as using full-cutoff luminaires wherever available, and avoiding bare light sources (bulbs). In addition, the standard provides specific lighting equipment guides relevant to street and pedestrian light pole heights.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to reducing impacts on aesthetics and that apply to the Project are listed below. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to aesthetics. Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

SCA AES-1: Trash and Blight Removal *(Standard Condition of Approval 16)*

Requirement: The project applicant and his/her successors shall maintain the property free of blight, as defined in chapter 8.24 of the Oakland Municipal Code. For nonresidential and multi-family residential projects, the project applicant shall install and maintain trash receptacles near public entryways as needed to provide sufficient capacity for building users.

SCA AES-2: Graffiti Control *(Standard Condition of Approval 17)*

Requirement:

a. During construction and operation of the project, the project applicant shall incorporate best management practices reasonably related to the control of graffiti and/or the mitigation of the impacts of graffiti. Such best management practices may include, without limitation:

   i. Installation and maintenance of landscaping to discourage defacement of and/or protect likely graffiti-attracting surfaces.

   ii. Installation and maintenance of lighting to protect likely graffiti-attracting surfaces.

   iii. Use of paint with anti-graffiti coating.

   iv. Incorporation of architectural or design elements or features to discourage graffiti defacement in accordance with the principles of Crime Prevention Through Environmental Design (CPTED).

   v. Other practices approved by the City to deter, protect, or reduce the potential for graffiti defacement.

b. The project applicant shall remove graffiti by appropriate means within seventy-two (72) hours. Appropriate means include the following:

   i. Removal through scrubbing, washing, sanding, and/or scraping (or similar method) without damaging the surface and without discharging wash water or cleaning detergents into the City storm drain system.

   ii. Covering with new paint to match the color of the surrounding surface.

   iii. Replacing with new surfacing (with City permits if required)

SCA AES-3: Landscape Plan *(Standard Condition of Approval 18)*

a. Landscape Plan Required

Requirement: The project applicant shall submit a final Landscape Plan for City review and approval that is consistent with the approved Landscape Plan. The Landscape Plan shall be included with the set of drawings submitted for the construction-related permit and shall comply with the landscape requirements of chapter 17.124 of the Planning Code. Proposed plants shall be predominantly drought-tolerant. Specification of any street trees shall comply with the Master Street Tree List and Tree Planting Guidelines (which can be viewed at http://www2.oaklandnet.com/oakca1/groups/pwa/documents/report/oak042662.pdf and http://www2.oaklandnet.com/oakca1/groups/pwa/documents/form/oak025595.pdf, respectively), and with any applicable streetscape plan.

b. Landscape Installation

Requirement: The project applicant shall implement the approved Landscape Plan unless a bond, cash deposit, letter of credit, or other equivalent instrument acceptable to the Director of City Planning, is provided. The financial instrument shall equal the greater of $2,500 or the estimated cost of implementing the Landscape Plan based on a licensed contractor's bid.

c. Landscape Maintenance

Requirement: All required planting shall be permanently maintained in good growing condition and, whenever necessary, replaced with new plant materials to ensure continued compliance with applicable landscaping requirements. The property owner shall be responsible for maintaining planting in adjacent public rights-of-way. All required fences, walls, and irrigation systems shall be permanently maintained in good condition and, whenever necessary, repaired or replaced.

SCA AES-4: Lighting (Standard Condition of Approval 19)

Requirement: Proposed new exterior lighting fixtures shall be adequately shielded to a point below the light bulb and reflector to prevent unnecessary glare onto adjacent properties.

4.7.2.3 Topics Considered and No Impact Determined

Wind (Criterion 10)

According to the City's CEQA Thresholds of Significance, wind analysis only needs to be done if a project's height is 100 feet or greater (measured to the roof) and one of the following conditions exist: (a) the project is located adjacent to a substantial water body (i.e., Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located in Downtown. The Project would construct a single-story industrial use facility that would be less than 100 feet tall. Therefore, the Project would have no impact with regard to wind.

4.7.2.4 Project Impacts and Discussion

Impact AES-1: The Project would not have a substantial adverse effect on a public scenic vista or substantially damage scenic resources, including, but not limited to, trees, rocks, outcroppings, and historic buildings, located within a state or locally designated scenic highway (Criterion 1 and 2). (*Less than Significant*)

The OSCAR Element includes objectives to enhance underutilized visual resources, including the waterfront, creeks, San Leandro Bay, and architecturally significant buildings or landmarks, and major thoroughfares (City of Oakland, 1996). The Project would construct an approximately 430,000 square foot, 56-foot-tall industrial building in place of the existing 1,240,000 square feet of building space that is currently onsite. As discussed in Section 4.7.2.1, *Environmental Setting*, existing long-range views across and surrounding the Project site from public viewpoints are mostly blocked by intervening development; therefore, there are no existing public scenic vistas on which the Project could have an adverse effect.

As discussed in Section 4.7.2.2, *Regulatory Setting*, there are no officially designated or eligible State scenic highways within or adjacent to the Project site. The nearest designated State Scenic Highway is I-580, which is approximately 1.84 miles from the Project site. Due to this distance and because of intervening development, vegetation, and topography, the Project would not substantially interfere with views of any possible scenic resources for motorists on I-580. Therefore, the Project would not adversely affect designated or eligible State Scenic Highways.

Overall, the Project would not have an adverse impact on scenic resources and scenic vistas and would not result in a significant impact. Additionally, as part of the development process, the Project would be required to undergo design review (Chapter 17.136 of the Oakland Planning Code). Design review is focused on ensuring quality design, and on avoiding potentially adverse aesthetic effects. Projects are evaluated based on site, landscaping, height, bulk, arrangement, texture, materials, colors, appurtenances, potential shadowing effects on adjacent properties, and other characteristics.

Mitigation: None required.

Impact AES-2: The Project would not substantially degrade the existing visual character or quality of the site and its surroundings (Criterion 3). (*Less than significant with SCAs*)

Changes in the visual character or quality of a site are typically perceived subjectively and reactions vary by individual. The City's General Plan provides guidance that reflects the diverse nature of the built environment in Oakland and the complex nature of urban design in the community. Policies such as T6.2 and OS-9.3, listed above, reflect Oakland's desire to improve the visual quality of streetscapes and major entrances to City neighborhoods.

The Project site is currently developed by approximately 1,240,000 square-feet of building space. Surrounding developments include large-box commercial buildings; single-family residences; surface parking lots to the east, north, south; and a road/railroad tracks to the west. The Project would be consistent with the commercial buildings located to the west of the site, across Fruitvale Avenue, and with the Home Depot building supply store located immediately adjacent to the eastern boundary of the site.

The Project would include an employee parking lot and a 20-foot-wide landscaping area, which would result in an overall 91-foot buffer between the proposed building and the northern Project site boundary. The land dedicated to the City for a potential future East 7th Street extension would provide an additional buffer between the proposed project building and the residential uses to the north. Additional landscaped and amenity areas are proposed along the Project site perimeter. Therefore, the Project would not introduce a new visual element that is inconsistent with the established visual patterns in the Project vicinity.

In addition, the Project would be required to comply with the City of Oakland SCA AES-1, Trash and Blight Removal; SCA AES-2, Graffiti Control; and SCA AES-3, Landscape Plan, related to landscaping, street frontages, landscape maintenance, public right-of-way improvements, and graffiti control, to enhance overall aesthetics. Therefore, the Project would be consistent with the Oakland General Plan policies OS-9.3, OS-11, OS-11.2, and T6.2, which reflect the City's desire to improve the visual quality of streetscapes, improve major entrances to City neighborhoods, and to create, maintain, and enhance civic open spaces. The Project would be subject to design review and would be required to conform with applicable design review criteria. For these reasons, the overall effect of Project related to visual character would not be adverse and the impact would be less than significant.

SCA AES-1: Trash and Blight Removal.

SCA AES-2: Graffiti Control.

SCA AES-3: Landscape Plan.

Mitigation: None required.

Impact AES-3: The Project would not create a new source of substantial light or glare which would substantially and adversely affect day or nighttime views in the area (Criterion 4). *(Less than significant with SCAs*)

The Project would utilize nighttime lighting for operational and security purposes and would result in similar levels of light and glare typical for industrial commercial warehouse developments of this scale. Implementation of SCA AES-4, Lighting, would require that new exterior lighting fixtures be adequately shielded to a point below the light bulb and reflector to prevent unnecessary glare onto adjacent properties and beyond. Additionally, the Project would be required to comply with the City of Oakland Outdoor Lighting Standards for the proposed streetscape improvements, which would reduce general glare, light trespass, and light pollution. Therefore, the Project would not create a substantial new source of light or glare which could substantially and adversely affect day or nighttime views in the area.

SCA AES-4: Lighting.

Mitigation: None required.

Impact AES-4: The Project would not cast shadow that substantially impairs a nearby use reliant on sunlight, including the following functions: a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors; the beneficial use of any public or quasi-public open space; a historic resource; or result in an exception to the policies in the General Plan, Planning Code, or Uniform Building Code, and the exception causes there to be a fundamental conflict with policies and regulations addressing the provision of adequate light related to appropriate uses (Criterion 5, 6, 7, 8, and 9). *(Less than significant*)

The Project would construct approximately 430,000 square feet of industrial and office space and Project operations could include an additional 10,000 square feet of retail uses. In addition, the Project would develop 295 automobile parking spaces to the north of the building and 228 truck trailer parking stalls south of the buildings for employees and users of the Project. The final height of the development would be approximately 56 feet. Surrounding developments include parking lots to the east, north, south, and a road/railroad tracks to the west. The nearest solar collectors are approximately 315 feet northwest of the Project site at 610 Lancaster Street.

Shadows are cast to the west by objects during the morning hours when the sun is coming up on the horizon in the east. During the late morning and early afternoon, the shadows of objects move

northerly and by late afternoon they are cast easterly in response to the movement of the sun across the sky from east to west. Based on the sun elevation angle on the winter solstice, shadows from a vertical mass are up to 56 feet could cast shadows on a horizontal surface 315 feet away. During the afternoon hours of the winter solstice, when shadows are longest and in the northeast direction, the Project would not cast a shadow on these solar collectors resulting in a substantial loss of power, income, or use from the collectors. Furthermore, any loss in energy resulting from the Project's shading of the solar collectors can be made up with additional power drawn from the local electricity provider, Pacific Gas & Electric (PG&E), with no impairment to the functionality of the building served by those facilities. Therefore, the Project shadow would not result in a substantial loss of power, income, or use from the collectors. No other solar collectors are within the Project shadow's path and therefore, the Project would not cast shadow that would substantially impair the function of existing solar collectors in use on surrounding buildings.

Although the area designated as Fruitvale Bridge Park is in close proximity to the Project site, the Project would develop areas closest to the park with truck trailer stalls and parking that would not cast substantial shadow on the park area due to the relative location and height of the proposed building. The area designated as Fruitvale Bridge Park is located more than 400 feet south of the southwestern corner of the proposed industrial building. Given the 56-foot height of the proposed industrial building, its distance to the area designated as Fruitvale Bridge Park, and its position north of the park, the Project would not generate new shadow on existing public or quasi-public park, lawn, garden, or open space. Therefore, the Project would not substantially impair any public open space.

The nearest historic-age resource is the 36th Avenue/East 8th Street Residential District ASI and an individual property at 703 37th Avenue (this appears to be an electrical substation that is not a contributor to the ASI) with an OCHS rating of C3. Other historic-age resources are not close enough to the Project site to be shaded by the Project building at any time of year. Although the Project building could cast shadow across Boehmer Street on winter afternoons, there are no designated historic resources where access to light is an important characteristic such that the new shadow would "materially impair" the resource's historic significance. In addition, as described in the Section 4.7.4, *Cultural Resources*, the adjacent properties do not meet the conditions established in Section 17.158.090 for consideration as historical resources for the purposes of CEQA. Therefore, the Project impact with respect to shading historic resources would be less than significant. As discussed in Section 4.7.8, *Land Use and Planning*, the Project would construct an industrial building that would be developed within the allowable FAR requirements of the General Plan land use and zoning designation. The Project would comply with all zoning and Planning Code requirements, and provide adequate light and ventilation as required per Code requirements. As discussed above, the Project would not result in a significant effect with regard to access to light for solar collectors, public open spaces, or historic resources. Therefore, the Project impact related to the provision of adequate light related to appropriate uses would be less than significant.

Mitigation: None required.

4.7.2.5 Cumulative Impacts

Impact AES-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative aesthetic impacts. *(Less than Significant with SCAs*)

The geographic scope for cumulative effects on aesthetics includes the areas surrounding the Project site. Cumulative development projects near or adjacent to the Project site could result in cumulative aesthetics impacts. However, implementation of applicable SCAs (i.e., SCAs AES-1, AES-2, and AES-3, discussed above) would reduce the Project's less-than-significant aesthetics impacts. Cumulative development would also be subject to these SCAs and no cumulative impact would result.

SCA AES-1: Trash and Blight Removal.

SCA AES-2: Graffiti Control.

SCA AES-3: Landscape Plan.

SCA AES-4: Lighting.

Mitigation: None required.

4.7.2.6 References

California Energy Commission (CEC). 2018. *Building Energy Efficiency Standards for Residential and Nonresidential Buildings for the 2019 Building Energy Efficiency Standards Title 24, Part 6, and Associated Administrative Regulations in Part 1*. December 2018. Accessed May 2022. https://www.energy.ca.gov/sites/default/files/2021-06/CEC-400-2018-020-CMF_0.pdf.

City of Oakland. 1974. *Scenic Highways, An Element of the Oakland Comprehensive Plan*. September 1974.

City of Oakland. 1996. *Open Space, Conservation, and Recreation Element (OSCAR) Element of the General Plan*. Adopted June 11, 1996.

City of Oakland. 1998. *Historic Preservation Element of the Oakland General Plan*. March 8, 1994; amended July 21, 1998.

City of Oakland. 2007. *Land Use and Transportation Element of the Oakland General Plan*. March 24, 1998; amended June 21, 2007.

4.7.3 Agriculture and Forestry Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
II. AGRICULTURE AND FORESTRY RESOURCES — The Project would have a significant impact on the environment if it would:				
1) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;	☐	☐	☐	☒
2) Conflict with existing zoning for agricultural use, or a Williamson Act contract;	☐	☐	☐	☒
3) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g));	☐	☐	☐	☒
4) Result in the loss of forest land or conversion of forest land to non-forest use; or	☐	☐	☐	☒
5) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use.	☐	☐	☐	☒

4.7.3.1 Environmental Setting

The Project site is within the Central Estuary Plan Area, which does not include any agricultural land use designations. The entirety of the Fruitvale District of Oakland, including the Project site, is located within an area designated as urban and built-up land by the California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (FMMP) (DOC, 2019). There are also no Williamson Act contracts on or adjacent to the Project site (DOC, 2015). The City of Oakland does not designate land uses for agriculture or forestry in its General Plan or Zoning Map (City of Oakland, 2015; 2018).

4.7.3.2 Topics Considered and No Impact Determined

Since the Project site is located on land designated as urban and built-up land, and is not subject to a Williamson Act contract, the Project would not convert FMMP- designated Farmland or cause a conflict with an existing Williamson Act contract.

The Project site currently has a General Plan land use designation of Estuary Policy Plan (EPP) Heavy Industry General Plan and is within Central Estuary Industrial Zone-6 (D-CE-6) zoning district. The Project site does not contain agricultural production or forest land and does not propose agricultural or forestry-related land uses as part of the Project. Thus, the Project would not conflict with existing zoning for agricultural use, forest land, or timberland, nor would it result in the loss or conversion of forest land.

4.7.3.3 Cumulative Impacts

Because the Project would have no impact related to the loss or conversion of agricultural or forestry resources, it would not cause or contribute to any cumulative impact to these resources.

4.7.3.4 References

California Department of Conservation (DOC). 2015. Division of Land Resource Protection, *Alameda County Williamson Act FY 2014/2015*. Accessed December 30, 2021. https://s3-us-west-1.amazonaws.com/waterfrontballparkdistrict.com/25_ReferencesintheDraftEIR-Section4-17NS/2015-00-00-DOC-AlamedaIndex.pdf.

DOC. 2019. *California Important Farmland Finder*. Alameda County Important Farmland 2016, database updated December 27, 2019. Accessed December 30, 2021. https://gis.data.ca.gov/datasets/8ab78d6c403b402786cc231941d1b929.

City of Oakland. 2015. *General Plan Designations*. May 19, 2015. Accessed December 30, 2021. https://cao-94612.s3.amazonaws.com/documents/General-Plan-Designations-20150519.pdf.

City of Oakland. 2018. *City of Oakland Zoning and Estuary Policy Plan Maps.* Bureau of Planning. December 11, 2018. Accessed December 30, 2021. https://cao-94612.s3.amazonaws.com/documents/Zoning_EPP_Map_20181211.pdf.

4.7.4 Cultural Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
V. CULTURAL RESOURCES — The Project would have a significant impact on the environment if it would:				
1) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5. Specifically, a substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be "materially impaired." The significance of an historical resource is "materially impaired" when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance **and** that justify its inclusion on, or eligibility for inclusion on an historical resource list (including the California Register of Historical Resources, the National Register of Historical Resources, Local Register, or historical resources survey form (DPR Form 523) with a rating of 1-5);	☐	☐	☒	☐
2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5;	☐	☐	☒	☐
3) Disturb any human remains, including those interred outside of dedicated cemeteries.	☐	☐	☒	☐

4.7.4.1 Tribal Cultural Resources

See Section 4.7.13, *Tribal Cultural Resources*, of this chapter for an analysis of potential Project impacts to tribal cultural resources.

4.7.4.2 Definitions and Data Sources

A historical resource is defined in CEQA Guidelines Section 15064.5(a) as one that is listed in, or determined to be eligible for listing in, the California Register of Historical Resources (California register). In addition, a resource that (i) is identified as significant in a local register of historical resources,[4] or (ii) is deemed significant due to its identification in a historical resources survey meeting the requirements of California Public Resources Code Section 5024.1(g) is presumed to be a historical resource "unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant." CEQA Section 21084.1 also permits a lead agency to determine that a resource constitutes a historical resource even if the resource does not meet the foregoing criteria.

[4] The City of Oakland classifies Areas of Primary Interest (API), contributors to APIs, and individual properties with Oakland Cultural Heritage Survey (OCHS) ratings of A or B as significant local register properties. See Section 4.7.4.2, *Definitions and Data Sources*, for more information about local register criteria.

For the purposes of this analysis, the term *historic architectural resource* is used to distinguish such resources from archaeological resources, which may also be considered historical resources under CEQA Guidelines section 15064.5.

The information and analysis in this section is based on a review of the Project; applicable local policies and regulations; the preliminary findings memo prepared by LSA in May 2021 (LSA, 2021); and the historic resource evaluation prepared by Page & Turnbull in December 2021 (Page & Turnbull, 2021). The preliminary findings memo, historic resource evaluation, and ESA's peer review of the historic resource evaluation prepared in January 2021 are included as Appendix L.

4.7.4.3 Environmental Setting

Prehistoric Background

Categorizing the prehistoric period into cultural stages allows researchers to describe a broad range of archaeological resources with similar cultural patterns and components during a given timeframe, thereby creating a regional chronology. Milliken et al. (2007) provide a framework for interpreting the San Francisco Bay Area and have divided human history of the region into four periods: the *Paleoindian Period*, the *Early Period*, the *Middle Period*, and the *Late Period*. Economic patterns, stylistic aspects, and regional phases further subdivide cultural patterns into shorter phases. This scheme uses economic and technological types, socio-politics, trade networks, population density, and variations of artifact types to differentiate between cultural periods.

The *Paleoindian Period* (11,500 to 8000 B.C.) was characterized by big-game hunters occupying broad geographic areas. Evidence of human habitation during the *Paleoindian Period* has not yet been discovered in the Bay Area.

During the *Early Period* (8000 to 3500 B.C.), also known as the *Lower Archaic*, geographic mobility continued from the *Paleoindian Period*. The period is characterized by the millingslab and handstone as well as large wide-stemmed and leaf-shaped projectile points. The first cut-shell beads and the mortar and pestle are documented in burials during the *Early Period* (3500 to 500 B.C.), indicating the beginning of a shift to sedentism.

During the *Middle Period*, which includes the *Lower Middle Period* (500 B.C. to A.D. 430), and *Upper Middle Period* (A.D. 430 to 1050), geographic mobility may have continued, although groups began to establish longer-term base camps in localities from which a more diverse range of resources could be exploited. The first rich midden sites are recorded from this period. The addition of milling tools, obsidian and chert concave-base projectile points, and the occurrence of sites in a wider range of environments suggest that the economic base was more diverse. By the *Upper Middle Period*, highly mobile hunter-gatherers were increasingly settling down into numerous small villages. Around A.D. 430 a dramatic cultural disruption occurred as evidenced by the sudden collapse of the *Olivella* saucer-bead trade network.

The *Initial Late Period* (A.D. 1050 to 1550) is characterized by social complexity developed toward lifeways of large, central villages with resident political leaders and specialized activity

sites. Artifacts associated with the period include the bow and arrow, small corner-notched projectile points, and a diversity of beads and ornaments.

Ethnohistorical Context

Based on a compilation of ethnographic, historic, and archaeological data, Milliken (1995:13–14) describes a group known as the Ohlone, who once occupied the general vicinity of the proposed Project. While traditional anthropological literature portrayed the Ohlone peoples as having a static culture, today it is better understood that many variations of culture and ideology existed within and between villages. While these static descriptions of separations between native cultures of California make it an easier task for ethnographers to describe past behaviors, this masks Native adaptability and self-identity. California's Native Americans never saw themselves as members of larger cultural groups, as described by some anthropologists. Instead, they saw themselves as members of specific villages, perhaps related to others by marriage or kinship ties, but viewing the village as the primary identifier of their origins.

Levy (1978:485–495) describes the language group spoken by the Ohlone, known as "Costanoan." This term is originally derived from a Spanish word designating the coastal peoples of Central California. Today Costanoan is used as a linguistic term that references to a larger language family spoken by distinct sociopolitical groups that spoke at least eight languages (as different as Spanish is from French) of the same Penutian language group. The Ohlone once occupied a large territory from San Francisco Bay in the north to the Big Sur and Salinas Rivers in the south. Archaeological investigations at nearby pre-contact sites indicate that while Native Americans mainly utilized the marshland for resource procurement, including the collection of fish, shellfish, plants, and sea mammals, habitation and burial sites were not uncommon along the historic bay margins.

Economically, Ohlone engaged in hunting and gathering. Their territory encompassed both coastal and open valley environments that contained a wide variety of resources, including grass seeds, acorns, bulbs and tubers, bear, deer, elk, antelope, a variety of bird species, and rabbit and other small mammals. The Ohlone acknowledged private ownership of goods and songs, and village ownership of rights to land and/or natural resources; they appear to have aggressively protected their village territories, requiring monetary payment for access rights in the form of clamshell beads, and even shooting trespassers if caught. After European contact, Ohlone society was severely disrupted by missionization, disease, and displacement. Today, the Ohlone still have a strong presence in the greater San Francisco Bay Area, and are highly interested in their historic and pre-contact past.

Historic Setting

The following section summarizes the general history of the area and the Project site in detail, as presented in Page and Turnbull's 2021 historic resource evaluation and LSA's 2021 preliminary findings memo (see Appendix L).

Early Industrial Development Along the Oakland Estuary

Until the 1870s, Oakland's waterfront extended from San Francisco Bay on the west to Brooklyn Basin on the east. Industrial development in the vicinity of the waterfront was initially spurred by

ready access to water transportation. In 1869, Oakland became the western terminus of the transcontinental railroad, and this, in turn, hastened more industrial, commercial, and residential development throughout the City, including along the Oakland Estuary. In 1902, the Alameda Tidal Canal opened, physically separating Oakland from the newly created island of Alameda and extending the Oakland Estuary from San Francisco Bay to San Leandro Bay. Soon after, thousands of people were displaced by the 1906 San Francisco Earthquake and Fire, and many permanently relocated to Oakland and reestablished their businesses in the East Bay. To accommodate its increasing population and need for land to support robust industrial development, the City annexed several neighborhoods in present-day East Oakland and the expanded waterfront area in 1909.

Over the course of the early 20th century, Oakland developed into one of the West Coast's leading industrial centers. The City was strategically located at the center of the greater San Francisco Bay Area and a short distance from the Golden Gate that provided access to shipping channels in the Pacific Ocean. The Southern Pacific, Western Pacific, and Santa Fe railroads established extensive rail networks across the City and encouraged industrial development in North Oakland and Emeryville as well as eastward along San Leandro Boulevard. Notable local industries in East Oakland included automobile assembly plants, several early electronics manufacturers, and food processing and distribution.

The Project site was first developed in 1902, when it became the location of the Pacific States Refineries. The oil refinery was destroyed by fire in 1913. Other industrial activities established in the early 20th century within a half-mile of the Project site included the Leona Chemical Company and the Electro-Alkaline Company (later the Clorox Chemical Company), both of which were located to the southeast near High Street and are no longer extant. The historic resource evaluation identified 16 extant industrial properties in the vicinity of the Project site that are either Areas of Primary Importance (API), Areas of Secondary Importance (ASI), or Potential Designated Historic Properties (PDHP). Of these, it appears that seven (one ASI and six PDHPs) are located within a half-mile of the Project site, and none are adjacent to the Project site.

Owens-Illinois Glass Company Plant 20

The Project site is occupied by the former Owens-Illinois Glass Company Plant 20, which manufactured container glass and cardboard packaging material. Construction of the plant began in 1936, and it replaced two factories in San Francisco that predated the 1932 merger of Owens-Illinois and the Illinois-Pacific Glass Company. The company's internal engineering department developed plans for the plant and engaged noted San Francisco engineers H.J. Brunnier and Kaj Theill to assist in the design of several buildings. The Plant 20 buildings were constructed of reinforced concrete with brick cladding, and the design also incorporated "Insulux" glass blocks, glass wool insulation, and glass dust filters manufactured by Owens-Illinois. The June 1938 issue of *The Architect and Engineer* featured the design of Plant 20 and highlighted the facility's modern design, inventive use of certain materials (e.g., glass blocks and glazed terra cotta Kraftile wall covering), and plentiful safety features and equipment.

Buildings remaining from the initial period of construction (i.e., 1936–38) include Building 1 (office), Building 6 (compressor building), Building 7 (batch plant), Buildings 8–10 (factories),

Buildings 11 and 29 (warehouses), Building 12 (factory/office/warehouse), Building 13 (rolled paper storage), and Building 19 (butane mixing plant) (Figure 5.4-1).

Several major expansions occurred later in the 20th century. In 1952, the 100,000-square-foot Building 41 (warehouse and loading dock) was constructed, obstructing the two original public entrances on 36th Avenue and Post Street and surrounding and obscuring the northern portion of Building 1. In 1985, the massive Building 43 and 44 (warehouses) were constructed, resulting in further enclosure of and alterations to Building 1 (Figure 5.3-1). A few buildings and structures are no longer extant, including Building 33 (central mold and machine shops; demolished in 1985) and two of the five original smokestacks (demolished in 1999).

Owens-Illinois purchased Brockway Inc. in 1988, and the company was renamed Owens-Brockway and added glass recycling to its historic operations at that time. Operations of Plant 20 ceased in 2015.

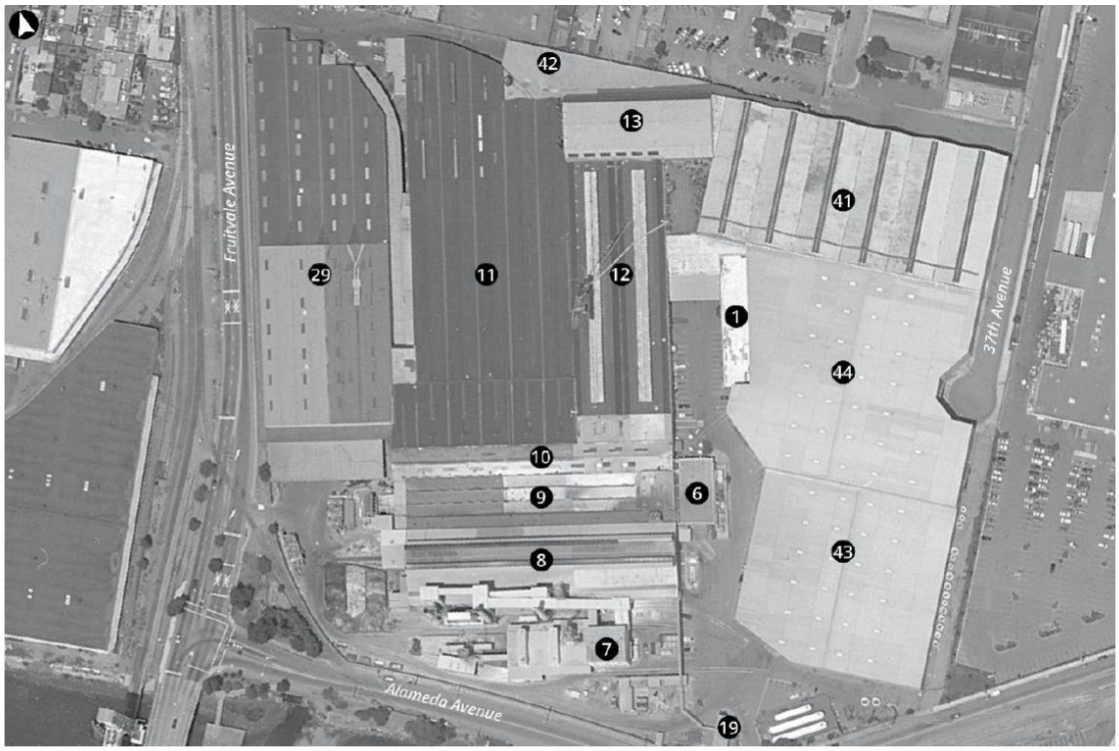


Figure 82. Aerial Photograph of Plant 20, taken 2000. Source: Hauts-Monts, Inc., Flight HM-2000-USA, Frame 1122-8. Collection of U.C. Santa Barbara Library, edited by Page & Turnbull.

Historical Status of Project Site

The former Owens-Illinois Glass Company Plant 20 operations ceased in 2015. The plant is currently composed of 15 buildings and structures and associated landscape elements that were constructed between 1936 and 1987.

The plant was first evaluated in 1994 as part of the Oakland Cultural Heritage Survey (OCHS) and assigned a preliminary rating of Cb+3 (i.e., a property of Secondary Importance that is not located in a historic district and could potentially be given a rating of Major Importance if

restored). Additionally, the property is listed in the Office of Historic Preservation (OHP) Built Environment Resources Directory (BERD) for Alameda County with a California Historical Resource Status Code (CHRSC) of 7N1 (i.e., a property that needs to be reevaluated and may become eligible for listing in the National Register "with restoration or other specific conditions").

The plant was reevaluated in 2021, at which time it was confirmed that the property is significant as a historic district with 11 contributing buildings and structures and a period of significance of 1936-38 (Page & Turnbull, 2021; Appendix L). However, the plant had experienced a loss of historic materials from regular upgrades, maintenance, and irreversible alterations during the plant's operation resulting in a lack of integrity. Alterations, new construction, and demolition were first observed in the 1994 OCHS evaluation and later thoroughly documented in the 2021 historic resource evaluation. It was therefore recommended that the preliminary OCHS rating should be revised to an unmodified C (i.e., a property of Secondary Importance) and the CHRSC should be revised to 6Z (i.e., ineligible for listing in the National Register, California Register, or local designation through survey evaluation). City of Oakland preservation planning staff concurred with the findings presented in the 2021 historic resource evaluation.[5] Therefore, the subject property is not considered a historical resource under CEQA.

Historic-Age Resources in the Vicinity of the Project Site

As noted above, the 2021 historic resource evaluation identified 16 industrial properties that "reflect industrial development in the vicinity of the Owens-Illinois Plant 20 in the early decades of the twentieth century" that are either ASIs or PDHPs. (There are no APIs within a half-mile of the Project site.) These properties represent a period of Oakland's history when it was known for its industrial output. Proximity to the railroads and the estuary resulted in many facilities being constructed in the flatlands south of East 14th Street / International Boulevard. While many of these industries and companies no longer operate in the City, their campuses remain scattered throughout East Oakland.

Although none are adjacent to the Project site, 7 of the 16 nearby industrial properties are located within a half-mile of the Project site, including:

- Vulcan Foundry, 4321 and 4401 San Leandro Street, ASI, constructed 1924–1930
- Bell Cleaning and Dyeing Co., 752 High Street, PDHP, constructed ca. 1920
- Clorox Chemical Corporation, 850 42nd Avenue, PDHP, constructed ca. 1924–1925
- Atlas Imperia Diesel Engine Co., 400 Derby Avenue, PDHP, constructed in the 1910s
- Gilro Machine & Stamping Co., 2915 Ford Street, PDHP, constructed in the 1910s
- Halstead Products Co., 2912 Ford Street, PDHP, constructed in the 1920s
- Rhodes & Jamieson Ltd., 333 23rd Avenue, PDHP, constructed in the 1920s

[5] Betty Marvin (City of Oakland), email to Elizabeth Kanner (ESA), January 26, 2022.

Based on a cursory internet search, none appear to have manufactured glass or cardboard like the Owens-Illinois Glass Company Plant 20. Furthermore, these properties do not appear to relate to one another as parts of a district.

Several non-industrial historic-age resources are adjacent to and outside of the Project site. These include the 36th Avenue/East 8th Street Residential District ASI and the individual property at 703 37th Avenue (this appears to be an electrical substation that is not a contributor to the ASI) with an OCHS rating of C3 (i.e., a property of Secondary Importance that is not located in a historic district). Neither ASIs nor C-rated properties are considered CEQA-eligible resources.

Archaeological Resources

A review of records from the Northwest Information Center of the California Historical Resources Information System indicates that there are no previously recorded prehistoric or historic-era archaeological sites in the Project site (NWIC, 2022). The nearest prehistoric resources are located over 0.5 mile to the southwest and 2 miles to the southeast. Historic-era archaeological resources, consisting of artifact-filled privy deposits associated with early historic-era residences, have been encountered approximately 1,500 feet southeast of the Project site; these types of resources are not anticipated in the Project site because of its continued use as a manufacturing facility since the early 1900s.

Historic maps show that Sausal (Diamond) Creek flowed along the west side of the Project site prior to the U.S. Army Corps of Engineers excavation of the present-day Tidal Canal and channelization of the creek (USGS, 1897, 1915; Sanborn, 1912). As noted above, the first construction on the Project site was the Pacific States Refinery, established in 1902. By 1912, the facility included an oil refinery with buildings and tanks serving asphalt production and a lubricating plant (Sanborn, 1912). Much of the plant was destroyed by a fire in December 1913, in which a "receiving tank containing 10,000 barrels of oil, two tanks of benzine containing 25,000 gallons each, and several smaller tanks of gasoline and oil products ignited simultaneously" (Examiner, 1913).

In 1936, construction began of the existing Oakland Owens-Brockway Plant 20, formerly the Owens-Illinois Pacific Coast Company, with operations starting in 1938. In addition to the 15 buildings and associated utilities, underground fuel storage tanks were installed in 1936 to provide fuel storage to operate furnaces and mobile equipment but were removed in 1986.

The Project site is in an area mapped as Holocene-age Younger alluvial fan deposits (Graymer, 2000; Kleinfelder, 2021). This geologic formation has the potential to contain buried soil surfaces that may also harbor buried prehistoric archaeological resources (Meyer and Rosenthal, 2007). Geotechnical data indicates the Project site is underlain by interbedded clays, clayey silts and sands, sands, and gravels, and that artificial fill has been placed for building pads or pavement support. The fill is underlain by sandy and silty clays to depths of 9 to 14 feet below ground surface. Groundwater has been encountered at the Project site from 8 to 15 feet bgs (Kleinfelder, 2021).

While the general geologic context suggests prehistoric buried site sensitivity, the extensive historic-era development of the Project site further indicates that the potential to encounter

prehistoric archaeological resources during Project implementation is relatively low. As noted above, the previous uses of the Project site indicate the historic-era archaeological sensitivity is also relatively low.

4.7.4.4 Regulatory Setting

Federal

National Register of Historic Places

Under the National Historic Preservation Act (NHPA) of 1966, as amended (54 U.S.C. 306108), and its implementing regulations, a property is considered significant if it meets the criteria for listing in the National Register of Historic Places (National Register) at 36 CFR 60.4, as stated below:

> The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and that:
>
> A. Are associated with events that have made a significant contribution to the broad patterns of our history, or
>
> B. Are associated with the lives of persons significant in our past, or
>
> C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction, or
>
> D. Have yielded, or may be likely to yield, information important in prehistory or history.

If a federal action is required for implementation of a project, Section 106 of the NHPA requires federal agencies to consider the effects of the undertaking on historic properties (i.e., properties listed in or eligible for listing in the National Register) and to afford the Advisory Council on Historic Preservation a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register. The Section 106 review normally involves a four-step procedure, which is described in detail in the implementing regulations (36 CFR Part 800) and includes identifying historic properties in consultation with the State Historic Preservation Office (SHPO) and interested parties, assessing effects, consulting with SHPO and others to develop and execute an agreement regarding the treatment of historic properties, and proceeding with the Project according to the agreement.

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA), as codified in PRC Sections 21000 et seq., is the principal statute governing the environmental review of projects in the state. CEQA requires lead agencies to determine if a proposed project would have a significant effect on historical resources, including archaeological resources. The CEQA Guidelines (Section 15064.5(a)) define a historical resource as: (1) a resource listed in, or determined to be eligible by the State

Historical Resources Commission, for listing in the California Register of Historical Resources (California Register), (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (3) any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be historically significant, provided the lead agency's determination is supported by substantial evidence in light of the whole record. In addition, Section 15064.5 (a)(4) states that "the fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or identified in an historical resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1."

CEQA requires lead agencies to determine if a proposed project would have a significant effect on important historical resources or unique archaeological resources. If a resource is neither a unique archaeological resource nor a historical resource, the CEQA Guidelines note that the effects of the project on that resource shall not be considered a significant effect on the environment (CEQA Guidelines section 15064.5[c][4]). Projects that comply with the Secretary's Standards benefit from a regulatory presumption under CEQA that they would have a less-than-significant impact on a historical resource. Projects that do not comply with the Secretary's Standards may or may not cause a substantial adverse change in the significance of a historical resource and must be subject to further analysis to assess whether they would result in material impairment of a historical resource's significance.

California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1[a]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for or listed in the National Register.

To be eligible for the California Register, a historical resource must be significant at the local, state, or federal level under one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Is associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history (PRC Section 5024.1[c]).

Integrity is the authenticity of a historical resource's physical identity as shown by the survival of characteristics that existed during the period of significance. For a resource to be eligible for the California Register, it must also retain enough integrity to be recognizable as a historical resource and to convey the reasons for its significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. A resource that does not retain sufficient integrity to meet the National Register criteria may still be eligible for listing in the California Register.

Native American Heritage Commission

The Native American Heritage Commission (NAHC) was created by statute in 1976, is a nine-member body appointed by the Governor to identify and catalog cultural resources (i.e., places of special religious or social significance to Native Americans and known graves and cemeteries of Native Americans on private lands) in California. The NAHC is responsible for preserving and ensuring accessibility of sacred sites and burials, the disposition of Native American human remains and burial items, maintaining an inventory of Native American sacred sites located on public lands, and reviewing current administrative and statutory protections related to these sacred sites.

California Public Resources Code Sections 5097.98 and 5097.99

PRC Section 5097.98 (reiterated in CEQA Guidelines Section 15064.5(e)) identifies steps to follow in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery. PRC Section 5097.99 prohibits obtaining or possessing any Native American artifacts or human remains that are taken from a Native American grave or cairn (stone burial mound).

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 protects human remains by prohibiting the disinterment, disturbance, or removal of human remains from any location other than a dedicated cemetery.

Local Plans, Ordinances, and Policies

City of Oakland – Local Plans, Policies, and Regulations

Environmental Review Regulations

Under Section 17.158.090 of the City of Oakland Planning Code (2005), for purposes of evaluating environmental impacts CEQA, a historical resource is a resource that meets any of the following criteria:

1. A resource listed in, or determined to be eligible for listing in, the California Register;
2. A resource included in Oakland's Local Register of historical resources (defined in General Plan Historic Preservation Element Policy 3.8 below), unless the preponderance of evidence demonstrates that it is not historically or culturally significant;

3. A resource identified as significant (e.g., rated 1–5) in a historical resource survey recorded on Department of Parks and Recreation (DPR) Form 523, unless the preponderance of evidence demonstrates that it is not historically or culturally significant;

4. Any object, building, structure, site, area, place, record, or manuscript which the Oakland City Council determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the determination is supported by substantial evidence in light of the whole record. Generally, a resource is considered "historically significant" if it meets the criteria for listing on the California Register CEQA Guidelines Section 15064.5; or

5. A resource that is determined by the City Council to be historically or culturally significant even though it does not meet the other four criteria listed here.

Regular Design Review Criteria

Design review is intended to ensure high quality attractive designs that will compliment and benefit the surrounding neighborhood and City as a whole. Design review is primarily focused on site planning and the exterior appearance of structures. This can include things such as architectural style; design quality; building materials; building mass and bulk; façade articulation; landscaping; preservation of sunlight, views, and privacy; screening of parking and loading areas; and other design related issues.

Section 17.136.075 of the City of Oakland Planning Code defines design review procedures for removal or demolition of certain categories of historic resources. As the Project site is occupied by a complex with an OCHS rating of "C" and is adjacent to a City of Oakland ASI, the regulations described below are specifically relevant.

D. Regular Design Review Approval for the demolition or removal of any structure rated "C" by the Oakland Cultural Heritage Survey or contributes to an Area of Secondary Importance (ASI) as determined by the Oakland Cultural Heritage Survey may be granted only if the proposal conforms to the general design review criteria, all other applicable design review criteria, and to either: 1., 2., or 3., below:

    1. The design quality of the proposed replacement project is at least equal to that of the original structure and the proposed replacement project is compatible with the character of the neighborhood; or

    2. The public benefits of the proposed replacement project outweigh the benefit of retaining the original structure and the proposed replacement project is compatible with the character of the neighborhood; or

    3. The existing design is undistinguished and does not warrant retention and the proposed design is compatible with the character of the neighborhood.

E. For proposals that have received Design Review approval pursuant to this Section, the issuance of a demolition permit for any structure or portion thereof may be postponed by the Director of City Planning for a period not to exceed one hundred twenty (120) days from the date of application for such permit. The Director may do so upon determination that the structure or portion thereof is listed as a Local Register Property, or is on a study list of facilities under serious study by the Landmarks Preservation Advisory Board, the City Planning Commission, or the Director, for possible landmark designation under

Section 17.136.070 or for other appropriate action to preserve it. During the period of postponement the Board, the Commission, or the Director shall explore means for preserving or restoring the structure or portion thereof. However, demolition may not be postponed under this Section if, after notice to the Director of City Planning, the Building Services Department, the Housing Conservation Division, their respective appeals boards, or the City Council determines that immediate demolition is necessary to protect the public health or safety. Any determination made by the Director of City Planning under this Section may be appealed pursuant to the administrative appeal procedure in Chapter 17.132.

General Plan Historic Preservation Element

In March 1994, the Oakland City Council adopted the Historic Preservation Element of the Oakland General Plan (amended July 21, 1998). The Historic Preservation Element sets out a graduated system of ratings and designations resulting from the OCHS and Oakland Zoning Regulations. The following goal and policies address historical resources under CEQA (City of Oakland, 1998):

Goal 2: To preserve, protect, enhance, perpetuate, use, and prevent the unnecessary destruction or impairment of properties or physical features of special character or special historic, cultural, educational, architectural, or aesthetic interest or value.

Such properties or physical features include buildings, building components, structures, objects, districts, sites, natural features related to human presence, and activities taking place on or within such properties or physical features.

***Policy 3.1: Avoid or minimize adverse historic preservation impacts related to discretionary city actions*.** The City will make all reasonable efforts to avoid or minimize adverse effects on the Character-Defining Elements of existing or Potential Designated Historic Properties which could result from private or public projects requiring discretionary City actions.

***Policy 3.5: Historic preservation and discretionary permit approvals*.** For additions or alteration to Heritage Properties[6] or Potential Designated Historic Properties requiring discretionary City permits, the City will make a finding that: (1) the design matches or is compatible with, but not necessarily identical to, the property's existing or historical design; or (2) the proposed design comprehensively modifies and is at least equal in quality to the existing design and is compatible with the character of the neighborhood; or (3) the existing design is undistinguished and does not warrant retention and the proposed design is compatible with the character of the neighborhood.

For any project involving complete demolition of Heritage Properties or Potential Designated Historic Properties requiring discretionary City permits, the City will make a finding that: (1) the design quality of the proposed project is at least equal to that of the original structure and is compatible with the character of the neighborhood; or (2) the public benefits of the proposed project outweigh the benefit of retaining the original

[6] Heritage Properties are defined in Appendix A of the City of Oakland Historic Preservation Element as "properties which under Policy 2.5 appear potentially eligible for Landmark or Preservation District designation because they either (1) have received an existing or contingency rating of 'A' (Highest Importance), 'B' (Major Importance), or 'C' (Secondary Importance) from the Intensive Survey; (2) have received an existing or contingency rating of 'A' or 'B' from the Reconnaissance Survey; or (3) contribute or potentially contribute to any area potentially eligible for Preservation District Designation."

structure; or (3) the existing design is undistinguished and does not warrant retention and the proposed design is compatible with the character of the neighborhood.

Policy 3.7: Property relocation rather than demolition as part of discretionary projects. As a condition of approval for all discretionary projects involving demolition of existing or Potential Designated Historic Properties, the City will normally require that reasonable efforts be made to relocate the properties to an acceptable site.

Policy 3.8: Definition of "Local Register of Historical Resources" and historic preservation "Significant Effects" for environmental review purposes. For purposes of environmental review under the California Environmental Quality Act, the following properties will constitute the City of Oakland's Local Register of Historic Resources:

1. All Designated Historic Properties [Landmarks, Heritage Properties, Study List Properties, Preservation Districts, and S-7 and S-20 Preservation Combining Zone Properties]; and

2. Those Potential Designated Historic Properties that have an existing rating of "A" or "B" or are located within an Area of Primary Importance (API).

Until complete implementation of Action 2.1.2 (Redesignation), the Local Register of Historical Resources will also include the following designated properties: Oakland Landmarks, S-7 Preservation Combining Zone properties, and Preservation Study List properties.

Complete demolition of a Historical Resource will normally be considered a significant effect that cannot be mitigated to a level less than significant and will, in most cases, require preparation of an Environmental Impact Report.

A proposed addition or alteration to a Historical Resource that has the potential to disqualify a property from Landmark or Preservation District eligibility or may have substantial adverse effects on the property's Character-Defining Elements will normally, unless adequately mitigated, be considered to have a significant effect. Possible mitigation measures are suggested in Action 3.8.1.

Policy 3.13: Security of vacant properties. Vacant or abandoned existing or Potential Designated Historic Properties shall be adequately secured in order to prevent unauthorized entry, theft, or property damage.

Policy 4.1: Archaeological resources. To protect significant archaeological resources, the City will take special measures for discretionary projects involving ground disturbances located in archaeologically sensitive areas.

The OCHS is an ongoing survey process conducted by the City of Oakland. It began in 1979 and uses a five-tier rating system for individual properties, ranging from "A" (highest importance) and "B" (major importance) to "E" (of no particular interest). This letter rating is termed the "Individual Property Rating" of a building and is based on the following criteria:

1. **Visual Quality/Design:** Evaluation of exterior design, interior design, materials and construction, style or type, supporting elements, feelings of association, and importance of designer.

2. **History/Association:** Association of person or organization, the importance of any event, association with patterns of history, and the age of the building.

3. **Context:** Continuity and familiarity of the building within the city, neighborhood, or district.
4. **Integrity and Reversibility:** Evaluation of the building's condition, its exterior and interior alterations, and any structural removals.

Central Estuary Area Plan

The Central Estuary Area Plan (CEAP) was adopted in 2013 to guide development of the area generally encompassed by 19th Avenue to the north, 54th Avenue to the south, I-880 to the east, and the Oakland Estuary to the west. Due to a wide variety of conditions, the plan area is divided into 10 sub-districts, and the Project site is located in the Owens Brockway Sub-district. The CEAP contains the following objectives and policies that address issues related to historic architectural resources (Community Design + Architecture, 2013).

Objective LU-5: Provide for the orderly transformation of land uses while acknowledging and respecting cultural and historical resources.

Objective LU-6: Create greater land use continuity between the estuary waterfront and adjacent inland districts.

Objective SA-6: Encourage the development of educational and cultural programs and interpretive facilities that enhance understanding of the waterfront environment.

Policy CE-5: Allow the existing industrial use of the Owens-Brockway site.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's Standard Conditions of Approval (SCAs) relevant to reducing impacts on cultural resources and that apply to the Project are listed below. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to cultural resources. Because the SCAs are incorporated as part of the Project, they are not listed as mitigation measures.

SCA CUL-1: Archaeological and Paleontological Resources – Discovery During Construction. (*Standard Condition of Approval 32*)

Requirement: Pursuant to CEQA Guidelines section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant shall notify the City and consult with a qualified archaeologist or paleontologist, as applicable, to assess the significance of the find. In the case of discovery of paleontological resources, the assessment shall be done in accordance with the Society of Vertebrate Paleontology standards. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of factors such as the nature of the find, project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Work may proceed on other parts of the project site while measures for the cultural resources are implemented.

In the event of data recovery of archaeological resources, the project applicant shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the proposed project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practicable. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant. The project applicant shall implement the ARDTP at his/her expense.

In the event of excavation of paleontological resources, the project applicant shall submit an excavation plan prepared by a qualified paleontologist to the City for review and approval. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and/or a report prepared by a qualified paleontologist, as appropriate, according to current professional standards and at the expense of the project applicant.

SCA CUL-2: Human Remains – Discovery During Construction. (*Standard Condition of Approval 34*)

Requirement: Pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the project site during construction activities, all work shall immediately halt and the project applicant shall notify the City and the Alameda County Coroner. If the County Coroner determines that an investigation of the cause of death is required or that the remains are Native American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance, and avoidance measures (if applicable) shall be completed expeditiously and at the expense of the project applicant.

Typically, Standard Condition of Approval (SCA) #35, Property Relocation, below, is applied when a PDHP is present on a property and proposed for demolition. However, due to the size of the existing buildings on the Project site and the contamination inherent in the building materials, it is not practical or feasible to relocate the buildings. Therefore, SCA 35 is not being imposed on this Project.

SCA 35: Property Relocation.

Requirement: Pursuant to Policy 3.7 of the Historic Preservation Element of the Oakland General Plan, the project applicant shall make a good faith effort to relocate

the historic resource to a site acceptable to the City. A good faith effort includes, at a minimum, all of the following:

a. Advertising the availability of the building by: (1) posting of large visible signs (such as banners, at a minimum of 3' x 6' size or larger) at the site; (2) placement of advertisements in Bay Area news media acceptable to the City; and (3) contacting neighborhood associations and for-profit and not-for-profit housing and preservation organizations;

b. Maintaining a log of all the good faith efforts and submitting that along with photos of the subject building showing the large signs (banners) to the City;

c. Maintaining the signs and advertising in place for a minimum of 90 days; and

d. Making the building available at no or nominal cost (the amount to be reviewed by the Oakland Cultural Heritage Survey) until removal is necessary for construction of a replacement project, but in no case for less than a period of 90 days after such advertisement.

4.7.4.5 Project Impacts and Discussion

Historic Architectural Resources

Impact CUL-1: The Project would not cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines section 15064.5. (Criterion 1) (*Less than Significant*)

Potential impacts on historical resources are assessed by identifying any activities (either during construction or operation) that could affect resources that have been identified as historical resources for the purposes of CEQA. Once a resource has been identified, it then must be determined whether the proposed Project would "cause a substantial adverse change in the significance" of the resource, as described above. As such, per CEQA Guidelines section 15064.5(b)(2), the following analysis considers the potential for the Project to materially impair the significance of a historical resource by causing direct or indirect changes to the physical characteristics of the resource that convey its historical significance.

The Project site was reevaluated in 2021 and former Owens-Illinois Plant 20 was found to possess significance as a historic district. However, the plant experienced a substantial loss of historic materials over the course of several decades, and currently lacks integrity as a resource. As such, City of Oakland preservation planning staff determined that the plant is ineligible for listing in the California Register. It was also recommended for classification as a C-rated building (i.e., a property of Secondary Importance) according to the OCHS criteria, and City of Oakland preservation planning staff concurred with this recommendation. For these reasons, the Project site does not qualify as a historical resource for the purposes of CEQA or a historic property according to Section 17.158.090 of the City of Oakland Planning Code. As presented above in Section 4.7.4.2, *Environmental Setting*, the adjacent properties do not meet the conditions established in Section 17.158.090 for consideration as historical resources for the purposes of CEQA and the Project site does not appear to be part of an industrial plant historic district. Therefore, the Project would not result in any impacts to historic architectural resources.

Mitigation: None required.

Archaeological Resources

Impact CUL-2: The Project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. (Criterion 2) (*Less than Significant with SCAs*)

This analysis addresses archaeological resources, both as historical resources according to CEQA Guidelines Section 15064.5, as well as unique archaeological resources, as defined in PRC Section 21083.2(g). A significant impact would occur if the Project were to cause a substantial adverse change to an archaeological resource through physical demolition, destruction, relocation, or alteration of the resource.

Based on the background research and previous disturbance in the Project site, there is a low potential to impact prehistoric and historic-era archaeological resources. While unlikely, the possibility of encountering cultural materials during Project ground-disturbing activities cannot be entirely discounted. Impacts to previously undiscovered archaeological resources would be potentially significant. SCA CUL-1, Archaeological and Paleontological Resources – Discovery During Construction, would reduce impacts by requiring all work to halt within 50 feet of an inadvertent discovery of any subsurface archaeological materials and a qualified archaeologist to assess the significance of the find according to regulatory guidance. Implementation of SCA CUL-1 would ensure that appropriate procedures are followed, and the impact would be reduced to a less-than-significant level.

SCA CUL-1: Archaeological and Paleontological Resources – Discovery During Construction.

Mitigation: None required.

Human Remains

Impact CUL-3: The Project would not disturb any human remains, including those interred outside of formal cemeteries. (Criterion 3) (*Less than Significant with SCAs*)

There is no indication from the background research that the Project site was used for human burial purposes and the potential to encounter human burials during Project implementation is low.

While unlikely, the possibility of encountering human remains during Project ground-disturbing activities cannot be entirely discounted. Impacts to human remains would be potentially significant. SCA CUL-2, Human Remains – Discovery During Construction, would reduce impacts by requiring all work to halt within 50 feet of an inadvertent discovery of any human remains and the Project Applicant to notify the City and the Alameda County Coroner, who would determine whether an investigation of the cause of death is required or if the remains are

Native American in origin. Implementation of SCA CUL-2 would ensure that appropriate regulatory procedures are followed, and the impact would be reduced to a less-than-significant level.

SCA CUL-2: Human Remains – Discovery During Construction.

Mitigation: None required.

4.7.4.6 Cumulative Impacts

Historic Architectural Resources

Impact CUL-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not contribute to cumulative adverse impacts on historical resources. (*Less than Significant*)

According to the May 2022 map of current projects (Appendix B), the only cumulative project within this area is a sound wall at 3927 Wattling Street. This minor project, which would construct a new 904-foot long, 16-foot tall sound wall separating a new residential development from the railroad, was approved in October 2019 and would not result in any impact to historic architectural resources. As discussed above, the Project would not result in any impacts to historical resources and therefore, would not contribute to any potential cumulative impact on historic resources within the City of Oakland. No mitigation is required.

Archaeological Resources and Human Remains

Impact CUL-2.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not contribute to cumulative adverse impacts on archaeological resources and human remains. (*Less than Significant with SCAs*)

The geographic scope for cumulative effects on archaeological resources includes the immediate vicinity of locations where the Project could cause disturbance to these resources. Similar to the Project, cumulative projects in the vicinity could have a significant impact on previously undiscovered archaeological resources, including human remains interred outside of formal cemeteries, during ground-disturbing activities. The potential impacts of the Project when considered together with similar impacts from other probable future projects in the vicinity could result in a significant cumulative impact on archaeological resources or human remains. However, implementation of SCA CUL-1 and SCA CUL-2 would require that work halt in the vicinity of a find until it is evaluated by a qualified archaeologist, and in the case of human remains the Alameda County Coroner. In addition, cumulative projects undergoing CEQA review would also include these SCAs. Therefore, with implementation of SCA CUL-1 and SCA CUL-2, the Project's contribution to cumulative impacts would not be considerable, and the impact would be less than significant.

SCA CUL-1: Archaeological and Paleontological Resources – Discovery During Construction.

SCA CUL-2: Human Remains – Discovery During Construction.

Mitigation: None required.

4.7.4.7 References

City of Oakland. 1998. *Historic Preservation Element of the Oakland General Plan*. March 8, 1994, amended July 21, 1998.

City of Oakland. 2020. *City of Oakland CEQA Thresholds of Significance Guidelines*. March 3, 2022.

Community Design + Architecture. 2013. *Central Estuary Area Plan.* Prepared for the City of Oakland Department of Planning and Building. April 5, 2013. Accessed March 3, 2022. https://cao-94612.s3.amazonaws.com/documents/oak040389.pdf.

Environmental Science Associates (ESA), 2021. *Revised Draft: Peer Review of Historic Resource Evaluation for Owens-Illinois Plant 20, 3600 Alameda Avenue.* Prepared for the City of Oakland. January 26, 2022. (Appendix L)

Graymer, R.W. 2000. *Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California.* U.S. Geological Survey Miscellaneous Field Studies Map MF-2342. Scale 1:50,000. Accessed January 20, 2022. https://pubs.usgs.gov/mf/2000/2342/.

Kleinfelder. 2021. *Geotechnical Investigation Report, Industrial Warehouse Site; 3600 Alameda Avenue, Oakland, California.* Project No. 20214267.001A. May 26, 2021. Accessed January 20, 2022.

Levy, Richard S. Costanoan. In *California*, edited by R.F. Heizer, Volume 8. Handbook of North American Indians, W.G. Sturtevant, general editor. Smithsonian Institution, Washington D.C. 1978, pp. 485–497.

LSA Associates, Inc. (LSA). 2017. *GE Demolition – International Boulevard Draft Environmental Impact Report*. Prepared for the City of Oakland Department of Planning and Building, Bureau of Planning, February 2017. Accessed March 3, 2022. https://oaklandca.s3.us-west-1.amazonaws.com/government/o/PBN/OurServices/Application/oak062800.pdf.

LSA. 2021. *Preliminary Findings of the former Owens-Brockway (Owns-Illinois) Glass Facility at 3600 Alameda Avenue, Oakland, California.* Prepared for Kimley-Horn and Associates, Inc. May 20, 2021. (Appendix L)

Meyer, Jack, and Jeffrey Rosenthal. *Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4*. Prepared for Caltrans District 4, 2007.

Milliken, Randall. *A Time of Little Choice*. Ballena Press Anthropological Papers No. 43. 1995.

Milliken, Randall, Richard T. Fitzgerald, Mark G. Hylkema, Randy Groza, Tom Origer, David G. Bieling, Alan Leventhal, Randy S. Wiberg, Andrew Gottfield, Donna Gillette, Vaviana Bellifemine, Eric Strother, Robert Cartier, and David A. Fredrickson. 2007. Punctuated Culture Change in the San Francisco Bay Area. In *Prehistoric California: Colonization, Culture, and Complexity.* Edited by T.L. Jones and K.A. Klar. AltaMira Press, pp. 99–124.

Northwest Information Center (NWIC) of the California Historical Resources Information System. 2022. Database Search File No. 21-1575. Results on file at ESA. April 12, 2022.

Oakland Cultural Heritage Survey (OCHS). 1995. *California Department of Parks and Recreation (DPR) 523 Primary Record for the Owens Illinois Pacific Coast Glass Factory, 3600 Alameda Avenue, Oakland, California*. September 30, 1995.

Page & Turnbull. 2021. *Historic Resource Evaluation for Owens-Illinois Plant 20, 3600 Alameda Avenue.* Prepared for Duke Realty. December 17, 2021. (Appendix L)

San Francisco Examiner. "Motor Engine Spark Starts $250,000 Fire." December 18, 1913, p. 6.

U.S. Department of the Interior, National Park Service (National Park Service). 2017. The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstruction Historic Buildings. Kay D. Weeks and Anne E. Grimmer. 1995, revised 2017. Accessed March 3, 2022. http://www.nps.gov/tps/standards/treatment-guidelines-2017.pdf.

U.S. Geological Survey (USGS). 1897. Concord, 1:62,500 Topographic Quadrangle Map, 1897.

USGS. 1915. Concord, 1:62,500 Topographic Quadrangle Map, 1915.

4.7.5 Energy

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VI. ENERGY — Would the Project:				
1) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;	☐	☐	☒	☐
2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency;	☐	☐	☒	☐
3) Violate applicable federal, state and local statutes and regulations relating to energy standards; or	☐	☐	☒	☐
4) Result in a determination by the energy provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.	☐	☐	☒	☐

4.7.5.1 Environmental Setting

The Project site is located within Pacific Gas and Electric's (PG&E) service area for electricity. PG&E delivered approximately 78.5 billion kilowatt-hours (kWh) throughout its service area in 2020. In Alameda County, approximately 10.2 billion kWh of electricity was consumed in 2020, with approximately 6.9 billion kWh consumed by non-residential uses (California Energy Commission [CEC], 2021). The California Energy Commission estimates that 442 million gallons of gasoline and approximately 104 million gallons of diesel were sold to customers in Alameda County in 2020 (CEC, 2020).

The East Bay Community Energy (EBCE) is a community-governed, local power supplier that provides low-carbon electricity to Oakland residents and businesses under Alameda County's community choice energy (CCE) program at rates that are lower or comparable to PG&E's rates. Under a CCE program, the utility company (in this case PG&E) continues to operate and service the transmission and delivery system and provides billing and customer service. EBCE's standard electricity product that has a higher renewable energy content than PG&E at rates marginally lower than PG&E's base offering. It also provides a 100 percent renewable product at a rate equivalent to PG&E's base offering.

4.7.5.2 Regulatory Setting

Renewables Portfolio Standard

Senate Bill 100, as part of California's Renewables Portfolio Standard (RPS) program, sets a target for retail sellers of electricity, including investor-owned utilities and community choice aggregators to provide 60 percent of their electricity from renewable resources by December 31, 2030, and further amends the RPS statute to set a policy of meeting 100 percent of retail sales

from eligible renewables and zero-carbon resources by December 31, 2045. The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program.

California Building and Energy Efficiency Standards (Title 24)

The California Energy Commission first adopted Energy Efficiency Standards for Residential and Nonresidential Buildings (California Code of Regulations Title 24, Part 6) in 1978 in response to a legislative mandate to reduce energy consumption in the state. Although not originally intended to reduce emissions of criteria pollutants or TACs, increased energy efficiency and reduced consumption of natural gas and other fuels would result in fewer criteria pollutant and TAC emissions from residential and non-residential buildings subject to the standard. The standards are updated periodically (typically every three years) to allow for the consideration and inclusion of new energy efficiency technologies and methods (California Energy Commission, 2018).

The Title 24, Part 6, standards became effective on January 1, 2017. The most recent update to the Title 24 energy efficiency standards (2019 standards) went into effect on January 1, 2020.[7] The Project would adhere to the applicable version of Title 24 as conditions of approval for site development and planned development permits, grading permits, and demolition permits.

California Green Standards Building Code

Part 11 of the Title 24 Building Energy Efficiency Standards is referred to as the California Green Building Standards (CALGreen) Code. The CALGreen Code is intended to encourage more sustainable and environmentally friendly building practices, require low-pollution emitting substances that cause less harm to the environment, conserve natural resources, and promote the use of energy-efficient materials and equipment.

Since 2011, the CALGreen Code has been mandatory for all new residential and non-residential buildings constructed in the state. Such mandatory measures include energy efficiency, water conservation, material conservation, planning and design, and overall environmental quality. The CALGreen Code was most recently updated in 2019 to include new mandatory measures for residential and non-residential uses; the new measures took effect on January 1, 2020.

Construction Equipment Idling

The California Air Resources Board has also adopted a regulation for in-use off-road diesel vehicles that is designed to reduce emissions from diesel-powered construction vehicles by imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The regulation requires an operator of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to no more than 5 minutes.

[7] This Draft EIR describes the most recent update to Title 24 at the time the NOP for this Draft EIR was published in April 2022. Project construction would be required to adhere to any more recent updates to Title 24.

City of Oakland General Plan

The Open Space, Conservation and Recreation (OSCAR) Element of the Oakland General Plan describes the following policies regarding energy resources, adopted for the purpose of avoiding or mitigating an environmental effect, and that apply to the Project (City of Oakland, 1996).

> **Objective CO-13: Energy Resources.** To manage Oakland's energy resources as efficiently as possible, reduce consumption of non-renewable resources, and develop energy resources which reduce dependency on fossil fuels.
>
> > ***Policy CO-13.3: Construction Methods and Materials.*** Encourage the use of energy-efficient construction and building materials. Encourage site plans for new development which maximize energy efficiency.
> >
> > ***Policy CO-13.4: Alternative Energy Sources.*** Accommodate the development and use of alternative energy resources, including solar energy and technologies which convert waste or industrial byproducts to energy, provided that such activities are compatible with surrounding land uses and regional air and water quality requirements.

City of Oakland GHG Reduction Targets and Climate Action Plan

In October 2018, the Oakland City Council passed Resolution 87183 adopting an interim citywide GHG emissions reduction target of 56 percent below 2005 levels by the year 2030 to keep the City on track to meet its 2050 target.

In July 2020, via Resolution 88267, Oakland City Council adopted the 2030 Equitable Climate Action Plan (ECAP), a comprehensive plan to achieve the 2030 GHG reduction target and increase Oakland's resilience to the impacts of the climate crisis, both through a deep equity lens (City of Oakland, 2020a). Alongside the 2030 ECAP, Council also adopted a goal to achieve community-wide carbon neutrality no later than 2045 (City of Oakland, 2020b). Achieving carbon neutrality will require complete decarbonization (ensuring that all mechanical systems run on clean electricity) of Oakland's building sector.

City of Oakland Municipal Code for Plug-in Electric Vehicle Charging Stations

As of March 2017, Chapter 15.04, Article II, Part 11 of the City's Municipal Code requires all new multifamily and non-residential buildings to include full circuit infrastructure for plug-in electric vehicle (PEV) charging stations for at least 10 percent of the total parking spaces. In addition, inaccessible conduits for future expansion of PEV spaces must be installed for 10 percent of the total parking at non-residential buildings. The new requirements are designed to accelerate the installation of vehicle chargers to address demand.

City of Oakland Ordinance Requiring All-Electric Construction In Newly Constructed Buildings

On December 1, 2020, the City of Oakland adopted Ordinance 13632 prohibiting newly constructed buildings (both residential and commercial) from connecting to natural gas or propane, thus eliminating it for any use in new buildings without justifying a waiver. Newly constructed buildings must use a permanent supply of electricity as the source of energy for all appliances. The prohibition does not affect existing buildings, renovations or additions made to a

structure, including attached accessory dwelling units. The ban includes a waiver for developers who can demonstrate that it is not feasible for a new building to go 100 percent electric.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to various resource areas. Although there are no SCAs that are directly related to energy-use, there are various air quality-, utility and service system-, and transportation and traffic-related SCAs that would indirectly mitigate energy impacts. These include air quality, greenhouse gas, and transportation related SCAs. Because conditions of approval are incorporated as part of the Project, they are not listed as mitigation measures.

4.7.5.3 Project Impacts and Discussion

Impact ENE-1: Construction and operation of the Project would not result in potentially significant environmental impact due to the wasteful, inefficient, and/ or unnecessary use of energy, and adequate capacity would be available to serve the Project's demand. (Criteria 1 and 4) (*Less than Significant with SCAs*)

The analysis in this section utilizes the assumptions identified in Appendix C, *Air Quality and Health Risk Assessment Information*. Because the California Emissions Estimator Model (CalEEMod) program used in this technical report does not provide the amount and fuel type for construction-related sources, additional calculations were conducted to estimate fuel use and are summarized below with details provided in Appendix M, *Project Energy Calculations*.

Construction

During construction the Project would result in the consumption of fuel in construction equipment, haul-truck trips, building material delivery vendor trips, and worker trips to and from the Project site. The Project's estimated fuel consumption during construction is summarized in **Table 4.7.5-1**. Project construction is expected to consume a total of approximately 77,560 gallons of diesel fuel from construction equipment, haul-truck trips, and vendor-truck trips, and approximately 23,181 gallons of gasoline from construction worker vehicle trips. Project fuel use during construction would represent less than 0.01 percent of both gasoline and diesel sales in Alameda County in 2020 (CEC, 2020).

TABLE 4.7.5-1
PROJECT ENERGY CONSUMPTION DURING CONSTRUCTION

Type (use)	Quantity	Units
Diesel (construction equipment and trucks)	77,560	gallons
Gasoline (worker vehicles)	23,181	gallons

NOTES: kWh = kilowatt-hours

SOURCE: Data compiled by Environmental Science Associates in 2021 (Appendix M).

SCA AIR-2, Criteria Air Pollutant Controls - Construction Related, requires limiting idling from diesel-fueled off-road vehicles over 25 horsepower and construction vehicles to two minutes, which would reduce the wasteful, inefficient, or unnecessary consumption of fuel during Project construction. Additionally, SCA AIR-2 requires portable equipment to be powered by grid electricity if available, and diesel engines are only allowed if grid electricity is not available and propane or natural gas generators cannot meet the electrical demand.

Construction activities and corresponding fuel energy consumption would be temporary and localized. In addition, there are no unusual Project characteristics that would cause the use of construction equipment that would be less energy efficient compared with other similar construction sites in other parts of the City. Therefore, construction-related fuel consumption by the Project would not result in inefficient, wasteful, or unnecessary energy and the impact would be less-than-significant.

Operation

Consistent with the City's adopted ordinance prohibiting newly constructed buildings (both residential and commercial) from connecting to natural gas or propane (Ordinance 13632), the Project would use no natural gas for operation. Therefore, the Project would have no impact on natural gas supplies.

The following analysis conservatively excludes the energy savings from rooftop solar collectors proposed to be installed on 25 percent of the roof area. The Project's annual energy and fuel consumption that would occur during operation is summarized in **Table 4.7.5-2**. The Project would receive service power from PG&E and would have an emergency diesel generator available on-site. CalEEMod estimates were used to determine the electricity demand from the Project. The electricity demand from the Project was estimated to be 2,680 MWhr per year, which includes Project building-related energy use. Electricity associated with the Project's water consumption was estimated to be 360 MWh per year[8], for a total electricity demand of approximately 3,404 MWhr per year when combined with estimated building electricity demand. For reference, the Project's annual electricity demand represents less than 0.03 percent of the total electricity consumed in the PG&E service area in 2021, and 0.04 percent of non-residential electricity consumed in Alameda County in 2021 (CEC, 2021).

Additionally, the Project would seek LEED Silver level certification consistent with the City's Green Building Requirements, and would comply with the CALGreen Code, and Title 24 building energy and water efficiency requirements. SCA UTIL-3, Green Building Requirements, would ensure implementation of all mandatory City green building requirements and CALGreen measures. Project compliance with these regulations would ensure that the Project's building-related energy use would not be inefficient, wasteful, or unnecessary.

[8] Based on the CalEEMod energy intensity of 0.0035 kWh per gallon for supply, distribution, and treatment of water for Alameda County.

TABLE 4.7.5-2
PROJECT ANNUAL ENERGY CONSUMPTION DURING OPERATION

Type (use)	Quantity	Units
Electricity		
Building	2,683,943	kWh/year
Water-related	359,251	kWh/year
Total	**2,550,122**	kWh/year
Gasoline		
Vehicle trips	210,787	gallons/year
Diesel		
Emergency Generator	653	gallons/year
Vehicle Trips	145,105	gallons/year
Total	**145,758**	**gallons/year**

NOTES: kWh = kilowatt-hours
SOURCE: Data compiled by Environmental Science Associates in 2021 (Appendix C and Appendix M).

Project operation would also involve energy demand from gasoline fuel used by employees traveling to and from the Project site. Using the total CalEEMod mobile emissions rates (see Appendix C) during operations yields a conservative estimate of 221,958 gallons of gasoline required annually during Project operation. The gasoline consumption by Project employees during operation would represent less than 0.01 percent of Alameda County's gasoline sales in 2020 (CEC, 2020). Further, the Project would be required to implement SCAs TRANS-2, Bicycle Parking; TRANS-3, Transportation and Parking Demand Management, and TRANS-4, Plug-In Electric Vehicle (PEV) Charging Infrastructure which would reduce the amount of gasoline consumed during Project operation by facilitating and encouraging alternative travel modes. The nature of the Project as a distribution warehouse would generate truck trips that would run on diesel fuel, in addition to the passenger vehicle trips discussed above. Diesel-fueled vehicles associated with Project operation would consume approximately 135,500 gallons of diesel fuel per year, which represents less than 0.01 percent of diesel fuel sales in Alameda County in 2020 (CEC,2020). The diesel fuel used for emergency generator maintenance and testing would also be minimal and represent less than 0.01percent of diesel fuel sold in the County in 2020 (CEC, 2020). Therefore, the energy demand from the operation of the Project would not result in wasteful, inefficient and unnecessary use of energy. This impact would be less than significant.

The Project site is currently supplied electricity by PG&E and EBCE. PG&E and EBCE have established contracts and commitments to ensure there is adequate electricity generation capacity to meet its current and future energy loads. The Project would consume electricity typical of other industrial and/or commercial development in the Project vicinity and is already supplied by PG&E and EBCE. Therefore, the Project would not result in a determination by PG&E or EBCE that it does not have adequate capacity to serve the Project's projected demand in addition to the providers' existing commitments and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.

SCA AIR-2: Criteria Air Pollutant Controls - Construction Related. See Section 4.1.3.

SCA GHG-1: SCA GHG-1: Greenhouse Gas (GHG) Reduction Plan. See Section 4.3.2.

SCA TRANS-2: Bicycle Parking. See Section 4.6.2.

SCA TRANS-3: Transportation and Parking Demand Management. See Section 4.6.2.

SCA TRANS-4: Plug-In Electric Vehicle (PEV) Charging Infrastructure. See Section 4.6.2.

SCA UTIL-3: Green Building Requirements. See Section 4.7.14.

Mitigation: None required.

Impact ENE-2: The Project would not conflict with or obstruct adopted energy conservation plans or violate energy efficiency standards. (Criteria 2 and 3) (*Less than Significant with SCAs*)

As discussed under Impact ENE-1 above, the Project would seek LEED Silver level certification consistent with the City's green building requirements, and would comply with the CALGreen Code, and Title 24 building energy and water efficiency requirements. Implementation of SCA UTIL-3, Green Building Requirements, would ensure all applicable City green building requirements are met. Consistent with the City's adopted ordinance prohibiting newly constructed buildings (both residential and commercial) from connecting to natural gas, the Project would not include natural gas infrastructure (see Appendix F). This would result in an increase in electricity consumption. Electricity providers PG&E and EBCE are required to comply with the RPS standards which would allow the Project to receive energy from more renewable sources. Therefore, the Project would not conflict with or obstruct adopted energy conservation plans or violate energy efficiency standards and the impact would be less than significant.

SCA GHG-1: SCA GHG-1: Greenhouse Gas (GHG) Reduction Plan. See Section 4.3.2.

SCA UTIL-3: Green Building Requirements. See Section 4.7.14.

Mitigation: None required.

4.7.5.4 Cumulative Impacts

Impact ENE-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative energy impacts. (*Less than Significant with SCAs*)

The geographic context for potential cumulative impacts related to electricity is within PG&E's service area. For potential cumulative impacts related to vehicle and construction equipment fuel use, the geographic context is within Alameda County, the area within which fuel would be demanded by and supplied to the Project. As described under Impact ENE-1, the Project's electricity use would represent a small fraction of the total electricity usage in the PG&E service area, as well as non-residential uses in Alameda County. The Project's use of fuel resources during construction and operation would represent marginal increases in fuel consumption when compared to County gasoline and diesel sales. Implementation of SCAs AIR-2, GHG-1, TRANS-2, TRANS-3, TRANS-4, and UTIL-4 would ensure that the Project would not result in wasteful, inefficient, and unnecessary use of energy resources and would not contribute to a cumulatively considerable impact.

Additionally, as described under Impact ENE-2, the Project would not conflict with or obstruct adopted energy conservation plans or violate energy efficiency standards, nor would it cause a significant environmental effect due to compliance with fuel and energy efficiency regulations, and a LEED Silver building design per the requirements of SCA UTIL-3. Cumulative development would also be subject to green building and other energy efficiency regulations. Therefore, the Project's less than significant energy impacts would not be cumulatively considerable.

SCA AIR-2: Criteria Air Pollutant Controls – Construction Related. See Section 4.1.3.

SCA GHG-1: SCA GHG-1: Greenhouse Gas (GHG) Reduction Plan. See Section 4.3.2.

SCA TRANS-2: Bicycle Parking. See Section 4.6.2.

SCA TRANS-3: Transportation and Parking Demand Management. See Section 4.6.2.

SCA TRANS-4: Plug-In Electric Vehicle (PEV) Charging Infrastructure. See Section 4.6.2.

SCA UTIL-3: Green Building Requirements. See Section 4.7.14.

Mitigation: None required.

4.7.5.5 References

California Energy Commission (CEC). 2020. *2020 California Annual Retail Fuel Outlet Report Results (CEC-A15)*. August 31, 2020. Accessed January 31, 2022. https://www.energy.ca.gov/data-reports/energy-almanac/transportation-energy/california-retail-fuel-outlet-annual-reporting.

CEC. 2021. Electricity Consumption by County. Accessed March 13, 2023. http://www.ecdms.energy.ca.gov/elecbycounty.aspx.

City of Oakland. 1996. *Open Space, Conservation, and Recreation Element (OSCAR) Element of the General Plan*. Adopted June 11, 1996. Accessed January 31, 2022. https://cao-94612.s3.amazonaws.com/documents/oak035254.pdf.

4.7.6 Geology, Soils, and Paleontological Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
VII. GEOLOGY AND SOILS — The Project would have a significant impact on the environment if it would expose people or structures to geologic hazards, soils, and/or seismic conditions so unfavorable that they could not be overcome by special design using reasonable construction and maintenance practices. Specifically:				
1) Expose people or structures to substantial risk of loss, injury, or death involving:				
a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;[9]	☐	☐	☐	☒
b) Strong seismic ground shaking;	☐	☐	☒	☐
c) Seismic-related ground failure, including liquefaction, lateral spreading, subsidence, collapse; or	☐	☐	☒	☐
d) Landslides;	☐	☐	☐	☒
2) Result in substantial soil erosion or the loss of topsoil, creating substantial risks to life, property, or creeks/waterways;	☐	☐	☒	☐
3) Be located on expansive soil, as defined in section 1802.3.2 of the California Building Code (2007, as it may be revised), creating substantial risks to life or property;	☐	☐	☒	☐
4) Be located above a well, pit, swamp, mound, tank vault, or unmarked sewer line, creating substantial risks to life or property;	☐	☐	☒	☐
5) Be located above landfills for which there is no approved closure and post-closure plan, or unknown fill soils, creating substantial risks to life or property; or	☐	☐	☐	☒
6) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or	☐	☐	☐	☒
7) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	☐	☐	☒	☐

4.7.6.1 Environmental Setting

Kleinfelder prepared a Geotechnical Investigation Report for the Project in 2021. The purpose of their investigation was to evaluate the site's subsurface conditions at selected locations to obtain data and develop conclusions and geotechnical recommendations to be utilized during the design and construction of the Project. In addition to geotechnical recommendations for the Project, this report includes environmental setting details on regional and site geology as well as faulting and

[9] **NOTE**: Refer to California Geological Survey 42 and 117 and Public Resources Code section 2690 et. seq.

seismicity and its effects on liquefaction, lateral spreading, and dynamic compaction. This setting is described in further detail below.

The Project site lies within the geologically complex region of California referred to as the Coast Range Geomorphic Province. This area geologically consists of a series of northwest trending mountains and valleys. The Project site is located on the East Bay flatlands. The complex geology of this regional area includes a history of sedimentation, volcanism, folding, faulting uplift, and erosion which has resulted in fractured and discontinuous sedimentary deposits.

The Quaternary Geologic map of the area indicates that the entire site is located in a small fan of Holocene-age Younger alluvial fan deposits stemming from the open portion of Sausal Creek, located about 2/3 mile north of the site (Graymer, 2000; Kleinfelder, 2021). The USACE created the present-day Tidal Canal, which connects the Oakland Estuary to San Leandro Bay along the former San Antonia Creek.

Geologic and Seismic Hazards

Seismicity

The San Francisco Bay Area is a seismically active region in California. While there are several active faults in the Bay Area, there are none that cross the Project site, and the Project site is not within an Earthquake Fault Zone (EFZ), as delineated by the California Geological Survey (CGS, 2003) in accordance with the Alquist-Priolo Earthquake Fault Zone Act of 1972. The risk of surface fault rupture at the Project site is considered low to negligible due to the lack of any faults crossing the Project site (Kleinfelder, 2021).

While there is little risk of fault rupture at the site, moderate to major seismic ground shaking is a potential risk due to the proximity of active faults. Of the various active faults in the region, the nearest zoned active fault is the Hayward-Rodgers Creek fault located approximately 2.75 miles northeast of the site. The Hayward-Rodgers Creek fault is characterized by three segments and six rupture scenarios, the most severe of which is characterized to be a magnitude 7.6 (USGS, 2010). Although not considered to be active by the USGS, the Chabot, Miller Creek, and Moraga faults are also near the Project site at approximately 3.73, 5.75, and 6.5 miles northeast of the site respectively. Future seismic events in this region can be expected to produce strong seismic ground shaking at the Project site and the intensity of future shaking will depend on the distance from the site to the earthquake focus, magnitude of the earthquake, and the response of the underlying soil and bedrock (Kleinfelder, 2021).

Liquefaction

Liquefaction is the rapid loss of shear strength experienced in saturated, predominantly loose granular soils below the groundwater level during strong earthquake ground shaking. Earthquake-induced liquefaction is defined as a significant loss of soil strength and stiffness caused by an increase in pore water pressure resulting from continuous application of a load during shaking. Liquefaction is most prevalent in loose to medium dense, sandy, and gravelly soils below the groundwater level. However, this process can also occur in non-plastic to low-plasticity, finer

grained soils. The occurrence of this phenomenon is dependent on many complex factors, including the intensity and duration of ground shaking, particle size distribution, and density of the soil.

The potential damaging effects of liquefaction to engineered structures include the loss of bearing capacity, buoyancy forces on underground structures, ground oscillations or "cyclic mobility", increased lateral earth pressures on retaining walls, liquefaction settlement, and lateral spreading or "flow failures" in slopes. Dynamic settlement (i.e., pronounced consolidation and settlement from seismic shaking) may also occur in loose, dry sands above the water table, resulting in settlement of and possible damage to overlying structures. In general, a relatively high potential for liquefaction exists in loose, sandy soils that are within 40-feet of the ground surface and are saturated (below the groundwater table). Lateral spreading can move blocks of soil, placing strain on buried pipelines that can lead to leaks or pipe failure.

The Project site is located within a State of California Seismic Hazard Zones map (CGS, 2003) for liquefaction where areas of historical occurrence of liquefaction, or local geological, geotechnical, and ground-water conditions indicate a potential for permanent ground displacements such that mitigation, as defined in Public Resources Code Section 2693(c), would be required (CGS, 2003). In 2021, Kleinfelder presented geotechnical recommendations for site grading and foundation design for the Project in a Geotechnical Investigation Report (Geotech Report). The conclusions and recommendations presented in the Geotech Report were based on a site reconnaissance, subsurface exploration and laboratory testing programs, review of published geologic and seismic studies, geotechnical analyses, and Kleinfelder staff experience in the site area (Kleinfelder, 2021). The Geotech Report includes results from a detailed liquefication analysis, the results of which indicate that several thin soil layers below the groundwater depth (8 to 10 feet below the current ground surface) are considered potentially liquefiable. However, the subsurface soil conditions are variable across the site and these thin layers are not uniform or continuous across the building footprint at the site. Thus, the Geotech Report indicates that due to the depth and/or thickness of potentially liquefiable layers, it is not expected that liquefaction induced damage is to occur at this site.

Lateral spreading, which is commonly associated with liquefaction, is where extensional ground cracking and settlement occurs as a response to lateral migration of subsurface materials. This phenomenon typically occurs adjacent to steeply inclined layers of rock such as slopes and creek channels. The Geotech Report indicates that the potential for this phenomenon affecting the Project site is low after taking into consideration the subsurface conditions and the distance of the building to a steeply inclined layer of rock at the Tidal Canal.

Another seismically induced ground failure that can occur as a result of seismic shaking is dynamic compaction, which is also known as seismic settlements. This phenomenon typically occurs in unsaturated, loose granular material or uncompacted fill soils. The Geotech Report concluded that the potential for shaking-related dynamic compaction is low because the soils above the estimated groundwater depth of 8 to 10 feet are predominantly cohesive soils.

Expansive and Corrosive Soils

Expansive soils are soils that possess a "shrink-swell" characteristic, also referred to as linear extensibility. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying; the volume change is reported as a percent change for the whole soil. Changes in soil moisture can result from rainfall, landscape irrigation, utility leakage, roof drainage, or perched groundwater.[10] Expansive soils are typically very fine-grained and have a high to very high percentage of clay. Structures on expansive soils could incur damage incrementally over a long period of time, usually because of inadequate soil and foundation engineering or the placement of structures directly on expansive soils. Chemical corrosion by certain corrosive soils is a geologic hazard that affects buried metals and concrete in direct contact with soil or bedrock. Metal and concrete elements in contact with soil deemed to be corrosive, whether part of a foundation, the supported structure, or underground utilities, might be subject to degradation due to corrosion or chemical attack. Therefore, buried metal and concrete elements should be designed to resist corrosion and degradation based on accepted practices. The Geotechnical Report indicates the soils underlying the Project site consist of stiff to hard clay to sandy clay layers, and some of the near surface clay is potentially expansive. Further, the Geotechnical Report classified the soil as "corrosive" based on laboratory screening and corrosivity evaluation.

Paleontological Resources

Paleontological resources are the fossilized remains or impressions of plants and animals, including vertebrates (animals with backbones; mammals, birds, fish, etc.), invertebrates (animals without backbones; starfish, clams, coral, etc.), and microscopic plants and animals (microfossils). They are valuable, non-renewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived. Fossils can be used to determine the relative ages of the depositional layers in which they occur and of the geologic events that created those deposits. The age, abundance, and distribution of fossils depend on the geologic formation in which they occur and the topography of the area in which they are exposed. The geologic environments within which the plants or animals became fossilized usually were quite different from the present environments in which the geologic formations now exist.

As stated above, the surficial geologic units at the Project site are mapped as Holocene-age alluvial fan deposits and the entire site is shown to be located in a small fan of Holocene-age Younger alluvial fan deposits (Graymer, 2000, Kleinfelder, 2021). Due to the relatively young age of Holocene deposits, they generally have a low paleontological potential at the surface, but the potential increases with depth into the older portions of Holocene-age deposits and fossil resources may be encountered at the deeper levels. Due to the presence of potentially fossiliferous deposits underlying the Project site, demolition and construction activities associated with the Project may encounter and impact significant paleontological resources.

[10] Perched groundwater is a local saturated zone above the water table that typically exists above an impervious layer (such as clay) of limited extent.

4.7.6.2 Regulatory Setting

City of Oakland General Plan

Chapter 3, *Geologic Hazards*, of the *Safety Element* of the City of Oakland General Plan describes the following policies regarding geological resources, adopted for the purpose of avoiding or mitigating an environmental effect, and that apply to the Project (City of Oakland, 2012).

> ***Policy GE-1*:** Develop and continue to enforce and carry out regulations and programs to reduce seismic hazards and hazards from seismically triggered phenomena.
>
> *Action GE-1.2*: Enact regulations requiring the preparation of site-specific geologic or geotechnical reports for development proposals in areas subject to earthquake-induced liquefaction, settlement or severe ground shaking, and conditioning project approval on the incorporation of necessary mitigation measures.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to reducing impacts on geology and soils and that apply to the Project are listed below. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to geology and soils. Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

> **SCA GEO-1: Construction-Related Permit(s).** *(Standard Condition of Approval 36)*
>
> **Requirement:** The project applicant shall obtain all required construction-related permits/approvals from the City. The project shall comply with all standards, requirements and conditions contained in construction-related codes, including but not limited to the Oakland Building Code and the Oakland Grading Regulations, to ensure structural integrity and safe construction.

> **SCA GEO-2: Seismic Hazards Zone (Landslide/Liquefaction).** *(Standard Condition of Approval 39)*
>
> **Requirement:** The project applicant shall submit a site-specific geotechnical report, consistent with California Geological Survey Special Publication 177 (As amended), prepared by a registered geotechnical engineer for City review and approval containing at a minimum a description of the geological and geotechnical conditions at the site, an evaluation of site-specific seismic hazards based on geological and geotechnical conditions, and recommended measures to reduce potential impacts related to liquefaction and/or slope stability hazards. The project applicant shall implement the recommendations contained in the approved report during project design and construction.

4.7.6.3 Topics Considered and No Impact Determined

The Project would have no impact to the following topics based on the Project characteristics, its geographical location, and underlying site conditions. Therefore, these topics are not addressed further in this document for the following reasons:

- **Fault Rupture** (Criterion 1.a). There are no active faults that cross the Project site, and the nearest active fault to the Project site is the Hayward North section of the Hayward-Rodgers Creek Fault, located approximately 2.75 miles northeast of the Project site. Therefore, the potential for fault rupture to affect the Project is very low and not discussed further.
- **Landslides** (Criterion 1.d). The Project site is not within areas designated by the State Geologist where previous landslide movement has occurred. The Project site is also not mapped within areas designated as having the potential for seismically-induced landslides. Therefore, no impact is associated with this hazard.
- **Landfills** *(Criterion 5)* The Project site is not located above any landfill. Therefore, no impact is associated with this hazard.
- **Wastewater Disposal** (Criteria 6). The Project site is located within an urban area where all development would connect with the existing wastewater sewer infrastructure. Therefore, the Project would not require the use of septic or other alternative disposal wastewater systems. Therefore, no impact is associated with this hazard.

4.7.6.4 Project Impacts and Discussion

Impact GEO-1: The Project would not expose people or structures to substantial risk of loss, injury, or death involving seismic hazards such as ground shaking and seismic-related ground failure such as liquefaction, differential settlement, collapse, or lateral spreading. (Criteria 1.b and 1.c) (*Less than Significant with SCAs*)

The Project site is located in a seismically active region of California that contains a number of active faults. None of these faults cross the Project site and so there would be no impact related to surface fault rupture. However, the Project site is in proximity to active faults and is susceptible to strong seismic ground shaking, as well as the secondary seismic-related ground failures that are triggered by seismically induced ground shaking. The liquefaction analysis performed by the Geotech Report indicates potentially liquefiable soils are present beneath the Project site, and in the event of an earthquake those soils could lose their structural integrity and cause damage to foundations and structures. However, due to the depth and/or thickness of the potentially liquefiable layers, ground surface disruption is not expected to occur. Subsurface conditions and the distance to steeply inclined layers of rock at the Tidal Canal indicate the potential for lateral spreading and shaking-related dynamic compaction is low. Implementation of SCA GEO-1, Construction-Related Permits, and SCA GEO-2, Seismic Hazards Zone, would reduce the impacts of seismic hazards during construction. SCA GEO-1 would require the Project Applicant to obtain any and all applicable construction-related permits/approvals from the City, and would be required to comply with all standards, requirements, and conditions contained in construction related codes (e.g., the Oakland Building Code [which incorporates by reference the California Building Code] and the Oakland Grading Regulations), which would ensure structural integrity and safe construction. SCA GEO-2 requires preparation and submittal of a site-specific

geotechnical report that is to be consistent with the standards described in CGS Special Publication 177. The report would contain, at minimum, a description of the geologic and geotechnical conditions, and evaluation of site-specific seismic hazards, and recommended measures to reduce potential impacts. Implementation of the recommendations contained in the approved report during Project design and construction will be required and would reduce this impact to less than significant.

SCA GEO-1: Construction-Related Permit(s).

SCA GEO-2: Seismic Hazards Zone (Landslide/Liquefaction).

Mitigation: None required.

Impact GEO-2: The Project would not result in substantial soil erosion or loss of topsoil, creating substantial risks to life, property, or creeks/waterways. (Criterion 2) (*Less than Significant with SCAs*)

The Project would include ground-disturbing construction activities, including grading and excavation for building foundation and utilities, which could increase the risk of erosion or sediment transport. Construction would have the potential to result in soil erosion during excavation and grading.

The overall footprint of construction activities would exceed one acre. Therefore, the Project would be required to implement SCA HYD-1, State Construction General Permit, and comply with the Construction General Permit, which was developed to ensure that stormwater is managed and erosion is controlled on construction sites. The Construction General Permit requires Project Applicants to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), which requires applications of Best Management Practice (BMPs) to control run-on and runoff from construction work sites. The BMPs could include, but would not be limited to, physical barriers to prevent erosion and sedimentation, construction of sedimentation basins, limitations on work periods during storm events, use of infiltration swales, protection of stockpiled materials, and a variety of other measures that would substantially reduce or prevent erosion from occurring during construction. Further, since the Project would require a grading permit, the Project Applicant would be required to comply with SCA HYD-4, Creek Protection Plan and submit a Creek Protection Plan while following the listed BMPs. This Plan is required to include necessary grading and/or construction operations measures to prevent any debris and dirt from flowing into the City's storm drain system and creeks (see Section 4.7.7, *Hydrology and Water Quality*). Compliance with these independently enforceable existing requirements would reduce the Project's potential impacts associated with soil erosion during construction to less than significant.

During operation, the Project would be required to comply with SCA HYD-2, NPDES C.3 Stormwater Requirements for Regulated Projects, relating to water quality and stormwater runoff during operation. The Project would also be subject to SCA UTIL-5, Storm Drain System, which requires, to the maximum extent practicable, a peak stormwater runoff reduction from the project

site by at least 25 percent compared to the pre-Project condition (see Section 4.7.14, *Utilities and Service Systems*). Therefore, the Project's potential impacts associated with soil erosion during operation would be less than significant.

SCA HYD-1: State Construction General Permit. See Section 4.7.7.

SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects. See Section 4.7.7.

SCA UTIL-5: Storm Drain System. See Section 4.7.14.

Mitigation: None required.

Impact GEO-3: The Project would not be located on expansive soil, as defined in Section 1803.5.3 of the California Building Code or corrosive soil, creating substantial risks to life or property. (Criterion 3) (*Less than Significant with SCAs*)

The presence of expansive soils at the Project site could cause damage to the pavements and structures founded on shallow foundations, which could create a risk to life or property and result in a significant impact. SCA GEO-2 requires the Project Applicant to submit a site-specific geotechnical report, to be prepared by a registered geotechnical engineer, for City approval prior to construction. The geotechnical report is required to include an evaluation of site-specific seismic hazards, including expansive and corrosive soils at the Project site. As noted above, a Geotech Report was prepared for the Project by Kleinfelder in 2021. The Geotech Report classified the soils underlying the Project site as "corrosive." To address the potential risks associated with expansive and/or corrosive soils, the Geotech Report provides soil engineering recommendations and foundation design requirements to be implemented during construction that would reduce the risks associated with effects of expansive soils. Once approved, SCA GEO-2 also requires the Project Applicant to implement the recommendations contained in the report during Project design and construction.

Further, SCA GEO-1 requires the Project Applicant to obtain all necessary construction-related permits prior to construction. Adherence to all applicable standards and requirements of the Oakland Building Code and Oakland Grading Regulations, as required by SCA GEO-1, and implementation of the recommendations and design requirements provided in a City-approved geotechnical report required as part of SCA GEO-2, would reduce the impacts of expansive and corrosive soils to less than significant.

SCA GEO-1: Construction-Related Permit(s).

SCA GEO-2: Seismic Hazards Zone (Landslide/Liquefaction).

Mitigation: None required.

Impact GEO-4: The Project would not be located above a well, pit, swamp, mound, tank vault, or unmarked sewer line, creating substantial risks to life or property. (Criterion 4) (*Less than Significant with SCAs*)

As reported in a Phase II Environmental Site Assessment prepared for the Project site, underground fuel storage tanks (USTs) were installed in 1936 to provide fuel storage to operate furnaces and mobile equipment but were removed in 1986 (Apex, 2021). Fuel releases associated with these underground fuel storage tanks were investigated and remediated under the jurisdiction of the Alameda County Department of Environmental Health (ACDEH). After the facility was closed in 2015, a facility wide remediation (i.e., cleanup) program was initiated in which most of all hazardous materials were collected and removed from the site. Additionally, the Project Applicant would be required to submit a site-specific geotechnical report prior to construction (SCA GEO-2), which would include design requirements and recommendations, including proper handling of the subsurface materials beneath the Project site. See Impact HAZ-1 in Section 4.4, *Hazards and Hazardous Materials*, for a detailed description of proposed site cleanup plans and associated regulatory oversight including SCA HAZ-2. Adherence to SCA GEO-1 and SCA GEO-2, and SCA HAZ-2, would reduce these impacts to less than significant. Upon completion of the construction, there would be no operational impacts related to the Project site being located on a well, pit, swamp, mound, tank vault, or unmarked sewer line, resulting in a less-than-significant impact.

SCA GEO-1: Construction-Related Permit(s).

SCA GEO-2: Seismic Hazards Zone (Landslide/Liquefaction).

SCA HAZ-2: Hazardous Building Materials and Site Contamination. See Section 4.4.3.

Mitigation: None required.

Impact GEO-5: The Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. (Criterion 7) (*Less than Significant with SCAs*)

A review of geologic maps pertaining to the Project site indicates the Holocene-age geologic unit underlying the Project site has a low to high potential to contain paleontological resources with the potential to encounter fossils increasing with depth into the unit. Excavation, grading, and other below-ground construction (i.e., mat slab foundations) into previously undisturbed deposits have the potential to encounter and disturb paleontological resources; the greater and deeper the ground disturbance, the higher the potential to encounter and disturb significant resources. In the event that paleontological resources are encountered during construction activities, SCA CUL-1, Archeological and Paleontological Resources – Discovery During Construction, would require all work to stop within 50 feet of any discovery and for a qualified paleontologist to assess the find. If the find is deemed significant, appropriate measures would be taken to either avoid the resource or institute additional measures (i.e., salvage and excavation) to preserve any significant resource. The application of SCA CUL-1 would help to reduce any potential impact to significant

paleontological resources. Therefore, the Project's impact to paleontological resources would be less than significant.

> **SCA CUL-1: Archeological and Paleontological Resources – Discovery During Construction.** See Section 4.7.4.
>
> **Mitigation:** None required.

4.7.6.5 Cumulative Impacts

As analyzed above, the Project would not result in a significant impact related to fault rupture, landslides, landfills, or wastewater disposal. Because no impact would result, the Project could not cause or contribute to any cumulative effect in this regard. Therefore, this cumulative analysis focuses on whether the Project's less-than-significant impacts relating to seismic ground shaking and seismic-related ground failure, soil erosion and expansive soils, subsurface hazards, and paleontological resources would contribute to a cumulative effect.

Impact GEO-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative impacts to geology, soils, seismicity, or paleontology. (*Less than Significant with SCAs*)

The Project would be constructed within the Central Estuary Plan Area's planning area and the Project would be constructed consistent with the goals set forth in the Plan.

Cumulative development projects near or adjacent to the Project site that could be constructed at the same time, could result in cumulative erosion effects. However, implementation of applicable erosion-related SCAs (i.e., SCAs HYD-1, HYD-2, HYD-3, and UTIL-6, discussed above) would reduce the Project's impact related to soil erosion. Cumulative development would also be subject to erosion-related SCAs and no cumulative impact would result. Specifically, the Construction General Permit has been developed to address cumulative conditions arising from construction throughout the state and is intended to maintain cumulative effects of projects subject to this requirement to less than significant levels. Through compliance with this requirement and City SCAs, the Project, combined with impacts of other projects in the area, would not combine to cause a significant cumulative impact related to erosion.

Seismically induced groundshaking, liquefaction, and expansive soils could cause structural damage or ruptures during construction and operation of cumulative projects. However, as discussed for the Project, state and local building regulations and SCA GEO-1 and SCA GEO-2 have been established to address and reduce the potential for such impacts to occur. The cumulative projects would be required to comply with the same applicable provisions of these laws and regulations. The purpose of the Oakland Building Code and local ordinances is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction; by design, it is intended to reduce the cumulative risks from buildings and structures. Based on compliance with these requirements, the incremental impacts of the Project, combined with impacts of other projects in

the area, would not combine to cause a significant cumulative impact related to seismically-induced groundshaking, liquefaction, or expansive soils.

Federal, state, and local laws can generally protect paleontological resources in most instances. Similar to the Project, any cumulative development would be required to comply with the same provisions of CEQA and implement measures similar to those identified above (SCA CUL-1). These measures would require protocols for responding in the event of any discovery of paleontological resources. Through compliance with applicable regulations and implementation of associated avoidance and minimization measures, the Project would not have a considerable contribution to adverse effects on paleontological resources of the region. This cumulative impact would be less than significant.

Potential exposure to geological and soils hazards, and impacts to paleontological resources, resulting from construction and operation of the Project would not have a cumulatively considerable contribution to a cumulative impact. No significant cumulative impact is identified.

SCA GEO-1: Construction-Related Permit(s).

SCA GEO-2: Seismic Hazards Zone (Landslide/Liquefaction).

SCA HAZ-2: Hazardous Building Materials and Site Contamination. See Section 4.4.3.

SCA HYD-1: State Construction General Permit. See Section 4.7.7.

SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects. See Section 4.7.7.

SCA UTIL-5: Storm Drain System. See Section 4.7.14.

SCA CUL-1: Archeological and Paleontological Resources – Discovery During Construction. See Section 4.7.4.

Mitigation: None required.

4.7.6.6 References

Apex companies, LLC, 2021. *Phase II Environmental Site Assessment Former Owens-Brockway Glass Facility 3600 Alameda Avenue Oakland, California*. October 27, 2021. Accessed April 26, 2022.

California Geological Survey (CGS). 2003. *Seismic Hazard Zone Report for the Oakland East 7.5-Minute Quadrangle, Alameda County, California*. Seismic Hazard Zone Report 080, 2003.

City of Oakland. 2012. *General Plan, Safety Element.* Adopted 2004; amended 2012.

Graymer, R.W. 2000. *Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California.* U.S. Geological Survey Miscellaneous Field Studies Map MF-2342. Scale 1:50,000. Accessed January 20, 2022. https://pubs.usgs.gov/mf/2000/2342/.

Kleinfelder. 2021. *Geotechnical Investigation Report, Industrial Warehouse Site; 3600 Alameda Avenue, Oakland, California.* Project No. 20214267.001A. May 26, 2021. Accessed January 20, 2022.

Petersen, Mark D., Frankel, Arthur D., Harmsen, Stephen C., Mueller, Charles S., Haller, Kathleen M., Wheeler, Russell L., Wesson, Robert L., Zeng, Yuehua, Boyd, Oliver S., Perkins, David M., Luco, Nicolas, Field, Edward H., Wills, Chris J., and Rukstales, Kenneth S (Peterson et al.). 2008. *Documentation for the 2008 Update of the United States National Seismic Hazard Maps,* U.S. Geological Survey Open-File Report 2008–1128. Accessed January 20, 2022. https://pubs.usgs.gov/of/2008/1128/ofr20081128v1.1.pdf.

United States Geological Survey (USGS). 2010. *Quaternary Fault and Fold Database for the United States*. Accessed January 20, 2022. https://www.usgs.gov/natural-hazards/earthquake-hazards/faults.

4.7.7 Hydrology and Water Quality

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
X. HYDROLOGY AND WATER QUALITY — The Project would have a significant impact on the environment if it would:				
1) Violate any water quality standards or waste discharge requirements;	☐	☐	☒	☐
2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or proposed uses for which permits have been granted);	☐	☐	☒	☐
3) Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters;	☐	☐	☒	☐
4) Result in substantial flooding on- or off-site;	☐	☐	☒	☐
5) Create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems;	☐	☐	☒	☐
6) Create or contribute substantial runoff which would be an additional source of polluted runoff;	☐	☐	☒	☐
7) Otherwise substantially degrade water quality;	☐	☐	☒	☐
8) Place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map, that would impede or redirect flood flows;	☐	☐	☐	☒
9) Place within a 100-year flood hazard area structures which would impede or redirect flood flows;	☐	☐	☐	☒
10) Expose people or structures to a substantial risk of loss, injury, or death involving flooding;	☐	☐	☒	☐
11) Expose people or structures to a substantial risk of loss, injury, or death as a result of inundation by seiche, tsunami, or mudflow;	☐	☐	☒	☐
12) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course, or increasing the rate or amount of flow, of a creek, river, or stream in a manner that would result in substantial erosion, siltation, or flooding, both on- or offsite; or	☐	☐	☒	☐
13) Fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) intended to protect hydrologic resources.[11]	☐	☐	☒	☐

[11] **Note**: Although there are no specific, numeric/quantitative criteria to assess impacts, factors to be considered in determining significance include whether there is substantial degradation of water quality through (a) discharging a substantial amount of pollutants into a creek, (b) significantly modifying the natural flow of the water or capacity, (c) depositing substantial amounts of new material into a creek or causing substantial bank erosion or instability, or (d) substantially endangering public or private property or threatening public health or safety.

4.7.7.1 Environmental Setting

Surface Water, Runoff, and Water Quality

The Project site is in a relatively flat and highly urbanized area. The closest bodies of water to the Project site are the artificial Tidal Canal that runs between the City and Alameda, approximately 100 feet southwest of the Project site, the San Leandro Bay, located approximately 0.66 miles south of the Project site, and Brooklyn Basin, located approximately 0.85 miles northwest of the Project site (Oakland Museum of California, 2000)

Stormwater runoff in Oakland is generally collected from the Oakland-Berkeley Hills to the northeast through the developed flatlands where it then flows primarily through underground storm drains and culverts to the San Francisco Bay via the Oakland Estuary (directly or by way of Lake Merritt) or through the City of Emeryville. The Alameda County Flood Control and Water Conservation District (ACFCWCD) constructs, operates, and maintains major trunk lines and flood-control facilities in Oakland, and the Oakland Public Works Agency is responsible for construction and maintenance of the local storm drainage system within Oakland's public areas and roads.

In the Bay Area, including the Project area, the San Francisco Bay Regional Water Quality Control Board (RWQCB) is responsible for implementing the Water Quality Control Plan (Basin Plan). The Basin Plan establishes beneficial water uses for waterways and water bodies within the region and is a master policy document for managing water quality in the region (RWQCB, 2019).

Groundwater

The Department of Water Resources (DWR) considers the East Bay Plain (DWR Groundwater Basin No. 2-009.04) an important and beneficial groundwater basin underlying the East Bay, extending from Richmond to Hayward. The alluvial materials that extend westward from the East Bay hills to the edge of the San Francisco Bay constitute the deep water-bearing strata for East Bay Plain groundwater basin (DWR, 2004). This deep basin provides municipal, industrial, and agricultural water supply. However, water supply for the Project area is not provided by groundwater sources in this basin, but rather from surface water sources maintained by East Bay Municipal Utility District (EBMUD).

Flooding Hazards

The City of Oakland 2021-2026 Local Hazard Mitigation Plan was developed to reduce risks from disasters to the people, property, economy, and environment within the City (City of Oakland, 2021). The plan complies with federal and state hazard mitigation planning requirements to establish eligibility for funding under Federal Emergency Management Agency (FEMA) grant programs and includes sections related to flooding, tsunamis and seiches, dam failure, and sea-level rise. This section considers these topics.

Flood Zones

Flooding is any overflowing of water onto land that is normally dry, whether due to rain, ocean waves, snowmelt, or the failure of a dam or levee. The extent of flooding associated with a one percent annual probability of occurrence (the base flood or 100-year flood) is used as a regulatory boundary by many agencies.[12] This is referred to as the special flood hazard area (SFHA) and is a convenient tool for assessing vulnerability and risk in flood-prone communities (City of Oakland, 2021).

FEMA defines flood hazard areas as areas expected to be inundated by a flood of a given magnitude and uses its Digital Flood Insurance Rate Maps (DFIRMs) to designate various SFHAs and other areas. The Project site is not located in a designated 100-year flood zone. However, a small portion of the site, along Fruitvale Avenue, is located within a 500-year flood zone (MTC and ABAG, 2021). According to DFIRM, this portion of the site is mapped within a zone where the land elevation has been determined to be above the base flood elevation, but below the 500-year flood elevation and these zones are not considered to be SFHAs (City of Oakland, 2021).

Tsunami and Seiche

Tsunamis are a series of waves caused by an underwater earthquake, landslide, or volcanic eruption. The City of Oakland General Plan Safety Element describes the tsunami hazard in Oakland as an uncommon occurrence on the California coast. The National Weather Service is responsible for issuing warnings about potential tsunamis along the West Coast of the United States. Warning times vary depending on the distance to the earthquake epicenter. Most often, tsunamis are generated by large offshore earthquakes in the Pacific Ocean, producing waves that reach the California coast many hours after the earthquake. Tsunamis can also be generated by local earthquakes, in which case the first waves could reach shore mere minutes after the ground stops shaking, giving authorities no time to issue a warning. For most tsunamis approaching the coast, several hours are available to evacuate residents and undertake other emergency preparations. Flooding from tsunamis would affect low-lying areas along San Francisco Bay and the Oakland Estuary, especially filled areas that are only a few feet above sea level. Although the probability of a tsunami affecting Oakland is low, given the rarity and unpredictability of the hazard, the impact from a rare tsunami would be high. The Project site is located within a tsunami evacuation zone (MTC and ABAC, 2021).

Seiches are water level oscillations in an enclosed or semi-enclosed body of water such as a lake, reservoir, or harbor. The City of Oakland General Plan Safety Element describes the occurrence of devastating seiches in Oakland as highly unlikely. In Oakland, the only threat of large-scale damage from seiches appears to come from downstream flooding that would be caused by large volumes of water overtopping a dam or reservoir. Seiche risk at areas along Oakland's shoreline, including the Project site, is considered to be very low risk (City of Oakland, 2021).

[12] A 10-year flood event has a 1 percent probability of being exceeded in any given year. Because this event's probability resets each year, it is possible, although unlikely, for more than one 100-year flood to occur within any given period 100 years long. A 500-year flood event has a 0.2 percent probability of being exceeded in any given year.

Sea Level Rise

Sea-level rise is primarily caused by global warming. In the last century, San Francisco Bay water levels have risen nearly 8 inches (NOAA, 2018). Given current trends in greenhouse gas emissions and increasing global temperatures, sea level rise is expected to accelerate in the coming decades, with scientists projecting as much as a 66-inch increase in sea level along segments of California's coast by the year 2100 (CCC, 2021). As bay water levels continue to rise, the extent and frequency of flooding will increase. Areas once considered to be outside of the floodplain will begin to experience periodic coastal and/or urban flooding (City of Oakland 2021).

The State of California has provided and continues to update planning guidance for assessing and adapting to the impacts of sea level rise. The City's 2021-2026 Local Hazard Management Plan (City of Oakland, 2021), and the Preliminary Sea Level Rise Road Map (City of Oakland, 2017), both consider impacts from sea-level rise based on this State guidance. Sea levels offshore of Oakland are expected to rise between 11 and 24 inches by mid-century and 36 to 66 inches by 2100 (City of Oakland, 2017). According to the Preliminary Sea Level Rise Road Map, the Project site is above the area that would be permanently inundated with 72 inches of sea level rise, or the area that would be temporarily flooded due to a 100-year storm with 30 inches of sea level rise.

Dam Inundation

Dam failure can cause massive destruction to the ecosystems and communities located downstream. The most common causes are earthquakes, landslides, extreme storms, equipment malfunction, structural damage, foundation failures, and sabotage (City of Oakland, 2021). An inundation map shows flooding that could result from a hypothetical failure of a dam or its critical structure (DWR, 2022). The Project site itself is not located in a dam inundation area, however the inundation area of the Central Reservoir surrounds the Project site and runs along the adjacent streets (DWR, 2021).

4.7.7.2 Regulatory Setting

National Pollutant Discharge Elimination System (NPDES) Permit

The NPDES permit system was established in the federal Clean Water Act to regulate municipal and industrial point discharges to surface waters of the U.S. Each NPDES permit for point discharges contains limits on allowable concentrations of pollutants contained in discharges. The City of Oakland is covered by Municipal Regional Stormwater NPDES Permit No. CAS612008 and Order No. R2-2015-0049 (MRP). In accordance with the MRP requirements, new development and redevelopment projects are required to incorporate treatment measures and other appropriate source control and site design features to reduce the pollutant load in stormwater discharges and manage runoff flows.

Among many other stormwater management requirements included in the MRP, Provision C.3 contains specific post-construction runoff requirements for new development and redevelopment. Provision C.3 governs storm drain systems and regulates post-construction stormwater runoff. The provision requires new development and redevelopment projects to incorporate treatment

measures and other appropriate source control and site design features to reduce the pollutant load in stormwater discharges and to manage runoff flows.

Porter-Cologne Water Quality Control Act

Porter-Cologne, passed in 1969, articulates with the federal Clean Water Act. It established the State Water Board and divided the state into nine regions, each overseen by a regional Water Board. In general, the State Water Board manages both water rights and statewide regulation of water quality, while the regional Water Boards focus exclusively on water quality in their regions.

Coverage under a Construction Stormwater General Permit (Construction General Permit) requires the preparation and implementation of a stormwater pollution prevention plan (SWPPP) and notice of intent (NOI). The SWPPP includes pollution prevention measures (erosion and sediment control measures and measures to control non-stormwater discharges and hazardous spills), demonstration of compliance with all applicable local and regional erosion and sediment control standards, identification of responsible parties, a detailed construction timeline, and a BMP monitoring and maintenance schedule. The NOI includes site-specific information and the certification of compliance with the terms of the Construction General Permit.

California State Lands Commission and AB 691

The California State Lands Commission has jurisdiction over tidelands and submerged lands along the entire coast, and within three nautical miles offshore from the ordinary high water mark. The California State Lands Commission requires sea level rise planning by Legislative Trust Grantees, such as the Port of Oakland; and requires grantees with average annual gross public trust revenues over $250,000 to prepare and submit a sea level rise plan to the California State Lands Commission no later than July 1, 2019. The Port of Oakland submitted a Sea Level Rise Assessment on July 1, 2019.

San Francisco Bay Plan

The San Francisco Bay Conservation and Development Commission (BCDC) has regulatory jurisdiction over the Bay shoreline, which is generally the first 100 feet inland from the shoreline of the San Francisco Bay and Oakland Estuary. BCDC's San Francisco Bay Plan (Bay Plan) implements the 1965 McAteer-Petris Act (Government Code Sections 66600–66694), which charges BCDC with planning for the long-term use of the Bay and regulating development in and around the Bay. The Bay Plan provides policy direction for BCDC's permit authority regarding the placement of fill, extraction of materials, determining substantial changes in use of land, water, or structures within its jurisdiction, protection of the Bay habitat and shoreline, and maximizing public access to the Bay.

Sea level rise vulnerability and risk assessments are required when planning shoreline areas. New projects likely to be affected by future sea level rise and storm surge activity during the life of the project must meet additional requirements and, when feasible, integrate hard shoreline protection structures with natural features that enhance the Bay ecosystem (e.g., including marsh and/or

upland vegetation). BCDC reviews permits for proposed projects in the shoreline band for consistency with the McAteer-Petris Act and the Bay Plan.

City of Oakland General Plan

The *Open Space, Conservation, and Recreation Element* of the Oakland General Plan describes the following policies regarding water resources, adopted for the purpose of protecting water resources, and that apply to the Project (City of Oakland, 1996).

> ***Policy CO-5.1:*** Encourage groundwater recharge by protecting large open space areas, maintaining setbacks along creeks and other recharge features, limiting impervious surfaces where appropriate, and retaining natural drainage patterns within newly developing areas.
>
> ***Policy CO-5.2:*** Support efforts to improve groundwater quality, including the use of non-toxic herbicides and fertilizers, the enforcement of anti-litter laws, the clean-up of sites contaminated by the Alameda County Flood Control and Water Conservation District.
>
> ***Policy CO-5.3:*** Employ a broad range of strategies, compatible with Alameda Countywide Clean Water Program, to: (a) reduce water pollution associated with stormwater runoff; (b) reduce water pollution associated with hazardous spills, runoff from hazardous material areas, improper disposal of household hazardous wastes, illicit dumping, and marina "live-aboards"; and (c) improve water quality in Lake Merritt to enhance the lake's aesthetic, recreational, and ecological functions.

The *Safety Element* (Adopted 2004, Amended 2012) of the Oakland General Plan (City of Oakland, 2012) describes the following policies regarding flooding hazards that apply to the Project.

> ***Policy FL-1:*** Enforce and update local ordinances, and comply with regional orders, that would reduce the risk of storm-induced flooding.
>
> > *Action FL-1.2:* Continue to require that subdivisions be designed to minimize flood damage by, among other things, having lots and rights-of-way be laid out for the provision of approved sewer and drainage facilities, providing on-site detention facilities whenever practicable and having utility facilities be constructed in ways that reduce or eliminate flood damage.

Oakland Municipal Code Chapter 13.16

The City's Creek Protection, Stormwater Management, and Discharge Control Ordinance (Chapter 13.16 of the Oakland Municipal Code) prohibits activities that would result in the discharge of pollutants to Oakland's waterways or in damage to creeks, creek functions, or habitat. The ordinance requires the use of standard BMPs to prevent pollution or erosion to creeks and/or storm drains. Additionally, a creek protection permit is required for any construction work on creekside properties. The ordinance establishes comprehensive guidelines for the regulation of discharges to the City's storm drain system and the protection of surface water quality. Under the ordinance, the City of Oakland Public Works Agency issues permits for storm drainage facilities that would be connected to existing City drainage facilities. The ordinance includes enforcement provisions to provide more effective methods to deter and reduce the discharge of pollutants to the storm drain system, local creeks, and San Francisco Bay. As described above, the Project site is bordered by the artificial Tidal Canal, which is a part of the Oakland the Estuary. The Estuary

is considered a waterway under the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16) and a creek protection permit would be required for the Project.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to reducing impacts on hydrology and water quality and that apply to the Project are listed below. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to hydrology and water quality. Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

SCA HYD-1: State Construction General Permit *(Standard Condition of Approval 50)*

Requirement: The project applicant shall comply with the requirements of the Construction General Permit issued by the State Water Resources Control Board (SWRCB). The project applicant shall submit a Notice of Intent (NOI), Stormwater Pollution Prevention Plan (SWPPP), and other required Permit Registration Documents to SWRCB. The project applicant shall submit evidence of compliance with Permit requirements to the City.

SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects *(Standard Condition of Approval 54)*

a. Post-Construction Stormwater Management Plan Required

Requirement: The project applicant shall comply with the requirements of Provision C.3 of the Municipal Regional Stormwater Permit issued under the National Pollutant Discharge Elimination System (NPDES). The project applicant shall submit a Post-Construction Stormwater Management Plan to the City for review and approval with the project drawings submitted for site improvements, and shall implement the approved Plan during construction. The Post-Construction Stormwater Management Plan shall include and identify the following:

i. Location and size of new and replaced impervious surface;

ii. Directional surface flow of stormwater runoff;

iii. Location of proposed on-site storm drain lines;

iv. Site design measures to reduce the amount of impervious surface area;

v. Source control measures to limit stormwater pollution;

vi. Stormwater treatment measures to remove pollutants from stormwater runoff, including the method used to hydraulically size the treatment measures; and

vii. Hydromodification management measures, if required by Provision C.3, so that post-project stormwater runoff flow and duration match pre-project runoff.

b. Maintenance Agreement Required

Requirement: The project applicant shall enter into a maintenance agreement with the City, based on the Standard City of Oakland Stormwater Treatment Measures

Maintenance Agreement, in accordance with Provision C.3, which provides, in part, for the following:

i. The project applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and

ii. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary.

The maintenance agreement shall be recorded at the County Recorder's Office at the applicant's expense.

SCA HYD-3: Vegetation Management on Creekside Properties. *(Standard Condition of Approval 57)*

Requirement: The project applicant shall comply with the following requirements when managing vegetation prior to, during, and after construction of the project:

a. Identify and leave "islands" of vegetation in order to prevent erosion and landslides and protect habitat;

b. Trim tree branches from the ground up (limbing up) and leave tree canopy intact;

c. Leave stumps and roots from cut down trees to prevent erosion;

d. Plant fire-appropriate, drought-tolerant, preferably native vegetation;

e. Provide erosion and sediment control protection if cutting vegetation on a steep slope;

f. Fence off sensitive plant habitats and creek areas if implementing goat grazing for vegetation management;

g. Obtain a Tree Permit before removing a Protected Tree (any tree 9 inches diameter at breast height or dbh or greater and any oak tree 4 inches dbh or greater, except eucalyptus and Monterey pine);

h. Do not clear-cut vegetation. This can lead to erosion and severe water quality problems and destroy important habitat;

i. Do not remove vegetation within 20 feet of the top of the creek bank. If the top of bank cannot be identified, do not cut within 50 feet of the centerline of the creek or as wide a buffer as possible between the creek centerline and the development;

j. Do not trim/prune branches that are larger than 4 inches in diameter;

k. Do not remove tree canopy;

l. Do not dump cut vegetation in the creek;

m. Do not cut tall shrubbery to less than 3 feet high; and

n. Do not cut short vegetation (e.g., grasses, ground-cover) to less than 6 inches high.

When Required: Ongoing

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

SCA HYD-4: Creek Protection Plan. *(Standard Condition of Approval 58)*

a. Creek Protection Plan Required

Requirement: The project applicant shall submit a Creek Protection Plan for review and approval by the City. The Plan shall be included with the set of project drawings submitted to the City for site improvements and shall incorporate the contents required under section 13.16.150 of the Oakland Municipal Code including Best Management Practices ("BMPs") during construction and after construction to protect the creek. Required BMPs are identified below in sections (b), (c), and (d).

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Planning

Monitoring/Inspection: N/A

b. Construction BMPs

Requirement: The Creek Protection Plan shall incorporate all applicable erosion, sedimentation, debris, and pollution control BMPs to protect the creek during construction. The measures shall include, but are not limited to, the following:

i. On sloped properties, the downhill end of the construction area must be protected with silt fencing (such as sandbags, filter fabric, silt curtains, etc.) and hay bales oriented parallel to the contours of the slope (at a constant elevation) to prevent erosion into the creek.

ii. The project applicant shall implement mechanical and vegetative measures to reduce erosion and sedimentation, including appropriate seasonal maintenance. One hundred (100) percent biodegradable erosion control fabric shall be installed on all graded slopes to protect and stabilize the slopes during construction and before permanent vegetation gets established. All graded areas shall be temporarily protected from erosion by seeding with fast growing annual species. All bare slopes must be covered with staked tarps when rain is occurring or is expected.

iii. Minimize the removal of natural vegetation or ground cover from the site in order to minimize the potential for erosion and sedimentation problems. Maximize the replanting of the area with native vegetation as soon as possible.

iv. All work in or near creek channels must be performed with hand tools and by a minimum number of people. Immediately upon completion of this work, soil must be repacked and native vegetation planted.

v. Install filter materials (such as sandbags, filter fabric, etc.) acceptable to the City at the storm drain inlets nearest to the project site prior to the start of the wet weather season (October 15); site dewatering activities; street washing activities; saw cutting asphalt or concrete; and in order to retain any debris flowing into the City storm drain system. Filter materials shall be maintained and/or replaced as necessary to ensure effectiveness and prevent street flooding.

vi. Ensure that concrete/granite supply trucks or concrete/plaster finishing operations do not discharge wash water into the creek, street gutters, or storm drains.

vii. Direct and locate tool and equipment cleaning so that wash water does not discharge into the creek.

viii. Create a contained and covered area on the site for storage of bags of cement, paints, flammables, oils, fertilizers, pesticides, or any other materials used on the project site that have the potential for being discharged to the creek or storm drain system by the wind or in the event of a material spill. No hazardous waste material shall be stored on site.

ix. Gather all construction debris on a regular basis and place it in a dumpster or other container which is emptied or removed at least on a weekly basis. When appropriate, use tarps on the ground to collect fallen debris or splatters that could contribute to stormwater pollution.

x. Remove all dirt, gravel, refuse, and green waste from the sidewalk, street pavement, and storm drain system adjoining the project site. During wet weather, avoid driving vehicles off paved areas and other outdoor work.

xi. Broom sweep the street pavement adjoining the project site on a daily basis. Caked-on mud or dirt shall be scraped from these areas before sweeping. At the end of each workday, the entire site must be cleaned and secured against potential erosion, dumping, or discharge to the creek, street, gutter, or storm drains.

xii. All erosion and sedimentation control measures implemented during construction activities, as well as construction site and materials management shall be in strict accordance with the control standards listed in the latest edition of the Erosion and Sediment Control Field Manual published by the Regional Water Quality Control Board (RWQCB).

xiii. Temporary fencing is required for sites without existing fencing between the creek and the construction site and shall be placed along the side adjacent to construction (or both sides of the creek if applicable) at the maximum practical distance from the creek centerline. This area shall not be disturbed during construction without prior approval of the City.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Planning

Monitoring/Inspection: N/A

c. Post-Construction BMPs

Requirement: The project shall not result in a substantial increase in stormwater runoff volume or velocity to the creek or storm drains. The Creek Protection Plan shall include site design measures to reduce the amount of impervious surface to maximum extent practicable. New drain outfalls shall include energy dissipation to slow the velocity of the water at the point of outflow to maximize infiltration and minimize erosion.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Planning

Monitoring/Inspection: N/A

d. Creek Landscaping

Requirement: The project applicant shall include final landscaping details for the site on the Creek Protection Plan, or on a Landscape Plan, for review and approval by the City. Landscaping information shall include a planting schedule, detailing plant types and locations, and a system to ensure adequate irrigation of plantings for at least one growing season. Plant and maintain only drought-tolerant plants on the site where appropriate as well as native and riparian plants in and adjacent to riparian corridors. Along the riparian corridor, native plants shall not be disturbed to the maximum extent feasible. Any areas disturbed along the riparian corridor shall be replanted with mature native riparian vegetation and be maintained to ensure survival.

When Required: Prior to approval of construction-related permit

Initial Approval: Bureau of Planning

Monitoring/Inspection: N/A

e. Creek Protection Plan Implementation

Requirement: The project applicant shall implement the approved Creek Protection Plan during and after construction. During construction, all erosion, sedimentation, debris, and pollution control measures shall be monitored regularly by the project applicant. The City may require that a qualified consultant (paid for by the project applicant) inspect the control measures and submit a written report of the adequacy of the control measures to the City. If measures are deemed inadequate, the project applicant shall develop and implement additional and more effective measures immediately.

When Required: During construction; ongoing

Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

SCA HYD-5: Bay Conservation and Development Commission (BCDC) Approval
(Standard Condition of Approval 61)

Requirement: The project applicant shall obtain the necessary permit/approval, if required, from the Bay Conservation and Development Commission (BCDC) for work within BCDC's jurisdiction to address issues such as but not limited to shoreline public access and sea level rise. The project applicant shall submit evidence of the permit/approval to the City and comply with all requirements and conditions of the permit/approval.

4.7.7.3 Topics Considered and No Impact Determined

The Project would have no impact to the following topics based on the Project characteristics, its geographical location, and underlying site conditions. Therefore, these topics are not addressed further in this document for the following reasons:

- ***Flood Hazards*** (Criteria 8, 9, and 10). The Project site is not located in a designated 100-year or other flood zone, a floodplain, or a floodway and would not impede or otherwise redirect any flood flows to other areas (MTC and ABAG, 2021). Additionally, no housing is proposed

as part of the Project. Therefore, the Project would not place housing or structures within a 100-year flood hazard area which would impede or redirect flood flows. Given the above, the risk of flooding on the Project site is very low, and the Project would not expose people or structures to a substantial risk of loss, injury, or death involving flooding. Thus, no impact would occur.

4.7.7.4 Project Impacts and Discussion

Impact HYD-1: The Project would not violate water quality standards; substantially alter the existing drainage pattern of the site that would result in erosion, siltation, or flooding on- or offsite that could affect receiving water quality; otherwise substantially degrade water quality; or fundamentally conflict with the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16). (Criteria 1, 3, 7, 12, and 13) (*Less than Significant with SCAs*)

The total area of land disturbed by the Project including sidewalk and street improvements would be more than one acre. Therefore, the Project would be required to implement SCA HYD-1, State Construction General Permit, which was developed to ensure that stormwater is managed and erosion is controlled on construction sites. The Construction General Permit requires Project Applicants to prepare and implement a Storm Water Pollution Prevention Plan (SWPPP), which requires applications of Best Management Practice (BMPs) to control run-on and runoff from construction work sites.

Overall, the Project would result in a reduction of impervious area on the Project site from approximately 1,153,905 square feet to 912,075 square feet. The Project would result in 241,830 square feet of post-Project pervious area. Since the Project would create or replace 10,000 square feet or more of new or existing impervious surface area, SCA HYD-2, NPDES C.3 Stormwater Requirements for Regulated Projects, relating to water quality and stormwater runoff during operation, would apply to the entire site. This SCA requires a post-construction stormwater management plan and maintenance agreement. In addition, the Project would be subject to SCA UTIL-5, Storm Drain System, which requires, to the maximum extent practicable, a peak stormwater runoff reduction from the Project site by at least 25 percent compared to the pre-Project condition (see Section 4.7.14, *Utilities and Service Systems*). Stormwater from the Project site would be collected and treated on-site and routed to an existing storm drain line in Alameda Avenue. Stormwater management-related site design measures would include directing roof runoff into vegetated areas; directing runoff from sidewalks, walkways, and/or patios onto vegetated areas; and directing runoff from driveways and/or uncovered parking lots onto vegetated areas. The Project would implement source control measures to minimize sources of runoff pollution including measures to minimize run-on to and run-off from the loading area.

As described above, the Project site is bordered by the artificial Tidal Canal, which is a part of the Oakland Estuary. As described in Chapter 3, *Project Description*, the Project would include a realignment of Alameda Avenue, including new pedestrian sidewalks and bike facilities, and increased public access to the estuary shoreline and the Bay Trail. This construction work would occur as close as one foot from the top of the bank. The Estuary is considered a waterway under the City of Oakland Creek Protection Ordinance (OMC Chapter 13.16). Therefore, the Project would require a Category IV Creek Protection Permit which is required when exterior work is

conducted from the centerline of the Creek to within 20 feet from the top of the creek bank. Pursuant to Section 13.16.130.E of the Oakland Municipal Code, the Category IV Creek Protection Permit could be reclassified given the limited scope of work that would not affect the creek in a manner that would lead to erosion, bank failure, increased runoff, sediment loading, transfer or pollutants, or damage to the natural habitat, riparian vegetation or wildlife. The City's ordinance is intended to address potential water quality impacts from stormwater and other discharges into identified waterways. The Category 4 Creek Protection Permit would require a site plan to be submitted with the permit application, clearly illustrating the relationship and distance of the Project to the creek centerline and top of the creek bank. In addition, Category 4 permits are required to submit a Creek Protection Plan (CPP) that describes how you will protect the creek, its banks, riparian vegetation wildlife, surrounding habitat, and the creek's natural appearance during and after construction. Therefore, the Project Applicant would be required to prepare a CPP in accordance with SCA HYD-4, Creek Protection Plan. SCA HYD-4 requires the CPP to incorporate all applicable erosion, sedimentation, debris, and pollution control BMPs during construction and site design measures to limit stormwater runoff volume and velocity. The Project would also be subject to SCA HYD-3, Vegetation Management of Creekside Properties, requiring vegetation management prior to, during, and after the construction further protecting against sedimentation and erosion.

The Project would include a realignment of Alameda Avenue, including new pedestrian sidewalks and bike facilities, and increased public access to the estuary shoreline and the Bay Trail. This construction work would occur within the BCDC jurisdiction, which is generally the first 100 feet inland from the shoreline of the Oakland Estuary. Therefore, the Project Applicant would be required to obtain a permit/approval from BCDC in accordance with SCA HYD-5, Bay Conservation and Development Commission (BCDC) Approval.

With implementation of these SCAs, the Project would not violate water quality standards, result in erosion, siltation, or flooding on- or offsite that could affect receiving water quality, or otherwise substantially degrade water quality. The Project would control stormwater on-site, would not include any non-stormwater discharges to the Tidal Canal or storm drain system, and would not fundamentally conflict with the City of Oakland Creek Protection Ordinance. Impacts would be less than significant.

SCA HYD-1: State Construction General Permit.

SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects.

SCA HYD-3: Vegetation Management on Creekside Properties.

SCA HYD-4: Creek Protection Plan.

SCA HYD-5: Bay Conservation and Development Commission (BCDC) Approval.

SCA UTIL-5: Storm Drain System. See Section 4.7.14.

Mitigation: None required.

Impact HYD-2: The Project would not result in substantially depleted groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or lowering the local groundwater table. (Criterion 2) (*Less than Significant*)

Based on sampling at the Project site, groundwater has been encountered between 8 to 15 feet below ground surface (bgs). Kleinfelder found the depth to groundwater is approximately 8 to 10 feet below the current ground surface level based on measurements during the exploration program (Kleinfelder, 2021). Meanwhile, Apex encountered groundwater from 13 to 15 bgs (Apex, 2021). Based on the shallow foundation design recommendations from the Geotech Report (see Section 4.7.6, *Geology and Soils*), dewatering of the Project site is not expected to be required during construction. However, if groundwater were to be encountered and dewatering necessary, water would be extracted in a limited quantity and would not substantially deplete groundwater. As noted above, the Project would not result in an increase in impervious surfaces, would direct runoff towards vegetation where possible, and thus would not result in an adverse impact with respect to groundwater recharge. The Project would not result in substantially depleted groundwater supplies or interfere substantially with groundwater recharge that would result in a net deficit in aquifer volume or lowering the local groundwater table and impacts would be less than significant.

Mitigation: None required.

Impact HYD-3: The Project would not result in substantial flooding on- or off-site, create or contribute substantial runoff which would exceed the capacity of existing or planned stormwater drainage systems, or create or contribute substantial runoff which would be an additional source of polluted runoff. (Criteria 4, 5, and 6) (*Less than Significant with SCAs*)

Construction of the Project would include earthmoving activities such as excavation and grading. As described above, the Project would be required to implement a SWPPP per SCA HYD-1, State Construction General Permit. The SWPPP would describe BMPs for controlling site run-on and runoff from construction work sites. BMPs contained in the SWPPP would control the volume and velocity of runoff, thereby reducing the risk of substantial on- or off-site flooding during construction. As discussed above, the Project site is currently covered with impervious surfaces. The Project would result in a reduction of impervious area on the Project site and result in 241,830 square feet of post-Project pervious area. The Project would direct roof, sidewalks, walkways, patios, driveways, and/or uncovered parking lots onto vegetated areas. Furthermore, the Project would cover and enclose trash/recycling storage areas and design these areas to prevent stormwater runoff. The Project would be designed to meet the requirements of Provision C.3 of the Municipal Regional Stormwater Permit issued under the NPDES and implement a Post-Construction Stormwater Management Plan to reduce pollutant load from the site into the stormwater drainage system and receiving waters, as required through SCA HYD-2, NPDES C.3 Stormwater Requirements for Regulated Projects. The Project would also be required to comply with SCA HYD-4, Creek Protection Plan, which outlines construction BMPs. The Project would also be subject to SCA UTIL-5, Storm Drain System, which requires, to the maximum extent

practicable, a peak stormwater runoff reduction from the Project site by at least 25 percent compared to the pre-Project condition (see Section 4.7.14, *Utilities and Service Systems*).

Implementation of these SCAs would also ensure that the Project would not contribute substantial runoff which would exceed the capacity of the City's stormwater drainage system. Rather, the Project would provide a reduction of stormwater runoff velocities, volume, and pollutant load compared with pre-Project conditions. Overall, the Project would reduce the risk of substantial flooding on- or off-site and polluted runoff, and the impact would be less than significant.

SCA HYD-1: State Construction General Permit.

SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects.

SCA HYD-4: Creek Protection Plan.

SCA UTIL-5: Storm Drain System. See Section 4.7.14.

Mitigation: None required.

Impact HYD-4: The Project would not expose people or structures to a substantial risk of loss, injury, or death involving flooding. (Criteria 10, and 11) (*Less than Significant*)

An inundation map shows the approximate flooding that could result from a hypothetical failure of a dam or its critical structure and is intended to provide general information for emergency planning and response (DWR, 2022). The Project site edges are within the dam inundation area of the Central Reservoir Dam, which is categorized as an extremely high hazard dam (DWR, 2021; EBMUD, 2022). Failure of the Central Dam could cause massive destruction to the ecosystems and communities located downstream. The most common causes are earthquakes, landslides, extreme storms, equipment malfunction, structural damage, foundation failures, and sabotage (City of Oakland, 2021). The edges of the Project site are estimated to flood between one and four feet between 1.5 and 2 hours after a dam failure. Although the western edge of the Project building would be separated from Fruitvale Avenue and the Project site boundary by a narrow landscaped strip, most of the Project building would be in the Project site interior which is not estimated to flood in the event of a dam failure. In addition, the Project building finished floor elevation would be at least a foot above ground surface. Overall, the Project would not expose people or structures to a substantial risk of loss, injury, or death because of inundation and the impact would be less than significant.

The Project site is located in a tsunami evacuation zone. The National Weather Service is responsible for issuing warnings about potential tsunamis along the West Coast of the United States. A warning is issued when damaging tsunami waves inundating dry land are expected. Warning times for tsunamis vary depending on the distance to the epicenter of the earthquake that caused them (City of Oakland, 2021). For most tsunamis approaching the coast, several hours are available to evacuate residents and undertake other emergency preparations. Flooding from tsunamis would affect low-lying areas along San Francisco Bay and the Oakland Estuary,

especially areas that are only a few feet above sea level (City of Oakland, 2004). Tsunamis are addressed in the Safety Element of the Oakland General Plan which indicates that areas along Oakland's Inner Harbor, Brooklyn Basin and the Tidal Canal would be sheltered by the island of Alameda. The likelihood of large-scale devastation in Oakland resulting from tsunamis appears to be small, especially as there would usually be ample time to evacuate residents at risk (City of Oakland, 2004). The Oakland Office of Emergency Services (OES) has identified a network of evacuation routes in the General Plan Safety Element (City of Oakland, City of Oakland General Plan Safety Element, 2012). Emergency Evacuation Routes are typically along major thoroughfares. Nearby Emergency Evacuation Routes include the north-south Fruitvale Avenue along the west side of the Project site and east-west San Leandro Street about three blocks north of the Project site. Therefore, the Project would not expose people or structures to the risk of loss, injury, or death because of flooding.

Mitigation: None required.

4.7.7.5 Cumulative Impacts

Impact HYD-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative impacts on surface water or groundwater quality. (*Less than Significant with SCAs*)

As analyzed above, the Project is not located in a 100-year floodplain and therefore would not result in a significant impact relating to this. Therefore, this cumulative analysis focuses on these aspects of the Project as well as the Project's less-than-significant impacts relating to water quality, groundwater, and flooding (including tsunamis and dam failures) and runoff during construction and operation.

The geographic scope for cumulative impacts on water quality is the area managed by the RWQCB's Basin Plan that receives runoff from tributaries and discharges from industrial and urban sources into the Bay. The cumulative development for water quality includes all development within the Basin Plan. The cumulative context for groundwater is the East Bay Basin Plan boundary. The cumulative context for the Project's stormwater runoff would be the development within the City's stormwater drainage collection area that includes the Project site.

Cumulative Impact and Project Contribution

Water Quality

The Project, in combination with other past, present, and future development in the Basin Plan watersheds would continue to contribute runoff and discharges to the Bay that contain constituents from agriculture, industrial, and urban land uses that would continue to potentially impact water quality in the Basin Plan area resulting in the need for continual updates to water quality control plans like the Basin Plan, and water quality regulations like those listed in the regulatory setting in this section. Likewise, these activities would continue to infiltrate and affect groundwater quality in the East Bay Basin. However, the Project would be required to comply with the current and future Basin Plan, applicable NPDES Permit requirements and ordinances,

Creek Protection Permit requirements, and other water quality and stormwater control regulations, including SCA HYD-1, HYD-2, HYD-3, HYD-4, and UTIL-6. These regulatory requirements and the design of the Project to capture on-site stormwater within a new on-site stormwater system meeting stormwater quality design specifications would reduce the Project's incremental contribution to a cumulative impact to water quality to a less-than-considerable level. They also contain construction BMPs to protect the creek during construction. Therefore, the Project would not have a cumulatively considerable contribution to the cumulative impact on water quality, and the impact would be less than significant.

Groundwater

The Project would not involve groundwater extraction or dewatering, and the total post-Project impervious surface would be reduced relative to the existing/pre-Project impervious surface. Therefore, the Project's impacts on groundwater would not combine with other areas of the City and the Project would not have a cumulatively considerable contribution to a cumulative impact on groundwater.

Flooding and Runoff

The Project, in combination with other past, present, and future development in the City's stormwater drainage collection area that includes the Project site would contribute to runoff that could cumulatively result in off-site flooding, exceedances of the capacity of the City's stormwater drainage system, and/or contribute substantial runoff which would be an additional source of polluted runoff. Similar to the Project, cumulative projects would be subject to the City's SCAs that would also ensure that they would not contribute substantial runoff which would exceed the capacity of the City's stormwater drainage system, and provide reduction of stormwater runoff velocities, volume, and pollutant load thereby reducing the risk of substantial flooding on- or off-site and polluted runoff. Applicable NPDES Permit requirements and ordinances, and other water quality and stormwater control regulations, including SCA HYD-1, HYD-2, HYD-3, and UTIL-6, would reduce the Project's incremental contribution to a cumulative impact to flooding and runoff to a less-than-considerable level. Applicable creek permit requirements and the Creek Protection Plan ordinance, including SCA HYD-3 and HYD-4, would reduce the Project's incremental contribution to a cumulative impact to the Tidal Canal and Estuary. Therefore, the Project would not have a cumulatively considerable contribution to a cumulative impact with regard to flooding and runoff, and the impact would be less than significant.

Regarding risks associated with dam inundation or tsunamis, Impact HYD-4 above concluded that, given the Project site elevation and access to existing evacuation routes, the Project would not expose people or structures to a substantial risk of loss, injury, or death because of inundation. The Project would not combine with any other past, present, and future development in the Project vicinity that would increase the risk associated with dam failure or tsunami and therefore would not contribute to a cumulative impact.

SCA HYD-1: State Construction General Permit.

SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects.

SCA HYD-3: Vegetation Management on Creekside Properties.

SCA HYD-4: Creek Protection Plan.

SCA UTIL-5: Storm Drain System. See Section 4.7.14.

Mitigation: None required.

4.7.7.6 References

Apex Companies, LLC. 2021. *Phase II Environmental Site Assessment Former Owens-Brockway Glass Facility 3600 Alameda Avenue Oakland, California*. October 27, 2021. Accessed April 26, 2022.

California Coastal Commission. 2021. *Sea Level Rise.* Accessed April 26, 2022. https://www.coastal.ca.gov/climate/slr/#:~:text=Given%20current%20trends%20in%20greenhouse,coast%20by%20the%20year%202100.

California Ocean Protection Council (OPC). 2018. *State of California Sea-Level Rise Guidance 2018 Update,* March 14, 2018. Accessed April 26, 2022. https://opc.ca.gov/webmaster/ftp/pdf/agenda_items/20180314/Item3_Exhibit-A_OPC_SLR_Guidance-rd3.pdf.

City of Oakland. 1997. *Guide to Oakland's Creek Protection Ordinance, Oakland Municipal Code 13.16.* Accessed April 26, 2022. https://cao-94612.s3.amazonaws.com/documents/Guide-to-Creek-Protection-Ordinance.pdf.

City of Oakland. 2012. *General Plan, Safety Element*. Adopted 2004; amended 2012.

City of Oakland. 2017. *Oakland Preliminary Sea Level Rise Road Map.* Accessed April 26, 2022. https://cao-94612.s3.amazonaws.com/documents/oak068799.pdf.

City of Oakland. 2021. *2021-2026 Hazard Mitigation Plan,* July 2021. Accessed April 26, 2022. https://cao-94612.s3.amazonaws.com/documents/2021-07-01_OaklandHMP_AdoptedFinal-1.pdf.

City of Oakland. 1996. *Open Space, Conservation, and Recreation Element (OSCAR) Element of the General Plan*. Adopted June 11, 1996.

Department of Water Resources (DWR). 2021. *Dam Breach Inundation Map Web Publisher*. Accessed January 20, 2022. https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2.

DWR. 2004. *Bulletin 118 – Santa Clara Valley Groundwater Basin, East Bay Plain Subbasin,* last updated February 27, 2004. Accessed January 20, 2022. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/2_009_04_East-BayPlainSubbasin.pdf.

DWR. 2022. *Inundation Maps.* Accessed May 16, 2022. https://water.ca.gov/programs/all-programs/division-of-safety-of-dams/inundation-maps#:~:text=An%20Inundation%20map%20shows%20flooding,maps%20and%20emergency%20action%20plans.

East Bay Municipal Utility District (EBMUD). 2020. *Dam Inundation Map for Hypothetical Failure of Central Main Dam Breach*, August 2020.

Kleinfelder Incorporated. 2021. *Geotechnical Investigation Report Industrial Warehouse Site, 3600 Alameda Avenue, Oakland, California,* May 26, 2021. Accessed January 20, 2022.

Metropolitan Transportation Commission and Association of Bay Area Governments (MTC and ABAG). 2021. *MTC/ABAG Hazard Viewer Map*. Accessed April 23, 2022. https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8.

National Oceanic and Atmospheric Administration (NOAA). 2018. *Sea Level Trends*. Accessed April 26, 2022. https://tidesandcurrents.noaa.gov/sltrends/.

Oakland Museum of California. 2000. *Creek & Watershed Map of Oakland & Berkeley*. Accessed April 26, 2022. https://deh.acgov.org/landwater-assets/docs/Oakland-Berkeley-Creek-Map.pdf.

Regional Water Quality Control Board (RWQCB). 2019. *San Francisco Bay Basin (Region 2) Water Quality Control Plan (Basin Plan)*. California Regional Water Quality Control Board, San Francisco Bay Region. Amended November 5, 2019. Accessed January 20, 2022. https://www.waterboards.ca.gov/sanfranciscobay/basin_planning.html.

Port of Oakland. 2019. *Sea Level Rise Assessment*. July 1, 2019. Accessed April 26, 2022. https://www.portofoakland.com/files/PDF/Task%207_20190709%20Port%20Oak%20SLR%20Assmt_Rev2.pdf.

4.7.8 Land Use and Planning

Issues (and Supporting Information Sources):		*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XI.	**LAND USE AND PLANNING —** The Project would have a significant impact on the environment if it would:				
1)	Physically divide an established community;	☐	☐	☒	☐
2)	Result in a fundamental conflict between adjacent or nearby land uses;	☐	☐	☒	☐
3)	Fundamentally conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment; or	☐	☐	☒	☐
4)	Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.	☐	☐	☐	☒

4.7.8.1 Environmental Setting

Surrounding Land Uses

The Project site is surrounded primarily by commercial uses, with some single-family residential areas to the north and west. A residential community, referred to as Jingletown, exists between the Project site and I-880 to the north. The area north of the Project site also includes a few commercial establishments, including a roofing company, and surface parking lots. A large Home Depot building supply store with an associated parking lot and a McDonald's restaurant occupy the land between the I-880 and Alameda Avenue east of the Project site. Existing uses to the southeast of the Project site, between Alameda Avenue and the Tidal Canal of the estuary, include commercial uses (e.g., JCW Cabinets & Stone, Bay Island Gymnastics) and surrounding surface parking. The Tidal Canal separating Oakland from the City of Alameda runs south and parallel to Alameda Avenue, the southern border of the Project site. Existing uses to the east include more commercial uses (e.g., a cosmetics store, sales store, motor shop) and single-family housing.

Existing General Plan Designations and Zoning

The General Plan land use designation for the Project site is Estuary Policy Plan Heavy Industrial (EPP HI). The intent of the EPP HI designation is to retain the existing glass recycling and manufacturing functions within the area and promote an enhanced relationship with the adjoining residential neighborhood, Fruitvale Avenue, and the waterfront. In addition, future development in this designated area is intended to be primarily heavy industrial uses.

The Project site is located in the Central Estuary District Industrial Zone – 6 (D-CE-6), and is included in the Central Estuary Area Plan, which is described below. The intent of this designation is to create, preserve, and enhance areas of the Central Estuary that are appropriate

for a wide variety of businesses and related commercial and industrial establishments. Industrial and manufacturing uses, transportation facilities, warehouse and distribution and other similarly related supporting uses are permitted in this zone.

4.7.8.2 Regulatory Setting

City of Oakland General Plan

The Oakland General Plan establishes comprehensive, long-term land use policies for the City and provides the primary policy direction for development throughout the City and therefore the Project site. The General Plan consists of a series of "elements," each of which deals with a particular topic, and includes policies, many of which guide development citywide.

The Oakland General Plan Land Use and Transportation Element (LUTE) contains the following land use policies that address issues related to land use and planning, and/or are particularly relevant to the Project (City of Oakland, 2007).

Industry and Commerce Policies

Policy I/C1.8: Providing Support Amenities Near Employment Centers. Adequate cultural, social, and support amenities designed to serve the needs of workers in Oakland should be provided within close proximity of employment centers.

Policy I/C1.9: Locating Industrial and Commercial Area Infrastructure. Adequate public infrastructure should be ensured within existing and proposed industrial and commercial areas to retain viable existing uses, improve the marketability of existing vacant or underutilized sites, and encourage future use and development of these areas with activities consistent with the goals of this Plan.

Policy I/C2.1 Pursuing Environmental Clean-Up. The environmental cleanup of contaminated industrial properties should be actively pursued to attract new users in targeted industrial and commercial areas.

Policy I/C2.3 Providing Vacant or Buildable Sites. Development in older industrial areas should be encouraged through the provision of an adequate number of older or vacant buildable sites designated for future development.

Policy I/C.4.1: Protecting Existing Activities. Existing industrial, residential, and commercial activities and areas which are consistent with long term land use plans for the City should be protected from the intrusion of potentially incompatible land uses.

Policy I/C4.2: Minimizing Nuisances. The potential for new or existing industrial or commercial uses, including seaport and airport activities, to create nuisance impacts on surrounding residential land uses should be minimized through appropriate siting and efficient implementation and enforcement of environmental and development controls.

Transportation and Transit-Oriented Development Policies

Policy T2.1: Encouraging Transit-Oriented Development. Transit-oriented development should be encouraged at existing or proposed transit nodes, defined by the convergence of two or more modes of public transit such as BART, bus, shuttle service, light rail or electric trolley, ferry, and inter-city or commuter rail.

Policy T2.2: Guiding Transit-Oriented Development. Transit-oriented developments should be pedestrian oriented, encourage night and day times use, provide the neighborhood with needed goods and services, contain a mix of land uses, and be designed to be compatible with the character of surrounding neighborhoods.

Policy T4.1: Incorporating Design Features for Alternative Travel. The City will require new development, rebuilding, or retrofit to incorporate design features in their projects that encourage the use of alternative modes of transportation such as transit, bicycling, and walking.

Policy T6.2: Improving Streetscapes. The City should make major efforts to improve the visual quality of streetscapes. Design of the streetscape, particularly in neighborhoods and commercial centers, should be pedestrian oriented, include lighting, directional signs, trees, benches, and other support facilities.

Waterfront Policies

Policy W2.2: Buffering of Heavy Industrial Uses. Appropriate buffering measures for heavy industrial uses and transportation uses on adjacent neighborhoods should be developed and implemented.

Policy W7.2: Encouraging Commercial and Industrial Uses. Other commercial and industrial uses should be encouraged at appropriate locations (Port-owned or not) where they can provide economic opportunity to the community at large.

Policy W12.2 Defining Fruitvale Waterfront Land Uses. This area should allow for the current use of existing industry and manufacturing uses as well as residential use; however, the area should be promoted for uses that better utilize the waterfront's unique position in the City. Depending on the level of intensity, uses that can benefit from close proximity to the airport and business park may be appropriate. Commercial businesses, recreation, and housing should be able to coexist in this area with appropriate buffering measures.

Policy W12.4 Defining Mixed Use Characteristics. The mixed use characteristics for the area should incorporate office, commercial, and industrial uses, with recreation facilities and housing where appropriate and feasible.

Policy W12.5 Mitigating Land Use Conflicts. Since this area is and may continue to be an area that has a variety of uses including industrial, incompatibilities should be mitigated through appropriate site planning, landscaping, and buffering.

Neighborhood Policies

Policy N1.1: Concentrating Commercial Development. Commercial development in the neighborhoods should be concentrated in areas that are economically viable and provide opportunities for smaller scale, neighborhood-oriented retail.

Estuary Policy Plan

The Estuary Policy Plan (EPP) is part of the General Plan and contains objectives and policies to enhance the future of the area of Oakland between Adeline Street, the Nimitz Freeway (I-880), 66th Avenue, and the Estuary shoreline (City of Oakland, 1999). The plan proposes the following

land use policies that address issues related to the land uses and planning, and/or are particularly relevant to the Project.

> ***Policy LU-5:*** Retain the existing industrial use of the Owens-Brockway site.
>
> ***Policy LU-5.1:*** Improve the compatibility between industrial and residential uses, and enhance the relationship of the plant with the waterfront.

Oakland Planning Code and Zoning Ordinance

The Planning Code serves to implement General Plan policies and is found in the Oakland Municipal Code, Title 17. The Planning Code governs land uses and development standards, such as building height, bulk and setback, for specific zoning districts within Oakland.

Central Estuary Area Plan

The Project site is zoned D-CE-6, Central Estuary District Industrial Zone-6. The intent of the D-CE-6 designation is to create, preserve, and enhance areas of the Central Estuary for a wide variety of businesses and related commercial and industrial establishments that may have the potential to generate off-site impacts (e.g., noise, light, odor, and traffic). This zoning designation allows for heavy industrial and manufacturing uses, transportation facilities, warehousing and distribution, and similar related uses (OMC Chapter 17.101E).

> ***Policy CE-5:*** Allow the existing industrial use of the Owens-Brockway site.
>
> ***Policy CE-5.1:*** Improve the compatibility between industrial and residential uses, and enhance the relationship of the Owens-Brockway plant with the waterfront.

4.7.8.3 Topics Considered and No Impact Determined

The following topic is considered to have no impact caused by the Project based on the proposed Project characteristics, its geographical location, and underlying site conditions. Therefore, this topic is not addressed further in this document for the following reasons:

- ***Conflict with natural community conservation plans*** (Criterion 4). The Project site is not located within or in proximity to an area guided by a Habitat Conservation Plan or Natural Community Conservation Plan. Therefore, development of the Project would not conflict with such plans and no impact would occur. This criterion is also discussed in Section 2.4, *Biological Resources*.

4.7.8.4 Project Impacts and Discussion

Physical Division of an Established Community

Impact LUP-1: The Project would not physically divide an established community. (Criterion 1) (*Less than Significant*)

Physically dividing an established community means the creation of barriers that prevent or hinder the existing flow of people or goods through an established community, or the placement

of a development in such a manner that it physically separates one portion of an established community from the remainder of that community. The construction of a new major highway through an existing residential neighborhood would constitute a typical example of a physical division of an established community.

The Project vicinity is somewhat enclosed by I-880 to the north and the Tidal Canal to the south. Existing uses within this area are primarily commercial and industrial, with single-family residential to the north and east of the Project site. The Project would replace the recently vacated industrial facility with a new industrial facility – a distribution warehouse. Therefore, the Project would not introduce a different land use to the Project site nor change the existing land use pattern such that an existing established community would be divided. Various components of the Project would improve connectivity between surrounding land uses. Specifically, the Project would upgrade and reconstruct surrounding sidewalks, open Boehmer Street which is currently closed and gated, extend 37th Avenue through to Alameda Avenue, and shift Alameda Avenue approximately 100 feet inland to increase public access to the shoreline and Bay Trail. Considering the Project would not introduce a different land use and would improve connections surrounding the Project site, the Project would not physically divide an established community, and the impact would be less than significant.

Mitigation: None required.

Land Use Compatibility

Impact LUP-2: The Project would not result in a fundamental conflict between adjacent or nearby land uses. (Criterion 2) (*Less than Significant*)

A fundamental conflict with adjacent or nearby land uses means that the character of activities associated with one land use is in fundamental conflict with the uses of adjacent land, or the characteristics of one land use disrupts or degrades adjacent land uses to such a degree that the functional use of the adjacent land for its existing or planned purpose is imperiled.

As noted above, the Project would not introduce a different land use to the Project site nor change the existing land use pattern. Although there are residential areas north and east of the Project site, other surrounding uses include big box retail surrounded by surface parking lots, warehouses and light industrial uses. The Project would be consistent with existing land uses and compatible with nearby commercial retail and residential uses. Further, the Project site plan includes a buffer between the closest sensitive land uses and the proposed industrial facility and associated activities. The site plan places employee parking to the north of the proposed building, and a 20-foot-wide landscaping area between the proposed parking lot and the northern Project site boundary. Together, the parking lot and landscape area would create a 91-foot buffer between the building and the northern Project site boundary. The land dedicated to the City for a potential future East 7th Street extension would provide an additional buffer between the proposed project building and the residential uses to the north. In addition, all truck loading would be located at the south end of the building, away from residential uses. Therefore, the Project would not result in a

fundamental conflict between adjacent or nearby land uses and the impact would be less than significant.

Mitigation: None required.

Consistency with Land Use Plans and Policies

Impact LUP-3: The Project would not fundamentally conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect and result in a physical change in the environment. (Criterion 3) (*Less than Significant*)

Plan Bay Area 2040

The Association of Bay Area Governments (ABAG) and Metropolitan Planning Commission's (MTC) *Plan Bay Area 2040* integrates transportation, land use, and housing to meet greenhouse gas reduction targets for the San Francisco Bay Area region. Regarding land use, *Plan Bay Area 2040* focuses growth and development in Priority Development Areas (PDAs) and Transit Priority Areas (TPAs), which are served by public transit and have been identified as appropriate for additional, compact development (ABAG and MTC, 2017). The Project is in a TPA, as it is within 0.5-mile of a major transit stop (Fruitvale BART station). The Project is located within the San Antonio & Central Estuary PDA (MTC, 2020). The San Antonio & Central Estuary PDA is characterized as a mixed-use corridor, which is defined as an area of economic and community activity with rail, streetcar, or high frequency bus service that lacks a distinct center (ACTC 2017). The Project would develop an industrial facility, the operation of which would support economic activity and align with the character of the San Antonio & Central Estuary PDA. Therefore, Project impacts related to conflicts with regional land use plans and policies adopted for the purpose of avoiding or mitigating an environmental effect would be less than significant.

General Plan/Estuary Policy Plan

The General Plan land use designation for the Project site is Estuary Policy Plan Heavy Industrial (EPP HI). The HI designation applies specifically to the previous Owens-Brockway facility and is intended to retain the "existing glass recycling and manufacturing functions within this area and promote and enhanced relationship with the adjoining Jingletown/Elmwood neighborhood, Fruitvale Avenue, and the waterfront." This designation intends for future development on the site to be primarily heavy industrial uses.

The Project would redevelop the vacant industrial site with an approximately 430,000 square foot new industrial facility, intended as a distribution warehouse, including 30,000 square feet of accessory office space and possible future development of an approximately 10,000 square-foot café/restaurant. The Project would include an employee parking lot and a 20-foot-wide landscaping area on the northern side of the building resulting in an overall 91-foot buffer between the proposed building and the northern Project site boundary. The land dedicated to the City for a potential future East 7th Street extension would provide an additional buffer between

the proposed project building and the residential uses to the north. The Project site design includes additional landscaped areas, sidewalks surrounding the property would be re-constructed, and shoreline access would be enhanced by the realigned Alameda Avenue.

In addition, the Project Applicant has performed environmental due diligence to characterize potential soil and groundwater contamination on the site left by former heavy industrial uses and to address site remediation. The Project Applicant is working with the U.S. EPA to mitigated existing hazardous materials and has prepared a Cleanup Plan (see Section 4.4, *Hazards and Hazardous Materials*).

Overall, the Project would be consistent with General Plan Policies including those related to pursuing environmental clean-up, locating industrial uses and protecting existing industrial activities, improving streetscapes, and buffering heavy industrial uses. In addition, the Project would be consistent with the policies of the Estuary Policy Plan as it would retain the existing industrial use, improve the compatibility between industrial and residential uses, and provide new commercial activities. Therefore, the Project would not fundamentally conflict with the City's General Plan and the impact would be less than significant.

Planning Code and Zoning Map

The Project site is zoned Central Estuary District Industrial Zone – 6 (D-CE-6). The D-CE-6 Zone is intended to create, preserve, and enhance areas of the Central Estuary that are appropriate for a wide variety of businesses and related commercial and industrial establishments that may have the potential to generate offsite impacts, such as noise, light/glare, odor, and traffic. This zoning designation allows for industrial and manufacturing uses, transportation facilities, warehousing and distribution, and similar related supporting uses. The Project would construct a new industrial facility intended as a distribution warehouse and would be consistent with the D-CE-6 zoning designation.

Central Estuary Area Plan

As noted above, the Project site is zoned D-CE-6, which is intended, in part, to preserve and enhance areas for industrial establishments that may have the potential to generate off-site impacts. The Project would maintain the existing industrial use which is consistent with the zoning designation and Policy CE-5. Consistent with Policy CE-5.1, the Project would improve compatibility between land uses by improving the surrounding streetscape for pedestrians and bikes, improving shoreline access, and providing a 91-foot buffer between the proposed industrial operations and the northern Project site boundary. The land dedicated to the City for a potential future East 7th Street extension would provide an additional buffer between the proposed project building and the residential uses to the north. Therefore, the new industrial facility would not fundamentally conflict with the policies laid out in the Central Estuary Area Plan and the impact would be less than significant.

Mitigation: None required.

4.7.8.5 Cumulative Impacts

Impact LUP-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in or contribute to a significant cumulative impact to land use and planning. (*Less than Significant*)

The cumulative geographic context for land use, plans and policy considerations for the development of the Project consists of the areas surrounding the Project site and citywide.

As discussed under Impacts LUP-1 through LUP-3, the Project would not result in a significant land use impact by potentially physically dividing an established community; conflicting with adjacent or nearby land uses; or conflicting with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. All other cumulative development has been, or will be, subject to development guidance contained within the General Plan, prescribed by zoning, and other applicable land use plans and specific plans to ensure consistency. Therefore, the Project contribution to any potential cumulative impacts related to land use and planning would be less than significant.

Mitigation: None required.

4.7.8.6 References

Association of Bay Area Governments and Metropolitan Transportation Commission (ABAG and MTC). 2017a. *Plan Bay Area 2040, Final*. Adopted July 26, 2017. Accessed January 20, 2022. http://files.mtc.ca.gov/library/pub/30060.pdf.

Alameda County Transportation Commission (ACTC). 2017. *Alameda County Priority Development Area Investment and Growth Strategy*. May 2017. Accessed April 26, 2022. https://www.alamedactc.org/wp-content/uploads/2018/11/2017_AlamedaCounty_PDA_IGS.pdf.

City of Oakland. 1999. *Estuary Policy Plan*. June 1999. Accessed January 20, 2022. https://cao-94612.s3.amazonaws.com/documents/oak035256.pdf.

City of Oakland. 2007. *Land Use and Transportation Element of the Oakland General Plan*. March 24, 1998, amended to June 21, 2007. Accessed January 28, 2022. https://oaklandca.s3.us-west-1.amazonaws.com/oakca1/groups/ceda/documents/webcontent/oak035268.pdf.

City of Oakland. 2020. *Oakland Planning Code*. 1997. Updated June 9, 2020. Accessed January 20, 2022. https://cao-94612.s3.amazonaws.com/documents/Planning-Code-after-7-28-20-RV-Parking_Living-Amendments.pdf.

City of Oakland. 2021. *Central Estuary Area Plan*. April 5, 2013; last updated January 20, 2021. Accessed April 26, 2022. https://www.oaklandca.gov/resources/download-the-central-estuary-area-plan.

Metropolitan Transportation Commission (MTC). 2020. Priority Development Areas (*Plan Bay Area 2040*), July 27, 2020. Available at: https://opendata.mtc.ca.gov/datasets/priority-development-areas-plan-bay-area-2040/explore?location=37.793511%2C-122.205906%2C12.63, accessed January 28, 2022.

4.7.9 Mineral Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XII. MINERAL RESOURCES — The Project would have a significant impact on the environment if it would:				
1) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state; or	☐	☐	☐	☒
2) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	☐	☐	☐	☒

4.7.9.1 Environmental Setting

The Project site is located within the Oakland East Quadrangle on land classified by the California Department of Conservation's (DOC's) Division of Mines and Geology as Mineral Resource Zone 1 (MRZ-1), or an area where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence (DOC, 1987; 2020). The Project site is not zoned for, or immediately adjacent to, lands designated as a mineral resource zone by the City's General Plan (City of Oakland, 2015; 2018).

4.7.9.2 Topics Considered and No Impact Determined

Since the Project site is located on land with little likelihood for significant mineral deposits and is not zoned for, or immediately adjacent to, lands designated as a mineral resource zone by the City's General Plan, the Project would not interfere with any mineral extraction operations, and would not result in the loss of land designated for mineral resources. As such, the Project would not result in the loss of availability of a known mineral resource and would not result in the loss of a locally important mineral resource recovery site. Therefore, no impact to mineral resources would occur.

4.7.9.3 Cumulative Impacts

Because the Project would have no impact to mineral resources, it would not cause or contribute to any potential cumulative impact to such resources.

4.7.9.4 References

California Department of Conservation (DOC), Division of Mines and Geology. 1987. *Special Report 146, Part II, Mineral Land Classification: Aggregate Materials in the San Francisco-Monterey Bay Area*. Oakland East Quadrangle, Plate 2.19. 1987. Accessed February 25, 2022. https://ia902602.us.archive.org/35/items/minerallandclass00stin/minerallandclass00stin.pdf.

DOC. 2020. *State Mining and Geology Board Guidelines, Guidelines for Classification and Designation of Mineral Lands*. Accessed February 25, 2022. https://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf.

City of Oakland. 2015. *General Plan Designations*. Planning & Building Department. May 19, 2015. Accessed December 30, 2020. https://cao-94612.s3.amazonaws.com/documents/General-Plan-Designations-20150519.pdf.

City of Oakland. 2018. *City of Oakland Zoning and Estuary Policy Plan Maps.* Bureau of Planning. December 11, 2018. Accessed December 30, 2020. https://cao-94612.s3.amazonaws.com/documents/Zoning_EPP_Map_20181211.pdf.

4.7.10 Population and Housing

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIV. POPULATION AND HOUSING — The Project would have a significant impact on the environment if it would:				
1) Induce substantial population growth in a manner not contemplated in the General Plan, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extensions of roads or other infrastructure), such that additional infrastructure is required but the impacts of such were not previously considered or analyzed;	☐	☐	☒	☐
2) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element; or	☐	☐	☐	☒
3) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element.	☐	☐	☐	☒

4.7.10.1 Environmental Setting

Employment

In March 2022, the City of Oakland had approximately 202,800 jobs (EDD, 2022). According to the Association of Bay Area Governments (ABAG) and Metropolitan Planning Commission's (MTC) *Plan Bay Area 2040*, Oakland's employment is projected to grow by 93,660 jobs in the 30-year period from 179,100 jobs in 2010 to 272,760 jobs in 2040 (ABAG, 2017).

4.7.10.2 Regulatory Setting

Oakland Municipal Code

Chapter 15.68 of the Oakland Municipal Code establishes a Jobs/Housing Impact Fee in the City of Oakland to assure that certain commercial development projects compensate and mitigate for the increased demand for affordable housing generated by such development projects within the City of Oakland.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to reducing impacts on population and housing and that apply to the Project are listed below. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to population and housing. Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

SCA POP-1: Jobs/Housing Impact Fee. *(Standard Condition of Approval 71)*

Requirement: The project applicant shall comply with the requirements of the City of Oakland Jobs/Housing Impact Fee Ordinance (chapter 15.68 of the Oakland Municipal Code).

4.7.10.3 Topics Considered and No Impact Determined

The following topic is considered to have no impact caused by the Project based on the proposed Project characteristics, its geographical location, and underlying site conditions. Therefore, this topic is not addressed further in this document for the following reasons:

- ***Displacement*** (Criteria 2 and 3). The Project site is currently occupied by the former Owens-Brockway Glass manufacturing facility. Therefore, construction of the Project would not displace any existing housing units or substantial numbers of people necessitating the construction of replacement housing elsewhere in excess of that contained in the City's Housing Element, and no impact would occur.

4.7.10.4 Project Impacts and Discussion

Population Growth

Impact POP-1: The Project would not induce substantial population growth in a manner not contemplated in the General Plan, either directly or indirectly, such that additional infrastructure is required. (Criterion 1) (*Less than Significant*)

Project construction would involve temporary employees and the Project would generate an estimated 350 permanent employees.[13] According to the *Plan Bay Area 2040*, the City is projected to have an increase of approximately 93,700 jobs between 2010 and 2040. As of March 2022, the City experienced an increase of roughly 23,700 jobs since 2010 for an estimated total of 202,800 jobs (EDD, 2022). Additionally, the General Plan land use designation for the Project site is Estuary Policy Plan Heavy Industrial (EPP HI), which supports the uses proposed. The CEAP EIR also anticipated ongoing industrial operations on the Project site. The approximately 350 jobs added by the Project would therefore represent a marginal fraction of the projected and planned growth in the City. Therefore, the Project would not directly or indirectly induce unplanned substantial population growth requiring new infrastructure, and the impact would be less than significant.

While not required to reduce any significant effects related to population and housing, SCA POP-1, Jobs/Housing Impact Fee is applicable to the Project and would require the Project Applicant to comply with the City of Oakland Jobs/Housing Impact Fee Impact Fee Ordinances.

SCA POP-1: Jobs/Housing Impact Fee.

[13] Although the Central Estuary Implementation Guide Draft SEIR estimates a gross floor area per employee ratio of 700 square feet/employee for industrial uses, the Project Applicant estimates approximately 350 employees would be required for a warehouse distribution center of this size.

Mitigation: None required.

4.7.10.5 Cumulative Impacts

Impact POP-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in or contribute to a significant cumulative impact to population and housing. (*Less than Significant*)

The geographic context for cumulative impacts to population and housing is the City of Oakland. The Project in combination with past, present, and reasonably foreseeable future development in the City would lead to an increase in employment growth. However, as described under Impact POP-1 above, the approximately 350 jobs added by the Project would represent a marginal fraction of the City's projected and planned employment growth. Thus, the Project would not contribute to any potential cumulative substantial unplanned employment growth in the City, and the impact would be less than significant.

SCA POP-1: Jobs/Housing Impact Fee.

Mitigation: None required.

4.7.10.6 References

Association of Bay Area Governments and Metropolitan Planning Commission (ABAG and MTC). 2017. *Plan Bay Area 2040, Projections 2040 Forecasts for Population, Household and Employment for the Nine County San Francisco Bay Area Region*. July 2017. Accessed January 27, 2022. http://projections.planbayarea.org/.

California Employment Development Department (EDD), 2020. Labor Force and Unemployment Rate for Cities and Census Designated Places (CDP), Current Month, January 21, 2022. Available at: https://www.labormarketinfo.edd.ca.gov/data/labor-force-and-unemployment-for-cities-and-census-areas.html, accessed April 26, 2022.

4.7.11 Public Services

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XV. PUBLIC SERVICES — The Project would have a significant impact on the environment if it would:				
1) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:				
a) Fire protection;	☐	☐	☒	☐
b) Police protection;	☐	☐	☒	☐
c) Schools; or	☐	☐	☒	☐
d) Other public facilities.	☐	☐	☒	☐

4.7.11.1 Environmental Setting

Fire Protection and Emergency Medical Response

The Oakland Fire Department (OFD) provides fire protection services and emergency medical services for the Project site and throughout the City of Oakland. Fire Station 13 (1225 Derby Avenue) is the closest station to the Project site, located approximately 0.37 miles to the north. OFD aims to provide emergency service within 7 minutes of notification 90 percent of the time. Generally, service can be provided in that timeframe to areas located within 1.5 miles of a fire station (City of Oakland, 2012).

Police Protection

The Oakland Police Department (OPD) provides police services for the Project site and throughout the City of Oakland. The Project site is located in Patrol Area 4, traditionally known as East Oakland/Mills/Leona, and Police Beat 23X which includes the Saint Elizabeth neighborhood and portions of the Fruitvale neighborhood of the City (OPD, 2021). Incoming calls for police services are ranked as follows: Priority 1 refers to imminent danger, death, serious injury, felonies in progress, or serious public health hazards; Priority 2 refers to disputes with potential for violence, misdemeanor crimes in progress, stolen vehicle reports, and similar matters; and Priority 3 refers to reports of incidents that do not present danger to life or property (City of Oakland, 2019).

Public Schools

The Project site is served by the Oakland Unified School District (OUSD). Across Oakland, the OUSD operates 87 schools, including 49 elementary schools, 5 grade K–8 schools, 14 middle schools, 1 alternative middle school, 3 grade 6-through-12 schools, 7 high schools, 7 alternative

or continued-education schools, and 1 independent study school. There are also 34 OUSD-authorized charter schools.

Other Public Facilities

Other public facilities in the City include public libraries. The Oakland Public Library system consists of a downtown Main Library, 16 neighborhood branches, and 3 special collection libraries – the African American Museum and Library at Oakland, the Oakland History Room, and the Temescal Tool Lending Library.

4.7.11.2 Regulatory Setting

Senate Bill 50

The Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50 (SB 50), authorizes school districts to levy developer fees to finance the construction or reconstruction of school facilities, and restricts the ability of local agencies to deny project approvals on the basis that public school facilities (classrooms, auditoriums, etc.) are inadequate. School impact fees are collected at the time when building permits are issued. Payment of school fees is required by SB 50 for all new development projects and is considered full and complete mitigation of any school impacts. School impact fees are payments to offset capital cost impacts associated with new developments, which result primarily from costs of additional school facilities, related furnishings and equipment, and projected capital maintenance requirements. As such, agencies cannot require additional mitigation for any impacts on school facilities or due to the inadequacy of school facilities.

City of Oakland General Plan

The City of Oakland General Plan Land Use and Transportation Element (LUTE) and Safety Element contain objectives, policies, and actions to ensure public facilities and services are adequately available and accessible in a timely fashion to serve new development (City of Oakland, 2007 & 2012).

The following objectives and policies within the Neighborhoods section of the LUTE, apply Citywide and are relevant to the Project:

> **Objective N.12:** Provide adequate infrastructure to meet the needs of Oakland's growing community.
>
> > ***Policy N.12.1:*** The development of public facilities and staffing of safety-related services, such as fire stations, should be sequenced and timed to provide a balance between land use and population growth, and public services at all times.
> >
> > ***Policy N.12.2:*** Adequate public school capacity should be available to meet the needs of Oakland's growing community. The City and the Oakland Unified School District (OUSD) should work together to establish a continuing procedure for coordinating residential and commercial development and exploring the imposition of mutually agreed upon reasonable and feasible strategies to provide for adequate school capacity. The City and OUSD should jointly consider, where feasible and appropriate, funding mechanisms

such as assessment districts, redevelopment Agency funding (AB 1290), uses of surplus City-owned land, bond issues, and adjacent or shared use of land or school facilities with recreation, libraries, child care and other public uses.

The following policies and actions within the Public Safety and Fire Hazards sections of the Safety Element of the General Plan apply Citywide and are relevant to the Project:

***Policy PS-1*:** Maintain and enhance the City's capacity to prepare for, mitigate, respond to and recover from disasters and emergencies.

Action PS-1.1: Continue to maintain the City's Emergency Operations Center in a fully functioning state of readiness.

Action PS-1.2: Maintain and update as necessary the Oakland Standardized Emergency Management System Plan.

Action PS-1.4: Continue to collaborate with adjoining jurisdictions on the network of outdoor warning sirens, and to test the sirens on a monthly basis.

Action PS-1.5: Continue to offer community training on emergency prevention, preparedness, and response as part of the CORE program.

***Policy FI-1*:** Maintain and enhance the City's capacity for emergency response, fire prevention and fire-fighting.

***Action FI-1.1*:** Periodically assess the need for new or relocated fire stations and other facilities, changes in staffing levels, and additional or updated supplies, equipment, technologies and in-service training classes.

***Action FI-1.2*:** Strive to meet a goal of responding to fires and other emergencies within seven minutes of notification 90 percent of the time.

Action FI-1.4: Continue to sponsor the formation of CORE teams.

Action FI-1.5: Continue to participate not only in general mutual-aid agreements but also in agreements with adjoining jurisdictions for cooperative response to fires.

Action FI-1.6: Continue to conduct monthly tests of the alerting and warning system's outdoor sirens, coordinating them to the extent possible with those of neighboring jurisdictions.

***Policy FI-2*:** Continue, enhance or implement programs that seek to reduce the risk of structural fires.

Action FI-2.1: Adopt and amend as needed updated versions of the California building and fire codes so that optimal fire-protection standards are used in construction and renovation projects.

Action FI-2.3: Continue to review development proposals to ensure that they incorporate required and appropriate fire-mitigation measures, including adequate provisions for occupant evacuation and access by fire-fighting personnel and equipment.

Oakland Municipal Code

Oakland Municipal Code, Chapter 15.74, Transportation and Capital Improvement Fees, establishes Citywide transportation and capital improvements impact fees in the City of Oakland to assure that development projects pay their fair share to compensate for the increased demand for transportation and capital improvements infrastructure generated by development projects within the City. Funds deposited into the Capital Improvements Impact Fee Fund are used to pay for projects that are required for fire, police, library, parks and recreation, or storm drain services.

Oakland Municipal Code, Chapter 15.12 contains the Oakland Fire Code. The Oakland Fire Code was updated in 2016 to adopt the most recent California Fire Code and includes amendments to the California Fire Code specific to the City of Oakland in response to local climatic, geological, or topographical conditions. The Fire Prevention Bureau within the OFD assists the Fire Chief in the administration and enforcement of the provisions of the Oakland Fire Code. The Fire Prevention Bureau provides plan checking services that assure the incorporation of proper life safety standards, as well as code compliance, in all new construction in the City and oversees inspection services related to compliance with the state and local fire codes.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to reducing impacts on public services and that apply to the Project are listed below. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to public services. Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

SCA PUB-1: Capital Improvements Impact Fee. *(Standard Condition of Approval 73)*

Requirement: The project applicant shall comply with the requirements of the City of Oakland Capital Improvements Fee Ordinance (chapter 15.74 of the Oakland Municipal Code).

4.7.11.3 Project Impacts and Discussion

Impact PUB-1: The Project would not result in an increase in demand for fire protection and emergency medical response services that would require new or physically altered fire protection facilities to maintain acceptable service ratios, response times, or other performance objectives, construction of which could have significant physical environmental impacts. (Criterion 1.a) (*Less than Significant*)

The Project would increase the demand for fire protection and emergency medical response services due to the introduction of new site operations and an estimated 350 new employees on the Project site (see Section 4.7.10, *Population and Housing*). The associated increase in the demand for fire protection services would not be substantial and would be typical for the surrounding neighborhood comprised of commercial, light industrial, and residential uses. As discussed in Section 4.7.11.1, *Environmental Setting*, Fire Station 13 is located 0.37 miles north

of the Project site, and OFD is generally able to meet its response-time goals in areas located within 1.5 miles of a fire station (City of Oakland, 2012). In addition, the Project would open Boehmer Street, which extends between 36th and 37th Avenues and is currently closed and gated. The Project would also extend 37th Avenue from the current cul-de-sac south of Boehmer Street to Alameda Avenue along the east side of the Project site. This extension would provide a new north-south connection. Overall, the Project would improve circulation around the Project site and through the surrounding area, which will benefit existing response access.

The Project would be designed to comply with the most up-to-date building and fire codes and include fire safety measures and equipment, including but not limited to, use of fire retardant building materials, inclusion of emergency water infrastructure (fire hydrants and sprinkler systems), installation of smoke detectors and fire extinguishers, installation of emergency response notification systems, and provision of adequate emergency access to the Project site for emergency vehicles and personnel. Project fire safety plans would be subject to review and approval by the OFD. Therefore, the Project would not generate an unusual or substantial increased demand for fire services that would require new or physically altered fire facilities to serve the Project's demand and no impacts associated with the construction of such facilities would occur. The impact would be less than significant.

The Project would generate a net increase in property taxes and other fees, providing additional funds to the City's General Fund, which the City allocates in part to cover increased operational costs, such as additional fire personnel to meet increased needs from development. Also, the Project would comply with the requirements of the City of Oakland Capital Improvements Fee Ordinance (chapter 15.74 of the Oakland Municipal Code) by incorporating City of Oakland SCA PUB-1, Capital Improvements Impact Fee, that would assist in funding new, expanded, or improved fire facilities needed to provide expanded services in the City. Facilities developed as a result of the City's Capital Improvements Fee, funded in part by the Project, or by other means, would be required to undergo environmental review as they are identified.

SCA PUB-1: Capital Improvements Impact Fee.

Mitigation: None required.

Impact PUB-2: The Project would not result in an increase in demand for police services that would require new or physically altered police facilities to maintain acceptable service ratios, response times, or other performance objectives, construction of which could have significant physical environmental impacts. (Criterion 1.b) (*Less than Significant*)

The Project would result in an estimated 350 new employees on the Project site (see Section 4.7.10, *Population and Housing*). The associated increase in the demand for police services, particularly since the current site has not been operational for several years, would not be substantial and would be typical of the demand for the surrounding neighborhood comprised of commercial, light industrial, and residential uses. As noted above, the Project site is in Patrol Area 2, Police Beat 23X and nearby services and patrols are already available. Various components of the Project would improve safety within and surrounding the Project site. The

Project would upgrade and reconstruct surrounding sidewalks and implement a new intersection at Alameda Avenue and 37th Avenue. Compared with the existing vacant site, the Project would activate the site with employees and appropriate safety lighting. Therefore, the Project would not generate an unusual or substantial increased demand for police services or require new or physically altered police facilities to serve the Project's demand and no impacts associated with the construction of such facilities would occur. The impact would be less than significant.

As discussed above for Fire Projection (Impact PUB-1), the Project would also generate a net increase in property taxes and other fees providing additional funds for the City's General Fund, which the City allocates in part to cover costs associated with increase operational costs such as additional police personnel. Also similarly, the Project would comply with the requirements of the City of Oakland Capital Improvements Fee Ordinance (chapter 15.74 of the Oakland Municipal Code) by incorporating City of Oakland SCA PUB-1, Capital Improvements Impact Fee, that would assist in funding new, expanded, or improved police facilities needed to provide expanded services. Facilities developed as a result of the City's Capital Improvements Fee, funded in part by the Project, or by other means, would be required to undergo environmental review as they are identified.

SCA PUB-1: Capital Improvements Impact Fee.

Mitigation: None required.

Public Schools

Impact PUB-3: The Project would not result in an increase in new students for public schools at a level that would require new or physically altered school facilities to maintain acceptable service ratios or other performance objectives, construction of which would have significant physical environmental impacts. (Criterion 1.c) (*Less than Significant*)

No residential units are proposed as part of the Project. Therefore, the Project would not directly generate new students. The Project's new employment could indirectly generate new students in OUSD's service area from potential new employed-residents, assuming those residents may elect to reside in Oakland and/or enroll their students in OUSD schools; however, pursuant to SB 50, the Project would be required to pay school impact fees established to offset potential impacts from new development on school facilities. Therefore, although the Project could potentially indirectly increase student enrollment in OUSD's service area, payment of fees mandated under SB 50 is the mitigation measure prescribed by the statute, and payment of such fees is deemed full and complete mitigation of Project impacts on school facilities. Therefore, Project impacts to public schools would be less than significant.

Mitigation: None required.

Other Public Facilities

Impact PUB-4: The Project would not result in an increase in demand for other public facilities, including libraries, at a level that would require new or physically altered library facilities in order to maintain acceptable service ratios or other performance objectives, construction of which would have significant physical environmental impacts. (Criterion 1.d) (*Less than Significant*)

The Project would result in an estimated 350 new employees on the Project site (see Section 4.7.10, *Population and Housing*). No residential units are proposed as part of the Project, and no residential population increase would occur. Thus, the Project would result in limited demand for other City services such as libraries, and no new or physically altered library or other public facilities would be required to serve the Project's demand.

The Project would also generate a net increase in property taxes and other fees providing additional funds for the City's General Fund, which the City allocates in part to cover increased operational costs, such as the hire of additional library staff. The Project would comply with the requirements of the City of Oakland Capital Improvements Fee Ordinance (chapter 15.74 of the Oakland Municipal Code) by incorporating City of Oakland SCA PUB-1, Capital Improvements Impact Fee, that would assist in funding new, expanded, or improved library facilities needed to provide expanded services in the City. The Project's impact on libraries and other public facilities would be less than significant.

SCA PUB-1: Capital Improvements Impact Fee.

Mitigation: None required.

4.7.11.4 Cumulative Impacts

Impact PUB-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in an adverse cumulative increase in demand for public services that would require new or physically altered governmental facilities, construction of which could have significant physical environmental impacts. (*Less than Significant*)

The geographic context for cumulative impacts to public services is citywide, including the service areas for OFD, OPD, OUSD, and the Oakland Public Library. Cumulative development in the Project vicinity and citywide would generate a need for additional fire, police, public school, and library facilities. These public services are subject to annual budgeting processes during which service priorities are established and service levels are monitored, allowing for adjustments where needed. Changes in demand for all these services are expected to occur incrementally, allowing for carefully planned expansions of existing facilities. Any expansions would be likely to occur on sites already occupied by existing service providers.

Similar to the Project, cumulative projects would be subject to the requirements of the City of Oakland Capital Improvements Fee Ordinance (chapter 15.74 of the Oakland Municipal Code)

and SCA PUB-1, Capital Improvements Impact Fee, that would assist in funding new, expanded, or improved public service facilities needed to provide expanded services in the City. However, even if a facility were required to service the increased population or employees resulting from cumulative development, the new facility would likely be developed on an infill parcel. Given the location of such a facility (in an infill area), environmental documents for construction or expansion are typically categorical exemptions or negative declarations and would not result in a significant physical environmental impact.

Regarding public schools, cumulative projects would be required to pay school impact fees, pursuant to Senate Bill 50, which would offset potential impacts of increased student enrollment on school facilities.

Therefore, the Project would not have a considerable contribution to any potential significant cumulative impact regarding public services and impacts. The impact would be less than significant.

SCA PUB-1: Capital Improvements Impact Fee.

Mitigation: None required.

4.7.11.5 References

City of Oakland. 2007. *Land Use and Transportation Element of the Oakland General Plan*, March 24, 1998, amended to June 21, 2007. Available at https://www.oaklandca.gov/resources/land-use-and-transportation-element. Accessed February 10, 2022.

City of Oakland. 2012. *General Plan, Safety Element*. Adopted 2004; amended 2012. Accessed February 10, 2022. https://www.oaklandca.gov/resources/safety-element.

City of Oakland. 2019. *Downtown Oakland Specific Plan Draft Environmental Impact Report*. August 2019. Accessed February 10, 2022. https://www.oaklandca.gov/documents/draft-dosp-eir.

Oakland Police Department (OPD). 2021. Police District Locator. Available at http://gisapps1.mapoakland.com/policedistricts/. Accessed February 13, 2021.

4.7.12 Recreation

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XVI. RECREATION — The Project would have a significant impact on the environment if it would:				
1) Increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or	☐	☐	☒	☐
2) Include recreational facilities or require the construction or expansion of recreational facilities which might have a substantial adverse physical effect on the environment.	☐	☐	☒	☐

4.7.12.1 Environmental Setting

There are several public parks owned and managed by the Oakland Department of Parks, Recreation, and Youth Development in the vicinity of the Project site. Fruitvale Bridge Park is located across Alameda Avenue from the Project site adjacent to the Bay Trail. In addition, Josie de la Cruz Park (1637 Fruitvale Avenue) and Cesar Chavez Park (Foothill Boulevard and Bridge Avenue) are located approximately 0.62 and 0.72 miles from the Project site, respectively. The closest operating recreation center is the Carmen Flores Recreation Center located approximately 0.63 miles northeast of the Project site, adjacent to Josie de la Cruz Park. The closest athletic fields are located at Lazear Athletic Field (824 29th Avenue), approximately 0.3 miles northwest of the Project site, and include a Junior soccer field.

4.7.12.2 Regulatory Setting

City of Oakland General Plan

The OSCAR Element of the Oakland General Plan contains the following principles relevant to the Project (City of Oakland, 1996):

> **Objective OS-2: Urban Parks, Schoolyards, and Gardens.** To maintain an urban park, schoolyard, and garden system which provides open space for outdoor recreation, psychological and physical well-being, and relief from the urban environment.
>
> > ***Policy OS-2.1: Protection of Park Open Space.*** Manage Oakland's urban parks to protect and enhance their open space character while accommodating a wide range of outdoor recreational activities.
>
> **Objective OS-7: Shoreline Access.** To increase physical and visual access to the Oakland shoreline and create new opportunities for shoreline recreation.
>
> > ***Policy OS-7.2: Dedication of Shoreline Public Access.*** Support the BCDC requirements which mandate that all new shoreline development designate the water's edge as publicly accessible open space where safety and security are not compromised, and where access can be achieved without interfering with waterfront industrial and maritime uses. Where such conflicts or hazards would result, support the provision of off-site access

improvements in lieu of on-site improvements. In such cases, the extent of off-site improvements should be related to the scale of the development being proposed.

Policy OS-7.3: Waterfront Appreciation. Promote a greater appreciation of the Oakland waterfront by preserving and enhancing waterfront views, promoting its educational value, and, exploring new and creative ways to provide public access to the shoreline without interfering with transportation and shipping operations or endangering public safety.

Oakland Municipal Code

Oakland Municipal Code, Chapter 15.74, Transportation and Capital Improvement Fees, establishes citywide transportation and capital improvements impact fees in the City of Oakland to assure that development projects pay their fair share to compensate for the increased demand for transportation and capital improvements infrastructure generated by development projects within the City. Funds deposited into the Capital Improvements Impact Fee Fund are used to pay for projects that are required for fire, police, library, parks and recreation, or storm drain services.

City of Oakland Parks and Homeless Services Measure (Measure Q)

In March 2020, City of Oakland voters passed an ordinance that authorizes a 20-year special annual parcel tax to fund parks and recreational facilities, services for unhoused and unsheltered persons, and maintenance of stormwater trash collection systems. Approximately 64 percent of tax revenue could be used for parks, landscape maintenance, and recreational services, and no more than 55 percent can be used to preserve current parks and operational services. Non-residential parcels are taxed based on parcel frontages and square footage.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to reducing impacts on recreation and that apply to the Project are listed below. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to recreation. Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

SCA PUB-1: Capital Improvements Impact Fee. *(Standard Condition of Approval 73)*

Requirement: The project applicant shall comply with the requirements of the City of Oakland Capital Improvements Fee Ordinance (chapter 15.74 of the Oakland Municipal Code).

SCA REC-1: Access to Parks and Open Space. *(Standard Condition of Approval 74)*

Requirement: The project applicant shall submit a plan for City review and approval to enhance bicycle and pedestrian access from the project site and adjacent areas to Fruitvale Bridge Park. Examples of enhancements may include, but are not limited to, new or improved bikeways, bike parking, traffic control devices, sidewalks,

pathways, bulb-outs, and signage. The project sponsor shall install the approved enhancements during construction and prior to completion of the project.

4.7.12.3 Project Impacts and Discussion

Impact REC-1: The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated or require the construction or expansion of recreational facilities which could have a substantial adverse physical effect on the environment. (Criteria 1 and 2) (*Less than Significant*)

The Project would result in an estimated 350 new employees on the Project site (see Section 4.7.10, *Population and Housing*). The associated increase in the demand for existing parks and recreational facilities by employees and visitors to the Project site would not be substantial and would be typical of the demand associated with commercial development.

Furthermore, although not necessary to avoid substantial deterioration of existing recreational facilities, the Project would include several open spaces available to Project employees. Landscaped areas would be developed along the Fruitvale Avenue and Alameda Avenue frontages. The Project also proposes to increase public access to the estuary shoreline and the Bay Trail, by shifting Alameda Avenue approximately 100 feet inland and creating new and improved pedestrian sidewalks and bike facilities. These project components would be implemented in accordance with SCA REC-1, Access to Parks and Open Space, which requires the Project Applicants to submit a plan for City review and approval to enhance bicycle and pedestrian access from the Project site to the Bay Trail and Fruitvale Bridge Park across Alameda Avenue from the Project site.

In addition, the Project would also be subject to the Measure Q annual parcel tax to fund parks and recreational facilities, including landscape maintenance and preserving existing parks and operational services. The Project would generate a net increase in property taxes and other fees providing additional funds for the City's General Fund, which the City allocates in part to cover any increased operational costs associated with parks and recreation. Funds allocated to maintain recreational resources would address any increase in park use. Therefore, the Project would not increase the use of existing parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be substantially accelerated or require the construction or expansion of recreational facilities which could have a substantial adverse physical effect on the environment. The impact would be less than significant.

The Project would comply with the requirements of the City of Oakland Capital Improvements Fee Ordinance (chapter 15.74 of the Oakland Municipal Code) by incorporating City of Oakland SCA PUB-1, Capital Improvements Impact Fee, that would assist in funding new, expanded, or improved parks and recreation facilities needed to provide expanded services in the City. Park projects developed as a result of the City's Capital Improvements Fee, funded in part by the Project, or by other means, would be required to undergo environmental review as they are identified.

SCA REC-1: Access to Parks and Open Space.

SCA PUB-1: Capital Improvements Impact Fee. See Section 4.7.11.

Mitigation: None required.

4.7.12.4 Cumulative Impacts

Impact REC-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in significant cumulative impacts to recreation. (*Less than Significant*)

The geographic context for cumulative impacts to public services is citywide, as parks and recreation facilities are provided citywide. Cumulative development in the Project vicinity and citywide could generate a need for additional parks and recreation facilities. Cumulative projects would also be subject to the Measure Q annual parcel tax to fund parks and recreational facilities and would generate a net increase in property taxes and other fees providing additional funds for the City's General Fund to cover costs associated with increased operational costs associated with parks and recreation. Similar to the Project, cumulative projects would be subject to the requirements of the City of Oakland Capital Improvements Fee Ordinance (Chapter 15.74 of the Oakland Municipal Code) compliance with which is required through SCA PUB-1, that would assist in funding new, expanded, or improved parks and recreation facilities needed to provide expanded services in the City. Cumulative projects would be subject to the requirements or SCA REC-1, which requires project applicants to submit a plan for City review and approval to enhance bicycle and pedestrian access from the project sites to any existing adjacent open spaces such as parks, lakes, or the shoreline. Therefore, the Project would not have a considerable contribution to any potential significant cumulative impact with regard to parks and recreation facilities. The impact would be less than significant.

SCA PUB-1: Capital Improvements Impact Fee. See Section 4.7.11.

SCA REC-1: Access to Parks and Open Space.

Mitigation: None required.

4.7.12.5 References

City of Oakland. 1996. *Open Space, Conservation, and Recreation Element (OSCAR) Element of the General Plan*. Adopted June 11, 1996.

4.7.13 Tribal Cultural Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XVIII. TRIBAL CULTURAL RESOURCES — Would the Project:				
1) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources. Code Section 5020.1(k), or	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

4.7.13.1 Cultural Resources

See Section 4.7.4, *Cultural Resources*, of this chapter for an analysis of potential Project impacts to cultural resources including historic architectural resources as well as historic and prehistoric archaeological resources including human remains.

4.7.13.2 Environmental Setting

A review of records from the Northwest Information Center of the California Historical Resources Information System indicates that there are no previously recorded prehistoric archaeological sites in the Project site (NWIC, 2021). The nearest prehistoric resources are located over 0.5 mile to the southwest and 2 miles to the southeast.

Historic maps show that Sausal (Diamond) Creek flowed along the west side of the Project site prior to the U.S. Army Corps of Engineers excavation of the present-day Tidal Canal and channelization of the creek (USGS, 1897, 1905, 1913; Sanborn, 1912).

The Project site is in an area mapped as Holocene-age Younger alluvial fan deposits (Graymer, 2000; Kleinfelder, 2021). This geologic formation has the potential to contain buried soil surfaces that may also harbor buried prehistoric archaeological resources (Meyer and Rosenthal, 2007). Geotechnical data indicates the Project site is underlain by interbedded clays, clayey silts and sands, sands, and gravels, and that artificial fill has been placed for building pads or pavement support. The fill is underlain by sandy and silty clays to depths of 9 to 14 feet below ground surface. Groundwater has been encountered at the Project site from 8 to 15 feet bgs (Kleinfelder, 2021).

While the general geologic context suggests prehistoric buried site sensitivity, the extensive historic-era development of the Project site further indicates that the potential to encounter prehistoric archaeological resources during Project implementation is relatively low.

Tribal Cultural Resources

Pursuant to CEQA requirement in SB18/AB52, on March 16, 2022, the City sent letters to 11 Native American tribal representatives provided by the Native American Heritage Commission (NAHC) as potentially interested in projects in the City of Oakland. The letters provided a description of the Project, a map showing the Project location, and an invitation to respond to a request for consultation within 30 days (as required by PRC Section 21080.3.1.d). One response was received from the Confederated Villages of Lisjan on March 28, 2022. The tribe thanked the City for their notice and officially declined to participate in scoping or consultation for the Project. No other responses were received.

4.7.13.3 Regulatory Setting

Native American Heritage Commission

The Native American Heritage Commission (NAHC) was created by statute in 1976, is a nine-member body appointed by the Governor to identify and catalog cultural resources (i.e., places of special religious or social significance to Native Americans and known graves and cemeteries of Native Americans on private lands) in California. The NAHC is responsible for preserving and ensuring accessibility of sacred sites and burials, the disposition of Native American human remains and burial items, maintaining an inventory of Native American sacred sites located on public lands, and reviewing current administrative and statutory protections related to these sacred sites.

California Public Resources Code Sections 5097.98 and 5097.99

PRC Section 5097.98 (reiterated in CEQA Guidelines Section 15064.5(e)) identifies steps to follow in the event of the accidental discovery or recognition of any human remains in any location other than a dedicated cemetery. PRC Section 5097.99 prohibits obtaining or possessing any Native American artifacts or human remains that are taken from a Native American grave or cairn (stone burial mound).

California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 protects human remains by prohibiting the disinterment, disturbance, or removal of human remains from any location other than a dedicated cemetery.

California Public Resources Code and Tribal Cultural Resources

In 2014, the California Legislature enacted Assembly Bill (AB) 52, which added provisions to the Public Resources Code regarding the evaluation of impacts on tribal cultural resources under CEQA, and requirements to consult with California Native American tribes. In particular, AB 52

requires lead agencies to analyze project impacts on tribal cultural resources separately from archaeological resources (PRC Sections 21074 and 21083.09). AB 52 defines "tribal cultural resources" in PRC Section 21074 and requires lead agencies to engage in additional consultation procedures with respect to California Native American tribes (PRC Sections 21080.3.1, 21080.3.2, and 21082.3).

A *tribal cultural resource* is defined in PRC Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k); or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in PRC Section 5024.1(c). In applying the criteria set forth in PRC Section 5024.1(c), the lead agency shall consider the significance of the resource to a California Native American tribe.

General Plan Historic Preservation Element

In March 1994, the Oakland City Council adopted the Historic Preservation Element of the Oakland General Plan (amended July 21, 1998). The following goal and policies address cultural resources and are relevant to the Project (City of Oakland, 1998):

> **Goal 2:** To preserve, protect, enhance, perpetuate, use, and prevent the unnecessary destruction or impairment of properties or physical features of special character or special historic, cultural, educational, architectural or aesthetic interest or value.
>
> Such properties or physical features include buildings, building components, structures, objects, districts, sites, natural features related to human presence, and activities taking place on or within such properties or physical features.
>
> > ***Policy 4.1: Archaeological resources.*** To protect significant archaeological resources, the City will take special measures for discretionary projects involving ground disturbances located in archaeologically sensitive areas.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to reducing impacts on tribal cultural resources and that apply to the Project are SCA CUL-1, Archaeological and Paleontological Resources – Discovery During Construction; and SCA CUL-2, Human Remains – Discovery During Construction (see Section 4.7.4, *Cultural Resources*). If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to cultural resources. Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

4.7.13.4 Project Impacts and Discussion

Impact TRI-1: The Project would not cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074. (Criterion 1) (*Less than Significant with SCAs*)

There are no tribal cultural resources listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), nor has the City of Oakland determined a resource to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. Based on background research and the environmental context, the Project site has a low potential to uncover previously undiscovered prehistoric archaeological resources, including those that could be considered tribal cultural resources.

While unlikely, the inadvertent discovery of prehistoric archaeological resources that could be considered tribal cultural resources would be a potentially significant impact. However, implementation of SCA CUL-1 and SCA CUL-2 would reduce impacts to archaeological resources and human remains, including those considered tribal cultural resources, by requiring that work halt in the vicinity of a find until it is evaluated by a qualified archaeologist and a Native American representative. Implementation of SCA CUL-1 and SCA CUL-2 would ensure that appropriate procedures are followed, and the impact would be reduced to a less-than-significant level.

> **SCA CUL-1: Archaeological and Paleontological Resources – Discovery During Construction.** See Section 4.7.4.
>
> **SCA CUL-2: Human Remains – Discovery During Construction.** See Section 4.7.4.
>
> **Mitigation:** None required.

4.7.13.5 Cumulative Impacts

Impact TRI-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not contribute to cumulative adverse impacts on archaeological resources, human remains, and tribal cultural resources. (*Less than Significant with SCAs*)

The geographic scope for cumulative effects on tribal cultural resources includes the immediate vicinity of locations where the Project could cause disturbance to these resources. Similar to the Project, cumulative projects in the vicinity could have a significant impact on previously undiscovered archaeological resources, including human remains interred outside of formal cemeteries, during ground-disturbing activities. These resources could also be considered tribal cultural resources. The potential impacts of the Project when considered together with similar impacts from other probable future projects in the vicinity could result in a significant cumulative impact on tribal cultural resources. However, implementation of SCA CUL-1 and SCA CUL-2 would require that work halt in the vicinity of a find until it is evaluated by a qualified archaeologist, and in the case of human remains the Alameda County Coroner. In addition,

cumulative projects undergoing CEQA review would also include these SCAs. In addition, cumulative projects would be required to comply with Public Resources Code Section 21080.3(b) (Assembly Bill 52) and send notification letters to culturally-affiliated Native American tribes. Therefore, with implementation of SCA CUL-1 and SCA CUL-2, the Project's contribution to cumulative impacts would not be considerable, and the impact would be less than significant.

> **SCA CUL-1: Archaeological and Paleontological Resources – Discovery During Construction.** See Section 4.7.4.
>
> **SCA CUL-2: Human Remains – Discovery During Construction.** See Section 4.7.4.
>
> **Mitigation:** None required.

4.7.13.6 References

Graymer, R.W. 2000. *Geologic Map and Map Database of the Oakland Metropolitan Area, Alameda, Contra Costa, and San Francisco Counties, California*. U.S. Geological Survey Miscellaneous Field Studies Map MF-2342. Scale 1:50,000.

Kleinfelder. 2021. *Geotechnical Investigation Report, Industrial Warehouse Site; 3600 Alameda Avenue, Oakland, California*. Project No. 20214267.001A. Northwest Information Center. Records search results (File No. 19-0876). On file, ESA. November 21, 2019; May 26, 2021.

Meyer, Jack, and Jeffrey Rosenthal. 2007. *Geoarchaeological Overview of the Nine Bay Area Counties in Caltrans District 4.* Prepared for California Department of Transportation, District 4.

Northwest Information Center (NWIC) of the California Historical Resources Information System. 2022. Database Search File No. 21-1575. Results on file at ESA. April 12, 2022.

U.S. Geological Survey (USGS). 1897. Concord, 1:62,500 Topographic Quadrangle Map, 1897.

USGS. 1915. Concord, 1:62,500 Topographic Quadrangle Map, 1915.

4.7.14 Utilities and Service Systems

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XIX. UTILITIES AND SERVICE SYSTEMS — The Project would have a significant impact on the environment if it would:				
1) Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board;	☐	☐	☒	☐
2) Require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects;	☐	☐	☒	☐
3) Exceed water supplies available to serve the project from existing entitlements and resources, and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects;	☐	☐	☒	☐
4) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the providers' existing commitments and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which could cause significant environmental effects;	☐	☐	☒	☐
5) Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects;	☐	☐	☒	☐
6) Violate applicable federal, state, and local statutes and regulations related to solid waste;	☐	☐	☒	☐

4.7.14.1 Environmental Setting

Wastewater

East Bay Municipal Utilities District (EBMUD) provides sanitary sewer treatment services to the City of Oakland. Capacity for the EBMUD system is provided by: (1) the interceptor system, (2) pump stations, and (3) Wet Weather Facilities (WWFs). WWFs provide a way to convey flows through EBMUD's system during system overload from stormwater entering the wastewater conveyance system requiring discharging wastewater into the East Bay. EBMUD's main wastewater treatment plant (MWWTP) is located southwest of the I-580/I-80 interchange in Oakland. Wastewater is collected by 29 miles of interceptor lines that move wastewater from local sewer collection systems to the MWWTP. Currently, the MWWTP is designed to provide primary treatment for a flow of up to 320 mgd and secondary treatment for a maximum flow of 168 mgd. The average daily dry weather flow (ADWF) is 63 mgd. The treated effluent is disinfected and dechlorinated before being discharged into San Francisco Bay, approximately one mile off the East Bay shore (EBMUD, 2022).

Stormwater

The City of Oakland is part of the Alameda County Flood Control District (ACFCD) Zone 12. The storm drainage system in the City consists of more than 300 miles of storm drainpipes, over 100 miles of open creeks, and 15,000 structures (mostly inlets, manholes, and catch basins). City-owned storm drainage facilities are typically located within easements and rights-of-way. Privately owned facilities in the City's jurisdiction typically occur within private properties and include above-ground drainage systems, creeks, and watercourses. Most of the privately owned facilities are not maintained by the City. City-maintained drainage facilities include structures that are constructed through the permit process and dedicated to the City for maintenance.

Water Supply

EBMUD is a publicly owned utility that owns, operates, and maintains the water distribution system within the City of Oakland. The 2020 Urban Water Management Plan (UWMP), adopted on June 22, 2021 by EBMUD's Board of Directors under Resolution No. 35234-21, is a long-range planning document used to assess current and projected water usage, water supply planning, and conservation and recycling efforts (EBMUD, 2021).

Solid Waste

Non-hazardous waste in the City of Oakland is collected by Waste Management of Alameda County (WMAC), which provides curbside pickup for residential, commercial, and industrial non-hazardous waste, and transports it to WMAC's Davis Street Transfer Station in San Leandro. Transfer trucks haul most of the waste to the Altamont Landfill and Resource Facility, located approximately 35 miles east of Oakland near Livermore. The permitted capacity at Altamont is 87 million cubic yards, and 11,150 tons per day. As of 2018, the estimated remaining refuse capacity for the Altamont Landfill was 65.4 million cubic yards (60 million tons). At the average rate of fill from 2014-2018 and adjusting for projections for waste declines through 2023 (held steady after 2023 due to uncertainty), the facility has more than 30 years of capacity remaining and an estimated closure date of 2049. The ACWMA has also acquired land in the Altamont Hills area suitable for development of a public multi-purpose waste management facility. Depending upon need, the facility could include various diversion facilities in conjunction with a landfill with sufficient capacity to provide additional reserve disposal capacity. The chosen site contains 98 million cubic yards of landfill capacity (ACWMA, 2020).

4.7.14.2 Regulatory Setting

Wastewater and Stormwater Drainage

See Section 4.7.7, *Hydrology and Water Quality*, for a description of the City of Oakland's NPDES permits and other water quality regulations.

AB 939

AB 939, enacted in 1989, requires Source Reduction and Recycling Element of each city and county to include an implementation schedule to divert a percentage of its solid waste from landfill disposal through source reduction, recycling, and composting activities. AB 939 specifies

a required diversion rate of at least 50 percent of wastes by the year 2000. The California Department of Resources Recycling and Recovery (CalRecycle) indicates that the City of Oakland's diversion rate was 59 percent in 2006. Beginning with the 2007 jurisdiction annual reports, diversion rates were no longer measured. With the passage of Senate Bill (SB)1016 in 2006, the Per Capita Disposal Measurement System, only per capita disposal rates are measured to determine if a jurisdiction's efforts are meeting the intent of AB 939. In 2020, the City reported a waste disposal rate of 7.70 pounds/person/day for employees, meeting its per employee disposal target rate of 15.3 pounds/person/day (CalRecycle, 2021).

City of Oakland General Plan

The *Open Space, Conservation, and Recreation Element* and *Public Safety Element* of the Oakland General Plan describe the following policies regarding drainage, adopted for the purpose of avoiding or mitigating an environmental effect, and that apply to the Project (City of Oakland, 1996).

> ***Policy CO-5.3:*** Employ a broad range of strategies, compatible with the Alameda Countywide Clean Water Project to: (a) reduce water pollution associated with stormwater runoff; (b) reduced water pollution associated with hazardous spills, runoff from hazardous material areas, improper disposal of household hazardous wastes, illicit dumping, and marina "live-aboards;" and (c) improve water quality in Lake Merritt to enhance the lake's aesthetic, recreational, and ecological functions.
>
> ***Policy FL-1:*** Enforce and update local ordinances, and comply with regional orders, that would reduce the risk of storm-induced flooding.
>
> ***Policy FL-2*:** Continue or strengthen City programs that seek to minimize the storm-induced flooding hazard.
>
> ***Policy FL-3*:** Seek the cooperation and assistance of other government agencies in managing the risk of storm-induced flooding.

Oakland Municipal Code

Title 15, Buildings and Construction, Chapter 15.34 - Construction and Demolition (C&D) Ordinance

The City of Oakland's C&D Ordinance is intended to further the goals of AB 939. Building permit applicants must complete a Waste Reduction and Recycling Plan as part of the Building Permit Application process to detail the plan for salvaging and recycling C&D debris generated during Project construction. Standards call for salvage and/or recycling 100 percent of asphalt and concrete, and at least 65 percent of all remaining debris.

Title 17, Planning Code, Chapter 17.118 – Recycling Space Allocation Ordinance

Project applicants are required to submit project drawings for construction-related permits that contain recycling collection and storage areas in compliance with this ordinance. For nonresidential projects, at least two cubic feet of storage and collection space per 1,000 square feet of building floor area is required, with a minimum of 10 cubic feet.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City's SCAs relevant to utilities and service systems and that apply to the Project are listed below, some of which reduce potential impacts. If the Project is approved by the City, all applicable SCAs would be adopted as enforceable conditions of approval and required, as applicable, to be implemented during construction and operation of the Project to help ensure less-than-significant impacts to utilities. Because the conditions of approval are incorporated as part of Project, they are not listed as mitigation measures.

SCA UTIL-1: Construction and Demolition Waste Reduction and Recycling. *(Standard Condition of Approval 82)*

Requirement: The project applicant shall comply with the City of Oakland Construction and Demolition Waste Reduction and Recycling Ordinance (chapter 15.34 of the Oakland Municipal Code) by submitting a Construction and Demolition Waste Reduction and Recycling Plan (WRRP) for City review and approval, and shall implement the approved WRRP. Projects subject to these requirements include all new construction, renovations/alterations/modifications with construction values of $50,000 or more (except R-3 type construction), and all demolition (including soft demolition) except demolition of type R-3 construction. The WRRP must specify the methods by which the project will divert construction and demolition debris waste from landfill disposal in accordance with current City requirements. The WRRP may be submitted electronically at www.greenhalosystems.com or manually at the City's Green Building Resource Center. Current standards, FAQs, and forms are available on the City's website and in the Green Building Resource Center.

SCA UTIL-2: Recycling Collection and Storage Space *(Standard Condition of Approval 84)*

Requirement: The project applicant shall comply with the City of Oakland Recycling Space Allocation Ordinance (chapter 17.118 of the Oakland Planning Code). The project drawings submitted for construction-related permits shall contain recycling collection and storage areas in compliance with the Ordinance. For residential projects, at least two (2) cubic feet of storage and collection space per residential unit is required, with a minimum of ten (10) cubic feet. For nonresidential projects, at least two (2) cubic feet of storage and collection space per 1,000 square feet of building floor area is required, with a minimum of ten (10) cubic feet.

SCA UTIL-3: Green Building Requirements *(Standard Condition of Approval 85)*

a. Compliance with Green Building Requirements During Plan-Check

Requirement: The project applicant shall comply with the requirements of the California Green Building Standards (CALGreen) mandatory measures and the applicable requirements of the City of Oakland Green Building Ordinance (chapter 18.02 of the Oakland Municipal Code).

i. The following information shall be submitted to the City for review and approval with the application for a building permit:

- Documentation showing compliance with Title 24 of the current version of the California Building Energy Efficiency Standards.

- Completed copy of the final green building checklist approved during the review of the Planning and Zoning permit.
- Copy of the Unreasonable Hardship Exemption, if granted, during the review of the Planning and Zoning permit.
- Permit plans that show, in general notes, detailed design drawings, and specifications as necessary, compliance with the items listed in subsection (ii) below.
- Copy of the signed statement by the Green Building Certifier approved during the review of the Planning and Zoning permit that the project complied with the requirements of the Green Building Ordinance.
- Signed statement by the Green Building Certifier that the project still complies with the requirements of the Green Building Ordinance, unless an Unreasonable Hardship Exemption was granted during the review of the Planning and Zoning permit.
- Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.

ii. The set of plans in subsection (i) shall demonstrate compliance with the following:

- CALGreen mandatory measures.
- At least LEED Silver per the appropriate checklist approved during the Planning entitlement process.
- All green building points identified on the checklist approved during review of the Planning and Zoning permit, unless a Request for Revision Plan-check application is submitted and approved by the Bureau of Planning that shows the previously approved points that will be eliminated or substituted.
- The required green building point minimums in the appropriate credit categories.

b. Compliance with Green Building Requirements During Construction

Requirement: The project applicant shall comply with the applicable requirements of CALGreen and the Oakland Green Building Ordinance during construction of the project.

The following information shall be submitted to the City for review and approval:

i. Completed copies of the green building checklists approved during the review of the Planning and Zoning permit and during the review of the building permit.

ii. Signed statement(s) by the Green Building Certifier during all relevant phases of construction that the project complies with the requirements of the Green Building Ordinance.

iii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance.

c. Compliance with Green Building Requirements After Construction

Requirement: Prior to the finalizing the Building Permit, the Green Building Certifier shall submit the appropriate documentation to City staff and attain the minimum required point level.

SCA UTIL-4: Sanitary Sewer System *(Standard Condition of Approval 87)*

Requirement: The project applicant shall prepare and submit a Sanitary Sewer Impact Analysis to the City for review and approval in accordance with the City of Oakland Sanitary Sewer Design Guidelines. The Impact Analysis shall include an estimate of pre-project and post-project wastewater flow from the project site. In the event that the Impact Analysis indicates that the net increase in project wastewater flow exceeds City-projected increases in wastewater flow in the sanitary sewer system, the project applicant shall pay the Sanitary Sewer Impact Fee in accordance with the City's Master Fee Schedule for funding improvements to the sanitary sewer system.

SCA UTIL-5: Storm Drain System *(Standard Condition of Approval 88)*

Requirement: The project storm drainage system shall be designed in accordance with the City of Oakland's Storm Drainage Design Guidelines. To the maximum extent practicable, peak stormwater runoff from the project site shall be reduced by at least 25 percent compared to the pre-project condition.

SCA: Underground Utilities. *(Standard Condition of Approval 83)*

Requirement: The project applicant shall place underground all new utilities serving the project and under the control of the project applicant and the City, including all new gas, electric, cable, and telephone facilities, fire alarm conduits, street light wiring, and other wiring, conduits, and similar facilities. The new facilities shall be placed underground along the project's street frontage and from the project structures to the point of service. Utilities under the control of other agencies, such as PG&E, shall be placed underground if feasible. All utilities shall be installed in accordance with standard specifications of the serving utilities.

4.7.14.3 Project Impacts and Discussion

Impact UTIL-1: The Project would not result in exceedance of EBMUD's wastewater discharge limitations or exceed the capacity of the existing wastewater treatment system, and would not result in a significant environmental effect related to the construction of new wastewater treatment facilities or expansion of existing facilities. (Criteria 1 and 4) (*Less than Significant with SCAs*)

The Project would construct new water and sewer laterals that would connect to existing water and sewer lines in Alameda Avenue. Construction activity in Alameda Avenue would be coordinated with EBMUD to ensure the integrity of the existing utility lines is maintained throughout the construction period. Although not anticipated, any required relocation of existing utility lines would also be coordinated with EBMUD. Construction activities associated with all new and relocated utility lines are subject to the federal and state laws listed in Tables 4.4-1 and 4.4-2 in Section 4.4, *Hazards and Hazardous Materials*. Project applicants must submit

documentation of remediation plans and remediation completion to EBMUD for review to ensure all new and relocated utility lines are placed in clean soil corridors.

Currently, wastewater generation is zero since the existing condition of the Project site is vacant. The Project would result in an increase in wastewater discharge to the EBMUD MWWTP system compared to current conditions, based on an increase in employment and Project operations on the Project site. However, the Project would not change stormwater flows substantially due to the existing developed nature of the Project area, and the additional wastewater generated by the Project would be adequately handled by the existing sanitary sewer system. Implementation of SCA UTIL-4, Sanitary Sewer System, would require that the Project Applicant prepare a Sanitary Sewer Impact Analysis that includes an estimate of pre-Project and post-Project wastewater flow from the Project site. In the event that the Sanitary Sewer Impact Analysis indicates that the net increase in Project wastewater flow exceeds City-projected increases in wastewater flow in the sanitary sewer system, the Project Applicant would be required to pay a Sanitary Sewer Impact Fee for funding improvements to the sanitary sewer system. The Project would also be required to implement SCA UTIL-3, Green Building Requirements, which would reduce the generation of wastewater through required standards for plumbing fixtures and fittings. Therefore, with implementation of SCAs, the Project would not exceed EBMUD's wastewater discharge limitations or the capacity of the existing wastewater conveyance or treatment system and impacts would be less than significant.

Construction of utility connections and laterals are included in Project construction estimates, analyzed within this Draft EIR, and individually would not cause significant environmental effects. Therefore, the Project would not result in a significant environmental effect related to the construction of new wastewater treatment facilities or expansion of existing facilities. This impact would be less than significant.

SCA UTIL-3: Green Building Requirements.

SCA UTIL-54 Sanitary Sewer System.

Mitigation: None required.

Impact UTIL-2: The Project would not require or result in construction of new storm water drainage facilities or expansion of existing facilities, construction of which could cause significant environmental effects. (Criterion 2) (*Less than Significant with SCAs*)

Overall, the Project would result in a reduction of impervious area on the Project site from approximately 1,153,905 square feet to 912,075 square feet. The Project would result in 241,830 square feet of post-Project pervious area. Thus, the impervious area post-Project would not exceed the amount of existing/pre-Project impervious area. SCA UTIL-5, Storm Drain System, would be applicable to the Project and requires that the Project storm drainage system be designed in accordance with the City of Oakland's Storm Drainage Design Guidelines, and that peak stormwater runoff from the Project site be reduced by at least 25 percent compared to the pre-Project condition to the maximum extent practicable. Stormwater would be collected and

treated on-site and routed to an existing storm drain line in Alameda Avenue. The Project would result in new impervious surfaces, and associated stormwater treatment requirements would apply to the entire site. Stormwater management-related site design measures would include directing roof runoff; runoff from sidewalks, walkways, and/or patios; and runoff from driveways and/or uncovered parking lots onto vegetated stormwater swales. These swales would be designed with or without percolation as directed by ACDEH (see Impact HAZ-1 in Section 4.4, *Hazards and Hazardous Materials* for a discussion of hazardous materials and regulatory oversight). The Project would implement source control measures to minimize sources of runoff pollution including measures to minimize run-on to and run-off from the loading area.

Construction of utility connections and laterals, including potential impacts related to hazardous materials, are included in Project construction estimates, are analyzed within this Draft EIR and would not individually cause significant environmental effects. In addition, implementation of SCA HYD-1, State Construction General Permit; and SCA HYD-2, NPDES C.3 Stormwater Requirements for Regulated Projects would ensure potential impacts from stormwater runoff velocities and volumes would be controlled during and after construction (see Section 4.7.7, *Hydrology and Water Quality*). Therefore, the Project would not result in a significant environmental effect related to the construction of new storm water drainage facilities or expansion of existing facilities. This impact would be less than significant.

SCA UTIL-5: Storm Drain System.

SCA HYD-1: Construction General Permit. See Section 4.7.7.

SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects. See Section 4.7.7.

Mitigation: None required.

Impact UTIL-3: The Project would not exceed water supplies available to serve the Project from existing entitlements and resources and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects. (Criterion 3) (*Less than Significant*)

The Project would result in an increase in water use compared to current conditions on the vacant site. However, the Project would not substantially increase water use due to the existing developed nature of the Project area. The water demand for the Project is accounted for in EBMUD's water demand projections, as published in EBMUD's 2020 UWMP. EBMUD's water demand projections account for anticipated future water demands within EBMUD's service boundaries and for variations in demand-attributed changes in development patterns (EBMUD, 2020). The Project would also be required to implement SCA UTIL-3, Green Building Requirements, which would reduce the use of water on-site through required standards for plumbing fixtures and fittings.

The Project would construct new water and sewer laterals that would connect to existing water and sewer lines in Alameda Avenue. However, as the Project is located in an already built out

urban area, no new major water supply infrastructure would be required. Construction of utility connections and laterals are included in Project construction estimates, are analyzed within this Draft EIR, and would not individually cause significant environmental effects. Therefore, the Project would not result in a significant environmental effect related to the construction of new water supply facilities or expansion of existing facilities. This impact would be less than significant.

SCA UTIL-3: Green Building Requirements.

Mitigation: None required.

Impact UTIL-4: The Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs and would not require or result in construction of landfill facilities or expansion of existing facilities, and would not violate applicable federal, State, and local statutes or regulations related to solid waste. (Criteria 5 and 6) (*Less than Significant*)

Construction

The project site would be served by the Altamont Landfill described in Section 4.7.14.1, *Environmental Setting*, which has the capacity to handle solid wastes generated by the demolition and construction phases of the Project. The Project Applicant would be required to comply with the City's construction and demolition debris recycling ordinance (Municipal Code Chapter 15.34), which requires submittal of a plan to divert at least 50 percent of the construction waste generated by the Project from landfill disposal. The California Green Building Standards Code (CALGreen) also requires recycling and/or salvaging for reuse of a minimum of 65 percent of non-hazardous construction and demolition waste as a mandatory measure. SCA UTIL-3, Green Building Requirements would ensure implementation of all mandatory CALGreen measures. In addition, implementation of SCA UTIL-1, Construction and Demolition Waste Reduction and Recycling, would ensure that solid waste during construction is minimized. Therefore, construction of the Project would result in less-than-significant impacts with respect to solid waste.

Operation

Based on the City's 2020 waste disposal rate of 7.70 pounds/person/day for employees and the estimated 350 employees generated by the Project (see Section 4.7.10, *Population and Housing*), the Project would generate approximately 983,675 pounds of solid waste per year (491 tons or approximately 1.35 tons per day). As discussed in Section 4.7.14.1, *Environmental Setting*, the ACWMA has enough capacity to serve the Project solid waste stream projected until the projected closure of the Altamont Landfill around 2049 (ACWMA, 2020). The Project's estimated annual solid waste generation would represent approximately 0.021 percent of the Altamont Landfill's current daily permitted capacity. Additionally, the ACWMA has acquired land in the Altamont Hills area suitable for development of a public multi-purpose waste management facility containing 98 million cubic yards of landfill capacity, enough to serve the Project for the foreseeable future (ACWMA, 2020). Therefore, the Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal

needs and would not require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects, and impacts would be less than significant.

SCA UTIL-2, Recycling Collection and Storage Space, is applicable to the Project and would require compliance with the Recycling Space Allocation Ordinance (OMC Chapter 17.118). The Ordinance requires the Project Applicant to submit a plan that shows adequate space and access to recycling collection and storage areas, in addition to capacity calculations, and specify the methods by which the development will meet the City's current solid waste diversion requirements. The required plan would be implemented and maintained for the lifetime of the Project, including any future updated requirements by the City. Any incentive programs would be required to remain fully operational as long as businesses exist at the Project site.

The Project Applicant would be required to comply with existing policies and regulations, including the City of Oakland's CALGreen Building requirements, and the Project would not cause the City to violate other applicable federal, state, and local statutes and regulations related to solid waste. The impact would be less than significant.

SCA UTIL-1: Construction and Demolition Waste Reduction and Recycling.

SCA UTIL-2: Recycling Collection and Storage Space.

SCA UTIL-3: Green Building Requirements.

Mitigation: None required.

4.7.14.4 Cumulative Impacts

Impact UTIL-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, would not result in or contribute to a significant cumulative impact on the capacity of EBMUD's wastewater systems or the City's stormwater drainage system; water supplies; or generation of solid waste. (*Less than Significant with SCAs*)

The geographic scope for cumulative impacts on wastewater treatment and water supply is EBMUD's service area, which includes all development considered in the 2020 UWMP, as described previously. The cumulative context for stormwater facilities includes the cumulative development within the City's stormwater drainage collection area that includes the Project site. The geographic scope for cumulative impacts on solid waste capacity is Alameda County, which is governed by the ACWMA.

Wastewater

The Project, in combination with past, present, and reasonably foreseeable future development in EBMUD's service area would result in an increase in wastewater generation. However, SCA UTIL-4, Sanitary Sewer System, requires that Project applicants prepare a Sanitary Sewer Impact Analysis that includes an estimate of pre-Project and post-Project wastewater flow from the

Project site. In the event that the Sanitary Sewer Impact Analysis indicates that the net increase in Project wastewater flow exceeds City-projected increases in wastewater flow in the sanitary sewer system, the Project Applicant would be required to pay a Sanitary Sewer Impact Fee for funding improvements to the sanitary sewer system. With implementation of SCA UTIL-3 and UTIL-5, the Project would not exceed EBMUD's wastewater discharge limitations or the capacity of the existing wastewater conveyance or treatment system, and the Project would not contribute considerably to any potential significant cumulative impact to wastewater.

Stormwater

The Project, in combination with past, present, and reasonably foreseeable future development in the Project's stormwater drainage collection area could result in the need for the construction of new storm water drainage facilities or expansion of existing facilities due to the City's aging stormwater collection system. The potential construction or expansion of stormwater drainage infrastructure would be installed primarily in existing roadways and utility rights-of-way, and would be subject to the City's SCAs, which would reduce potential impacts to a less than significant level. The Project would include its own stormwater site design measures, the construction of which is analyzed throughout this Draft EIR. Therefore, the Project would not contribute considerably to any potential significant cumulative impact in this regard.

Water Supply

The Project, in combination with past, present, and reasonably foreseeable future development in EBMUD's service area would result in an increase in water supply demand. As described above, EBMUD's water demand projections account for anticipated future water demands within EBMUD's service boundaries and for variations in demand-attributed changes in development patterns (EBMUD, 2020). In addition, cumulative projects would be subject to SCA UTIL-3, Green Building Requirements, which would reduce the use of water through required standards for plumbing fixtures and fittings. The Project would not exceed water supplies available to serve the Project. Therefore, the Project would not contribute considerably to any potential significant cumulative impacts related to water supply.

Solid Waste

The Project, in combination with past, present, and reasonably foreseeable future development in Alameda County governed by the ACWMA would result in an increase in solid waste generation collected and deposited in the Altamont Landfill. As described above, as of 2018, the Altamont Landfill had an estimated remaining refuse capacity of approximately 75 percent and an estimated closure date of 2049. In addition, the ACWMA has acquired land in the Altamont Hills area suitable for development of a public multi-purpose waste management facility with 98 million cubic yards of landfill capacity. Cumulative development would be subject to the same City SCAs designed to reduce solid waste. Based on the existing landfill capacities and closure date, along with ACWMA projections, planning, and waste reductions within the service area of the ACWMA, and compliance with City of Oakland waste reduction ordinances and green building requirements, including SCAs UTIL-1, UTIL-3, and UTIL-4 required for the Project, cumulative impacts related to landfill capacity would be less than significant.

SCA UTIL-1: Construction and Demolition Waste Reduction and Recycling.

SCA UTIL-2: Recycling Collection and Storage Space.

SCA UTIL-3: Green Building Requirements.

SCA UTIL-4: Sanitary Sewer System.

SCA UTIL-5: Storm Drain System.

SCA HYD-1: Construction General Permit. See Section 4.7.7.

SCA HYD-2: NPDES C.3 Stormwater Requirements for Regulated Projects. See Section 4.7.7.

Mitigation: None required.

4.7.14.5 References

Alameda County Waste Management Authority (ACWMA). 2020. *Integrated Waste Management Plan Countywide Element, Countywide Siting Element, Countywide Summary Plan*. Adopted April 22, 2020; amended October 28, 2020. Accessed April 26, 2022. https://www.stopwaste.org/sites/default/files/CoIWMP-Final-20201215.1.pdf.

California Department of Resources Recycling and Recovery (CalRecycle). 2022. Jurisdiction Diversion/Disposal Rate Summary. Accessed April 26, 2022. https://www2.calrecycle.ca.gov/LGCentral/DiversionProgram/JurisdictionDiversionPost2006.

City of Oakland. 1996. *Open Space, Conservation, and Recreation Element (OSCAR) Element of the General Plan*. Adopted June 11, 1996.

East Bay Municipal Utilities District (EBMUD). 2022. Wastewater Treatment. Accessed April 26, 2022. https://www.ebmud.com/wastewater/collection-treatment/wastewater-treatment.

EBMUD. 2021. *Urban Water Management Plan 2020, East Bay Municipal Utility District*. Adopted June 22, 2021. Accessed April 26, 2022. https://www.ebmud.com/water/about-your-water/water-supply/urban-water-management-plan.

4.7.15 Wildfire

Issues (and Supporting Information Sources):	*Potentially Significant Impact*	*Less Than Significant with Mitigation Incorporated*	*Less Than Significant Impact*	*No Impact*
XX. WILDFIRE — If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, the Project would have a significant impact on the environment if it would:				
1) Substantially impair an adopted emergency response plan or emergency evacuation plan;	☐	☐	☐	☒
2) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire;	☐	☐	☐	☒
3) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment; or	☐	☐	☐	☒
4) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	☐	☐	☐	☒

4.7.15.1 Environmental Setting

The Project site is not located in or near a State Responsibility Areas (SRA) or lands classified as very high fire hazard severity zones by the California Department of Forestry and Fire Protection (CAL FIRE) (CAL FIRE, 2007; CAL FIRE, 2008). The Project site is also not located within the boundaries of an area that is considered to be a Wildland-Urban Interface (WUI) of a fire-threatened community (ABAG and MTC, 2020). Within the City of Oakland, SRAs, very high fire hazard severity zones, and WUI zones are located primarily in the Oakland hills. The Project site is not located within the boundaries of the fire prevention and assessment district boundary identified in the Safety Element of the City's General Plan or the now-defunct Wildfire Prevention Assessment District boundary located within the geographic confines of the Oakland Hills, designated by CAL FIRE as a very high fire hazard severity zone (City of Oakland, 2012; WPAD, 2017).

As mentioned in Section 4.4, *Hazards and Hazardous Materials*, the Oakland Office of Emergency Services (OES) has identified a network of evacuation routes in the General Plan Safety Element (City of Oakland, City of Oakland General Plan Safety Element, 2012). Emergency Evacuation Routes are typically along major thoroughfares. Nearby Emergency Evacuation Routes include the north-south Fruitvale Avenue along the west side of the Project site and east-west San Leandro Street about three blocks north of the Project site.

4.7.15.2 Topics Considered and No Impact Determined

Factors that contribute to the risk of wildland fire include dense and fire-prone vegetation, poor access to firefighting equipment because of slopes or inadequate roads, and lack of adequate water pressure and service in fire-prone locations. The Project site is currently developed within a

highly urbanized area of the flat lands of Oakland by the Tidal Canal, that does not contain dense vegetation, and is surrounded by other developed properties and roadways. Wildfire was added in the update to the State CEQA Guidelines as an environmental topic for consideration with regard to impacts that could occur in areas in or near SRAs or lands classified as very high fire hazard severity zones. As discussed in Section 4.7.15.1, *Environmental Setting*, the Project site is not located in or near an SRA or lands classified as very high fire severity zones. Therefore, no impact would occur with regard to wildfire.

4.7.15.3 Cumulative Impacts

Because the Project would have no impact with regard to wildfire, it would not cause or contribute to any potential cumulative impact to such resources.

4.7.15.4 References

Association of Bay Area Governments and Metropolitan Transportation Commission (ABAG and MTC). 2020. *Wildland-Urban Interface fire threat for the San Francisco Bay Region. Source data produced by the California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP).* Updated August 27, 2020. Accessed June 8, 2022. https://mtc.maps.arcgis.com/home/webmap/viewer.html?useExisting=1&layers=d45bf08448354073a26675776f2d09cb.

California Department of Forestry and Fire Protection (CAL FIRE). 2007. *Fire Hazard Severity Zones in SRA.* November 7, 2007. Accessed June 8, 2022. https://osfm.fire.ca.gov/media/7271/fhszs_map1.pdf.

CAL FIRE. 2008. *Oakland Very High Fire Hazard Zones in LRA, As Recommended by CAL FIRE*. September 3, 2008. Accessed June 8, 2022. https://osfm.fire.ca.gov/media/5606/oakland.pdf.

City of Oakland. 2012. *Safety Element of the General Plan*. Adopted March 20, 2012. Accessed June 8, 2022. https://oaklandca.s3.us-west-1.amazonaws.com/oakca1/groups/ceda/documents/webcontent/oak035217.pdf.

City of Oakland Wildfire Prevention Assessment District (WPAD). 2017. *Final Report on the Wildfire Prevention Assessment District.* City of Oakland, Public Safety Committee, and Oakland City Council. June 2017. Accessed June 8, 2022. https://oaklandca.s3.us-west-1.amazonaws.com/w/OAK063154.pdf.

CHAPTER 5
Project Variant

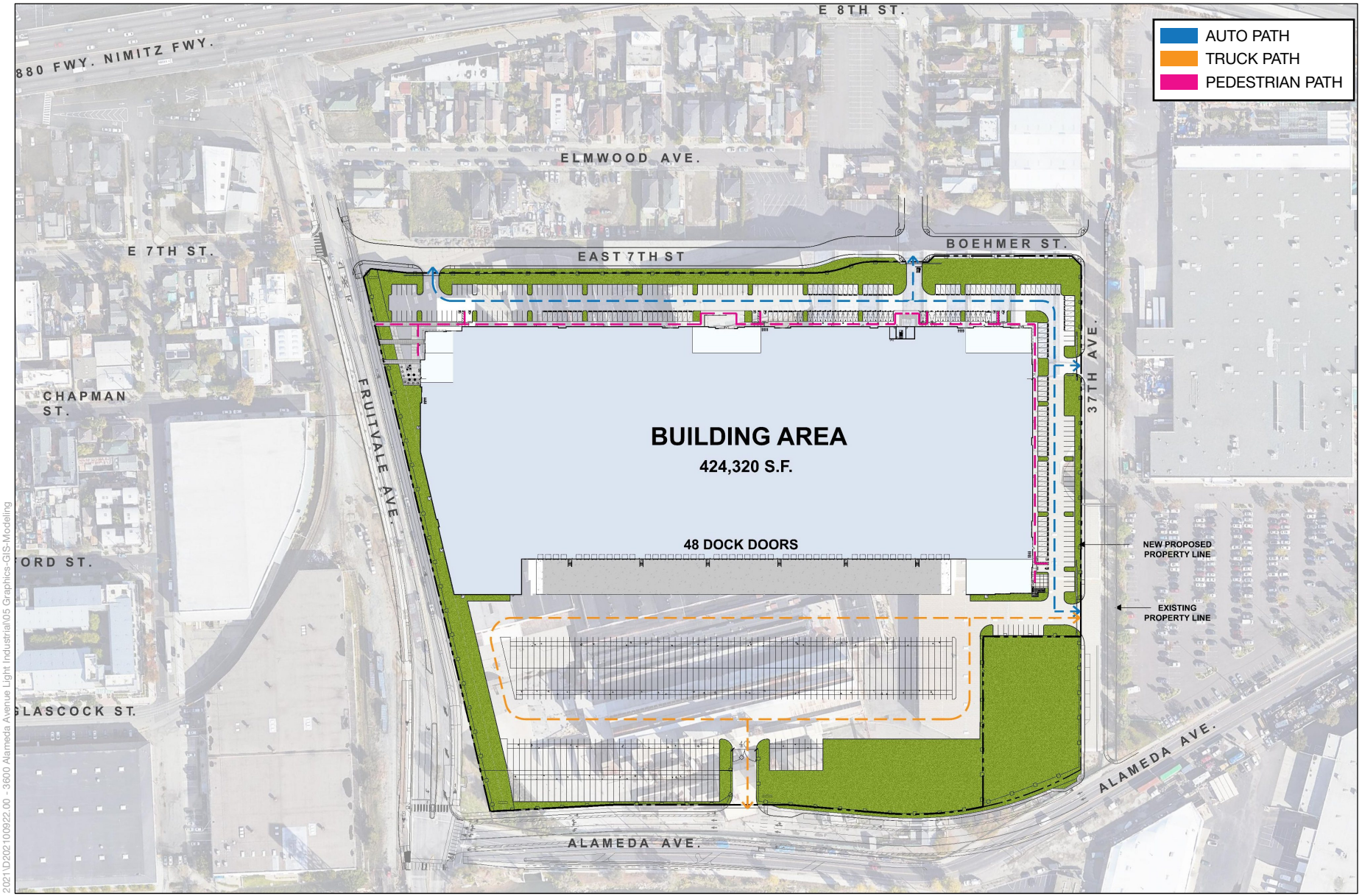
This Draft EIR analyzes a potential future east-west network connection as a variant to the Project that may or may not be included as part of the Project because the implementation is beyond the control of the Project Applicant at this time. This project component is included as a variant so that it can be incorporated into the Project in the event the necessary land can be acquired, and the necessary approvals can be obtained. There is no way to determine at this time whether the variant is feasible and can be implemented. The variant is not an "alternative" within the meaning of CEQA, however, in that it addresses a specific element of the Project and is not an alternative to the Project as a whole.

This Project Variant is considered with all Project components. All City of Oakland Standard Conditions of Approval (SCAs) and Mitigation Measures identified for the Project in Chapter 4 would apply to the Project combined with the East 7th Street Extension Project Variant.

5.1 East 7th Street Extension

As introduced in Chapter 3, *Project Description*, the Project Applicant is proposing to dedicate rights-of-way to the City along the north side of the Project site. Under the Project Variant, the City would accept the dedication and implement the extension of East 7th Street. The City would not accept the right-of-way dedication until such time in the future that it is determined that the extension is feasible and funding is available for implementation. Instead of a driveway-only connection from the Project site to Fruitvale Avenue, the Project Variant would extend East 7th Street by creating a new public right-of-way from its current terminus at Fruitvale Avenue east to 36th Avenue where it would connect with Boehmer Street (see **Figure 5-1**). This extension along with the Project would connect Fruitvale Avenue through to 37th Avenue along the entire north side of the Project site and result in a complete network connection surrounding the Project site. This change to the street network was envisioned in the CEAP *Policy Connection C* that calls for a central connector between Fruitvale Avenue and 37th Avenue.[1]

[1] Note the CEAP Policy Connection C calls for a connection from the eastern end of Ford Street to the southwestern end of 37th Avenue. The connection would require right-of-way acquisition, which would run through the Project site. The alternate location along East 7th Street would achieve the Policy Connection goal of providing "a central connector between Fruitvale Avenue and 37th Avenue from which new development could be accessed if large-scale properties in the area were to develop in the future."



2021\D202100922.00 - 3600 Alameda Avenue Light Industrial\05 Graphics-GIS-Modeling

SOURCE: HPA Architecture, 2023

3600 Alameda Industrial Project

Figure 5-1
Project Variant

ESA

The proposed street would be a 30-foot curb-to-curb street with minimum 5.5-foot sidewalks on both sides and would accommodate one travel lane and one parking lane in each direction. The Fruitvale Avenue/East 7th Street intersection would also be signalized, which would trigger required upgrades to the Union Pacific Railroad (UPRR) line at that intersection. At the time this Draft EIR is published, it is not feasible to establish an intersection at East 7th Street and Fruitvale Avenue since the intersection would trigger upgrades to the UPRR line, which would require a taking of private property rights from an adjacent property on East 7th Street.

5.2 Impacts of the East 7th Street Extension Project Variant

This section presents the impacts of the East 7th Street Extension Project Variant, with the emphasis on impacts that differ from those identified for the proposed Project without this variant.

Air Quality

Construction and operation of the East 7th Street Extension Project Variant would result in ***the same Air Quality impacts*** as the construction and operation analyzed for the Project in Chapter 4. Implementation of the Project Variant would result in additional construction activity and construction activity in an area closer to the existing residential uses to the north. However, the Air Quality analysis in Chapter 4 was prepared for the original project proposal that included the East 7th Street extension and the analysis relies on construction details that incorporate the additional construction activities and offsite improvements associated with the Project Variant. The modest additional construction activity and footprint results in a conservative analysis of the Project and captures the Project Variant. Therefore, the Project Variant would result in the same construction-related air quality impacts as those disclosed in Chapter 4 for the Project.

The Project Variant would not result additional vehicle trips and therefore would not result in different operational air quality impacts related to criteria air pollutants, CO concentrations, or new sources of toxic air contaminants. Other than the distribution of passenger vehicle traffic surrounding the Project site, operational activities associated with the Project Variant would be the same as those for the Project and would result in the same air quality impacts as those disclosed in Chapter 4 for the Project.

Biological Resources

Construction and operation of the East 7th Street Extension Project Variant would result in ***the same impacts on Biological Resources*** as the construction and operation analyzed for the Project in Chapter 4. Implementation of the Project Variant would result in additional construction activity and construction activity in an area closer to the existing residential uses to the north. However, the Biological Resources analysis in Chapter 4 was prepared for the original project proposal that included the East 7th Street extension and the analysis relies on construction details that incorporate the additional construction activities and offsite improvements associated with the Project Variant. The modest additional construction activity and footprint results in a

conservative analysis of the Project and captures the Project Variant. Therefore, the Project Variant would result in the same construction-related biological resources impacts as those disclosed in Chapter 4 for the Project.

Other than the distribution of passenger vehicle traffic surrounding the Project site, operational activities associated with the Project Variant would be the same as those for the Project and would result in the same impacts on biological resources as those disclosed in Chapter 4 for the Project.

Greenhouse Gas (GHG) Emissions

Construction and operation of the East 7th Street Extension Project Variant would result in ***the same impacts related to GHG Emissions*** as the construction and operation analyzed for the Project in Chapter 4. Implementation of the Project Variant would result in additional construction activity and construction activity in an area closer to the existing residential uses to the north. However, the GHG analysis in Chapter 4 was prepared for the original project proposal that included the East 7th Street extension and the analysis relies on construction details that incorporate the additional construction activities and offsite improvements associated with the Project Variant. The modest additional construction activity and footprint results in a conservative analysis of the Project and captures the Project Variant. Therefore, the Project Variant would result in the same construction-related GHG emissions impacts as those disclosed in Chapter 4 for the Project.

Other than the distribution of passenger vehicle traffic surrounding the Project site, operational activities associated with the Project Variant would be the same as those for the Project and would result in the same impacts related to GHG emissions as those disclosed in Chapter 4 for the Project.

Hazards and Hazardous Materials

Construction and operation of the East 7th Street Extension Project Variant would result in ***the same impacts related to Hazards and Hazardous Materials*** as the construction and operation analyzed for the Project in Chapter 4. Implementation of the Project Variant would result in additional construction activity and construction activity in an area closer to the existing residential uses to the north. However, the Hazards and Hazardous Materials analysis in Chapter 4 was prepared for the original project proposal that included the East 7th Street extension and the analysis relies on construction details that incorporate the additional construction activities and offsite improvements associated with the Project Variant. The modest additional construction activity and footprint results in a conservative analysis of the Project and captures the Project Variant. Therefore, the Project Variant would result in the same construction-related hazards and hazardous materials impacts as those disclosed in Chapter 4 for the Project.

The Project Variant would result in a different vehicle trip distribution surrounding the Project site. The additional east-west connection would further improve traffic flow and emergency access compared with the Project-related improvements, and the Project Variant would provide adequate emergency access and would not fundamentally impair implementation of or physically interfere with an adopted emergency response or evacuation plan, the same as disclosed for the

Project. Other than the distribution of passenger vehicle traffic surrounding the Project site, operational activities associated with the Project Variant would be the same as those for the Project and would result in the same impacts related to hazards and hazardous materials as those disclosed in Chapter 4 for the Project.

Noise

Construction and operation of the East 7th Street Extension Project Variant would result in ***the same Noise impacts*** as the construction and operation analyzed for the Project in Chapter 4. Implementation of the Project Variant would result in additional construction activity and construction activity in an area closer to the existing residential uses to the north. However, the Noise analysis in Chapter 4 was prepared for the original project proposal that included the East 7th Street extension and the analysis relies on construction details that incorporate the additional construction activities and offsite improvements associated with the Project Variant. The modest additional construction activity and footprint results in a conservative analysis of the Project and captures the Project Variant. Therefore, the Project Variant would result in the same construction-related noise impacts as those disclosed in Chapter 4 for the Project.

The Project Variant would result in a different vehicle trip distribution and different increases in traffic-related operational noise compared with the Project. **Table 5-1** below shows the existing plus Project Variant traffic noise levels along roadway segments most affected by Project Variant traffic. Although the noise levels differ from those for the Project without the Variant as presented in Table 4.5-10 in Section 4.5, *Noise*, the increase in traffic noise would still be less than 5 dBA at all analyzed roadway segments and the impact would be less than significant, the same operational noise impact (Impact NOI-3) as was disclosed for the Project in Chapter 4.

TABLE 5-1
PEAK-HOUR TRAFFIC NOISE LEVELS (dBA) NEAR THE PROJECT SITE[a,b]

Roadway Segment	Hourly L_{eq}, dBA		
	Existing	Existing Plus Project Variant	Difference between Existing Plus Project and Existing
E 9th Street east of Fruitvale Avenue	62.1	62.1	+0.0
E 8th Street east of Fruitvale Avenue	57.9	57.9	+0.0
Elmwood Avenue west of Fruitvale Avenue	62.3	62.6	+0.3
Fruitvale Avenue south of E 8th Street/Elmwood Avenue	67.6	67.8	+0.2
East 7th Street west of Fruitvale Avenue	58.9	59.1	+0.2
Fruitvale Avenue north of East 7th Street	67.6	67.8	+0.2
High Street north of Howard Street	68.9	69.0	+0.1

NOTES:
[a] Noise levels were determine using methodology described in FHWA Traffic Noise Model Technical Manual.
[b] Traffic noise increases greater than 5 dB is considered a significant increase in ambient noise levels according to the City of Oakland significance thresholds.

Transportation

Construction and operation of the East 7th Street Extension Project Variant would result in ***the same Transportation and Circulation impacts*** as the construction and operation analyzed for the Project in Chapter 4. Implementation of the Project Variant would result in additional construction activity and construction activity in an area closer to the existing residential uses to the north. However, the Transportation and Circulation analysis in Chapter 4 was prepared for the original project proposal that included the East 7th Street extension and the analysis relies on construction details that incorporate the additional construction activities and offsite improvements associated with the Project Variant. The modest additional construction activity and footprint results in a conservative analysis of the Project and captures the Project Variant. Therefore, the Project Variant would result in the same construction-related transportation and circulation impacts as those disclosed in Chapter 4 for the Project.

As described above, the Project Variant would extend East 7th Street from Fruitvale Avenue to 36th Avenue along the north side of the Project site. The proposed street would be a 30-foot curb-to-curb street with minimum 5.5-foot sidewalks on both sides and would accommodate one travel lane and one parking lane in each direction. Other than the distribution of passenger vehicle traffic surrounding the Project site, operational activities associated with the Project Variant would be the same as those for the Project and would result in the same impacts related to transportation as those disclosed in Chapter 4 for the Project. In addition, the added east-west extension would support the Project's consistency with the City's CEAP, specifically with Policy Connection C-C.

Effects Not Found to be Significant

As described above, implementation of the Project Variant would result in additional construction activity and construction activity in an area closer to the existing residential uses to the north. However, the analyses in Section 4.7, *Effects Not Found to be Significant*, were prepared for the original project proposal that included the East 7th Street extension and the analyses rely on construction details that incorporate the additional construction activities and offsite improvements associated with the Project Variant. The modest additional construction activity and footprint results in conservative analyses of the Project and captures the Project Variant. Therefore, the Project Variant would result in the same construction-related impacts as those disclosed in Section 4.7, *Effects Not Found to be Significant*, for Aesthetics, Shadow, and Wind; Agriculture and Forestry Resources; Cultural Resources; Energy; Geology, Soils, and Paleontological Resources; Hydrology and Water Quality; Land Use and Planning; Mineral Resources; Population and Housing; Public Services; Recreation; Tribal Cultural Resources; Utilities and Service Systems; and Wildfire.

Other than the distribution of passenger vehicle traffic surrounding the Project site, operational activities associated with the Project Variant would be the same as those for the Project and would result in the same impacts as those disclosed in Chapter 4 for the Project pertaining to the topics listed above.

Specifically, the following operational impact analyses considered the East 7th Street extension directly. The Land Use and Planning analysis concluded that the improved connections surrounding the Project site would not physically divide an established community, and the impact would be less than significant. The added east-west connection associated with the Project Variant would contribute to these improved conditions.

The Public Services analysis concluded that improved vehicle circulation around the Project site would benefit existing response access for the Oakland Fire Department. The Project Variant would contribute to this improved circulation. The analysis also found that upgraded sidewalks and new intersection at Alameda Avenue and 37th Avenue would increase safety surrounding the Project site. These changes would not generate an unusual or substantial increased demand for police services or require new or physically altered police facilities. The Project Variant would add a minimum 5.5-foot sidewalks on both sides of the East 7th Street extension and signalize the Fruitvale Avenue/East 7th Street intersection. These changes would also increase safety surrounding the Project site and would not generate an unusual or substantial increased demand for police services or require new or physically altered police facilities.

5.3 Summary

Development of the Project combined with the East 7th Street Extension Project Variant would result the same impacts as the Project. All City of Oakland SCAs and Mitigation Measures identified for the Project in Chapter 4 would apply to the Project combined with the East 7th Street Extension Project Variant. There would be no new or changed impacts and no additional mitigation measures would be required for the topics discussed above.

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CHAPTER 6
Alternatives

Pursuant to the provisions of CEQA, this chapter is provided to describe and evaluate alternatives to the Project, including a "No Project" alternative, and to identify one or more "environmentally superior" alternatives. The primary purpose of this section is to provide decision-makers and the public with a qualitative review of alternatives to the Project that eliminate or substantially reduce any identified adverse environmental impacts while, at the same time, attaining most of the basic objectives of the Project.

The focus of the alternatives analysis in this chapter is on assessing the extent to which the Project alternatives would result in eliminating or reducing impacts identified as less than significant with mitigation measures and Standard Conditions of Approval (SCAs), and less than significant with SCAs in Chapter 4, *Environmental Setting, Impacts, and Standard Conditions of Approval*. No significant and unavoidable impacts were identified for the Project.

6.1 CEQA Requirements

CEQA requires an evaluation of the comparative effects of a range of reasonable alternatives to a project that would feasibly attain most of the basic objectives of the Project but would avoid or substantially lessen any of the significant effects of the Project on the environment (CEQA Guidelines Section 15126.6(a)). An EIR considers a range of potentially feasible alternatives to foster informed decision-making and public participation. The discussion of alternatives focuses on alternatives to the Project or its location that are capable of avoiding or substantially lessening any significant effects of the Project, even if these alternatives would impede, to some degree, the attainment of the Project objectives, or would be costlier (CEQA Guidelines Section 15126.6(b)).

The focus of the alternatives analysis under CEQA is the avoidance or substantial lessening of a project's significant environmental effects. Chapter 4 of this EIR assesses the direct and indirect environmental impacts that could potentially result from implementation of the Project. This environmental impact analysis includes consideration and discussion of the Project's potentially significant environmental effects with the application of all applicable City SCAs and identifies mitigation measures needed to reduce potentially significant environmental impacts to a less-than-significant level.

In considering the alternatives analysis provided in this chapter, CEQA's substantive mandate is as follows: "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects" of the project (CEQA Statute, Public Resources Code

Section 21002). Accordingly, this chapter presents a range of alternatives to the Project and a meaningful comparative analysis of the Project impacts, as identified in Chapter 4, *Environmental Setting, Impacts, and Standard Conditions of Approval*, of this EIR (CEQA Guidelines Section 15126.6(d)); identifies and discusses any alternatives that were considered by the City, as lead agency, but that the City rejected for detailed analysis in this EIR (CEQA Guidelines Section 15126.6(c)); and provides comparative evaluation of the Project to a No Project alternative (CEQA Guidelines Section 15126.6(e)).

6.2 Factors in the Selection of Alternatives

The nature and scope of the reasonable range of alternatives to be discussed is governed by the "rule of reason." The CEQA Guidelines recommend that an EIR should briefly describe the rationale for selecting the alternatives to be discussed (Section 15126.6(c)). This alternatives analysis considers the following factors:

- The extent to which the alternative would accomplish most of the basic objectives of the Project;
- The extent to which the alternative would avoid or lessen the identified less than significant, less than significant with SCAs, or less than significant with SCAs and mitigation measures environmental effects of the Project;
- The feasibility of the alternative, taking into account site suitability, availability of infrastructure, general plan consistency, and consistency with other applicable plans and regulatory limitations;
- The extent to which an alternative contributes to a "reasonable range" of alternatives necessary to permit a reasoned choice; and
- The CEQA Guidelines requirement to consider a "No Project" alternative, and to identify an "environmentally-superior" alternative in addition to the No Project alternative (Section 15126.6(e)).

6.2.1 Project Objectives

As stated in the first factor bulleted above, under Section 5.2, *Factors in the Selection of Alternatives*, the selection of alternatives shall consider the basic objectives of the Project. As previously presented in Chapter 3, *Project Description*, the following objectives have been identified for the Project:

- Achieve increased economic benefit from the site.
- Create a modern warehouse that contributes to the aesthetics of the Project site.
- Facilitate the evolution of a transforming industrial workplace.
- Create a new efficient and updated warehouse which implements green building design and construction practices capable of achieving Leadership in Energy and Environmental Design (LEED™) certification for the building within the Project.

- Encourage productive use of the City's industrial land which is currently underutilized.
- Support and retain existing industrial uses and employment in the City of Oakland's industrial sector.
- Receive ACDEH and EPA approval to remediate the environmental conditions to allow for safe usage of the site.
- Help achieve the goals of the Central Estuary Area Plan (CEAP) through creating network connections and maintaining industrial uses.
- Upgrade the Bay Trail network and its connection to points to the north and south.

6.2.2 Impacts Identified

As stated above under Section 5.2, *Factors in the Selection of Alternatives*, in the second factor bulleted, the selection of alternatives shall consider the ability for each alternative to avoid or lessen the identified less than significant with SCAs or less than significant with SCAs and mitigation measures environmental effects of the Project. This evaluation of alternatives focuses on assessing the extent to which the Project alternatives would result in eliminating or reducing the significant impacts that have been identified in Chapter 4. For each alternative, the degree (severity) of adverse impacts that would be caused by the alternative is identified and compared to the Project. At the conclusion of these comparisons, the Environmentally Superior Alternatives is identified among the Project and all alternatives, taking into consideration all impacts identified.

The only impact requiring mitigation identified for the project is the impact on biological resources listed below in **Table 6-1**. As described in Section 4.2, *Biological Resources*, initial construction activities, such as those required for demolition and site remediation, would result in a significant impact requiring mitigation. As described in Section 4.4, *Hazards and Hazardous Materials*, various chemicals have been detected in soil vapor, soil, and groundwater at various locations throughout the Project site. With such hazardous conditions, site remediation would likely be required for any form of site demolition or reuse. For this reason, the No Project Alternative, described below, is considered the only alternative with the ability to avoid this less than significant with SCAs and mitigation measures environmental effect of the Project.

TABLE 6-1
PROJECT IMPACTS IDENTIFIED IN CHAPTER 4

Project Impacts
Biological Resources
• **Impact BIO-1:** Implementation of the Project would not have a substantial adverse effect, either directly, indirectly, or through habitat modifications, on a species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS (nesting birds and roosting bats). (*Less than Significant Impact, with SCAs and Mitigation*)

6.3 Alternatives Considered but Rejected for Further Evaluation

CEQA Guidelines Section 15126.6(c) requires an EIR to identify and briefly discuss any alternatives that were considered by the lead agency and rejected from further evaluation. In identifying alternatives to the Project, primary consideration was given to alternatives that would reduce impacts while still meeting most of the basic objectives as well as the City's planning goals and objectives, such as those articulated in the General Plan. Alternatives that would likely have impacts that are the same as or greater than the Project or that would not meet most of the basic objectives were rejected from further consideration.

The City considered potential off-site locations relative to the Project, with the goal of comparing the impacts of development of the same or a similar nature at a different location within the City. However, alternative sites for the Project were considered but determined to be infeasible for several reasons: while the Project Applicant may own other parcels in the City that could accommodate this Project, (a) other sites would not repurpose the existing underutilized heavy industrial parcel and encourage productive use of the City's industrial land, and achieve the goals of the CEAP; (b) other sites would not remediate the environmental conditions to allow for safe usage of the site; and (c) other sites would not provide the opportunity to upgrade the Bay Trail network and its connection to points to the north and south. Furthermore, given the City's current level of urban development, an alternative site location would not necessarily avoid or substantially reduce Project impacts. For these reasons, an off-site alternative was not carried forward for detailed analysis as a reasonable alternative.

6.4 Selected Alternatives Selected and Comparative Analysis

Based on the screening process described above, the City has identified the following reasonable range of alternatives to be addressed in this EIR:

- **Alternative 1:** No Project Alternative
- **Alternative 2:** No Street Extension Alternative

This section presents a discussion of the comparative environmental effects of each alternative compared to the effects of the Project. As permitted by CEQA, the significant effects of the alternatives are discussed in this EIR in less detail than are the effects of the proposed Project (CEQA Guidelines Section 15126.6(d)). All impacts are described after implementation of any SCAs identified in Chapter 4, *Environmental Setting, Impacts, and Standard Conditions of Approval*, of this EIR. **Table 6-2** presents a comparison of alternatives (and a summary of the Project) carried forward for consideration and evaluation.

TABLE 6-2
DESCRIPTION OF PROJECT AND ALTERNATIVES SELECTED FOR EVALUATION

	Project	Alternative 1: No Project Alternative	Alternative 2: No Street Extension Alternative
Meets most basic objectives?	Yes	No	No
Substantially avoids or lessens Impacts?	No	Yes	Yes

NOTES: LTS = Less Than Significant; SF = Square Feet; NA = Not Applicable

6.4.1 Alternative 1: No Project Alternative / No Development

The No Project Alternative is the circumstance under which the Project does not proceed. This alternative is analyzed consistent with CEQA Guidelines Section 15126.6(e), which states that the No Project Alternative must include the assumption that conditions at the time the Notice of Preparation of an EIR was circulated for public review would not be changed because the Project would not be constructed, as well as the events or actions that would reasonably be expected to occur in the foreseeable future if the Project were not approved.

Under the No Project Alternative, the Project would not be built, and the site would remain in the same state as its current condition. The existing vacant Owens-Brockway Glass manufacturing facility would remain in place and the new 430,000-square-foot industrial building would not be constructed at the site. As noted above, demolition or refurbishment and reuse of the existing facility would likely require remediation activities resulting in an impact on biological resources similar to the effects of the Project. Therefore, this alternative assumes the project site will remain vacant. In addition, the upgrades to pedestrian and bicycle facilities, as well as roadway improvements, would not be constructed and the transportation infrastructure surrounding the site would remain the same.

Comparative Analysis

CEQA Guidelines Section 15126.6(e) requires consideration of a No Project Alternative. This analysis discusses the existing conditions at the time the NOP was published, as well as what reasonably would be expected to occur in the foreseeable future if the Project were not approved, based on current General Plan and consistent with available infrastructure and community services.

If the No Project Alternative is selected, no development on the project site would occur. The existing vacant Owens-Brockway Glass manufacturing facility buildings would remain vacant, and the existing site would remain as it is. Because the alternative poses no development on the project site compared to existing baseline conditions, no impacts would result. As such, this alternative would have reduced impacts compared to the Project with respect to aesthetics; air quality; biological resources; cultural resources; energy; geology, soils, and paleontological resources; greenhouse gas (GHG) emissions; hazards and hazardous materials; hydrology and water quality; land use and planning; noise and vibration; population and housing; public

services; recreation; transportation and circulation; tribal cultural resources; and utilities and service systems.

However, the site would not be remediated and would remain unsafe for development. The underutilized site would not be repurposed into productive larger-scale heavy industrial use consistent with the goals of the CEAP. There would be no new permanent employment in the industrial sector nor increased economic benefit from the site. There would be no upgrade to the Bay Trail network along the Project site boundary.

This alternative would avoid the significant and mitigable Project impact to nesting birds and roosting bats. However, this alternative would not meet any of the objectives of the Project.

6.4.2 Alternative 2: No Street Extension Alternative

The No Street Extension Alternative was developed in response to requests made through public comments on the NOP. Several commenters asked not to extend East 7th Street (evaluated as a Project Variant in Chapter 5) or 37th Avenue, not to open Boehmer Street, and to leave surrounding residential streets unchanged. Therefore, Alternative 2, No Street Extension Alternative, assumes the Project would remediate and develop the Project site with the same 430,000-square-foot industrial building, but with minimal off-site improvements along the northern and eastern boundaries of the Project site. Specifically, this alternative would relocate Alameda Avenue approximately 100 feet to the north and provide a 5.5-foot landscape buffer and 5.5-foot sidewalk on the north side of the street. It would provide an 8-foot landscape buffer, 8-foot sidewalk, up to 28-foot landscape area, and a 12-foot Class I shared-used path on the south side of the street adjacent to the estuary, which would be part of the San Francisco Bay Trail. Along the Project southern frontage, the roadway would accommodate two westbound travel lanes and one eastbound travel lane. The roadway would also provide Class 2B buffered bicycle lanes in both directions.

Unlike the proposed Project, under this alternative the Project Applicant would not dedicate rights-of-way on 37th Avenue and East 7th Street (under the Project Variant) or provide new north-south and east-west street network connections along the Project site and no construction activity would occur in this area. Specifically:

- This alternative would not extend East 7th Street from Fruitvale Avenue to 36th Avenue for a potential future new east-west connection along the north side of the Project site. It would not provide sidewalks in this area (evaluated as a Project Variant in Chapter 5).
- Boehmer Street, which extends between 36th and 37th Avenues, would remain closed and gated. This alternative would not open Boehmer Street as a public street to connect to 36th Avenue.
- This alternative would not extend 37th Avenue from the current cul-de-sac south of Boehmer Street to Alameda Avenue along the east side of the Project site. It would not provide sidewalks or a parking lane in this area.

Comparative Analysis

As described above in Section 5.2, the alternatives analysis considers the extent to which the alternative avoids or substantially lessens one or more of the significant effects, the extent to which the alternative accomplishes most of the basic objectives of the project, and the feasibility of the alternative taking into account consistency with applicable plans.

Under this alternative, construction activity would not extend beyond the parking lots along the northern and eastern Project site (see new proposed property line on Figure 3-2). With the additional distance between the closest sensitive receptor to the north and the extent of the construction activity, less-than-significant impacts related to construction noise and construction-related health risk associated with toxic air contaminants would be reduced. With a reduced overall construction footprint, other construction-related air quality and greenhouse gas emissions less-than-significant impacts may be reduced although by a negligible amount. This alternative would not avoid or substantially reduce any impacts related to Biological Resources, Hazards and Hazardous Materials, or any other resource areas described in Section 4.7.

Alternative 2 would be assumed to generate the same number of truck trips, although the truck routes shown in Figure 4.6-3 would be revised to rely on a single designated driveway on Alameda Avenue. Trucks would still use Alameda Avenue and High Street, which are the designated truck routes in the Project vicinity. Automobile access would be limited to two driveways: one driveway on the existing (unextended) 37th Avenue and one driveway on East 7th. This alternative would not avoid or substantially reduce any impacts related to Transportation and Circulation although there could be minor increases automobile and truck trip lengths resulting in minor increases in VMT and potentially air quality impacts. Regardless, Alternative 2 would not result in any new impacts related to Transportation and Circulation.

This alternative would meet most of the objectives of the Project although it would not provide the same easy access to freeways, rails, airports, and seaports when compared with the Project and it would not help achieve the goals of the CEAP through creating network connections. Specifically, the CEAP envisions providing additional east-west and north-south connections in this area and includes policy-level recommendations for enhancing the local street network including:

- Provide a central connector between Fruitvale Avenue and 37$_{th}$ Avenue from which new development could be accessed if large-scale properties in the area were to develop in the future.
- Change Elmwood Avenue and 36th Avenue from cul-de-sacs into through streets;
- Change 37th Avenue from a cul-de-sac into a through street;
- Enhance emergency access through the area; and
- Enhance local connectivity and access.

Without the proposed street extensions, Alternative 2 would be considered inconsistent with the CEAP. These specific CEAP policies were not adopted for the purposes of protecting the environment and conflicts would not be considered a significant land use impact under CEQA.

6.5 Overall Comparison of Proposed Project with Alternatives

The analysis of Project alternatives is summarized and compared in **Table 6-3**, which provides a summary of impact levels within all environmental topic areas.

6.5.1 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(e)(2) requires an EIR to identify an environmentally superior alternative. If the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives. In general, the environmentally superior alternative is defined as that alternative with the least adverse impacts to the project area and its surrounding environment. CEQA Guidelines Section 15126.6(a) places emphasis on alternatives that "avoid or substantially lessen the significant effects" of a project.

The No Project Alternative would be the most environmentally superior alternative with the fewest environmental impacts. However, the No Project Alternative does not meet any of the basic objectives of the Project.

Since the environmentally superior alternative is the No Project Alternative, the EIR also must identify an environmentally superior alternative from among the other alternatives. However, this EIR presents only the No Project and the No Street Extension alternatives as no other scenario was deemed reasonable and feasible. Evaluating an environmentally superior alternative can be difficult because many factors must be balanced. For example, the No Street Extension Alternative could be considered environmentally superior because, relative to the Project, it would result in incrementally reduced construction impacts from slightly reduced construction activity in a location slightly more removed from the closest sensitive receptors, even though the impact conclusions would be the same as the Project. However, while the No Street Extension Alternative would result in slightly reduced construction-related impacts, it would not be as supportive of CEAP goals for providing east-west and north-south connections in this area.

For the purposes of this EIR, the City has identified the Project and Project with the Project Variant as the environmentally superior alternative because feasible mitigation measures have been determined to be available to reduce all potentially significant environmental impacts to less-than-significant levels, and it would support CEAP goals for providing east-west and north-south connections in the Project vicinity. Nonetheless, City decision-makers may weigh the relative benefits of the alternatives differently and with additional information received in or developed during the Project approval process reasonably could reach a different decision.

In considering the alternatives analysis provided in this chapter, CEQA's substantive mandate is as follows: "public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects" of the project (CEQA Statute, Public Resources Code, Section 21002). For the Project, feasible mitigation measures have been determined to be

available to reduce all potentially significant environmental impacts to less-than-significant levels. So long as these identified mitigation measures are either incorporated into the Project or made a condition of Project approval, the availability of feasible alternatives becomes somewhat of a less important consideration, as they would not *substantially* lessen or avoid significant environmental effects of the Project.

TABLE 6-3
PROJECT ALTERNATIVES IMPACT SUMMARY AND COMPARISON

Impact	Alternative 1: No Project Alternative	Alternative 2: No Street Extension Alternative	Project
Aesthetics, Shadow, Wind	No Impact	Less than Significant	Less than Significant
Agriculture and Forestry Resources	No Impact	No Impact	No Impact
Air Quality	No Impact	LTS with SCAs ⇩	LTS with SCAs
Biological Resources	No Impact	LTS with SCAs and MM	LTS with SCAs and MM
Cultural Resources	No Impact	LTS with SCAs	LTS with SCAs
Energy	No Impact	LTS with SCAs	LTS with SCAs
Geology and Soils	No Impact	LTS with SCAs	LTS with SCAs
Greenhouse Gas Emissions	No Impact	LTS with SCAs ⇩	LTS with SCAs
Hazards and Hazardous Materials	No Impact	LTS with SCAs	LTS with SCAs
Hydrology and Water Quality	No Impact	LTS with SCAs	LTS with SCAs
Land Use and Planning	No Impact	Less than Significant	Less than Significant
Mineral Resources	No Impact	No Impact	No Impact
Noise	No Impact	LTS with SCAs ⇩	LTS with SCAs
Population and Housing	No Impact	Less than Significant	Less than Significant
Public Services and Recreation	No Impact	LTS with SCAs	LTS with SCAs
Transportation and Circulation	No Impact	LTS with SCAs ⇧	LTS with SCAs
Tribal Cultural Resources	No Impact	LTS with SCAs	LTS with SCAs
Utilities and Service Systems	No Impact	LTS with SCAs	LTS with SCAs
Wildfire	No Impact	No Impact	No Impact

NOTES: LTS = Less than Significant, SCAs = Standard Conditions of Approval, MM = Mitigation Measure, SU = Significant and Unavoidable

⇧/⇩ - The impact is more/less severe than compared to the Project.

The color gradients in the table are a visual representation of the significance findings with the lightest or absence of color representing the least amount of impact, and the darkest shade representing an impact that would be significant without mitigation.

CHAPTER 7
Other Statutory Sections

Consistent with the CEQA Guidelines Section 15126.2, this section discusses significant environmental effects, significant irreversible environmental changes, and growth-inducing impacts associated with development of the Project. Project effects that were found to be less than significant are also discussed. Cumulative impacts are separately discussed in Chapter 4, *Environmental Setting, Impacts, and Standard Conditions of Approval*.

7.1 Significant Environmental Effects

In accordance with CEQA Guidelines sections 15064 and 15065, an EIR must identify impacts that would not be eliminated or reduced to an insignificant level by mitigation measures included as part of the proposed project, or by other mitigation measures that would be implemented.

As discussed throughout Chapter 4, *Environmental Setting, Impacts, and Standard Conditions of Approval*, development of the Project would result in a conservatively-determined significant and unavoidable impact with incorporation of Standard Conditions of Approval (SCAs), for construction-period noise.

7.2 Significant Irreversible Environmental Changes

An EIR must identify any significant irreversible environmental changes that could result from project development. These may include current or future uses of non-renewable resources, and secondary or growth-inducing impacts that commit future generations to similar uses. CEQA dictates that irretrievable commitments of resources should be evaluated to assure that such current consumption is justified (CEQA Guidelines Section 15126.2(c)). The CEQA Guidelines identify three distinct categories of significant irreversible changes: (1) changes in land use that would commit future generations; (2) irreversible changes from environmental actions; and (3) consumption of non-renewable resources.

7.2.1 Changes in Land Use That Would Commit Future Generations

The Project would result in growth and development within the City of Oakland consistent with *Plan Bay Area 2040* growth projections for the City and the region. Further, development of the Project would occur within an urbanized area surrounded by similar or compatible uses and would not commit future generations to significant changes in land use that would result in

significant and unavoidable adverse impacts, as discussed in Chapter 4, *Environmental Setting, Impacts, and Standard Conditions of Approval*.

7.2.2 Irreversible Changes from Environmental Accidents

As discussed in Section 4.4, *Hazards and Hazardous Materials*, no significant irreversible environmental damage, such as what could occur as a result of an accidental spill or explosion of hazardous materials, is anticipated due to development of the Project. Furthermore, compliance with Federal, state, and local regulations as well as City of Oakland Standard Conditions of Approval (SCAs) associated with hazards and hazardous materials identified in Section 4.4 would reduce the possibility that hazardous substances associated with development of the Project would result in irreversible environmental damage from accidental spill or explosion.

7.2.3 Consumption of Non-renewable Resources

Consumption of non-renewable resources includes conversion of agricultural lands, loss of access to mining reserves, and use of non-renewable energy sources. As described in Section 4.7.2, *Agriculture and Forestry Resources*, the Project site is not located on agricultural land (DOC, 2019); therefore, no agricultural land would be converted to non-agricultural uses.

As discussed in Section 4.7.8, *Mineral Resources*, the Project site is located on land classified by the California Department of Conservation's (DOC's) Division of Mines and Geology as Mineral Resource Zone 1 (MRZ-1), or an area where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence (DOC, 1987; 2020). Therefore, the Project would not result in the loss of availability of a known mineral resource and would not result in the loss of a locally important mineral resource recovery site.

Resources that would be permanently and continually consumed by implementation of the Project include water, electricity, and fossil fuels; however, the amount and rate of consumption of these resources would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources, as discussed in Section 4.7.4, *Energy*. Project construction activities would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels such as gasoline and diesel for automobiles and construction equipment. With respect to the operational activities of the Project, compliance with all applicable building codes, as well as City of Oakland SCAs, would ensure that all natural resources are conserved to the maximum extent practicable. New technologies or systems may also emerge over the lifetime of the Project, or would become more cost-effective or user-friendly, and would further reduce the Project's reliance upon nonrenewable energy resources.

7.3 Growth-Inducing Impacts

This section addresses the ways that development of the Project "could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment" (Section 15126.2(d) of the CEQA Guidelines). This section

summarizes topics and impacts also addressed in Section 4.7.9, *Population and Housing*, which provides the context for evaluating growth-inducing impacts.

A project can have direct and/or indirect growth-inducement potential. Direct growth inducement could result if a project involved construction of new housing. A project can have indirect growth-inducement potential if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial or governmental enterprises) or if it would involve a substantial construction effort with substantial short-term employment opportunities and indirectly stimulate the need for additional housing and services to support the new employment demand. Similarly, under CEQA, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. Increases in population could tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. The CEQA Guidelines also require analysis of the characteristics of projects that may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively.

The timing, magnitude, and location of land development and population growth is based on various interrelated land use and economic variables. Key variables include regional economic trends, market demand for residential and non-residential uses, land availability and cost, the availability and quality of transportation facilities and public services, proximity to employment centers, the supply and cost of housing, and regulatory policies or conditions. General plans define the location, type, and intensity of growth and thus are the primary means of regulating development and growth in California.

The growth-inducing impacts analysis addresses the potential of the Project for growth inducement in the Project vicinity or broader area. Under CEQA, a project is generally considered to be growth-inducing if it results in any one of the following:

1. Extension of urban services or infrastructure into a previously unserved area;
2. Extension of a transportation corridor into an area that may be subsequently developed; or
3. Removal of obstacles to population growth (such as provision of major new public services to an area where those services are not currently available).

7.3.1 Extension of Urban Services or Infrastructure

As discussed in Sections 4.7.10, *Public Services*, and 4.7.11*, Recreation*, the Project is located in an urban area already served by City fire, police, school, and park services. Therefore, the Project would not require the extension of urban services into a previously unserved area. Additionally, as described in Section 4.7.14, *Utilities and Service Systems*, the Project would involve the installation of new utility infrastructure to connect the Project to existing utility lines. Although infrastructure improvements would occur as part of the Project, extension of these facilities would not indirectly induce substantial population growth, because the Project site is located within a developed area. Required infrastructure improvements would be limited in extent, and would not

likely facilitate the development or redevelopment of other properties within the vicinity of the Project site.

7.3.2 Extension of a Transportation Corridor

Primary regional auto access to the Project site is available from Interstate 880, approximately 0.3 miles to the north. As discussed in Section 4.6, *Transportation and Circulation*, the pedestrian, bicycle, and transit access between the sites and throughout the nearby areas is good. Most existing streets in the Project vicinity provide sidewalks on at least one side of the street. The Project is currently served by several bicycle facilities including Class 2 bicycle lanes along Fruitvale and Alameda Avenues, and a Class 1 facility along the Oakland Estuary south of Alameda Avenue, which is part of the Bay Trail. The Project site is well-served by existing regional and local transportation and is approximately 0.6-mile walking distance from the Fruitvale BART Station and is currently served by AC Transit bus service along Fruitvale Avenue.

The Project would include several changes to the adjacent roadway network, including opening Boehmer Street, and relocating Alameda Avenue approximately 100-feet to the north. The Project would include 5.5- to 8-foot sidewalks on both sides of each new or reconstructed roadway and a 12-foot Class I shared-used path on the south side of Alameda Avenue. These changes and improvements to the roadway network do not include an extension of any major transportation corridor. The Project site is in a developed urban area well-served by existing regional and local transportation. Therefore, the Project would not extend transportation corridors into undeveloped areas resulting in growth-inducing impacts.

7.3.3 Removal of Obstacles to Population Growth

Section 15126.2(d) of the CEQA Guidelines states that an EIR should discuss "the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." CEQA requires a discussion of how a project could increase population, employment, or housing in the areas surrounding the project site as well as an analysis of the infrastructure and planning changes that would be necessary to implement the project.

The Project involves the addition of heavy industrial uses on a site that currently contains a vacant industrial facility, therefore directly stimulating population growth, the impacts of which are analyzed throughout Chapter 4, *Environmental Setting, Impacts, and Standard Conditions of Approval*. The Project site is adjacent to existing urban development including primarily commercial (e.g., retail, gym, a roofing company, Home Depot) and residential uses. Any proposed development on parcels surrounding the Project would be subject to project-specific CEQA review.

Section 4.7.9, *Population and Housing*, analyzes the Project's overall effect on population and housing, including growth-inducing considerations. The Project would result in construction employment. The employment growth associated with construction work, however, would be limited and temporary, and the majority of construction workers are anticipated to originate from

the local and regional labor pool, and would not relocate within the City, further reducing the potential for secondary effects. The Project would also result in jobs for approximately 350 permanent employees on the Project site from proposed office and retail uses. However, as discussed in Section 4.7.9, the Project's employment increase represents a small increment of the *Plan Bay Area 2040*-projected growth within the City, which would not constitute substantial unplanned employment growth within the City. Accordingly, the employment opportunities provided during operation are not anticipated to induce substantial population growth in the region.

The Project would not remove obstacles to additional growth through the extension of utilities that would facilitate new growth, because it would be undertaken in a developed urban area that is currently otherwise served by all utilities and services and would only require the minor extension of utility infrastructure to serve the Project site. Similarly, the Project would not overburden existing infrastructure so as to require construction of new facilities that could result in significant impacts, as discussed in the Section 4.7.14, *Utilities and Service Systems*.

7.3.4 Summary

The Project is not likely to encourage (or induce) other development in the surrounding area; regardless, the collective impacts of any such growth have been considered in the *Plan Bay Area 2040* growth projections, and/or have been assessed in this EIR's consideration of cumulative impacts.

7.4 Cumulative Impacts

The approach used in this EIR for cumulative impact analysis is described in the introduction to Chapter 4 (Section 4.0). The analysis of each environmental topic included in Chapter 4 evaluates possible cumulative impacts considering regional development in combination with development of the Project.

Construction and operation of the Project, in combination with cumulative development in the surrounding area, would not result in significant and unavoidable impacts under cumulative conditions.

7.5 Effects Not Found to Be Significant

As required by CEQA, this EIR focuses on expected significant environmental effects (CEQA Guidelines Section 15143). In accordance with Section 15128 of the CEQA Guidelines, an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. Effects not found to be significant are specifically discussed under each applicable environmental topic section in Section 4.7.

7.6 References – Other Statutory Sections

California Department of Conservation (DOC). 2020. *State Mining and Geology Board Guidelines, Guidelines for Classification and Designation of Mineral Lands*. Accessed February 25, 2022. https://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf.

DOC. 1987. Division of Mines and Geology, *Special Report 146, Part II, Mineral Land Classification: Aggregate Materials in the San Francisco-Monterey Bay Area*, 1987. Oakland East Quadrangle, Plate 2.19. Accessed February 25, 2022. https://ia902602.us.archive.org/35/items/minerallandclass00stin/minerallandclass00stin.pdf.

CHAPTER 8
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Planner: Peterson Vollmann, Planner IV

8.2 EIR Consultants

Environmental Consultant

Environmental Science Associates (ESA)
180 Grand Avenue, Suite 1050
Oakland, California 94612

Project Director: Crescentia Brown
Project Manager: Elizabeth Kanner

ESA Technical Analysis

Air Quality: Jyothi Iyer
Biological Resources: Brian Pittman, Erika Walther
Greenhouse Gas Emissions: Jyothi Iyre, Bailey Setzler
Hazards and Hazardous Materials: Michael Burns
Noise and Vibration: Jyothi Iyre
Effects Found Not to Be Significant: Elizabeth Kanner, Bailey Setzler, Ryan Yasuda; Becky Urbano (Historic Architecture), Johanna Kahn (Historic Architecture), Heidi Koenig (Archaeology, Tribal)
Project Variant: Elizabeth Kanner
Alternatives: Elizabeth Kanner
Other CEQA Considerations: Elizabeth Kanner
Senior Quality Assurance/Quality Control: Elizabeth Kanner

ESA Production Services

Word Processing and Editing: Kristine Olsen, Joel Miller, Logan Sakai
Graphics and Production: Ron Teitel

Transportation Consultant

Fehr & Peers
2201 Broadway, Suite 602
Oakland, California 94612

Sam Tabibnia, PE

Appendix A

Notice of Preparation, Scoping Meeting Materials, and Scoping Comments

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CITY OF OAKLAND
Bureau of Planning
250 Frank H. Ogawa Plaza, Suite 3315, Oakland, California, 94612-2032

**NOTICE OF PREPARATION (NOP)
OF A DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) FOR THE
3600 ALAMEDA AVENUE PROJECT**

The City of Oakland's Bureau of Planning is preparing an Environmental Impact Report (EIR) for the 3600 Alameda Avenue Project (Project). The City is requesting comments on the scope and content of the EIR. A description of the Project and its location, together with a summary of the probable environmental effects that will be addressed in the EIR are included herein. Pursuant to California Environmental Quality Act (CEQA) Guidelines §15063(a), the City has **not** prepared an Initial Study.

The EIR for the Project is being prepared in compliance with CEQA (California Public Resources Code §§21000 et. seq.) and the State CEQA Guidelines (Guidelines) (California Code of Regulations, Title 14, Division 6, Chapter 3, §§15000 et. seq.). The City of Oakland is the Lead Agency for the Project and is the public agency with the greatest responsibility for considering approval of the Project and/or carrying it out. Pursuant to Guidelines §15082(a), upon deciding to prepare an EIR, the City as the lead agency must issue a Notice of Preparation (NOP) to inform the Governor's Office of Planning and Research, trustee and responsible agencies, and the public of that decision.

The purpose of the NOP is to provide information describing the Project and its potential environmental effects to those who may wish to comment regarding the scope and content of the information to be included in the EIR. This notice is being sent to responsible or trustee agencies and other interested parties. Responsible and trustee agencies are those public agencies, besides the City of Oakland, that may also have a role in considering approval and/or carrying out the Project. The City encourages responsible and trustee agencies and the Office of Planning and Research to provide this information to the City so that the City can ensure that the EIR meets the needs of those agencies. Once the DEIR is published, it will be sent to all responsible or trustee agencies and to others who respond to this NOP or who otherwise indicate that they would like to receive a copy.

SUBMITTING COMMENTS IN RESPONSE TO THIS NOP: Comments may be submitted in writing or made at the public scoping meeting described below. **The City encourages written comments to be submitted electronically via e-mail to the case planner at pvollmann@oaklandca.gov.** Written comments may also be mailed to: Peterson Vollmann, Planner IV, City of Oakland Bureau of Planning, 250 Frank H. Ogawa Plaza, Suite 2214, Oakland, CA 94612. Comments should be received via the above e-mail address or mailing address by 4:00 p.m. on **May 3, 2022**. Please reference Case File Number **PLN21223-ER01** in all correspondence.

Comments and suggestions as to the appropriate scope of analysis in the EIR are invited from all interested parties and should focus on the potential physical environmental impacts of the Project. Commenters are encouraged to identify ways that potential adverse effects resulting from the Project might be minimized and to identify reasonable mitigation measures and alternatives to the Project.

EIR SCOPING MEETINGS:

The **City of Oakland Planning Commission** will conduct a public scoping meeting on the EIR for the 3600 Alameda Avenue Project on **Wednesday, April 20, 2022** at **3:00 p.m.** The meeting will be held on-line via Zoom and you may access the meeting information one week prior to the meeting at the following website: https://www.oaklandca.gov/boards-commissions/planning-commission

PROJECT TITLE: 3600 Alameda Avenue Project (Case File No. **PLN21223-ER01)**

PROJECT LOCATION: The project site is an approximately 23.9-acre lot located at 3600 Alameda Avenue generally between Fruitvale Avenue to the west and 37th Avenue to the east in Oakland. The project site is in the Central Estuary Plan Area's Central Estuary Industrial Zone-6 (D-CE-6) zoning district and has an Estuary Policy Plan (EPP) Heavy Industry General Plan land use designation (Assessor's Parcel Number [APN] 033 2250-011-04). The site is bordered by Alameda Avenue and the Oakland Estuary to the south, Fruitvale Avenue and commercial/industrial uses to the west, a Home Depot with associated surface parking to the east, and a mixed-use residential neighborhood and I-880 to the north.

PROJECT SPONSOR: Duke Realty

EXISTING CONDITIONS: The project site is currently occupied by the former Owens-Brockway Glass manufacturing facility, which was identified in the Central Estuary Plan EIR as a Potentially Designated Historic Property (PDHP). The facility contains multiple manufacturing structures totaling approximately 1.24 million square feet. The project site is predominantly flat and is mostly covered by existing structures and paving with little existing vegetation. There is one tree in the project site interior and several trees at the existing facility entrance along Alameda Avenue. Street trees line the east side of the existing and proposed extension of 37th Avenue. There are multiple existing curb cuts along Alameda Avenue, Fruitvale Avenue, and 37th Avenue. The project site is included in the list of Hazardous Waste and Substances sites in the Department of Toxic Substances Control (DTSC) EnviroStor database.

PROJECT DESCRIPTION: The Project Applicant is proposing to demolish all existing structures on the project site and construct an approximately 426,022 square foot, 56-foot-tall industrial building with a floor area ratio (FAR) of 0.42. The applicant proposes the Project on a speculative basis as the end-user and nature of the use are unknown at this time. However, for the purposes of the conservative analyses, the end use is assumed to be a distribution warehouse.

The main building entrance and employee amenity space would be located at the corner of Fruitvale Avenue and E. 7th Street. The new facility would include up to 30,000 square feet of accessory office space likely distributed in three spaces along E. 7th and Boehmer Streets at the northwest and northeast corners of the building and in the central-northern portion of the building. The Project would include an employee parking lot to the north of the building as well as a loading dock and associated parking areas in the southern part of the project site. A portion of the southeast corner of the site (intersection of Alameda Avenue and the proposed extension of 37th Avenue) would be left open for future development as retail use or a restaurant. For the purposes of the analyses, an approximately 4,000 square-foot café/restaurant is assumed to be located at that location as a part of project operations.

The Project would also include an extension of E 7th Street east of Fruitvale Avenue to 37th Avenue, an extension of 37th Avenue to connect with Alameda Avenue, and a re-aligned Alameda Avenue. The Alameda Avenue re-alignment would include widened sidewalks and a bike path.

PROBABLE ENVIRONMENTAL EFFECTS AND PROPOSED SCOPE OF THE EIR: Probable environmental effects to be addressed and evaluated in the EIR include: Air Quality and Health Risk, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Noise, and Transportation and Circulation.

Environmental factors that are expected to have no impact or a less-than-significant impact will be discussed in the EIR, and are expected to include: aesthetics, wind and shadow, agriculture and forestry resources, biological resources, cultural resources, energy, geology and soils, hydrology and water quality, land use and planning, mineral resources, population and housing, public services and recreation facilities, tribal resources, utilities and service systems, and wildfire.

The DEIR will also examine a reasonable range of alternatives to the Project, including the CEQA-mandated No Project Alternative, and other potential alternatives capable of reducing or avoiding potential significant environmental effects.

April 4, 2022
Case File Number: **PLN21223-ER01**

Ed Manasse
Environmental Review Officer
Planning and Building Department

Attachments:

Figure 1, Project Location Map
Figure 2, Project Site Plan

2021\D2021009\22.00 - 3600 Alameda Avenue Light Industrial\05 Graphics-GIS-Modeling

SOURCE: ESA, 2022

3600 Alameda Avenue Light Industrial

Figure 1
Project Location

ESA

SOURCE: HPA Architecture, 2022

3600 Alameda Avenue Light Industrial

Figure 2
Site Plan

ESA

From: Carrie Anderson
To: Vollmann, Peterson
Cc: Everardo Rodriguez; Carrie Anderson
Subject: Re: additional comments related to proposed plans for 3600 Alameda Ave
Date: Thursday, April 21, 2022 9:13:07 AM

Hello Mr. Vollmann,
Yes, please add me to the interested parties list.

My mailing address is:
3413 Elmwood Avenue
Oakland, CA 94601

Thank you,
Carrie Anderson

On Thursday, April 21, 2022, 09:08:09 AM PDT, Vollmann, Peterson <pvollmann@oaklandca.gov> wrote:

Carrie-

We maintain an interested parties list so that people can receive all future CEQA notices by mail. Can you provide me your mailing address if you wish to be added to the list? Thanks.

Peterson Z. Vollmann | Planner IV | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2114 |Oakland, CA 94612 | Office Phone: (510)238-6167 | Cell Phone: (510)507-4765 |
Email: pvollmann@oaklandca.gov | Website: https://www.oaklandca.gov/

From: Carrie Anderson <cfa080@yahoo.com>
Sent: Wednesday, April 20, 2022 5:00 PM
To: Vollmann, Peterson <PVollmann@oaklandca.gov>
Cc: Carrie Anderson <cfa080@yahoo.com>; Everardo Rodriguez <bayrestorators@gmail.com>
Subject: additional comments related to proposed plans for 3600 Alameda Ave

Dear Mr. Vollmann,
Thank you for inviting me to the planning commission meeting today and for giving us an opportunity to share our concerns. A few more things occurred to me during the meeting that I wanted to pass along. And I may have more comments later!

Several people talked about the historical nature of the neighborhoods and this also applies to my neighborhood, South Kennedy Tract. My house was built in 1900 and there are a number of victorian homes on this block (one right across the street) built in the early 1900s and families who have lived here for 70+ years. It would be nice if whatever plans are put into place also keep in mind the history of the neighborhood and its homes and residents. Many of the neighbors used to work at the glass plant.

There was also a really good comment about how even if the new building will occupy the same footprint as the old OI glass plant, the use of the area is very different. For one thing, the glass plant has numerous buildings of different sizes and shapes spread out all over the property. I do like that the Duke Realty proposal is basically for one building.

I also wanted to comment on how the old plant used to operate, since I moved here in 2014 when the plant was fully operational. And by the way, I live on Elmwood and my property backs up to the plant - the plant is separated from my property by a chain link fence. The plant ran 24/7 with 3 shifts. Next to my property is their parking lot. Workers would park in the lot for 8 hours and would then leave and the next shift would come in. So, yes, there was traffic and movement but it was 3 specific times per day and was not a big problem. The plant also had vehicles (like golf carts) that would drive around the back of the plant from time to time but again, not a big deal. They also had a security booth in the parking lot next to me with a security guard present 24/7. And, they had a pretty sophisticated system of security cameras where they could see from 880 to Fruitvale to Alameda Ave to 37th and they could monitor their property (this security system was then stolen or destroyed by people in the encampments). I always felt very safe here (up until the city allowed the uncontrolled takeover of Alameda Ave by the encampments about 2 years ago) and surprisingly enough, the noise was minimal. From what I understand, there was much more noise on the Alameda Ave side and I recall big piles of glass being broken over there. But again, my neighborhood was quiet.

And it used to be very walkable (someone mentioned walkability). I used to walk to home depot, the bay trail, and across the bridge to Alameda, all of which is now too unsafe due to the encampments.

If you or anyone on the commission have any questions about what it is like living here right next to the property, please let me know. I would be glad to talk with you.

I hope you will keep me informed about any future meetings on this topic and I hope Duke Realty lets me know about their community engagement meetings. I have to say I was shocked and disappointed when I saw their actual plans. Based on prior conversations with them, I had the understanding there would be some "pop up" (fold up?) warehouse buildings on the Alameda Ave side and some offices on our side. Plans for a 60' monolith and adding new roads, etc, was not at all what I understood was going to happen.

Thanks again,
Carrie Anderson

From: Carrie Anderson
To: Vollmann, Peterson
Cc: Carrie Anderson
Subject: Re: wondering how to get more information about plans for 3600 Alameda Ave
Date: Monday, April 25, 2022 11:04:10 AM

Hello,
Thank you for the information. The only thing separating my property from theirs is a chain link fence, so I am definitely within 300 feet of the site! My property is bordered on 3 sides by theirs - the area under discussion is directly behind my house and they have parking lots to the left and right of my house (which are not being discussed, at least not right now).

Thanks again,
Carrie Anderson

On Monday, April 25, 2022, 10:33:29 AM PDT, Vollmann, Peterson <pvollmann@oaklandca.gov> wrote:

Carrie-

It looks like you are within 300 feet of the site, so you will automatically be included in all future notices. I will be providing the same mailing list that we used for the prior notice to the applicant to do outreach.

Peterson Z. Vollmann | Planner IV | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2114 |Oakland, CA 94612 | Office Phone: (510)238-6167 | Cell Phone: (510)507-4765 |
Email: pvollmann@oaklandca.gov | Website: https://www.oaklandca.gov/

From: Carrie Anderson <cfa080@yahoo.com>
Sent: Monday, April 25, 2022 8:37 AM
To: Vollmann, Peterson <PVollmann@oaklandca.gov>
Cc: Carrie Anderson <cfa080@yahoo.com>
Subject: Re: wondering how to get more information about plans for 3600 Alameda Ave

Dear Mr. Vollmann,
Thank you for such a prompt and detailed response. It was extremely helpful.

The only information I had received was the letter from the city about the meeting. I was afraid that was the only chance we'd have to make comments and that demolition would be starting any day now. I also thought that when it was said that the merits of the project would not be discussed, it was because that had already been decided. I didn't know that part happens later. Lots of things I didn't and don't understand about this process so thank you for your help.

In a separate email I sent you my mailing address. Will that also be used by the applicant for community meetings? If not, how do I sign up to be invited to such community meetings?

Thanks again,
Carrie Anderson

On Friday, April 22, 2022, 10:33:28 AM PDT, Vollmann, Peterson <pvollmann@oaklandca.gov> wrote:

Carrie-

See below for answers to your questions. I hope this helps.

Peterson Z. Vollmann | Planner IV | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2114 |Oakland, CA 94612 | Office Phone: (510)238-6167 | Cell Phone: (510)507-4765 |
Email: pvollmann@oaklandca.gov | Website: https://www.oaklandca.gov/

From: Carrie Anderson <cfa080@yahoo.com>
Sent: Friday, April 22, 2022 9:53 AM
To: Vollmann, Peterson <PVollmann@oaklandca.gov>
Cc: Carrie Anderson <cfa080@yahoo.com>
Subject: wondering how to get more information about plans for 3600 Alameda Ave

Dear Mr. Vollmann,
I'm not sure if you're the right person to ask and if you're not, I hope that you'll let me know who is. I've never been involved with the planning commission and this week was the first time I attended a meeting. I'm wondering about plans for 3600 Alameda Ave and the process.

Specifically:
- how can I access the 30-page document with more detailed project plans that one of the meeting participants mentioned?

You can view all permit records on file on the City's online permit database. I've provided the link below and you will want to go to the Planning tab and search under case number PLN21223 (the ER01 file will also come up with that search and is the environmental review part of the application).

Link: https://aca-prod.accela.com/OAKLAND/Default.aspx

- how does this process work? will there be regular meetings?

The hearing this week was just the kick off hearing for scoping for preparation of the environmental document. As I had mentioned at the hearing, this part of the process is not based on the merits of the project but rather putting together and providing information to the public and decision makers on what the environmental impacts associated with the project would be. The next step in the environmental review process will be the release of the Draft EIR once it is prepared, and there will be another comment period and public hearing to take comments. After that the Final EIR is prepared in which all comments received are responded to. The Final EIR will be published when the project is ready to proceed to the Planning Commission for a decision on the development application. That is when the merits of the project will be discussed and a decision on the application would be made.

- how long will all of this take? it was mentioned that there will be traffic and other studies - what is the time frame for this? And will the results be available to the public (or at least the neighbors)? They are doing soil testing in the property next to mine but I have no idea what they are testing for, what the results are, or what the plans are for that property.

A project review that includes an EIR typically takes a year, but can often take longer. At teh moment our staffing levels are extremely low and everyone has very large workloads, and this can add quite a bit of time to the review of applications.

Traffic studies related to both the EIR and operations (which are not environmental issues) will be prepared and will be available for the public when teh Draft EIR is published.

- what are the plans for the parts of the property not included in the area bounded by Alameda Ave/Fruitvale/37th/Boehmer-E7th? For example, there are a number of empty lots and parking lots on Elmwood Ave that are part of the property purchased by Duke Realty. These properties belonged to the previous owner, Owens Illinois. What are the plans for these lots? Like I mentioned, there has been soil testing on the lot next to me.

I cannot speak to the other portions of the Owens property that are not included in this development proposal. The applicant had mentioned that they may pursue housing development on those sites that are located within the mixed use zone, but no proposals have been submitted to the City at this point in time.

- when will demolition/construction begin? Is that contingent on the results of the studies? I keep hearing that work will begin "soon" so I'm wondering what that means. I've also seen that some of the RVs on Alameda Ave have been cleared out and replaced with concrete barriers (which I'm very happy about) - we were told this was so PG&E could do something, but I'm not sure what.

No demolition or construction can begin until the EIR and project entitlement process are completed. The applicant would also need to obtain all building and demolition permits, which can't occur until teh completion of this process as well. I know there have been mentions of construction beginning this year, but I would think that to be highly unlikely since we do not even anticipate teh Draft EIR being ready until the fall.

- is there a way for us, the neighbors, to get a schedule or a timetable or a plan of what is going to happen and when? I imagine that the bulldozing of the existing property will be very, very noisy so I'd like to be prepared, especially since I work from home and need it to be quiet enough for zoom calls, etc, or I'll need to find another place to work (which will take time and will be an added expense)

I know the applicant will be looking to set up community meetings in the near future, and this is definitely something that the community could request.

Thank you.

Sincerely,
Carrie Anderson

From: Carrie Anderson
To: Vollmann, Peterson
Cc: Carrie Anderson
Subject: more thoughts about proposed plans for 3600 Alameda Ave
Date: Monday, May 2, 2022 2:49:09 PM
Attachments: IMG_20210227_101314182.jpg
IMG_20210227_101339941.jpg
IMG_20210227_101410561_HDR.jpg

Dear Mr. Vollmann,
I had a few more concerns/questions about the proposed plans for 3600 Alameda Ave. Specifically, I wanted to mention that in my neighborhood (Fruitvale/Elmwood/E8th/36th Ave/37th Ave) there are only about 40-50 homes/businesses (mostly homes). I'm just guessing at the number, but it's a very small area. And we would be the ones who are disproportionately burdened with additional noise and pollution from the proposed street changes/additions.

This is similar to what I mentioned before but I'm wondering what the reason is for the proposal to add streets and traffic here? What is the purpose of connecting 37th Ave to Alameda Ave and E8th St? Who do you anticipate will be using this route? I have the same question about the proposal to build a street connecting E7th St all the way behind our neighborhood and over to Boehmer and 36th (or 37th?). These changes would create streets that encircle our neighborhood. There would be E7th, then Elmwood, then E8th --- E7th and E8th would be busy through streets with only one street between them. Is this to alleviate traffic from somewhere else? I'm asking because we don't need these new streets and they will not help our neighborhood at all. In fact I think they will be very harmful, so I'm wondering who will benefit? It doesn't seem fair or equitable to have our very small mostly residential neighborhood used to accommodate or absorb or divert traffic from other areas. And I am concerned about the added noise and pollution that more traffic will bring. We already have an almost deafening level of noise from 880 - I am a very sound sleeper but since moving here I have had to use earplugs, something I never had to do anywhere else I've lived. It's also very noisy outside in my backyard and in the neighborhood because of the proximity to 880. I can only imagine how much worse the noise will get with cars racing around on E7th and E8th. We already breathe in plenty of pollution from the cars on 880 and I don't think it is reasonable to further burden this neighborhood with more cars and pollution.

After the meeting with you and your colleagues, there was another meeting with the city planning people - I forget the title. I listened to part of it and saw their slides showing just how contaminated this area already is. By this area, I mean my neighborhood all the way to Alameda Ave and the water. They had slides showing the levels of noise and pollution and contamination - I think they were all already at the highest (worst) level. Adding any more noise, air, or water pollution seems very problematic.

During the last 2 years, we had CalTrans here on E8th St repairing damage from a large encampment fire under 880 at the 34th Ave sidewalk between E8th and E9th St. They had trucks and crews here 1-2 times per week for over a year. A lot of what they were doing involved scraping paint/lead. Their workers were wearing hazmat suits and posted signs about "lead" and told me they could only work a few hours at a time because of the lead. We were exposed to all of that, in addition to being exposed to that fire and several others in the same area. We have also been exposed to chemicals and rats and human waste from the encampments that were allowed on E8th St near Fruitvale and under 880 (where the fires were). Basically, this area already has a very high level of contaminants (not to mention what is in the ground from the old OI plant) so I am concerned about any plans which will add to that and result in greater risks for our health.

I've included some pictures of the CalTrans work and I have many more if you ever need them. These were taken on E8th St, between 34th Ave and Fruitvale Ave.

Thank you for your help,
Carrie Anderson

From: Carrie Anderson
To: Peterson Vollmann
Cc: Carrie Anderson
Subject: additional information regarding proposed plans for 3600 Alameda Ave
Date: Monday, May 2, 2022 3:04:24 PM
Attachments: 2022-03-01_Ltr to City (Final)3docx.pdf

Dear Mr. Vollmann,
Attached is a letter previously sent by Concerned Fruitvale (not to you specifically) regarding general conditions in this area. Some of it does not apply to the proposed plans for 3600 Alameda Ave. It provides a lot of detailed information about the existing conditions in this area that are already very problematic and that should be taken into consideration when making plans for other things which could further negatively impact this same area.

Sincerely,
Carrie Anderson

From: Bev Angros
To: pvollmann@oaklandca.gov
Cc: Noel Gallo; atlarge@oaklandca.gov
Subject: Current plan for 3600 Alameda Ave
Date: Tuesday, May 3, 2022 2:55:44 PM

Good afternoon Mr. Vollmann,

I am a resident of The Estuary located along Glascock Street in Jingletown. I am writing about the current plan for 3600 Alameda Ave.

I am not opposed to the potential that this property has to enhance our neighborhood or to provide jobs. I am, however, concerned about the access to the property as the current plan brings a lot of traffic through my area which is across Fruitvale Avenue from the above property.

I am also curious as to whether Union Pacific Rail Road (UPRR) has participated in the discussion as they bring 3-6 trains through our neighborhood each week. They deliver and ship for Miller Milling across 29th/23rd Ave. Some trains are in the early hours of the morning like 2-3 AM, some at 8 AM, some at 6-9 PM. Having trucks & cars trying to cross the tracks and Fruitvale Ave at all hours will pose additional problems. One of the biggest problems is that a lot of people who don't live here think those tracks are abandoned because they don't see a lot of trains. Trailers of 18 wheelers have been parked on the tracks as if it was okay! Cars and trucks stop on the tracks - which is usually ok during the day but we never know when the train is coming through at night! Due to the earthquake reinforcement of I-880, the trains have no other route to Miller Milling.

This neighborhood is already polluted by big trucks, the I-880 freeway, 2 bridges to Alameda, 2 cement plants and a milling plant. Our roads are narrow and quite frankly large trucks coming off of I-880 Northbound would not be able to turn onto Ford St at the light because of the vehicles loading and unloading at the corner - it's hard for a car to get through. Residences are scattered through the area with businesses, the additional noise would not give the occupants the peace and quiet they deserve.

Making the High Street exit off of I-880 more functional so it isn't ALWAYS backed up and bringing the trucks to 42nd Ave would be a better solution. Fewer, if any, residences would be impacted. Homeless encampments would be handled by the city. No additional pollution and noise would be brought into our area, which is highly populated now and is not as industrial as it was 20 years ago.

I invite you to come down to our area and see what it actually looks like and how it would be affected by the additional traffic in the current plan. I would be happy to show you around.

Thank you for your time.

Bev Angros

Beverly Angros
341 Channel Way
Oakland 94601
510-813-2002 (cell)

From: Alesia Hsiao
To: Vollmann, Peterson
Subject: BAAQMD Comment Letter: 3600 Alameda Avenue Project DEIR NOP
Date: Tuesday, May 10, 2022 8:46:51 AM
Attachments: 2022-05-10 3600 Alameda Ave NOP Letter_gn.pdf

Good Morning Mr. Vollmann,

The following is being submitted on behalf of Greg Nudd, Deputy Air Pollution Control Officer of the Bay Area Air Quality Management District.

Please find enclosed a comment letter regarding the 3600 Alameda Avenue Project DEIR NOP.

Thank you,

Alesia Hsiao, AICP [she/her] | Senior Environmental Planner
Planning and Climate Protection Division
Bay Area Air Quality Management District
Office: 415-749-8419

From: Karen Balos
To: pvollmann@oaklandca.gov
Subject: Re Content of EIR for new construction at 3600 Alameda Avenue. Case File Number PLN21223-ER01
Date: Monday, May 2, 2022 3:41:27 PM

Re Content of EIR for new construction at 3600 Alameda Avenue. Case File Number PLN21223-ER01

Dear Mr. Vollmann

I live on Chapman Street between Lancaster and Derby in Jingletown. I have direct experience of already existing health and safety problems caused by air pollution, traffic jams , noise, poorly maintained streets, awkward freeway entrances and exits, unmonitored train crossings and drawbridges. These problems will be made worse by the current plan.

Below are listed some of the specific problems I recommend be included for study in this EIR report and some possible areas to explore for solutions

Traffic impacting pollution and safety.

1. Include study of drawbridges and the additional impact of a huge distribution center on the current traffic jams on High Street, Fruitvale Avenue and 29th Street in and out of Alameda, especially during commuter hours. The Webster Tunnel is the only other access to and from Alameda except the ferries. A higher volume of idling trucks blocking the roads will create problems for emergency vehicles and residents trying to leave the island in an emergency.
2. Include inspection of the condition of the pavement on the streets in Jingletown including 7th Street, Fruitvale Avenue, High Street.The streets of Jingletown are mostly narrow, filled with potholes and uneven surfaces. There are few sidewalks so pedestrians walk in the streets. A fleet of trucks from a distribution center will have trouble making turns. 7th Street, a proposed access point if one crossed Fruitvale to proposed extension of 7th Street is in terrible condition, has active, unmonitored railway tracks crossing it at Fruitvale, and is dangerous.
3. Include inspection of new 880 Freeway entrance on 9th street past the FoodMax. The roundabout is too small for trucks. I have seen trucks stop and back up into a side spur in order to get on the Freeway. Once on the freeway the distance provided to merge to the left is minimal.
4. Include inspection of High Street, Fruitvale Ave and all other streets that would be used by trucks and employees and office workers. Check for potholes, condition of road, width of roads, availability of sidewalks. Include streets adjacent to planned route for trucks and pedestrians as frequent use by drivers will encourage finding alternate routes.

Correct Inaccuracy in dated Zoning data and its impact on EIR

1. The EIR should base its evaluation on current use of neighborhood, not outdated zoning maps. Today, this neighborhood has far more residential use than reflected in your report. Several condo developments have been built. We have a Senior co-housing community. Many artists still live in Jingletown although the increase in rents are making it harder to do so. People live here who use the BART at Fruitvale to commute to SF. Many people walk in the neighborhood and ride bikes. This is a dog-friendly community

and lots of people walk their dogs from their homes to the Estuary and then along the Estuary. The UCB Rowing Club college students have their clubhouse here. We host Community events the most recent being the Earth day Cleanup. We have many murals, host the annual Oakland Museum's White Elephant Sale and it's attendant traffic. We host Open Studios. COME VISIT.

2. Check to see if there is a conflict between the usage anticipated for this parcel and its proximity to the Bay Trail. They seem at odds in purpose and design.

Study additional air quality impact from large numbers of trucks, employee cars.
Study noise

Possible solutions:

One possible solution to the traffic on Fruitvale and in Jingletown would be to allow entrance to and exit from the site by both the trucks and employee cars by making a right turn only from Alameda Avenue onto the property and a left turn when exiting the property on to Alameda Avenue. Also, the extension proposed of 7th Avenue would dead end at Fruitvale. If desired, employees could still enter the parking lot on that side of the property from the new extension of 7th street, but would not be able to access Fruitvale.

This would require much improvement of High Street but the neighborhood over there is in fact more industrial and much less residential.

Limit hours of operation to limit noise, safety issues from traffic.

Stop operation when pollution reaches measurable,unhealthy level.

Thank you for taking the time to consider my input

Sincerely,
Karen Balos, PhD.
Proud Resident, Jingletown

Kristine Olsen

From: Ingrid Becker <i.becker@comcast.net>
Sent: Tuesday, April 19, 2022 8:16 AM
To: Vollmann, Peterson
Cc: Cynthia Elliott
Subject: Glass Factory on Alameda - comments for EIR

Dear Mr. Vollman,

I am a longtime resident of the Jingletown neighborhood in Oakland and I have lived on Glascock Street for 19 years. I am writing today with comments regarding the proposal to convert a former glass factory into warehousing distribution at 3600 Alameda Avenue. I have read the documents in advance of this week's meeting and while I am unable to attend the meeting, I wish my comments in this email to be part of the official record for this application.

I and many other Jingletown residents are adamantly opposed to any transportation plan that would allow for truck traffic to go through our neighborhood after exiting the freeway. High Street must be to be the only exit allowed for this site and the extension of 42nd Avenue needs to be completed. That extension project has long been stalled and now must be completed because this proposal intends to bring additional traffic and commerce to Oakland.

Jingletown is already heavily impacted by traffic and industry — including a freight train that goes through the neighborhood weekly and trucks that already travel on Lancaster every weekday. Our streets can not handle more heavy vehicle traffic. We have working families, small businesses, artists, elders, and children in this neighborhood, all of whom would suffer ill health effects and be exposed to dangerous conditions with more commercial vehicles and trucks.

I am attaching photos of the mature tree canopy along Ford Street. These trees would be damaged or destroyed by large trucks and other vehicles on this roadway.

Respectfully, the city must protect the residents here and ensure that we are not subjected to the health and environmental risks of additional commercial vehicles in a neighborhood already heavily impacted by the existing commercial traffic and nearby freeway. Instead, the project developers should be required to create environmental improvements to this neighborhood and surrounding areas.

One additional and large concern is that as this site is developed, the city must be proactive and vigilant in ensuring that the campers and other vehicle dwellers now occupying Alameda Avenue have a viable place to go. You must ensure that these folks do not continue to move to neighborhood streets. Jingletown is already seeing the impact of the displacement and our streets are filling up with trash, abandoned vehicles, and campers. This can not continue. It is unsanitary, hazardous, and a violation of the city's own rules for not allowing such camping next to homes, businesses, or parks. The city must

begin immediately to enforce the rules and clean up the dumping and illegal camping that is now happening in Jingletown.

Thank you for your consideration,

My contact is below should you have any questions. I wish to be included in future notices about this project at 3600 Alameda Avenue.

Thank you,

Ingrid Becker
3090 Glascock St. #313
Oakland, CA 94601

510.517.7598

i.becker@comcast.net

From: Matt Bliven
To: pvollmann@oaklandca.gov
Subject: Re: Questions re PLN21223-ER01, 3600 Alameda Ave, NOP
Date: Thursday, April 21, 2022 2:59:36 PM

Dear Mr Vollmann,

I wish to withdraw comments #6 and #9 which I submitted yesterday. I see the issues of concern are being addressed by the City of Oakland in the Fruitvale Alive! project.

> Comment #6 - The current sidewalk and bike lane on the east side of Fruitvale Ave and adjacent to the project site is narrow and hazardous to pedestrians and cyclists. Can the project be improved by expanding the available space to widen the sidewalk and bike lane and provide lighting?
>
> Comment #9 - Could this project be improved to include features that address the long-standing problem of the San Francisco Bay Trail terminating at Fruitvale Ave (i.e., no direct access to the Bay Trail immediately west of the Miller-Sweeney Bridge?

Best regards,
Matt Bliven

On 4/20/2022 2:42 PM, Matt Bliven wrote:

> Dear Mr Vollmann,
>
> Please see attached questions.

From: Karen Bloomquist
To: pvollmann@oaklandca.gov
Cc: Noel Gallo; Cynthia Elliott
Subject: NO travel through Jingletown as the former glass factory is developed
Date: Monday, May 2, 2022 9:40:58 PM

I am writing as coordinator the Community Engagement Team at Phoenix Commons at 340 29th Avenue, to protest transit through our neighborhood when the former glass factory is developed. More truck traffic through Jingletown would be disastrous. Instead, the city needs to expand 42nd Ave.

Karen Bloomquist

From: Beth Boone
To: pvollmann@oaklandca.gov
Cc: ngallo@oaklandca.gov; atlarge@oaklandca.gov
Subject: Jingletown project
Date: Tuesday, May 3, 2022 6:28:13 AM

To Whom it May Concern:

Please consider the following regarding the old glass factory project at 3600 Alameda Ave.

This call to action concerns container truck traffic driving through our neighborhood. Thanks to Google Maps, truck drivers can exit 29th, turn on Ford St, turn on Derby, then turn on E7th to get to Fruitvale Ave. This facility will run 24/7 and has parking spaces for 228 container trucks. According to research done by the City of Oakland in their General Plan, this neighborhood has air and noise pollution as high as West Oakland near the Port. We have the diesel fumes from 880, air pollution from two cement factories, the grain factory and the warehouse on 400 Lancaster.

We have many streets without sidewalks, where bikes and pedestrians will be sharing the road with these trucks. We have some tree lined streets with 40-50 year old trees that will be damaged by these trucks. Jingletown's streets are also narrow, and won't accommodate 2 way traffic.

How can you help? We are asking for NO truck or employee traffic in our neighborhood. We want a traffic study on the impact of truck traffic here. We are asking for the expansion of 42nd Ave which stops under the 880 at Home Depot's parking lot. This 42nd Ave expansion has been talked about for over 10 years and will go through to Alameda Ave. So besides helping to eliminate traffic through Jingletown, truck traffic on 42nd Ave will help to eliminate the sideshows that occur at the 42nd Ave dead end. It will also go through another RV camp, which will force government agencies to re-home that group of residents.

Thank you,

Beth Boone
The Estuary resident

From: Ron Briggs
To: "Vollmann, Peterson"
Cc: officeofthemayor@oaklandca.gov; ngallo@oaklandnet.com; Mezzyashcraft@alamedaca.gov
Subject: NOP of a DEIR for the 3600 Alameda Avenue Project, Case File Number PLN21223-ER01 dated 4 April 2022
Date: Thursday, April 28, 2022 5:53:35 PM

Dear Mr. Vollmann:

This letter is forwarded to present our comments in response to the subject DEIR. We understand you are the person in charge of the review for the permit application and the DEIR.

My wife and I live in our home at 2913 Marina Drive in Alameda which is located directly across the Alameda-Oakland Tidal Canal (The Estuary) from 3600 Alameda Avenue, Oakland. I have lived in the house for about 71 years and my wife about 51 years.

Since Duke Realty has reportedly completed projects similar to this one for Amazon it appears that this could be a distribution center for Amazon or a similar operation involving the movement of a high volume of merchandise.

It appears that the operation at the facility would include hundreds of trucks loading and unloading at the warehouse with associated congestion, truck noise, lights and backup alarms. In fact, it is the backup alarm noise that is the most troublesome. As you know the traffic noise and sounds like the backup alarms carry very well across the water so for those of us who live on the water and those residents nearby in Alameda, the trucks sound like they are in our backyard. This was a problem over many years with the operation by Owens-Brockway. However, we were able to mitigate the problem in most cases as the backup alarms were silenced.

The roadways on the Miller Sweeney Bridge and the High Street Bridge are a major traffic artery to and from Alameda and Oakland. There is currently heavy congestion on these roadways and the congestion is expected to increase in part because of the additional housing that is being built in Alameda. Further the next congestion point is the access to and from I-880 highway at High Street and at Fruitvale Avenue. These two-problem areas will remain even after the additional roads and access to the facility is installed as indicated on the plan. The addition of perhaps hundreds of trucks a day to the roadways in this area will seriously hinder the flow of traffic in this area and cause an increase in risk of injury or accidents to the residents and those who are transiting the area.

The large number of homeless persons living on Alameda Avenue currently present an environmental hazard along with many other issues. They are polluting the park and the area along Alameda Avenue. They are also polluting the tidal canal with trash and sewage. This problem should be addressed as part of an environmental report and should be addressed in the project design, whatever it is.

In closing, in light of the problems outlined in this letter, we ask that the Oakland Bureau of Planning disapprove this permit application by Duke Realty. We suggest that the area be developed for construction of residential housing/low cost housing with associated areas and structures such as a boardwalk, parks, stores, improved bicycle routes and restaurants. Considering the current housing crisis in California which is exemplified by the large number of unfortunate homeless persons living on the streets in the area, this would be a far better use of the property for the surrounding community and the city of Oakland.

We ask that the subjects that we have presented in this letter be considered by the Bureau of Planning, be part of the Environmental Review Process and be provided to whomever or whatever agencies review these matters.

Please contact us if you need more information and please keep us updated regarding the EIR and the permit process.

Thank you for your consideration.

Very truly yours,

Ron & Susan Briggs
2913 Marina Drive
Alameda, CA 94501
Phone/FAX 510 523 0644
Cell 510 589 3560
briggs.ron2@gmail.com

cc: Council Person, Noel Gallo
Honorable Mayor of Oakland Libby Schaaf
Honorable Mayor of Alameda Marilyn Ashcraft

From:	Oliver Cacananta
To:	pvollmann@oaklandca.gov; NGallo@oaklandca.gov
Cc:	Danny Wan; Bev Angros; ronin36@sbcglobal.net; Elizabeth; drjaz55@gmail.com
Subject:	RE: Comments on 3600 Alameda - "Glass Factory Conversion" PLN21223-ER01 EIR Scoping Comments
Date:	Monday, May 2, 2022 5:28:13 PM
Importance:	High

Dear Mr. Vollman,

Given Danny Wan's extensive experience with Oakland and with city development in particular both at the city council and as an executive for the Port, I echo wholeheartedly the comprehensive list of items for the environmental impact report (EIR) that he has outlined below and their potential resolutions.

My observation has been that when an investment like this is proposed, it happens; so personally, it is not the "if" and "when" that I am concerned about, but the "how" that matters. There are opportunities here to improve a blighted site like the Glass Factory and develop this stretch of the estuary as a mix-use neighborhood that we can all enjoy while at the same time re-configuring the often convoluted and often hairy traffic and pollution conditions in this area. So here are my primary concerns:

- **Traffic**
  - Keep industrial and construction traffic out of the residential areas and keep it routed east of Fruitvale Ave.
  - The exits and entrances between High Street and 29th Street on I-880, and the narrow, deteriorating surface streets in Jingletown is congested. When the Park Street Bridge is raised, often at rush hours, traffic is a complete nightmare. In addition to connecting and opening up E. 7th Street possibly all the way from 23rd St to 37th St, I would suggest turning it into a two-lane, one-way street going east, thereby keeping traffic flowing towards the Glass Factory. I would also allow U-turns at the 29th Ave and Ford Street intersection to I-880 (and E 7th St). It's wide enough to do so and I have seen cars and trucks do it illegally all the time, which is unsafe. We have a number of dead-end streets that can be opened up as well, including Chapman St towards Fruitvale Ave, Lancaster and maybe Derby towards E 9th St.
  - Work during work hours when people are out.
- **Pollution**
  - If this is going to be a logistics distribution center (e.g., Amazon), will this Project be intending to use the existing train line as another supply chain option? The train's noise and schedule is already a perennial nuisance, so there will be a lot of pushback if this was the case. If only trucks, will they be using clean tech?
  - Again, re-route traffic towards the industrial / business zones towards the airport, east of Oakland.
- **Security and pedestrian residents:**
  - Jingletown is home to a vibrant, diverse neighborhood of young families, retirees, artists and middle income folks who use the estuary and its surrounds as a place to relax, walk and bike. I personally walk and/or bike to Fruitvale BART on my way to work in San Francisco. Not always the safest routes both as a pedestrian and bicyclist because of the

existing traffic conditions. It would be great for the development Project to incorporate expanding/extending/improving these conditions in their plans.

- We have seen in our district the same recent rise of criminality (and rampant unaccountability) in Oakland. An increase in incidences – break ins, run ins, etc. How will the Project address security? Along Alameda Ave towards Home Depot, there is an existing homeless encampment. Where will the unhoused be displaced? How will the City address their living situations? Because broken down RVs and cars and piles of shit and garbage in front of our homes where little kids play, and mental breakdowns and drug induced screaming at five in the morning is not okay. I am beginning to see it in our neighborhood.
- Cleaning up and connecting the estuary pathways and providing greenery and adding amenities like restaurants, etc. to make this a little mini-riviera would be ideal.

- **Transparency**:
  - As Danny indicated, a town hall, maybe more than one as development phases go, is recommended. We all have something to gain and lose here as neighbors and having our voice heard goes a long way in ensuring that whatever 3600 Alameda becomes, that we as residents and business owners have some agency in its development and the changes that will be happening in our lives.

I appreciate the opportunity to be heard.

Best regards,
Oliver

Oliver V. Cácananta
Senior Director, Head of Regulatory Affairs
Ossium Health, Inc.

A: 2845 Regatta Drive, Oakland, CA 94601
M: 317-795-8842
E: oliver.cacananta@outlook.com

From: Danny Wan
Sent: Monday, May 2, 2022 1:21 PM
To: pvollmann@oaklandca.gov; NGallo@oaklandca.gov
Cc: Bev Angros; ronin36@sbcglobal.net; Elizabeth; drjaz55@gmail.com; Oliver Cacananta
Subject: additional comments on 3600 Alameda - "Glass Factory Conversion" PLN21223-ER01 EIR Scoping Comments

This is Danny Wan (resident at the Estuary in Jingletown). I sent comments on this project last week. Here are some supplemental comments:

1. The Project is half a mile away from the Fruitvale BART station. Instead of building a large employee parking lot, a program of employee shuttles or investment in a safe route from the Project to BART would be advisable both from a transportation and an air quality perspective.

2. The Attorney General has issued recommendations on best practices in the development of e-commerce and logistics warehouses. There are good suggestions in there that would apply here . https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf

3, Applicant should be required to hold a well-publicized town hall discussion with neighboring residents and businesses.

Danny Wan

On Sat, Apr 30, 2022 at 11:01 AM Danny Wan <wan.danny@gmail.com> wrote:

> RE: PLN21223-ER01: 3600 Alameda Avenue
>
> Environmental Context: Major Existing Air Quality, Safety Hazardous and Emergency access/egress Conditions.
>
> The project is located near dense residential areas to the north and west (locally referred to as the "Jingletown" area) that are heavily impacted by air pollution and are designated by OakDOT as high priority equity areas. According to the Bay Area Air Quality District data, the zip code 94601 has one of the highest pollution index in the Bay Area. The residential areas along E. 7th Street, E. 8th Street Chapman Street, Ford Street, Elmwood are currently impacted by trucks, and commercial vehicles using these very narrow and badly maintained streets to access or exit the 880 freeway at 23rd Avenue or 29th Avenue west of Fruitvale. These are not the "clean" trucks. These are often old trucks that do not yet meet the most recent clean truck standards. They move slowly through these narrow streets, stop and emit particulate pollutants. Additionally, a frequently used Union Pacific spur track lies along Glascock to access the Cemex cement plant on 23rd Avenue.
>
> These streets in these residential neighborhoods traversed by trucks, trains and commercial vehicles are narrow, poorly maintained and unimproved with any safety features. The neighborhoods are very densely populated by families with children, elderly who often commute by foot or bikes to work or to the Fruitvale BART station. When a Union Pacific train pulls into Glascock and stalls there, it blocks access and egress of emergency vehicles to and from many of the streets and forces people to reroute to Chapman, E. 7th and Fruitvale. The conflicts between trucks, cars, trains, bikes and pedestrians already create a dangerous

mix both in terms of collisions but also access and egress during fire or other emergencies.

Necessary EIR Scoping Items:

Based on the context described above, these items must be studied in the EIR

Impacts:

1. Significant additional air quality impacts from large infusion of trucks, commercial vehicles and worker vehicles into already heavily polluted environments with vulnerable residential receptors, especially by opening access to E. 7th Street to the Project traffic or allowing Project traffic to exit at Fruitvale via Elmwood/E.8th Street ,and thereby increasing traffic from Project to enter or exit 880 freeway at 23rd or 29th Avenues.
2. Significant increase to health risk from NOx and particulate air pollutants from above sources to vulnerable residential receptors, including children, elderly and residents of historically disadvantaged communities.
3. Significant impact to safety to residents and pedestrians from increased access by trucks, worker vehicles and commercial traffic along very narrow corridors alongs E 7th, Elmwood, Chapman, Ford, Glascock and other residential streets, especially by opening access to E. 7th Street to the Project traffic or allowing Project traffic to exit at Fruitvale via Elmwood/E.8th Street ,and thereby increasing traffic from Project to enter or exit 880 freeway at 23rd or 29th Avenues.
4. Significant impact to ability for emergency vehicles to access narrow and often blocked streets in the residential areas, especially by opening access to E. 7th Street to the Project traffic or allowing Project traffic to exit at Fruitvale via Elmwood/E.8th Street ,and thereby increasing traffic from Project to enter or exit 880 freeway at 23rd or 29th Avenues.
5. Significant impact to air quality, noise and safety from construction activities and traffic, including dust, uncovering of toxic materials at the site and noise from construction activities.
6. Significant impact from uncovering of toxic, remediation and processing of toxic materials on site.

Project Elements and Mitigations:

1. A mandatorily-enforced TRAFFIC and TRUCK MANAGEMENT PLAN that prohibits Project traffic (including during construction or operation) from using streets in residential neighborhoods, including E. 7th street, E. 8th Street or Elmwood west of Fruitvale, and Chapman, Ford, Glascock streets to access or exit 880 freeway at 23rd or 29th Avenue . Project traffic should not be allowed to enter or exit at the 23rd or 29th Avenue 880 freeway entrances or exits because they will necessarily have to travel through the narrow streets in the residential areas.
2. Mandatory truck routes should be designated to direct freeway entrances or exits at High Street or 66th Avenue (via Zhone Way/Oakport). Project traffic routes should direct Project traffic to Alameda Avenue south and east bound.
3. Street reconfigurations and improvements should be made to allow easier access and egress of Project traffic to 880 Freeway via High Street Current street configurations via Fruitvale, Oakport, Alameda and 37th Avenue to the High Street entrances and exits are very convoluted.
4. The extension of 37th Avenue to connect to Alameda is good but Project traffic should not be permitted to travel north or west via 37th Avenue.
5. The extension of E. 7th Street should not allow Project traffic to traverse Fruitvale Avenue west bound into the residential neighborhoods, maybe by making E.7th Street a one-way street traveling east bound onto 37th Avenue
6. Fruitvale Avenue at E.7th Street should be improved with traffic and intersection control to prohibit Project traffic from entering or exiting E.7th Street and to improve emergency vehicle access into the residential area west of Fruitvale so that emergency vehicle access is not impacted by increased Project traffic.
7. Improved pedestrian sidewalks and landscaping along Frutivale Avenue to reduce safety impacts from increased traffic.
8. Limited construction hours
9. Fugitive dust remediation
10. Noise limiting measures
11. Toxic materials handling protocols and remediation

Conclusion

I and many of our neighbors believe that the Project could be beneficial by reactivating what is currently a blight and waste, filled with homeless encampments that have made a potentially beautiful waterfront area along the Estuary a nuisance area. However, due to poor planning and a very convoluted traffic and street pattern, there is high potential for significant negative impacts to a residential community that already suffers from high air pollution and traffic safety/emergency access. A well planned project done with due consideration for the Jingletown neighborhood and improvements to the traffic patterns would be welcomed.

I invite City planning and Project applicant to come visit and meet with the residents here. Please contact me and we could arrange.

Danny Wan

STATE OF CALIFORNIA Gavin Newsom, Governor

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nahc@nahc.ca.gov
NAHC.ca.gov

April 14, 2022

Peterson Vollmann
City of Oakland Bureau of Planning
250 Frank H. Ogawa Plaza, Suite 2214
Oakland, CA 94612

Re: 2022040061, 3600 Alameda Avenue Project, Alameda County

Dear Mr. Vollmann:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

a. A brief description of the project.

b. The lead agency contact information.

c. Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).

d. A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

a. For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

a. Alternatives to the project.

b. Recommended mitigation measures.

c. Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

a. Type of environmental review necessary.

b. Significance of the tribal cultural resources.

c. Significance of the project's impacts on tribal cultural resources.

d. If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

a. Whether the proposed project has a significant impact on an identified tribal cultural resource.

b. Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Cody.Campagne@nahc.ca.gov.

Sincerely,

Cody Campagne

Cody Campagne
Cultural Resources Analyst

cc: State Clearinghouse

From: Jenn Collins
To: pvollmann@oaklandca.gov; ngallo@oaklandca.gov; atlarge@oaklandca.gov
Subject: 3600 Alameda Ave development and truck traffic Jingletown
Date: Monday, May 2, 2022 4:38:23 PM

Dear Mr. Vollmann, Mr. Gallo and Ms. Kaplan,

I am writing to you as a 13 year resident of Jingletown upon hearing that the old Glass Factory, now know as **3600 Alameda Ave** may be developed into a warehouse facility for several shippers, Amazon being one of them. Most of the neighborhood is not against this development. It will bring in a much needed tax base for Oakland, there will be a requirement to hire a percentage of Oakland residents. There will be a change of Alameda Ave which will expand the Bay Trail, and the City will have to re-home the RV's camping there now.

My concern as a resident in this highly residential neighborhood is about container truck traffic driving through our neighborhood. Thanks to Google Maps, truck drivers can exit 29th, turn on Ford St, turn on Derby, then turn on E7th to get to Fruitvale Ave. This facility will run 24/7 and has parking spaces for 228 container trucks.

According to research done by the City of Oakland in their General Plan, this neighborhood has air and noise pollution as high as West Oakland near the Port. We have the diesel fumes from 880, air pollution from two cement factories, the grain factory and the warehouse on 400 Lancaster.

We have many streets without sidewalks, where bikes and pedestrians will be sharing the road with these trucks. We have some tree lined streets with 40-50 year old trees that will be damaged by these trucks. Jingletown's streets are also narrow, and won't accommodate 2 way traffic.

I am asking for NO truck or employee traffic in our neighborhood.

I want to support a traffic study on the impact of truck traffic here. We are asking for the expansion of 42nd Ave which stops under the 880 at Home Depot's parking lot. This 42nd Ave expansion has been talked about for over 10 years and will go through to Alameda Ave.

So beside helping to eliminate traffic through Jingletown, truck traffic on 42nd Ave will help to eliminate the sideshows that occur at the 42nd Ave dead end. It will also go through an other RV camp, which will force government agencies to re-home that group of residents.

Thank you for your consideration and action.

Sincerely,

Jenn Collins
Ford Street Studios
2934 Ford St., #14
Jingletown, Oakland

From: Elizabeth
To: pvollmann@oaklandca.gov
Cc: Gallo, Noel; atlarge@oaklandca.gov
Subject: 3600 Alameda - "Glass Factory Conversion" PLN21223-ER01 EIR Scoping Comments
Date: Tuesday, May 3, 2022 8:28:02 AM

I have owned a home in Jingletown for 12 years. While I am glad there is a prospective reuse of the glass factory it raises deep concerns which I hope will be considered during the scoping of the EIR and throughout the review process.

Our neighborhood already has a high level of pollution from 880 freeway, 2 cement factories & Miller grain factory. The City of Oakland General Plan maps show our neighborhood has a **high level of diesel PM concentration**. Our neighborhood is already impacted by **poor air quality and residual soil contamination** etc; this transportation plan would worsen the air quality and expose our residents to dangerous conditions with more commercial vehicles and trucks. Current **zoning** doesn't reflect neighborhood use; we are now more residential than commercial, a neighborhood of working families, small businesses, artists, elders, and children. We walk our dogs, ride bikes, and walk throughout the neighborhood.

24/7 traffic changes are paramount. Ford Street and East 7th Street can not accommodate truck traffic. The streets are not wide enough in many places for two passenger cars to pass at all or comfortably. Trucks will need to make 4 turns to drive through to reach Fruitvale. Half of these streets do not have sidewalks; more commercial trucks increase the danger to pedestrians who are forced to walk in the street. Large sections of these residential streets are in disrepair already and the City cannot maintain them. The addition of trucks is not acceptable. Some employee traffic is inevitable but traffic studies must be done along **Fruitvale, Elmwood, East 7th, Ford Street and Glascock Street and 29th Avenue** as those are some of the likely routes for employees 24/7. The 29th Street overpass has already created traffic challenges in the neighborhood due to poor design which allows thousands of illegal and high risk turns a day for easier access to the freeway or forces drivers through our residential blocks as they race to the freeway. The 29th Street entrance to 880 South is already hazardous due to it being both an entrance and an exit.

Entering and exiting Jingletown onto Fruitvale via East 7th is already dangerous or impossible due to traffic on Fruitvale Ave. A traffic study is needed to determine where signalized intersections with pedestrian safety improvements etc. will be needed. Any street improvements should be coordinated with the City of Oakland **Fruitvale Streetscape project** as well as the redesign of truck access to the warehouse on the 400 block of Lancaster which should be accessed off Fruitvale and for which the owner is seeking approval.

The Project is half a mile away from the **Fruitvale BART station**. Instead of building a large employee parking lot, a program of employee shuttles or investment in a safe route from the Project to BART would be advisable both from a transportation and an air quality perspective. We are a fragile and diverse neighborhood of businesses and residents. We should not be put

at further risk due to increased traffic and environmental pollution.

Any **street and public improvements along Alameda Ave**, many of which could be improvements, must be designed for sea level rise to protect the public improvements.

The **extension of 42nd Ave** which stops under the 880 at Home Depot's parking lot is now essential. This 42nd Ave expansion has been talked about for over 10 years and will go through to Alameda Ave. This can avoid truck traffic in Jingletown.

Residents on Elmwood south of Fruitvale are concerned about an **extension of East 7th** new street immediately in the back of their homes. Access should be limited to employee access. Noise and light mitigations should be provided.

This redevelop should be planned based on the existing **environmental and health** risks in Oakland. The glass factory polluted this neighborhood for generations. We cannot allow another use to do the same with diesel particulars etc. The new buildings must depend on green energy and its tenants must be provided with electricity resources sufficient to power electric truck fleets or we are just choosing to poison more generations with diesel related health issues, lost work and school days and all the economic impacts of living in a polluted neighborhood. The redevelopment must control the potentially significant additional air quality impacts from large infusion of trucks, commercial vehicles and worker vehicles into already heavily polluted environments with vulnerable residential receptors, especially by opening access to E. 7th Street to the Project traffic or allowing Project traffic to exit at Fruitvale via Elmwood/E.8th Street ,and thereby increasing traffic from Project to enter or exit 880 freeway at 23rd or 29th Avenues. It would be unacceptable for the City of Oakland to allow increases to health risk from NOx and particulate air pollutants from above sources to vulnerable residential receptors, including children, elderly and residents of historically disadvantaged communities.

Employee vehicle use could be reduced with an aggressive hyper-**local hiring requirement** and prioritizing the development of **affordable housing** as soon as possible as well as **homeowner retention programs.**

The CA Attorney General has issued recommendations on best practices in the **development of e-commerce and logistics warehouses.** There are good suggestions in there that would apply here . https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf

The **demolition and soil remediation** must be done thoroughly and safely. There must be an extensive clean up plan and the developer must pay for a third party inspector to report to the community. We have learned in my complex that the City inspectors do not oversee inspections thoroughly and are not liable for oversights so we spent 5+ years suing the developer for City and Water Board required environmental clean up and protections which were never completed. If there is no liability for public agencies, somehow a third party oversight entity must be hired on behalf of the community to oversee this incredibly risky phase of the redevelopment.

Public notice posting was inaccessible to many. The City must require better public notice posting around the perimeter and given the significant long-term impacts of the project mailings to property owners and tenants in at least a 1000 foot radius of the site. It is only through word of mouth that most neighbors were made aware. This project will impact

myriad businesses and residents for generations. Extensive noticing must be required.

- Elizabeth J. Cook

From: Joe Decker
To: Vollmann, Peterson
Subject: Re: Planning Commission Updates
Date: Thursday, April 21, 2022 9:26:37 AM

Great, thank you!

Joe Decker
3090 Glascock St, #311, Oakland, CA 94601

Thanks!

Joe

On Thu, Apr 21, 2022 at 9:11 AM Vollmann, Peterson <PVollmann@oaklandca.gov> wrote:

> Joe-
>
> The interested parties list is a mailing list since we are required to send out the CEQA notice by mail. Please provide me with you mailing address if you want to be included on the list. Thanks.
>
> **Peterson Z. Vollmann** | Planner IV | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2114 |Oakland, CA 94612 | Office Phone: (510)238-6167 | Cell Phone: (510)507-4765 | Email: pvollmann@oaklandca.gov | Website: https://www.oaklandca.gov/
>
> ---
>
> **From:** Joe Decker <joedecker@gmail.com>
> **Sent:** Thursday, April 21, 2022 12:40 AM
> **To:** Vollmann, Peterson <PVollmann@oaklandca.gov>
> **Subject:** Planning Commission Updates
>
>
>
> ---
>
> Howdy!
>
> Listened in on the planning commission meeting today, and didn't speak but basically echo most of the thoughts voiced by many of my neighbors here in Jingletown.
>
> If I'm not mistaken, I believe I heard that you might add interested people to a list to receive updates on future discussions/actions related to this project. If you could add me, I would be very grateful.
>
> Thanks for your time and work on this project!
>
> Best regards,
>
> Joe Decker

> --
> Joe Decker
> 408 439 2963
> joedecker@gmail.com
> www.joedecker.net

--
Joe Decker
www.joedecker.net

From: Drake, Ginelle
To: Vollmann, Peterson
Subject: Response letter to Notice of Preparation of a Draft Environmental Impact Report for the 3600 Alameda Avenue Project, Oakland
Date: Friday, April 22, 2022 10:02:38 AM
Attachments: 3600 Alameda Avenue Project NOP Response.pdf

Dear Mr. Vollmann,

Please see attached response letter regarding the 3600 Alameda Avenue Project NOP.

Thank you,

Ginelle Drake, Administrative Secretary II
Water Distribution Planning Division
510-287-1081 | ginelle.drake@ebmud.com

EAST BAY
MUNICIPAL UTILITY DISTRICT

April 22, 2022

Peterson Vollmann, Planner IV
City of Oakland Bureau of Planning
250 Frank H. Ogawa Plaza, Suite 2214
Oakland, CA 94612

Re: Notice of Preparation of a Draft Environmental Impact Report for the 3600 Alameda Avenue Project, Oakland (Case File Number PLN21223-ER01)

Dear Mr. Vollmann:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report for the 3600 Alameda Avenue Project located in the City of Oakland (City). EBMUD has the following comments.

WATER SERVICE

EBMUD's Central Pressure Zone, with a service elevation between 0 and 100 feet, will serve the proposed development. Individual units in a newly built multifamily or multi-occupancy commercial/industrial premises shall be individually metered. A main extension, at the project sponsor's expense, will be required to service the proposed development. Off-site pipeline improvements, also at the projects sponsor's expense, may be required to meet domestic and fire service requirements set by the local fire agency. When the development plans are finalized, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing water service to the project. Engineering and installation of water mains, off-site pipeline improvements, and services require substantial lead time, which should be provided for in the project sponsor's development schedule.

EBMUD owns and operates 8-inch and 12-inch distribution pipelines in Alameda Avenue, which the project proposes to re-align. These pipelines are necessary to provide continuous service to EBMUD's customers in the area. Any proposed construction activity in Alameda Avenue would need to be coordinated with EBMUD so that the integrity of these pipelines is maintained at all times. The realignment of Alameda Avenue may require relocation of the existing pipelines, the relocation costs would be at the project sponsor's expense.

EBMUD's Standard Site Assessment Report indicate the potential for contaminated soils or groundwater to be present within the project site boundaries. The project sponsor should be aware that EBMUD will not install piping or services in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste or that may be hazardous to the health and safety of construction and maintenance personnel wearing Level D personal protective equipment. Nor

will EBMUD install piping or services in areas where groundwater contaminant concentrations exceed specified limits for discharge to the sanitary sewer system and sewage treatment plants. The project sponsor must submit copies to EBMUD of all known information regarding soil and groundwater quality within or adjacent to the project boundary and a legally sufficient, complete and specific written remediation plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of contaminated soil and groundwater.

EBMUD will not design piping or services until soil and groundwater quality data and remediation plans have been received and reviewed and will not start underground work until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists, or the information supplied by the project sponsor is insufficient, EBMUD may require the project sponsor to perform sampling and analysis to characterize the soil and groundwater that may be encountered during excavation, or EBMUD may perform such sampling and analysis at the project sponsor's expense. If evidence of contamination is discovered during EBMUD work on the project site, work may be suspended until such contamination is adequately characterized and remediated to EBMUD standards.

WASTEWATER SERVICE

EBMUD's Main Wastewater Treatment Plant (MWWTP) and interceptor system are anticipated to have adequate dry weather capacity to accommodate the proposed wastewater flows from this project and to treat such flows provided that the wastewater generated by the project meets the requirements of the EBMUD Wastewater Control Ordinance. However, wet weather flows are a concern. The East Bay regional wastewater collection system experiences exceptionally high peak flows during storms due to excessive infiltration and inflow (I/I) that enters the system through cracks and misconnections in both public and private sewer lines. EBMUD has historically operated three Wet Weather Facilities (WWFs) to provide primary treatment and disinfection for peak wet weather flows that exceed the treatment capacity of the MWWTP. Due to reinterpretation of applicable law, EBMUD's National Pollutant Discharge Elimination System (NPDES) permit now prohibits discharges from EBMUD's WWFs. Additionally, the seven wastewater collection system agencies that discharge to the EBMUD wastewater interceptor system ("Satellite Agencies") hold NPDES permits that prohibit them from causing or contributing to WWF discharges. These NPDES permits have removed the regulatory coverage the East Bay wastewater agencies once relied upon to manage peak wet weather flows.

A federal consent decree, negotiated among EBMUD, the Satellite Agencies, the Environmental Protection Agency (EPA), the State Water Resources Control Board (SWRCB), and the Regional Water Quality Control Board (RWQCB), requires EBMUD and the Satellite Agencies to eliminate WWF discharges by 2036. To meet this requirement, actions will need to be taken over time to reduce I/I in the system. The consent decree requires EBMUD to continue implementation of its Regional Private Sewer Lateral Ordinance (www.eastbaypsl.com), construct various improvements to its interceptor system, and identify key areas of inflow and

rapid infiltration over a 22-year period. Over the same time period, the consent decree requires the Satellite Agencies to perform I/I reduction work including sewer main rehabilitation and elimination of inflow sources. EBMUD and the Satellite Agencies must jointly demonstrate at specified intervals that this work has resulted in a sufficient, pre-determined level of reduction in WWF discharges. If sufficient I/I reductions are not achieved, additional investment into the region's wastewater infrastructure would be required, which may result in significant financial implications for East Bay residents.

To ensure that the proposed project contributes to these legally required I/I reductions, the lead agency should require the project sponsor to comply with EBMUD's Regional Private Sewer Lateral Ordinance. Additionally, it would be prudent for the lead agency to require the following mitigation measures for the proposed project: (1) replace or rehabilitate any existing sanitary sewer collection systems, including sewer lateral lines to ensure that such systems and lines are free from defects or, alternatively, disconnected from the sanitary sewer system, and (2) ensure any new wastewater collection systems, including sewer lateral lines, for the project are constructed to prevent I/I to the maximum extent feasible while meeting all requirements contained in the Regional Private Sewer Lateral Ordinance and applicable municipal codes or Satellite Agency ordinances.

WATER CONSERVATION

The proposed project presents an opportunity to incorporate water conservation measures. EBMUD requests that the City include in its conditions of approval a requirement that the project sponsor comply with Assembly Bill 325, "Model Water Efficient Landscape Ordinance," (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). The project sponsor should be aware that Section 31 of EBMUD's Water Service Regulations requires that water service shall not be furnished for new or expanded service unless all the applicable water-efficiency measures described in the regulation are installed at the project sponsor's expense.

If you have any questions concerning this response, please contact Timothy R. McGowan, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-1981.

Sincerely,

David J. Rehnstrom
Manager of Water Distribution Planning

DJR:KTL:grd
sb22_081 3600 Alameda Avenue Project NOP Response

From: Vollmann, Peterson
To: Cynthia Elliott
Subject: Re: Glass Factory redevelopment PLN21223-ER01
Date: Thursday, April 21, 2022 12:09:18 AM

Cynthia-

I will add your comment to the record and you will be added to the interested parties list to receive all future CEQA notices.

Peterson Z. Vollmann | Planner IV | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2114 |Oakland, CA 94612 | Office Phone: (510)238-6167 | Cell Phone: (510)507-4765 |
Email: pvollmann@oaklandca.gov | Website: https://www.oaklandca.gov/

From: Cynthia Elliott <cynthia@jingletown.org>
Sent: Tuesday, April 19, 2022 6:21 PM
To: Vollmann, Peterson <PVollmann@oaklandca.gov>
Subject: Glass Factory redevelopment PLN21223-ER01

Mr Vollman,

I am a board member of the Jingletown neighborhood association, Jingletown Art, Business & Community and a Jingletown resident for 21 years. I would like to comment on the EIR for 3600 Alameda Ave.

Members of JABC and Jingletown residents understand the tax base and employment benefits of this new development for Oakland, but not at the expense of the health & safety of my fellow residents.

Truck traffic can not be routed through our neighborhood from the 29th Ave exit. The noise and air pollution is already at dangerous levels from the nearby 880 Freeway, two cement factories and Miller Grain Factory. We have trucks idling along Lancaster daily delivering goods to 400 Lancaster, and we have a UPRR train that runs through the neighborhood 3 times a week. Half of our streets do not have sidewalks so pedestrian & bike traffic travel in the street. We also have the protection of tree canopy, trees planted 40-50 years ago, that could be destroyed by large trucks.

High St and the much discussed 42nd Ave extension to Alameda needs to be used for truck traffic

I will be attending tomorrow's meeting. and hope to be able to speak. I also want to state that the posting of the permit along Fruitvale Ave on a yellow section of the green fence made it hard to see. Please make sure I am on the list for future 3600 Alameda Ave notifications.

Cynthia Elliott

Board Member
Jingletown Art, Business & Community
Board Member Beat 20x NCPC
2934 Ford St Studio 36
Oakland Ca 94601
415-516-3883

From: Cynthia Elliott
To: Vollmann, Peterson; Gallo, Noel; At Large
Subject: 3600 Alamdea Ave. PLN21223-ER01
Date: Monday, May 2, 2022 2:06:34 PM
Attachments: E7th.jpg
Lancaster.jpg
Train.jpg
Google.PNG

Mr Vollman & Councilmembers,

This will be my second email concerning this warehouse terminal. Neighbors have done more research concerning air quality, road & traffic, health & safety conditions and the historical environmental inequalities (starting back in the 1930's) to our neighborhood.

In looking at many Oakland & Bay Area Air Quality District maps, this area is consistently labeled in RED zones of high air pollutants including, diesel and Nitrogen Oxides. We are sandwiched to the West by two cement factories, and a grain mill. On the North the 880 freeway where all cargo trucks have to travel through Oakland since they are not allowed on the 580 freeway, another example of the Flats being a victim of Environmental Injustice. We have a working warehouse, 400 Lancaster that has cargo truck deliveries daily. They back up along Lancaster, Glascock, & Ford St. Now to the East we will have a warehouse terminal, that can accomodate 400+ cargo trucks, delivery vans & employee cars, probably open 24/7?

Even though our Jingletown neighborhood is in the Central Estuary Industrial Zone D-CE-6 zone, new development has primarily been approved for residential buildings, Condominiums and just 3 years ago, market rate rentals built by Madison Park Financial. That is over 270 residential units. The building I live in at 2934 Ford St, zoning maps state is commercial. The building was converted from a foundry into 50 work/live units back in 1989. Our landlord was allowed to use a commercial/industrial lease, but we have over 85 residents. Two similar work/live lofts in Jingletown, designated commercial, are living spaces. These 3 buildings house an active group of artists. We are also home to the White Elephant Sale which is active, September-March, with volunteers, donation drop off and sale days. The WES brings to our neighborhood thousands of shoppers who fight for parking and walk along streets that have no sidewalks. We are also designated a Green Zone so we would like to keep quiet about the amount of cannabis businesses in the neighborhood.

When the 29th Ave overpass was heightened, CalTrans placed a Left Turn light for access into our neighborhood. This traffic light now allows for more industrial traffic than Jingletown residents. Google Maps has turned that traffic light into a 'freeway entrance' for SB 880. We have seen an increase of cars turning on Ford St to Peterson St to Chapman and back to 29th Ave or more often, illegal left turns on 29th to get to SB 880. This left turn light is also the reason initial plans were to direct truck traffic down Ford St and move a building at the end of Ford St for a direct access to Fruitvale. That plan was very arrogant and completely disruptive for our neighborhood. Google Maps 'is not our friend'. The left turn light at Ford & 29th needs to be removed so 'lost trucks' won't drive through Jingletown.

Opening access to E 7th east of Fruitvale Ave for employee parking will be disruptive to the Alameda residents crossing Fruitvale Bridge to get to work. It will draw increased truck & car traffic through Elmwood, Derby & E 7th again due to Google Maps. Exiting trucks will back up at Elmwood & Fruitvale onto the freeway (already slowed down by traffic lights at the UPRR signal on 12th & Fruitvale. Increased traffic will affect the UPRR spur at Elmwood & E7th that services Miller Milling. E7th west of Fruitvale Ave is also a designated bike lane. The extension of E7th into the employee parking lot is not warranted. This facility is less than a half mile from BART. Shuttles for employees should be provided, If housing developments can reduce the amount of parking due to close proximity to BART, then why can't this commercial facility? All truck & employee traffic should be restricted to the Alameda Ave entrances.

Yes, our neighborhood is a mixed use zone, but we have more housing than commercial businesses. The City of Oakland and the planning department can't have it both ways, market rate housing developments with commercial truck caravans driving through narrow underdeveloped streets, increasing air pollution & causing health & safety issues. Jingletown residents & the residents North of this project, ask for a mandatory enforced traffic management plan that prohibits any warehouse traffic West or North of this project.

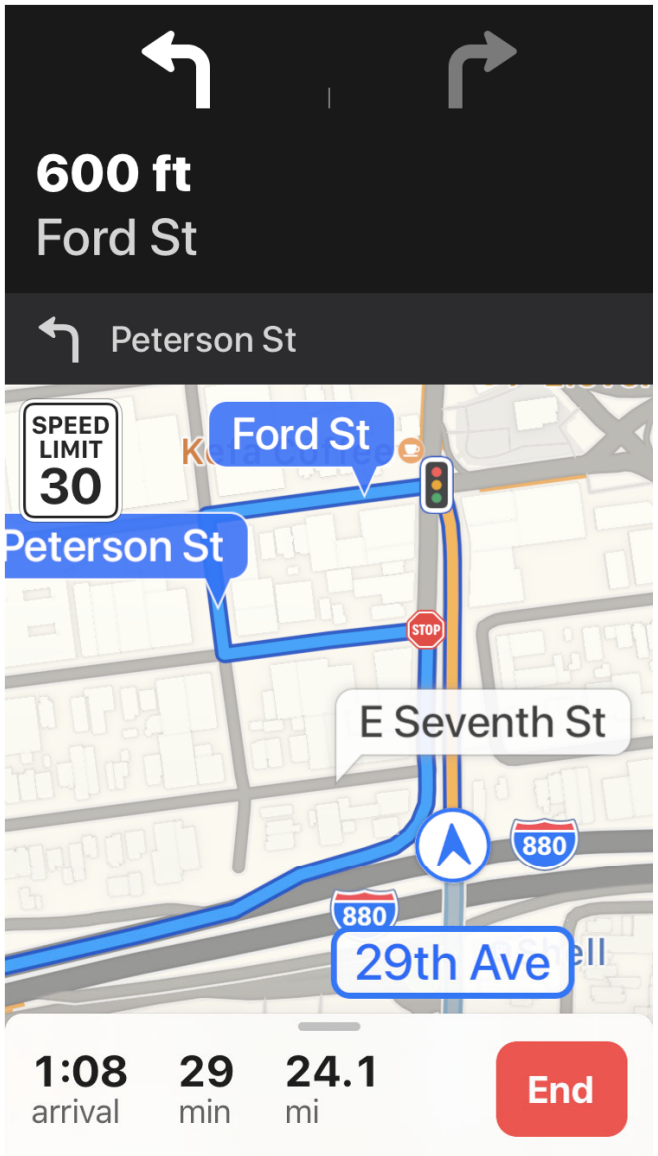
42nd Ave has to be extended from the 880 to Alameda Ave. That area is an open space which will accommodate commercial traffic better than our underdeveloped small residential streets and relieve us of even more air pollutants.

We residents around this warehouse terminal project understand the benefits of this revitalization. It will bring a tax base, employment, clean up years of blighted areas, help rehome the street campers and expand the Bay Trail Waterfront. But this proposed plan has many flaws, ignores the uniqueness of Jingletown and compounds decades of environmental inequalities the Flats have endured. We ask; shut down the left turn signal at 29th & Ford St, do not extend E 7th to Fruitvale Ave and finish the proposed 42nd Ave extension for better traffic flow to Alameda Ave.

I have attached photos of impacted streets:
E7th: Old growth trees, deteriorating roadway, bike path.
Lancaster: 3 idling trucks w/ a 4th around the corner on Ford St, waiting to unload.
Train: crosses Elmwood, E7th, Lancaster and runs down Glascock.
Google Map: Shows how Google directs traffic through our streets to get to 880 SB.

Come visit this neighborhood and please have representatives from Duke Realty connect with me as a Jingletown representative.

Cynthia Elliott
Board Member
Jingletown Art Business & Community
415-516-3883 c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UNION PACIFIC

From: Cynthia Elliott <cynthia@jingletown.org>
Sent: Tuesday, May 3, 2022 1:19 PM
To: pvollmann@oaklandca.gov; Gallo, Noel; atlarge@oaklandca.gov
Subject: 3600 Alameda Ave PLN21223-ER01

Hello all,

This is my 3rd email which is being sent after groups of residents have met to discuss this proposed site development and how it will affect our 4 x 4 block Jingletown neighborhood. I would like to add:

1) We would like a traffic study, the type where people sit on the corners and count all types of traffic including pedestrians and bike riders. We would like that traffic count compared with the one prior to the Ford St/29th Ave Left Turn signal put in. Please compare the traffic patterns which should note an increase in car & commercial traffic.

2) We would like a guarantee of a public forum discussing the effect of increased commercial traffic will bring to our already highly polluted neighborhood.

3) I have attached Oakland's General Plan and refer to Chapter 3 Environmental Health. Jingletown/Kennedy Track is listed in the top 5 Oakland neighborhoods, (Table 1.1) for 'Pollution Burden' ours is 93.8%. Figures 3-5, 3-6 & 3-7 show we have high levels of PM2.5 concentrates, Diesel PM concentrates & NO2 concentrations.

https://cao-94612.s3.amazonaws.com/documents/Equity-Baseline_revised4.15.22.pdf

4) I have attached an article in the New York Times last month reporting, 'How Air Pollution Across America Reflects Racist Policy From the 1930s. A new study shows how redlining, a Depression-era housing policy, contributed to inequalities that persist decades later in U.S. cities.' This article includes maps of the East Bay from Berkeley to Oakland.

https://www.nytimes.com/2022/03/09/climate/redlining-racism-air-pollution.html?unlocked_article_code=AAAAAAAAAAAAAAAACEIPuomT1JKd6J17Vw1cRCfTTMQmqxCdw_PIxftm3iWka3DODm4TiO8RAo2J50qKf6dvY9o13jKUAcVIO740Qbl7z_UaJ0tpTxS0o5yC3pQZJiF_4aSCYlQL5bOfF7Yp7W2tKWCjNOZ0wLD470vfbTS9CvfAgid1IBJio8NnaQqojXYXkfvPGuUlidl82f12FYk6EWlbHFSCuPboCh19P9uUPFqLukRtBbYvCXyElsWc6rkAbAxVFVvGKXp76ms949hbU8gFaOe9d1VzPZqj3shCTzBgP4yrBJYuRofLlr0MsLHFrBaEy8be1OwL5DkQSCndsOG8TQOfzG1h&smid=em-share

I hope you have noted how active our Jingletown Community is and how important revisiting commercial traffic through our neighborhood is.

Cynthia Elliott
Board Member
Jingletown Art, Business & Community
415-516-3883 c

From: fordjoyce4@aol.com
To: pvollmann@oaklandca.gov
Subject: Case File Number PLN21223-ER01
Date: Thursday, April 28, 2022 2:29:56 PM

Peter Vollmann
Planner IV
City of Oakland
Bureau of Planning

Potential Adverse Effects Requiring Consideration (NOP)

1. What method will be used to monitor the Hazardous Waste Substances sites from long range health effects (DTSC) EnviroStor database
   regarding the mixed-use residential neighborhood? Will Hazmat be involved?
   Specifically regarding the 3300 and 3400 block of Elmwood Ave located North of site.
2. How will the demolition effect the foundations of the homes on Elmwood Avenue?
3. What will be the time period and the duration to demolish site.?
4. Will there be a procedure or system in place to monitor probable air quality and health risk to those individuals who have respiratory diseases?
5. EPA Clean Air Act 42 U.S.C.S7401 et seq. (1970) who has been designated to regulate air emissions (NAAQS) to protect public health?
6. How will your noise decimal be monitored on a daily bases - through what agency?
7. Rodent infestation will occur during construction what method of control will be used to protect homeowners?

Reverend Joyce Ford

From: M G
To: pvollmann@oaklandca.gov
Cc: ngallo@oaklandca.gov; atlarge@oaklandca.gov
Subject: Alameda 3600 Project, Case File Number: PLN21223-ER01
Date: Wednesday, April 27, 2022 9:12:21 PM

RE: Alameda 3600 Project, Case File Number: PLN21223-ER01

Mr. Vollman,

I am writing with regard to 3600 Alameda Avenue Project, Case File Number: PLN21223-ER01.

I am deeply concerned about the potential of increased traffic congestion, restriction of evacuation and emergency routes, increase of air pollution and concentration of toxic and cancerogenic particles.

The project lacks coordination with The Estuary plan, bike routes and pedestrian traffic.

Also, the changes in character of our neighborhood, with increased number of occupied multi units' residential complexes, have not been taken under consideration by the proponents of the Alameda 3600 Project. Also, historical value of Jingletown neighborhood has been either overlooked or underestimated.

I ask hereof that the Environmental Impact Report (EIR), studies include all listed below points specifically related to the Jingletown character, location and current environmental status:

1.The condition of the streets. They are narrow, lacking sidewalks to safeguard pedestrians and are not conducive to truck traffic.

2. Impact on traffic into and out of Alameda. This project affects three out of the four access points to the Island. We already experience traffic jams on Fruitvale, High Street and 29th Street bridges during rush hour, bridge openings and train crossings.

3. Unmonitored trains passing on tracks perpendicular to 7th Street at Fruitvale with no flashing lights or railings.

4. Bicycle path on Fruitvale from BART, over the bridge to Alameda conflicts with having more traffic.

5. Concept of Bay Trail and use of Bay Trail are at odds with adding additional traffic and pollution in this area.

6. Public health impact:

Our community will experience increased risks of exposure to hazardous and toxic particles caused by increased traffic. Unknown use of the proposed facility with regard to hazardous and toxic materials makes the assessment of risks impossible at present time.

The neighborhood exposure to diesel fumes from 880, air pollution from two cement factories, the grain factory and the warehouse on 400 Lancaster already exceeds levels of exposure in other parts of Oakland. This directly translates into the higher number of cases of asthma, lung cancer and mortality in this area.

7. Noise impact:

Sound assessment studies must be conducted multiple times, with data collected at different week days and different

time points during the 24-hour spread, specifically at the peak hours.

Additionally, the noise data must be collected under different wind directions because we are located directly downwind of the HWY 880.

Noise impact evaluation and abatement measures must be provided to the public

I am asking for:

Alternative traffic routes to the ones proposed via Jingletown.

The expansion of 42nd Ave which stops under the 880 at Home Depot's parking lot will create an alternate route. This 42nd Ave expansion has been talked about for over 10 years and will go through to Alameda Ave. Besides helping to eliminate traffic through Jingletown, truck traffic on 42nd Ave will help to eliminate the sideshows that occur at the 42nd Ave dead end.

NO truck traffic in our neighborhood. Please.

Respectfully,

Marek Grychczynski,
3116 Chapman St, Oakland, CA 94601

From: Doug Hellikson
To: pvollmann@oaklandca.gov
Subject: Fwd: 3600 Alameda Ave. Community Input / outreach / meeting from 36th ave home owners
Date: Monday, May 2, 2022 7:27:49 PM

---------- Forwarded message ---------
From: **Doug Hellikson** <dhellikson@gmail.com>
Date: Mon, May 2, 2022 at 6:08 PM
Subject: 3600 Alameda Ave. Community Input / outreach / meeting from 36th ave home owners
To: <pvollman@oaklandca.gov>
Cc: Doug Hellikson <dhellikson@gmail.com>, Cliff Christian <alnrec@gmail.com>, <colediag@yahoo.com>, <joe@devney.com>, <raiderflea@gmail.com>, <frankmagadan155@yahoo.com>, Deb Goeden <Deb@dig-it-llc.com>, <klupoff@oaklandca.gov>

Dear Mr. Vollman

My name is Doug Hellikson and I'm writing to you on behalf of the homeowners on 36th Ave between East 8th st. and the proposed extension of East 7th st. On the northern side of the project.

Many of us attended the Planning Commision Zoom meeting on 4/20/22 although no one from our neighborhood spoke that day. We are a very tight knit community, with all of us owning our homes for twenty plus years. In that time as a group we have participated in many city programs including the formal "neighborhood watch " police program as well as the "keep Oakland beautiful" litter pick up and tree planting programs. So we are looking forward to adding our input and concerns to this much needed and beneficial development of the former glass factory.

During the zoom meeting it was mentioned that you would like to meet with neighborhood groups to "get their input and understand their concerns". so we are emailing to start that process. Please let us know when you would be available to meet.

Warmest of smiles out to you,

Doug

From:	Alesia Hsiao
To:	Vollmann, Peterson
Cc:	Elizabeth Kanner; Mulry, Brian
Subject:	RE: 3600 Alameda Avenue Project DEIR NOP
Date:	Monday, May 2, 2022 4:53:28 PM

Thank you for your flexibility, much appreciated.

Alesia Hsiao, AICP [she/her] | Senior Environmental Planner
Planning and Climate Protection Division
Bay Area Air Quality Management District
Office: 415-749-8419

From: Vollmann, Peterson <PVollmann@oaklandca.gov>
Sent: Monday, May 2, 2022 3:51 PM
To: Alesia Hsiao <ahsiao@baaqmd.gov>
Cc: Elizabeth Kanner <EKanner@esassoc.com>; Mulry, Brian <BMulry@oaklandcityattorney.org>
Subject: Re: 3600 Alameda Avenue Project DEIR NOP

Alesia-

That's fine, we will look forward to receiving your comments on May 10th. Thanks.

Peterson Z. Vollmann | Planner IV | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2114 |Oakland, CA 94612 | Office Phone: (510)238-6167 | Cell Phone: (510)507-4765 | Email: pvollmann@oaklandca.gov | Website: https://www.oaklandca.gov/

From: Alesia Hsiao <ahsiao@baaqmd.gov>
Sent: Monday, May 2, 2022 1:49 PM
To: Vollmann, Peterson <PVollmann@oaklandca.gov>
Subject: 3600 Alameda Avenue Project DEIR NOP

Hi Mr. Vollmann,

I left you a voicemail this morning. I wanted to introduce myself, my name is Alesia Hsiao and I am an Environmental Planner at the Bay Area Air Quality Management District reviewing projects under CEQA within the City of Oakland.

I am writing to let you know that BAAQMD is reviewing the 3600 Alameda Avenue Project DEIR NOP.

The Air District would like to request an extension to submit comments on the project's NOP by COB on May 10, 2022.

Please advise if this sounds good and if you have any questions. You can reach me at the number below or via email.
Thank you for your time,
Alesia Hsiao, AICP [she/her] | Senior Environmental Planner
Planning and Climate Protection Division
Bay Area Air Quality Management District
Office: 415-749-8419

From: Carlos Jahen
To: pvollmann@oaklandca.gov
Cc: ngallo@oaklandca.gov; atlarge@oaklandca.gov; Cynthia Elliott; Carlos Jahen
Subject: Proposed new development at 3600 Alameda Ave. (The Old Glass Factory site)
Date: Tuesday, May 3, 2022 10:30:28 AM

Dear Mr. Vollmann,

I have become aware of the new proposed development at the old glass factory at 3600 Alameda Ave. I am pleased to see that progressed is being made on this prime real estate site in Oakland. It will definitely be a tax revenue making site for the City, provide new jobs and generally improve the area.

My concern for myself, my family and my neighborhood is that we will be impacted dramatically, if steps are not taken to alleviate future and possible traffic congestion through the streets of my neighborhood. My family and I live in the neighborhood known as Jingletown. I have lived in the neighborhood since 2004. This area has several multi-family residences, a few commercial and semi industrial sites. I support widening Alameda Ave. to help with the high density vehicular traffic flow that this development will bring to the area.

My neighborhood currently is managing to deal with the noise generated from the UPRR railroad trains that runs down Glascock Street 3 to 4Xs a week in the middle of the night blowing their horns and whistle. Having semi-trucks in the neighborhood 24/7/365 is just too much. I urge you to consider all preventive measures to restrict, control possible abuses that the users of this site will bring to this neighborhood.

I would like to make a few suggestions to improve and to prevent this project becoming a sore subject for the city, the neighbors and other parties with interest.

- Conduct intensive traffic studies to prevent high volume of container hauling trucks driving through residential neighborhoods.
- Improve existing roadways and sidewalks where the major truck circulation will occur.
- Minimize employee and truck traffic in residential streets.
- Encourage use of Bart Fruitvale station for employees to use during work hours.
- Improve bicycle and pedestrian on and along vehicular traffic routes.
- Many streets in the Jingletown neighborhood are narrow, damaged by current traffic and lack of maintenance by the city.
- Google Maps, indicates that truck drivers going northbound can exit 29th off ramp, turn on Ford St, turn on Derby, then turn on E 7th to get to Fruitvale Ave. All of these streets are too narrow to handle big rigs.
- Finally, I encourage building low cost housing to house the many homeless families living along Alameda Ave.

I would like to request that your office keep me informed on the progress of this development. Below is my contact information. As I said, I support this new development improvement but,

I like to make sure that this development is mindful of their neighbors and that they become an integral part of the Jingletown community. Thank you for your time and consideration.

Sincerely,

Carlos

Carlos J. Jahen, NCARB, NCIDQ
JAHEN DESIGNS CONSULTANT
2945 Glascock St.
Oakland, CA 94601
(510) 501-5389
carlos@jahendesigns.com

From:	Jacob Klein
To:	Vollmann, Peterson
Cc:	drarmstrong@oaklandca.gov; cpayne@oaklandca.gov; Nick Pilch; Liz Ortega; Mike Henneberry
Subject:	Scoping Comments for NOP for 3600 Alameda Ave Case File Number PLN21223-ER01
Date:	Tuesday, May 3, 2022 1:11:02 PM
Attachments:	NOP Comments for 3600 Alameda Ave Oakland.pdf

Dear Mr. Vollmann,

I am sending the attached comments on behalf of the undersigned, representing Sierra Club, Alameda Labor Council, and Teamsters Local 853. Thank you for for the opportunity to comment on 3600 Alameda Ave, Case File Number PLN21223-ER01.

Best,
Jacob

--
Jacob Klein
Pronouns: They/Them/Their
Organizer
Sierra Club, San Francisco Bay Chapter & Redwood Chapter
Mobile: (510) 545-2273
PO Box 2663
Berkeley, CA 94702
Website: Sierraclub.org/sfbay
Donate today!

Proud member of the Progressive Workers Union

From: Krystyna Kozakiewicz
To: pvollmann@oaklandca.gov
Cc: ngallo@oaklandca.gov; atlarge@oaklandca.gov
Subject: Alameda 3600 Project, Case File Number: PLN21223-ER01
Date: Wednesday, April 27, 2022 9:12:18 PM

RE: Alameda 3600 Project, Case File Number: PLN21223-ER01

Mr. Vollmann,

I am writing with regard to 3600 Alameda Avenue Project, Case File Number: PLN21223-ER01.

I am deeply concerned about the potential of increased traffic congestion, restriction of evacuation and emergency routes, increase of air pollution and concentration of toxic and cancerogenic particles.

The project lacks coordination with The Estuary plan, bike routes and with pedestrian traffic.

Also, the changes in character of our neighborhood, with increased number of occupied multi units' residential complexes, have not been taken under consideration by the proponents of the Alameda 3600 Project.

Also, historical value of Jingletown neighborhood has been either overlooked or underestimated.

I ask hereof that the Environmental Impact Report (EIR), studies include all listed below points specifically related to the Jingletown character, location and current environmental status:

1.The condition of the streets. They are narrow, lacking sidewalks to safeguard pedestrians and are not conducive to truck traffic.

2. Impact on traffic into and out of Alameda. This project affects three out of the four access points to the Island. We already experience traffic jams on Fruitvale, High Street and 29th Street bridges during rush hour, bridge openings and train crossings.

3. Unmonitored trains passing on tracks perpendicular to 7th Street at Fruitvale with no flashing lights or railings.

4. Bicycle path on Fruitvale from BART, over the bridge to Alameda conflicts with having more traffic.

5. Concept of Bay Trail and use of Bay Trail are at odds with adding additional traffic and pollution in this area.

6. Public health impact:

Our community will experience increased risks of exposure to hazardous and toxic particles caused by increased traffic. Unknown use of the proposed facility with regard to hazardous and toxic materials makes the assessment of risks impossible at present time.

The neighborhood exposure to diesel fumes from 880, air pollution from two cement factories, the grain factory and the warehouse on 400 Lancaster already exceeds levels of exposure in other parts of Oakland. This directly translates into the higher number of cases of asthma, lung cancer and mortality in this area.

7. Noise impact:

Sound assessment studies must be conducted multiple times, with data collected at different week days and different time points during the 24-hour spread, specifically at the peak hours.

Additionally, the noise data must be collected under different wind directions because we are located directly downwind of the HWY 880.

Noise impact evaluation and abatement measures must be provided to the public

I am asking for:

Alternative traffic routes to the ones proposed via Jingletown.

The expansion of 42nd Ave which stops under the 880 at Home Depot's parking lot will create an alternate route.

This 42nd Ave expansion has been talked about for over 10 years and will go through to Alameda Ave.

Besides helping to eliminate traffic through Jingletown, truck traffic on 42nd Ave will help to eliminate the sideshows that occur at the 42nd Ave dead end.

NO truck traffic in our neighborhood. Please.

Respectfully,

B. Krystyna Kozakiewicz,

3116 Chapman St, Oakland, CA 94601

From: Latanick
To: pvollmann@oaklandca.gov
Cc: Noel; atlarge@oaklandca.gov
Subject: Proposed Jingletown Truck traffic
Date: Friday, April 29, 2022 10:20:35 AM

Peterson,

We in Jingletown are excited about the plans for the old glass factory. Improvements to our neighborhood, along with economic opportunities for our neighbors are welcome. I am writing about our concern about heavy truck traffic on neighborhood streets. We welcome new businesses and opportunities, but do not want heavy trucks routed off of main roads or the highway into our neighborhood.

We kindly ask for a traffic study to be conducted in our area near the I-880 exits on High and Fruitvale, and to further the discussion for the 42nd St. expansion near the Home Depot on Alameda Ave. We believe that this wonderful opportunity for community growth and development can be managed well for all concerned. Thank you for your work.

Yours,

Greg Latanick
2934 Ford St. #21
Oakland, CA
94601
CFO
Chi Fitness
614-906-0921
www.chifitrecovery.com

From: Lisa Locke
To: Vollmann, Peterson
Cc: Lupoff, Kenneth
Subject: RE: Glass Factory warehouse reconstruction, Alameda Avenue/Fruitvale
Date: Thursday, April 21, 2022 10:30:36 AM

Okay sorry, I didn't realize, thank you!
Lisa

From: Vollmann, Peterson <PVollmann@oaklandca.gov>
Sent: Thursday, April 21, 2022 10:30 AM
To: Lisa Locke <lklocke@lockeandkey.com>
Cc: Lupoff, Kenneth <KLupoff@oaklandca.gov>
Subject: Re: Glass Factory warehouse reconstruction, Alameda Avenue/Fruitvale

Thanks. I will add you to the list. We are required to send mailed notices.

Peterson Z. Vollmann | Planner IV | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2114 |Oakland, CA 94612 | Office Phone: (510)238-6167 | Cell Phone: (510)507-4765 | Email: pvollmann@oaklandca.gov | Website: https://www.oaklandca.gov/

From: Lisa Locke <lklocke@lockeandkey.com>
Sent: Thursday, April 21, 2022 10:27 AM
To: Vollmann, Peterson <PVollmann@oaklandca.gov>
Cc: Lupoff, Kenneth <KLupoff@oaklandca.gov>
Subject: RE: Glass Factory warehouse reconstruction, Alameda Avenue/Fruitvale

Yes, thank you Peterson. We live in Jingletown, but have a PO in Alameda.
Aren't the notices just by email anyway? So as not to waste paper?

Lisa

Lisa K. Locke
Mail: P.O. Box 2783, Alameda, CA 94501
Phone: 510-533-2005
Cell: 415-726-6066
Email: lklocke@lockeandkey.com

From: Vollmann, Peterson <PVollmann@oaklandca.gov>
Sent: Wednesday, April 20, 2022 9:05 AM
To: Lisa Locke <lklocke@lockeandkey.com>
Cc: Lupoff, Kenneth <KLupoff@oaklandca.gov>
Subject: Re: Glass Factory warehouse reconstruction, Alameda Avenue/Fruitvale

Lisa-

We maintain a mailing list for all interested parties. Could you provide me with your mailing address so I can add you to the list to ensure that you will receive all future CEQA notices on the project? Thanks.

Peterson Z. Vollmann | Planner IV | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2114 |Oakland, CA 94612 | Office Phone: (510)238-6167 | Cell Phone: (510)507-4765 | Email: pvollmann@oaklandca.gov | Website: https://www.oaklandca.gov/

From: Lisa Locke <lklocke@lockeandkey.com>
Sent: Tuesday, April 19, 2022 10:33 PM
To: Vollmann, Peterson <PVollmann@oaklandca.gov>
Cc: Lupoff, Kenneth <KLupoff@oaklandca.gov>
Subject: RE: Glass Factory warehouse reconstruction, Alameda Avenue/Fruitvale

---

Sorry, I had the wrong spelling of Peterson's name…

From: Lisa Locke <lklocke@lockeandkey.com>
Sent: Tuesday, April 19, 2022 2:27 PM
To: pvollman@oaklandca.gov
Cc: klupoff@oaklandca.gov
Subject: Glass Factory warehouse reconstruction, Alameda Avenue/Fruitvale

Dear Peterson and Ken,
As long-time (20+ years) homeowners in Jingletown, I think I speak for all the legacy and new residents here and in the neighborhoods surrounding the warehouse, that we are very concerned about the truck traffic that will happen because of the new tenants. We do not object to the new business; we just want to see a clear travel path for the trucks to enter and exit the freeway and go directly to the warehouses, without driving through the residential neighborhoods. When trucks on a time crunch come barreling through here, they hit parked cars, run over curbs and foliage, slam over speedbumps, clip overhead trees, bring an incredible amount of noise, and leave fumes that we then have to breathe. It's already bad now, but it's going to be a million times worse when the new warehouse complex is up and running 100%.

We would like to be included/informed in continuing discussions of physical neighborhood planning for freeway onramps and offramps and planned truck routing and request detailed traffic studies. Please add us to the list of emails and related neighborhood meetings. We would like to be involved. Thank you,

Lisa

Lisa K. Locke
Ford Street, 94601
Phone: 510-533-2005
Cell: 415-726-6066
Email: lklocke@lockeandkey.com

From: Susan Matthews
To: pvollmann@oaklandca.gov
Subject: Please preserve Jingletown
Date: Monday, April 25, 2022 10:14:36 PM

Dear Peterson Vollman, City Planner,

I am from East Oakland and currently live on ford Street in Jingletown. I pay top dollar for my art studio, and had I known how much traffic is on my street I would have thought twice about moving in. Ford Street is a thoroughfare to freeways and home depot. It can hardly be called a neighborhood. Thanks to Google Maps, container truck drivers can exit 29th, turn on Ford St, turn on Derby, then turn on E7th to get to Fruitvale Ave.

The facility planned for the old glass factory on Alameda Ave. will run 24/7 and has parking spaces for 228 container trucks. According to research done by the City of Oakland in their General Plan, our neighborhood already has air and noise pollution as high as West Oakland near the Port. We have the diesel fumes from 880, air pollution from two cement factories, the grain factory and the warehouse on 400 Lancaster.

We have many streets without sidewalks, where bikes and pedestrians will be sharing the road with these trucks. We have some tree-lined streets with 40-50 year old trees that will be damaged by these trucks. Jingletown's streets are also narrow, and won't accommodate 2 way traffic.

We are asking for NO truck or employee traffic in our neighborhood. We want a traffic study on the impact of truck traffic here. We are asking for the expansion of 42nd Ave, which stops under the 880 at Home Depot's parking lot. This 42nd Ave expansion has been talked about for over 10 years and will go through to Alameda Ave. So besides helping to eliminate traffic through Jingletown, truck traffic on 42nd Ave will help to eliminate the sideshows that occur at the 42nd Ave dead end. It will also go through another RV camp, which will force government agencies to re-home that group of residents.

Please help us preserve our unique, historic neighborhood.
Thank you,
Susan Matthews

--

www.SusanMatthewsGallery.com

www.uaa.alaska.edu/spotlight/secretsundertheskin

From:	McAloon, Brian@DTSC
To:	pvollmann@oaklandca.gov
Cc:	OPR State Clearinghouse; Kereazis, Dave@DTSC
Subject:	Comments on NOP for Draft EIR
Date:	Tuesday, May 3, 2022 12:38:53 PM
Attachments:	3600 Alameda Avenue Project.pdf

Mr. Peterson Vollmann,
Attached please find comments from the California Department of Toxic Substances Control (DTSC) regarding the *Notice of Preparation of a Draft Environmental Impact Report for the 3600 Alameda Avenue Project*.

Please let me know if you have any questions.

Thank you.

Brian McAloon
Project Manager
Site Mitigation and Restoration Program
916-255-3582
brian.mcaloon@dtsc.ca.gov
Department of Toxic Substances Control
California Environmental Protection Agency

Department of Toxic Substances Control

Meredith Williams, Ph.D.
Director
8800 Cal Center Drive
Sacramento, California 95826-3200

Jared Blumenfeld
Secretary for
Environmental Protection

Gavin Newsom
Governor

SENT VIA ELECTRONIC MAIL

May 3, 2022

Mr. Peterson Vollmann
Planner IV
City of Oakland Bureau of Planning
50 Frank H. Ogawa Plaza, Suite 2214
Oakland, CA 94612
PVollmann@oaklandca.gov

NOTICE OF PREPARATION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE 3600 ALAMEDA AVENUE PROJECT – DATED APRIL 2022
(STATE CLEARINGHOUSE NUMBER: 2022040061)

Dear Mr. Vollmann:

The Department of Toxic Substances Control (DTSC) received a Notice of Preparation of a Draft Environmental Impact Report (NOP of DEIR) for the 3600 Alameda Avenue Project (Project). The Lead Agency is receiving this notice from DTSC because the Project includes one or more of the following: groundbreaking activities, work in close proximity to a roadway, presence of site buildings that may require demolition or modifications, importation of backfill soil, and/or work on or in close proximity to an agricultural or former agricultural site.

DTSC recommends that the following issues be evaluated in the Hazards and Hazardous Materials section of the DEIR:

1. The DEIR should acknowledge the potential for historic or future activities on or near the project site to result in the release of hazardous wastes/substances on the project site. In instances in which releases have occurred or may occur, further studies should be carried out to delineate the nature and extent of the contamination, and the potential threat to public health and/or the environment should be evaluated. The DEIR should also identify the mechanism(s) to initiate any required investigation and/or remediation and the government agency who will be responsible for providing appropriate regulatory oversight.

2. Refiners in the United States started adding lead compounds to gasoline in the 1920s in order to boost octane levels and improve engine performance. This practice did not officially end until 1992 when lead was banned as a fuel additive in California. Tailpipe emissions from automobiles using leaded gasoline contained lead and resulted in aerially deposited lead (ADL) being deposited in and along roadways throughout the state. ADL-contaminated soils still exist along roadsides and medians and can also be found underneath some existing road surfaces due to past construction activities. Due to the potential for ADL-contaminated soil DTSC, recommends collecting soil samples for lead analysis prior to performing any intrusive activities for the project described in the DEIR.

3. If buildings or other structures are to be demolished on any project sites included in the proposed project, surveys should be conducted for the presence of lead-based paints or products, mercury, asbestos containing materials, and polychlorinated biphenyl caulk. Removal, demolition and disposal of any of the above-mentioned chemicals should be conducted in compliance with California environmental regulations and policies. In addition, sampling near current and/or former buildings should be conducted in accordance with DTSC's 2006 *Interim Guidance Evaluation of School Sites with Potential Contamination from Lead Based Paint, Termiticides, and Electrical Transformers*.

4. If any projects initiated as part of the proposed project require the importation of soil to backfill any excavated areas, proper sampling should be conducted to ensure that the imported soil is free of contamination. DTSC recommends the imported materials be characterized according to *DTSC's 2001 Information Advisory Clean Imported Fill Material*.

5. If any sites included as part of the proposed project have been used for agricultural, weed abatement or related activities, proper investigation for organochlorinated pesticides should be discussed in the DEIR. DTSC recommends the current and former agricultural lands be evaluated in accordance with DTSC's 2008 *Interim Guidance for Sampling Agricultural Properties (Third Revision)*.

DTSC appreciates the opportunity to comment on the DEIR. Should you need any assistance with an environmental investigation, please visit DTSC's Site Mitigation and Restoration Program page to apply for lead agency oversight. Additional information regarding voluntary agreements with DTSC can be found at DTSC's Brownfield website.

If you have any questions, please contact me at (916) 255-3582 or via email at Brian.McAloon@dtsc.ca.gov.

Sincerely,

Brian McAloon
Project Manager
Site Evaluation and Remediation Unit
Site Mitigation and Restoration Program
Department of Toxic Substances Control

cc: (via email)

Governor's Office of Planning and Research
State Clearinghouse
State.Clearinghouse@opr.ca.gov

Mr. Dave Kereazis
Office of Planning & Environmental Analysis
Department of Toxic Substances Control
Dave.Kereazis@dtsc.ca.gov

From: Jill McLennan
To: pvollmann@oaklandca.gov
Cc: ngallo@oaklandca.gov; atlarge@oaklandca.gov
Subject: 3600 Alameda Ave
Date: Monday, April 25, 2022 4:26:13 PM

Dear Peterson Vollmann,

I am a long term resident of Jingletown and Oakland, I am involved in public art and community beautification projects. I am writing to ask that the semi truck traffic not be routed through our neighborhood due to this new Amazon Plant. Already we have traffic routed from 29th Ave through Ford then Perterson St to enter the 880 South on 7th St. and we have very narrow streets with perpendicular driveways and active business and many pedestrians as well. Many of these drivers drive quickly and do not look out for pedestrians as they expect to be on a highway entrance not in a residential neighborhood. I know this neighborhood is designated industrial, I have lived here almost 20 years, and seen it change to mostly residential.

We have many streets without sidewalks, where bikes and pedestrians could be sharing the road with these trucks. We have some tree lined streets with 40-50 year old trees that will be damaged by these trucks. Jingletown's streets are also narrow, and won't accommodate 2 way traffic.

We are asking for NO truck or employee traffic in our neighborhood. We want a traffic study on the impact of truck traffic here. We are asking for the expansion of 42nd Ave which stops under the 880 at Home Depot's parking lot. This 42nd Ave expansion has been talked about for over 10 years and will go through to Alameda Ave. So beside helping to eliminate traffic through Jingletown, truck traffic on 42nd Ave will help to eliminate the sideshows that occur at the 42nd Ave dead end. It will also go through another RV camp, which will force government agencies to re-home that group of residents.

Please consider the lives of the residents of this peaceful, residential neighborhood and reroute the truck traffic for this project.

Thank you for your time,

--

Jill McLennan, JMAC
jmclennanarts@gmail.com

From:	Dorie Meister
To:	pvollmann@oaklandca.gov; ngallo@oaklandca.gov; atlarge@oaklandca.gov
Subject:	Please help Jingletown remain a safe neighborhood for pedestrians and bikes
Date:	Monday, April 25, 2022 2:53:07 PM

Dear Peterson, Noel and Rebeca,

I have recently moved to Ford street in Jingletown just a block from 29th street and writing to you to help keep traffic from being routed to my neighborhood as a result of the development at 3600 Alameda Ave.

I'm among the group of concerned neighbors who are asking for no truck or employee traffic in the neighborhood. We are requesting a traffic study on the impact of truck traffic her and an expansion of the 42nd ave.

Thank you for your attention to this matter.

Sincerely
Doreen Meister
2889 Ford Street
Oakland, CA 94609

From: Sarah Merola
To: pvollmann@oaklandca.gov; ngallo@oaklandca.gov; atlarge@oaklandca.gov
Subject: Case File Number: PLN21223-ER01 Concerns
Date: Monday, May 2, 2022 8:02:55 PM

Hello, City planner Vollman and Councilperson Gallo, and others:

I am a resident and homeowner in the Jingletown neighborhood of Oakland, writing in regard to Case File Number: PLN21223-ER01. The plan to develop 3600 Alameda Ave into a warehouse facility for several shippers will bring jobs to the Oakland area which are beneficial and I am unopposed to that overall idea for development.

I do however have significant concerns with traffic driving through our neighborhood as a result. This facility will very likely bring substantive impacts via employee and container truck traffic passing through our neighborhood. This traffic increase may reduce neighborhood air quality which is already poor due to being so close to the freeways and also create risks for resident foot traffic who will share the roads with traffic in this area with underdeveloped sidewalks. There are several streets that lack sidewalks, which means that often residents are forced to walk on the road. Our neighborhood streets are also narrow and some don't currently accommodate 2-way traffic and street parking at the same time, so it will increase congestion. These two issues combine to create rather unsafe conditions.

I would like to see a traffic and air quality impact study impact studies done for the plans and see included solutions and commitments that prevent the shipping container and employee traffic from passing throughout residential streets and instead use only main thoroughfares outside of the residential area.

I have heard that there have been discussions of expanding 42nd Ave for over 10 years. Seeing the traffic diverted from our neighborhood would be really helpful. Jingletown isn't wide enough to support the increase in traffic that the Amazon Warehouse would cause. I implore you to take some time to investigate the possible repercussions of not expanding 42nd ave. Take the time to carefully evaluate the traffic outcomes of this new project. We love the development but not at the cost of the safety and air quality of our residents. Thank you for taking the time to hear my concerns.
Thank you,
Sarah Merola

From: Christine Olsen
To: pvollmann@oaklandca.gov
Cc: Gallo, Noel; atlarge@oaklandca.gov
Subject: Opposition to Transportation Plan for 3600 Alameda Ave.
Date: Tuesday, May 3, 2022 12:43:15 PM

Good Afternoon City Planner Vollmann,

I am writing to you as a homeowner in Jingletown concerning the development of the OI Glass Factory, now known as 3600 Alameda Ave that may be developed into a warehouse facility for several shippers. While I am in favor of the development of 3600 Alameda Ave, as a resident in Jingletown, I am writing in opposition to the proposed transportation plan for the following reasons:

- One of the proposed routes for access to the site, the 29th Ave from the 880 free*w*ay runs through our small neighborhood. Trucks will need to make 4 turns to drive through to reach Fruitvale. Half of these streets do not have sidewalks; more commercial trucks increase the danger to pedestrians who are forced to walk in the street.
- The 10th St entrance to 880 North has a small diameter roundabout that is difficult for large trucks to maneuver and then they have to merge into northbound traffic almost immediately. The 29th Street entrance to 880 South, approached by going south on either 7th, Chapman or Ford is narrow and the interface with the freeway itself is already hazardous due to it being both an entrance and an exit.
- Jingletown is already heavily impacted by traffic and industry (a nearby freeway, a freight train that runs through the neighborhood, semi-trailer trucks that travel on Lancaster and idling trucks docking at 400 Lancaster).

- Our neighborhood already has a high level of pollution from 880 freeway, 2 cement factories & Miller grain factory. The City of Oakland General Plan maps show our neighborhood has a high level of diesel PM concentration. Our neighborhood is already impacted by poor air quality; this transportation plan would worsen the air quality and expose our residents to dangerous conditions with more commercial vehicles and trucks.

- Current zoning doesn't reflect neighborhood use; we are now more residential than commercial, a neighborhood of working families, small businesses, artists, elders, and children. We walk our dogs, ride bikes, and walk throughout the neighborhood. Residents and developers have planted trees on the streets in Jingletown; the trees with overhanging branches along the proposed routes will be damaged or destroyed by large trucks.

There will be increased noise pollution with trucks running through the neighborhood additional hours (24/7?)

- Increasing commercial trucks on Fruitvale are in conflict with the expanded bike trails on Fruitvale. Concept of Bay Trail and promoting its use is at odds with adding additional pollution to the air in this area.

As a neighborhood we are asking for NO truck or employee traffic in our neighborhood. We want a traffic study on the impact of truck traffic here. We are asking for the expansion of 42nd Ave which stops under the 880 at Home Depot's parking lot. This 42nd Ave expansion has been talked about for over 10 years and will go through to Alameda Ave. So beside helping to eliminate traffic through Jingletown, truck traffic on 42nd Ave will help to eliminate the sideshows that occur at the 42nd Ave dead end. It will also go through another RV camp, which will force government agencies to re-home that group of residents.

Respectfully yours,
Christine Olsen

From: Michael Paul
To: pvollmann@oaklandca.gov
Subject: PLN21223-ER01 (comment)
Date: Monday, May 2, 2022 12:26:47 PM

Dear Mr. Vollmann:

I live in the neighborhood on the western side of Fruitvale Av, in the Harborwalk Condominiums between Glascock St and Ford St, at Lancaster St. I wrote these comments mindful of the guidance for commenters set out in the Notice of Preparation ("…comments should focus on potential adverse physical impacts…identify ways effects might be minimized and reasonable mitigation measures and alternatives…" NOP, p.1, paragraph 5). All references are to the documents linked to from the notice of the Planning Commission Special Meeting dated April 20, 2022.

A convenient way to frame what, to me, are the "potential adverse physical impacts" is to focus on Fruitvale Av and what lies on either side of it. Practically speaking, the eastern side of the avenue is largely commercial and industrial property, while the western side is largely residential property. It has already been acknowledged that the project is going to generate substantial increases in motor traffic for the whole area that will likely necessitate "additional street connections as larger sites develop" (see, Staff Report, General Plan, p.5, paragraph 2, where you also find a proposal to extend Ford St. "across Fruitvale Av and through the subject property…acquisition of property not under control of applicant or City would be necessary.") As someone who lives in this neighborhood my concern is keeping as much of this new and additional motor traffic on the eastern side of Fruitvale Av and away from my neighborhood.

In the Notice of Preparation, the Project Location site is described as being bordered on its western side by "Fruitvale Av and commercial / industrial uses to the West" (NOP, p.2, paragraph 1). On the referenced western side of Fruitvale Av, there are a couple of privately-owned warehouses and a Union Pacific railroad spur that runs along Fruitvale Av before it goes into a railroad cut between the warehouses from where it then travels up Glascock Street towards 29th Ave (where the thrice-weekly freight trains that use it service a cement factory and other industrial sites on the west side of 29th Av). Apart from those warehouses, the area between Fruitvale Av and 29th Av is a mostly residential area crisscrossed by narrow two-lane streets with residents' personally owned vehicles parallel parked on both sides. In other words, an area not equipped to accommodate heavy truck traffic—or heavy traffic—of any kind. (in the Planning Commission materials there is a diagram showing the west side of Fruitvale Av and, a bit to the west, Lancaster St where the residential area begins, as well as a blank space in between Fruitvale Ave and Lancaster St in which the two warehouses in question are located; see, ATTACHMENT B-DAB-A1.1.)

The presently existing road system in the area will not be able to accommodate the increased motor traffic being contemplated, especially the truck traffic between the I-880 freeway and the project site. I think the key area to keep in mind when thinking about the traffic moving to and from the project site (particularly the truck entrance/exit to be located on the site's South side on Alameda Av) is the area where I-880 passes over High Street. I say this because there are already High Street entrances and exits on both the northbound and southbound sides of I-880 in that area, in fairly close proximity to Alameda Av which would seem to be the ideal corridor for heavy truck traffic traveling between I-880 and the site's truck entrance on Alameda Av. Any impediments to the flow of traffic along this route will inevitably force motorists to seek alternative freeway on/off ramps like those immediately to the west, i.e., the 29th Av on/off ramps; which, consequently, would divert the traffic onto the residential streets in my neighborhood as drivers make their way eastward toward the project site.

At the present time it is not possible for traffic to easily navigate between Alameda Av and the I-880 / High Street overpass area, or the High Street on/off ramps on either side of the freeway. All traffic between those areas and

Alameda Av must travel via High Street and Howard St. Howard St is a short, narrow two-lane street that links Alameda Av and High St, winding around a lot at the corner of Howard St and High St where a car wash/auto detailing business is situated. (The only image of this area in the materials is a "VICINITY MAP" found in Attachment B, DAB-A0.1, the resolution in which doesn't show much detail). The existing roads in this area are simply inadequate to cope with the increased amount of traffic (particularly that of 18-wheelers) that this project will generate. Leaving things as they are will create significant traffic dilemmas that will have to be dealt with later. The solution would be to extend Alameda Av eastward to the I-880 overpass at High St, reconfiguring or adding the necessary additional traffic signals. The City, I assume, is the relevant entity here with the jurisdiction and authority to carry this out.

I also want to advocate against the proposal mentioned above that would extend Ford Street across Fruitvale Av into the project site. It sounds as if the owners of the private property that would need to be acquired have not yet been approached and, to be blunt, it is my hope that they decline to sell. If this proposal was carried through it would contribute substantially to the noise, traffic and emissions problems that the EIR is supposed to identify and mitigate. Breaching that side of the neighborhood in this way could turn my condo complex (which is bordered on one side by Ford St) into a kind of traffic island. This is a neighborhood, at times, where motorists from outside already create speeding and joyriding problems and sideshow activity; along with the noise, emissions and traffic congestion related to idling trucks that visit the commercial warehouse at the end of Lancaster St near Glascock Av. The priority should be to insulate and protect our residential area against such problems, not to facilitate them so that they become worse.

Going forward I hope that protecting the quality of life of the residents in my neighborhood will be prioritized by keeping the traffic generated by this project on the eastern side of Fruitvale Av and away from my side. Thanks for reading this.

-Michael Paul

From: Jyoti Rae
To: pvollmann@oaklandca.gov; Noel; atlarge@oaklandca.gov
Subject: Duke Realty property
Date: Tuesday, May 3, 2022 9:38:03 AM

Hello all,

I am writing to formally ask for a traffic study to be done in conjunction with the Alameda Avenue property sale to Duke Realty which will result in a lot of new traffic to our residential area in Jingletown.

We already have so much air pollution from 880, the cement factory, the grain factory, and the warehouse at 400 Lancaster. We really don't want truck traffic to be routed through Jingletown where we have many streets without sidewalks. We have many active walkers and bikers in this neighborhood and we really don't want to be negotiating for travelling space with big rigs and container trucks.

Is the city going to extend 42nd street to Alameda Ave as we have heard was in the plans for years? That would certainly help to keep the truck traffic out of residential neighborhoods. That might also give the city another reason to keep 42nd Avenue clean, as it is now a complete and embarrassing blight to our city of Oakland.

Thank you for considering the wishes of the citizens of Oakland as we bring in new businesses to our area.

Jyoti Rae

EAST BAY
MUNICIPAL UTILITY DISTRICT

April 22, 2022

Peterson Vollmann, Planner IV
City of Oakland Bureau of Planning
250 Frank H. Ogawa Plaza, Suite 2214
Oakland, CA 94612

Re: Notice of Preparation of a Draft Environmental Impact Report for the 3600 Alameda Avenue Project, Oakland (Case File Number PLN21223-ER01)

Dear Mr. Vollmann:

East Bay Municipal Utility District (EBMUD) appreciates the opportunity to comment on the Notice of Preparation of a Draft Environmental Impact Report for the 3600 Alameda Avenue Project located in the City of Oakland (City). EBMUD has the following comments.

WATER SERVICE

EBMUD's Central Pressure Zone, with a service elevation between 0 and 100 feet, will serve the proposed development. Individual units in a newly built multifamily or multi-occupancy commercial/industrial premises shall be individually metered. A main extension, at the project sponsor's expense, will be required to service the proposed development. Off-site pipeline improvements, also at the projects sponsor's expense, may be required to meet domestic and fire service requirements set by the local fire agency. When the development plans are finalized, the project sponsor should contact EBMUD's New Business Office and request a water service estimate to determine costs and conditions for providing water service to the project. Engineering and installation of water mains, off-site pipeline improvements, and services require substantial lead time, which should be provided for in the project sponsor's development schedule.

EBMUD owns and operates 8-inch and 12-inch distribution pipelines in Alameda Avenue, which the project proposes to re-align. These pipelines are necessary to provide continuous service to EBMUD's customers in the area. Any proposed construction activity in Alameda Avenue would need to be coordinated with EBMUD so that the integrity of these pipelines is maintained at all times. The realignment of Alameda Avenue may require relocation of the existing pipelines, the relocation costs would be at the project sponsor's expense.

EBMUD's Standard Site Assessment Report indicate the potential for contaminated soils or groundwater to be present within the project site boundaries. The project sponsor should be aware that EBMUD will not install piping or services in contaminated soil or groundwater (if groundwater is present at any time during the year at the depth piping is to be installed) that must be handled as a hazardous waste or that may be hazardous to the health and safety of construction and maintenance personnel wearing Level D personal protective equipment. Nor

will EBMUD install piping or services in areas where groundwater contaminant concentrations exceed specified limits for discharge to the sanitary sewer system and sewage treatment plants. The project sponsor must submit copies to EBMUD of all known information regarding soil and groundwater quality within or adjacent to the project boundary and a legally sufficient, complete and specific written remediation plan establishing the methodology, planning and design of all necessary systems for the removal, treatment, and disposal of contaminated soil and groundwater.

EBMUD will not design piping or services until soil and groundwater quality data and remediation plans have been received and reviewed and will not start underground work until remediation has been carried out and documentation of the effectiveness of the remediation has been received and reviewed. If no soil or groundwater quality data exists, or the information supplied by the project sponsor is insufficient, EBMUD may require the project sponsor to perform sampling and analysis to characterize the soil and groundwater that may be encountered during excavation, or EBMUD may perform such sampling and analysis at the project sponsor's expense. If evidence of contamination is discovered during EBMUD work on the project site, work may be suspended until such contamination is adequately characterized and remediated to EBMUD standards.

WASTEWATER SERVICE

EBMUD's Main Wastewater Treatment Plant (MWWTP) and interceptor system are anticipated to have adequate dry weather capacity to accommodate the proposed wastewater flows from this project and to treat such flows provided that the wastewater generated by the project meets the requirements of the EBMUD Wastewater Control Ordinance. However, wet weather flows are a concern. The East Bay regional wastewater collection system experiences exceptionally high peak flows during storms due to excessive infiltration and inflow (I/I) that enters the system through cracks and misconnections in both public and private sewer lines. EBMUD has historically operated three Wet Weather Facilities (WWFs) to provide primary treatment and disinfection for peak wet weather flows that exceed the treatment capacity of the MWWTP. Due to reinterpretation of applicable law, EBMUD's National Pollutant Discharge Elimination System (NPDES) permit now prohibits discharges from EBMUD's WWFs. Additionally, the seven wastewater collection system agencies that discharge to the EBMUD wastewater interceptor system ("Satellite Agencies") hold NPDES permits that prohibit them from causing or contributing to WWF discharges. These NPDES permits have removed the regulatory coverage the East Bay wastewater agencies once relied upon to manage peak wet weather flows.

A federal consent decree, negotiated among EBMUD, the Satellite Agencies, the Environmental Protection Agency (EPA), the State Water Resources Control Board (SWRCB), and the Regional Water Quality Control Board (RWQCB), requires EBMUD and the Satellite Agencies to eliminate WWF discharges by 2036. To meet this requirement, actions will need to be taken over time to reduce I/I in the system. The consent decree requires EBMUD to continue implementation of its Regional Private Sewer Lateral Ordinance (www.eastbaypsl.com), construct various improvements to its interceptor system, and identify key areas of inflow and

rapid infiltration over a 22-year period. Over the same time period, the consent decree requires the Satellite Agencies to perform I/I reduction work including sewer main rehabilitation and elimination of inflow sources. EBMUD and the Satellite Agencies must jointly demonstrate at specified intervals that this work has resulted in a sufficient, pre-determined level of reduction in WWF discharges. If sufficient I/I reductions are not achieved, additional investment into the region's wastewater infrastructure would be required, which may result in significant financial implications for East Bay residents.

To ensure that the proposed project contributes to these legally required I/I reductions, the lead agency should require the project sponsor to comply with EBMUD's Regional Private Sewer Lateral Ordinance. Additionally, it would be prudent for the lead agency to require the following mitigation measures for the proposed project: (1) replace or rehabilitate any existing sanitary sewer collection systems, including sewer lateral lines to ensure that such systems and lines are free from defects or, alternatively, disconnected from the sanitary sewer system, and (2) ensure any new wastewater collection systems, including sewer lateral lines, for the project are constructed to prevent I/I to the maximum extent feasible while meeting all requirements contained in the Regional Private Sewer Lateral Ordinance and applicable municipal codes or Satellite Agency ordinances.

WATER CONSERVATION

The proposed project presents an opportunity to incorporate water conservation measures. EBMUD requests that the City include in its conditions of approval a requirement that the project sponsor comply with Assembly Bill 325, "Model Water Efficient Landscape Ordinance," (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490 through 495). The project sponsor should be aware that Section 31 of EBMUD's Water Service Regulations requires that water service shall not be furnished for new or expanded service unless all the applicable water-efficiency measures described in the regulation are installed at the project sponsor's expense.

If you have any questions concerning this response, please contact Timothy R. McGowan, Senior Civil Engineer, Major Facilities Planning Section at (510) 287-1981.

Sincerely,

David J. Rehnstrom
Manager of Water Distribution Planning

DJR:KTL:grd
sb22_081 3600 Alameda Avenue Project NOP Response

From: Everardo Rodriguez
To: Carrie Anderson
Cc: pvollmann@oaklandca.gov; Cheral Stewart
Subject: Re: concerns for 3600 Alameda Ave - for the EIR meeting 4-20-22
Date: Wednesday, April 20, 2022 11:04:35 AM

Dear Peterson Vollmann

I am wholeheartedly supporting everything Carrie Anderson mentioned in her email. I am gravely concerned as this area is already very congested in the morning's, mid day and especially the afternoon, where as mentioned people are ignoring red lights, imagine that and add 3 times the congestion and the boiling point on drivers gets worse. Yet people like you or others not living or having a business here like I do, making decisions that affect us directly just don't understand the crisis we are living in. Compaction and density of living conditions makes it worse not better, yet somehow reality is thrown out the door.

Are environmental studies steered so that they are skewed and the results fit the results to those inclined for these changes. Fix the current issues which are many before adding so called "improvements" to our decaying streets.

Best Regards,

Everardo Rodriguez
Bay Restorators Corp.
3407 E 8th st,
Oakland, CA 94601
www.BayRestorators.com

510-534-6647 Office Number
510-534-6649 Fax Number
888-405-4229 Toll Free Number

On Tue, Apr 19, 2022 at 3:50 PM Carrie Anderson <cfa080@yahoo.com> wrote:

> Dear Peterson Vollmann,
> The following are some of my concerns and comments for your meeting on 4-20-22.
>
> I would like to express several concerns about the proposed changes for 3600 Alameda Ave.
>
> I have serious concerns and questions about plans to extend E 7th St from Fruitvale Ave to 37th Ave.
>
> - this would run directly behind my property. So, in addition to the street that already exists in front of my property (on Elmwood), you are proposing to create a street directly behind my property (the new E 7th). This seems very strange and brings up several issues:
>
> - what will this proposed street be like? How many lanes, what will the speed limit be, what will it be used for (cars, trucks?), will there be parking allowed, will there be stop signs/stop lights/etc.

- will the homeless be allowed to park their RVs on the proposed street like they do on Alameda Ave and if not, who will make sure that doesn't happen? And who will make sure the city itself doesn't put RVs there like they have all over our neighborhood (Alameda Ave, E8th, E 9th, etc)? It is unacceptable to create another "Alameda Ave" in this area right next to our homes.

- how will the intersection of the proposed street and Fruitvale Ave be managed? Will there be a traffic light? Right now it is nearly impossible to turn left from Elmwood Ave onto Fruitvale Ave, especially given that Oakland does not enforce traffic laws so Fruitvale Ave has become a racetrack. As it is, cars often do not stop at the lights at Fruitvale/E8th so this would bring more traffic and more risk of traffic collisions.

- this will create issues with noise from the vehicle traffic on the proposed new street – what will be done about that? It is already noisy enough from cars on 880. We don't need a busy street behind our neighborhood in addition to 880.

- this will create environmental issues with exhaust and fumes from the vehicles using the proposed street – what will be done about that?

- this will also create safety issues for all whose homes back up onto this proposed street. What will be done about that? How will our homes be safe with people driving next to our back yards?

- what are the plans to have OPD patrol this proposed street? As proposed, it creates a connection from Alameda Ave all the way through our neighborhood and over to Jingletown, allowing much easier access to our homes for all the criminals who are currently living on Alameda Ave. Right now, our neighborhood (E8th, Elmwood, 34th, 36th, 37th) is overrun with RVs, stolen cars, stripped cars, cars being stripped, and garbage from the Alameda Ave encampment. We don't need it to be easier for more of this to happen, so what are the plans to prevent this? As of right now, any vehicle or trailer that parks anywhere around here is considered a "home" and can't be touched, which has led to nothing but crime and problems – how will this be prevented? We also don't need all the cars from the frequent sideshows at 42nd and 880 to have easy access to and through our neighborhood as they shoot their way across the city. This puts our lives in danger. Again, what are plans for safety measures to keep this area safe from all that the proposed street would bring?

will the proposed street be highly trafficked? It leads across Fruitvale Ave and provides access 880-south so I imagine it would be heavily used.

And a similar concern about opening 37th Ave from Alameda Ave to Boehmer/E7th (new street):
- there is already an extreme amount of theft from Home Depot. 37th runs along the back of it and it this was opened to Alameda Ave, vehicles could wait in the back (on 37th) and even more theft could occur with easy access to/from the Alameda Ave encampments.

- cars are stolen every day and end up on Alameda Ave and in our neighborhood behind Duke's property. If you add/open more streets, seems like that will just make it easier for car thieves to hide out. We already see them sitting on 34th Ave/E8th St and on E8th St/37th Ave in their stolen vehicles. I certainly don't want even more streets for this to happen on. When OI still owned the property, people were bringing stolen cars to Elmwood Ave and E8th and leaving them and then coming back to use them at night to steal from OI. That was an absolute nightmare for those of us living here, one we do not want to repeat.

I'm including pictures of several stolen cars that were recently recovered on E8th St, some RVs that were dumped

here, police on E8th because of a kidnapping/false imprisonment in a trailer, and a neighbor's fence that was knocked down on Sunday by a stolen vehicle. Just a few of the hundreds of problems we've had due to the encampments and limited staffing of OPD. I've also included videos of police trying to go after a stolen vehicle on 36th Ave on Easter Sunday. We do not want to see an increase in this behavior. In the last 3 months, there have been at least 4 stolen vehicles, 1 attempted catalytic converter theft, and 1 car actively being stripped. Today I saw an RV at the end of 37th and a stripped vehicle on37th at E8th. This is a constant, ongoing issue that needs to be addressed especially when planning to open up streets and create more streets that lead right into criminal encampments.

I have lived here (Elmwood Ave) for 8 years. The first 6 were lovely. It was a safe, clean area. There was 24 hour live security at the OI plant. I walked on the bay trail and walked to Home Depot almost every day. I had no motion lights and no security cameras on my home.

The last time I walked on Alameda Ave, maybe 8 months ago, someone sexually assaulted me in broad daylight. The city has allowed my neighborhood to be overrun with RVs, stolen cars, crime, and garbage. Alameda Ave is unsafe and is full of open air drug dealing and stolen vehicles and chop shops. We have formed a neighborhood watch, gotten the media involved, and I have installed several motion lights and security cameras and extra locks as have most of my neighbors.

All this to say, please consider the impact on our physical safety (not to mention quality of life) as you propose these significant changes to this once quiet, peaceful neighborhood that has already been devastated by the proliferation of encampments on Alameda Ave, E8th, E9th, and 37th Ave.

Sincerely,
Carrie Anderson

From: Emi San
To: Vollmann, Peterson
Subject: Re: 3600 Alameda Ave - Project Development Process
Date: Tuesday, May 3, 2022 11:20:23 AM

Hello,
2815 Regatta Dr. Oakland, CA 94601

Emilia Sanchez
(510) 333-5868

On Tue, May 3, 2022 at 10:45 AM Vollmann, Peterson <PVollmann@oaklandca.gov> wrote:

> Emilia-
>
> Please send me your mailing address so that I can add you onto the interested parties list for receiving all future public notices for this project. Thanks.
>
> **Peterson Z. Vollmann** | Planner IV | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2114 |Oakland, CA 94612 | Office Phone: (510)238-6167 | Cell Phone: (510)507-4765 | Email: pvollmann@oaklandca.gov | Website: https://www.oaklandca.gov/
>
> ---
>
> **From:** Emi San <sanchez.emi.f@gmail.com>
> **Sent:** Wednesday, April 20, 2022 4:08 PM
> **To:** Vollmann, Peterson <PVollmann@oaklandca.gov>
> **Subject:** Fwd: 3600 Alameda Ave - Project Development Process
>
> [EXTERNAL] This email originated outside of the City of Oakland. Please do not click links or open attachments unless you recognize the sender and expect the message.
>
> ---
>
> ---------- Forwarded message ---------
> From: **Emi San** <sanchez.emi.f@gmail.com>
> Date: Wed, Apr 20, 2022 at 3:58 PM
> Subject: 3600 Alameda Ave - Project Development Process
> To: <pvollman@oaklandca.gov>
> Cc: Lupoff, Kenneth <KLupoff@oaklandca.gov>, Marky Mark <rubenaker.m@gmail.com>
>
> Hello Peterson,
>
> Please include me on all future correspondence regarding this project.
>
> Points of Concern to date:
> Impacts to residents, bikers, families in Jingletown
>
> I am OPPOSED to the signalization and extension of East 7th St. as it will

significantly impact access to East 7th St for residents on an already extremely dilapidated paved road.

Pavement, sidewalk and pedestrian/bike safety improvements to areas 1/2 mile radius from the perimeter of the parcel.

I am supportive of the project given the parcels existing condition, but we need to look at the impacts to the neighbors and how to increase quality of life. The developer will be profiting from its investment at the cost of the neighbors' concessions to their quality of life.

Emilia Sanchez
Jingletown Resident
(510) 333-5868

From:	naomi@17th.com
To:	Vollmann, Peterson
Cc:	Gilchrist, William; Manasse, Edward; Merkamp, Robert; Payne, Catherine; August, Karen; Marvin, Betty; Gallo, Noel; Kaplan, Rebecca
Subject:	NOP 3600 Alameda Avenue
Date:	Monday, May 2, 2022 11:08:36 AM
Attachments:	2022-May2_LPAB-OHA_3600 Alameda Ave NOP comment.pdf

Dear Pete,

Attached please find comments from Oakland Heritage Alliance regarding the proposed project at 3600 Alameda Avenue.

Kindly also please forward this comment memo to the members of the Landmarks Preservation Advisory Board, who should be consulted about this project, due to its potential impacts not only upon the site itself, but upon nearby historic areas.

Thank you,

Naomi Schiff
Board Member, Oakland Heritage Alliance

Naomi Schiff

238 Oakland Avenue

Oakland, CA 94611

510-835-1819
Cell: 510-910-3764
Email: **Naomi@17th.com**

From:	Evan Schwimmer
To:	Vollmann, Peterson
Cc:	susansbriggs@gmail.com; Ron Briggs; Matt Bliven
Subject:	Re: 3600 Alameda Avenue
Date:	Wednesday, April 20, 2022 5:10:58 PM

Dear Mr. Vollmann,

I am following up on the EIR scoping session during the Planning Commission meeting today. First, thank you for your service to our collective community and for stewarding this project which is clearly important to many community members and stakeholders.

I would like to reiterate that I am excited that this property is being redeveloped and improved. As an Alameda resident, I very much appreciate that Oakland is taking the concerns and considerations of its neighboring communities seriously, in addition to the communities within its legal boundaries. I also share the concerns expressed by multiple community members in the meeting regarding traffic, intensive truck activity, public safety, noise and other impacts in Jingle Town, other affected Oakland neighborhoods and in Alameda.

My first comment is regarding the portion of the staff report and the commentary from staff during the meeting that the project is not anticipated to have significant environmental impacts related to... aesthetics,... population and housing. Aesthetics are paramount for this gateway neighborhood that has a history of non-historic/significant architectural aesthetic conditions. This is an opportunity for Oakland to drastically improve the aesthetic character of this significant corridor that connects Alameda/Jingle Town, through multiple, significant Oakland districts, to the hills in the east. It is also my understanding that Oakland has planned for improving the aesthetic conditions of this location/area and this is a prime opportunity to implement those designs in coordination with the redevelopment of this property. Likewise, population and housing also seem like they should be significant considerations given the chronic shortfall in regional housing needs and the fact that development of this project will necessarily deprive the region of a significant amount of housing. I believe one of the Commission members also suggested staff consider an additional social justice study be commissioned as part of the EIR process.

My related question is what are the typical thresholds for additional study in an EIR of aesthetics, population and housing and social justice?

My second question is in regard to how the findings of the 2045 General Plan update environmental review process could affect the results of the 3600 Alameda EIR? I was not able to actively participate in the balance of the PC meeting in case the question was addressed during the balance of the meeting.

One other comment for now, which I did not voice during the meeting but I heard Ron Briggs express, is the concern about backup alarms by trucks maneuvering on the property which can be quite disruptive to local residents during sleeping hours and other time periods. There may be significantly more trucks maneuvering on the property than what was present in the prior condition associated with the old glass recycling plant to which Mr. Briggs spoke. I understand that a study of noise will be addressed in the EIR and I hope the developer takes this matter seriously while engaging with the community on this and other concerns.

I have copied two other meeting participants on this email in case they would like to see my

comments/questions or add their own.

Thank you.

Kind regards,
Evan Schwimmer
2010 Versailles Avenue
Alameda, CA 94501
415-613-3004

On Thu, Feb 10, 2022 at 2:27 PM Vollmann, Peterson <PVollmann@oaklandca.gov> wrote:

> Will do.
>
> **Peterson Z. Vollmann** | Planner IV | City of Oakland | Bureau of Planning | 250 Frank H. Ogawa, Suite 2114 |Oakland, CA 94612 | Office Phone: (510)238-6167 | Cell Phone: (510)507-4765 | Email: pvollmann@oaklandca.gov | Website: https://www.oaklandca.gov/
>
> ---
>
> **From:** Evan Schwimmer <ewschwimmer@gmail.com>
> **Sent:** Thursday, February 10, 2022 11:37 AM
> **To:** Vollmann, Peterson <PVollmann@oaklandca.gov>
> **Subject:** 3600 Alameda Avenue
>
> [EXTERNAL] This email originated outside of the City of Oakland. Please do not click links or open attachments unless you recognize the sender and expect the message.
>
> ---
>
> Dear Mr. Vollmann,
>
> I live near a planned Oakland development project (project Planning Case file numbers PLN21223 and PLN21223-ER01). I received your contact information from Ron Briggs who also lives in the area. Would you please add me to the interested parties list?
>
> Thank you,
> Evan Schwimmer
> 2010 Versailles Ave
> Alameda, CA 94501
> ewschwimmer@gmail.com

From: Meghan Shimek
To: pvollmann@oaklandca.gov
Cc: ngallo@oaklandca.gov; atlarge@oaklandca.gov
Subject: 3600 Alameda Avenue
Date: Monday, May 2, 2022 9:31:47 AM

Hello Peterson,

I am writing today about the development at 3600 Alameda Ave. I am in favor of the development, however I am concerned about truck traffic that is currently able to go through my neighborhood. I live at 2934 Ford Street. According to the plans, the trucks will be able to drive through our neighborhood 24/7. This will create more noise, pollution and make it more difficult for the people in the neighborhood to drive on the streets. We also have old trees that may be damaged by the trucks and many of our streets don't have sidewalks, making it more difficult for pedestrians to safely walk.

We are asking that truck and employee traffic is not allowed in our neighborhood. We are asking for the expansion of 42nd Ave which stops under the 880 at Home Depot's parking lot. This 42nd Ave expansion has been talked about for over 10 years and will go through to Alameda Ave. So beside helping to eliminate traffic through Jingletown, truck traffic on 42nd Ave will help to eliminate the sideshows that occur at the 42nd Ave dead end. It will also go through and other RV camp, which will force government agencies to re-home that group of residents.

Thank you for your consideration,
Meghan Shimek

From:	Mady Shumofsky
To:	pvollmann@oaklandca.gov
Cc:	ngallo@oaklandca.gov; atlarge@oaklandca.gov
Subject:	3600 Alameda Ave
Date:	Tuesday, May 3, 2022 12:07:01 AM

Dear Peterson Vollmann, Noel Gallo, and Rebecca Kaplan,

I have been reading about the plans for the old glass factory at 3600 Alameda Avenue and I am very concerned about the impact on my neighborhood.

If it is turned into a warehouse facility for major shippers, I understand this could bring some very welcome financial and employment benefits for the city. At the same time, my concerns are that is could also mean very heavy traffic in my Jingletown neighborhood.

I am in my late 70's and I live in senior housing on the corner of 29th Ave and Glascock. I go out walking just about every day, and I see so many of my neighbors doing the same - elderly people, young people, parents wheeling strollers, children on bikes, folks of all ages walking dogs. It is an active, friendly neighborhood with a lot of foot traffic.

Our narrow streets, some without sidewalks, will not be safe if the traffic is increased by hundreds of trucks and other vehicles coming and going from the warehouse. Not safe to walk and also a lot less safe to breathe for all of us who live here! Surely this situation clearly calls for a traffic study on the impact of truck traffic on the neighborhood.

If the warehouse plan does go through, I understand that one way to mitigate the damage to the neighborhood - and expedite the traffic for the warehouse businesses as well - would be to go ahead with the long-considered extension of 42nd Avenue, which now ends near 880, so that it would connect to Alameda Ave, thus providing a much better alternative route to the proposed warehouse. Extending 42nd Ave would also eliminate the current dead-end situation which now attracts dangerous sideshows to that location.

Please respond to our neighborhood concerns. This is our home.

Thank you for your consideration.

Mady Shumofsky
430 29th Ave Unit 310
Oakland, CA 94601

From: Stephen Smith
To: pvollmann@oaklandca.gov; ngallo@oaklandca.gov; atlarge@oaklandca.gov
Subject: Case File Number: PLN21223-ER01 Concerns
Date: Monday, May 2, 2022 6:51:59 PM

Hello City planner Vollman and Councilperson Gallo and others

I am a resident and homeowner in the Jingletown neighborhood of Oakland, writing in regard to Case File Number: PLN21223-ER01. The plan to develop 3600 Alameda Ave into a warehouse facility for several shippers will bring jobs to the Oakland area which are beneficial and I am unopposed to that overall idea for development.

I do have significant concerns though with traffic driving through our neighborhood as a result though. This facility will very likely bring a substantive impacts via employee and container truck traffic passing through our neighborhood. This traffic increase may reduce neighborhood air quality which is already poor due to being so close to the freeways and also create risks for resident foot traffic who will share the roads with traffic in this area with underdeveloped sidewalks. Our neighborhood streets are also narrow and some don't current accommodate 2-way traffic and street parking at the same time, so it will increase congestion.

I would like to see a traffic and air quality impact study impact studies done for the plans and see included solutions and commitments that prevent the shipping container and employee traffic from passing though out residential streets and instead use only main thoroughfares outside of the residential area.

Thank you,
Stephen Smith

From:	Danny Wan
To:	pvollmann@oaklandca.gov; NGallo@oaklandca.gov
Cc:	Bev Angros; ronin36@sbcglobal.net; Elizabeth; drjaz55@gmail.com; Oliver Cacananta
Subject:	additional comments on 3600 Alameda - "Glass Factory Conversion" PLN21223-ER01 EIR Scoping Comments
Date:	Monday, May 2, 2022 1:21:57 PM

This is Danny Wan (resident at the Estuary in Jingletown). I sent comments on this project last week. Here are some supplemental comments:

1. The Project is half a mile away from the Fruitvale BART station. Instead of building a large employee parking lot, a program of employee shuttles or investment in a safe route from the Project to BART would be advisable both from a transportation and an air quality perspective.

2. The Attorney General has issued recommendations on best practices in the development of e-commerce and logistics warehouses. There are good suggestions in there that would apply here . https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf

3, Applicant should be required to hold a well-publicized town hall discussion with neighboring residents and businesses.

Danny Wan

On Sat, Apr 30, 2022 at 11:01 AM Danny Wan <wan.danny@gmail.com> wrote:

> RE: PLN21223-ER01: 3600 Alameda Avenue
>
> Environmental Context: Major Existing Air Quality, Safety Hazardous and Emergency access/egress Conditions.
>
> The project is located near dense residential areas to the north and west (locally referred to as the "Jingletown" area) that are heavily impacted by air pollution and are designated by OakDOT as high priority equity areas. According to the Bay Area Air Quality District data, the zip code 94601 has one of the highest pollution index in the Bay Area. The residential areas along E. 7th Street, E. 8th Street Chapman Street, Ford Street, Elmwood are currently impacted by trucks, and commercial vehicles using these very narrow and badly maintained streets to access or exit the 880 freeway at 23rd Avenue or 29th Avenue west of Fruitvale. These are not the "clean" trucks. These are often old trucks that do not yet meet the most recent clean truck standards. They move slowly through these narrow streets, stop and emit particulate pollutants. Additionally, a frequently used Union Pacific spur track lies along Glascock to access the Cemex cement plant on 23rd Avenue.
>
> These streets in these residential neighborhoods traversed by trucks, trains and

commercial vehicles are narrow, poorly maintained and unimproved with any safety features. The neighborhoods are very densely populated by families with children, elderly who often commute by foot or bikes to work or to the Fruitvale BART station. When a Union Pacific train pulls into Glascock and stalls there, it blocks access and egress of emergency vehicles to and from many of the streets and forces people to reroute to Chapman, E. 7th and Fruitvale. The conflicts between trucks, cars, trains, bikes and pedestrians already create a dangerous mix both in terms of collisions but also access and egress during fire or other emergencies.

Necessary EIR Scoping Items:

Based on the context described above, these items must be studied in the EIR

Impacts:

1. Significant additional air quality impacts from large infusion of trucks, commercial vehicles and worker vehicles into already heavily polluted environments with vulnerable residential receptors, especially by opening access to E. 7th Street to the Project traffic or allowing Project traffic to exit at Fruitvale via Elmwood/E.8th Street ,and thereby increasing traffic from Project to enter or exit 880 freeway at 23rd or 29th Avenues.
2. Significant increase to health risk from NOx and particulate air pollutants from above sources to vulnerable residential receptors, including children, elderly and residents of historically disadvantaged communities.
3. Significant impact to safety to residents and pedestrians from increased access by trucks, worker vehicles and commercial traffic along very narrow corridors alongs E 7th, Elmwood, Chapman, Ford, Glascock and other residential streets, especially by opening access to E. 7th Street to the Project traffic or allowing Project traffic to exit at Fruitvale via Elmwood/E.8th Street ,and thereby increasing traffic from Project to enter or exit 880 freeway at 23rd or 29th Avenues.
4. Significant impact to ability for emergency vehicles to access narrow and often blocked streets in the residential areas, especially by opening access to E. 7th Street to the Project traffic or allowing Project traffic to exit at Fruitvale via Elmwood/E.8th Street ,and thereby increasing traffic from Project to enter or exit 880 freeway at 23rd or 29th Avenues.
5. Significant impact to air quality, noise and safety from construction activities and traffic, including dust, uncovering of toxic materials at the site and noise from construction activities.
6. Significant impact from uncovering of toxic, remediation and processing of toxic materials on site.

Project Elements and Mitigations:

1. A mandatorily-enforced TRAFFIC and TRUCK MANAGEMENT PLAN that prohibits Project traffic (including during construction or operation) from using streets in residential neighborhoods, including E. 7th street, E. 8th Street or Elmwood west of Fruitvale, and Chapman, Ford, Glascock streets to access or exit 880 freeway at 23rd or 29th Avenue . Project traffic should not be allowed to enter or exit at the 23rd or 29th Avenue 880 freeway entrances or exits because they will necessarily have to travel through the narrow streets in the residential areas.
2. Mandatory truck routes should be designated to direct freeway entrances or exits at High Street or 66th Avenue (via Zhone Way/Oakport). Project traffic routes should direct Project traffic to Alameda Avenue south and east bound.
3. Street reconfigurations and improvements should be made to allow easier access and egress of Project traffic to 880 Freeway via High Street Current street configurations via Fruitvale, Oakport, Alameda and 37th Avenue to the High Street entrances and exits are very convoluted.
4. The extension of 37th Avenue to connect to Alameda is good but Project traffic should not be permitted to travel north or west via 37th Avenue.
5. The extension of E. 7th Street should not allow Project traffic to traverse Fruitvale Avenue west bound into the residential neighborhoods, maybe by making E.7th Street a one-way street traveling east bound onto 37th Avenue
6. Fruitvale Avenue at E.7th Street should be improved with traffic and intersection control to prohibit Project traffic from entering or exiting E.7th Street and to improve emergency vehicle access into the residential area west of Fruitvale so that emergency vehicle access is not impacted by increased Project traffic.
7. Improved pedestrian sidewalks and landscaping along Frutivale Avenue to reduce safety impacts from increased traffic.
8. Limited construction hours
9. Fugitive dust remediation
10. Noise limiting measures
11. Toxic materials handling protocols and remediation

Conclusion

I and many of our neighbors believe that the Project could be beneficial by reactivating what is currently a blight and waste, filled with homeless encampments that have made a potentially beautiful waterfront area along the Estuary a nuisance area. However, due to poor planning and a very convoluted traffic and street pattern, there is high potential for significant negative impacts to a residential community that already suffers from high air pollution and traffic safety/emergency access. A well planned project done with due consideration for

the Jingletown neighborhood and improvements to the traffic patterns would be welcomed.

I invite City planning and Project applicant to come visit and meet with the residents here. Please contact me and we could arrange.

Danny Wan

From: davidy@snet.net
To: Peterson Vollmann
Cc: Councilperson Noel Gallo; Rebeca Kaplan
Subject: Public Input for 3600 Alameda Ave Planning
Date: Tuesday, May 3, 2022 11:28:01 AM
Attachments: Plan for 3600 Alameda Ave .docx

Mr. Vollmann,
Please find the attached document with some insights for consideration.

Regards,

David G. Young, M.A.

2835 Regatta Dr
Oakland, CA 94601

510-332-2883

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Appendix B

Cumulative Projects List and Map

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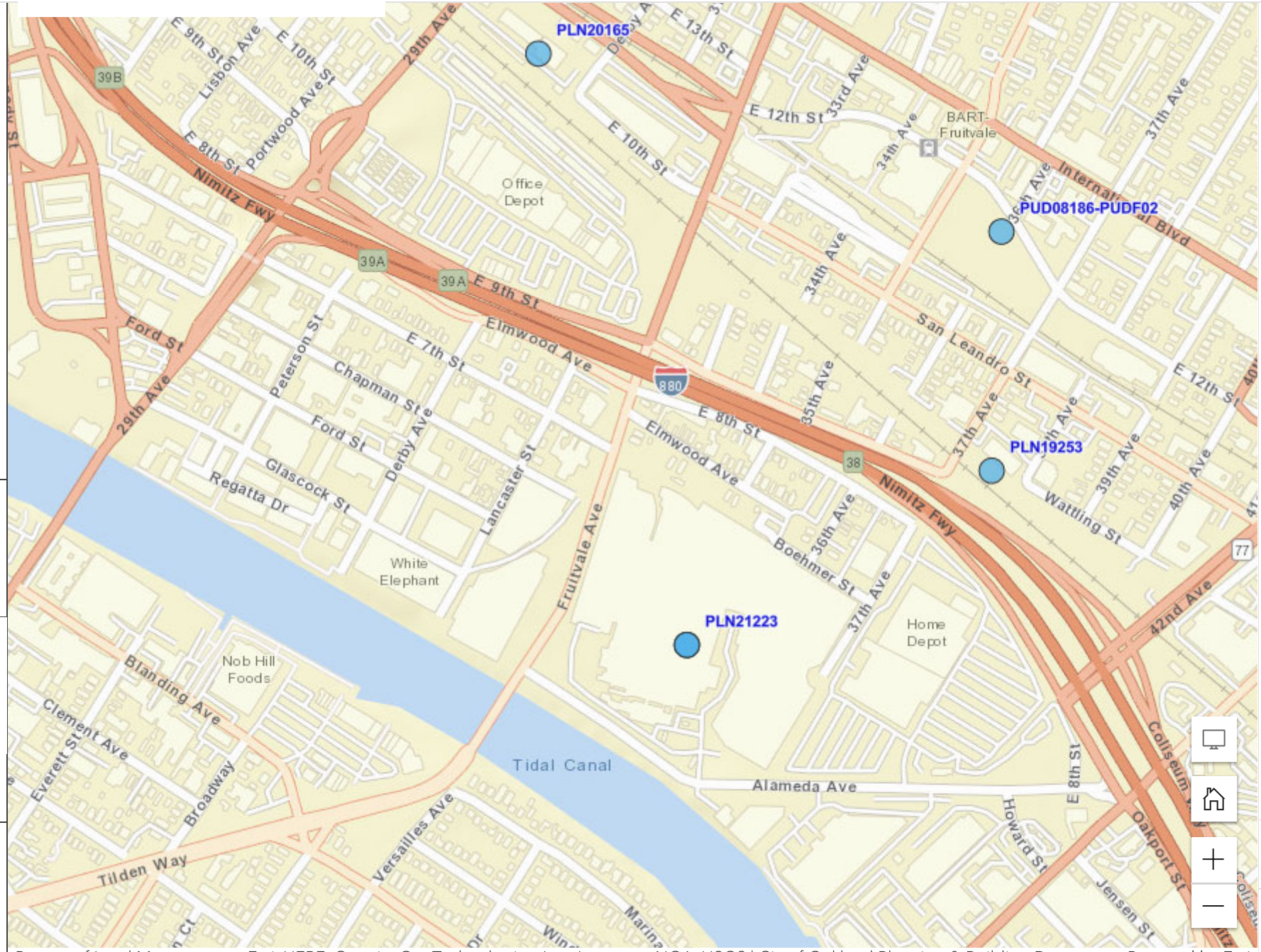
Open in Map Viewer Classic

Oakland Planning Bureau / Major Projects List - MAY 2022 /SOURCE https://ww



Bureau of Land Management, Esri, HERE, Garmin, GeoTechnologies, Inc., Intermap, NGA, USGS | Cityof Oakland Planning & Building Depart… Powered by Esri

Major Project List - Development Planning - Yes Or Total Dwelling Unit >= 25 Or Total Residential Floor Area >= 10000

Record_id	RecordType	RecordName	Open Date	Permit Status	Address	Units	Non-Residential Floor Area	Zoning	General Plan Designation	DESCRIPTION
PUD08186-PUDF02	Planning/ Applications/ Zoning/ Planned Unit Development Final	Frutivale Transit Village - Phase II-B	8/27/18	Approved-Pending Appeal	0 35TH AVE, Oakland, CA 94601	181	7274	S-15	Neighborhood Center Mixed Use	Final PUD for Phase II-B of the Fruitvale Transit Village. The proposal includes 181 affordable apartment units and 6,000 square feet of commercial space on 35th Avenue.
PLN19253	Planning/ Applications/ Zoning/ Development Permit	Sound Wall	10/4/19	Approved	3927 WATTLING ST, OAKLAND, CA	0	0	HBX-1; HBX-2; HBX-1; HBX-2; HBX-2	Housing and Business Mix; Housing and Business Mix; Housing and Business Mix	New 16-foot tall, 904 linear-foot acoustic sound wall at rear separating new residential townhome development and railroad
PLN20165	Planning/ Applications/ Zoning/ Development Permit	New Proposed School	11/20/20	Approved	1045 DERBY AVE, Oakland, CA 94601	0	30390	M-30; M-30	Regional Commercial; Regional Commercial	The proposal would result in land use approval for a public charter school serving grades 9-12 with 400 students and approximately 33 staff. The project would occur in two phases. Phase I would include a) the conversion of the former Caltrans and additional Education For Change- built buildings to a school use; b) removal of accessory structures to provide a driving aisle and 78 parking spaces, fencing and sliding gates and landscaping; c) repaving 0 29th Avenue; and d) merger of four lots. Phase II would a) demolish one existing building and remove 14 parking spaces, b) construct a 17,500 sq. ft., one-story (31’6” tall) multi-purpose building and add eight parking spaces for a final total of 72 parking spaces.

Appendix C

Air Quality and Health Risk Assessment Information

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Criteria Air Pollutants
Inputs, Calculations and CalEEMod Output

3600 Alameda Avenue - Construction data for AQ/GHG/HRA

Warehouse	429,900	square feet	15.68	acres	Using 427k consistent with traffic
Restaurant	10,000	square feet	0.51	acres	
Parking lot	336,183	square feet	7.72	acres	
Offsite asphalt area	107,675	square feet	2.47	acres	

Site Area	23.9	acres	
Building area to be demolished	1,240,000	square feet	
Volume of demo debris exported	4,800	cubic yards	based on haul truck trips provided in cell D99 for the demo phase
Concrete area to be removed		square feet	no offhaul of removed concrete
Total Proposed building area	439,900	square feet	
Volume of infill to be brought in	10,000	cubic yards	
Volume of material to be exported	0	cubic yards	
Onsite asphalt area	336,183	square feet	Forwarded email from EWK dated 12/2/21
Offsite asphalt area	107,675	square feet	Forwarded email from EWK dated 12/2/21

Construction schedule

Start date of construction	7/1/2023	updated to Q3 of 2023 based on client confirmation via EWK on 3/9/23
First year of operation	2025	

Construction Phase	From	To		# of days
Demolition	7/1/2023	9/24/2023	60	60
Offsite	9/25/2023	11/19/2023	40	40
Grading	11/20/2023	1/21/2024	45	45
Building Construction	1/22/2024	8/18/2024	150	150
Paving	8/19/2024	9/8/2024	15	15
Architectural Coating	9/9/2024	11/10/2024	45	45

Construction Equipment

Please list the types of construction equipment that would be used for each phase by selecting from the drop down menu in each cell.

Demolition

Equipment	Number	No. of Days used	Hrs/day used	Horsepower	Adj. hrs/day
Aerial Lifts	6	60	8	150	8
Air Compressors	2	60	4	50	4
Concrete/Industrial Saws	2	60	4	50	4
Crushing/Proc. Equipment	2	45	8	300	6
Dumpers/Tenders	2	45	8	300	6
Excavators	4	60	8	400	8
Other Construction Equipment	2	45	8	150	6

Offsite

Equipment	Number	No. of Days used	Hrs/day used	Horsepower	
Excavators	2	20	8	400	4
Crushing/Proc. Equipment	2	20	8	400	4
Dumpers/Tenders	12	30	8	250	6

Paving Equipment	2	8	8	400	2	

Grading

Equipment	Number	No. of Days used	Hrs/day used	Horsepower		
Excavators	2	45	8	400	8	
Dumpers/Tenders	2	45	8	300	8	
Tractors/Loaders/Backhoes	4	45	8	250	8	Various Skip Loader/ Backhoe
Rollers	2	45	8	300	8	Roller/Sheepsfoot/Blade

Building Construction

Equipment	Number	No. of Days used	Hrs/day used	Horsepower		
Aerial Lifts	6	90	6	200	4	
Rough Terrain Forklifts	4	60	6	250	2	Rough Terrain Forklift
Forklifts	2	30	6	300	1	Warehouse Forklift

Paving

Equipment	Number	No. of Days used	Hrs/day used	Horsepower		
Paving Equipment	2	4	8	400	2	Paving Machine
Skid Steer Loaders	2	10	8	400	5	Skip Loader
Rollers	2	4	8	250	2	Drum Roller/Rubber Tired Roller

Architectural Coating

Equipment	Number	No. of Days used	Hrs/day used	Horsepower		
Air Compressors	2	45	6	50	6	
Aerial Lifts	2	45	6	200	6	

Vehicle Trips

Please provide the average number of **vehicle trips** associated with workers, material delivery and hauling during each construction phase

Construction Phase	Worker Commute trips/day	Vendor Trips/day	Hauling trips/day	Hauling trips/phase	
Demolition	40	1	5	300	600
Offsite	20	5	40	1600	
Grading	20	5	2	90	1250
Building Construction	180	20	2	300	
Paving	40	20	2	30	
Architectural Coating	20	1	1	45	

Operational Data confirmed by Applicant **3600 Alameda Avenue - Operational assumptions for AQ/GHG/HRA**

	Project 1	Project 2	3600 Alameda
Equipment within the warehouse (per building)	All equipment was assumed to be electric with no contribution to direct emissions or health risk	Forklifts	Forklifts
Number of equipment		5	5
Fuel		Natural Gas	Natural Gas
hp		93	93
Load factor		0.2	0.2
Activity - Hrs/day		4	4
Activity - days/week		7	7
Equipment in the yard/parking area	Yard Tractor	Yard trucks/hostlers	Yard Tractor
Number of equipment	2	2	2
Fuel	Diesel	Propane	Diesel
hp	300	199	300
Load factor	--	0.39	0.39
Activity - Hrs/day	Two 8 hr shifts	7	8
Activity - days/week	6	7	7
Emergency Generator	--	1 per 1.5 million sqft	1
Fuel	--	Diesel	Diesel
hp	--	315	350
Testing - Hrs/day	--	--	1
Testing -- Hrs/year	--	--	50

3600 Alameda Avenue - Emissions Summaries

CONSTRUCTION EMISSIONS - Criteria Air Pollutants - Uncontrolled

Year	No. of Construction Wokdays	Tons over Construction Period						Average Pounds per day			
		ROG	NOx	Exhaust PM-10	Exhaust PM-2.5	Total PM-2.5	Fug. PM-2.5	ROG	NOx	Exhaust PM-10	Exhaust PM-2.5
2023	184	0.21	1.60	0.05	0.05	0.16	0.11	2.2	17.4	0.6	0.5
2024	315	2.53	0.72	0.02	0.02	0.09	0.07	16.0	4.6	0.1	0.1
PROJECT TOTAL	499	2.73	2.32	0.07	0.06	0.25	0.18	**10.9**	**9.3**	**0.3**	**0.3**

CONSTRUCTION EMISSIONS - Criteria Air Pollutants - Tier 4 Final for all equipment

Construction Year	No. of Construction Wokdays	Tons over Construction Period						Average Pounds per day			
		ROG	NOx	Exhaust PM-10	Exhaust PM-2.5	Total PM-2.5	Fug. PM-2.5	ROG	NOx	Exhaust PM-10	Exhaust PM-2.5
2023	184	0.08	0.62	0.051	0.049	0.160	0.11	0.8	6.7	0.6	0.5
2024	315	2.49	0.36	0.017	0.016	0.087	0.07	15.8	2.3	0.1	0.1
PROJECT TOTAL	499	2.57	0.98	0.069	0.065	0.247	0.18	**10.3**	**3.9**	**0.3**	**0.3**

OPERATIONAL EMISSIONS - Criteria Air Pollutants

Source	Tons per year				Pounds per day			
	ROG	NOx	Total PM-10	Total PM-2.5	ROG	NOx	Total PM-10	Total PM-2.5
Proposed Uses								
Area	1.986	0.000	0.000	0.000	10.9	0.0	0.00	0.00
Energy	0.000	0.000	0.000	0.000	0.0	0.0	0.0	0.0
Mobile	0.806	6.562	2.092	0.599	4.4	36.0	11.5	3.3
Offroad Equipment + Truck Idling	0.183	2.145	0.021	0.020	1.0	11.8	0.1	0.1
Emergency Generator	0.014	0.040	0.002	0.002	0.1	0.2	0.0	0.0
TOTAL	2.79	6.56	2.09	0.60	16.4	47.9	11.6	3.4

CONSTRUCTION EMISSIONS - GHG as MT CO_2e

Construction Year	CO_2	CH_4	N_2O	CO_2e
2023	597.7	0.103	0.020	606.2
2024	386.7	0.046	0.018	393.2
Total	984.4	0.148	0.038	999.4
Life of project (years)				40
Amortized annual emissions (tons/year)				25.0

OPERATIONAL EMISSIONS - GHG (MT CO_2e/year)

Operational Source	CO_2	CH_4	N_2O	CO_2e
Area	0.0	0.000	0.000	0.0
Energy	119.3	0.040	0.005	121.8
Mobile	3448.2	0.128	0.413	3574.4
Offroad Equipment + Truck Idling	490.6	0.082	0.000	492.7
Emergency Generator	6.7	0.001	0.000	6.7
Solid waste	106.2	6.276	0.000	263.1
Water & Wastewater	60.9	0.133	0.080	88.0
Total Project Operational Emissions	4065	0.251	0.418	4546.7
Project Construction Amortized Average				25.0
Total Project Emissions				4571.7

Idling Emissions Calculation

Truck Trips/day	Veh Cat	Idling time (hrs/truck trip)	Idling (hrs/day)	Emission Factor (g/hr)						
				ROG	NOx	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O
500	HHDT	0.25	125	2.3	28.6	0.012	0.012	5615.9	0.125	0.000

Emissions (pounds/day)				Emissions (tons/year)				Emissions (MT/year)			
ROG	NOx	PM_{10}	$PM_{2.5}$	ROG	NOx	PM_{10}	$PM_{2.5}$	CO_2	CH_4	N_2O	CO_2e
0.6	7.9	0.0	0.0	0.1	1.4	0.0	0.0	256.2	0.0	0.0	256.4

1 lb =	453.592	g
1 ton =	907185	g
1 MT =	1000000	g

GHG	CO_2	CH_4	N_2O
GWP	1	25	298

1 ton =	907185 g
1 MT =	1000000 g

Equipment	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e

Off-Highway Tractors hp-hr/year	724160	Load Factor	0.44									
Off-Highway Tractors - EF for 501 - 750 hp bin (g/	0.167	1.11804	1.13452	0.005	0.045	0.045		0.041	0.041	471.9169	0.153	0
Emissions (tons/yr, MT/yr for GHG)	0.058655375	0.392688958	0.398477225	0.001756149	0.01580534	0.015805341	0	0.0144	0.014400422	150.3670706	0.04875	0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

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1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	429.90	1000sqft	15.68	429,900.00	0
Other Asphalt Surfaces	107.67	1000sqft	2.47	107,670.00	0
Parking Lot	336.18	1000sqft	7.72	336,180.00	0
High Turnover (Sit Down Restaurant)	10.00	1000sqft	0.51	10,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	63
Climate Zone	5			**Operational Year**	2024
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics - https://www.energy.ca.gov/filebrowser/download/4653

Land Use - Project land uses and site areas

Construction Phase - Project schedule provided by the Applicant

Off-road Equipment - From Project Applicant

Off-road Equipment - From Project Applicant

Off-road Equipment - From Project Applicant

Off-road Equipment - From Project Applicant

Off-road Equipment - From Project Applicant

Off-road Equipment - From Project Applicant

Grading - From Project Applicant

Demolition -

Trips and VMT - From Project Applicant

Vehicle Trips - Adjusted based on trip generation in Project traffic study

Fleet Mix - Fleet mix for warehouse trips adjusted based on number of trucks and passenger vehicles from project traffic study

Energy Use - Electricity use adjusted for no natural gas

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Water And Wastewater - 100 percent aerobic treatment assumed

Operational Off-Road Equipment - From Project Applicant

Stationary Sources - Emergency Generators and Fire Pumps -

Construction Off-road Equipment Mitigation - Tier 4 Final equipment assumed for BACT

Table Name	Column Name	Default Value	New Value
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	8.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	14.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	16.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	4.00
tblConstEquipMitigation	NumberOfEquipmentMitigated	0.00	2.00
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final
tblConstEquipMitigation	Tier	No Change	Tier 4 Final

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tblConstructionPhase	NumDays	35.00	45.00
tblConstructionPhase	NumDays	440.00	150.00
tblConstructionPhase	NumDays	30.00	60.00
tblConstructionPhase	NumDays	35.00	15.00
tblConstructionPhase	NumDays	20.00	40.00
tblConstructionPhase	PhaseEndDate	1/24/2025	11/10/2024
tblConstructionPhase	PhaseEndDate	10/18/2024	8/18/2024
tblConstructionPhase	PhaseEndDate	11/11/2022	9/24/2023
tblConstructionPhase	PhaseEndDate	2/10/2023	1/21/2024
tblConstructionPhase	PhaseEndDate	12/6/2024	9/8/2024
tblConstructionPhase	PhaseEndDate	12/9/2022	11/19/2023
tblConstructionPhase	PhaseStartDate	12/7/2024	9/9/2024
tblConstructionPhase	PhaseStartDate	2/11/2023	1/22/2024
tblConstructionPhase	PhaseStartDate	10/3/2022	7/1/2023
tblConstructionPhase	PhaseStartDate	12/10/2022	11/20/2023
tblConstructionPhase	PhaseStartDate	10/19/2024	8/19/2024
tblConstructionPhase	PhaseStartDate	11/12/2022	9/25/2023
tblEnergyUse	NT24E	20.97	58.49
tblEnergyUse	NT24E	1.38	1.44
tblEnergyUse	NT24NG	128.02	0.00
tblEnergyUse	NT24NG	0.21	0.00
tblEnergyUse	T24E	2.38	13.96
tblEnergyUse	T24E	0.21	0.55
tblEnergyUse	T24NG	39.50	0.00
tblEnergyUse	T24NG	1.17	0.00
tblFleetMix	HHD	0.01	0.32
tblFleetMix	LDA	0.57	0.39
tblFleetMix	LDT1	0.06	0.04
tblFleetMix	LDT2	0.18	0.12
tblFleetMix	LHD1	0.02	0.01
tblFleetMix	LHD2	5.1690e-003	3.5540e-003
tblFleetMix	MCY	0.02	0.02

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblFleetMix	MDV	0.11	0.08
tblFleetMix	MH	2.4510e-003	1.6850e-003
tblFleetMix	MHD	0.01	9.3560e-003
tblFleetMix	OBUS	7.9200e-004	5.4500e-004
tblFleetMix	SBUS	3.3700e-004	2.3200e-004
tblFleetMix	UBUS	5.7000e-004	3.9200e-004
tblGrading	AcresOfGrading	0.00	23.90
tblGrading	MaterialImported	0.00	10,000.00
tblGrading	PhaseName		Grading
tblGrading	PhaseName		Site Preparation
tblLandUse	LotAcreage	9.87	15.68
tblLandUse	LotAcreage	0.23	0.51
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	81.00	50.00
tblOffRoadEquipment	HorsePower	65.00	400.00
tblOffRoadEquipment	HorsePower	158.00	400.00
tblOffRoadEquipment	HorsePower	158.00	400.00
tblOffRoadEquipment	HorsePower	89.00	300.00
tblOffRoadEquipment	HorsePower	63.00	200.00
tblOffRoadEquipment	HorsePower	63.00	200.00
tblOffRoadEquipment	HorsePower	132.00	400.00
tblOffRoadEquipment	HorsePower	80.00	250.00
tblOffRoadEquipment	HorsePower	158.00	400.00
tblOffRoadEquipment	HorsePower	100.00	250.00
tblOffRoadEquipment	HorsePower	16.00	300.00
tblOffRoadEquipment	HorsePower	97.00	250.00
tblOffRoadEquipment	HorsePower	80.00	300.00
tblOffRoadEquipment	HorsePower	63.00	150.00
tblOffRoadEquipment	HorsePower	78.00	50.00
tblOffRoadEquipment	HorsePower	85.00	300.00
tblOffRoadEquipment	HorsePower	16.00	300.00
tblOffRoadEquipment	HorsePower	172.00	150.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	HorsePower	85.00	400.00
tblOffRoadEquipment	HorsePower	16.00	250.00
tblOffRoadEquipment	HorsePower	132.00	400.00
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.48	0.48
tblOffRoadEquipment	LoadFactor	0.40	0.40
tblOffRoadEquipment	LoadFactor	0.31	0.31
tblOffRoadEquipment	LoadFactor	0.42	0.42
tblOffRoadEquipment	LoadFactor	0.41	0.41
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Tractors/Loaders/Backhoes
tblOffRoadEquipment	OffRoadEquipmentType		Scrapers
tblOffRoadEquipment	OffRoadEquipmentType		Rollers
tblOffRoadEquipment	OffRoadEquipmentType		Rubber Tired Dozers
tblOffRoadEquipment	OffRoadEquipmentType		Aerial Lifts
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Crushing/Proc. Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders
tblOffRoadEquipment	OffRoadEquipmentType		Other Construction Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Crushing/Proc. Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Dumpers/Tenders

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblOffRoadEquipment	OffRoadEquipmentType		Paving Equipment
tblOffRoadEquipment	OffRoadEquipmentType		Graders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	UsageHours	8.00	4.00
tblOffRoadEquipment	UsageHours	8.00	1.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	2.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOffRoadEquipment	UsageHours	8.00	0.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperDaysPerYear	260.00	365.00
tblOperationalOffRoadEquipment	OperFuelType	Diesel	CNG
tblOperationalOffRoadEquipment	OperHorsePower	89.00	93.00
tblOperationalOffRoadEquipment	OperHorsePower	124.00	300.00
tblOperationalOffRoadEquipment	OperHoursPerDay	8.00	4.00
tblOperationalOffRoadEquipment	OperLoadFactor	0.20	0.20
tblOperationalOffRoadEquipment	OperLoadFactor	0.44	0.39
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	5.00
tblOperationalOffRoadEquipment	OperOffRoadEquipmentNumber	0.00	2.00
tblProjectCharacteristics	CO2IntensityFactor	203.98	98

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	350.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	1.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	5,640.00	600.00
tblTripsAndVMT	HaulingTripNumber	0.00	3,200.00
tblTripsAndVMT	HaulingTripNumber	989.00	180.00
tblTripsAndVMT	HaulingTripNumber	0.00	600.00
tblTripsAndVMT	HaulingTripNumber	0.00	60.00
tblTripsAndVMT	HaulingTripNumber	0.00	90.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	0.00	10.00
tblTripsAndVMT	VendorTripNumber	145.00	40.00
tblTripsAndVMT	VendorTripNumber	0.00	40.00
tblTripsAndVMT	VendorTripNumber	0.00	2.00
tblTripsAndVMT	WorkerTripNumber	50.00	80.00
tblTripsAndVMT	WorkerTripNumber	45.00	40.00
tblTripsAndVMT	WorkerTripNumber	25.00	40.00
tblTripsAndVMT	WorkerTripNumber	371.00	360.00
tblTripsAndVMT	WorkerTripNumber	15.00	80.00
tblTripsAndVMT	WorkerTripNumber	74.00	40.00
tblVehicleTrips	ST_TR	122.40	57.83
tblVehicleTrips	ST_TR	1.74	3.72
tblVehicleTrips	SU_TR	142.64	67.39
tblVehicleTrips	SU_TR	1.74	3.72
tblVehicleTrips	WD_TR	112.18	53.00
tblVehicleTrips	WD_TR	1.74	3.72
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00
tblWater	AerobicPercent	87.46	100.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	AnaerobicandFacultativeLagoonsPercent	2.21	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00
tblWater	SepticTankPercent	10.33	0.00

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.2063	1.6033	1.4746	6.43E-03	0.6889	0.0514	0.7403	0.1117	0.0487	0.1604	0	597.7469	597.7469	0.1025	0.0199	606.235
2024	2.525	0.7215	1.0453	4.24E-03	0.2697	0.0173	0.287	0.0703	0.0161	0.0865	0	386.6504	386.6504	0.0456	0.0181	393.1781
Maximum	**2.525**	**1.6033**	**1.4746**	**6.43E-03**	**0.6889**	**0.0514**	**0.7403**	**0.1117**	**0.0487**	**0.1604**	**0**	**597.7469**	**597.7469**	**0.1025**	**0.0199**	**606.235**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0758	0.6193	2.4511	6.43E-03	0.6889	0.0104	0.6993	0.1117	0.0103	0.122	0	597.7463	597.7463	0.1025	0.0199	606.2345
2024	2.4927	0.3612	1.3189	4.24E-03	0.2697	4.83E-03	0.2746	0.0703	4.69E-03	0.075	0	386.6503	386.6503	0.0456	0.0181	393.1779
Maximum	**2.4927**	**0.6193**	**2.4511**	**6.43E-03**	**0.6889**	**0.0104**	**0.6993**	**0.1117**	**0.0103**	**0.122**	**0**	**597.7463**	**597.7463**	**0.1025**	**0.0199**	**606.2345**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**5.96**	**57.82**	**-49.61**	**0.00**	**0.00**	**77.85**	**5.21**	**0.00**	**76.92**	**20.22**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
3	**4-3-2023**	**7-2-2023**	0.0225	0.0077
4	**7-3-2023**	**10-2-2023**	1.0063	0.3605
5	**10-3-2023**	**1-2-2024**	0.8246	0.3412
6	**1-3-2024**	**4-2-2024**	0.3701	0.1610
7	**4-3-2024**	**7-2-2024**	0.2288	0.1412
8	**7-3-2024**	**9-30-2024**	1.0244	0.9591
		Highest	1.0244	0.9591

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.9861	7.00E-05	8.11E-03	0		3.00E-05	3.00E-05		3.00E-05	3.00E-05	0	0.0158	0.0158	4.00E-05	0	0.0168
Energy	0.0000	0	0	0		0	0		0	0	0	119.307	119.307	0.0402	4.87E-03	121.7625
Mobile	0.8055	6.5617	8.1596	0.036	2.0403	0.0514	2.0917	0.5499	0.0489	0.5989	0	3,448.18	3,448.18	0.1279	0.4129	3,574.42
Offroad	6.4100e-003	0.3129	4.4197	7.30E-04		4.72E-03	4.72E-03		4.72E-03	4.72E-03	0	84.0498	84.0498	0.0272	0	84.7294
Stationary	0.0144	0.0401	0.0366	7.00E-05		2.11E-03	2.11E-03		2.11E-03	2.11E-03	0	6.664	6.664	9.30E-04	0	6.6873
Waste						0	0		0	0	106.1866	0	106.1866	6.2755	0	263.0728
Water						0	0		0	0	36.2469	24.6724	60.9193	0.1331	0.0798	88.0359
Total	**2.8123**	**6.9148**	**12.6241**	**0.0368**	**2.0403**	**0.0583**	**2.0985**	**0.5499**	**0.0558**	**0.6057**	**142.4335**	**3,682.88**	**3,825.32**	**6.6047**	**0.4976**	**4,138.73**

Mitigated Operational

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.9861	7.00E-05	8.11E-03	0		3.00E-05	3.00E-05		3.00E-05	3.00E-05	0	0.0158	0.0158	4.00E-05	0	0.0168
Energy	0.0000	0	0	0		0	0		0	0	0	119.307	119.307	0.0402	4.87E-03	121.7625
Mobile	0.8055	6.5617	8.1596	0.036	2.0403	0.0514	2.0917	0.5499	0.0489	0.5989	0	3,448.18	3,448.18	0.1279	0.4129	3,574.42
Offroad	6.4100e-003	0.3129	4.4197	7.30E-04		4.72E-03	4.72E-03		4.72E-03	4.72E-03	0	84.0498	84.0498	0.0272	0	84.7294
Stationary	0.0144	0.0401	0.0366	7.00E-05		2.11E-03	2.11E-03		2.11E-03	2.11E-03	0	6.664	6.664	9.30E-04	0	6.6873
Waste						0	0		0	0	106.1866	0	106.1866	6.2755	0	263.0728
Water						0	0		0	0	36.2469	24.6724	60.9193	0.1331	0.0798	88.0359
Total	**2.8123**	**6.9148**	**12.6241**	**0.0368**	**2.0403**	**0.0583**	**2.0985**	**0.5499**	**0.0558**	**0.6057**	**142.4335**	**3,682.88**	**3,825.32**	**6.6047**	**0.4976**	**4,138.73**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	7/1/2023	9/24/2023	5	60	
2	Site Preparation	Site Preparation	9/25/2023	11/19/2023	5	40	
3	Grading	Grading	11/20/2023	1/21/2024	5	45	
4	Building Construction	Building Construction	1/22/2024	8/18/2024	5	150	
5	Paving	Paving	8/19/2024	9/8/2024	5	15	
6	Architectural Coating	Architectural Coating	9/9/2024	11/10/2024	5	45	

Acres of Grading (Site Preparation Phase): 0
Acres of Grading (Grading Phase): 23.9
Acres of Paving: 10.19

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 659,850; Non-Residential Outdoor: 219,950; Striped Parking Area: 26,631

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	2	6.00	50	0.48
Demolition	Concrete/Industrial Saws	2	4.00	50	0.73
Paving	Skid Steer Loaders	2	5.00	400	0.37
Demolition	Excavators	4	8.00	400	0.38
Grading	Excavators	2	8.00	400	0.38
Building Construction	Forklifts	2	1.00	300	0.20
Architectural Coating	Aerial Lifts	2	6.00	200	0.31
Building Construction	Aerial Lifts	6	4.00	200	0.31
Site Preparation	Rubber Tired Dozers	0	0.00	247	0.40
Paving	Paving Equipment	2	2.00	400	0.36
Paving	Rollers	2	2.00	250	0.38
Site Preparation	Excavators	2	4.00	400	0.38
Building Construction	Rough Terrain Forklifts	4	2.00	250	0.40
Grading	Dumpers/Tenders	2	8.00	300	0.38
Site Preparation	Tractors/Loaders/Backhoes	0	0.00	97	0.37
Grading	Scrapers	0	0.00	367	0.48
Grading	Tractors/Loaders/Backhoes	4	8.00	250	0.37
Grading	Rollers	2	8.00	300	0.38
Grading	Rubber Tired Dozers	0	0.00	247	0.40
Demolition	Aerial Lifts	6	8.00	150	0.31
Demolition	Air Compressors	2	4.00	50	0.48
Demolition	Crushing/Proc. Equipment	2	6.00	300	0.78
Demolition	Dumpers/Tenders	2	6.00	300	0.38
Demolition	Other Construction Equipment	2	6.00	150	0.42
Site Preparation	Crushing/Proc. Equipment	2	4.00	400	0.78
Site Preparation	Dumpers/Tenders	12	6.00	250	0.38
Site Preparation	Paving Equipment	2	2.00	400	0.36
Grading	Graders	0	0.00	187	0.41

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	20	80.00	2.00	600.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	18	40.00	10.00	3,200.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	10	40.00	10.00	180.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	12	360.00	40.00	600.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	80.00	40.00	60.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	4	40.00	2.00	90.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Use Cleaner Engines for Construction Equipment

3.2 Demolition - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6103	0.0000	0.6103	0.0924	0.0000	0.0924	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1194	0.7728	0.8379	2.9500e-003		0.0290	0.0290		0.0277	0.0277	0.0000	270.4488	270.4488	0.0566	0.0000	271.8635
Total	**0.1194**	**0.7728**	**0.8379**	**2.9500e-003**	**0.6103**	**0.0290**	**0.6393**	**0.0924**	**0.0277**	**0.1201**	**0.0000**	**270.4488**	**270.4488**	**0.0566**	**0.0000**	**271.8635**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.2000e-004	0.0394	8.9400e-003	1.8000e-004	5.0800e-003	3.4000e-004	5.4200e-003	1.4000e-003	3.2000e-004	1.7200e-003	0.0000	17.4808	17.4808	3.7000e-004	2.7600e-003	18.3131
Vendor	6.0000e-005	2.6200e-003	7.9000e-004	1.0000e-005	3.9000e-004	2.0000e-005	4.1000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.1607	1.1607	2.0000e-005	1.7000e-004	1.2128

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Worker	6.2800e-003	4.3000e-003	0.0534	1.6000e-004	0.0190	1.0000e-004	0.0191	5.0500e-003	9.0000e-005	5.1400e-003	0.0000	14.7755	14.7755	4.4000e-004	4.2000e-004	14.9103
Total	**6.9600e-003**	**0.0463**	**0.0631**	**3.5000e-004**	**0.0245**	**4.6000e-004**	**0.0249**	**6.5600e-003**	**4.3000e-004**	**6.9900e-003**	**0.0000**	**33.4170**	**33.4170**	**8.3000e-004**	**3.3500e-003**	**34.4362**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.6103	0.0000	0.6103	0.0924	0.0000	0.0924	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0373	0.2325	1.4177	2.9500e-003		4.7100e-003	4.7100e-003		4.7100e-003	4.7100e-003	0.0000	270.4484	270.4484	0.0566	0.0000	271.8632
Total	**0.0373**	**0.2325**	**1.4177**	**2.9500e-003**	**0.6103**	**4.7100e-003**	**0.6150**	**0.0924**	**4.7100e-003**	**0.0971**	**0.0000**	**270.4484**	**270.4484**	**0.0566**	**0.0000**	**271.8632**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.2000e-004	0.0394	8.9400e-003	1.8000e-004	5.0800e-003	3.4000e-004	5.4200e-003	1.4000e-003	3.2000e-004	1.7200e-003	0.0000	17.4808	17.4808	3.7000e-004	2.7600e-003	18.3131
Vendor	6.0000e-005	2.6200e-003	7.9000e-004	1.0000e-005	3.9000e-004	2.0000e-005	4.1000e-004	1.1000e-004	2.0000e-005	1.3000e-004	0.0000	1.1607	1.1607	2.0000e-005	1.7000e-004	1.2128
Worker	6.2800e-003	4.3000e-003	0.0534	1.6000e-004	0.0190	1.0000e-004	0.0191	5.0500e-003	9.0000e-005	5.1400e-003	0.0000	14.7755	14.7755	4.4000e-004	4.2000e-004	14.9103
Total	**6.9600e-003**	**0.0463**	**0.0631**	**3.5000e-004**	**0.0245**	**4.6000e-004**	**0.0249**	**6.5600e-003**	**4.3000e-004**	**6.9900e-003**	**0.0000**	**33.4170**	**33.4170**	**8.3000e-004**	**3.3500e-003**	**34.4362**

3.3 Site Preparation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0334	0.1829	0.1735	8.1000e-004		6.2400e-003	6.2400e-003		6.1100e-003	6.1100e-003	0.0000	79.5944	79.5944	9.5900e-003	0.0000	79.8341

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	**0.0334**	**0.1829**	**0.1735**	**8.1000e-004**	**0.0000**	**6.2400e-003**	**6.2400e-003**	**0.0000**	**6.1100e-003**	**6.1100e-003**	**0.0000**	**79.5944**	**79.5944**	**9.5900e-003**	**0.0000**	**79.8341**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.3000e-003	0.2102	0.0477	9.5000e-004	0.0271	1.7900e-003	0.0289	7.4600e-003	1.7100e-003	9.1800e-003	0.0000	93.2312	93.2312	1.9800e-003	0.0147	97.6701
Vendor	2.0000e-004	8.7500e-003	2.6400e-003	4.0000e-005	1.3100e-003	5.0000e-005	1.3700e-003	3.8000e-004	5.0000e-005	4.3000e-004	0.0000	3.8689	3.8689	5.0000e-005	5.8000e-004	4.0428
Worker	2.0900e-003	1.4300e-003	0.0178	5.0000e-005	6.3300e-003	3.0000e-005	6.3600e-003	1.6800e-003	3.0000e-005	1.7100e-003	0.0000	4.9252	4.9252	1.5000e-004	1.4000e-004	4.9701
Total	**5.5900e-003**	**0.2204**	**0.0681**	**1.0400e-003**	**0.0348**	**1.8700e-003**	**0.0366**	**9.5200e-003**	**1.7900e-003**	**0.0113**	**0.0000**	**102.0252**	**102.0252**	**2.1800e-003**	**0.0155**	**106.6830**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.8200e-003	0.0426	0.3601	8.1000e-004		1.3100e-003	1.3100e-003		1.3100e-003	1.3100e-003	0.0000	79.5943	79.5943	9.5900e-003	0.0000	79.8340
Total	**9.8200e-003**	**0.0426**	**0.3601**	**8.1000e-004**	**0.0000**	**1.3100e-003**	**1.3100e-003**	**0.0000**	**1.3100e-003**	**1.3100e-003**	**0.0000**	**79.5943**	**79.5943**	**9.5900e-003**	**0.0000**	**79.8340**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.3000e-003	0.2102	0.0477	9.5000e-004	0.0271	1.7900e-003	0.0289	7.4600e-003	1.7100e-003	9.1800e-003	0.0000	93.2312	93.2312	1.9800e-003	0.0147	97.6701
Vendor	2.0000e-004	8.7500e-003	2.6400e-003	4.0000e-005	1.3100e-003	5.0000e-005	1.3700e-003	3.8000e-004	5.0000e-005	4.3000e-004	0.0000	3.8689	3.8689	5.0000e-005	5.8000e-004	4.0428
Worker	2.0900e-003	1.4300e-003	0.0178	5.0000e-005	6.3300e-003	3.0000e-005	6.3600e-003	1.6800e-003	3.0000e-005	1.7100e-003	0.0000	4.9252	4.9252	1.5000e-004	1.4000e-004	4.9701

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	**5.5900e-003**	**0.2204**	**0.0681**	**1.0400e-003**	**0.0348**	**1.8700e-003**	**0.0366**	**9.5200e-003**	**1.7900e-003**	**0.0113**	**0.0000**	**102.0252**	**102.0252**	**2.1800e-003**	**0.0155**	**106.6830**

3.4 Grading - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0127	0.0000	0.0127	1.3700e-003	0.0000	1.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0391	0.3654	0.3149	1.1600e-003		0.0137	0.0137		0.0126	0.0126	0.0000	102.1698	102.1698	0.0330	0.0000	102.9959
Total	**0.0391**	**0.3654**	**0.3149**	**1.1600e-003**	**0.0127**	**0.0137**	**0.0263**	**1.3700e-003**	**0.0126**	**0.0139**	**0.0000**	**102.1698**	**102.1698**	**0.0330**	**0.0000**	**102.9959**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2000e-004	7.8800e-003	1.7900e-003	4.0000e-005	1.0200e-003	7.0000e-005	1.0800e-003	2.8000e-004	6.0000e-005	3.4000e-004	0.0000	3.4962	3.4962	7.0000e-005	5.5000e-004	3.6626
Vendor	1.5000e-004	6.5600e-003	1.9800e-003	3.0000e-005	9.9000e-004	4.0000e-005	1.0200e-003	2.9000e-004	4.0000e-005	3.2000e-004	0.0000	2.9016	2.9016	4.0000e-005	4.3000e-004	3.0321
Worker	1.5700e-003	1.0800e-003	0.0133	4.0000e-005	4.7400e-003	2.0000e-005	4.7700e-003	1.2600e-003	2.0000e-005	1.2800e-003	0.0000	3.6939	3.6939	1.1000e-004	1.0000e-004	3.7276
Total	**1.8400e-003**	**0.0155**	**0.0171**	**1.1000e-004**	**6.7500e-003**	**1.3000e-004**	**6.8700e-003**	**1.8300e-003**	**1.2000e-004**	**1.9400e-003**	**0.0000**	**10.0917**	**10.0917**	**2.2000e-004**	**1.0800e-003**	**10.4223**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0127	0.0000	0.0127	1.3700e-003	0.0000	1.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0143	0.0620	0.5250	1.1600e-003		1.9100e-003	1.9100e-003		1.9100e-003	1.9100e-003	0.0000	102.1697	102.1697	0.0330	0.0000	102.9958

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	**0.0143**	**0.0620**	**0.5250**	**1.1600e-003**	**0.0127**	**1.9100e-003**	**0.0146**	**1.3700e-003**	**1.9100e-003**	**3.2800e-003**	**0.0000**	**102.1697**	**102.1697**	**0.0330**	**0.0000**	**102.9958**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.2000e-004	7.8800e-003	1.7900e-003	4.0000e-005	1.0200e-003	7.0000e-005	1.0800e-003	2.8000e-004	6.0000e-005	3.4000e-004	0.0000	3.4962	3.4962	7.0000e-005	5.5000e-004	3.6626
Vendor	1.5000e-004	6.5600e-003	1.9800e-003	3.0000e-005	9.9000e-004	4.0000e-005	1.0200e-003	2.9000e-004	4.0000e-005	3.2000e-004	0.0000	2.9016	2.9016	4.0000e-005	4.3000e-004	3.0321
Worker	1.5700e-003	1.0800e-003	0.0133	4.0000e-005	4.7400e-003	2.0000e-005	4.7700e-003	1.2600e-003	2.0000e-005	1.2800e-003	0.0000	3.6939	3.6939	1.1000e-004	1.0000e-004	3.7276
Total	**1.8400e-003**	**0.0155**	**0.0171**	**1.1000e-004**	**6.7500e-003**	**1.3000e-004**	**6.8700e-003**	**1.8300e-003**	**1.2000e-004**	**1.9400e-003**	**0.0000**	**10.0917**	**10.0917**	**2.2000e-004**	**1.0800e-003**	**10.4223**

3.4 Grading - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0127	0.0000	0.0127	1.3700e-003	0.0000	1.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0194	0.1732	0.1579	5.8000e-004		6.5400e-003	6.5400e-003		6.0200e-003	6.0200e-003	0.0000	51.0746	51.0746	0.0165	0.0000	51.4876
Total	**0.0194**	**0.1732**	**0.1579**	**5.8000e-004**	**0.0127**	**6.5400e-003**	**0.0192**	**1.3700e-003**	**6.0200e-003**	**7.3900e-003**	**0.0000**	**51.0746**	**51.0746**	**0.0165**	**0.0000**	**51.4876**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	3.9600e-003	9.0000e-004	2.0000e-005	5.1000e-004	3.0000e-005	5.4000e-004	1.4000e-004	3.0000e-005	1.7000e-004	0.0000	1.7225	1.7225	4.0000e-005	2.7000e-004	1.8045
Vendor	7.0000e-005	3.2900e-003	9.7000e-004	1.0000e-005	4.9000e-004	2.0000e-005	5.1000e-004	1.4000e-004	2.0000e-005	1.6000e-004	0.0000	1.4284	1.4284	2.0000e-005	2.1000e-004	1.4927
Worker	7.3000e-004	4.8000e-004	6.2200e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3800e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.7872	1.7872	5.0000e-005	5.0000e-005	1.8029

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Total	**8.6000e-004**	**7.7300e-003**	**8.0900e-003**	**5.0000e-005**	**3.3700e-003**	**6.0000e-005**	**3.4300e-003**	**9.1000e-004**	**6.0000e-005**	**9.7000e-004**	**0.0000**	**4.9381**	**4.9381**	**1.1000e-004**	**5.3000e-004**	**5.1001**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0127	0.0000	0.0127	1.3700e-003	0.0000	1.3700e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.1600e-003	0.0310	0.2625	5.8000e-004		9.5000e-004	9.5000e-004		9.5000e-004	9.5000e-004	0.0000	51.0745	51.0745	0.0165	0.0000	51.4875
Total	**7.1600e-003**	**0.0310**	**0.2625**	**5.8000e-004**	**0.0127**	**9.5000e-004**	**0.0136**	**1.3700e-003**	**9.5000e-004**	**2.3200e-003**	**0.0000**	**51.0745**	**51.0745**	**0.0165**	**0.0000**	**51.4875**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	3.9600e-003	9.0000e-004	2.0000e-005	5.1000e-004	3.0000e-005	5.4000e-004	1.4000e-004	3.0000e-005	1.7000e-004	0.0000	1.7225	1.7225	4.0000e-005	2.7000e-004	1.8045
Vendor	7.0000e-005	3.2900e-003	9.7000e-004	1.0000e-005	4.9000e-004	2.0000e-005	5.1000e-004	1.4000e-004	2.0000e-005	1.6000e-004	0.0000	1.4284	1.4284	2.0000e-005	2.1000e-004	1.4927
Worker	7.3000e-004	4.8000e-004	6.2200e-003	2.0000e-005	2.3700e-003	1.0000e-005	2.3800e-003	6.3000e-004	1.0000e-005	6.4000e-004	0.0000	1.7872	1.7872	5.0000e-005	5.0000e-005	1.8029
Total	**8.6000e-004**	**7.7300e-003**	**8.0900e-003**	**5.0000e-005**	**3.3700e-003**	**6.0000e-005**	**3.4300e-003**	**9.1000e-004**	**6.0000e-005**	**9.7000e-004**	**0.0000**	**4.9381**	**4.9381**	**1.1000e-004**	**5.3000e-004**	**5.1001**

3.5 Building Construction - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0201	0.2310	0.1565	7.5000e-004		5.9300e-003	5.9300e-003		5.4500e-003	5.4500e-003	0.0000	65.5511	65.5511	0.0212	0.0000	66.0811
Total	**0.0201**	**0.2310**	**0.1565**	**7.5000e-004**		**5.9300e-003**	**5.9300e-003**		**5.4500e-003**	**5.4500e-003**	**0.0000**	**65.5511**	**65.5511**	**0.0212**	**0.0000**	**66.0811**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.2000e-004	0.0396	8.9800e-003	1.8000e-004	5.0800e-003	3.4000e-004	5.4200e-003	1.4000e-003	3.2000e-004	1.7200e-003	0.0000	17.2247	17.2247	3.7000e-004	2.7200e-003	18.0451
Vendor	2.9600e-003	0.1317	0.0389	5.9000e-004	0.0197	8.0000e-004	0.0205	5.7000e-003	7.6000e-004	6.4700e-003	0.0000	57.1375	57.1375	7.9000e-004	8.5600e-003	59.7084
Worker	0.0659	0.0432	0.5598	1.7500e-003	0.2135	1.0500e-003	0.2145	0.0568	9.7000e-004	0.0578	0.0000	160.8474	160.8474	4.5000e-003	4.3500e-003	162.2574
Total	**0.0695**	**0.2145**	**0.6077**	**2.5200e-003**	**0.2383**	**2.1900e-003**	**0.2405**	**0.0639**	**2.0500e-003**	**0.0660**	**0.0000**	**235.2095**	**235.2095**	**5.6600e-003**	**0.0156**	**240.0109**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	9.1700e-003	0.0397	0.3361	7.5000e-004		1.2200e-003	1.2200e-003		1.2200e-003	1.2200e-003	0.0000	65.5510	65.5510	0.0212	0.0000	66.0811
Total	**9.1700e-003**	**0.0397**	**0.3361**	**7.5000e-004**		**1.2200e-003**	**1.2200e-003**		**1.2200e-003**	**1.2200e-003**	**0.0000**	**65.5510**	**65.5510**	**0.0212**	**0.0000**	**66.0811**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.2000e-004	0.0396	8.9800e-003	1.8000e-004	5.0800e-003	3.4000e-004	5.4200e-003	1.4000e-003	3.2000e-004	1.7200e-003	0.0000	17.2247	17.2247	3.7000e-004	2.7200e-003	18.0451
Vendor	2.9600e-003	0.1317	0.0389	5.9000e-004	0.0197	8.0000e-004	0.0205	5.7000e-003	7.6000e-004	6.4700e-003	0.0000	57.1375	57.1375	7.9000e-004	8.5600e-003	59.7084
Worker	0.0659	0.0432	0.5598	1.7500e-003	0.2135	1.0500e-003	0.2145	0.0568	9.7000e-004	0.0578	0.0000	160.8474	160.8474	4.5000e-003	4.3500e-003	162.2574
Total	**0.0695**	**0.2145**	**0.6077**	**2.5200e-003**	**0.2383**	**2.1900e-003**	**0.2405**	**0.0639**	**2.0500e-003**	**0.0660**	**0.0000**	**235.2095**	**235.2095**	**5.6600e-003**	**0.0156**	**240.0109**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	1.1300e-003	0.0124	7.6300e-003	3.0000e-005		4.4000e-004	4.4000e-004		4.0000e-004	4.0000e-004	0.0000	2.6990	2.6990	8.7000e-004	0.0000	2.7208
Paving	0.0134					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0145**	**0.0124**	**7.6300e-003**	**3.0000e-005**		**4.4000e-004**	**4.4000e-004**		**4.0000e-004**	**4.0000e-004**	**0.0000**	**2.6990**	**2.6990**	**8.7000e-004**	**0.0000**	**2.7208**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	3.9600e-003	9.0000e-004	2.0000e-005	5.1000e-004	3.0000e-005	5.4000e-004	1.4000e-004	3.0000e-005	1.7000e-004	0.0000	1.7225	1.7225	4.0000e-005	2.7000e-004	1.8045
Vendor	3.0000e-004	0.0132	3.8900e-003	6.0000e-005	1.9700e-003	8.0000e-005	2.0500e-003	5.7000e-004	8.0000e-005	6.5000e-004	0.0000	5.7138	5.7138	8.0000e-005	8.6000e-004	5.9708
Worker	1.4700e-003	9.6000e-004	0.0124	4.0000e-005	4.7400e-003	2.0000e-005	4.7700e-003	1.2600e-003	2.0000e-005	1.2800e-003	0.0000	3.5744	3.5744	1.0000e-004	1.0000e-004	3.6057
Total	**1.8300e-003**	**0.0181**	**0.0172**	**1.2000e-004**	**7.2200e-003**	**1.3000e-004**	**7.3600e-003**	**1.9700e-003**	**1.3000e-004**	**2.1000e-003**	**0.0000**	**11.0106**	**11.0106**	**2.2000e-004**	**1.2300e-003**	**11.3811**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.8000e-004	1.6300e-003	0.0138	3.0000e-005		5.0000e-005	5.0000e-005		5.0000e-005	5.0000e-005	0.0000	2.6990	2.6990	8.7000e-004	0.0000	2.7208
Paving	0.0134					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0137**	**1.6300e-003**	**0.0138**	**3.0000e-005**		**5.0000e-005**	**5.0000e-005**		**5.0000e-005**	**5.0000e-005**	**0.0000**	**2.6990**	**2.6990**	**8.7000e-004**	**0.0000**	**2.7208**

Mitigated Construction Off-Site

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	6.0000e-005	3.9600e-003	9.0000e-004	2.0000e-005	5.1000e-004	3.0000e-005	5.4000e-004	1.4000e-004	3.0000e-005	1.7000e-004	0.0000	1.7225	1.7225	4.0000e-005	2.7000e-004	1.8045
Vendor	3.0000e-004	0.0132	3.8900e-003	6.0000e-005	1.9700e-003	8.0000e-005	2.0500e-003	5.7000e-004	8.0000e-005	6.5000e-004	0.0000	5.7138	5.7138	8.0000e-005	8.6000e-004	5.9708
Worker	1.4700e-003	9.6000e-004	0.0124	4.0000e-005	4.7400e-003	2.0000e-005	4.7700e-003	1.2600e-003	2.0000e-005	1.2800e-003	0.0000	3.5744	3.5744	1.0000e-004	1.0000e-004	3.6057
Total	**1.8300e-003**	**0.0181**	**0.0172**	**1.2000e-004**	**7.2200e-003**	**1.3000e-004**	**7.3600e-003**	**1.9700e-003**	**1.3000e-004**	**2.1000e-003**	**0.0000**	**11.0106**	**11.0106**	**2.2000e-004**	**1.2300e-003**	**11.3811**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3864					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0100	0.0552	0.0697	1.0000e-004		1.9300e-003	1.9300e-003		1.9300e-003	1.9300e-003	0.0000	7.3652	7.3652	8.2000e-004	0.0000	7.3856
Total	**2.3964**	**0.0552**	**0.0697**	**1.0000e-004**		**1.9300e-003**	**1.9300e-003**		**1.9300e-003**	**1.9300e-003**	**0.0000**	**7.3652**	**7.3652**	**8.2000e-004**	**0.0000**	**7.3856**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-005	5.9400e-003	1.3500e-003	3.0000e-005	7.6000e-004	5.0000e-005	8.1000e-004	2.1000e-004	5.0000e-005	2.6000e-004	0.0000	2.5837	2.5837	6.0000e-005	4.1000e-004	2.7068
Vendor	4.0000e-005	1.9800e-003	5.8000e-004	1.0000e-005	3.0000e-004	1.0000e-005	3.1000e-004	9.0000e-005	1.0000e-005	1.0000e-004	0.0000	0.8571	0.8571	1.0000e-005	1.3000e-004	0.8956
Worker	2.2000e-003	1.4400e-003	0.0187	6.0000e-005	7.1200e-003	4.0000e-005	7.1500e-003	1.8900e-003	3.0000e-005	1.9300e-003	0.0000	5.3616	5.3616	1.5000e-004	1.5000e-004	5.4086
Total	**2.3300e-003**	**9.3600e-003**	**0.0206**	**1.0000e-004**	**8.1800e-003**	**1.0000e-004**	**8.2700e-003**	**2.1900e-003**	**9.0000e-005**	**2.2900e-003**	**0.0000**	**8.8023**	**8.8023**	**2.2000e-004**	**6.9000e-004**	**9.0110**

Mitigated Construction On-Site

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	2.3864					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.7100e-003	0.0391	0.0529	1.0000e-004		1.1000e-004	1.1000e-004		1.1000e-004	1.1000e-004	0.0000	7.3652	7.3652	8.2000e-004	0.0000	7.3856
Total	**2.3881**	**0.0391**	**0.0529**	**1.0000e-004**		**1.1000e-004**	**1.1000e-004**		**1.1000e-004**	**1.1000e-004**	**0.0000**	**7.3652**	**7.3652**	**8.2000e-004**	**0.0000**	**7.3856**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	9.0000e-005	5.9400e-003	1.3500e-003	3.0000e-005	7.6000e-004	5.0000e-005	8.1000e-004	2.1000e-004	5.0000e-005	2.6000e-004	0.0000	2.5837	2.5837	6.0000e-005	4.1000e-004	2.7068
Vendor	4.0000e-005	1.9800e-003	5.8000e-004	1.0000e-005	3.0000e-004	1.0000e-005	3.1000e-004	9.0000e-005	1.0000e-005	1.0000e-004	0.0000	0.8571	0.8571	1.0000e-005	1.3000e-004	0.8956
Worker	2.2000e-003	1.4400e-003	0.0187	6.0000e-005	7.1200e-003	4.0000e-005	7.1500e-003	1.8900e-003	3.0000e-005	1.9300e-003	0.0000	5.3616	5.3616	1.5000e-004	1.5000e-004	5.4086
Total	**2.3300e-003**	**9.3600e-003**	**0.0206**	**1.0000e-004**	**8.1800e-003**	**1.0000e-004**	**8.2700e-003**	**2.1900e-003**	**9.0000e-005**	**2.2900e-003**	**0.0000**	**8.8023**	**8.8023**	**2.2000e-004**	**6.9000e-004**	**9.0110**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.8055	6.5617	8.1596	0.0360	2.0403	0.0514	2.0917	0.5499	0.0489	0.5989	0.0000	3,448.1758	3,448.1758	0.1279	0.4129	3,574.4230
Unmitigated	0.8055	6.5617	8.1596	0.0360	2.0403	0.0514	2.0917	0.5499	0.0489	0.5989	0.0000	3,448.1758	3,448.1758	0.1279	0.4129	3,574.4230

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
High Turnover (Sit Down Restaurant)	530.00	578.30	673.90	646,798	646,798

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	1,599.23	1,599.23	1599.23	4,668,964	4,668,964
Total	2,129.23	2,177.53	2,273.13	5,315,762	5,315,762

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
High Turnover (Sit Down Restaurant)	9.50	7.30	7.30	8.50	72.50	19.00	37	20	43
Other Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No Rail	9.50	7.30	7.30	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
High Turnover (Sit Down Restaurant)	0.569946	0.056495	0.180011	0.112201	0.020944	0.005169	0.013608	0.012941	0.000792	0.000570	0.024535	0.000337	0.002451
Other Asphalt Surfaces	0.569946	0.056495	0.180011	0.112201	0.020944	0.005169	0.013608	0.012941	0.000792	0.000570	0.024535	0.000337	0.002451
Parking Lot	0.569946	0.056495	0.180011	0.112201	0.020944	0.005169	0.013608	0.012941	0.000792	0.000570	0.024535	0.000337	0.002451
Unrefrigerated Warehouse-No Rail	0.391838	0.038840	0.123758	0.077138	0.014399	0.003554	0.009356	0.321397	0.000545	0.000392	0.016868	0.000232	0.001685

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	119.3070	119.3070	0.0402	4.8700e-003	121.7625
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	119.3070	119.3070	0.0402	4.8700e-003	121.7625
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
High Turnover (Sit Down Restaurant)	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Land Use	kWh/yr	MT/yr			
High Turnover (Sit Down Restaurant)	777900	34.5793	0.0116	1.4100e-003	35.2910
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	117663	5.2304	1.7600e-003	2.1000e-004	5.3380
Unrefrigerated Warehouse-No Rail	1.78838e+006	79.4973	0.0268	3.2400e-003	81.1335
Total		**119.3070**	**0.0402**	**4.8600e-003**	**121.7625**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
High Turnover (Sit Down Restaurant)	777900	34.5793	0.0116	1.4100e-003	35.2910
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	117663	5.2304	1.7600e-003	2.1000e-004	5.3380
Unrefrigerated Warehouse-No Rail	1.78838e+006	79.4973	0.0268	3.2400e-003	81.1335
Total		**119.3070**	**0.0402**	**4.8600e-003**	**121.7625**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.9861	7.0000e-005	8.1100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0158	0.0158	4.0000e-005	0.0000	0.0168
Unmitigated	1.9861	7.0000e-005	8.1100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0158	0.0158	4.0000e-005	0.0000	0.0168

6.2 Area by SubCategory

3600 Alameda Light Industrial - Alameda County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2386					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7467					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.5000e-004	7.0000e-005	8.1100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0158	0.0158	4.0000e-005	0.0000	0.0168
Total	**1.9861**	**7.0000e-005**	**8.1100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0158**	**0.0158**	**4.0000e-005**	**0.0000**	**0.0168**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.2386					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	1.7467					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	7.5000e-004	7.0000e-005	8.1100e-003	0.0000		3.0000e-005	3.0000e-005		3.0000e-005	3.0000e-005	0.0000	0.0158	0.0158	4.0000e-005	0.0000	0.0168
Total	**1.9861**	**7.0000e-005**	**8.1100e-003**	**0.0000**		**3.0000e-005**	**3.0000e-005**		**3.0000e-005**	**3.0000e-005**	**0.0000**	**0.0158**	**0.0158**	**4.0000e-005**	**0.0000**	**0.0168**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	60.9193	0.1331	0.0798	88.0359
Unmitigated	60.9193	0.1331	0.0798	88.0359

7.2 Water by Land Use

3600 Alameda Light Industrial - Alameda County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High Turnover (Sit Down Restaurant)	3.03534 / 0.193745	1.8341	3.9500e-003	2.3700e-003	2.6381
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	99.4144 / 0	59.0851	0.1291	0.0775	85.3977
Total		**60.9193**	**0.1331**	**0.0798**	**88.0359**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
High Turnover (Sit Down Restaurant)	3.03534 / 0.193745	1.8341	3.9500e-003	2.3700e-003	2.6381
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	99.4144 / 0	59.0851	0.1291	0.0775	85.3977
Total		**60.9193**	**0.1331**	**0.0798**	**88.0359**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	106.1866	6.2755	0.0000	263.0728

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

Unmitigated	106.1866	6.2755	0.0000	263.0728

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High Turnover (Sit Down Restaurant)	119	24.1559	1.4276	0.0000	59.8453
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	404.11	82.0307	4.8479	0.0000	203.2275
Total		**106.1866**	**6.2754**	**0.0000**	**263.0728**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
High Turnover (Sit Down Restaurant)	119	24.1559	1.4276	0.0000	59.8453
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	404.11	82.0307	4.8479	0.0000	203.2275
Total		**106.1866**	**6.2754**	**0.0000**	**263.0728**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
Forklifts	5	4.00	365	93	0.20	CNG
Off-Highway Tractors	2	8.00	365	300	0.39	Diesel

3600 Alameda Light Industrial - Alameda County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

UnMitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Forklifts	6.4100e-003	0.3129	4.4197	7.3000e-004		4.7200e-003	4.7200e-003		4.7200e-003	4.7200e-003	0.0000	84.0498	84.0498	0.0272	0.0000	84.7294
Off-Highway Tractors																
Total	**6.4100e-003**	**0.3129**	**4.4197**	**7.3000e-004**		**4.7200e-003**	**4.7200e-003**		**4.7200e-003**	**4.7200e-003**	**0.0000**	**84.0498**	**84.0498**	**0.0272**	**0.0000**	**84.7294**

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	1	50	350	0.73	Diesel

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (300 - 600 HP)	0.0144	0.0401	0.0366	7.0000e-005		2.1100e-003	2.1100e-003		2.1100e-003	2.1100e-003	0.0000	6.6640	6.6640	9.3000e-004	0.0000	6.6873
Total	**0.0144**	**0.0401**	**0.0366**	**7.0000e-005**		**2.1100e-003**	**2.1100e-003**		**2.1100e-003**	**2.1100e-003**	**0.0000**	**6.6640**	**6.6640**	**9.3000e-004**	**0.0000**	**6.6873**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Not Applied

11.0 Vegetation

Health Risk Assessment
Calculations and AERMOD Output

3600 Alameda Avenue - Construction Health Risk Assessment
Residential

Onsite DPM Emissions per Year (tons)

Year	Uncontrolled	Tier 4
2023	0.05	5.14E-02
2024	0.02	1.73E-02

$PM_{2.5}$ Concentration

Total tons/year	Emission Rate (g/s)	$PM_{2.5}$ Conc. ($\mu g/m^3$)	
0.05	0.001	0.01	Uncontrolled
0.049	0.0014	0.01	Tier 4

Emission Rates - Scaling Factors (g/s)

Year	Uncontrolled	Tier 4
2023	0.0083	0.0083
2024	0.0016	0.0016

Exposure Duration in seconds	
2023	5646857
2024	9689143

AERMOD Output [$\mu g/m^3$]/[g/s]

				UTM X	UTM Y
Annual Average	Resident	8.14539	$\mu g/m^3$	568132.29	4180726.94

Residence north of project site at 3413 Elmwood Avenue

Emission Impact - ($\mu g/m^3$)

Year	Uncontrolled	Tier 4
2023	6.73E-02	6.73E-02
2024	1.32E-02	1.32E-02

Age Group	3rd Trimester	Age 0<2	Age 2<16
Exposure Duration	91	639	5110
2023	0.25	0.25	0.00
2024	0.00	0.86	0.00

Cancer Risk = Dose inhalation × Inhalation CPF × ASF × ED/AT × FAH **(Equation 8.2.4 A)**

Where:

Cancer Risk = residential inhalation cancer risk

Dose inhalation (mg/kg-day) = C_{AIR} × DBR × A × EF × 10^{-6} **(Equation 2)**

Inhalation CPF = inhalation cancer potency factor ($[mg/kg/day]^{-1}$)
ASF = age sensitivity factor for a specified age group (unitless)
ED = exposure duration for a specified age group (years)
AT = averaging time period over which exposure is averaged in days (years)
FAH = fraction of time at home (unitless)

Where:

C_{AIR} = concentration of compound in air in micrograms per cubic meter ($\mu g/m^3$)
DBR = daily breathing rate in liter per kilogram of body weight per day (L/kg-body weight/day)
A = inhalation absorption factor (1 for DPM, unitless)
EF = exposure frequency in days per year (unitless, days/365 days)
10^{-6} = micrograms to milligrams conversion, liters to cubic meters conversion

Dose Inhalation Inputs

Receptor Type	Exposure Scenario	Receptor Group Age	Uncontrolled C_{AIR} ($\mu g/m^3$)	Tier 4 C_{AIR} ($\mu g/m^3$)	DBR (L/kg-day)	A (unitless)	EF (days/year)
Off-Site Child Resident	Construction	3rd Trimester	6.73E-02	6.73E-02	361	1	0.96
		Age 0<2	2.54E-02	2.54E-02	1090	1	0.96
		Age 2<16	0.00E+00	0.00E+00	745	1	0.96

Dose Inhalation Outputs

Receptor Type	Exposure Scenario	Receptor Group Age	Uncontrolled Dose inhalation (mg/kg-day)	Tier 4 Dose inhalation (mg/kg-day)
Off-Site Child Resident	Construction	3rd Trimester	2.33E-05	2.33E-05
		Age 0<2	2.66E-05	2.66E-05
		Age 2<16	0.00E+00	0.00E+00

Risk Inputs

Receptor Type	Exposure Scenario	Receptor Group Age	CPF ($mg/kg\text{-}day^{-1}$)	ASF (unitless)	ED (years)	AT (years)	FAH (unitless)	REL ($\mu g/m^3$)
Off-Site Child Resident	Construction	3rd Trimester	1.1	10	0.25	70.00	0.85	5
		Age 0<2	1.1	10	1.11	70.00	0.85	5
		Age 2<16	1.1	3	0.00	70.00	0.72	5

Risk Outputs

Receptor Type	Exposure Scenario	Receptor Group Age	Uncontrolled Cancer Risk	Tier 4 Cancer Risk	Uncontrolled Chronic Non-Cancer Risk	Tier 4 Chronic Non-Cancer Risk
Off-Site Child Resident	Construction	3rd Trimester	7.77E-07	7.77E-07		
		Age 0<2	3.95E-06	3.95E-06		
		Age 2<16	0.00E+00	0.00E+00		
		Total Risk	4.72E-06	4.72E-06	0.013	0.013
		Risk per Million	4.72	4.72	NA	NA

SOURCE: Office of Environmental Health Hazard Assessment, 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments* . February.
Daily breathing rate for residential receptor is based on the OEHHA 95th percentile moderate intensity breathing rates (OEHHA Table 5.7).
Fraction of time at home is set to values per OEHHA Table 8.4 for residential since the nearest school has an unmitigated cancer risk of <1 per million.
Inhalation cancer potency factor from OEHHA Table 7.1

3600 Alameda Avenue - Construction Health Risk Assessment
Schools

Onsite DPM Emissions per Year (tons)

Year	Uncontrolled	Tier 4
2023	0.05	5.14E-02
2024	0.02	1.73E-02

Emission Rates - Scaling Factors (g/s)

Year	Uncontrolled	Tier 4
2023	0.0083	0.0083
2024	0.0016	0.0016

AERMOD Output [µg/m^3]/[g/s]

Annual Average**	Lazear Charter Academy	0.15
	Ascend Elementary School	0.39
	Arise High School	0.17

**spacial averaging applied

$PM_{2.5}$ Concentration

Total tons/year	Emission Rate (g/s)	Lazear Charter Academy	Ascend Elementary School	Arise High School	$PM_{2.5}$ Conc. (µg/m^3)
0.05	0.001	0.0002	0.0006	0.008	Uncontrolled
0.049	0.0014	0.0002	0.0006	0.0082	Tier 4

Exposure Duration in seconds	
2023	5646857
2024	9689143

Emission Impact - (µg/m^3)

Uncontrolled

Year	Lazear Charter Academy	Ascend Elementary School	Arise High School
2023	1.22E-03	3.25E-03	1.38E-03
2024	2.39E-04	6.38E-04	2.71E-04

Tier 4

Year	Lazear Charter Academy	Ascend Elementary School	Arise High School
2023	1.22E-03	3.25E-03	1.38E-03
2024	2.39E-04	6.38E-04	2.71E-04

	Lazear Charter Academy	Ascend Elementary School	Arise High School
Age Group	Age 2<16	Age 2<16	Age 2<16
Exposure Duration	497	497	497
2023	0.50	0.50	0.50
2024	0.86	0.86	0.86
	1.36	1.36	1.36

Cancer Risk = Dose inhalation × Inhalation CPF × ASF × ED/AT × FAH **(Equation 8.2.4 A)**

Where:

Cancer Risk = residential inhalation cancer risk

Dose inhalation (mg/kg-day) = C_{AIR} × DBR × A × EF × 10^{-6} **(Equation 2)**

Inhalation CPF = inhalation cancer potency factor ([mg/kg/day]$^{-1}$)
ASF = age sensitivity factor for a specified age group (unitless)
ED = exposure duration for a specified age group (years)
AT = averaging time period over which exposure is averaged in days (years)
FAH = fraction of time at home (unitless)

Where:

C_{AIR} = concentration of compound in air in micrograms per cubic meter (µg/m^3)
DBR = daily breathing rate in liter per kilogram of body weight per day (L/kg-body weight/day)
A = inhalation absorption factor (1 for DPM, unitless)
EF = exposure frequency in days per year (unitless, days/365 days)
10^{-6} = micrograms to milligrams conversion, liters to cubic meters conversion

Dose Inhalation Inputs

Receptor Type	Exposure Scenario	Receptor Group Age	Uncontrolled C_{AIR} (µg/m^3)	Tier 4 C_{AIR} (µg/m^3)	8hr-DBR (L/kg-day)	A (unitless)	EF (days/year)
Lazear Charter Academy	Construction	Age 2<16	6.01E-04	6.01E-04	520	1	0.49
Ascend Elementary School	Construction	Age 2<16	1.60E-03	1.60E-03	520	1	0.49
Arise High School	Construction	Age 2<16	6.81E-04	6.81E-04	520	1	0.49

Dose Inhalation Outputs

Receptor Type	Exposure Scenario	Receptor Group Age	Uncontrolled Dose inhalation (mg/kg-day)	Tier 4 Dose inhalation (mg/kg-day)
Lazear Charter Academy	Construction	Age 2<16	1.53E-07	1.53E-07
Ascend Elementary School	Construction	Age 2<16	4.08E-07	4.08E-07
Arise High School	Construction	Age 2<16	1.74E-07	1.74E-07

Risk Inputs

Receptors	Exposure Scenario	Receptor Group Age	CPF (mg/kg-day^{-1})	ASF (unitless)	ED (years)	AT (years)	FAH (unitless)	REL (µg/m^3)
All schools	Construction	Age 2<16	1.1	3	1.36	70.00	1	5

Risk Outputs

Receptor Type	Exposure Scenario	Receptor Group Age	Uncontrolled Cancer Risk	Tier 4 Cancer Risk	Uncontrolled Chronic Non-Cancer Risk	Tier 4 Chronic Non-Cancer Risk
Lazear Charter Academy	Construction		9.83E-09	9.83E-09	1.20E-04	1.20E-04
Ascend Elementary School	Construction	Age 2<16	2.62E-08	2.62E-08	3.20E-04	3.20E-04
Arise High School	Construction		1.11E-08	1.11E-08	1.36E-04	1.36E-04
		Risk per Million				
		Lazear Charter Academy	0.010	0.010	--	--
		Ascend Elementary School	0.03	0.026	--	--
		Arise High School	0.011	0.011	--	--

SOURCE: Office of Environmental Health Hazard Assessment, 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments* . February.
Daily breathing rate for school receptor is based on the OEHHA 95th percentile 8-hour moderate intensity breathing rates (Table 5.8).
Inhalation cancer potency factor from Table 7.1

3600 Alameda Avenue - Operational Health Risk Assessment
Residential

Haul Truck Trip Lengths

	Trucks trips	
Trip Length	8.00	miles
	12873	meters

Haul Truck Adjustment Factor to Model

Source	Trucks trips
Truck Route 1	0.06
Truck Route 2	0.07
Truck Route 3	0.07

Land Use	Non-residential trip length (miles)			% of trips			% of trips			Annual VMT	VMT per day			Trip length (miles)
	C - C	C - W	C - NW	Primary	Diverted	Passby	C - C	C - W	C - NW		Wkdy	Sat	Sun	
Restaurant	7.3	9.5	7.3	37	20	43	72.5	8.5	19	646797.7666				
Warehouse	7.3	9.5	7.3	92	5	3	0	59	41	4668963.961	12791.682	12791.68209	12791.682	7.9986607

Modeled Truck Routes

	Truck Route 1	Truck Route 2	Truck Route 3	
Trip Length	708.6	888	905.7	meters

from AERMOD

Fraction of Project Truck Traffic on Routes

	Truck Route 1	Truck Route 2	Truck Route 3
Fraction of Traffic	1	0.175	0.175

from Fehr & Peers

Haul Truck Adjustment Factor to Model

Source	Trucks trips
Truck Route 1	0.06
Truck Route 2	0.07
Truck Route 3	0.07

			Days			
Operation Source	Start Date	End Date	3rd Trimester	Age 0<2	Age 2<16	Age 16<30
Truck Idling + Equipment	Annual		91	730	5110	5110
Emergency Generator	Annual		91	730	5110	5110
Truck Route 1	Annual		91	730	5110	5110
Truck Route 2	Annual		91	730	5110	5110
Truck Route 3	Annual		91	730	5110	5110

			DPM (tons)	$PM_{2.5}$ (tons)	DPM (g/s)	$PM_{2.5}$ (g/s)
Operation Source	Start Date	End Date	Annual O&M	Annual O&M	Annual O&M	Annual O&M
Truck Idling + Equipment	Annual		2.11E-02	1.97E-02	1.22E-03	1.13E-03
Emergency Generator	Annual		2.11E-03	2.11E-03	6.07E-05	6.07E-05
Truck Route 1	Annual		2.83E-03	2.69E-03	8.14E-05	7.74E-05
Truck Route 2	Annual		6.21E-04	5.90E-04	1.78E-05	1.70E-05
Truck Route 3	Annual		6.33E-04	6.02E-04	1.82E-05	1.73E-05

Risk Factors

	Abbreviation	UOM	3rd Trimester	0<2	2<16	16<30
Daily Breathing Rate (95th %'ile)	DBR	L/kg-day	361	1090	572	261
Fraction Of Time At Home	FAH	unitless	0.85	0.85	0.72	0.73
Exposure Frequency	EF	days/year	0.96	0.96	0.96	0.96
Age Sensitivity Factor	ASF	unitless	10	10	3	1
Inhalation Absorption Factor	A	unitless	1	1	1	1
Conversion Factor	CF_1	m^3/L	0.001	0.001	0.001	0.001
Conversion Factor	CF_2	$\mu g/m^3$	0.001	0.001	0.001	0.001
Cancer Potency Factor (diesel exhaust)	CPF	$mg/kg\text{-}day^{-1}$	1.1	1.1	1.1	1.1
Averaging Time (for residential exposure)	AT	years	70	70	70	70

Intake Factor for Inhalation, IF (m^3/kg-day) = DBR*FAH*EF*ED*ASF*A*CF/AT

Operational Source	Year	3rd Trimester	0<2	2<16	16<30
All sources	Annual	0.010	0.254	0.237	0.037

Risk Calculation Part 1, R1 = IF*CPF*CF

Year	3rd Trimester	0<2	2<16	16<30
Annual	1.15E-05	2.79E-04	2.61E-04	4.02E-05

Hazard Index

Chronic Inhalation	REL	$\mu g/m^3$	5

Residential

	Max Risk	UTM X	UTM Y
Cancer	3.13	568232.29	4180686.94
HI	0.001	568232.29	4180686.94
$PM_{2.5}$	0.01	568232.29	4180686.94

Diesel Particulate Matter concentration, C_{DPM} ($\mu g/m^3$)

Lookup	X (UTM)	Y (UTM	Annual O&M						Receptor Type
			Truck Idling + Equipment	Emergency Generator	Truck Route 1	Truck Route 2	Truck Route 3	Total	
567412.29_4179946.94	567412.29	4179946.94	1.68E-04	3.71E-05	1.44E-04	1.97E-05	1.90E-05	3.87E-04	potential residence
567432.29_4179946.94	567432.29	4179946.94	1.71E-04	3.74E-05	1.49E-04	2.00E-05	1.92E-05	3.97E-04	potential residence
567472.29_4179946.94	567472.29	4179946.94	1.78E-04	3.79E-05	1.60E-04	2.06E-05	1.98E-05	4.16E-04	potential residence
567492.29_4179946.94	567492.29	4179946.94	1.81E-04	3.82E-05	1.65E-04	2.10E-05	2.01E-05	4.26E-04	potential residence
567512.29_4179946.94	567512.29	4179946.94	1.84E-04	3.84E-05	1.71E-04	2.13E-05	2.03E-05	4.35E-04	potential residence
567532.29_4179946.94	567532.29	4179946.94	1.87E-04	3.87E-05	1.77E-04	2.16E-05	2.06E-05	4.45E-04	potential residence
567552.29_4179946.94	567552.29	4179946.94	1.91E-04	3.92E-05	1.82E-04	2.20E-05	2.09E-05	4.55E-04	potential residence
567572.29_4179946.94	567572.29	4179946.94	1.98E-04	3.95E-05	1.88E-04	2.23E-05	2.12E-05	4.69E-04	potential residence
567592.29_4179946.94	567592.29	4179946.94	1.96E-04	3.96E-05	1.94E-04	2.27E-05	2.15E-05	4.73E-04	potential residence
567612.29_4179946.94	567612.29	4179946.94	1.98E-04	3.99E-05	1.99E-04	2.30E-05	2.18E-05	4.82E-04	potential residence

Risk Calculation Part 2

$\sum R1*C_{DPM}$					HI	$PM_{2.5}$					
3rd Trimester	0<2	2<16	2<16	Total	C_{DPM}/REL	Annual O&M					
						Truck Idling + Equipment	Emergency Generator	Truck Route 1	Truck Route 2	Truck Route 3	Total
4.47E-09	1.08E-07	1.01E-07	1.56E-08	0.23	0.00	1.56E-04	3.71E-05	1.37E-04	1.87E-05	1.80E-05	3.67E-04
4.58E-09	1.11E-07	1.03E-07	1.60E-08	0.23	0.00	1.60E-04	3.74E-05	1.42E-04	1.90E-05	1.83E-05	3.76E-04
4.79E-09	1.16E-07	1.08E-07	1.67E-08	0.25	0.00	1.66E-04	3.79E-05	1.52E-04	1.96E-05	1.88E-05	3.94E-04
4.91E-09	1.19E-07	1.11E-07	1.71E-08	0.25	0.00	1.69E-04	3.82E-05	1.57E-04	2.00E-05	1.91E-05	4.03E-04
5.02E-09	1.21E-07	1.13E-07	1.75E-08	0.26	0.00	1.72E-04	3.84E-05	1.63E-04	2.03E-05	1.93E-05	4.12E-04
5.13E-09	1.24E-07	1.16E-07	1.79E-08	0.26	0.00	1.75E-04	3.87E-05	1.68E-04	2.06E-05	1.96E-05	4.22E-04
5.24E-09	1.27E-07	1.19E-07	1.83E-08	0.27	0.00	1.78E-04	3.92E-05	1.73E-04	2.09E-05	1.99E-05	4.31E-04
5.40E-09	1.31E-07	1.22E-07	1.88E-08	0.28	0.00	1.84E-04	3.95E-05	1.79E-04	2.12E-05	2.01E-05	4.44E-04
5.45E-09	1.32E-07	1.23E-07	1.90E-08	0.28	0.00	1.82E-04	3.96E-05	1.84E-04	2.16E-05	2.04E-05	4.48E-04
5.56E-09	1.35E-07	1.26E-07	1.94E-08	0.29	0.00	1.84E-04	3.99E-05	1.90E-04	2.19E-05	2.07E-05	4.57E-04

567652.29_4179946.94	567652.29	4179946.94	2.08E-04	4.10E-05	2.11E-04	2.37E-05	2.23E-05	5.06E-04	potential residence	5.83E-09	1.41E-07	1.32E-07	2.03E-08	0.30	0.00	1.94E-04	4.10E-05	2.01E-04	2.26E-05	2.12E-05	4.79E-04
567672.29_4179946.94	567672.29	4179946.94	2.10E-04	4.14E-05	2.17E-04	2.41E-05	2.26E-05	5.15E-04	potential residence	5.93E-09	1.44E-07	1.34E-07	2.07E-08	0.30	0.00	1.96E-04	4.14E-05	2.06E-04	2.29E-05	2.15E-05	4.88E-04
567692.29_4179946.94	567692.29	4179946.94	2.12E-04	4.18E-05	2.22E-04	2.45E-05	2.29E-05	5.24E-04	potential residence	6.04E-09	1.46E-07	1.36E-07	2.10E-08	0.31	0.00	1.98E-04	4.18E-05	2.11E-04	2.33E-05	2.18E-05	4.96E-04
567712.29_4179946.94	567712.29	4179946.94	2.14E-04	4.21E-05	2.28E-04	2.48E-05	2.32E-05	5.32E-04	potential residence	6.13E-09	1.48E-07	1.39E-07	2.14E-08	0.31	0.00	1.99E-04	4.21E-05	2.17E-04	2.36E-05	2.21E-05	5.04E-04
567732.29_4179946.94	567732.29	4179946.94	2.16E-04	4.22E-05	2.33E-04	2.52E-05	2.35E-05	5.40E-04	potential residence	6.22E-09	1.51E-07	1.41E-07	2.17E-08	0.32	0.00	2.01E-04	4.22E-05	2.22E-04	2.40E-05	2.24E-05	5.12E-04
567752.29_4179946.94	567752.29	4179946.94	2.18E-04	4.24E-05	2.39E-04	2.56E-05	2.38E-05	5.48E-04	potential residence	6.32E-09	1.53E-07	1.43E-07	2.20E-08	0.32	0.00	2.03E-04	4.24E-05	2.27E-04	2.44E-05	2.26E-05	5.19E-04
567772.29_4179946.94	567772.29	4179946.94	2.20E-04	4.23E-05	2.44E-04	2.60E-05	2.41E-05	5.56E-04	potential residence	6.41E-09	1.55E-07	1.45E-07	2.24E-08	0.33	0.00	2.05E-04	4.23E-05	2.32E-04	2.47E-05	2.29E-05	5.27E-04
567792.29_4179946.94	567792.29	4179946.94	2.22E-04	4.23E-05	2.49E-04	2.64E-05	2.44E-05	5.64E-04	potential residence	6.50E-09	1.57E-07	1.47E-07	2.27E-08	0.33	0.00	2.07E-04	4.23E-05	2.37E-04	2.51E-05	2.32E-05	5.34E-04
567812.29_4179946.94	567812.29	4179946.94	2.24E-04	4.22E-05	2.54E-04	2.68E-05	2.47E-05	5.72E-04	potential residence	6.60E-09	1.60E-07	1.49E-07	2.30E-08	0.34	0.00	2.09E-04	4.22E-05	2.42E-04	2.55E-05	2.35E-05	5.42E-04
567852.29_4179946.94	567852.29	4179946.94	2.30E-04	4.22E-05	2.65E-04	2.75E-05	2.53E-05	5.90E-04	potential residence	6.80E-09	1.65E-07	1.54E-07	2.37E-08	0.35	0.00	2.14E-04	4.22E-05	2.52E-04	2.62E-05	2.41E-05	5.59E-04
567872.29_4179946.94	567872.29	4179946.94	2.33E-04	4.22E-05	2.70E-04	2.79E-05	2.56E-05	5.99E-04	potential residence	6.91E-09	1.67E-07	1.56E-07	2.41E-08	0.35	0.00	2.18E-04	4.22E-05	2.57E-04	2.66E-05	2.43E-05	5.68E-04
567892.29_4179946.94	567892.29	4179946.94	2.37E-04	4.21E-05	2.75E-04	2.83E-05	2.59E-05	6.09E-04	potential residence	7.02E-09	1.70E-07	1.59E-07	2.45E-08	0.36	0.00	2.21E-04	4.21E-05	2.62E-04	2.69E-05	2.46E-05	5.77E-04
567912.29_4179946.94	567912.29	4179946.94	2.42E-04	4.20E-05	2.80E-04	2.87E-05	2.62E-05	6.19E-04	potential residence	7.13E-09	1.73E-07	1.61E-07	2.49E-08	0.37	0.00	2.25E-04	4.20E-05	2.66E-04	2.73E-05	2.49E-05	5.86E-04
567952.29_4179946.94	567952.29	4179946.94	2.52E-04	4.17E-05	2.90E-04	2.94E-05	2.67E-05	6.40E-04	potential residence	7.38E-09	1.79E-07	1.67E-07	2.57E-08	0.38	0.00	2.35E-04	4.17E-05	2.76E-04	2.80E-05	2.54E-05	6.06E-04
567972.29_4179946.94	567972.29	4179946.94	2.58E-04	4.17E-05	2.95E-04	2.98E-05	2.70E-05	6.51E-04	potential residence	7.51E-09	1.82E-07	1.70E-07	2.62E-08	0.39	0.00	2.40E-04	4.17E-05	2.81E-04	2.84E-05	2.57E-05	6.17E-04
567992.29_4179946.94	567992.29	4179946.94	2.64E-04	4.17E-05	3.00E-04	3.02E-05	2.73E-05	6.63E-04	potential residence	7.64E-09	1.85E-07	1.73E-07	2.67E-08	0.39	0.00	2.46E-04	4.17E-05	2.85E-04	2.87E-05	2.60E-05	6.28E-04
568012.29_4179946.94	568012.29	4179946.94	2.71E-04	4.18E-05	3.05E-04	3.05E-05	2.76E-05	6.75E-04	potential residence	7.79E-09	1.89E-07	1.76E-07	2.71E-08	0.40	0.00	2.52E-04	4.18E-05	2.90E-04	2.91E-05	2.62E-05	6.39E-04
568052.29_4179946.94	568052.29	4179946.94	2.85E-04	4.17E-05	3.15E-04	3.12E-05	2.81E-05	7.01E-04	potential residence	8.08E-09	1.96E-07	1.83E-07	2.82E-08	0.41	0.00	2.66E-04	4.17E-05	3.00E-04	2.97E-05	2.67E-05	6.63E-04
568072.29_4179946.94	568072.29	4179946.94	2.92E-04	4.18E-05	3.20E-04	3.16E-05	2.83E-05	7.14E-04	potential residence	8.23E-09	1.99E-07	1.86E-07	2.87E-08	0.42	0.00	2.72E-04	4.18E-05	3.04E-04	3.00E-05	2.69E-05	6.75E-04
568092.29_4179946.94	568092.29	4179946.94	2.99E-04	4.19E-05	3.25E-04	3.19E-05	2.86E-05	7.27E-04	potential residence	8.38E-09	2.03E-07	1.89E-07	2.92E-08	0.43	0.00	2.79E-04	4.19E-05	3.09E-04	3.03E-05	2.72E-05	6.88E-04
568112.29_4179946.94	568112.29	4179946.94	3.07E-04	4.21E-05	3.30E-04	3.22E-05	2.88E-05	7.40E-04	potential residence	8.53E-09	2.07E-07	1.93E-07	2.97E-08	0.44	0.00	2.86E-04	4.21E-05	3.14E-04	3.06E-05	2.74E-05	7.00E-04
568132.29_4179946.94	568132.29	4179946.94	3.15E-04	4.24E-05	3.35E-04	3.25E-05	2.90E-05	7.53E-04	potential residence	8.68E-09	2.10E-07	1.96E-07	3.03E-08	0.45	0.00	2.93E-04	4.24E-05	3.18E-04	3.09E-05	2.76E-05	7.13E-04
568152.29_4179946.94	568152.29	4179946.94	3.23E-04	4.26E-05	3.39E-04	3.28E-05	2.93E-05	7.67E-04	potential residence	8.84E-09	2.14E-07	2.00E-07	3.08E-08	0.45	0.00	3.01E-04	4.26E-05	3.23E-04	3.12E-05	2.78E-05	7.26E-04
568172.29_4179946.94	568172.29	4179946.94	3.32E-04	4.30E-05	3.44E-04	3.31E-05	2.95E-05	7.81E-04	potential residence	9.01E-09	2.18E-07	2.04E-07	3.14E-08	0.46	0.00	3.09E-04	4.30E-05	3.28E-04	3.15E-05	2.81E-05	7.39E-04
568192.29_4179946.94	568192.29	4179946.94	3.41E-04	4.35E-05	3.49E-04	3.34E-05	2.97E-05	7.96E-04	potential residence	9.18E-09	2.22E-07	2.08E-07	3.20E-08	0.47	0.00	3.18E-04	4.35E-05	3.32E-04	3.18E-05	2.83E-05	7.53E-04
567412.29_4179966.94	567412.29	4179966.94	1.74E-04	3.82E-05	1.45E-04	2.00E-05	1.93E-05	3.97E-04	potential residence	4.57E-09	1.11E-07	1.03E-07	1.60E-08	0.23	0.00	1.63E-04	3.82E-05	1.38E-04	1.91E-05	1.84E-05	3.76E-04
567432.29_4179966.94	567432.29	4179966.94	1.78E-04	3.86E-05	1.50E-04	2.04E-05	1.96E-05	4.07E-04	potential residence	4.69E-09	1.14E-07	1.06E-07	1.64E-08	0.24	0.00	1.66E-04	3.86E-05	1.43E-04	1.94E-05	1.86E-05	3.86E-04
567452.29_4179966.94	567452.29	4179966.94	1.82E-04	3.90E-05	1.56E-04	2.07E-05	1.99E-05	4.18E-04	potential residence	4.82E-09	1.17E-07	1.09E-07	1.68E-08	0.25	0.00	1.70E-04	3.90E-05	1.48E-04	1.97E-05	1.89E-05	3.96E-04
567472.29_4179966.94	567472.29	4179966.94	1.86E-04	3.94E-05	1.62E-04	2.10E-05	2.02E-05	4.28E-04	potential residence	4.94E-09	1.20E-07	1.12E-07	1.72E-08	0.25	0.00	1.73E-04	3.94E-05	1.54E-04	2.00E-05	1.92E-05	4.06E-04
567492.29_4179966.94	567492.29	4179966.94	1.89E-04	3.95E-05	1.68E-04	2.14E-05	2.05E-05	4.38E-04	potential residence	5.05E-09	1.22E-07	1.14E-07	1.76E-08	0.26	0.00	1.76E-04	3.95E-05	1.60E-04	2.03E-05	1.95E-05	4.15E-04
567512.29_4179966.94	567512.29	4179966.94	1.93E-04	3.99E-05	1.74E-04	2.17E-05	2.08E-05	4.49E-04	potential residence	5.18E-09	1.25E-07	1.17E-07	1.81E-08	0.27	0.00	1.80E-04	3.99E-05	1.65E-04	2.07E-05	1.98E-05	4.26E-04
567532.29_4179966.94	567532.29	4179966.94	1.97E-04	4.04E-05	1.80E-04	2.21E-05	2.11E-05	4.60E-04	potential residence	5.31E-09	1.29E-07	1.20E-07	1.85E-08	0.27	0.00	1.83E-04	4.04E-05	1.71E-04	2.10E-05	2.00E-05	4.36E-04
567552.29_4179966.94	567552.29	4179966.94	2.04E-04	4.07E-05	1.86E-04	2.25E-05	2.14E-05	4.75E-04	potential residence	5.48E-09	1.33E-07	1.24E-07	1.91E-08	0.28	0.00	1.91E-04	4.07E-05	1.77E-04	2.14E-05	2.03E-05	4.50E-04
567572.29_4179966.94	567572.29	4179966.94	2.03E-04	4.09E-05	1.93E-04	2.28E-05	2.17E-05	4.81E-04	potential residence	5.55E-09	1.34E-07	1.25E-07	1.93E-08	0.28	0.00	1.89E-04	4.09E-05	1.83E-04	2.17E-05	2.06E-05	4.56E-04
567592.29_4179966.94	567592.29	4179966.94	2.06E-04	4.12E-05	1.99E-04	2.32E-05	2.20E-05	4.91E-04	potential residence	5.66E-09	1.37E-07	1.28E-07	1.97E-08	0.29	0.00	1.92E-04	4.12E-05	1.89E-04	2.21E-05	2.09E-05	4.65E-04
567612.29_4179966.94	567612.29	4179966.94	2.09E-04	4.16E-05	2.05E-04	2.36E-05	2.23E-05	5.01E-04	potential residence	5.78E-09	1.40E-07	1.31E-07	2.02E-08	0.30	0.00	1.95E-04	4.16E-05	1.95E-04	2.24E-05	2.12E-05	4.75E-04
567632.29_4179966.94	567632.29	4179966.94	2.17E-04	4.23E-05	2.12E-04	2.39E-05	2.26E-05	5.17E-04	potential residence	5.96E-09	1.44E-07	1.35E-07	2.08E-08	0.31	0.00	2.02E-04	4.23E-05	2.01E-04	2.28E-05	2.15E-05	4.90E-04
567652.29_4179966.94	567652.29	4179966.94	2.20E-04	4.30E-05	2.18E-04	2.43E-05	2.29E-05	5.28E-04	potential residence	6.09E-09	1.47E-07	1.38E-07	2.12E-08	0.31	0.00	2.05E-04	4.30E-05	2.07E-04	2.31E-05	2.18E-05	5.00E-04
567672.29_4179966.94	567672.29	4179966.94	2.22E-04	4.32E-05	2.24E-04	2.47E-05	2.32E-05	5.38E-04	potential residence	6.20E-09	1.50E-07	1.40E-07	2.16E-08	0.32	0.00	2.07E-04	4.32E-05	2.13E-04	2.35E-05	2.21E-05	5.09E-04
567692.29_4179966.94	567692.29	4179966.94	2.25E-04	4.38E-05	2.31E-04	2.51E-05	2.35E-05	5.48E-04	potential residence	6.31E-09	1.53E-07	1.43E-07	2.20E-08	0.32	0.00	2.09E-04	4.38E-05	2.19E-04	2.39E-05	2.24E-05	5.19E-04
567712.29_4179966.94	567712.29	4179966.94	2.27E-04	4.40E-05	2.37E-04	2.55E-05	2.38E-05	5.57E-04	potential residence	6.42E-09	1.56E-07	1.45E-07	2.24E-08	0.33	0.00	2.11E-04	4.40E-05	2.25E-04	2.43E-05	2.27E-05	5.28E-04
567732.29_4179966.94	567732.29	4179966.94	2.29E-04	4.45E-05	2.43E-04	2.59E-05	2.42E-05	5.67E-04	potential residence	6.53E-09	1.58E-07	1.48E-07	2.28E-08	0.34	0.00	2.14E-04	4.45E-05	2.31E-04	2.47E-05	2.30E-05	5.37E-04
567752.29_4179966.94	567752.29	4179966.94	2.31E-04	4.45E-05	2.49E-04	2.63E-05	2.45E-05	5.76E-04	potential residence	6.64E-09	1.61E-07	1.50E-07	2.31E-08	0.34	0.00	2.16E-04	4.45E-05	2.37E-04	2.51E-05	2.33E-05	5.46E-04
567772.29_4179966.94	567772.29	4179966.94	2.33E-04	4.45E-05	2.55E-04	2.67E-05	2.48E-05	5.85E-04	potential residence	6.74E-09	1.63E-07	1.52E-07	2.35E-08	0.35	0.00	2.17E-04	4.45E-05	2.43E-04	2.54E-05	2.36E-05	5.54E-04
567792.29_4179966.94	567792.29	4179966.94	2.36E-04	4.44E-05	2.61E-04	2.72E-05	2.51E-05	5.94E-04	potential residence	6.84E-09	1.66E-07	1.55E-07	2.39E-08	0.35	0.00	2.20E-04	4.44E-05	2.49E-04	2.58E-05	2.39E-05	5.62E-04
567812.29_4179966.94	567812.29	4179966.94	2.38E-04	4.45E-05	2.67E-04	2.76E-05	2.55E-05	6.03E-04	potential residence	6.95E-09	1.68E-07	1.57E-07	2.42E-08	0.36	0.00	2.22E-04	4.45E-05	2.54E-04	2.62E-05	2.42E-05	5.71E-04
567832.29_4179966.94	567832.29	4179966.94	2.41E-04	4.44E-05	2.73E-04	2.80E-05	2.58E-05	6.13E-04	potential residence	7.06E-09	1.71E-07	1.60E-07	2.46E-08	0.36	0.00	2.25E-04	4.44E-05	2.60E-04	2.66E-05	2.45E-05	5.80E-04
567852.29_4179966.94	567852.29	4179966.94	2.44E-04	4.44E-05	2.79E-04	2.84E-05	2.61E-05	6.23E-04	potential residence	7.18E-09	1.74E-07	1.62E-07	2.50E-08	0.37	0.00	2.28E-04	4.44E-05	2.66E-04	2.71E-05	2.48E-05	5.90E-04
567872.29_4179966.94	567872.29	4179966.94	2.48E-04	4.43E-05	2.85E-04	2.89E-05	2.64E-05	6.33E-04	potential residence	7.29E-09	1.77E-07	1.65E-07	2.54E-08	0.37	0.00	2.31E-04	4.43E-05	2.71E-04	2.75E-05	2.51E-05	5.99E-04
567892.29_4179966.94	567892.29	4179966.94	2.52E-04	4.43E-05	2.91E-04	2.93E-05	2.68E-05	6.44E-04	potential residence	7.42E-09	1.80E-07	1.68E-07	2.59E-08	0.38	0.00	2.35E-04	4.43E-05	2.77E-04	2.79E-05	2.55E-05	6.10E-04
567912.29_4179966.94	567912.29	4179966.94	2.57E-04	4.41E-05	2.97E-04	2.97E-05	2.71E-05	6.55E-04	potential residence	7.55E-09	1.83E-07	1.71E-07	2.63E-08	0.39	0.00	2.39E-04	4.41E-05	2.83E-04	2.83E-05	2.58E-05	6.20E-04
567932.29_4179966.94	567932.29	4179966.94	2.62E-04	4.39E-05	3.03E-04	3.01E-05	2.74E-05	6.66E-04	potential residence	7.68E-09	1.86E-07	1.74E-07	2.68E-08	0.39	0.00	2.44E-04	4.39E-05	2.88E-04	2.87E-05	2.61E-05	6.31E-04
567952.29_4179966.94	567952.29	4179966.94	2.68E-04	4.38E-05	3.09E-04	3.06E-05	2.77E-05	6.78E-04	potential residence	7.82E-09	1.89E-07	1.77E-07	2.73E-08	0.40	0.00	2.50E-04	4.38E-05	2.94E-04	2.91E-05	2.64E-05	6.43E-04
567972.29_4179966.94	567972.29	4179966.94	2.74E-04	4.37E-05	3.14E-04	3.10E-05	2.80E-05	6.91E-04	potential residence	7.97E-09	1.93E-07	1.80E-07	2.78E-08	0.41	0.00	2.55E-04	4.37E-05	2.99E-04	2.95E-05	2.67E-05	6.54E-04
567992.29_4179966.94	567992.29	4179966.94	2.81E-04	4.37E-05	3.20E-04	3.14E-05	2.83E-05	7.04E-04	potential residence	8.12E-09	1.97E-07	1.84E-07	2.83E-08	0.42	0.00	2.62E-04	4.37E-05	3.05E-04	2.99E-05	2.70E-05	6.67E-04
568032.29_4179966.94	568032.29	4179966.94	2.96E-04	4.37E-05	3.32E-04	3.22E-05	2.89E-05	7.32E-04	potential residence	8.44E-09	2.04E-07	1.91E-07	2.94E-08	0.43	0.00	2.76E-04	4.37E-05	3.16E-04	3.06E-05	2.75E-05	6.93E-04
568052.29_4179966.94	568052.29	4179966.94	3.03E-04	4.37E-05	3.38E-04	3.26E-05	2.92E-05	7.47E-04	potential residence	8.61E-09	2.08E-07	1.95E-07	3.00E-08	0.44	0.00	2.83E-04	4.37E-05	3.21E-04	3.10E-05	2.78E-05	7.07E-04
568072.29_4179966.94	568072.29	4179966.94	3.11E-04	4.38E-05	3.43E-04	3.30E-05	2.95E-05	7.61E-04	potential residence	8.77E-09	2.12E-07	1.98E-07	3.06E-08	0.45	0.00	2.90E-04	4.38E-05	3.27E-04	3.14E-05	2.81E-05	7.20E-04
568092.29_4179966.94	568092.29	4179966.94	3.19E-04	4.39E-05	3.49E-04	3.34E-05	2.98E-05	7.76E-04	potential residence	8.94E-09	2.17E-07	2.02E-07	3.12E-08	0.46	0.00	2.98E-04	4.39E-05	3.32E-04	3.17E-05	2.84E-05	7.34E-04
568112.29_4179966.94	568112.29	4179966.94	3.28E-04	4.40E-05	3.55E-04	3.37E-05	3.01E-05	7.91E-04	potential residence	9.12E-09	2.21E-07	2.06E-07	3.18E-08	0.47	0.00	3.06E-04	4.40E-05	3.38E-04	3.21E-05	2.86E-05	7.48E-04
568132.29_4179966.94	568132.29	4179966.94	3.37E-04	4.40E-05	3.61E-04	3.41E-05	3.03E-05	8.06E-04	potential residence	9.29E-09	2.25E-07	2.10E-07	3.24E-08	0.48	0.00	3.14E-04	4.40E-05	3.43E-04	3.24E-05	2.89E-05	7.63E-04
568172.29_4179966.94	568172.29	4179966.94	3.56E-04	4.49E-05	3.72E-04	3.48E-05	3.09E-05	8.38E-04	potential residence	9.66E-09	2.34E-07	2.18E-07	3.37E-08	0.50	0.00	3.32E-04	4.49E-05	3.54E-04	3.31E-05	2.94E-05	7.93E-04
568192.29_4179966.94	568192.29	4179966.94	3.67E-04	4.50E-05	3.77E-04	3.51E-05	3.11E-05	8.55E-04	potential residence	9.86E-09	2.39E-07	2.23E-07	3.44E-08	0.51	0.00	3.42E-04	4.50E-05	3.59E-04	3.34E-05	2.96E-05	8.09E-04
567412.29_4179986.94	567412.29	4179986.94	1.81E-04	3.93E-05	1.46E-04	2.04E-05	1.97E-05	4.06E-04	potential residence	4.68E-09	1.13E-07	1.06E-07	1.63E-08	0.24	0.00	1.69E-04	3.93E-05	1.39E-04	1.94E-05	1.87E-05	3.85E-04
567432.29_4179986.94	567432.29	4179986.94	1.85E-04	3.97E-05	1.51E-04	2.07E-05	2.00E-05	4.17E-04	potential residence	4.81E-09	1.16E-07	1.09E-07	1.68E-08	0.25	0.00	1.73E-04	3.97E-05	1.44E-04	1.97E-05	1.90E-05	3.95E-04
567452.29_4179986.94	567452.29	4179986.94	1.89E-04	4.02E-05	1.57E-04	2.11E-05	2.03E-05	4.28E-04	potential residence	4.94E-09	1.20E-07	1.12E-07	1.72E-08	0.25	0.00	1.77E-04	4.02E-05	1.50E-04	2.01E-05	1.93E-05	4.06E-04
567492.29_4179986.94	567492.29	4179986.94	1.98E-04	4.10E-05	1.70E-04	2.18E-05	2.09E-05	4.52E-04	potential residence	5.21E-09	1.26E-07	1.18E-07	1.82E-08	0.27	0.00	1.85E-04	4.10E-05	1.62E-04	2.07E-05	1.99E-05	4.28E-04
567512.29_4179986.94	567512.29	4179986.94	2.02E-04	4.15E-05	1.76E-04	2.22E-05	2.12E-05	4.64E-04	potential residence	5.34E-09	1.29E-07	1.21E-07	1.86E-08	0.27	0.00	1.88E-04	4.15E-05	1.68E-04	2.11E-05	2.02E-05	4.39E-04
567532.29_4179986.94	567532.29	4179986.94	2.06E-04	4.17E-05	1.83E-04	2.26E-05	2.15E-05	4.75E-04	potential residence	5.47E-09	1.33E-07	1.24E-07	1.91E-08	0.28	0.00	1.92E-04	4.17E-05	1.74E-04	2.15E-05	2.05E-05	4.50E-04
567552.29_4179986.94	567552.29	4179986.94	2.10E-04	4.22E-05	1.90E-04	2.29E-05	2.18E-05	4.87E-04	potential residence	5.61E-09	1.36E-07	1.27E-07	1.96E-08	0.29	0.00	1.96E-04	4.22E-05	1.81E-04	2.18E-05	2.08E-05	4.61E-04
567572.29_4179986.94	567572.29	4179986.94	2.18E-04	4.29E-05	1.97E-04	2.33E-05	2.21E-05	5.04E-04	potential residence	5.81E-09	1.41E-07	1.31E-07	2.02E-08	0.30	0.00	2.04E-04	4.29E-05	1.87E-04	2.22E-05	2.11E-05	4.77E-04
567592.29_4179986.94	567592.29	4179986.94	2.22E-04	4.31E-05	2.04E-04	2.37E-05	2.25E-05	5.15E-04	potential residence	5.94E-09	1.44E-07	1.34E-07	2.07E-08	0.30	0.00	2.07E-04	4.31E-05	1.94E-04	2.26E-05	2.14E-05	4.88E-04

567612.29_4179986.94	567612.29	4179986.94	2.26E-04	4.35E-05	2.11E-04	2.41E-05	2.28E-05	5.27E-04	potential residence	6.08E-09	1.47E-07	1.37E-07	2.12E-08	0.31	0.00	2.10E-04	4.35E-05	2.01E-04	2.29E-05	2.17E-05	4.99E-04
567632.29_4179986.94	567632.29	4179986.94	2.29E-04	4.40E-05	2.18E-04	2.45E-05	2.31E-05	5.39E-04	potential residence	6.21E-09	1.50E-07	1.40E-07	2.17E-08	0.32	0.00	2.14E-04	4.40E-05	2.07E-04	2.33E-05	2.20E-05	5.10E-04
567652.29_4179986.94	567652.29	4179986.94	2.32E-04	4.49E-05	2.25E-04	2.49E-05	2.35E-05	5.51E-04	potential residence	6.35E-09	1.54E-07	1.44E-07	2.21E-08	0.33	0.00	2.17E-04	4.49E-05	2.14E-04	2.37E-05	2.23E-05	5.22E-04
567672.29_4179986.94	567672.29	4179986.94	2.36E-04	4.54E-05	2.32E-04	2.53E-05	2.38E-05	5.62E-04	potential residence	6.48E-09	1.57E-07	1.47E-07	2.26E-08	0.33	0.00	2.20E-04	4.54E-05	2.21E-04	2.41E-05	2.26E-05	5.33E-04
567692.29_4179986.94	567692.29	4179986.94	2.38E-04	4.59E-05	2.39E-04	2.58E-05	2.41E-05	5.73E-04	potential residence	6.61E-09	1.60E-07	1.49E-07	2.30E-08	0.34	0.00	2.22E-04	4.59E-05	2.28E-04	2.45E-05	2.30E-05	5.43E-04
567712.29_4179986.94	567712.29	4179986.94	2.41E-04	4.63E-05	2.46E-04	2.62E-05	2.45E-05	5.84E-04	potential residence	6.74E-09	1.63E-07	1.52E-07	2.35E-08	0.35	0.00	2.25E-04	4.63E-05	2.34E-04	2.49E-05	2.33E-05	5.54E-04
567732.29_4179986.94	567732.29	4179986.94	2.43E-04	4.67E-05	2.53E-04	2.66E-05	2.48E-05	5.95E-04	potential residence	6.86E-09	1.66E-07	1.55E-07	2.39E-08	0.35	0.00	2.27E-04	4.67E-05	2.41E-04	2.53E-05	2.36E-05	5.64E-04
567752.29_4179986.94	567752.29	4179986.94	2.46E-04	4.71E-05	2.60E-04	2.71E-05	2.52E-05	6.06E-04	potential residence	6.98E-09	1.69E-07	1.58E-07	2.43E-08	0.36	0.00	2.29E-04	4.71E-05	2.48E-04	2.58E-05	2.39E-05	5.74E-04
567772.29_4179986.94	567772.29	4179986.94	2.48E-04	4.71E-05	2.67E-04	2.75E-05	2.55E-05	6.16E-04	potential residence	7.10E-09	1.72E-07	1.61E-07	2.48E-08	0.36	0.00	2.32E-04	4.71E-05	2.54E-04	2.62E-05	2.43E-05	5.84E-04
567792.29_4179986.94	567792.29	4179986.94	2.51E-04	4.72E-05	2.74E-04	2.80E-05	2.59E-05	6.26E-04	potential residence	7.22E-09	1.75E-07	1.63E-07	2.52E-08	0.37	0.00	2.34E-04	4.72E-05	2.61E-04	2.66E-05	2.46E-05	5.94E-04
567812.29_4179986.94	567812.29	4179986.94	2.54E-04	4.71E-05	2.81E-04	2.84E-05	2.62E-05	6.37E-04	potential residence	7.34E-09	1.78E-07	1.66E-07	2.56E-08	0.38	0.00	2.37E-04	4.71E-05	2.67E-04	2.70E-05	2.50E-05	6.03E-04
567832.29_4179986.94	567832.29	4179986.94	2.57E-04	4.70E-05	2.88E-04	2.89E-05	2.66E-05	6.47E-04	potential residence	7.46E-09	1.81E-07	1.69E-07	2.60E-08	0.38	0.00	2.40E-04	4.70E-05	2.74E-04	2.75E-05	2.53E-05	6.13E-04
567852.29_4179986.94	567852.29	4179986.94	2.60E-04	4.69E-05	2.95E-04	2.94E-05	2.69E-05	6.58E-04	potential residence	7.59E-09	1.84E-07	1.72E-07	2.65E-08	0.39	0.00	2.43E-04	4.69E-05	2.80E-04	2.79E-05	2.56E-05	6.24E-04
567872.29_4179986.94	567872.29	4179986.94	2.64E-04	4.67E-05	3.02E-04	2.98E-05	2.73E-05	6.70E-04	potential residence	7.72E-09	1.87E-07	1.75E-07	2.69E-08	0.40	0.00	2.46E-04	4.67E-05	2.87E-04	2.84E-05	2.60E-05	6.34E-04
567892.29_4179986.94	567892.29	4179986.94	2.68E-04	4.66E-05	3.08E-04	3.03E-05	2.77E-05	6.81E-04	potential residence	7.85E-09	1.90E-07	1.78E-07	2.74E-08	0.40	0.00	2.50E-04	4.66E-05	2.93E-04	2.88E-05	2.63E-05	6.45E-04
567912.29_4179986.94	567912.29	4179986.94	2.73E-04	4.64E-05	3.15E-04	3.08E-05	2.80E-05	6.94E-04	potential residence	8.00E-09	1.94E-07	1.81E-07	2.79E-08	0.41	0.00	2.55E-04	4.64E-05	3.00E-04	2.93E-05	2.67E-05	6.57E-04
567932.29_4179986.94	567932.29	4179986.94	2.79E-04	4.62E-05	3.22E-04	3.13E-05	2.84E-05	7.07E-04	potential residence	8.15E-09	1.97E-07	1.84E-07	2.84E-08	0.42	0.00	2.60E-04	4.62E-05	3.06E-04	2.97E-05	2.70E-05	6.69E-04
567952.29_4179986.94	567952.29	4179986.94	2.85E-04	4.60E-05	3.29E-04	3.17E-05	2.87E-05	7.20E-04	potential residence	8.30E-09	2.01E-07	1.88E-07	2.89E-08	0.43	0.00	2.66E-04	4.60E-05	3.13E-04	3.02E-05	2.73E-05	6.82E-04
567972.29_4179986.94	567972.29	4179986.94	2.92E-04	4.59E-05	3.35E-04	3.22E-05	2.91E-05	7.35E-04	potential residence	8.47E-09	2.05E-07	1.91E-07	2.95E-08	0.43	0.00	2.72E-04	4.59E-05	3.19E-04	3.06E-05	2.77E-05	6.96E-04
568012.29_4179986.94	568012.29	4179986.94	3.07E-04	4.58E-05	3.49E-04	3.31E-05	2.98E-05	7.65E-04	potential residence	8.82E-09	2.14E-07	1.99E-07	3.08E-08	0.45	0.00	2.87E-04	4.58E-05	3.32E-04	3.15E-05	2.83E-05	7.24E-04
568032.29_4179986.94	568032.29	4179986.94	3.16E-04	4.59E-05	3.56E-04	3.36E-05	3.01E-05	7.81E-04	potential residence	9.00E-09	2.18E-07	2.03E-07	3.14E-08	0.46	0.00	2.94E-04	4.59E-05	3.38E-04	3.20E-05	2.86E-05	7.39E-04
568052.29_4179986.94	568052.29	4179986.94	3.24E-04	4.59E-05	3.62E-04	3.40E-05	3.04E-05	7.97E-04	potential residence	9.19E-09	2.23E-07	2.08E-07	3.20E-08	0.47	0.00	3.02E-04	4.59E-05	3.45E-04	3.24E-05	2.90E-05	7.54E-04
568072.29_4179986.94	568072.29	4179986.94	3.33E-04	4.59E-05	3.69E-04	3.45E-05	3.08E-05	8.14E-04	potential residence	9.38E-09	2.27E-07	2.12E-07	3.27E-08	0.48	0.00	3.11E-04	4.59E-05	3.51E-04	3.28E-05	2.93E-05	7.70E-04
568092.29_4179986.94	568092.29	4179986.94	3.42E-04	4.60E-05	3.76E-04	3.49E-05	3.11E-05	8.30E-04	potential residence	9.57E-09	2.32E-07	2.16E-07	3.34E-08	0.49	0.00	3.19E-04	4.60E-05	3.58E-04	3.32E-05	2.96E-05	7.86E-04
568112.29_4179986.94	568112.29	4179986.94	3.52E-04	4.59E-05	3.83E-04	3.53E-05	3.14E-05	8.48E-04	potential residence	9.77E-09	2.37E-07	2.21E-07	3.41E-08	0.50	0.00	3.28E-04	4.59E-05	3.64E-04	3.36E-05	2.99E-05	8.02E-04
568132.29_4179986.94	568132.29	4179986.94	3.62E-04	4.63E-05	3.90E-04	3.58E-05	3.17E-05	8.65E-04	potential residence	9.97E-09	2.42E-07	2.25E-07	3.48E-08	0.51	0.00	3.37E-04	4.63E-05	3.71E-04	3.40E-05	3.02E-05	8.18E-04
568152.29_4179986.94	568152.29	4179986.94	3.72E-04	4.64E-05	3.96E-04	3.62E-05	3.20E-05	8.83E-04	potential residence	1.02E-08	2.47E-07	2.30E-07	3.55E-08	0.52	0.00	3.47E-04	4.64E-05	3.77E-04	3.44E-05	3.04E-05	8.35E-04
568172.29_4179986.94	568172.29	4179986.94	3.83E-04	4.69E-05	4.03E-04	3.65E-05	3.23E-05	9.02E-04	potential residence	1.04E-08	2.52E-07	2.35E-07	3.62E-08	0.53	0.00	3.57E-04	4.69E-05	3.83E-04	3.48E-05	3.07E-05	8.53E-04
568192.29_4179986.94	568192.29	4179986.94	3.97E-04	4.60E-05	4.08E-04	3.68E-05	3.25E-05	9.20E-04	potential residence	1.06E-08	2.57E-07	2.40E-07	3.70E-08	0.54	0.00	3.70E-04	4.60E-05	3.88E-04	3.50E-05	3.09E-05	8.70E-04
567412.29_4180006.94	567412.29	4180006.94	1.88E-04	4.05E-05	1.46E-04	2.07E-05	2.00E-05	4.15E-04	potential residence	4.79E-09	1.16E-07	1.08E-07	1.67E-08	0.25	0.00	1.75E-04	4.05E-05	1.39E-04	1.97E-05	1.90E-05	3.94E-04
567432.29_4180006.94	567432.29	4180006.94	1.93E-04	4.14E-05	1.52E-04	2.11E-05	2.03E-05	4.28E-04	potential residence	4.94E-09	1.20E-07	1.12E-07	1.72E-08	0.25	0.00	1.80E-04	4.14E-05	1.45E-04	2.01E-05	1.94E-05	4.06E-04
567452.29_4180006.94	567452.29	4180006.94	1.98E-04	4.16E-05	1.59E-04	2.15E-05	2.07E-05	4.40E-04	potential residence	5.07E-09	1.23E-07	1.15E-07	1.77E-08	0.26	0.00	1.84E-04	4.16E-05	1.51E-04	2.04E-05	1.97E-05	4.17E-04
567472.29_4180006.94	567472.29	4180006.94	2.02E-04	4.22E-05	1.65E-04	2.19E-05	2.10E-05	4.52E-04	potential residence	5.21E-09	1.26E-07	1.18E-07	1.82E-08	0.27	0.00	1.89E-04	4.22E-05	1.57E-04	2.08E-05	2.00E-05	4.29E-04
567492.29_4180006.94	567492.29	4180006.94	2.07E-04	4.26E-05	1.72E-04	2.22E-05	2.13E-05	4.65E-04	potential residence	5.36E-09	1.30E-07	1.21E-07	1.87E-08	0.27	0.00	1.93E-04	4.26E-05	1.63E-04	2.12E-05	2.03E-05	4.40E-04
567512.29_4180006.94	567512.29	4180006.94	2.11E-04	4.29E-05	1.79E-04	2.26E-05	2.17E-05	4.77E-04	potential residence	5.50E-09	1.33E-07	1.24E-07	1.92E-08	0.28	0.00	1.97E-04	4.29E-05	1.70E-04	2.15E-05	2.06E-05	4.52E-04
567532.29_4180006.94	567532.29	4180006.94	2.16E-04	4.34E-05	1.86E-04	2.30E-05	2.20E-05	4.90E-04	potential residence	5.65E-09	1.37E-07	1.28E-07	1.97E-08	0.29	0.00	2.01E-04	4.34E-05	1.77E-04	2.19E-05	2.09E-05	4.64E-04
567552.29_4180006.94	567552.29	4180006.94	2.20E-04	4.38E-05	1.93E-04	2.34E-05	2.23E-05	5.03E-04	potential residence	5.80E-09	1.40E-07	1.31E-07	2.02E-08	0.30	0.00	2.05E-04	4.38E-05	1.84E-04	2.23E-05	2.12E-05	4.77E-04
567572.29_4180006.94	567572.29	4180006.94	2.30E-04	4.45E-05	2.01E-04	2.38E-05	2.27E-05	5.21E-04	potential residence	6.01E-09	1.46E-07	1.36E-07	2.10E-08	0.31	0.00	2.14E-04	4.45E-05	1.91E-04	2.27E-05	2.16E-05	4.94E-04
567592.29_4180006.94	567592.29	4180006.94	2.34E-04	4.51E-05	2.09E-04	2.42E-05	2.30E-05	5.35E-04	potential residence	6.17E-09	1.49E-07	1.39E-07	2.15E-08	0.32	0.00	2.18E-04	4.51E-05	1.98E-04	2.31E-05	2.19E-05	5.07E-04
567612.29_4180006.94	567612.29	4180006.94	2.38E-04	4.54E-05	2.16E-04	2.47E-05	2.34E-05	5.48E-04	potential residence	6.32E-09	1.53E-07	1.43E-07	2.20E-08	0.32	0.00	2.22E-04	4.54E-05	2.06E-04	2.35E-05	2.22E-05	5.19E-04
567632.29_4180006.94	567632.29	4180006.94	2.42E-04	4.62E-05	2.24E-04	2.51E-05	2.37E-05	5.61E-04	potential residence	6.47E-09	1.57E-07	1.46E-07	2.26E-08	0.33	0.00	2.26E-04	4.62E-05	2.13E-04	2.39E-05	2.25E-05	5.32E-04
567652.29_4180006.94	567652.29	4180006.94	2.46E-04	4.68E-05	2.32E-04	2.55E-05	2.40E-05	5.75E-04	potential residence	6.62E-09	1.60E-07	1.50E-07	2.31E-08	0.34	0.00	2.29E-04	4.68E-05	2.21E-04	2.43E-05	2.29E-05	5.44E-04
567692.29_4180006.94	567692.29	4180006.94	2.53E-04	4.82E-05	2.48E-04	2.64E-05	2.48E-05	6.00E-04	potential residence	6.92E-09	1.68E-07	1.57E-07	2.41E-08	0.36	0.00	2.36E-04	4.82E-05	2.36E-04	2.51E-05	2.36E-05	5.69E-04
567712.29_4180006.94	567712.29	4180006.94	2.56E-04	4.88E-05	2.56E-04	2.69E-05	2.51E-05	6.13E-04	potential residence	7.07E-09	1.71E-07	1.60E-07	2.46E-08	0.36	0.00	2.39E-04	4.88E-05	2.44E-04	2.56E-05	2.39E-05	5.81E-04
567732.29_4180006.94	567732.29	4180006.94	2.59E-04	4.93E-05	2.64E-04	2.73E-05	2.55E-05	6.25E-04	potential residence	7.21E-09	1.75E-07	1.63E-07	2.51E-08	0.37	0.00	2.42E-04	4.93E-05	2.51E-04	2.60E-05	2.43E-05	5.92E-04
567752.29_4180006.94	567752.29	4180006.94	2.62E-04	4.98E-05	2.72E-04	2.78E-05	2.59E-05	6.38E-04	potential residence	7.35E-09	1.78E-07	1.66E-07	2.56E-08	0.38	0.00	2.44E-04	4.98E-05	2.59E-04	2.65E-05	2.46E-05	6.04E-04
567772.29_4180006.94	567772.29	4180006.94	2.65E-04	4.99E-05	2.80E-04	2.83E-05	2.63E-05	6.49E-04	potential residence	7.49E-09	1.81E-07	1.69E-07	2.61E-08	0.38	0.00	2.47E-04	4.99E-05	2.66E-04	2.69E-05	2.50E-05	6.15E-04
567792.29_4180006.94	567792.29	4180006.94	2.68E-04	4.99E-05	2.88E-04	2.88E-05	2.66E-05	6.61E-04	potential residence	7.62E-09	1.85E-07	1.72E-07	2.66E-08	0.39	0.00	2.50E-04	4.99E-05	2.74E-04	2.74E-05	2.53E-05	6.26E-04
567812.29_4180006.94	567812.29	4180006.94	2.71E-04	5.01E-05	2.96E-04	2.93E-05	2.70E-05	6.73E-04	potential residence	7.76E-09	1.88E-07	1.75E-07	2.71E-08	0.40	0.00	2.53E-04	5.01E-05	2.81E-04	2.79E-05	2.57E-05	6.38E-04
567832.29_4180006.94	567832.29	4180006.94	2.75E-04	4.99E-05	3.03E-04	2.98E-05	2.74E-05	6.85E-04	potential residence	7.90E-09	1.91E-07	1.79E-07	2.75E-08	0.41	0.00	2.56E-04	4.99E-05	2.89E-04	2.83E-05	2.61E-05	6.49E-04
567852.29_4180006.94	567852.29	4180006.94	2.78E-04	4.97E-05	3.11E-04	3.03E-05	2.78E-05	6.97E-04	potential residence	8.04E-09	1.95E-07	1.82E-07	2.80E-08	0.41	0.00	2.59E-04	4.97E-05	2.96E-04	2.88E-05	2.64E-05	6.61E-04
567872.29_4180006.94	567872.29	4180006.94	2.82E-04	4.93E-05	3.19E-04	3.08E-05	2.82E-05	7.09E-04	potential residence	8.18E-09	1.98E-07	1.85E-07	2.85E-08	0.42	0.00	2.63E-04	4.93E-05	3.03E-04	2.93E-05	2.68E-05	6.72E-04
567892.29_4180006.94	567892.29	4180006.94	2.87E-04	4.92E-05	3.27E-04	3.13E-05	2.86E-05	7.23E-04	potential residence	8.33E-09	2.02E-07	1.88E-07	2.90E-08	0.43	0.00	2.67E-04	4.92E-05	3.11E-04	2.98E-05	2.72E-05	6.84E-04
567912.29_4180006.94	567912.29	4180006.94	2.92E-04	4.89E-05	3.35E-04	3.19E-05	2.90E-05	7.36E-04	potential residence	8.49E-09	2.06E-07	1.92E-07	2.96E-08	0.44	0.00	2.72E-04	4.89E-05	3.18E-04	3.03E-05	2.76E-05	6.97E-04
567932.29_4180006.94	567932.29	4180006.94	2.98E-04	4.88E-05	3.42E-04	3.24E-05	2.94E-05	7.51E-04	potential residence	8.66E-09	2.10E-07	1.96E-07	3.02E-08	0.44	0.00	2.78E-04	4.88E-05	3.26E-04	3.08E-05	2.80E-05	7.11E-04
567952.29_4180006.94	567952.29	4180006.94	3.05E-04	4.86E-05	3.50E-04	3.29E-05	2.98E-05	7.66E-04	potential residence	8.83E-09	2.14E-07	2.00E-07	3.08E-08	0.45	0.00	2.84E-04	4.86E-05	3.33E-04	3.13E-05	2.83E-05	7.26E-04
567992.29_4180006.94	567992.29	4180006.94	3.20E-04	4.83E-05	3.66E-04	3.40E-05	3.06E-05	7.99E-04	potential residence	9.21E-09	2.23E-07	2.08E-07	3.21E-08	0.47	0.00	2.99E-04	4.83E-05	3.48E-04	3.23E-05	2.91E-05	7.57E-04
568012.29_4180006.94	568012.29	4180006.94	3.29E-04	4.82E-05	3.74E-04	3.45E-05	3.09E-05	8.16E-04	potential residence	9.41E-09	2.28E-07	2.13E-07	3.28E-08	0.48	0.00	3.06E-04	4.82E-05	3.56E-04	3.28E-05	2.94E-05	7.73E-04
568032.29_4180006.94	568032.29	4180006.94	3.38E-04	4.82E-05	3.82E-04	3.50E-05	3.13E-05	8.35E-04	potential residence	9.62E-09	2.33E-07	2.18E-07	3.35E-08	0.49	0.00	3.15E-04	4.82E-05	3.64E-04	3.33E-05	2.98E-05	7.90E-04
568052.29_4180006.94	568052.29	4180006.94	3.47E-04	4.82E-05	3.90E-04	3.55E-05	3.17E-05	8.53E-04	potential residence	9.83E-09	2.38E-07	2.22E-07	3.43E-08	0.50	0.00	3.24E-04	4.82E-05	3.71E-04	3.38E-05	3.02E-05	8.07E-04
568072.29_4180006.94	568072.29	4180006.94	3.57E-04	4.83E-05	3.98E-04	3.60E-05	3.21E-05	8.72E-04	potential residence	1.00E-08	2.43E-07	2.27E-07	3.50E-08	0.52	0.00	3.33E-04	4.83E-05	3.79E-04	3.43E-05	3.05E-05	8.25E-04
568092.29_4180006.94	568092.29	4180006.94	3.68E-04	4.82E-05	4.06E-04	3.65E-05	3.24E-05	8.91E-04	potential residence	1.03E-08	2.49E-07	2.32E-07	3.58E-08	0.53	0.00	3.43E-04	4.82E-05	3.87E-04	3.48E-05	3.09E-05	8.43E-04
568112.29_4180006.94	568112.29	4180006.94	3.78E-04	4.84E-05	4.14E-04	3.70E-05	3.28E-05	9.11E-04	potential residence	1.05E-08	2.54E-07	2.37E-07	3.66E-08	0.54	0.00	3.53E-04	4.84E-05	3.94E-04	3.52E-05	3.12E-05	8.61E-04
568152.29_4180006.94	568152.29	4180006.94	4.02E-04	4.88E-05	4.30E-04	3.80E-05	3.35E-05	9.52E-04	potential residence	1.10E-08	2.66E-07	2.48E-07	3.83E-08	0.56	0.00	3.74E-04	4.88E-05	4.09E-04	3.61E-05	3.19E-05	9.00E-04
568172.29_4180006.94	568172.29	4180006.94	4.15E-04	4.90E-05	4.37E-04	3.84E-05	3.38E-05	9.73E-04	potential residence	1.12E-08	2.72E-07	2.54E-07	3.91E-08	0.58	0.00	3.87E-04	4.90E-05	4.16E-04	3.66E-05	3.22E-05	9.20E-04
567412.29_4180026.94	567412.29	4180026.94	1.95E-04	4.17E-05	1.46E-04	2.11E-05	2.04E-05	4.24E-04	potential residence	4.89E-09	1.19E-07	1.11E-07	1.71E-08	0.25	0.00	1.82E-04	4.17E-05	1.39E-04	2.01E-05	1.94E-05	4.02E-04
567432.29_4180026.94	567432.29	4180026.94	2.01E-04	4.25E-05	1.53E-04	2.15E-05	2.07E-05	4.38E-04	potential residence	5.05E-09	1.22E-07	1.14E-07	1.76E-08	0.26	0.00	1.87E-04	4.25E-05	1.45E-04	2.04E-05	1.97E-05	4.15E-04
567452.29_4180026.94	567452.29	4180026.94	2.06E-04	4.31E-05	1.59E-04	2.19E-05	2.11E-05	4.51E-04	potential residence	5.20E-09	1.26E-07	1.18E-07	1.81E-08	0.27	0.00	1.92E-04	4.31E-05	1.52E-04	2.08E-05	2.00E-05	4.27E-04
567472.29_4180026.94	567472.29	4180026.94	2.11E-04	4.36E-05	1.66E-04	2.23E-05	2.14E-05	4.64E-04	potential residence	5.35E-09	1.30E-07	1.21E-07	1.87E-08	0.27	0.00	1.97E-04	4.36E-05	1.58E-04	2.12E-05	2.04E-05	4.40E-04
567492.29_4180026.94	567492.29	4180026.94	2.16E-04	4.42E-05	1.73E-04	2.27E-05	2.18E-05	4.78E-04	potential residence	5.51E-09	1.33E-07	1.25E-07	1.92E-08	0.28	0.00	2.01E-04	4.42E-05	1.65E-04	2.16E-05	2.07E-05	4.53E-04
567512.29_4180026.94	567512.29	4180026.94	2.21E-04	4.47E-05	1.81E-04	2.31E-05	2.21E-05	4.92E-04	potential residence	5.67E-09	1.37E-07	1.28E-07	1.98E-08	0.29	0.00	2.06E-04	4.47E-05	1.72E-04	2.19E-05	2.10E-05	4.66E-04
567532.29_4180026.94	567532.29	4180026.94	2.26E-04	4.53E-05	1.88E-04	2.35E-05	2.25E-05	5.06E-04	potential residence	5.83E-09	1.41E-07	1.32E-07	2.03E-08	0.30	0.00	2.11E-04	4.53E-05	1.79E-04	2.23E-05	2.14E-05	4.79E-04

567552.29_4180026.94	567552.29	4180026.94	2.36E-04	4.58E-05	1.96E-04	2.39E-05	2.28E-05	5.25E-04	potential residence	6.05E-09	1.47E-07	1.37E-07	2.11E-08	0.31	0.00	2.20E-04	4.58E-05	1.87E-04	2.27E-05	2.17E-05	4.97E-04
567572.29_4180026.94	567572.29	4180026.94	2.41E-04	4.64E-05	2.04E-04	2.43E-05	2.32E-05	5.40E-04	potential residence	6.22E-09	1.51E-07	1.41E-07	2.17E-08	0.32	0.00	2.25E-04	4.64E-05	1.95E-04	2.32E-05	2.20E-05	5.11E-04
567592.29_4180026.94	567592.29	4180026.94	2.47E-04	4.72E-05	2.13E-04	2.48E-05	2.35E-05	5.55E-04	potential residence	6.40E-09	1.55E-07	1.45E-07	2.23E-08	0.33	0.00	2.30E-04	4.72E-05	2.03E-04	2.36E-05	2.24E-05	5.26E-04
567612.29_4180026.94	567612.29	4180026.94	2.52E-04	4.77E-05	2.21E-04	2.52E-05	2.39E-05	5.70E-04	potential residence	6.57E-09	1.59E-07	1.49E-07	2.29E-08	0.34	0.00	2.35E-04	4.77E-05	2.11E-04	2.40E-05	2.27E-05	5.40E-04
567632.29_4180026.94	567632.29	4180026.94	2.56E-04	4.84E-05	2.30E-04	2.57E-05	2.43E-05	5.85E-04	potential residence	6.74E-09	1.63E-07	1.52E-07	2.35E-08	0.35	0.00	2.39E-04	4.84E-05	2.19E-04	2.44E-05	2.31E-05	5.54E-04
567652.29_4180026.94	567652.29	4180026.94	2.61E-04	4.92E-05	2.39E-04	2.61E-05	2.46E-05	6.00E-04	potential residence	6.91E-09	1.67E-07	1.56E-07	2.41E-08	0.35	0.00	2.43E-04	4.92E-05	2.27E-04	2.49E-05	2.34E-05	5.68E-04
567672.29_4180026.94	567672.29	4180026.94	2.65E-04	5.00E-05	2.48E-04	2.66E-05	2.50E-05	6.14E-04	potential residence	7.08E-09	1.72E-07	1.60E-07	2.47E-08	0.36	0.00	2.47E-04	5.00E-05	2.36E-04	2.53E-05	2.38E-05	5.82E-04
567692.29_4180026.94	567692.29	4180026.94	2.69E-04	5.09E-05	2.57E-04	2.71E-05	2.54E-05	6.29E-04	potential residence	7.26E-09	1.76E-07	1.64E-07	2.53E-08	0.37	0.00	2.51E-04	5.09E-05	2.44E-04	2.58E-05	2.42E-05	5.96E-04
567712.29_4180026.94	567712.29	4180026.94	2.73E-04	5.16E-05	2.66E-04	2.76E-05	2.58E-05	6.44E-04	potential residence	7.42E-09	1.80E-07	1.68E-07	2.59E-08	0.38	0.00	2.55E-04	5.16E-05	2.53E-04	2.62E-05	2.45E-05	6.10E-04
567732.29_4180026.94	567732.29	4180026.94	2.77E-04	5.22E-05	2.75E-04	2.81E-05	2.62E-05	6.58E-04	potential residence	7.58E-09	1.84E-07	1.71E-07	2.64E-08	0.39	0.00	2.58E-04	5.22E-05	2.61E-04	2.67E-05	2.49E-05	6.23E-04
567752.29_4180026.94	567752.29	4180026.94	2.80E-04	5.27E-05	2.84E-04	2.86E-05	2.66E-05	6.72E-04	potential residence	7.74E-09	1.88E-07	1.75E-07	2.70E-08	0.40	0.00	2.61E-04	5.27E-05	2.70E-04	2.72E-05	2.53E-05	6.36E-04
567772.29_4180026.94	567772.29	4180026.94	2.83E-04	5.30E-05	2.93E-04	2.91E-05	2.70E-05	6.85E-04	potential residence	7.90E-09	1.91E-07	1.79E-07	2.75E-08	0.41	0.00	2.64E-04	5.30E-05	2.79E-04	2.77E-05	2.57E-05	6.49E-04
567792.29_4180026.94	567792.29	4180026.94	2.87E-04	5.31E-05	3.02E-04	2.96E-05	2.74E-05	6.99E-04	potential residence	8.05E-09	1.95E-07	1.82E-07	2.81E-08	0.41	0.00	2.67E-04	5.31E-05	2.87E-04	2.82E-05	2.61E-05	6.62E-04
567812.29_4180026.94	567812.29	4180026.94	2.90E-04	5.31E-05	3.11E-04	3.02E-05	2.78E-05	7.12E-04	potential residence	8.21E-09	1.99E-07	1.86E-07	2.86E-08	0.42	0.00	2.71E-04	5.31E-05	2.96E-04	2.87E-05	2.65E-05	6.75E-04
567832.29_4180026.94	567832.29	4180026.94	2.94E-04	5.30E-05	3.20E-04	3.07E-05	2.83E-05	7.26E-04	potential residence	8.37E-09	2.03E-07	1.89E-07	2.92E-08	0.43	0.00	2.74E-04	5.30E-05	3.04E-04	2.92E-05	2.69E-05	6.88E-04
567852.29_4180026.94	567852.29	4180026.94	2.98E-04	5.27E-05	3.29E-04	3.12E-05	2.87E-05	7.40E-04	potential residence	8.53E-09	2.07E-07	1.93E-07	2.97E-08	0.44	0.00	2.78E-04	5.27E-05	3.13E-04	2.97E-05	2.73E-05	7.01E-04
567872.29_4180026.94	567872.29	4180026.94	3.02E-04	5.24E-05	3.38E-04	3.18E-05	2.91E-05	7.53E-04	potential residence	8.68E-09	2.10E-07	1.96E-07	3.03E-08	0.45	0.00	2.82E-04	5.24E-05	3.21E-04	3.03E-05	2.77E-05	7.13E-04
567892.29_4180026.94	567892.29	4180026.94	3.07E-04	5.22E-05	3.47E-04	3.24E-05	2.95E-05	7.68E-04	potential residence	8.85E-09	2.14E-07	2.00E-07	3.09E-08	0.45	0.00	2.86E-04	5.22E-05	3.30E-04	3.08E-05	2.81E-05	7.27E-04
567912.29_4180026.94	567912.29	4180026.94	3.13E-04	5.18E-05	3.56E-04	3.30E-05	3.00E-05	7.83E-04	potential residence	9.03E-09	2.19E-07	2.04E-07	3.15E-08	0.46	0.00	2.92E-04	5.18E-05	3.38E-04	3.14E-05	2.85E-05	7.42E-04
567972.29_4180026.94	567972.29	4180026.94	3.34E-04	5.11E-05	3.83E-04	3.47E-05	3.13E-05	8.35E-04	potential residence	9.62E-09	2.33E-07	2.18E-07	3.36E-08	0.49	0.00	3.12E-04	5.11E-05	3.65E-04	3.30E-05	2.98E-05	7.90E-04
567992.29_4180026.94	567992.29	4180026.94	3.43E-04	5.09E-05	3.92E-04	3.53E-05	3.17E-05	8.54E-04	potential residence	9.84E-09	2.38E-07	2.22E-07	3.43E-08	0.50	0.00	3.20E-04	5.09E-05	3.73E-04	3.36E-05	3.02E-05	8.08E-04
568012.29_4180026.94	568012.29	4180026.94	3.52E-04	5.09E-05	4.02E-04	3.59E-05	3.22E-05	8.73E-04	potential residence	1.01E-08	2.44E-07	2.28E-07	3.51E-08	0.52	0.00	3.29E-04	5.09E-05	3.82E-04	3.41E-05	3.06E-05	8.27E-04
568032.29_4180026.94	568032.29	4180026.94	3.62E-04	5.08E-05	4.11E-04	3.65E-05	3.26E-05	8.94E-04	potential residence	1.03E-08	2.50E-07	2.33E-07	3.59E-08	0.53	0.00	3.38E-04	5.08E-05	3.91E-04	3.47E-05	3.10E-05	8.46E-04
568052.29_4180026.94	568052.29	4180026.94	3.73E-04	5.08E-05	4.21E-04	3.71E-05	3.30E-05	9.15E-04	potential residence	1.05E-08	2.55E-07	2.38E-07	3.68E-08	0.54	0.00	3.48E-04	5.08E-05	4.00E-04	3.53E-05	3.14E-05	8.66E-04
568072.29_4180026.94	568072.29	4180026.94	3.84E-04	5.08E-05	4.30E-04	3.77E-05	3.34E-05	9.37E-04	potential residence	1.08E-08	2.62E-07	2.44E-07	3.76E-08	0.55	0.00	3.58E-04	5.08E-05	4.09E-04	3.58E-05	3.18E-05	8.86E-04
568092.29_4180026.94	568092.29	4180026.94	3.96E-04	5.08E-05	4.40E-04	3.82E-05	3.39E-05	9.58E-04	potential residence	1.10E-08	2.68E-07	2.50E-07	3.85E-08	0.57	0.00	3.69E-04	5.08E-05	4.18E-04	3.64E-05	3.22E-05	9.07E-04
568112.29_4180026.94	568112.29	4180026.94	4.08E-04	5.09E-05	4.49E-04	3.88E-05	3.43E-05	9.81E-04	potential residence	1.13E-08	2.74E-07	2.56E-07	3.94E-08	0.58	0.00	3.80E-04	5.09E-05	4.28E-04	3.69E-05	3.26E-05	9.28E-04
568132.29_4180026.94	568132.29	4180026.94	4.21E-04	5.10E-05	4.59E-04	3.94E-05	3.47E-05	1.00E-03	potential residence	1.16E-08	2.81E-07	2.62E-07	4.04E-08	0.59	0.00	3.93E-04	5.10E-05	4.36E-04	3.75E-05	3.30E-05	9.50E-04
568152.29_4180026.94	568152.29	4180026.94	4.35E-04	5.12E-05	4.68E-04	3.99E-05	3.51E-05	1.03E-03	potential residence	1.19E-08	2.87E-07	2.68E-07	4.14E-08	0.61	0.00	4.06E-04	5.12E-05	4.45E-04	3.80E-05	3.33E-05	9.73E-04
568172.29_4180026.94	568172.29	4180026.94	4.51E-04	5.09E-05	4.77E-04	4.04E-05	3.54E-05	1.05E-03	potential residence	1.22E-08	2.94E-07	2.75E-07	4.24E-08	0.62	0.00	4.21E-04	5.09E-05	4.53E-04	3.85E-05	3.37E-05	9.97E-04
567412.29_4180046.94	567412.29	4180046.94	2.03E-04	4.33E-05	1.46E-04	2.14E-05	2.07E-05	4.35E-04	potential residence	5.01E-09	1.21E-07	1.13E-07	1.75E-08	0.26	0.00	1.89E-04	4.33E-05	1.39E-04	2.04E-05	1.97E-05	4.12E-04
567432.29_4180046.94	567432.29	4180046.94	2.08E-04	4.39E-05	1.53E-04	2.18E-05	2.11E-05	4.48E-04	potential residence	5.17E-09	1.25E-07	1.17E-07	1.80E-08	0.27	0.00	1.94E-04	4.39E-05	1.45E-04	2.08E-05	2.01E-05	4.25E-04
567452.29_4180046.94	567452.29	4180046.94	2.14E-04	4.44E-05	1.60E-04	2.23E-05	2.15E-05	4.62E-04	potential residence	5.32E-09	1.29E-07	1.20E-07	1.86E-08	0.27	0.00	1.99E-04	4.44E-05	1.52E-04	2.12E-05	2.04E-05	4.37E-04
567472.29_4180046.94	567472.29	4180046.94	2.19E-04	4.50E-05	1.67E-04	2.27E-05	2.18E-05	4.76E-04	potential residence	5.48E-09	1.33E-07	1.24E-07	1.91E-08	0.28	0.00	2.05E-04	4.50E-05	1.59E-04	2.16E-05	2.08E-05	4.51E-04
567492.29_4180046.94	567492.29	4180046.94	2.26E-04	4.58E-05	1.74E-04	2.31E-05	2.22E-05	4.91E-04	potential residence	5.66E-09	1.37E-07	1.28E-07	1.97E-08	0.29	0.00	2.10E-04	4.58E-05	1.66E-04	2.20E-05	2.11E-05	4.65E-04
567532.29_4180046.94	567532.29	4180046.94	2.37E-04	4.72E-05	1.90E-04	2.40E-05	2.29E-05	5.22E-04	potential residence	6.01E-09	1.46E-07	1.36E-07	2.10E-08	0.31	0.00	2.21E-04	4.72E-05	1.81E-04	2.28E-05	2.18E-05	4.94E-04
567552.29_4180046.94	567552.29	4180046.94	2.43E-04	4.78E-05	1.99E-04	2.44E-05	2.33E-05	5.37E-04	potential residence	6.19E-09	1.50E-07	1.40E-07	2.16E-08	0.32	0.00	2.27E-04	4.78E-05	1.89E-04	2.32E-05	2.22E-05	5.09E-04
567572.29_4180046.94	567572.29	4180046.94	2.54E-04	4.85E-05	2.08E-04	2.49E-05	2.37E-05	5.59E-04	potential residence	6.44E-09	1.56E-07	1.46E-07	2.25E-08	0.33	0.00	2.37E-04	4.85E-05	1.98E-04	2.36E-05	2.25E-05	5.29E-04
567592.29_4180046.94	567592.29	4180046.94	2.60E-04	4.92E-05	2.17E-04	2.53E-05	2.41E-05	5.75E-04	potential residence	6.63E-09	1.61E-07	1.50E-07	2.31E-08	0.34	0.00	2.42E-04	4.92E-05	2.06E-04	2.41E-05	2.29E-05	5.45E-04
567612.29_4180046.94	567612.29	4180046.94	2.66E-04	5.02E-05	2.26E-04	2.58E-05	2.44E-05	5.92E-04	potential residence	6.83E-09	1.65E-07	1.54E-07	2.38E-08	0.35	0.00	2.48E-04	5.02E-05	2.15E-04	2.45E-05	2.33E-05	5.61E-04
567632.29_4180046.94	567632.29	4180046.94	2.71E-04	5.07E-05	2.36E-04	2.63E-05	2.48E-05	6.09E-04	potential residence	7.02E-09	1.70E-07	1.59E-07	2.45E-08	0.36	0.00	2.53E-04	5.07E-05	2.24E-04	2.50E-05	2.36E-05	5.76E-04
567652.29_4180046.94	567652.29	4180046.94	2.77E-04	5.17E-05	2.45E-04	2.67E-05	2.52E-05	6.26E-04	potential residence	7.21E-09	1.75E-07	1.63E-07	2.52E-08	0.37	0.00	2.58E-04	5.17E-05	2.33E-04	2.54E-05	2.40E-05	5.93E-04
567672.29_4180046.94	567672.29	4180046.94	2.82E-04	5.27E-05	2.55E-04	2.72E-05	2.56E-05	6.43E-04	potential residence	7.41E-09	1.79E-07	1.68E-07	2.58E-08	0.38	0.00	2.63E-04	5.27E-05	2.43E-04	2.59E-05	2.44E-05	6.09E-04
567692.29_4180046.94	567692.29	4180046.94	2.87E-04	5.36E-05	2.65E-04	2.78E-05	2.61E-05	6.60E-04	potential residence	7.60E-09	1.84E-07	1.72E-07	2.65E-08	0.39	0.00	2.67E-04	5.36E-05	2.52E-04	2.64E-05	2.48E-05	6.25E-04
567712.29_4180046.94	567712.29	4180046.94	2.91E-04	5.44E-05	2.75E-04	2.83E-05	2.65E-05	6.76E-04	potential residence	7.79E-09	1.89E-07	1.76E-07	2.72E-08	0.40	0.00	2.71E-04	5.44E-05	2.62E-04	2.69E-05	2.52E-05	6.40E-04
567732.29_4180046.94	567732.29	4180046.94	2.95E-04	5.51E-05	2.86E-04	2.88E-05	2.69E-05	6.92E-04	potential residence	7.98E-09	1.93E-07	1.80E-07	2.78E-08	0.41	0.00	2.75E-04	5.51E-05	2.72E-04	2.74E-05	2.56E-05	6.55E-04
567752.29_4180046.94	567752.29	4180046.94	3.00E-04	5.60E-05	2.96E-04	2.93E-05	2.73E-05	7.08E-04	potential residence	8.17E-09	1.98E-07	1.85E-07	2.85E-08	0.42	0.00	2.79E-04	5.60E-05	2.82E-04	2.79E-05	2.60E-05	6.71E-04
567772.29_4180046.94	567772.29	4180046.94	3.03E-04	5.62E-05	3.06E-04	2.99E-05	2.78E-05	7.24E-04	potential residence	8.34E-09	2.02E-07	1.89E-07	2.91E-08	0.43	0.00	2.83E-04	5.62E-05	2.91E-04	2.84E-05	2.64E-05	6.85E-04
567792.29_4180046.94	567792.29	4180046.94	3.07E-04	5.65E-05	3.16E-04	3.05E-05	2.82E-05	7.39E-04	potential residence	8.52E-09	2.06E-07	1.93E-07	2.97E-08	0.44	0.00	2.87E-04	5.65E-05	3.01E-04	2.90E-05	2.68E-05	7.00E-04
567812.29_4180046.94	567812.29	4180046.94	3.11E-04	5.66E-05	3.27E-04	3.10E-05	2.87E-05	7.54E-04	potential residence	8.70E-09	2.11E-07	1.97E-07	3.03E-08	0.45	0.00	2.90E-04	5.66E-05	3.11E-04	2.95E-05	2.73E-05	7.15E-04
567832.29_4180046.94	567832.29	4180046.94	3.16E-04	5.65E-05	3.37E-04	3.16E-05	2.91E-05	7.70E-04	potential residence	8.88E-09	2.15E-07	2.01E-07	3.10E-08	0.46	0.00	2.94E-04	5.65E-05	3.21E-04	3.01E-05	2.77E-05	7.29E-04
567852.29_4180046.94	567852.29	4180046.94	3.20E-04	5.61E-05	3.47E-04	3.22E-05	2.96E-05	7.85E-04	potential residence	9.05E-09	2.19E-07	2.05E-07	3.16E-08	0.46	0.00	2.98E-04	5.61E-05	3.31E-04	3.07E-05	2.81E-05	7.44E-04
567872.29_4180046.94	567872.29	4180046.94	3.25E-04	5.57E-05	3.58E-04	3.28E-05	3.01E-05	8.01E-04	potential residence	9.23E-09	2.24E-07	2.09E-07	3.22E-08	0.47	0.00	3.03E-04	5.57E-05	3.40E-04	3.12E-05	2.86E-05	7.59E-04
567892.29_4180046.94	567892.29	4180046.94	3.30E-04	5.53E-05	3.68E-04	3.35E-05	3.05E-05	8.17E-04	potential residence	9.42E-09	2.28E-07	2.13E-07	3.28E-08	0.48	0.00	3.08E-04	5.53E-05	3.50E-04	3.18E-05	2.90E-05	7.74E-04
567932.29_4180046.94	567932.29	4180046.94	3.43E-04	5.48E-05	3.89E-04	3.47E-05	3.15E-05	8.53E-04	potential residence	9.84E-09	2.38E-07	2.22E-07	3.43E-08	0.50	0.00	3.20E-04	5.48E-05	3.70E-04	3.30E-05	2.99E-05	8.08E-04
567952.29_4180046.94	567952.29	4180046.94	3.51E-04	5.44E-05	4.00E-04	3.54E-05	3.20E-05	8.72E-04	potential residence	1.01E-08	2.44E-07	2.27E-07	3.51E-08	0.52	0.00	3.27E-04	5.44E-05	3.80E-04	3.36E-05	3.04E-05	8.26E-04
567972.29_4180046.94	567972.29	4180046.94	3.59E-04	5.41E-05	4.11E-04	3.60E-05	3.24E-05	8.92E-04	potential residence	1.03E-08	2.49E-07	2.33E-07	3.59E-08	0.53	0.00	3.35E-04	5.41E-05	3.91E-04	3.43E-05	3.09E-05	8.45E-04
567992.29_4180046.94	567992.29	4180046.94	3.69E-04	5.39E-05	4.22E-04	3.67E-05	3.29E-05	9.14E-04	potential residence	1.05E-08	2.55E-07	2.38E-07	3.67E-08	0.54	0.00	3.44E-04	5.39E-05	4.01E-04	3.49E-05	3.13E-05	8.65E-04
568012.29_4180046.94	568012.29	4180046.94	3.79E-04	5.38E-05	4.33E-04	3.73E-05	3.34E-05	9.36E-04	potential residence	1.08E-08	2.61E-07	2.44E-07	3.76E-08	0.55	0.00	3.53E-04	5.38E-05	4.11E-04	3.55E-05	3.18E-05	8.86E-04
568032.29_4180046.94	568032.29	4180046.94	3.90E-04	5.37E-05	4.44E-04	3.80E-05	3.39E-05	9.60E-04	potential residence	1.11E-08	2.68E-07	2.50E-07	3.86E-08	0.57	0.00	3.64E-04	5.37E-05	4.22E-04	3.62E-05	3.22E-05	9.08E-04
568052.29_4180046.94	568052.29	4180046.94	4.02E-04	5.36E-05	4.55E-04	3.87E-05	3.44E-05	9.84E-04	potential residence	1.13E-08	2.75E-07	2.56E-07	3.96E-08	0.58	0.00	3.75E-04	5.36E-05	4.33E-04	3.68E-05	3.27E-05	9.31E-04
568072.29_4180046.94	568072.29	4180046.94	4.15E-04	5.36E-05	4.66E-04	3.93E-05	3.49E-05	1.01E-03	potential residence	1.16E-08	2.82E-07	2.63E-07	4.05E-08	0.60	0.00	3.87E-04	5.36E-05	4.44E-04	3.74E-05	3.32E-05	9.54E-04
568092.29_4180046.94	568092.29	4180046.94	4.28E-04	5.35E-05	4.78E-04	4.00E-05	3.53E-05	1.03E-03	potential residence	1.19E-08	2.89E-07	2.70E-07	4.16E-08	0.61	0.00	3.99E-04	5.35E-05	4.54E-04	3.81E-05	3.36E-05	9.78E-04
568132.29_4180046.94	568132.29	4180046.94	4.57E-04	5.37E-05	5.00E-04	4.13E-05	3.63E-05	1.09E-03	potential residence	1.25E-08	3.04E-07	2.84E-07	4.37E-08	0.64	0.00	4.26E-04	5.37E-05	4.76E-04	3.93E-05	3.45E-05	1.03E-03
568152.29_4180046.94	568152.29	4180046.94	4.73E-04	5.38E-05	5.11E-04	4.20E-05	3.67E-05	1.12E-03	potential residence	1.29E-08	3.12E-07	2.91E-07	4.49E-08	0.66	0.00	4.41E-04	5.38E-05	4.86E-04	3.99E-05	3.49E-05	1.06E-03
567412.29_4180066.94	567412.29	4180066.94	2.10E-04	4.45E-05	1.46E-04	2.18E-05	2.11E-05	4.44E-04	potential residence	5.11E-09	1.24E-07	1.16E-07	1.78E-08	0.26	0.00	1.96E-04	4.45E-05	1.39E-04	2.07E-05	2.01E-05	4.20E-04
567432.29_4180066.94	567432.29	4180066.94	2.16E-04	4.50E-05	1.53E-04	2.22E-05	2.15E-05	4.57E-04	potential residence	5.27E-09	1.28E-07	1.19E-07	1.84E-08	0.27	0.00	2.01E-04	4.50E-05	1.45E-04	2.11E-05	2.04E-05	4.33E-04
567452.29_4180066.94	567452.29	4180066.94	2.22E-04	4.58E-05	1.60E-04	2.26E-05	2.19E-05	4.72E-04	potential residence	5.44E-09	1.32E-07	1.23E-07	1.90E-08	0.28	0.00	2.07E-04	4.58E-05	1.52E-04	2.15E-05	2.08E-05	4.47E-04
567472.29_4180066.94	567472.29	4180066.94	2.29E-04	4.67E-05	1.67E-04	2.31E-05	2.22E-05	4.88E-04	potential residence	5.63E-09	1.36E-07	1.27E-07	1.96E-08	0.29	0.00	2.13E-04	4.67E-05	1.59E-04	2.20E-05	2.12E-05	4.62E-04
567492.29_4180066.94	567492.29	4180066.94	2.35E-04	4.75E-05	1.75E-04	2.35E-05	2.26E-05	5.04E-04	potential residence	5.81E-09	1.41E-07	1.31E-07	2.03E-08	0.30	0.00	2.19E-04	4.75E-05	1.66E-04	2.24E-05	2.15E-05	4.77E-04
567512.29_4180066.94	567512.29	4180066.94	2.42E-04	4.83E-05	1.83E-04	2.40E-05	2.30E-05	5.21E-04	potential residence	6.00E-09	1.45E-07	1.36E-07	2.09E-08	0.31	0.00	2.26E-04	4.83E-05	1.74E-04	2.28E-05	2.19E-05	4.93E-04
567552.29_4180066.94	567552.29	4180066.94	2.60E-04	5.00E-05	2.01E-04	2.49E-05	2.38E-05	5.60E-04	potential residence	6.45E-09	1.56E-07	1.46E-07	2.25E-08	0.33	0.00	2.42E-04	5.00E-05	1.91E-04	2.37E-05	2.26E-05	5.30E-04

567572.29_4180066.94	567572.29	4180066.94	2.67E-04	5.08E-05	2.10E-04	2.54E-05	2.42E-05	5.78E-04	potential residence	6.66E-09	1.61E-07	1.51E-07	2.32E-08	0.34	0.00	2.49E-04	5.08E-05	2.00E-04	2.41E-05	2.30E-05	5.47E-04
567592.29_4180066.94	567592.29	4180066.94	2.74E-04	5.16E-05	2.20E-04	2.59E-05	2.46E-05	5.96E-04	potential residence	6.87E-09	1.66E-07	1.55E-07	2.40E-08	0.35	0.00	2.55E-04	5.16E-05	2.09E-04	2.46E-05	2.34E-05	5.64E-04
567612.29_4180066.94	567612.29	4180066.94	2.81E-04	5.26E-05	2.30E-04	2.64E-05	2.50E-05	6.15E-04	potential residence	7.09E-09	1.72E-07	1.60E-07	2.47E-08	0.36	0.00	2.62E-04	5.26E-05	2.19E-04	2.51E-05	2.38E-05	5.82E-04
567632.29_4180066.94	567632.29	4180066.94	2.87E-04	5.35E-05	2.41E-04	2.69E-05	2.54E-05	6.34E-04	potential residence	7.31E-09	1.77E-07	1.65E-07	2.55E-08	0.38	0.00	2.68E-04	5.35E-05	2.29E-04	2.55E-05	2.42E-05	6.00E-04
567652.29_4180066.94	567652.29	4180066.94	2.94E-04	5.43E-05	2.51E-04	2.74E-05	2.59E-05	6.53E-04	potential residence	7.52E-09	1.82E-07	1.70E-07	2.62E-08	0.39	0.00	2.74E-04	5.43E-05	2.39E-04	2.60E-05	2.46E-05	6.18E-04
567672.29_4180066.94	567672.29	4180066.94	3.00E-04	5.53E-05	2.63E-04	2.79E-05	2.63E-05	6.72E-04	potential residence	7.74E-09	1.88E-07	1.75E-07	2.70E-08	0.40	0.00	2.79E-04	5.53E-05	2.50E-04	2.65E-05	2.50E-05	6.36E-04
567692.29_4180066.94	567692.29	4180066.94	3.05E-04	5.63E-05	2.74E-04	2.84E-05	2.67E-05	6.91E-04	potential residence	7.96E-09	1.93E-07	1.80E-07	2.78E-08	0.41	0.00	2.85E-04	5.63E-05	2.60E-04	2.71E-05	2.54E-05	6.54E-04
567732.29_4180066.94	567732.29	4180066.94	3.16E-04	5.85E-05	2.97E-04	2.95E-05	2.76E-05	7.29E-04	potential residence	8.40E-09	2.03E-07	1.90E-07	2.93E-08	0.43	0.00	2.95E-04	5.85E-05	2.82E-04	2.81E-05	2.63E-05	6.90E-04
567752.29_4180066.94	567752.29	4180066.94	3.21E-04	5.93E-05	3.08E-04	3.01E-05	2.81E-05	7.47E-04	potential residence	8.61E-09	2.09E-07	1.95E-07	3.00E-08	0.44	0.00	2.99E-04	5.93E-05	2.93E-04	2.87E-05	2.67E-05	7.07E-04
567772.29_4180066.94	567772.29	4180066.94	3.26E-04	5.99E-05	3.20E-04	3.07E-05	2.86E-05	7.65E-04	potential residence	8.82E-09	2.14E-07	1.99E-07	3.07E-08	0.45	0.00	3.04E-04	5.99E-05	3.04E-04	2.92E-05	2.72E-05	7.24E-04
567792.29_4180066.94	567792.29	4180066.94	3.30E-04	6.03E-05	3.32E-04	3.13E-05	2.90E-05	7.83E-04	potential residence	9.02E-09	2.19E-07	2.04E-07	3.15E-08	0.46	0.00	3.08E-04	6.03E-05	3.16E-04	2.98E-05	2.76E-05	7.41E-04
567812.29_4180066.94	567812.29	4180066.94	3.35E-04	6.03E-05	3.43E-04	3.19E-05	2.95E-05	8.00E-04	potential residence	9.22E-09	2.23E-07	2.09E-07	3.22E-08	0.47	0.00	3.12E-04	6.03E-05	3.27E-04	3.04E-05	2.81E-05	7.58E-04
567832.29_4180066.94	567832.29	4180066.94	3.39E-04	6.00E-05	3.55E-04	3.26E-05	3.00E-05	8.17E-04	potential residence	9.42E-09	2.28E-07	2.13E-07	3.28E-08	0.48	0.00	3.16E-04	6.00E-05	3.38E-04	3.10E-05	2.86E-05	7.74E-04
567852.29_4180066.94	567852.29	4180066.94	3.44E-04	5.98E-05	3.67E-04	3.32E-05	3.05E-05	8.35E-04	potential residence	9.63E-09	2.33E-07	2.18E-07	3.36E-08	0.49	0.00	3.21E-04	5.98E-05	3.49E-04	3.16E-05	2.90E-05	7.91E-04
567872.29_4180066.94	567872.29	4180066.94	3.50E-04	5.95E-05	3.79E-04	3.39E-05	3.10E-05	8.54E-04	potential residence	9.84E-09	2.38E-07	2.23E-07	3.43E-08	0.51	0.00	3.26E-04	5.95E-05	3.61E-04	3.22E-05	2.95E-05	8.08E-04
567912.29_4180066.94	567912.29	4180066.94	3.62E-04	5.87E-05	4.03E-04	3.52E-05	3.20E-05	8.92E-04	potential residence	1.03E-08	2.49E-07	2.32E-07	3.58E-08	0.53	0.00	3.38E-04	5.87E-05	3.84E-04	3.35E-05	3.05E-05	8.44E-04
567952.29_4180066.94	567952.29	4180066.94	3.78E-04	5.78E-05	4.28E-04	3.66E-05	3.31E-05	9.34E-04	potential residence	1.08E-08	2.61E-07	2.43E-07	3.75E-08	0.55	0.00	3.53E-04	5.78E-05	4.07E-04	3.49E-05	3.15E-05	8.84E-04
567972.29_4180066.94	567972.29	4180066.94	3.87E-04	5.73E-05	4.41E-04	3.74E-05	3.36E-05	9.56E-04	potential residence	1.10E-08	2.67E-07	2.49E-07	3.84E-08	0.57	0.00	3.61E-04	5.73E-05	4.19E-04	3.55E-05	3.20E-05	9.05E-04
567992.29_4180066.94	567992.29	4180066.94	3.98E-04	5.71E-05	4.53E-04	3.81E-05	3.42E-05	9.80E-04	potential residence	1.13E-08	2.74E-07	2.56E-07	3.94E-08	0.58	0.00	3.71E-04	5.71E-05	4.31E-04	3.62E-05	3.25E-05	9.28E-04
568012.29_4180066.94	568012.29	4180066.94	4.09E-04	5.69E-05	4.67E-04	3.88E-05	3.47E-05	1.01E-03	potential residence	1.16E-08	2.81E-07	2.62E-07	4.05E-08	0.60	0.00	3.82E-04	5.69E-05	4.44E-04	3.69E-05	3.30E-05	9.52E-04
568032.29_4180066.94	568032.29	4180066.94	4.22E-04	5.68E-05	4.80E-04	3.96E-05	3.52E-05	1.03E-03	potential residence	1.19E-08	2.88E-07	2.69E-07	4.15E-08	0.61	0.00	3.93E-04	5.68E-05	4.56E-04	3.76E-05	3.35E-05	9.78E-04
568052.29_4180066.94	568052.29	4180066.94	4.35E-04	5.67E-05	4.93E-04	4.03E-05	3.58E-05	1.06E-03	potential residence	1.22E-08	2.96E-07	2.77E-07	4.26E-08	0.63	0.00	4.06E-04	5.67E-05	4.69E-04	3.84E-05	3.41E-05	1.00E-03
568072.29_4180066.94	568072.29	4180066.94	4.49E-04	5.66E-05	5.07E-04	4.11E-05	3.63E-05	1.09E-03	potential residence	1.26E-08	3.04E-07	2.84E-07	4.38E-08	0.64	0.00	4.19E-04	5.66E-05	4.82E-04	3.91E-05	3.46E-05	1.03E-03
568092.29_4180066.94	568092.29	4180066.94	4.65E-04	5.65E-05	5.20E-04	4.18E-05	3.69E-05	1.12E-03	potential residence	1.29E-08	3.13E-07	2.92E-07	4.50E-08	0.66	0.00	4.33E-04	5.65E-05	4.95E-04	3.98E-05	3.51E-05	1.06E-03
568112.29_4180066.94	568112.29	4180066.94	4.81E-04	5.65E-05	5.34E-04	4.26E-05	3.74E-05	1.15E-03	potential residence	1.33E-08	3.21E-07	3.00E-07	4.63E-08	0.68	0.00	4.48E-04	5.65E-05	5.08E-04	4.05E-05	3.56E-05	1.09E-03
568132.29_4180066.94	568132.29	4180066.94	4.98E-04	5.66E-05	5.47E-04	4.34E-05	3.79E-05	1.18E-03	potential residence	1.36E-08	3.30E-07	3.08E-07	4.75E-08	0.70	0.00	4.64E-04	5.66E-05	5.20E-04	4.13E-05	3.61E-05	1.12E-03
568152.29_4180066.94	568152.29	4180066.94	5.20E-04	5.56E-05	5.59E-04	4.40E-05	3.83E-05	1.22E-03	potential residence	1.40E-08	3.40E-07	3.17E-07	4.89E-08	0.72	0.00	4.84E-04	5.56E-05	5.32E-04	4.19E-05	3.65E-05	1.15E-03
567412.29_4180086.94	567412.29	4180086.94	2.20E-04	4.57E-05	1.45E-04	2.21E-05	2.15E-05	4.54E-04	potential residence	5.24E-09	1.27E-07	1.18E-07	1.83E-08	0.27	0.00	2.05E-04	4.57E-05	1.38E-04	2.11E-05	2.04E-05	4.30E-04
567432.29_4180086.94	567432.29	4180086.94	2.24E-04	4.65E-05	1.52E-04	2.26E-05	2.19E-05	4.67E-04	potential residence	5.39E-09	1.30E-07	1.22E-07	1.88E-08	0.28	0.00	2.09E-04	4.65E-05	1.45E-04	2.15E-05	2.08E-05	4.43E-04
567452.29_4180086.94	567452.29	4180086.94	2.31E-04	4.73E-05	1.59E-04	2.30E-05	2.23E-05	4.83E-04	potential residence	5.57E-09	1.35E-07	1.26E-07	1.94E-08	0.29	0.00	2.15E-04	4.73E-05	1.52E-04	2.19E-05	2.12E-05	4.57E-04
567472.29_4180086.94	567472.29	4180086.94	2.38E-04	4.82E-05	1.67E-04	2.35E-05	2.27E-05	4.99E-04	potential residence	5.76E-09	1.39E-07	1.30E-07	2.01E-08	0.30	0.00	2.22E-04	4.82E-05	1.59E-04	2.23E-05	2.16E-05	4.73E-04
567492.29_4180086.94	567492.29	4180086.94	2.46E-04	4.93E-05	1.75E-04	2.40E-05	2.31E-05	5.17E-04	potential residence	5.96E-09	1.44E-07	1.35E-07	2.08E-08	0.31	0.00	2.29E-04	4.93E-05	1.67E-04	2.28E-05	2.19E-05	4.89E-04
567512.29_4180086.94	567512.29	4180086.94	2.53E-04	5.02E-05	1.84E-04	2.44E-05	2.35E-05	5.35E-04	potential residence	6.16E-09	1.49E-07	1.39E-07	2.15E-08	0.32	0.00	2.36E-04	5.02E-05	1.75E-04	2.32E-05	2.23E-05	5.06E-04
567532.29_4180086.94	567532.29	4180086.94	2.65E-04	5.14E-05	1.93E-04	2.49E-05	2.39E-05	5.58E-04	potential residence	6.43E-09	1.56E-07	1.45E-07	2.24E-08	0.33	0.00	2.47E-04	5.14E-05	1.83E-04	2.37E-05	2.27E-05	5.28E-04
567552.29_4180086.94	567552.29	4180086.94	2.73E-04	5.23E-05	2.02E-04	2.54E-05	2.43E-05	5.77E-04	potential residence	6.65E-09	1.61E-07	1.50E-07	2.32E-08	0.34	0.00	2.54E-04	5.23E-05	1.93E-04	2.42E-05	2.31E-05	5.46E-04
567572.29_4180086.94	567572.29	4180086.94	2.81E-04	5.32E-05	2.12E-04	2.59E-05	2.47E-05	5.97E-04	potential residence	6.88E-09	1.67E-07	1.56E-07	2.40E-08	0.35	0.00	2.62E-04	5.32E-05	2.02E-04	2.46E-05	2.35E-05	5.65E-04
567592.29_4180086.94	567592.29	4180086.94	2.89E-04	5.44E-05	2.23E-04	2.64E-05	2.51E-05	6.18E-04	potential residence	7.12E-09	1.72E-07	1.61E-07	2.48E-08	0.37	0.00	2.69E-04	5.44E-05	2.12E-04	2.51E-05	2.39E-05	5.85E-04
567612.29_4180086.94	567612.29	4180086.94	2.97E-04	5.54E-05	2.34E-04	2.69E-05	2.56E-05	6.38E-04	potential residence	7.36E-09	1.78E-07	1.66E-07	2.57E-08	0.38	0.00	2.77E-04	5.54E-05	2.23E-04	2.56E-05	2.43E-05	6.04E-04
567632.29_4180086.94	567632.29	4180086.94	3.04E-04	5.63E-05	2.45E-04	2.75E-05	2.60E-05	6.59E-04	potential residence	7.60E-09	1.84E-07	1.72E-07	2.65E-08	0.39	0.00	2.84E-04	5.63E-05	2.33E-04	2.61E-05	2.48E-05	6.24E-04
567652.29_4180086.94	567652.29	4180086.94	3.12E-04	5.72E-05	2.57E-04	2.80E-05	2.65E-05	6.80E-04	potential residence	7.84E-09	1.90E-07	1.77E-07	2.73E-08	0.40	0.00	2.91E-04	5.72E-05	2.45E-04	2.66E-05	2.52E-05	6.44E-04
567672.29_4180086.94	567672.29	4180086.94	3.19E-04	5.83E-05	2.69E-04	2.86E-05	2.69E-05	7.02E-04	potential residence	8.09E-09	1.96E-07	1.83E-07	2.82E-08	0.42	0.00	2.97E-04	5.83E-05	2.56E-04	2.72E-05	2.56E-05	6.65E-04
567692.29_4180086.94	567692.29	4180086.94	3.26E-04	5.95E-05	2.82E-04	2.91E-05	2.74E-05	7.24E-04	potential residence	8.34E-09	2.02E-07	1.89E-07	2.91E-08	0.43	0.00	3.04E-04	5.95E-05	2.68E-04	2.77E-05	2.61E-05	6.85E-04
567712.29_4180086.94	567712.29	4180086.94	3.32E-04	6.06E-05	2.94E-04	2.97E-05	2.79E-05	7.45E-04	potential residence	8.59E-09	2.08E-07	1.94E-07	3.00E-08	0.44	0.00	3.10E-04	6.06E-05	2.80E-04	2.83E-05	2.65E-05	7.06E-04
567732.29_4180086.94	567732.29	4180086.94	3.39E-04	6.19E-05	3.07E-04	3.03E-05	2.84E-05	7.67E-04	potential residence	8.84E-09	2.14E-07	2.00E-07	3.08E-08	0.45	0.00	3.16E-04	6.19E-05	2.93E-04	2.88E-05	2.70E-05	7.26E-04
567752.29_4180086.94	567752.29	4180086.94	3.45E-04	6.29E-05	3.21E-04	3.09E-05	2.89E-05	7.88E-04	potential residence	9.08E-09	2.20E-07	2.05E-07	3.17E-08	0.47	0.00	3.21E-04	6.29E-05	3.05E-04	2.94E-05	2.74E-05	7.46E-04
567772.29_4180086.94	567772.29	4180086.94	3.51E-04	6.39E-05	3.34E-04	3.15E-05	2.93E-05	8.10E-04	potential residence	9.33E-09	2.26E-07	2.11E-07	3.25E-08	0.48	0.00	3.27E-04	6.39E-05	3.18E-04	3.00E-05	2.79E-05	7.67E-04
567792.29_4180086.94	567792.29	4180086.94	3.56E-04	6.43E-05	3.47E-04	3.22E-05	2.99E-05	8.30E-04	potential residence	9.56E-09	2.32E-07	2.16E-07	3.33E-08	0.49	0.00	3.32E-04	6.43E-05	3.31E-04	3.06E-05	2.84E-05	7.86E-04
567812.29_4180086.94	567812.29	4180086.94	3.61E-04	6.45E-05	3.61E-04	3.29E-05	3.04E-05	8.50E-04	potential residence	9.80E-09	2.37E-07	2.22E-07	3.42E-08	0.50	0.00	3.37E-04	6.45E-05	3.43E-04	3.13E-05	2.89E-05	8.05E-04
567832.29_4180086.94	567832.29	4180086.94	3.67E-04	6.43E-05	3.75E-04	3.35E-05	3.09E-05	8.70E-04	potential residence	1.00E-08	2.43E-07	2.27E-07	3.50E-08	0.51	0.00	3.42E-04	6.43E-05	3.56E-04	3.19E-05	2.94E-05	8.24E-04
567852.29_4180086.94	567852.29	4180086.94	3.72E-04	6.41E-05	3.88E-04	3.42E-05	3.14E-05	8.91E-04	potential residence	1.03E-08	2.49E-07	2.32E-07	3.58E-08	0.53	0.00	3.47E-04	6.41E-05	3.70E-04	3.26E-05	2.99E-05	8.43E-04
567892.29_4180086.94	567892.29	4180086.94	3.85E-04	6.30E-05	4.16E-04	3.57E-05	3.26E-05	9.32E-04	potential residence	1.07E-08	2.60E-07	2.43E-07	3.75E-08	0.55	0.00	3.59E-04	6.30E-05	3.96E-04	3.39E-05	3.10E-05	8.83E-04
567912.29_4180086.94	567912.29	4180086.94	3.92E-04	6.26E-05	4.30E-04	3.64E-05	3.31E-05	9.55E-04	potential residence	1.10E-08	2.67E-07	2.49E-07	3.84E-08	0.56	0.00	3.66E-04	6.26E-05	4.10E-04	3.46E-05	3.15E-05	9.04E-04
567932.29_4180086.94	567932.29	4180086.94	4.00E-04	6.20E-05	4.45E-04	3.72E-05	3.37E-05	9.77E-04	potential residence	1.13E-08	2.73E-07	2.55E-07	3.93E-08	0.58	0.00	3.73E-04	6.20E-05	4.23E-04	3.54E-05	3.21E-05	9.25E-04
567972.29_4180086.94	567972.29	4180086.94	4.19E-04	6.10E-05	4.74E-04	3.87E-05	3.49E-05	1.03E-03	potential residence	1.18E-08	2.87E-07	2.68E-07	4.13E-08	0.61	0.00	3.91E-04	6.10E-05	4.51E-04	3.68E-05	3.32E-05	9.73E-04
567992.29_4180086.94	567992.29	4180086.94	4.31E-04	6.07E-05	4.89E-04	3.95E-05	3.54E-05	1.06E-03	potential residence	1.22E-08	2.95E-07	2.75E-07	4.24E-08	0.62	0.00	4.02E-04	6.07E-05	4.65E-04	3.76E-05	3.37E-05	9.99E-04
568012.29_4180086.94	568012.29	4180086.94	4.43E-04	6.04E-05	5.05E-04	4.03E-05	3.60E-05	1.08E-03	potential residence	1.25E-08	3.03E-07	2.83E-07	4.36E-08	0.64	0.00	4.13E-04	6.04E-05	4.80E-04	3.84E-05	3.43E-05	1.03E-03
568032.29_4180086.94	568032.29	4180086.94	4.57E-04	6.02E-05	5.20E-04	4.12E-05	3.67E-05	1.12E-03	potential residence	1.29E-08	3.11E-07	2.91E-07	4.48E-08	0.66	0.00	4.26E-04	6.02E-05	4.95E-04	3.92E-05	3.49E-05	1.06E-03
568052.29_4180086.94	568052.29	4180086.94	4.72E-04	6.00E-05	5.36E-04	4.20E-05	3.73E-05	1.15E-03	potential residence	1.32E-08	3.20E-07	2.99E-07	4.61E-08	0.68	0.00	4.40E-04	6.00E-05	5.10E-04	4.00E-05	3.54E-05	1.09E-03
568072.29_4180086.94	568072.29	4180086.94	4.89E-04	5.99E-05	5.52E-04	4.29E-05	3.79E-05	1.18E-03	potential residence	1.36E-08	3.30E-07	3.08E-07	4.75E-08	0.70	0.00	4.56E-04	5.99E-05	5.25E-04	4.08E-05	3.60E-05	1.12E-03
568092.29_4180086.94	568092.29	4180086.94	5.06E-04	5.98E-05	5.69E-04	4.37E-05	3.85E-05	1.22E-03	potential residence	1.40E-08	3.40E-07	3.17E-07	4.89E-08	0.72	0.00	4.72E-04	5.98E-05	5.41E-04	4.16E-05	3.66E-05	1.15E-03
568112.29_4180086.94	568112.29	4180086.94	5.25E-04	5.98E-05	5.85E-04	4.46E-05	3.91E-05	1.25E-03	potential residence	1.44E-08	3.50E-07	3.27E-07	5.04E-08	0.74	0.00	4.89E-04	5.98E-05	5.56E-04	4.24E-05	3.72E-05	1.18E-03
568132.29_4180086.94	568132.29	4180086.94	5.47E-04	5.95E-05	6.01E-04	4.54E-05	3.96E-05	1.29E-03	potential residence	1.49E-08	3.61E-07	3.37E-07	5.19E-08	0.76	0.00	5.10E-04	5.95E-05	5.72E-04	4.32E-05	3.77E-05	1.22E-03
567412.29_4180106.94	567412.29	4180106.94	2.25E-04	4.67E-05	1.44E-04	2.25E-05	2.18E-05	4.60E-04	potential residence	5.30E-09	1.28E-07	1.20E-07	1.85E-08	0.27	0.00	2.10E-04	4.67E-05	1.37E-04	2.14E-05	2.08E-05	4.36E-04
567432.29_4180106.94	567432.29	4180106.94	2.35E-04	4.81E-05	1.51E-04	2.29E-05	2.22E-05	4.79E-04	potential residence	5.53E-09	1.34E-07	1.25E-07	1.93E-08	0.28	0.00	2.19E-04	4.81E-05	1.44E-04	2.18E-05	2.11E-05	4.54E-04
567452.29_4180106.94	567452.29	4180106.94	2.43E-04	4.89E-05	1.59E-04	2.34E-05	2.26E-05	4.96E-04	potential residence	5.72E-09	1.39E-07	1.29E-07	1.99E-08	0.29	0.00	2.26E-04	4.89E-05	1.51E-04	2.23E-05	2.15E-05	4.70E-04
567472.29_4180106.94	567472.29	4180106.94	2.48E-04	5.00E-05	1.67E-04	2.39E-05	2.31E-05	5.11E-04	potential residence	5.89E-09	1.43E-07	1.33E-07	2.06E-08	0.30	0.00	2.31E-04	5.00E-05	1.58E-04	2.27E-05	2.20E-05	4.84E-04
567492.29_4180106.94	567492.29	4180106.94	2.59E-04	5.11E-05	1.75E-04	2.44E-05	2.35E-05	5.33E-04	potential residence	6.14E-09	1.49E-07	1.39E-07	2.14E-08	0.32	0.00	2.42E-04	5.11E-05	1.66E-04	2.32E-05	2.24E-05	5.05E-04
567512.29_4180106.94	567512.29	4180106.94	2.68E-04	5.23E-05	1.84E-04	2.49E-05	2.39E-05	5.53E-04	potential residence	6.37E-09	1.54E-07	1.44E-07	2.22E-08	0.33	0.00	2.50E-04	5.23E-05	1.75E-04	2.37E-05	2.28E-05	5.23E-04
567532.29_4180106.94	567532.29	4180106.94	2.77E-04	5.35E-05	1.93E-04	2.54E-05	2.44E-05	5.73E-04	potential residence	6.61E-09	1.60E-07	1.49E-07	2.30E-08	0.34	0.00	2.58E-04	5.35E-05	1.84E-04	2.42E-05	2.32E-05	5.43E-04
567552.29_4180106.94	567552.29	4180106.94	2.86E-04	5.47E-05	2.03E-04	2.59E-05	2.48E-05	5.95E-04	potential residence	6.85E-09	1.66E-07	1.55E-07	2.39E-08	0.35	0.00	2.66E-04	5.47E-05	1.93E-04	2.46E-05	2.36E-05	5.63E-04
567572.29_4180106.94	567572.29	4180106.94	2.95E-04	5.59E-05	2.14E-04	2.64E-05	2.53E-05	6.17E-04	potential residence	7.11E-09	1.72E-07	1.61E-07	2.48E-08	0.36	0.00	2.75E-04	5.59E-05	2.04E-04	2.51E-05	2.40E-05	5.84E-04
567592.29_4180106.94	567592.29	4180106.94	3.04E-04	5.70E-05	2.25E-04	2.70E-05	2.57E-05	6.39E-04	potential residence	7.36E-09	1.78E-07	1.66E-07	2.57E-08	0.38	0.00	2.83E-04	5.70E-05	2.14E-04	2.57E-05	2.45E-05	6.05E-04

567612.29_4180106.94	567612.29	4180106.94	3.13E-04	5.82E-05	2.37E-04	2.75E-05	2.62E-05	6.62E-04	potential residence	7.63E-09	1.85E-07	1.73E-07	2.66E-08	0.39	0.00	2.92E-04	5.82E-05	2.25E-04	2.62E-05	2.49E-05	6.27E-04
567632.29_4180106.94	567632.29	4180106.94	3.22E-04	5.92E-05	2.49E-04	2.81E-05	2.66E-05	6.85E-04	potential residence	7.90E-09	1.91E-07	1.79E-07	2.75E-08	0.41	0.00	3.00E-04	5.92E-05	2.37E-04	2.67E-05	2.53E-05	6.49E-04
567652.29_4180106.94	567652.29	4180106.94	3.31E-04	6.05E-05	2.62E-04	2.86E-05	2.71E-05	7.10E-04	potential residence	8.18E-09	1.98E-07	1.85E-07	2.85E-08	0.42	0.00	3.09E-04	6.05E-05	2.49E-04	2.72E-05	2.58E-05	6.72E-04
567672.29_4180106.94	567672.29	4180106.94	3.40E-04	6.16E-05	2.76E-04	2.92E-05	2.76E-05	7.34E-04	potential residence	8.46E-09	2.05E-07	1.91E-07	2.95E-08	0.43	0.00	3.17E-04	6.16E-05	2.62E-04	2.78E-05	2.63E-05	6.94E-04
567692.29_4180106.94	567692.29	4180106.94	3.48E-04	6.28E-05	2.89E-04	2.98E-05	2.81E-05	7.58E-04	potential residence	8.74E-09	2.12E-07	1.98E-07	3.05E-08	0.45	0.00	3.24E-04	6.28E-05	2.75E-04	2.84E-05	2.67E-05	7.18E-04
567712.29_4180106.94	567712.29	4180106.94	3.56E-04	6.42E-05	3.04E-04	3.04E-05	2.86E-05	7.83E-04	potential residence	9.02E-09	2.19E-07	2.04E-07	3.15E-08	0.46	0.00	3.32E-04	6.42E-05	2.89E-04	2.90E-05	2.72E-05	7.41E-04
567732.29_4180106.94	567732.29	4180106.94	3.64E-04	6.56E-05	3.18E-04	3.11E-05	2.91E-05	8.08E-04	potential residence	9.31E-09	2.25E-07	2.10E-07	3.25E-08	0.48	0.00	3.39E-04	6.56E-05	3.03E-04	2.96E-05	2.77E-05	7.65E-04
567752.29_4180106.94	567752.29	4180106.94	3.71E-04	6.68E-05	3.33E-04	3.17E-05	2.96E-05	8.32E-04	potential residence	9.59E-09	2.32E-07	2.17E-07	3.34E-08	0.49	0.00	3.46E-04	6.68E-05	3.17E-04	3.02E-05	2.82E-05	7.88E-04
567772.29_4180106.94	567772.29	4180106.94	3.78E-04	6.80E-05	3.48E-04	3.24E-05	3.02E-05	8.57E-04	potential residence	9.88E-09	2.39E-07	2.23E-07	3.44E-08	0.51	0.00	3.52E-04	6.80E-05	3.31E-04	3.08E-05	2.87E-05	8.11E-04
567792.29_4180106.94	567792.29	4180106.94	3.84E-04	6.86E-05	3.64E-04	3.31E-05	3.07E-05	8.80E-04	potential residence	1.01E-08	2.46E-07	2.29E-07	3.54E-08	0.52	0.00	3.58E-04	6.86E-05	3.46E-04	3.15E-05	2.92E-05	8.33E-04
567812.29_4180106.94	567812.29	4180106.94	3.91E-04	6.91E-05	3.79E-04	3.38E-05	3.13E-05	9.04E-04	potential residence	1.04E-08	2.52E-07	2.36E-07	3.63E-08	0.53	0.00	3.64E-04	6.91E-05	3.61E-04	3.21E-05	2.97E-05	8.56E-04
567852.29_4180106.94	567852.29	4180106.94	4.04E-04	6.87E-05	4.11E-04	3.52E-05	3.24E-05	9.51E-04	potential residence	1.10E-08	2.66E-07	2.48E-07	3.82E-08	0.56	0.00	3.77E-04	6.87E-05	3.91E-04	3.35E-05	3.08E-05	9.01E-04
567872.29_4180106.94	567872.29	4180106.94	4.11E-04	6.81E-05	4.27E-04	3.60E-05	3.30E-05	9.75E-04	potential residence	1.12E-08	2.72E-07	2.54E-07	3.92E-08	0.58	0.00	3.83E-04	6.81E-05	4.06E-04	3.43E-05	3.14E-05	9.23E-04
567892.29_4180106.94	567892.29	4180106.94	4.18E-04	6.74E-05	4.43E-04	3.68E-05	3.36E-05	9.99E-04	potential residence	1.15E-08	2.79E-07	2.60E-07	4.02E-08	0.59	0.00	3.89E-04	6.74E-05	4.22E-04	3.50E-05	3.20E-05	9.46E-04
567912.29_4180106.94	567912.29	4180106.94	4.26E-04	6.68E-05	4.60E-04	3.76E-05	3.42E-05	1.02E-03	potential residence	1.18E-08	2.86E-07	2.67E-07	4.12E-08	0.61	0.00	3.97E-04	6.68E-05	4.38E-04	3.58E-05	3.26E-05	9.70E-04
567932.29_4180106.94	567932.29	4180106.94	4.34E-04	6.62E-05	4.77E-04	3.84E-05	3.48E-05	1.05E-03	potential residence	1.21E-08	2.93E-07	2.74E-07	4.22E-08	0.62	0.00	4.05E-04	6.62E-05	4.53E-04	3.66E-05	3.32E-05	9.94E-04
567952.29_4180106.94	567952.29	4180106.94	4.44E-04	6.56E-05	4.94E-04	3.93E-05	3.55E-05	1.08E-03	potential residence	1.24E-08	3.01E-07	2.81E-07	4.33E-08	0.64	0.00	4.14E-04	6.56E-05	4.70E-04	3.74E-05	3.38E-05	1.02E-03
567992.29_4180106.94	567992.29	4180106.94	4.68E-04	6.46E-05	5.29E-04	4.10E-05	3.68E-05	1.14E-03	potential residence	1.31E-08	3.18E-07	2.97E-07	4.58E-08	0.67	0.00	4.37E-04	6.46E-05	5.03E-04	3.90E-05	3.50E-05	1.08E-03
568012.29_4180106.94	568012.29	4180106.94	4.82E-04	6.42E-05	5.47E-04	4.19E-05	3.74E-05	1.17E-03	potential residence	1.35E-08	3.27E-07	3.06E-07	4.71E-08	0.69	0.00	4.49E-04	6.42E-05	5.20E-04	3.99E-05	3.56E-05	1.11E-03
568032.29_4180106.94	568032.29	4180106.94	4.97E-04	6.39E-05	5.66E-04	4.28E-05	3.81E-05	1.21E-03	potential residence	1.39E-08	3.37E-07	3.15E-07	4.86E-08	0.71	0.00	4.64E-04	6.39E-05	5.38E-04	4.07E-05	3.62E-05	1.14E-03
568052.29_4180106.94	568052.29	4180106.94	5.15E-04	6.38E-05	5.85E-04	4.38E-05	3.88E-05	1.25E-03	potential residence	1.44E-08	3.48E-07	3.25E-07	5.01E-08	0.74	0.00	4.80E-04	6.38E-05	5.56E-04	4.16E-05	3.69E-05	1.18E-03
568092.29_4180106.94	568092.29	4180106.94	5.55E-04	6.35E-05	6.24E-04	4.57E-05	4.01E-05	1.33E-03	potential residence	1.53E-08	3.71E-07	3.46E-07	5.34E-08	0.79	0.00	5.17E-04	6.35E-05	5.93E-04	4.35E-05	3.82E-05	1.26E-03
568112.29_4180106.94	568112.29	4180106.94	5.78E-04	6.33E-05	6.43E-04	4.67E-05	4.08E-05	1.37E-03	potential residence	1.58E-08	3.83E-07	3.58E-07	5.51E-08	0.81	0.00	5.38E-04	6.33E-05	6.12E-04	4.44E-05	3.88E-05	1.30E-03
567412.29_4180126.94	567412.29	4180126.94	2.32E-04	4.77E-05	1.43E-04	2.28E-05	2.22E-05	4.68E-04	potential residence	5.40E-09	1.31E-07	1.22E-07	1.88E-08	0.28	0.00	2.16E-04	4.77E-05	1.36E-04	2.17E-05	2.11E-05	4.43E-04
567432.29_4180126.94	567432.29	4180126.94	2.42E-04	4.91E-05	1.50E-04	2.33E-05	2.26E-05	4.88E-04	potential residence	5.62E-09	1.36E-07	1.27E-07	1.96E-08	0.29	0.00	2.26E-04	4.91E-05	1.43E-04	2.22E-05	2.15E-05	4.62E-04
567452.29_4180126.94	567452.29	4180126.94	2.51E-04	5.06E-05	1.58E-04	2.38E-05	2.30E-05	5.07E-04	potential residence	5.84E-09	1.41E-07	1.32E-07	2.04E-08	0.30	0.00	2.34E-04	5.06E-05	1.50E-04	2.26E-05	2.19E-05	4.80E-04
567472.29_4180126.94	567472.29	4180126.94	2.60E-04	5.17E-05	1.66E-04	2.43E-05	2.35E-05	5.25E-04	potential residence	6.06E-09	1.47E-07	1.37E-07	2.11E-08	0.31	0.00	2.43E-04	5.17E-05	1.58E-04	2.31E-05	2.23E-05	4.97E-04
567492.29_4180126.94	567492.29	4180126.94	2.70E-04	5.30E-05	1.74E-04	2.48E-05	2.39E-05	5.46E-04	potential residence	6.29E-09	1.52E-07	1.42E-07	2.19E-08	0.32	0.00	2.51E-04	5.30E-05	1.66E-04	2.36E-05	2.28E-05	5.17E-04
567512.29_4180126.94	567512.29	4180126.94	2.79E-04	5.44E-05	1.83E-04	2.53E-05	2.44E-05	5.67E-04	potential residence	6.53E-09	1.58E-07	1.48E-07	2.28E-08	0.34	0.00	2.60E-04	5.44E-05	1.75E-04	2.41E-05	2.32E-05	5.37E-04
567532.29_4180126.94	567532.29	4180126.94	2.89E-04	5.59E-05	1.93E-04	2.59E-05	2.49E-05	5.89E-04	potential residence	6.79E-09	1.64E-07	1.54E-07	2.37E-08	0.35	0.00	2.70E-04	5.59E-05	1.84E-04	2.46E-05	2.36E-05	5.58E-04
567552.29_4180126.94	567552.29	4180126.94	2.99E-04	5.72E-05	2.04E-04	2.64E-05	2.53E-05	6.12E-04	potential residence	7.06E-09	1.71E-07	1.60E-07	2.46E-08	0.36	0.00	2.79E-04	5.72E-05	1.94E-04	2.51E-05	2.41E-05	5.79E-04
567572.29_4180126.94	567572.29	4180126.94	3.10E-04	5.85E-05	2.15E-04	2.70E-05	2.58E-05	6.36E-04	potential residence	7.33E-09	1.78E-07	1.66E-07	2.56E-08	0.38	0.00	2.89E-04	5.85E-05	2.04E-04	2.57E-05	2.45E-05	6.02E-04
567592.29_4180126.94	567592.29	4180126.94	3.20E-04	5.99E-05	2.27E-04	2.75E-05	2.63E-05	6.60E-04	potential residence	7.61E-09	1.84E-07	1.72E-07	2.65E-08	0.39	0.00	2.98E-04	5.99E-05	2.16E-04	2.62E-05	2.50E-05	6.25E-04
567612.29_4180126.94	567612.29	4180126.94	3.30E-04	6.12E-05	2.39E-04	2.81E-05	2.68E-05	6.86E-04	potential residence	7.91E-09	1.91E-07	1.79E-07	2.76E-08	0.41	0.00	3.08E-04	6.12E-05	2.28E-04	2.67E-05	2.55E-05	6.49E-04
567632.29_4180126.94	567632.29	4180126.94	3.41E-04	6.25E-05	2.53E-04	2.87E-05	2.73E-05	7.12E-04	potential residence	8.21E-09	1.99E-07	1.86E-07	2.86E-08	0.42	0.00	3.18E-04	6.25E-05	2.40E-04	2.73E-05	2.59E-05	6.74E-04
567652.29_4180126.94	567652.29	4180126.94	3.51E-04	6.39E-05	2.66E-04	2.93E-05	2.78E-05	7.39E-04	potential residence	8.52E-09	2.06E-07	1.93E-07	2.97E-08	0.44	0.00	3.28E-04	6.39E-05	2.54E-04	2.79E-05	2.64E-05	6.99E-04
567672.29_4180126.94	567672.29	4180126.94	3.62E-04	6.51E-05	2.81E-04	2.99E-05	2.83E-05	7.66E-04	potential residence	8.83E-09	2.14E-07	2.00E-07	3.08E-08	0.45	0.00	3.37E-04	6.51E-05	2.67E-04	2.85E-05	2.69E-05	7.25E-04
567692.29_4180126.94	567692.29	4180126.94	3.72E-04	6.65E-05	2.96E-04	3.05E-05	2.88E-05	7.94E-04	potential residence	9.15E-09	2.22E-07	2.07E-07	3.19E-08	0.47	0.00	3.46E-04	6.65E-05	2.82E-04	2.91E-05	2.74E-05	7.51E-04
567712.29_4180126.94	567712.29	4180126.94	3.81E-04	6.79E-05	3.12E-04	3.12E-05	2.93E-05	8.22E-04	potential residence	9.47E-09	2.29E-07	2.14E-07	3.30E-08	0.49	0.00	3.55E-04	6.79E-05	2.97E-04	2.97E-05	2.79E-05	7.78E-04
567732.29_4180126.94	567732.29	4180126.94	3.90E-04	6.94E-05	3.28E-04	3.19E-05	2.99E-05	8.50E-04	potential residence	9.80E-09	2.37E-07	2.22E-07	3.42E-08	0.50	0.00	3.64E-04	6.94E-05	3.12E-04	3.03E-05	2.84E-05	8.04E-04
567772.29_4180126.94	567772.29	4180126.94	4.08E-04	7.23E-05	3.63E-04	3.33E-05	3.10E-05	9.07E-04	potential residence	1.05E-08	2.53E-07	2.36E-07	3.64E-08	0.54	0.00	3.80E-04	7.23E-05	3.45E-04	3.16E-05	2.95E-05	8.58E-04
567832.29_4180126.94	567832.29	4180126.94	4.31E-04	7.41E-05	4.16E-04	3.55E-05	3.28E-05	9.90E-04	potential residence	1.14E-08	2.76E-07	2.58E-07	3.98E-08	0.59	0.00	4.02E-04	7.41E-05	3.96E-04	3.38E-05	3.12E-05	9.37E-04
567852.29_4180126.94	567852.29	4180126.94	4.38E-04	7.36E-05	4.35E-04	3.63E-05	3.34E-05	1.02E-03	potential residence	1.17E-08	2.84E-07	2.65E-07	4.09E-08	0.60	0.00	4.09E-04	7.36E-05	4.14E-04	3.45E-05	3.18E-05	9.62E-04
567872.29_4180126.94	567872.29	4180126.94	4.47E-04	7.31E-05	4.54E-04	3.71E-05	3.40E-05	1.05E-03	potential residence	1.20E-08	2.92E-07	2.72E-07	4.20E-08	0.62	0.00	4.17E-04	7.31E-05	4.32E-04	3.53E-05	3.24E-05	9.89E-04
567892.29_4180126.94	567892.29	4180126.94	4.55E-04	7.24E-05	4.73E-04	3.80E-05	3.47E-05	1.07E-03	potential residence	1.24E-08	3.00E-07	2.80E-07	4.31E-08	0.63	0.00	4.24E-04	7.24E-05	4.50E-04	3.61E-05	3.30E-05	1.02E-03
567912.29_4180126.94	567912.29	4180126.94	4.64E-04	7.16E-05	4.92E-04	3.88E-05	3.54E-05	1.10E-03	potential residence	1.27E-08	3.08E-07	2.87E-07	4.43E-08	0.65	0.00	4.33E-04	7.16E-05	4.68E-04	3.69E-05	3.36E-05	1.04E-03
567932.29_4180126.94	567932.29	4180126.94	4.74E-04	7.09E-05	5.12E-04	3.97E-05	3.60E-05	1.13E-03	potential residence	1.31E-08	3.16E-07	2.95E-07	4.55E-08	0.67	0.00	4.42E-04	7.09E-05	4.87E-04	3.78E-05	3.43E-05	1.07E-03
567952.29_4180126.94	567952.29	4180126.94	4.86E-04	7.03E-05	5.32E-04	4.06E-05	3.67E-05	1.17E-03	potential residence	1.34E-08	3.25E-07	3.04E-07	4.68E-08	0.69	0.00	4.53E-04	7.03E-05	5.06E-04	3.86E-05	3.49E-05	1.10E-03
567972.29_4180126.94	567972.29	4180126.94	4.97E-04	6.96E-05	5.53E-04	4.16E-05	3.74E-05	1.20E-03	potential residence	1.38E-08	3.35E-07	3.12E-07	4.82E-08	0.71	0.00	4.64E-04	6.96E-05	5.26E-04	3.95E-05	3.56E-05	1.13E-03
568012.29_4180126.94	568012.29	4180126.94	5.27E-04	6.86E-05	5.95E-04	4.35E-05	3.88E-05	1.27E-03	potential residence	1.47E-08	3.56E-07	3.32E-07	5.12E-08	0.75	0.00	4.91E-04	6.86E-05	5.66E-04	4.14E-05	3.70E-05	1.20E-03
568032.29_4180126.94	568032.29	4180126.94	5.45E-04	6.83E-05	6.18E-04	4.45E-05	3.96E-05	1.31E-03	potential residence	1.52E-08	3.67E-07	3.43E-07	5.28E-08	0.78	0.00	5.08E-04	6.83E-05	5.88E-04	4.24E-05	3.77E-05	1.24E-03
568072.29_4180126.94	568072.29	4180126.94	5.87E-04	6.79E-05	6.64E-04	4.66E-05	4.11E-05	1.41E-03	potential residence	1.62E-08	3.93E-07	3.67E-07	5.65E-08	0.83	0.00	5.47E-04	6.79E-05	6.32E-04	4.44E-05	3.91E-05	1.33E-03
568092.29_4180126.94	568092.29	4180126.94	6.12E-04	6.76E-05	6.88E-04	4.77E-05	4.18E-05	1.46E-03	potential residence	1.68E-08	4.07E-07	3.80E-07	5.86E-08	0.86	0.00	5.71E-04	6.76E-05	6.55E-04	4.54E-05	3.98E-05	1.38E-03
568112.29_4180126.94	568112.29	4180126.94	6.43E-04	6.49E-05	7.03E-04	4.85E-05	4.23E-05	1.50E-03	potential residence	1.73E-08	4.19E-07	3.91E-07	6.03E-08	0.89	0.00	5.99E-04	6.49E-05	6.69E-04	4.61E-05	4.02E-05	1.42E-03
567412.29_4180146.94	567412.29	4180146.94	2.41E-04	4.88E-05	1.42E-04	2.32E-05	2.25E-05	4.77E-04	potential residence	5.50E-09	1.33E-07	1.24E-07	1.92E-08	0.28	0.00	2.24E-04	4.88E-05	1.35E-04	2.20E-05	2.14E-05	4.52E-04
567432.29_4180146.94	567432.29	4180146.94	2.48E-04	5.00E-05	1.49E-04	2.37E-05	2.30E-05	4.94E-04	potential residence	5.69E-09	1.38E-07	1.29E-07	1.98E-08	0.29	0.00	2.31E-04	5.00E-05	1.42E-04	2.25E-05	2.19E-05	4.67E-04
567452.29_4180146.94	567452.29	4180146.94	2.60E-04	5.20E-05	1.56E-04	2.42E-05	2.34E-05	5.16E-04	potential residence	5.95E-09	1.44E-07	1.34E-07	2.07E-08	0.31	0.00	2.42E-04	5.20E-05	1.49E-04	2.30E-05	2.23E-05	4.88E-04
567472.29_4180146.94	567472.29	4180146.94	2.70E-04	5.32E-05	1.65E-04	2.47E-05	2.39E-05	5.36E-04	potential residence	6.18E-09	1.50E-07	1.40E-07	2.15E-08	0.32	0.00	2.51E-04	5.32E-05	1.57E-04	2.35E-05	2.27E-05	5.07E-04
567492.29_4180146.94	567492.29	4180146.94	2.80E-04	5.47E-05	1.73E-04	2.53E-05	2.44E-05	5.57E-04	potential residence	6.43E-09	1.56E-07	1.45E-07	2.24E-08	0.33	0.00	2.61E-04	5.47E-05	1.65E-04	2.40E-05	2.32E-05	5.28E-04
567512.29_4180146.94	567512.29	4180146.94	2.90E-04	5.62E-05	1.83E-04	2.58E-05	2.49E-05	5.80E-04	potential residence	6.68E-09	1.62E-07	1.51E-07	2.33E-08	0.34	0.00	2.71E-04	5.62E-05	1.74E-04	2.45E-05	2.37E-05	5.49E-04
567532.29_4180146.94	567532.29	4180146.94	3.02E-04	5.80E-05	1.93E-04	2.64E-05	2.54E-05	6.04E-04	potential residence	6.96E-09	1.69E-07	1.57E-07	2.43E-08	0.36	0.00	2.81E-04	5.80E-05	1.83E-04	2.51E-05	2.41E-05	5.72E-04
567552.29_4180146.94	567552.29	4180146.94	3.13E-04	5.98E-05	2.04E-04	2.69E-05	2.58E-05	6.29E-04	potential residence	7.25E-09	1.76E-07	1.64E-07	2.53E-08	0.37	0.00	2.92E-04	5.98E-05	1.94E-04	2.56E-05	2.46E-05	5.96E-04
567572.29_4180146.94	567572.29	4180146.94	3.25E-04	6.14E-05	2.15E-04	2.75E-05	2.63E-05	6.55E-04	potential residence	7.55E-09	1.83E-07	1.71E-07	2.63E-08	0.39	0.00	3.03E-04	6.14E-05	2.05E-04	2.62E-05	2.51E-05	6.20E-04
567592.29_4180146.94	567592.29	4180146.94	3.37E-04	6.30E-05	2.28E-04	2.81E-05	2.68E-05	6.82E-04	potential residence	7.86E-09	1.90E-07	1.78E-07	2.74E-08	0.40	0.00	3.14E-04	6.30E-05	2.16E-04	2.67E-05	2.55E-05	6.46E-04
567612.29_4180146.94	567612.29	4180146.94	3.49E-04	6.45E-05	2.41E-04	2.87E-05	2.74E-05	7.10E-04	potential residence	8.18E-09	1.98E-07	1.85E-07	2.85E-08	0.42	0.00	3.25E-04	6.45E-05	2.29E-04	2.73E-05	2.60E-05	6.72E-04
567632.29_4180146.94	567632.29	4180146.94	3.61E-04	6.60E-05	2.55E-04	2.93E-05	2.79E-05	7.39E-04	potential residence	8.52E-09	2.06E-07	1.93E-07	2.97E-08	0.44	0.00	3.36E-04	6.60E-05	2.43E-04	2.79E-05	2.65E-05	6.99E-04
567652.29_4180146.94	567652.29	4180146.94	3.73E-04	6.76E-05	2.70E-04	3.00E-05	2.84E-05	7.69E-04	potential residence	8.87E-09	2.15E-07	2.00E-07	3.09E-08	0.45	0.00	3.48E-04	6.76E-05	2.57E-04	2.85E-05	2.70E-05	7.28E-04
567672.29_4180146.94	567672.29	4180146.94	3.85E-04	6.91E-05	2.86E-04	3.06E-05	2.90E-05	8.00E-04	potential residence	9.22E-09	2.23E-07	2.08E-07	3.21E-08	0.47	0.00	3.59E-04	6.91E-05	2.72E-04	2.91E-05	2.76E-05	7.57E-04
567692.29_4180146.94	567692.29	4180146.94	3.97E-04	7.05E-05	3.02E-04	3.13E-05	2.95E-05	8.31E-04	potential residence	9.58E-09	2.32E-07	2.17E-07	3.34E-08	0.49	0.00	3.70E-04	7.05E-05	2.88E-04	2.97E-05	2.81E-05	7.86E-04
567712.29_4180146.94	567712.29	4180146.94	4.08E-04	7.20E-05	3.20E-04	3.20E-05	3.01E-05	8.62E-04	potential residence	9.94E-09	2.41E-07	2.25E-07	3.47E-08	0.51	0.00	3.81E-04	7.20E-05	3.04E-04	3.04E-05	2.86E-05	8.16E-04
567732.29_4180146.94	567732.29	4180146.94	4.20E-04	7.36E-05	3.38E-04	3.27E-05	3.07E-05	8.95E-04	potential residence	1.03E-08	2.50E-07	2.33E-07	3.60E-08	0.53	0.00	3.91E-04	7.36E-05	3.22E-04	3.11E-05	2.92E-05	8.47E-04
567752.29_4180146.94	567752.29	4180146.94	4.31E-04	7.54E-05	3.57E-04	3.34E-05	3.12E-05	9.28E-04	potential residence	1.07E-08	2.59E-07	2.42E-07	3.73E-08	0.55	0.00	4.01E-04	7.54E-05	3.40E-04	3.18E-05	2.97E-05	8.78E-04

567792.29_4180146.94	567792.29	4180146.94	4.51E-04	7.82E-05	3.97E-04	3.49E-05	3.25E-05	9.93E-04	potential residence	1.15E-08	2.77E-07	2.59E-07	3.99E-08	0.59	0.00	4.20E-04	7.82E-05	3.78E-04	3.32E-05	3.09E-05	9.40E-04
567812.29_4180146.94	567812.29	4180146.94	4.60E-04	7.90E-05	4.17E-04	3.57E-05	3.31E-05	1.03E-03	potential residence	1.18E-08	2.86E-07	2.67E-07	4.12E-08	0.61	0.00	4.29E-04	7.90E-05	3.97E-04	3.40E-05	3.15E-05	9.70E-04
567832.29_4180146.94	567832.29	4180146.94	4.69E-04	7.94E-05	4.39E-04	3.65E-05	3.38E-05	1.06E-03	potential residence	1.22E-08	2.95E-07	2.76E-07	4.25E-08	0.63	0.00	4.38E-04	7.94E-05	4.17E-04	3.47E-05	3.21E-05	1.00E-03
567852.29_4180146.94	567852.29	4180146.94	4.79E-04	7.93E-05	4.60E-04	3.74E-05	3.44E-05	1.09E-03	potential residence	1.26E-08	3.04E-07	2.84E-07	4.38E-08	0.64	0.00	4.46E-04	7.93E-05	4.38E-04	3.56E-05	3.27E-05	1.03E-03
567872.29_4180146.94	567872.29	4180146.94	4.88E-04	7.87E-05	4.82E-04	3.82E-05	3.51E-05	1.12E-03	potential residence	1.29E-08	3.13E-07	2.93E-07	4.51E-08	0.66	0.00	4.55E-04	7.87E-05	4.59E-04	3.64E-05	3.34E-05	1.06E-03
567892.29_4180146.94	567892.29	4180146.94	4.98E-04	7.80E-05	5.05E-04	3.91E-05	3.58E-05	1.16E-03	potential residence	1.33E-08	3.23E-07	3.01E-07	4.65E-08	0.68	0.00	4.64E-04	7.80E-05	4.80E-04	3.72E-05	3.41E-05	1.09E-03
567912.29_4180146.94	567912.29	4180146.94	5.09E-04	7.71E-05	5.28E-04	4.01E-05	3.65E-05	1.19E-03	potential residence	1.37E-08	3.32E-07	3.10E-07	4.78E-08	0.70	0.00	4.74E-04	7.71E-05	5.02E-04	3.81E-05	3.47E-05	1.13E-03
567932.29_4180146.94	567932.29	4180146.94	5.20E-04	7.63E-05	5.51E-04	4.10E-05	3.72E-05	1.23E-03	potential residence	1.41E-08	3.42E-07	3.20E-07	4.93E-08	0.73	0.00	4.85E-04	7.63E-05	5.24E-04	3.90E-05	3.54E-05	1.16E-03
567952.29_4180146.94	567952.29	4180146.94	5.32E-04	7.55E-05	5.75E-04	4.20E-05	3.80E-05	1.26E-03	potential residence	1.46E-08	3.52E-07	3.29E-07	5.07E-08	0.75	0.00	4.96E-04	7.55E-05	5.47E-04	4.00E-05	3.61E-05	1.19E-03
567972.29_4180146.94	567972.29	4180146.94	5.45E-04	7.47E-05	5.99E-04	4.30E-05	3.87E-05	1.30E-03	potential residence	1.50E-08	3.63E-07	3.39E-07	5.23E-08	0.77	0.00	5.08E-04	7.47E-05	5.70E-04	4.09E-05	3.69E-05	1.23E-03
567992.29_4180146.94	567992.29	4180146.94	5.62E-04	7.41E-05	6.25E-04	4.41E-05	3.95E-05	1.34E-03	potential residence	1.55E-08	3.75E-07	3.50E-07	5.40E-08	0.80	0.00	5.24E-04	7.41E-05	5.94E-04	4.19E-05	3.76E-05	1.27E-03
568012.29_4180146.94	568012.29	4180146.94	5.80E-04	7.36E-05	6.51E-04	4.51E-05	4.03E-05	1.39E-03	potential residence	1.60E-08	3.88E-07	3.62E-07	5.59E-08	0.82	0.00	5.41E-04	7.36E-05	6.19E-04	4.29E-05	3.83E-05	1.31E-03
568032.29_4180146.94	568032.29	4180146.94	6.00E-04	7.32E-05	6.78E-04	4.63E-05	4.11E-05	1.44E-03	potential residence	1.66E-08	4.02E-07	3.75E-07	5.78E-08	0.85	0.00	5.60E-04	7.32E-05	6.45E-04	4.40E-05	3.91E-05	1.36E-03
568052.29_4180146.94	568052.29	4180146.94	6.23E-04	7.29E-05	7.05E-04	4.74E-05	4.19E-05	1.49E-03	potential residence	1.72E-08	4.16E-07	3.89E-07	5.99E-08	0.88	0.00	5.81E-04	7.29E-05	6.71E-04	4.51E-05	3.99E-05	1.41E-03
568072.29_4180146.94	568072.29	4180146.94	6.50E-04	7.27E-05	7.34E-04	4.86E-05	4.28E-05	1.55E-03	potential residence	1.78E-08	4.32E-07	4.03E-07	6.22E-08	0.92	0.00	6.06E-04	7.27E-05	6.98E-04	4.62E-05	4.07E-05	1.46E-03
568092.29_4180146.94	568092.29	4180146.94	6.85E-04	7.04E-05	7.57E-04	4.95E-05	4.33E-05	1.61E-03	potential residence	1.85E-08	4.48E-07	4.18E-07	6.45E-08	0.95	0.00	6.39E-04	7.04E-05	7.20E-04	4.71E-05	4.12E-05	1.52E-03
567412.29_4180166.94	567412.29	4180166.94	2.48E-04	4.96E-05	1.40E-04	2.35E-05	2.29E-05	4.84E-04	potential residence	5.58E-09	1.35E-07	1.26E-07	1.95E-08	0.29	0.00	2.31E-04	4.96E-05	1.34E-04	2.23E-05	2.18E-05	4.58E-04
567432.29_4180166.94	567432.29	4180166.94	2.57E-04	5.12E-05	1.47E-04	2.40E-05	2.33E-05	5.03E-04	potential residence	5.80E-09	1.41E-07	1.31E-07	2.02E-08	0.30	0.00	2.40E-04	5.12E-05	1.40E-04	2.29E-05	2.22E-05	4.76E-04
567452.29_4180166.94	567452.29	4180166.94	2.68E-04	5.27E-05	1.55E-04	2.46E-05	2.38E-05	5.24E-04	potential residence	6.04E-09	1.46E-07	1.37E-07	2.11E-08	0.31	0.00	2.50E-04	5.27E-05	1.47E-04	2.34E-05	2.27E-05	4.96E-04
567472.29_4180166.94	567472.29	4180166.94	2.79E-04	5.51E-05	1.63E-04	2.51E-05	2.43E-05	5.47E-04	potential residence	6.30E-09	1.53E-07	1.43E-07	2.20E-08	0.32	0.00	2.60E-04	5.51E-05	1.55E-04	2.39E-05	2.31E-05	5.18E-04
567492.29_4180166.94	567492.29	4180166.94	2.90E-04	5.66E-05	1.72E-04	2.57E-05	2.48E-05	5.69E-04	potential residence	6.56E-09	1.59E-07	1.48E-07	2.29E-08	0.34	0.00	2.71E-04	5.66E-05	1.63E-04	2.44E-05	2.36E-05	5.39E-04
567512.29_4180166.94	567512.29	4180166.94	3.02E-04	5.83E-05	1.81E-04	2.63E-05	2.53E-05	5.93E-04	potential residence	6.84E-09	1.66E-07	1.55E-07	2.38E-08	0.35	0.00	2.81E-04	5.83E-05	1.73E-04	2.50E-05	2.41E-05	5.61E-04
567532.29_4180166.94	567532.29	4180166.94	3.14E-04	6.01E-05	1.92E-04	2.68E-05	2.59E-05	6.18E-04	potential residence	7.13E-09	1.73E-07	1.61E-07	2.49E-08	0.37	0.00	2.93E-04	6.01E-05	1.82E-04	2.55E-05	2.46E-05	5.85E-04
567552.29_4180166.94	567552.29	4180166.94	3.27E-04	6.23E-05	2.03E-04	2.74E-05	2.64E-05	6.46E-04	potential residence	7.44E-09	1.80E-07	1.68E-07	2.60E-08	0.38	0.00	3.05E-04	6.23E-05	1.93E-04	2.61E-05	2.51E-05	6.11E-04
567572.29_4180166.94	567572.29	4180166.94	3.40E-04	6.41E-05	2.15E-04	2.80E-05	2.69E-05	6.74E-04	potential residence	7.77E-09	1.88E-07	1.76E-07	2.71E-08	0.40	0.00	3.17E-04	6.41E-05	2.04E-04	2.67E-05	2.56E-05	6.38E-04
567612.29_4180166.94	567612.29	4180166.94	3.67E-04	6.79E-05	2.41E-04	2.93E-05	2.80E-05	7.34E-04	potential residence	8.46E-09	2.05E-07	1.91E-07	2.95E-08	0.43	0.00	3.42E-04	6.79E-05	2.30E-04	2.79E-05	2.66E-05	6.95E-04
567632.29_4180166.94	567632.29	4180166.94	3.81E-04	6.98E-05	2.56E-04	3.00E-05	2.85E-05	7.66E-04	potential residence	8.83E-09	2.14E-07	2.00E-07	3.08E-08	0.45	0.00	3.56E-04	6.98E-05	2.44E-04	2.85E-05	2.71E-05	7.25E-04
567652.29_4180166.94	567652.29	4180166.94	3.96E-04	7.17E-05	2.72E-04	3.06E-05	2.91E-05	8.00E-04	potential residence	9.22E-09	2.23E-07	2.08E-07	3.21E-08	0.47	0.00	3.69E-04	7.17E-05	2.59E-04	2.91E-05	2.77E-05	7.57E-04
567672.29_4180166.94	567672.29	4180166.94	4.10E-04	7.32E-05	2.89E-04	3.13E-05	2.97E-05	8.34E-04	potential residence	9.61E-09	2.33E-07	2.17E-07	3.35E-08	0.49	0.00	3.82E-04	7.32E-05	2.75E-04	2.98E-05	2.82E-05	7.89E-04
567692.29_4180166.94	567692.29	4180166.94	4.24E-04	7.50E-05	3.08E-04	3.20E-05	3.02E-05	8.69E-04	potential residence	1.00E-08	2.43E-07	2.27E-07	3.49E-08	0.51	0.00	3.95E-04	7.50E-05	2.93E-04	3.04E-05	2.88E-05	8.22E-04
567712.29_4180166.94	567712.29	4180166.94	4.38E-04	7.66E-05	3.27E-04	3.27E-05	3.08E-05	9.05E-04	potential residence	1.04E-08	2.53E-07	2.36E-07	3.64E-08	0.54	0.00	4.08E-04	7.66E-05	3.11E-04	3.11E-05	2.93E-05	8.56E-04
567792.29_4180166.94	567792.29	4180166.94	4.89E-04	8.33E-05	4.13E-04	3.59E-05	3.34E-05	1.05E-03	potential residence	1.22E-08	2.94E-07	2.75E-07	4.24E-08	0.62	0.00	4.56E-04	8.33E-05	3.93E-04	3.41E-05	3.18E-05	9.98E-04
567812.29_4180166.94	567812.29	4180166.94	5.00E-04	8.45E-05	4.37E-04	3.67E-05	3.41E-05	1.09E-03	potential residence	1.26E-08	3.05E-07	2.85E-07	4.39E-08	0.65	0.00	4.66E-04	8.45E-05	4.16E-04	3.49E-05	3.24E-05	1.03E-03
567832.29_4180166.94	567832.29	4180166.94	5.12E-04	8.53E-05	4.62E-04	3.76E-05	3.48E-05	1.13E-03	potential residence	1.30E-08	3.16E-07	2.95E-07	4.55E-08	0.67	0.00	4.78E-04	8.53E-05	4.39E-04	3.57E-05	3.31E-05	1.07E-03
567852.29_4180166.94	567852.29	4180166.94	5.24E-04	8.55E-05	4.87E-04	3.85E-05	3.55E-05	1.17E-03	potential residence	1.35E-08	3.27E-07	3.05E-07	4.70E-08	0.69	0.00	4.88E-04	8.55E-05	4.63E-04	3.66E-05	3.37E-05	1.11E-03
567872.29_4180166.94	567872.29	4180166.94	5.36E-04	8.51E-05	5.13E-04	3.94E-05	3.62E-05	1.21E-03	potential residence	1.39E-08	3.38E-07	3.15E-07	4.86E-08	0.72	0.00	4.99E-04	8.51E-05	4.88E-04	3.75E-05	3.44E-05	1.14E-03
567892.29_4180166.94	567892.29	4180166.94	5.48E-04	8.43E-05	5.40E-04	4.03E-05	3.69E-05	1.25E-03	potential residence	1.44E-08	3.49E-07	3.26E-07	5.02E-08	0.74	0.00	5.11E-04	8.43E-05	5.14E-04	3.84E-05	3.51E-05	1.18E-03
567912.29_4180166.94	567912.29	4180166.94	5.60E-04	8.33E-05	5.67E-04	4.13E-05	3.77E-05	1.29E-03	potential residence	1.49E-08	3.60E-07	3.36E-07	5.18E-08	0.76	0.00	5.22E-04	8.33E-05	5.39E-04	3.93E-05	3.59E-05	1.22E-03
567932.29_4180166.94	567932.29	4180166.94	5.73E-04	8.23E-05	5.95E-04	4.24E-05	3.85E-05	1.33E-03	potential residence	1.53E-08	3.72E-07	3.47E-07	5.35E-08	0.79	0.00	5.34E-04	8.23E-05	5.66E-04	4.03E-05	3.66E-05	1.26E-03
567952.29_4180166.94	567952.29	4180166.94	5.86E-04	8.14E-05	6.23E-04	4.34E-05	3.93E-05	1.37E-03	potential residence	1.58E-08	3.84E-07	3.58E-07	5.52E-08	0.81	0.00	5.47E-04	8.14E-05	5.93E-04	4.13E-05	3.74E-05	1.30E-03
567972.29_4180166.94	567972.29	4180166.94	6.02E-04	8.05E-05	6.52E-04	4.45E-05	4.01E-05	1.42E-03	potential residence	1.64E-08	3.96E-07	3.70E-07	5.71E-08	0.84	0.00	5.61E-04	8.05E-05	6.21E-04	4.24E-05	3.82E-05	1.34E-03
567992.29_4180166.94	567992.29	4180166.94	6.20E-04	7.98E-05	6.83E-04	4.57E-05	4.10E-05	1.47E-03	potential residence	1.69E-08	4.10E-07	3.83E-07	5.91E-08	0.87	0.00	5.78E-04	7.98E-05	6.50E-04	4.34E-05	3.90E-05	1.39E-03
568012.29_4180166.94	568012.29	4180166.94	6.41E-04	7.92E-05	7.15E-04	4.68E-05	4.18E-05	1.52E-03	potential residence	1.76E-08	4.25E-07	3.97E-07	6.12E-08	0.90	0.00	5.98E-04	7.92E-05	6.80E-04	4.45E-05	3.98E-05	1.44E-03
568032.29_4180166.94	568032.29	4180166.94	6.65E-04	7.87E-05	7.47E-04	4.80E-05	4.27E-05	1.58E-03	potential residence	1.82E-08	4.42E-07	4.12E-07	6.36E-08	0.94	0.00	6.20E-04	7.87E-05	7.11E-04	4.57E-05	4.06E-05	1.50E-03
568052.29_4180166.94	568052.29	4180166.94	6.92E-04	7.83E-05	7.81E-04	4.93E-05	4.36E-05	1.64E-03	potential residence	1.90E-08	4.59E-07	4.29E-07	6.61E-08	0.97	0.00	6.46E-04	7.83E-05	7.43E-04	4.69E-05	4.15E-05	1.56E-03
568072.29_4180166.94	568072.29	4180166.94	7.29E-04	7.67E-05	8.14E-04	5.04E-05	4.43E-05	1.71E-03	potential residence	1.98E-08	4.79E-07	4.47E-07	6.89E-08	1.01	0.00	6.79E-04	7.67E-05	7.75E-04	4.80E-05	4.22E-05	1.62E-03
567412.29_4180186.94	567412.29	4180186.94	2.54E-04	5.04E-05	1.39E-04	2.38E-05	2.32E-05	4.90E-04	potential residence	5.65E-09	1.37E-07	1.28E-07	1.97E-08	0.29	0.00	2.37E-04	5.04E-05	1.32E-04	2.26E-05	2.21E-05	4.64E-04
567432.29_4180186.94	567432.29	4180186.94	2.65E-04	5.24E-05	1.46E-04	2.44E-05	2.37E-05	5.11E-04	potential residence	5.89E-09	1.43E-07	1.33E-07	2.05E-08	0.30	0.00	2.47E-04	5.24E-05	1.39E-04	2.32E-05	2.26E-05	4.84E-04
567452.29_4180186.94	567452.29	4180186.94	2.76E-04	5.44E-05	1.53E-04	2.49E-05	2.42E-05	5.33E-04	potential residence	6.15E-09	1.49E-07	1.39E-07	2.14E-08	0.32	0.00	2.58E-04	5.44E-05	1.46E-04	2.37E-05	2.30E-05	5.05E-04
567472.29_4180186.94	567472.29	4180186.94	2.88E-04	5.61E-05	1.61E-04	2.55E-05	2.47E-05	5.56E-04	potential residence	6.41E-09	1.55E-07	1.45E-07	2.23E-08	0.33	0.00	2.68E-04	5.61E-05	1.53E-04	2.43E-05	2.35E-05	5.26E-04
567492.29_4180186.94	567492.29	4180186.94	3.00E-04	5.84E-05	1.70E-04	2.61E-05	2.53E-05	5.80E-04	potential residence	6.69E-09	1.62E-07	1.51E-07	2.33E-08	0.34	0.00	2.80E-04	5.84E-05	1.62E-04	2.48E-05	2.40E-05	5.49E-04
567512.29_4180186.94	567512.29	4180186.94	3.13E-04	6.02E-05	1.80E-04	2.67E-05	2.58E-05	6.06E-04	potential residence	6.98E-09	1.69E-07	1.58E-07	2.43E-08	0.36	0.00	2.92E-04	6.02E-05	1.71E-04	2.54E-05	2.46E-05	5.73E-04
567532.29_4180186.94	567532.29	4180186.94	3.27E-04	6.24E-05	1.90E-04	2.73E-05	2.64E-05	6.33E-04	potential residence	7.29E-09	1.77E-07	1.65E-07	2.54E-08	0.37	0.00	3.05E-04	6.24E-05	1.81E-04	2.60E-05	2.51E-05	5.99E-04
567552.29_4180186.94	567552.29	4180186.94	3.41E-04	6.47E-05	2.01E-04	2.80E-05	2.69E-05	6.62E-04	potential residence	7.63E-09	1.85E-07	1.73E-07	2.66E-08	0.39	0.00	3.18E-04	6.47E-05	1.92E-04	2.66E-05	2.56E-05	6.26E-04
567572.29_4180186.94	567572.29	4180186.94	3.56E-04	6.69E-05	2.14E-04	2.86E-05	2.75E-05	6.92E-04	potential residence	7.98E-09	1.93E-07	1.80E-07	2.78E-08	0.41	0.00	3.32E-04	6.69E-05	2.03E-04	2.72E-05	2.61E-05	6.55E-04
567592.29_4180186.94	567592.29	4180186.94	3.71E-04	6.94E-05	2.27E-04	2.92E-05	2.80E-05	7.25E-04	potential residence	8.35E-09	2.02E-07	1.89E-07	2.91E-08	0.43	0.00	3.46E-04	6.94E-05	2.16E-04	2.78E-05	2.67E-05	6.86E-04
567612.29_4180186.94	567612.29	4180186.94	3.87E-04	7.16E-05	2.41E-04	2.99E-05	2.86E-05	7.58E-04	potential residence	8.74E-09	2.12E-07	1.98E-07	3.05E-08	0.45	0.00	3.61E-04	7.16E-05	2.30E-04	2.85E-05	2.72E-05	7.17E-04
567632.29_4180186.94	567632.29	4180186.94	4.03E-04	7.36E-05	2.57E-04	3.06E-05	2.92E-05	7.93E-04	potential residence	9.14E-09	2.21E-07	2.07E-07	3.19E-08	0.47	0.00	3.76E-04	7.36E-05	2.44E-04	2.91E-05	2.78E-05	7.50E-04
567652.29_4180186.94	567652.29	4180186.94	4.19E-04	7.57E-05	2.74E-04	3.13E-05	2.98E-05	8.30E-04	potential residence	9.57E-09	2.32E-07	2.16E-07	3.34E-08	0.49	0.00	3.91E-04	7.57E-05	2.60E-04	2.98E-05	2.83E-05	7.85E-04
567672.29_4180186.94	567672.29	4180186.94	4.36E-04	7.78E-05	2.92E-04	3.20E-05	3.04E-05	8.68E-04	potential residence	1.00E-08	2.42E-07	2.26E-07	3.49E-08	0.51	0.00	4.06E-04	7.78E-05	2.78E-04	3.05E-05	2.89E-05	8.21E-04
567692.29_4180186.94	567692.29	4180186.94	4.53E-04	7.98E-05	3.12E-04	3.28E-05	3.10E-05	9.08E-04	potential residence	1.05E-08	2.54E-07	2.37E-07	3.65E-08	0.54	0.00	4.22E-04	7.98E-05	2.97E-04	3.12E-05	2.95E-05	8.59E-04
567732.29_4180186.94	567732.29	4180186.94	4.86E-04	8.33E-05	3.55E-04	3.43E-05	3.23E-05	9.91E-04	potential residence	1.14E-08	2.77E-07	2.58E-07	3.98E-08	0.59	0.00	4.53E-04	8.33E-05	3.38E-04	3.26E-05	3.07E-05	9.37E-04
567752.29_4180186.94	567752.29	4180186.94	5.01E-04	8.51E-05	3.78E-04	3.51E-05	3.30E-05	1.03E-03	potential residence	1.19E-08	2.88E-07	2.69E-07	4.15E-08	0.61	0.00	4.67E-04	8.51E-05	3.60E-04	3.34E-05	3.13E-05	9.77E-04
567772.29_4180186.94	567772.29	4180186.94	5.17E-04	8.70E-05	4.03E-04	3.59E-05	3.36E-05	1.08E-03	potential residence	1.24E-08	3.01E-07	2.81E-07	4.33E-08	0.64	0.00	4.82E-04	8.70E-05	3.84E-04	3.42E-05	3.20E-05	1.02E-03
567812.29_4180186.94	567812.29	4180186.94	5.46E-04	9.05E-05	4.57E-04	3.77E-05	3.51E-05	1.17E-03	potential residence	1.34E-08	3.26E-07	3.04E-07	4.69E-08	0.69	0.00	5.09E-04	9.05E-05	4.35E-04	3.59E-05	3.34E-05	1.10E-03
567832.29_4180186.94	567832.29	4180186.94	5.61E-04	9.17E-05	4.85E-04	3.86E-05	3.58E-05	1.21E-03	potential residence	1.40E-08	3.38E-07	3.16E-07	4.87E-08	0.72	0.00	5.23E-04	9.17E-05	4.62E-04	3.68E-05	3.41E-05	1.15E-03
567852.29_4180186.94	567852.29	4180186.94	5.76E-04	9.23E-05	5.15E-04	3.96E-05	3.65E-05	1.26E-03	potential residence	1.45E-08	3.52E-07	3.28E-07	5.06E-08	0.74	0.00	5.37E-04	9.23E-05	4.90E-04	3.77E-05	3.48E-05	1.19E-03
567872.29_4180186.94	567872.29	4180186.94	5.90E-04	9.22E-05	5.46E-04	4.06E-05	3.73E-05	1.31E-03	potential residence	1.51E-08	3.65E-07	3.40E-07	5.25E-08	0.77	0.00	5.50E-04	9.22E-05	5.19E-04	3.86E-05	3.55E-05	1.24E-03
567892.29_4180186.94	567892.29	4180186.94	6.03E-04	9.14E-05	5.77E-04	4.16E-05	3.81E-05	1.35E-03	potential residence	1.56E-08	3.77E-07	3.52E-07	5.43E-08	0.80	0.00	5.63E-04	9.14E-05	5.49E-04	3.96E-05	3.63E-05	1.28E-03
567912.29_4180186.94	567912.29	4180186.94	6.18E-04	9.03E-05	6.10E-04	4.27E-05	3.89E-05	1.40E-03	potential residence	1.61E-08	3.91E-07	3.65E-07	5.63E-08	0.83	0.00	5.76E-04	9.03E-05	5.80E-04	4.06E-05	3.70E-05	1.32E-03
567932.29_4180186.94	567932.29	4180186.94	6.34E-04	8.91E-05	6.44E-04	4.38E-05	3.98E-05	1.45E-03	potential residence	1.67E-08	4.05E-07	3.78E-07	5.83E-08	0.86	0.00	5.91E-04	8.91E-05	6.12E-04	4.16E-05	3.78E-05	1.37E-03
567952.29_4180186.94	567952.29	4180186.94	6.51E-04	8.80E-05	6.78E-04	4.49E-05	4.06E-05	1.50E-03	potential residence	1.73E-08	4.19E-07	3.92E-07	6.04E-08	0.89	0.00	6.07E-04	8.80E-05	6.45E-04	4.27E-05	3.87E-05	1.42E-03

567972.29_4180186.94	567972.29	4180186.94	6.69E-04	8.71E-05	7.14E-04	4.61E-05	4.15E-05	1.56E-03	potential residence	1.80E-08	4.35E-07	4.06E-07	6.26E-08	0.92	0.00	6.24E-04	8.71E-05	6.79E-04	4.38E-05	3.95E-05	1.47E-03
567992.29_4180186.94	567992.29	4180186.94	6.90E-04	8.62E-05	7.51E-04	4.73E-05	4.24E-05	1.62E-03	potential residence	1.86E-08	4.52E-07	4.22E-07	6.50E-08	0.96	0.00	6.44E-04	8.62E-05	7.14E-04	4.50E-05	4.04E-05	1.53E-03
568012.29_4180186.94	568012.29	4180186.94	7.14E-04	8.54E-05	7.89E-04	4.86E-05	4.34E-05	1.68E-03	potential residence	1.94E-08	4.69E-07	4.38E-07	6.76E-08	0.99	0.00	6.66E-04	8.54E-05	7.51E-04	4.62E-05	4.13E-05	1.59E-03
568032.29_4180186.94	568032.29	4180186.94	7.43E-04	8.48E-05	8.30E-04	4.99E-05	4.43E-05	1.75E-03	potential residence	2.02E-08	4.89E-07	4.56E-07	7.04E-08	1.04	0.00	6.92E-04	8.48E-05	7.89E-04	4.74E-05	4.22E-05	1.66E-03
568052.29_4180186.94	568052.29	4180186.94	7.80E-04	8.35E-05	8.72E-04	5.11E-05	4.52E-05	1.83E-03	potential residence	2.11E-08	5.11E-07	4.77E-07	7.36E-08	1.08	0.00	7.27E-04	8.35E-05	8.29E-04	4.87E-05	4.30E-05	1.73E-03
568072.29_4180186.94	568072.29	4180186.94	8.16E-04	8.04E-05	8.95E-04	5.21E-05	4.58E-05	1.89E-03	potential residence	2.18E-08	5.27E-07	4.92E-07	7.59E-08	1.12	0.00	7.60E-04	8.04E-05	8.51E-04	4.96E-05	4.36E-05	1.79E-03
567412.29_4180206.94	567412.29	4180206.94	2.61E-04	5.13E-05	1.37E-04	2.41E-05	2.35E-05	4.97E-04	potential residence	5.73E-09	1.39E-07	1.29E-07	2.00E-08	0.29	0.00	2.43E-04	5.13E-05	1.30E-04	2.29E-05	2.24E-05	4.70E-04
567432.29_4180206.94	567432.29	4180206.94	2.72E-04	5.32E-05	1.44E-04	2.47E-05	2.41E-05	5.18E-04	potential residence	5.97E-09	1.45E-07	1.35E-07	2.08E-08	0.31	0.00	2.54E-04	5.32E-05	1.37E-04	2.35E-05	2.29E-05	4.90E-04
567452.29_4180206.94	567452.29	4180206.94	2.84E-04	5.48E-05	1.51E-04	2.53E-05	2.46E-05	5.40E-04	potential residence	6.22E-09	1.51E-07	1.41E-07	2.17E-08	0.32	0.00	2.65E-04	5.48E-05	1.44E-04	2.41E-05	2.34E-05	5.11E-04
567472.29_4180206.94	567472.29	4180206.94	2.97E-04	5.71E-05	1.59E-04	2.59E-05	2.52E-05	5.64E-04	potential residence	6.50E-09	1.58E-07	1.47E-07	2.27E-08	0.33	0.00	2.77E-04	5.71E-05	1.52E-04	2.47E-05	2.39E-05	5.34E-04
567492.29_4180206.94	567492.29	4180206.94	3.10E-04	5.99E-05	1.68E-04	2.65E-05	2.57E-05	5.91E-04	potential residence	6.81E-09	1.65E-07	1.54E-07	2.37E-08	0.35	0.00	2.89E-04	5.99E-05	1.60E-04	2.52E-05	2.45E-05	5.59E-04
567512.29_4180206.94	567512.29	4180206.94	3.24E-04	6.21E-05	1.78E-04	2.72E-05	2.63E-05	6.18E-04	potential residence	7.12E-09	1.72E-07	1.61E-07	2.48E-08	0.37	0.00	3.02E-04	6.21E-05	1.69E-04	2.58E-05	2.50E-05	5.84E-04
567532.29_4180206.94	567532.29	4180206.94	3.39E-04	6.45E-05	1.88E-04	2.78E-05	2.69E-05	6.47E-04	potential residence	7.45E-09	1.81E-07	1.69E-07	2.60E-08	0.38	0.00	3.16E-04	6.45E-05	1.79E-04	2.65E-05	2.55E-05	6.12E-04
567552.29_4180206.94	567552.29	4180206.94	3.55E-04	6.70E-05	1.99E-04	2.85E-05	2.74E-05	6.77E-04	potential residence	7.81E-09	1.89E-07	1.77E-07	2.72E-08	0.40	0.00	3.31E-04	6.70E-05	1.90E-04	2.71E-05	2.61E-05	6.41E-04
567572.29_4180206.94	567572.29	4180206.94	3.72E-04	6.98E-05	2.12E-04	2.91E-05	2.80E-05	7.10E-04	potential residence	8.19E-09	1.98E-07	1.85E-07	2.85E-08	0.42	0.00	3.46E-04	6.98E-05	2.02E-04	2.77E-05	2.67E-05	6.72E-04
567592.29_4180206.94	567592.29	4180206.94	3.89E-04	7.24E-05	2.25E-04	2.98E-05	2.86E-05	7.45E-04	potential residence	8.59E-09	2.08E-07	1.94E-07	2.99E-08	0.44	0.00	3.62E-04	7.24E-05	2.14E-04	2.84E-05	2.72E-05	7.05E-04
567632.29_4180206.94	567632.29	4180206.94	4.25E-04	7.77E-05	2.56E-04	3.12E-05	2.98E-05	8.20E-04	potential residence	9.46E-09	2.29E-07	2.14E-07	3.30E-08	0.49	0.00	3.96E-04	7.77E-05	2.44E-04	2.97E-05	2.84E-05	7.76E-04
567652.29_4180206.94	567652.29	4180206.94	4.44E-04	8.02E-05	2.74E-04	3.20E-05	3.05E-05	8.61E-04	potential residence	9.92E-09	2.40E-07	2.24E-07	3.46E-08	0.51	0.00	4.14E-04	8.02E-05	2.61E-04	3.04E-05	2.90E-05	8.14E-04
567692.29_4180206.94	567692.29	4180206.94	4.83E-04	8.48E-05	3.14E-04	3.35E-05	3.18E-05	9.48E-04	potential residence	1.09E-08	2.65E-07	2.47E-07	3.81E-08	0.56	0.00	4.51E-04	8.48E-05	2.99E-04	3.19E-05	3.02E-05	8.96E-04
567712.29_4180206.94	567712.29	4180206.94	5.03E-04	8.68E-05	3.37E-04	3.43E-05	3.24E-05	9.94E-04	potential residence	1.15E-08	2.77E-07	2.59E-07	3.99E-08	0.59	0.00	4.69E-04	8.68E-05	3.21E-04	3.27E-05	3.09E-05	9.40E-04
567732.29_4180206.94	567732.29	4180206.94	5.22E-04	8.87E-05	3.61E-04	3.52E-05	3.31E-05	1.04E-03	potential residence	1.20E-08	2.91E-07	2.71E-07	4.18E-08	0.62	0.00	4.87E-04	8.87E-05	3.44E-04	3.34E-05	3.15E-05	9.84E-04
567752.29_4180206.94	567752.29	4180206.94	5.42E-04	9.07E-05	3.87E-04	3.60E-05	3.38E-05	1.09E-03	potential residence	1.26E-08	3.04E-07	2.84E-07	4.38E-08	0.64	0.00	5.05E-04	9.07E-05	3.69E-04	3.43E-05	3.22E-05	1.03E-03
567772.29_4180206.94	567772.29	4180206.94	5.60E-04	9.27E-05	4.15E-04	3.69E-05	3.46E-05	1.14E-03	potential residence	1.31E-08	3.18E-07	2.97E-07	4.58E-08	0.67	0.00	5.22E-04	9.27E-05	3.95E-04	3.51E-05	3.29E-05	1.08E-03
567792.29_4180206.94	567792.29	4180206.94	5.79E-04	9.49E-05	4.45E-04	3.78E-05	3.53E-05	1.19E-03	potential residence	1.37E-08	3.33E-07	3.11E-07	4.79E-08	0.71	0.00	5.40E-04	9.49E-05	4.23E-04	3.60E-05	3.36E-05	1.13E-03
567812.29_4180206.94	567812.29	4180206.94	5.98E-04	9.70E-05	4.76E-04	3.87E-05	3.61E-05	1.25E-03	potential residence	1.44E-08	3.48E-07	3.25E-07	5.01E-08	0.74	0.00	5.57E-04	9.70E-05	4.53E-04	3.69E-05	3.43E-05	1.18E-03
567832.29_4180206.94	567832.29	4180206.94	6.16E-04	9.87E-05	5.09E-04	3.97E-05	3.68E-05	1.30E-03	potential residence	1.50E-08	3.63E-07	3.39E-07	5.23E-08	0.77	0.00	5.74E-04	9.87E-05	4.85E-04	3.78E-05	3.51E-05	1.23E-03
567852.29_4180206.94	567852.29	4180206.94	6.33E-04	9.97E-05	5.44E-04	4.07E-05	3.77E-05	1.36E-03	potential residence	1.56E-08	3.78E-07	3.53E-07	5.45E-08	0.80	0.00	5.90E-04	9.97E-05	5.18E-04	3.88E-05	3.58E-05	1.28E-03
567872.29_4180206.94	567872.29	4180206.94	6.51E-04	9.99E-05	5.80E-04	4.18E-05	3.85E-05	1.41E-03	potential residence	1.63E-08	3.94E-07	3.68E-07	5.67E-08	0.83	0.00	6.07E-04	9.99E-05	5.52E-04	3.98E-05	3.66E-05	1.34E-03
567892.29_4180206.94	567892.29	4180206.94	6.69E-04	9.93E-05	6.18E-04	4.29E-05	3.93E-05	1.47E-03	potential residence	1.69E-08	4.10E-07	3.83E-07	5.90E-08	0.87	0.00	6.23E-04	9.93E-05	5.88E-04	4.08E-05	3.74E-05	1.39E-03
567912.29_4180206.94	567912.29	4180206.94	6.87E-04	9.82E-05	6.57E-04	4.40E-05	4.02E-05	1.53E-03	potential residence	1.76E-08	4.26E-07	3.98E-07	6.14E-08	0.90	0.00	6.40E-04	9.82E-05	6.25E-04	4.19E-05	3.83E-05	1.44E-03
567932.29_4180206.94	567932.29	4180206.94	7.07E-04	9.69E-05	6.99E-04	4.52E-05	4.11E-05	1.59E-03	potential residence	1.83E-08	4.44E-07	4.14E-07	6.39E-08	0.94	0.00	6.59E-04	9.69E-05	6.65E-04	4.30E-05	3.91E-05	1.50E-03
567952.29_4180206.94	567952.29	4180206.94	7.27E-04	9.56E-05	7.41E-04	4.64E-05	4.20E-05	1.65E-03	potential residence	1.90E-08	4.61E-07	4.31E-07	6.64E-08	0.98	0.00	6.78E-04	9.56E-05	7.05E-04	4.41E-05	4.00E-05	1.56E-03
567972.29_4180206.94	567972.29	4180206.94	7.49E-04	9.44E-05	7.85E-04	4.76E-05	4.30E-05	1.72E-03	potential residence	1.98E-08	4.80E-07	4.48E-07	6.91E-08	1.02	0.00	6.98E-04	9.44E-05	7.47E-04	4.53E-05	4.09E-05	1.63E-03
567992.29_4180206.94	567992.29	4180206.94	7.74E-04	9.34E-05	8.31E-04	4.90E-05	4.40E-05	1.79E-03	potential residence	2.06E-08	5.00E-07	4.67E-07	7.20E-08	1.06	0.00	7.21E-04	9.34E-05	7.90E-04	4.66E-05	4.18E-05	1.69E-03
568012.29_4180206.94	568012.29	4180206.94	8.03E-04	9.25E-05	8.79E-04	5.03E-05	4.50E-05	1.87E-03	potential residence	2.16E-08	5.22E-07	4.87E-07	7.51E-08	1.11	0.00	7.48E-04	9.25E-05	8.36E-04	4.79E-05	4.28E-05	1.77E-03
568032.29_4180206.94	568032.29	4180206.94	8.40E-04	9.11E-05	9.30E-04	5.17E-05	4.59E-05	1.96E-03	potential residence	2.26E-08	5.47E-07	5.11E-07	7.87E-08	1.16	0.00	7.83E-04	9.11E-05	8.85E-04	4.92E-05	4.37E-05	1.85E-03
567412.29_4180226.94	567412.29	4180226.94	2.66E-04	5.17E-05	1.35E-04	2.44E-05	2.39E-05	5.02E-04	potential residence	5.78E-09	1.40E-07	1.31E-07	2.02E-08	0.30	0.00	2.48E-04	5.17E-05	1.29E-04	2.32E-05	2.27E-05	4.75E-04
567432.29_4180226.94	567432.29	4180226.94	2.79E-04	5.37E-05	1.42E-04	2.50E-05	2.44E-05	5.24E-04	potential residence	6.04E-09	1.46E-07	1.37E-07	2.11E-08	0.31	0.00	2.60E-04	5.37E-05	1.35E-04	2.38E-05	2.32E-05	4.96E-04
567452.29_4180226.94	567452.29	4180226.94	2.91E-04	5.57E-05	1.49E-04	2.57E-05	2.50E-05	5.47E-04	potential residence	6.31E-09	1.53E-07	1.43E-07	2.20E-08	0.32	0.00	2.72E-04	5.57E-05	1.42E-04	2.44E-05	2.38E-05	5.18E-04
567472.29_4180226.94	567472.29	4180226.94	3.05E-04	5.82E-05	1.57E-04	2.63E-05	2.56E-05	5.72E-04	potential residence	6.60E-09	1.60E-07	1.49E-07	2.30E-08	0.34	0.00	2.84E-04	5.82E-05	1.50E-04	2.50E-05	2.43E-05	5.42E-04
567492.29_4180226.94	567492.29	4180226.94	3.20E-04	6.08E-05	1.66E-04	2.70E-05	2.62E-05	5.99E-04	potential residence	6.91E-09	1.67E-07	1.56E-07	2.41E-08	0.35	0.00	2.98E-04	6.08E-05	1.58E-04	2.56E-05	2.49E-05	5.67E-04
567512.29_4180226.94	567512.29	4180226.94	3.36E-04	6.38E-05	1.75E-04	2.76E-05	2.67E-05	6.29E-04	potential residence	7.25E-09	1.76E-07	1.64E-07	2.53E-08	0.37	0.00	3.13E-04	6.38E-05	1.67E-04	2.63E-05	2.54E-05	5.95E-04
567532.29_4180226.94	567532.29	4180226.94	3.52E-04	6.65E-05	1.86E-04	2.83E-05	2.74E-05	6.60E-04	potential residence	7.60E-09	1.84E-07	1.72E-07	2.65E-08	0.39	0.00	3.28E-04	6.65E-05	1.77E-04	2.69E-05	2.60E-05	6.24E-04
567552.29_4180226.94	567552.29	4180226.94	3.69E-04	6.93E-05	1.97E-04	2.90E-05	2.80E-05	6.92E-04	potential residence	7.98E-09	1.93E-07	1.80E-07	2.78E-08	0.41	0.00	3.44E-04	6.93E-05	1.87E-04	2.76E-05	2.66E-05	6.55E-04
567572.29_4180226.94	567572.29	4180226.94	3.87E-04	7.24E-05	2.09E-04	2.97E-05	2.86E-05	7.27E-04	potential residence	8.38E-09	2.03E-07	1.90E-07	2.92E-08	0.43	0.00	3.61E-04	7.24E-05	1.99E-04	2.83E-05	2.72E-05	6.88E-04
567592.29_4180226.94	567592.29	4180226.94	4.06E-04	7.56E-05	2.23E-04	3.04E-05	2.92E-05	7.65E-04	potential residence	8.82E-09	2.14E-07	1.99E-07	3.07E-08	0.45	0.00	3.79E-04	7.56E-05	2.12E-04	2.89E-05	2.78E-05	7.24E-04
567612.29_4180226.94	567612.29	4180226.94	4.27E-04	7.86E-05	2.38E-04	3.12E-05	2.99E-05	8.04E-04	potential residence	9.27E-09	2.25E-07	2.10E-07	3.23E-08	0.48	0.00	3.98E-04	7.86E-05	2.27E-04	2.96E-05	2.84E-05	7.61E-04
567672.29_4180226.94	567672.29	4180226.94	4.92E-04	8.76E-05	2.93E-04	3.35E-05	3.19E-05	9.38E-04	potential residence	1.08E-08	2.62E-07	2.45E-07	3.77E-08	0.56	0.00	4.59E-04	8.76E-05	2.79E-04	3.18E-05	3.03E-05	8.88E-04
567692.29_4180226.94	567692.29	4180226.94	5.15E-04	9.00E-05	3.15E-04	3.43E-05	3.26E-05	9.87E-04	potential residence	1.14E-08	2.76E-07	2.57E-07	3.97E-08	0.58	0.00	4.80E-04	9.00E-05	3.00E-04	3.26E-05	3.10E-05	9.34E-04
567712.29_4180226.94	567712.29	4180226.94	5.38E-04	9.24E-05	3.40E-04	3.51E-05	3.33E-05	1.04E-03	potential residence	1.20E-08	2.90E-07	2.71E-07	4.17E-08	0.61	0.00	5.02E-04	9.24E-05	3.23E-04	3.34E-05	3.16E-05	9.82E-04
567732.29_4180226.94	567732.29	4180226.94	5.61E-04	9.46E-05	3.66E-04	3.60E-05	3.40E-05	1.09E-03	potential residence	1.26E-08	3.05E-07	2.85E-07	4.39E-08	0.65	0.00	5.23E-04	9.46E-05	3.48E-04	3.43E-05	3.23E-05	1.03E-03
567752.29_4180226.94	567752.29	4180226.94	5.85E-04	9.68E-05	3.95E-04	3.69E-05	3.47E-05	1.15E-03	potential residence	1.32E-08	3.20E-07	2.99E-07	4.61E-08	0.68	0.00	5.45E-04	9.68E-05	3.75E-04	3.51E-05	3.31E-05	1.09E-03
567772.29_4180226.94	567772.29	4180226.94	6.09E-04	9.91E-05	4.26E-04	3.78E-05	3.55E-05	1.21E-03	potential residence	1.39E-08	3.37E-07	3.15E-07	4.85E-08	0.71	0.00	5.67E-04	9.91E-05	4.05E-04	3.60E-05	3.38E-05	1.14E-03
567792.29_4180226.94	567792.29	4180226.94	6.32E-04	1.02E-04	4.59E-04	3.88E-05	3.63E-05	1.27E-03	potential residence	1.46E-08	3.54E-07	3.30E-07	5.10E-08	0.75	0.00	5.89E-04	1.02E-04	4.37E-04	3.69E-05	3.45E-05	1.20E-03
567832.29_4180226.94	567832.29	4180226.94	6.77E-04	1.06E-04	5.33E-04	4.08E-05	3.79E-05	1.39E-03	potential residence	1.61E-08	3.89E-07	3.63E-07	5.60E-08	0.82	0.00	6.31E-04	1.06E-04	5.07E-04	3.89E-05	3.61E-05	1.32E-03
567852.29_4180226.94	567852.29	4180226.94	6.99E-04	1.08E-04	5.73E-04	4.19E-05	3.88E-05	1.46E-03	potential residence	1.68E-08	4.08E-07	3.81E-07	5.87E-08	0.86	0.00	6.51E-04	1.08E-04	5.45E-04	3.99E-05	3.69E-05	1.38E-03
567872.29_4180226.94	567872.29	4180226.94	7.22E-04	1.08E-04	6.17E-04	4.30E-05	3.97E-05	1.53E-03	potential residence	1.76E-08	4.27E-07	3.99E-07	6.15E-08	0.90	0.00	6.73E-04	1.08E-04	5.87E-04	4.09E-05	3.78E-05	1.45E-03
567892.29_4180226.94	567892.29	4180226.94	7.45E-04	1.08E-04	6.62E-04	4.42E-05	4.06E-05	1.60E-03	potential residence	1.84E-08	4.47E-07	4.17E-07	6.43E-08	0.95	0.00	6.95E-04	1.08E-04	6.30E-04	4.20E-05	3.86E-05	1.51E-03
567912.29_4180226.94	567912.29	4180226.94	7.69E-04	1.07E-04	7.10E-04	4.54E-05	4.15E-05	1.67E-03	potential residence	1.93E-08	4.67E-07	4.36E-07	6.72E-08	0.99	0.00	7.17E-04	1.07E-04	6.76E-04	4.32E-05	3.95E-05	1.58E-03
567932.29_4180226.94	567932.29	4180226.94	7.93E-04	1.06E-04	7.61E-04	4.66E-05	4.25E-05	1.75E-03	potential residence	2.02E-08	4.88E-07	4.56E-07	7.03E-08	1.03	0.00	7.39E-04	1.06E-04	7.24E-04	4.44E-05	4.04E-05	1.65E-03
567952.29_4180226.94	567952.29	4180226.94	8.18E-04	1.04E-04	8.14E-04	4.79E-05	4.35E-05	1.83E-03	potential residence	2.11E-08	5.10E-07	4.76E-07	7.35E-08	1.08	0.00	7.63E-04	1.04E-04	7.74E-04	4.56E-05	4.14E-05	1.73E-03
567972.29_4180226.94	567972.29	4180226.94	8.45E-04	1.03E-04	8.69E-04	4.93E-05	4.45E-05	1.91E-03	potential residence	2.20E-08	5.33E-07	4.98E-07	7.68E-08	1.13	0.00	7.88E-04	1.03E-04	8.26E-04	4.69E-05	4.23E-05	1.81E-03
567992.29_4180226.94	567992.29	4180226.94	8.76E-04	1.01E-04	9.27E-04	5.07E-05	4.55E-05	2.00E-03	potential residence	2.31E-08	5.59E-07	5.21E-07	8.04E-08	1.18	0.00	8.17E-04	1.01E-04	8.82E-04	4.82E-05	4.33E-05	1.89E-03
568012.29_4180226.94	568012.29	4180226.94	9.14E-04	9.99E-05	9.88E-04	5.21E-05	4.65E-05	2.10E-03	potential residence	2.42E-08	5.87E-07	5.48E-07	8.44E-08	1.24	0.00	8.52E-04	9.99E-05	9.40E-04	4.96E-05	4.43E-05	1.99E-03
567412.29_4180246.94	567412.29	4180246.94	2.72E-04	5.21E-05	1.33E-04	2.47E-05	2.42E-05	5.06E-04	potential residence	5.84E-09	1.41E-07	1.32E-07	2.04E-08	0.30	0.00	2.54E-04	5.21E-05	1.27E-04	2.35E-05	2.30E-05	4.79E-04
567432.29_4180246.94	567432.29	4180246.94	2.85E-04	5.42E-05	1.40E-04	2.54E-05	2.48E-05	5.29E-04	potential residence	6.10E-09	1.48E-07	1.38E-07	2.13E-08	0.31	0.00	2.66E-04	5.42E-05	1.33E-04	2.41E-05	2.36E-05	5.00E-04
567452.29_4180246.94	567452.29	4180246.94	2.98E-04	5.63E-05	1.47E-04	2.60E-05	2.54E-05	5.53E-04	potential residence	6.38E-09	1.54E-07	1.44E-07	2.22E-08	0.33	0.00	2.78E-04	5.63E-05	1.40E-04	2.48E-05	2.41E-05	5.23E-04
567472.29_4180246.94	567472.29	4180246.94	3.13E-04	5.91E-05	1.55E-04	2.67E-05	2.60E-05	5.80E-04	potential residence	6.69E-09	1.62E-07	1.51E-07	2.33E-08	0.34	0.00	2.92E-04	5.91E-05	1.47E-04	2.54E-05	2.47E-05	5.49E-04
567492.29_4180246.94	567492.29	4180246.94	3.29E-04	6.19E-05	1.63E-04	2.74E-05	2.66E-05	6.08E-04	potential residence	7.01E-09	1.70E-07	1.59E-07	2.44E-08	0.36	0.00	3.07E-04	6.19E-05	1.55E-04	2.60E-05	2.53E-05	5.75E-04
567512.29_4180246.94	567512.29	4180246.94	3.46E-04	6.51E-05	1.73E-04	2.81E-05	2.72E-05	6.39E-04	potential residence	7.37E-09	1.78E-07	1.67E-07	2.57E-08	0.38	0.00	3.23E-04	6.51E-05	1.64E-04	2.67E-05	2.59E-05	6.05E-04
567532.29_4180246.94	567532.29	4180246.94	3.64E-04	6.83E-05	1.83E-04	2.88E-05	2.79E-05	6.72E-04	potential residence	7.74E-09	1.88E-07	1.75E-07	2.70E-08	0.40	0.00	3.39E-04	6.83E-05	1.74E-04	2.74E-05	2.65E-05	6.35E-04
567552.29_4180246.94	567552.29	4180246.94	3.83E-04	7.15E-05	1.94E-04	2.95E-05	2.85E-05	7.06E-04	potential residence	8.14E-09	1.97E-07	1.84E-07	2.84E-08	0.42	0.00	3.57E-04	7.15E-05	1.85E-04	2.81E-05	2.71E-05	6.68E-04

567572.29_4180246.94	567572.29	4180246.94	4.03E-04	7.50E-05	2.07E-04	3.02E-05	2.92E-05	7.44E-04	potential residence	8.57E-09	2.08E-07	1.94E-07	2.99E-08	0.44	0.00	3.75E-04	7.50E-05	1.97E-04	2.88E-05	2.77E-05	7.04E-04
567592.29_4180246.94	567592.29	4180246.94	4.24E-04	7.87E-05	2.20E-04	3.10E-05	2.98E-05	7.84E-04	potential residence	9.04E-09	2.19E-07	2.04E-07	3.15E-08	0.46	0.00	3.95E-04	7.87E-05	2.10E-04	2.95E-05	2.84E-05	7.42E-04
567652.29_4180246.94	567652.29	4180246.94	4.96E-04	8.93E-05	2.71E-04	3.34E-05	3.19E-05	9.21E-04	potential residence	1.06E-08	2.57E-07	2.40E-07	3.70E-08	0.55	0.00	4.62E-04	8.93E-05	2.58E-04	3.18E-05	3.03E-05	8.71E-04
567672.29_4180246.94	567672.29	4180246.94	5.21E-04	9.24E-05	2.92E-04	3.42E-05	3.26E-05	9.72E-04	potential residence	1.12E-08	2.71E-07	2.53E-07	3.91E-08	0.57	0.00	4.86E-04	9.24E-05	2.78E-04	3.26E-05	3.10E-05	9.19E-04
567692.29_4180246.94	567692.29	4180246.94	5.47E-04	9.54E-05	3.15E-04	3.51E-05	3.34E-05	1.03E-03	potential residence	1.18E-08	2.87E-07	2.67E-07	4.12E-08	0.61	0.00	5.10E-04	9.54E-05	3.00E-04	3.34E-05	3.17E-05	9.70E-04
567712.29_4180246.94	567712.29	4180246.94	5.75E-04	9.83E-05	3.40E-04	3.60E-05	3.41E-05	1.08E-03	potential residence	1.25E-08	3.03E-07	2.83E-07	4.36E-08	0.64	0.00	5.36E-04	9.83E-05	3.24E-04	3.42E-05	3.25E-05	1.03E-03
567732.29_4180246.94	567732.29	4180246.94	6.03E-04	1.01E-04	3.69E-04	3.69E-05	3.49E-05	1.14E-03	potential residence	1.32E-08	3.20E-07	2.98E-07	4.60E-08	0.68	0.00	5.62E-04	1.01E-04	3.51E-04	3.51E-05	3.32E-05	1.08E-03
567752.29_4180246.94	567752.29	4180246.94	6.32E-04	1.04E-04	4.00E-04	3.78E-05	3.57E-05	1.21E-03	potential residence	1.39E-08	3.38E-07	3.15E-07	4.86E-08	0.72	0.00	5.89E-04	1.04E-04	3.80E-04	3.60E-05	3.39E-05	1.14E-03
567772.29_4180246.94	567772.29	4180246.94	6.62E-04	1.06E-04	4.34E-04	3.88E-05	3.65E-05	1.28E-03	potential residence	1.47E-08	3.57E-07	3.33E-07	5.14E-08	0.76	0.00	6.17E-04	1.06E-04	4.13E-04	3.69E-05	3.47E-05	1.21E-03
567792.29_4180246.94	567792.29	4180246.94	6.90E-04	1.09E-04	4.72E-04	3.98E-05	3.73E-05	1.35E-03	potential residence	1.55E-08	3.76E-07	3.51E-07	5.42E-08	0.80	0.00	6.43E-04	1.09E-04	4.49E-04	3.79E-05	3.55E-05	1.27E-03
567812.29_4180246.94	567812.29	4180246.94	7.18E-04	1.12E-04	5.12E-04	4.09E-05	3.82E-05	1.42E-03	potential residence	1.64E-08	3.97E-07	3.70E-07	5.71E-08	0.84	0.00	6.69E-04	1.12E-04	4.87E-04	3.89E-05	3.63E-05	1.34E-03
567852.29_4180246.94	567852.29	4180246.94	7.74E-04	1.16E-04	6.03E-04	4.31E-05	4.00E-05	1.58E-03	potential residence	1.82E-08	4.40E-07	4.11E-07	6.34E-08	0.93	0.00	7.22E-04	1.16E-04	5.74E-04	4.10E-05	3.80E-05	1.49E-03
567872.29_4180246.94	567872.29	4180246.94	8.04E-04	1.18E-04	6.54E-04	4.43E-05	4.09E-05	1.66E-03	potential residence	1.92E-08	4.64E-07	4.33E-07	6.68E-08	0.98	0.00	7.50E-04	1.18E-04	6.23E-04	4.22E-05	3.89E-05	1.57E-03
567892.29_4180246.94	567892.29	4180246.94	8.34E-04	1.18E-04	7.09E-04	4.55E-05	4.19E-05	1.75E-03	potential residence	2.02E-08	4.88E-07	4.56E-07	7.03E-08	1.03	0.00	7.78E-04	1.18E-04	6.75E-04	4.33E-05	3.98E-05	1.65E-03
567912.29_4180246.94	567912.29	4180246.94	8.65E-04	1.17E-04	7.68E-04	4.68E-05	4.29E-05	1.84E-03	potential residence	2.12E-08	5.14E-07	4.80E-07	7.40E-08	1.09	0.00	8.06E-04	1.17E-04	7.31E-04	4.45E-05	4.08E-05	1.74E-03
567952.29_4180246.94	567952.29	4180246.94	9.28E-04	1.14E-04	8.98E-04	4.95E-05	4.50E-05	2.03E-03	potential residence	2.34E-08	5.68E-07	5.30E-07	8.17E-08	1.20	0.00	8.65E-04	1.14E-04	8.54E-04	4.71E-05	4.28E-05	1.92E-03
567972.29_4180246.94	567972.29	4180246.94	9.62E-04	1.12E-04	9.68E-04	5.10E-05	4.60E-05	2.14E-03	potential residence	2.47E-08	5.97E-07	5.58E-07	8.60E-08	1.27	0.00	8.97E-04	1.12E-04	9.21E-04	4.85E-05	4.38E-05	2.02E-03
567992.29_4180246.94	567992.29	4180246.94	1.01E-03	1.10E-04	1.04E-03	5.24E-05	4.71E-05	2.26E-03	potential residence	2.61E-08	6.31E-07	5.89E-07	9.09E-08	1.34	0.00	9.38E-04	1.10E-04	9.94E-04	4.99E-05	4.48E-05	2.14E-03
567412.29_4180266.94	567412.29	4180266.94	2.77E-04	5.22E-05	1.31E-04	2.50E-05	2.45E-05	5.10E-04	potential residence	5.88E-09	1.42E-07	1.33E-07	2.05E-08	0.30	0.00	2.58E-04	5.22E-05	1.25E-04	2.38E-05	2.33E-05	4.82E-04
567432.29_4180266.94	567432.29	4180266.94	2.91E-04	5.44E-05	1.38E-04	2.57E-05	2.51E-05	5.34E-04	potential residence	6.15E-09	1.49E-07	1.39E-07	2.14E-08	0.32	0.00	2.71E-04	5.44E-05	1.31E-04	2.44E-05	2.39E-05	5.05E-04
567452.29_4180266.94	567452.29	4180266.94	3.05E-04	5.70E-05	1.45E-04	2.64E-05	2.57E-05	5.59E-04	potential residence	6.44E-09	1.56E-07	1.46E-07	2.25E-08	0.33	0.00	2.85E-04	5.70E-05	1.38E-04	2.51E-05	2.45E-05	5.29E-04
567472.29_4180266.94	567472.29	4180266.94	3.21E-04	5.97E-05	1.52E-04	2.71E-05	2.64E-05	5.86E-04	potential residence	6.76E-09	1.64E-07	1.53E-07	2.36E-08	0.35	0.00	2.99E-04	5.97E-05	1.45E-04	2.57E-05	2.51E-05	5.55E-04
567492.29_4180266.94	567492.29	4180266.94	3.38E-04	6.28E-05	1.61E-04	2.78E-05	2.70E-05	6.16E-04	potential residence	7.10E-09	1.72E-07	1.61E-07	2.48E-08	0.36	0.00	3.15E-04	6.28E-05	1.53E-04	2.64E-05	2.57E-05	5.83E-04
567512.29_4180266.94	567512.29	4180266.94	3.56E-04	6.61E-05	1.70E-04	2.85E-05	2.77E-05	6.48E-04	potential residence	7.47E-09	1.81E-07	1.69E-07	2.60E-08	0.38	0.00	3.32E-04	6.61E-05	1.62E-04	2.71E-05	2.63E-05	6.13E-04
567532.29_4180266.94	567532.29	4180266.94	3.75E-04	6.97E-05	1.80E-04	2.93E-05	2.83E-05	6.83E-04	potential residence	7.87E-09	1.91E-07	1.78E-07	2.74E-08	0.40	0.00	3.50E-04	6.97E-05	1.71E-04	2.78E-05	2.70E-05	6.46E-04
567552.29_4180266.94	567552.29	4180266.94	3.96E-04	7.34E-05	1.91E-04	3.00E-05	2.90E-05	7.19E-04	potential residence	8.29E-09	2.01E-07	1.88E-07	2.89E-08	0.43	0.00	3.69E-04	7.34E-05	1.82E-04	2.86E-05	2.76E-05	6.80E-04
567672.29_4180266.94	567672.29	4180266.94	5.51E-04	9.74E-05	2.89E-04	3.50E-05	3.34E-05	1.01E-03	potential residence	1.16E-08	2.81E-07	2.62E-07	4.04E-08	0.60	0.00	5.14E-04	9.74E-05	2.75E-04	3.33E-05	3.18E-05	9.51E-04
567692.29_4180266.94	567692.29	4180266.94	5.81E-04	1.01E-04	3.13E-04	3.59E-05	3.42E-05	1.06E-03	potential residence	1.23E-08	2.97E-07	2.78E-07	4.28E-08	0.63	0.00	5.42E-04	1.01E-04	2.97E-04	3.42E-05	3.25E-05	1.01E-03
567712.29_4180266.94	567712.29	4180266.94	6.14E-04	1.05E-04	3.39E-04	3.68E-05	3.50E-05	1.13E-03	potential residence	1.30E-08	3.15E-07	2.94E-07	4.54E-08	0.67	0.00	5.72E-04	1.05E-04	3.23E-04	3.50E-05	3.33E-05	1.07E-03
567732.29_4180266.94	567732.29	4180266.94	6.49E-04	1.08E-04	3.69E-04	3.78E-05	3.58E-05	1.20E-03	potential residence	1.38E-08	3.35E-07	3.13E-07	4.82E-08	0.71	0.00	6.05E-04	1.08E-04	3.51E-04	3.60E-05	3.40E-05	1.13E-03
567752.29_4180266.94	567752.29	4180266.94	6.83E-04	1.11E-04	4.03E-04	3.88E-05	3.66E-05	1.27E-03	potential residence	1.47E-08	3.55E-07	3.32E-07	5.11E-08	0.75	0.00	6.37E-04	1.11E-04	3.83E-04	3.69E-05	3.48E-05	1.20E-03
567772.29_4180266.94	567772.29	4180266.94	7.17E-04	1.14E-04	4.40E-04	3.98E-05	3.75E-05	1.35E-03	potential residence	1.55E-08	3.76E-07	3.51E-07	5.42E-08	0.80	0.00	6.68E-04	1.14E-04	4.18E-04	3.79E-05	3.57E-05	1.27E-03
567792.29_4180266.94	567792.29	4180266.94	7.53E-04	1.17E-04	4.81E-04	4.09E-05	3.84E-05	1.43E-03	potential residence	1.65E-08	3.99E-07	3.73E-07	5.75E-08	0.85	0.00	7.02E-04	1.17E-04	4.58E-04	3.89E-05	3.65E-05	1.35E-03
567812.29_4180266.94	567812.29	4180266.94	7.88E-04	1.20E-04	5.27E-04	4.20E-05	3.93E-05	1.52E-03	potential residence	1.75E-08	4.23E-07	3.95E-07	6.09E-08	0.90	0.00	7.34E-04	1.20E-04	5.01E-04	4.00E-05	3.74E-05	1.43E-03
567832.29_4180266.94	567832.29	4180266.94	8.24E-04	1.23E-04	5.77E-04	4.32E-05	4.02E-05	1.61E-03	potential residence	1.85E-08	4.49E-07	4.19E-07	6.46E-08	0.95	0.00	7.68E-04	1.23E-04	5.49E-04	4.11E-05	3.83E-05	1.52E-03
567852.29_4180266.94	567852.29	4180266.94	8.62E-04	1.26E-04	6.33E-04	4.44E-05	4.12E-05	1.71E-03	potential residence	1.97E-08	4.76E-07	4.45E-07	6.86E-08	1.01	0.00	8.04E-04	1.26E-04	6.02E-04	4.22E-05	3.92E-05	1.61E-03
567872.29_4180266.94	567872.29	4180266.94	8.98E-04	1.28E-04	6.93E-04	4.56E-05	4.22E-05	1.81E-03	potential residence	2.08E-08	5.04E-07	4.71E-07	7.26E-08	1.07	0.00	8.37E-04	1.28E-04	6.59E-04	4.34E-05	4.02E-05	1.71E-03
567892.29_4180266.94	567892.29	4180266.94	9.38E-04	1.29E-04	7.59E-04	4.69E-05	4.32E-05	1.92E-03	potential residence	2.21E-08	5.35E-07	4.99E-07	7.70E-08	1.13	0.00	8.75E-04	1.29E-04	7.22E-04	4.46E-05	4.11E-05	1.81E-03
567932.29_4180266.94	567932.29	4180266.94	1.02E-03	1.27E-04	9.10E-04	4.97E-05	4.54E-05	2.15E-03	potential residence	2.48E-08	6.00E-07	5.60E-07	8.64E-08	1.27	0.00	9.50E-04	1.27E-04	8.66E-04	4.73E-05	4.32E-05	2.03E-03
567952.29_4180266.94	567952.29	4180266.94	1.06E-03	1.25E-04	9.96E-04	5.12E-05	4.65E-05	2.28E-03	potential residence	2.63E-08	6.37E-07	5.94E-07	9.17E-08	1.35	0.00	9.90E-04	1.25E-04	9.48E-04	4.87E-05	4.42E-05	2.16E-03
567972.29_4180266.94	567972.29	4180266.94	1.11E-03	1.22E-04	1.09E-03	5.27E-05	4.76E-05	2.43E-03	potential residence	2.80E-08	6.77E-07	6.32E-07	9.75E-08	1.43	0.00	1.04E-03	1.22E-04	1.04E-03	5.01E-05	4.53E-05	2.29E-03
568812.29_4180266.94	568812.29	4180266.94	1.01E-03	9.24E-05	8.98E-04	1.52E-04	1.20E-04	2.27E-03	potential residence	2.62E-08	6.35E-07	5.93E-07	9.14E-08	1.34	0.00	9.42E-04	9.24E-05	8.55E-04	1.45E-04	1.14E-04	2.15E-03
567472.29_4180286.94	567472.29	4180286.94	3.28E-04	6.03E-05	1.50E-04	2.74E-05	2.67E-05	5.92E-04	potential residence	6.83E-09	1.65E-07	1.54E-07	2.38E-08	0.35	0.00	3.06E-04	6.03E-05	1.43E-04	2.61E-05	2.54E-05	5.60E-04
567492.29_4180286.94	567492.29	4180286.94	3.46E-04	6.36E-05	1.58E-04	2.82E-05	2.74E-05	6.23E-04	potential residence	7.18E-09	1.74E-07	1.62E-07	2.51E-08	0.37	0.00	3.22E-04	6.36E-05	1.50E-04	2.68E-05	2.61E-05	5.89E-04
567512.29_4180286.94	567512.29	4180286.94	3.65E-04	6.71E-05	1.67E-04	2.89E-05	2.81E-05	6.56E-04	potential residence	7.57E-09	1.83E-07	1.71E-07	2.64E-08	0.39	0.00	3.40E-04	6.71E-05	1.59E-04	2.75E-05	2.68E-05	6.21E-04
567532.29_4180286.94	567532.29	4180286.94	3.86E-04	7.09E-05	1.77E-04	2.97E-05	2.88E-05	6.92E-04	potential residence	7.98E-09	1.93E-07	1.80E-07	2.78E-08	0.41	0.00	3.60E-04	7.09E-05	1.68E-04	2.83E-05	2.74E-05	6.55E-04
567572.29_4180286.94	567572.29	4180286.94	4.32E-04	7.90E-05	2.00E-04	3.14E-05	3.03E-05	7.73E-04	potential residence	8.91E-09	2.16E-07	2.01E-07	3.11E-08	0.46	0.00	4.03E-04	7.90E-05	1.90E-04	2.98E-05	2.88E-05	7.31E-04
567592.29_4180286.94	567592.29	4180286.94	4.58E-04	8.35E-05	2.13E-04	3.22E-05	3.10E-05	8.18E-04	potential residence	9.43E-09	2.28E-07	2.13E-07	3.29E-08	0.48	0.00	4.27E-04	8.35E-05	2.03E-04	3.06E-05	2.95E-05	7.74E-04
567692.29_4180286.94	567692.29	4180286.94	6.17E-04	1.07E-04	3.09E-04	3.67E-05	3.50E-05	1.10E-03	potential residence	1.27E-08	3.09E-07	2.88E-07	4.44E-08	0.65	0.00	5.76E-04	1.07E-04	2.94E-04	3.49E-05	3.33E-05	1.04E-03
567712.29_4180286.94	567712.29	4180286.94	6.56E-04	1.11E-04	3.37E-04	3.77E-05	3.58E-05	1.18E-03	potential residence	1.36E-08	3.29E-07	3.07E-07	4.73E-08	0.70	0.00	6.12E-04	1.11E-04	3.20E-04	3.59E-05	3.41E-05	1.11E-03
567732.29_4180286.94	567732.29	4180286.94	6.94E-04	1.15E-04	3.67E-04	3.87E-05	3.67E-05	1.25E-03	potential residence	1.44E-08	3.50E-07	3.26E-07	5.03E-08	0.74	0.00	6.47E-04	1.15E-04	3.49E-04	3.68E-05	3.49E-05	1.18E-03
567752.29_4180286.94	567752.29	4180286.94	7.35E-04	1.19E-04	4.02E-04	3.98E-05	3.76E-05	1.33E-03	potential residence	1.54E-08	3.72E-07	3.48E-07	5.36E-08	0.79	0.00	6.85E-04	1.19E-04	3.83E-04	3.78E-05	3.58E-05	1.26E-03
567772.29_4180286.94	567772.29	4180286.94	7.78E-04	1.23E-04	4.43E-04	4.09E-05	3.85E-05	1.42E-03	potential residence	1.64E-08	3.97E-07	3.71E-07	5.72E-08	0.84	0.00	7.26E-04	1.23E-04	4.21E-04	3.89E-05	3.67E-05	1.35E-03
567792.29_4180286.94	567792.29	4180286.94	8.22E-04	1.26E-04	4.88E-04	4.20E-05	3.95E-05	1.52E-03	potential residence	1.75E-08	4.24E-07	3.95E-07	6.10E-08	0.90	0.00	7.66E-04	1.26E-04	4.64E-04	4.00E-05	3.76E-05	1.43E-03
567812.29_4180286.94	567812.29	4180286.94	8.65E-04	1.29E-04	5.39E-04	4.32E-05	4.05E-05	1.62E-03	potential residence	1.86E-08	4.51E-07	4.21E-07	6.50E-08	0.96	0.00	8.06E-04	1.29E-04	5.12E-04	4.11E-05	3.85E-05	1.53E-03
567832.29_4180286.94	567832.29	4180286.94	9.09E-04	1.33E-04	5.96E-04	4.44E-05	4.15E-05	1.72E-03	potential residence	1.99E-08	4.81E-07	4.49E-07	6.93E-08	1.02	0.00	8.48E-04	1.33E-04	5.67E-04	4.22E-05	3.94E-05	1.63E-03
567872.29_4180286.94	567872.29	4180286.94	1.01E-03	1.39E-04	7.32E-04	4.70E-05	4.35E-05	1.97E-03	potential residence	2.27E-08	5.50E-07	5.13E-07	7.92E-08	1.17	0.00	9.40E-04	1.39E-04	6.96E-04	4.47E-05	4.14E-05	1.86E-03
567892.29_4180286.94	567892.29	4180286.94	1.06E-03	1.40E-04	8.12E-04	4.84E-05	4.46E-05	2.10E-03	potential residence	2.43E-08	5.87E-07	5.48E-07	8.46E-08	1.24	0.00	9.87E-04	1.40E-04	7.72E-04	4.60E-05	4.24E-05	1.99E-03
567912.29_4180286.94	567912.29	4180286.94	1.11E-03	1.41E-04	9.00E-04	4.98E-05	4.57E-05	2.25E-03	potential residence	2.59E-08	6.28E-07	5.86E-07	9.04E-08	1.33	0.00	1.04E-03	1.41E-04	8.57E-04	4.74E-05	4.35E-05	2.13E-03
567932.29_4180286.94	567932.29	4180286.94	1.17E-03	1.39E-04	1.00E-03	5.13E-05	4.69E-05	2.41E-03	potential residence	2.78E-08	6.73E-07	6.28E-07	9.69E-08	1.43	0.00	1.09E-03	1.39E-04	9.52E-04	4.88E-05	4.46E-05	2.28E-03
567952.29_4180286.94	567952.29	4180286.94	1.24E-03	1.36E-04	1.11E-03	5.27E-05	4.79E-05	2.59E-03	potential residence	2.98E-08	7.23E-07	6.74E-07	1.04E-07	1.53	0.00	1.16E-03	1.36E-04	1.06E-03	5.01E-05	4.56E-05	2.44E-03
568792.29_4180286.94	568792.29	4180286.94	1.07E-03	9.66E-05	1.04E-03	1.78E-04	1.36E-04	2.52E-03	potential residence	2.90E-08	7.03E-07	6.56E-07	1.01E-07	1.49	0.00	9.96E-04	9.66E-05	9.88E-04	1.69E-04	1.30E-04	2.38E-03
568812.29_4180286.94	568812.29	4180286.94	1.02E-03	9.45E-05	9.36E-04	1.66E-04	1.35E-04	2.35E-03	potential residence	2.71E-08	6.56E-07	6.12E-07	9.44E-08	1.39	0.00	9.49E-04	9.45E-05	8.91E-04	1.58E-04	1.28E-04	2.22E-03
567412.29_4180306.94	567412.29	4180306.94	2.86E-04	5.27E-05	1.27E-04	2.55E-05	2.50E-05	5.16E-04	potential residence	5.95E-09	1.44E-07	1.35E-07	2.08E-08	0.31	0.00	2.67E-04	5.27E-05	1.21E-04	2.42E-05	2.38E-05	4.88E-04
567432.29_4180306.94	567432.29	4180306.94	3.01E-04	5.50E-05	1.33E-04	2.62E-05	2.57E-05	5.41E-04	potential residence	6.24E-09	1.51E-07	1.41E-07	2.17E-08	0.32	0.00	2.80E-04	5.50E-05	1.27E-04	2.49E-05	2.44E-05	5.12E-04
567572.29_4180306.94	567572.29	4180306.94	4.46E-04	8.04E-05	1.96E-04	3.19E-05	3.09E-05	7.85E-04	potential residence	9.05E-09	2.19E-07	2.05E-07	3.15E-08	0.46	0.00	4.15E-04	8.04E-05	1.87E-04	3.03E-05	2.94E-05	7.42E-04
567592.29_4180306.94	567592.29	4180306.94	4.74E-04	8.56E-05	2.09E-04	3.28E-05	3.17E-05	8.33E-04	potential residence	9.61E-09	2.33E-07	2.17E-07	3.35E-08	0.49	0.00	4.42E-04	8.56E-05	1.99E-04	3.12E-05	3.01E-05	7.88E-04
567612.29_4180306.94	567612.29	4180306.94	5.05E-04	9.08E-05	2.24E-04	3.37E-05	3.25E-05	8.85E-04	potential residence	1.02E-08	2.47E-07	2.31E-07	3.56E-08	0.52	0.00	4.71E-04	9.08E-05	2.13E-04	3.20E-05	3.09E-05	8.37E-04
567712.29_4180306.94	567712.29	4180306.94	6.96E-04	1.17E-04	3.31E-04	3.86E-05	3.68E-05	1.22E-03	potential residence	1.41E-08	3.41E-07	3.18E-07	4.90E-08	0.72	0.00	6.49E-04	1.17E-04	3.15E-04	3.67E-05	3.50E-05	1.15E-03
567732.29_4180306.94	567732.29	4180306.94	7.41E-04	1.22E-04	3.63E-04	3.97E-05	3.77E-05	1.30E-03	potential residence	1.50E-08	3.64E-07	3.40E-07	5.24E-08	0.77	0.00	6.91E-04	1.22E-04	3.45E-04	3.77E-05	3.59E-05	1.23E-03
567752.29_4180306.94	567752.29	4180306.94	7.91E-04	1.27E-04	3.99E-04	4.08E-05	3.86E-05	1.40E-03	potential residence	1.61E-08	3.90E-07	3.64E-07	5.61E-08	0.83	0.00	7.37E-04	1.27E-04	3.80E-04	3.88E-05	3.68E-05	1.32E-03
567772.29_4180306.94	567772.29	4180306.94	8.44E-04	1.32E-04	4.42E-04	4.19E-05	3.96E-05	1.50E-03	potential residence	1.73E-08	4.19E-07	3.91E-07	6.03E-08	0.89	0.00	7.87E-04	1.32E-04	4.20E-04	3.99E-05	3.77E-05	1.42E-03

567792.29_4180306.94	567792.29	4180306.94	8.98E-04	1.36E-04	4.91E-04	4.31E-05	4.06E-05	1.61E-03	potential residence	1.85E-08	4.49E-07	4.19E-07	6.46E-08	0.95	0.00	8.37E-04	1.36E-04	4.67E-04	4.10E-05	3.86E-05	1.52E-03
567812.29_4180306.94	567812.29	4180306.94	9.51E-04	1.40E-04	5.47E-04	4.44E-05	4.16E-05	1.72E-03	potential residence	1.99E-08	4.81E-07	4.49E-07	6.93E-08	1.02	0.00	8.87E-04	1.40E-04	5.20E-04	4.22E-05	3.96E-05	1.63E-03
567832.29_4180306.94	567832.29	4180306.94	1.01E-03	1.44E-04	6.12E-04	4.56E-05	4.27E-05	1.85E-03	potential residence	2.14E-08	5.18E-07	4.83E-07	7.45E-08	1.10	0.00	9.42E-04	1.44E-04	5.82E-04	4.34E-05	4.06E-05	1.75E-03
567872.29_4180306.94	567872.29	4180306.94	1.13E-03	1.51E-04	7.69E-04	4.84E-05	4.49E-05	2.15E-03	potential residence	2.47E-08	5.99E-07	5.59E-07	8.62E-08	1.27	0.00	1.06E-03	1.51E-04	7.32E-04	4.60E-05	4.27E-05	2.03E-03
567892.29_4180306.94	567892.29	4180306.94	1.20E-03	1.53E-04	8.65E-04	4.98E-05	4.61E-05	2.31E-03	potential residence	2.67E-08	6.46E-07	6.03E-07	9.30E-08	1.37	0.00	1.12E-03	1.53E-04	8.23E-04	4.74E-05	4.38E-05	2.19E-03
567912.29_4180306.94	567912.29	4180306.94	1.28E-03	1.54E-04	9.77E-04	5.13E-05	4.72E-05	2.51E-03	potential residence	2.89E-08	7.00E-07	6.54E-07	1.01E-07	1.48	0.00	1.19E-03	1.54E-04	9.29E-04	4.88E-05	4.49E-05	2.37E-03
568772.29_4180306.94	568772.29	4180306.94	1.13E-03	1.01E-04	1.23E-03	2.13E-04	1.57E-04	2.83E-03	potential residence	3.26E-08	7.89E-07	7.37E-07	1.14E-07	1.67	0.00	1.05E-03	1.01E-04	1.17E-03	2.02E-04	1.50E-04	2.67E-03
568792.29_4180306.94	568792.29	4180306.94	1.08E-03	9.92E-05	1.09E-03	1.96E-04	1.55E-04	2.62E-03	potential residence	3.01E-08	7.30E-07	6.82E-07	1.05E-07	1.55	0.00	1.00E-03	9.92E-05	1.04E-03	1.86E-04	1.48E-04	2.47E-03
568812.29_4180306.94	568812.29	4180306.94	1.03E-03	9.67E-05	9.74E-04	1.80E-04	1.52E-04	2.43E-03	potential residence	2.80E-08	6.78E-07	6.33E-07	9.76E-08	1.44	0.00	9.56E-04	9.67E-05	9.27E-04	1.71E-04	1.45E-04	2.30E-03
567412.29_4180326.94	567412.29	4180326.94	2.89E-04	5.28E-05	1.25E-04	2.57E-05	2.52E-05	5.18E-04	potential residence	5.97E-09	1.45E-07	1.35E-07	2.08E-08	0.31	0.00	2.70E-04	5.28E-05	1.19E-04	2.44E-05	2.40E-05	4.90E-04
567432.29_4180326.94	567432.29	4180326.94	3.05E-04	5.52E-05	1.31E-04	2.65E-05	2.60E-05	5.44E-04	potential residence	6.27E-09	1.52E-07	1.42E-07	2.18E-08	0.32	0.00	2.84E-04	5.52E-05	1.25E-04	2.52E-05	2.47E-05	5.14E-04
567452.29_4180326.94	567452.29	4180326.94	3.22E-04	5.80E-05	1.38E-04	2.73E-05	2.67E-05	5.71E-04	potential residence	6.58E-09	1.59E-07	1.49E-07	2.30E-08	0.34	0.00	3.00E-04	5.80E-05	1.31E-04	2.59E-05	2.54E-05	5.40E-04
567472.29_4180326.94	567472.29	4180326.94	3.40E-04	6.10E-05	1.45E-04	2.81E-05	2.75E-05	6.01E-04	potential residence	6.93E-09	1.68E-07	1.57E-07	2.42E-08	0.36	0.00	3.17E-04	6.10E-05	1.38E-04	2.67E-05	2.61E-05	5.68E-04
567492.29_4180326.94	567492.29	4180326.94	3.60E-04	6.44E-05	1.52E-04	2.89E-05	2.82E-05	6.34E-04	potential residence	7.30E-09	1.77E-07	1.65E-07	2.55E-08	0.37	0.00	3.35E-04	6.44E-05	1.45E-04	2.75E-05	2.69E-05	5.99E-04
567512.29_4180326.94	567512.29	4180326.94	3.81E-04	6.81E-05	1.61E-04	2.98E-05	2.90E-05	6.69E-04	potential residence	7.71E-09	1.87E-07	1.74E-07	2.69E-08	0.40	0.00	3.55E-04	6.81E-05	1.53E-04	2.83E-05	2.76E-05	6.33E-04
567712.29_4180326.94	567712.29	4180326.94	7.40E-04	1.24E-04	3.25E-04	3.95E-05	3.76E-05	1.27E-03	potential residence	1.46E-08	3.54E-07	3.30E-07	5.09E-08	0.75	0.00	6.90E-04	1.24E-04	3.09E-04	3.76E-05	3.58E-05	1.20E-03
567732.29_4180326.94	567732.29	4180326.94	7.92E-04	1.30E-04	3.56E-04	4.06E-05	3.87E-05	1.36E-03	potential residence	1.56E-08	3.79E-07	3.54E-07	5.46E-08	0.80	0.00	7.38E-04	1.30E-04	3.39E-04	3.87E-05	3.68E-05	1.28E-03
567752.29_4180326.94	567752.29	4180326.94	8.50E-04	1.36E-04	3.94E-04	4.18E-05	3.97E-05	1.46E-03	potential residence	1.68E-08	4.08E-07	3.81E-07	5.87E-08	0.86	0.00	7.93E-04	1.36E-04	3.74E-04	3.98E-05	3.77E-05	1.38E-03
567772.29_4180326.94	567772.29	4180326.94	9.14E-04	1.41E-04	4.37E-04	4.30E-05	4.07E-05	1.58E-03	potential residence	1.82E-08	4.40E-07	4.11E-07	6.34E-08	0.93	0.00	8.52E-04	1.41E-04	4.16E-04	4.09E-05	3.87E-05	1.49E-03
567792.29_4180326.94	567792.29	4180326.94	9.80E-04	1.47E-04	4.89E-04	4.43E-05	4.17E-05	1.70E-03	potential residence	1.96E-08	4.75E-07	4.44E-07	6.84E-08	1.01	0.00	9.14E-04	1.47E-04	4.65E-04	4.21E-05	3.97E-05	1.61E-03
567832.29_4180326.94	567832.29	4180326.94	1.12E-03	1.56E-04	6.22E-04	4.69E-05	4.39E-05	1.99E-03	potential residence	2.29E-08	5.56E-07	5.19E-07	8.00E-08	1.18	0.00	1.05E-03	1.56E-04	5.92E-04	4.46E-05	4.18E-05	1.88E-03
567852.29_4180326.94	567852.29	4180326.94	1.20E-03	1.60E-04	7.06E-04	4.84E-05	4.51E-05	2.15E-03	potential residence	2.48E-08	6.02E-07	5.62E-07	8.66E-08	1.27	0.00	1.11E-03	1.60E-04	6.72E-04	4.60E-05	4.29E-05	2.03E-03
567872.29_4180326.94	567872.29	4180326.94	1.28E-03	1.64E-04	8.05E-04	4.98E-05	4.63E-05	2.34E-03	potential residence	2.70E-08	6.55E-07	6.11E-07	9.42E-08	1.39	0.00	1.19E-03	1.64E-04	7.66E-04	4.74E-05	4.40E-05	2.21E-03
567892.29_4180326.94	567892.29	4180326.94	1.38E-03	1.66E-04	9.23E-04	5.12E-05	4.74E-05	2.57E-03	potential residence	2.96E-08	7.17E-07	6.70E-07	1.03E-07	1.52	0.00	1.29E-03	1.66E-04	8.78E-04	4.87E-05	4.51E-05	2.43E-03
568772.29_4180326.94	568772.29	4180326.94	1.14E-03	1.04E-04	1.29E-03	2.35E-04	1.83E-04	2.96E-03	potential residence	3.41E-08	8.25E-07	7.70E-07	1.19E-07	1.75	0.00	1.06E-03	1.04E-04	1.23E-03	2.24E-04	1.74E-04	2.79E-03
568792.29_4180326.94	568792.29	4180326.94	1.08E-03	1.01E-04	1.14E-03	2.12E-04	1.79E-04	2.72E-03	potential residence	3.13E-08	7.59E-07	7.08E-07	1.09E-07	1.61	0.00	1.01E-03	1.01E-04	1.08E-03	2.02E-04	1.71E-04	2.57E-03
568812.29_4180326.94	568812.29	4180326.94	1.03E-03	9.85E-05	1.02E-03	1.93E-04	1.74E-04	2.52E-03	potential residence	2.90E-08	7.02E-07	6.56E-07	1.01E-07	1.49	0.00	9.63E-04	9.85E-05	9.68E-04	1.84E-04	1.65E-04	2.38E-03
567412.29_4180346.94	567412.29	4180346.94	2.92E-04	5.26E-05	1.23E-04	2.59E-05	2.55E-05	5.19E-04	potential residence	5.98E-09	1.45E-07	1.35E-07	2.09E-08	0.31	0.00	2.73E-04	5.26E-05	1.17E-04	2.46E-05	2.42E-05	4.91E-04
567432.29_4180346.94	567432.29	4180346.94	3.08E-04	5.52E-05	1.29E-04	2.67E-05	2.62E-05	5.45E-04	potential residence	6.28E-09	1.52E-07	1.42E-07	2.19E-08	0.32	0.00	2.88E-04	5.52E-05	1.22E-04	2.54E-05	2.49E-05	5.15E-04
567452.29_4180346.94	567452.29	4180346.94	3.26E-04	5.80E-05	1.35E-04	2.75E-05	2.70E-05	5.73E-04	potential residence	6.61E-09	1.60E-07	1.49E-07	2.30E-08	0.34	0.00	3.04E-04	5.80E-05	1.28E-04	2.62E-05	2.57E-05	5.42E-04
567472.29_4180346.94	567472.29	4180346.94	3.45E-04	6.10E-05	1.42E-04	2.84E-05	2.78E-05	6.04E-04	potential residence	6.96E-09	1.69E-07	1.57E-07	2.43E-08	0.36	0.00	3.21E-04	6.10E-05	1.35E-04	2.70E-05	2.64E-05	5.71E-04
567492.29_4180346.94	567492.29	4180346.94	3.65E-04	6.45E-05	1.49E-04	2.92E-05	2.86E-05	6.37E-04	potential residence	7.35E-09	1.78E-07	1.66E-07	2.56E-08	0.38	0.00	3.41E-04	6.45E-05	1.42E-04	2.78E-05	2.72E-05	6.02E-04
567512.29_4180346.94	567512.29	4180346.94	3.88E-04	6.84E-05	1.58E-04	3.01E-05	2.94E-05	6.74E-04	potential residence	7.76E-09	1.88E-07	1.76E-07	2.71E-08	0.40	0.00	3.62E-04	6.84E-05	1.50E-04	2.87E-05	2.80E-05	6.37E-04
567732.29_4180346.94	567732.29	4180346.94	8.46E-04	1.37E-04	3.48E-04	4.16E-05	3.96E-05	1.41E-03	potential residence	1.63E-08	3.94E-07	3.68E-07	5.68E-08	0.84	0.00	7.89E-04	1.37E-04	3.31E-04	3.95E-05	3.77E-05	1.33E-03
567752.29_4180346.94	567752.29	4180346.94	9.12E-04	1.44E-04	3.85E-04	4.28E-05	4.07E-05	1.52E-03	potential residence	1.76E-08	4.26E-07	3.97E-07	6.13E-08	0.90	0.00	8.50E-04	1.44E-04	3.66E-04	4.08E-05	3.87E-05	1.44E-03
567792.29_4180346.94	567792.29	4180346.94	1.07E-03	1.58E-04	4.82E-04	4.54E-05	4.29E-05	1.80E-03	potential residence	2.07E-08	5.02E-07	4.69E-07	7.23E-08	1.06	0.00	9.98E-04	1.58E-04	4.59E-04	4.32E-05	4.08E-05	1.70E-03
567812.29_4180346.94	567812.29	4180346.94	1.15E-03	1.63E-04	5.46E-04	4.68E-05	4.41E-05	1.95E-03	potential residence	2.25E-08	5.45E-07	5.09E-07	7.85E-08	1.16	0.00	1.08E-03	1.63E-04	5.19E-04	4.45E-05	4.19E-05	1.84E-03
567832.29_4180346.94	567832.29	4180346.94	1.24E-03	1.69E-04	6.24E-04	4.83E-05	4.53E-05	2.13E-03	potential residence	2.45E-08	5.94E-07	5.55E-07	8.56E-08	1.26	0.00	1.16E-03	1.69E-04	5.94E-04	4.59E-05	4.31E-05	2.01E-03
567852.29_4180346.94	567852.29	4180346.94	1.35E-03	1.74E-04	7.20E-04	4.97E-05	4.64E-05	2.34E-03	potential residence	2.70E-08	6.53E-07	6.09E-07	9.40E-08	1.38	0.00	1.26E-03	1.74E-04	6.85E-04	4.73E-05	4.42E-05	2.21E-03
568752.29_4180346.94	568752.29	4180346.94	1.21E-03	1.09E-04	1.58E-03	2.92E-04	2.22E-04	3.41E-03	potential residence	3.94E-08	9.53E-07	8.90E-07	1.37E-07	2.02	0.00	1.13E-03	1.09E-04	1.50E-03	2.77E-04	2.11E-04	3.23E-03
568772.29_4180346.94	568772.29	4180346.94	1.15E-03	1.06E-04	1.37E-03	2.57E-04	2.18E-04	3.10E-03	potential residence	3.57E-08	8.65E-07	8.07E-07	1.25E-07	1.83	0.00	1.07E-03	1.06E-04	1.30E-03	2.44E-04	2.07E-04	2.93E-03
568792.29_4180346.94	568792.29	4180346.94	1.09E-03	1.03E-04	1.20E-03	2.29E-04	2.10E-04	2.83E-03	potential residence	3.27E-08	7.91E-07	7.39E-07	1.14E-07	1.68	0.00	1.02E-03	1.03E-04	1.14E-03	2.18E-04	1.99E-04	2.68E-03
568812.29_4180346.94	568812.29	4180346.94	1.04E-03	9.99E-05	1.06E-03	2.07E-04	1.99E-04	2.61E-03	potential residence	3.01E-08	7.29E-07	6.81E-07	1.05E-07	1.54	0.00	9.71E-04	9.99E-05	1.01E-03	1.97E-04	1.90E-04	2.47E-03
567412.29_4180366.94	567412.29	4180366.94	2.95E-04	5.25E-05	1.21E-04	2.60E-05	2.56E-05	5.19E-04	potential residence	5.99E-09	1.45E-07	1.35E-07	2.09E-08	0.31	0.00	2.75E-04	5.25E-05	1.15E-04	2.47E-05	2.44E-05	4.91E-04
567432.29_4180366.94	567432.29	4180366.94	3.11E-04	5.52E-05	1.26E-04	2.69E-05	2.64E-05	5.46E-04	potential residence	6.29E-09	1.52E-07	1.42E-07	2.19E-08	0.32	0.00	2.90E-04	5.52E-05	1.20E-04	2.55E-05	2.51E-05	5.16E-04
567452.29_4180366.94	567452.29	4180366.94	3.29E-04	5.79E-05	1.32E-04	2.77E-05	2.73E-05	5.74E-04	potential residence	6.62E-09	1.60E-07	1.50E-07	2.31E-08	0.34	0.00	3.07E-04	5.79E-05	1.26E-04	2.64E-05	2.59E-05	5.43E-04
567472.29_4180366.94	567472.29	4180366.94	3.49E-04	6.10E-05	1.39E-04	2.86E-05	2.81E-05	6.05E-04	potential residence	6.98E-09	1.69E-07	1.58E-07	2.43E-08	0.36	0.00	3.25E-04	6.10E-05	1.32E-04	2.72E-05	2.67E-05	5.72E-04
567492.29_4180366.94	567492.29	4180366.94	3.70E-04	6.47E-05	1.46E-04	2.95E-05	2.89E-05	6.40E-04	potential residence	7.37E-09	1.79E-07	1.67E-07	2.57E-08	0.38	0.00	3.45E-04	6.47E-05	1.39E-04	2.81E-05	2.75E-05	6.05E-04
567512.29_4180366.94	567512.29	4180366.94	3.94E-04	6.86E-05	1.54E-04	3.05E-05	2.98E-05	6.77E-04	potential residence	7.80E-09	1.89E-07	1.76E-07	2.72E-08	0.40	0.00	3.67E-04	6.86E-05	1.47E-04	2.90E-05	2.84E-05	6.40E-04
567772.29_4180366.94	567772.29	4180366.94	1.06E-03	1.61E-04	4.17E-04	4.52E-05	4.29E-05	1.73E-03	potential residence	1.99E-08	4.83E-07	4.51E-07	6.95E-08	1.02	0.00	9.92E-04	1.61E-04	3.97E-04	4.30E-05	4.08E-05	1.63E-03
567792.29_4180366.94	567792.29	4180366.94	1.16E-03	1.69E-04	4.70E-04	4.66E-05	4.41E-05	1.89E-03	potential residence	2.18E-08	5.28E-07	4.93E-07	7.60E-08	1.12	0.00	1.08E-03	1.69E-04	4.47E-04	4.44E-05	4.20E-05	1.78E-03
567812.29_4180366.94	567812.29	4180366.94	1.27E-03	1.76E-04	5.35E-04	4.81E-05	4.53E-05	2.07E-03	potential residence	2.39E-08	5.78E-07	5.40E-07	8.33E-08	1.23	0.00	1.18E-03	1.76E-04	5.09E-04	4.58E-05	4.31E-05	1.96E-03
567832.29_4180366.94	567832.29	4180366.94	1.39E-03	1.81E-04	6.17E-04	4.95E-05	4.65E-05	2.29E-03	potential residence	2.64E-08	6.38E-07	5.96E-07	9.19E-08	1.35	0.00	1.30E-03	1.81E-04	5.87E-04	4.71E-05	4.42E-05	2.16E-03
568752.29_4180366.94	568752.29	4180366.94	1.23E-03	1.11E-04	1.65E-03	3.19E-04	2.76E-04	3.59E-03	potential residence	4.13E-08	1.00E-06	9.35E-07	1.44E-07	2.12	0.00	1.14E-03	1.11E-04	1.57E-03	3.04E-04	2.63E-04	3.39E-03
568772.29_4180366.94	568772.29	4180366.94	1.15E-03	1.08E-04	1.41E-03	2.76E-04	2.63E-04	3.21E-03	potential residence	3.70E-08	8.96E-07	8.37E-07	1.29E-07	1.90	0.00	1.07E-03	1.08E-04	1.34E-03	2.63E-04	2.50E-04	3.04E-03
568792.29_4180366.94	568792.29	4180366.94	1.09E-03	1.05E-04	1.23E-03	2.44E-04	2.46E-04	2.92E-03	potential residence	3.37E-08	8.15E-07	7.61E-07	1.17E-07	1.73	0.00	1.02E-03	1.05E-04	1.17E-03	2.32E-04	2.34E-04	2.76E-03
568812.29_4180366.94	568812.29	4180366.94	1.04E-03	1.01E-04	1.09E-03	2.18E-04	2.27E-04	2.68E-03	potential residence	3.09E-08	7.47E-07	6.98E-07	1.08E-07	1.58	0.00	9.69E-04	1.01E-04	1.04E-03	2.08E-04	2.16E-04	2.53E-03
567412.29_4180386.94	567412.29	4180386.94	2.96E-04	5.20E-05	1.18E-04	2.61E-05	2.58E-05	5.18E-04	potential residence	5.97E-09	1.45E-07	1.35E-07	2.08E-08	0.31	0.00	2.76E-04	5.20E-05	1.12E-04	2.49E-05	2.45E-05	4.90E-04
567432.29_4180386.94	567432.29	4180386.94	3.13E-04	5.47E-05	1.24E-04	2.70E-05	2.66E-05	5.45E-04	potential residence	6.28E-09	1.52E-07	1.42E-07	2.19E-08	0.32	0.00	2.92E-04	5.47E-05	1.18E-04	2.57E-05	2.53E-05	5.15E-04
567452.29_4180386.94	567452.29	4180386.94	3.32E-04	5.76E-05	1.30E-04	2.79E-05	2.75E-05	5.74E-04	potential residence	6.62E-09	1.60E-07	1.50E-07	2.31E-08	0.34	0.00	3.09E-04	5.76E-05	1.23E-04	2.66E-05	2.61E-05	5.43E-04
567472.29_4180386.94	567472.29	4180386.94	3.52E-04	6.08E-05	1.36E-04	2.89E-05	2.84E-05	6.06E-04	potential residence	6.98E-09	1.69E-07	1.58E-07	2.43E-08	0.36	0.00	3.28E-04	6.08E-05	1.29E-04	2.75E-05	2.70E-05	5.72E-04
567492.29_4180386.94	567492.29	4180386.94	3.74E-04	6.44E-05	1.43E-04	2.98E-05	2.93E-05	6.40E-04	potential residence	7.38E-09	1.79E-07	1.67E-07	2.57E-08	0.38	0.00	3.48E-04	6.44E-05	1.36E-04	2.84E-05	2.78E-05	6.05E-04
567512.29_4180386.94	567512.29	4180386.94	3.99E-04	6.82E-05	1.51E-04	3.08E-05	3.02E-05	6.79E-04	potential residence	7.82E-09	1.89E-07	1.77E-07	2.73E-08	0.40	0.00	3.72E-04	6.82E-05	1.44E-04	2.93E-05	2.87E-05	6.41E-04
567772.29_4180386.94	567772.29	4180386.94	1.14E-03	1.69E-04	4.02E-04	4.64E-05	4.41E-05	1.80E-03	potential residence	2.08E-08	5.03E-07	4.69E-07	7.24E-08	1.07	0.00	1.06E-03	1.69E-04	3.82E-04	4.42E-05	4.20E-05	1.70E-03
567792.29_4180386.94	567792.29	4180386.94	1.26E-03	1.78E-04	4.53E-04	4.78E-05	4.53E-05	1.99E-03	potential residence	2.29E-08	5.55E-07	5.18E-07	7.99E-08	1.18	0.00	1.18E-03	1.78E-04	4.31E-04	4.55E-05	4.31E-05	1.88E-03
568732.29_4180386.94	568732.29	4180386.94	1.31E-03	1.18E-04	1.89E-03	3.97E-04	3.81E-04	4.10E-03	potential residence	4.73E-08	1.14E-06	1.07E-06	1.65E-07	2.43	0.00	1.22E-03	1.18E-04	1.80E-03	3.78E-04	3.63E-04	3.88E-03
568752.29_4180386.94	568752.29	4180386.94	1.23E-03	1.14E-04	1.60E-03	3.35E-04	3.57E-04	3.63E-03	potential residence	4.19E-08	1.01E-06	9.47E-07	1.46E-07	2.15	0.00	1.14E-03	1.14E-04	1.52E-03	3.19E-04	3.39E-04	3.44E-03
568772.29_4180386.94	568772.29	4180386.94	1.16E-03	1.10E-04	1.38E-03	2.90E-04	3.22E-04	3.27E-03	potential residence	3.77E-08	9.13E-07	8.52E-07	1.31E-07	1.93	0.00	1.08E-03	1.10E-04	1.32E-03	2.76E-04	3.06E-04	3.09E-03
568792.29_4180386.94	568792.29	4180386.94	1.11E-03	1.06E-04	1.22E-03	2.56E-04	2.88E-04	2.97E-03	potential residence	3.43E-08	8.30E-07	7.75E-07	1.19E-07	1.76	0.00	1.03E-03	1.06E-04	1.16E-03	2.43E-04	2.74E-04	2.81E-03
568812.29_4180386.94	568812.29	4180386.94	1.05E-03	1.03E-04	1.08E-03	2.29E-04	2.58E-04	2.73E-03	potential residence	3.14E-08	7.62E-07	7.11E-07	1.10E-07	1.61	0.00	9.82E-04	1.03E-04	1.03E-03	2.17E-04	2.46E-04	2.58E-03
567412.29_4180406.94	567412.29	4180406.94	2.97E-04	5.16E-05	1.16E-04	2.62E-05	2.59E-05	5.16E-04	potential residence	5.95E-09	1.44E-07	1.35E-07	2.08E-08	0.31	0.00	2.77E-04	5.16E-05	1.10E-04	2.49E-05	2.47E-05	4.88E-04
567432.29_4180406.94	567432.29	4180406.94	3.14E-04	5.42E-05	1.21E-04	2.71E-05	2.68E-05	5.43E-04	potential residence	6.26E-09	1.52E-07	1.42E-07	2.18E-08	0.32	0.00	2.93E-04	5.42E-05	1.15E-04	2.58E-05	2.55E-05	5.13E-04

567452.29_4180406.94	567452.29	4180406.94	3.33E-04	5.71E-05	1.27E-04	2.81E-05	2.77E-05	5.73E-04	potential residence	6.60E-09	1.60E-07	1.49E-07	2.30E-08	0.34	0.00	3.10E-04	5.71E-05	1.21E-04	2.67E-05	2.63E-05	5.41E-04
567472.29_4180406.94	567472.29	4180406.94	3.54E-04	6.03E-05	1.33E-04	2.91E-05	2.86E-05	6.05E-04	potential residence	6.97E-09	1.69E-07	1.58E-07	2.43E-08	0.36	0.00	3.30E-04	6.03E-05	1.27E-04	2.77E-05	2.72E-05	5.71E-04
567492.29_4180406.94	567492.29	4180406.94	3.76E-04	6.38E-05	1.40E-04	3.01E-05	2.95E-05	6.40E-04	potential residence	7.37E-09	1.79E-07	1.67E-07	2.57E-08	0.38	0.00	3.51E-04	6.38E-05	1.33E-04	2.86E-05	2.81E-05	6.04E-04
568732.29_4180406.94	568732.29	4180406.94	1.33E-03	1.20E-04	1.63E-03	3.94E-04	5.63E-04	4.04E-03	potential residence	4.66E-08	1.13E-06	1.05E-06	1.62E-07	2.39	0.00	1.24E-03	1.20E-04	1.56E-03	3.75E-04	5.36E-04	3.82E-03
568752.29_4180406.94	568752.29	4180406.94	1.24E-03	1.16E-04	1.43E-03	3.37E-04	4.62E-04	3.58E-03	potential residence	4.13E-08	1.00E-06	9.34E-07	1.44E-07	2.12	0.00	1.16E-03	1.16E-04	1.36E-03	3.20E-04	4.39E-04	3.39E-03
568772.29_4180406.94	568772.29	4180406.94	1.18E-03	1.12E-04	1.27E-03	2.95E-04	3.87E-04	3.25E-03	potential residence	3.74E-08	9.06E-07	8.46E-07	1.30E-07	1.92	0.00	1.10E-03	1.12E-04	1.21E-03	2.81E-04	3.68E-04	3.07E-03
568792.29_4180406.94	568792.29	4180406.94	1.12E-03	1.09E-04	1.14E-03	2.61E-04	3.31E-04	2.96E-03	potential residence	3.41E-08	8.26E-07	7.71E-07	1.19E-07	1.75	0.00	1.04E-03	1.09E-04	1.08E-03	2.48E-04	3.15E-04	2.80E-03
568812.29_4180406.94	568812.29	4180406.94	1.07E-03	1.06E-04	1.03E-03	2.34E-04	2.89E-04	2.72E-03	potential residence	3.14E-08	7.60E-07	7.09E-07	1.09E-07	1.61	0.00	9.94E-04	1.06E-04	9.77E-04	2.22E-04	2.75E-04	2.57E-03
567412.29_4180426.94	567412.29	4180426.94	2.97E-04	5.11E-05	1.13E-04	2.63E-05	2.60E-05	5.13E-04	potential residence	5.92E-09	1.43E-07	1.34E-07	2.06E-08	0.30	0.00	2.77E-04	5.11E-05	1.08E-04	2.50E-05	2.48E-05	4.85E-04
567432.29_4180426.94	567432.29	4180426.94	3.14E-04	5.36E-05	1.18E-04	2.72E-05	2.69E-05	5.40E-04	potential residence	6.23E-09	1.51E-07	1.41E-07	2.17E-08	0.32	0.00	2.93E-04	5.36E-05	1.13E-04	2.59E-05	2.56E-05	5.11E-04
567452.29_4180426.94	567452.29	4180426.94	3.33E-04	5.64E-05	1.24E-04	2.82E-05	2.78E-05	5.70E-04	potential residence	6.57E-09	1.59E-07	1.49E-07	2.29E-08	0.34	0.00	3.11E-04	5.64E-05	1.18E-04	2.68E-05	2.65E-05	5.38E-04
567472.29_4180426.94	567472.29	4180426.94	3.54E-04	5.94E-05	1.30E-04	2.92E-05	2.88E-05	6.02E-04	potential residence	6.94E-09	1.68E-07	1.57E-07	2.42E-08	0.36	0.00	3.30E-04	5.94E-05	1.24E-04	2.78E-05	2.74E-05	5.69E-04
568732.29_4180426.94	568732.29	4180426.94	1.35E-03	1.24E-04	1.36E-03	3.81E-04	7.90E-04	4.00E-03	potential residence	4.61E-08	1.12E-06	1.04E-06	1.61E-07	2.37	0.00	1.25E-03	1.24E-04	1.29E-03	3.63E-04	7.52E-04	3.78E-03
568752.29_4180426.94	568752.29	4180426.94	1.26E-03	1.19E-04	1.23E-03	3.30E-04	5.70E-04	3.50E-03	potential residence	4.04E-08	9.78E-07	9.13E-07	1.41E-07	2.07	0.00	1.17E-03	1.19E-04	1.17E-03	3.14E-04	5.43E-04	3.31E-03
568772.29_4180426.94	568772.29	4180426.94	1.19E-03	1.15E-04	1.12E-03	2.92E-04	4.50E-04	3.17E-03	potential residence	3.65E-08	8.84E-07	8.25E-07	1.27E-07	1.87	0.00	1.11E-03	1.15E-04	1.06E-03	2.77E-04	4.28E-04	2.99E-03
568792.29_4180426.94	568792.29	4180426.94	1.13E-03	1.11E-04	1.02E-03	2.60E-04	3.73E-04	2.90E-03	potential residence	3.34E-08	8.09E-07	7.55E-07	1.17E-07	1.71	0.00	1.06E-03	1.11E-04	9.71E-04	2.48E-04	3.55E-04	2.74E-03
568812.29_4180426.94	568812.29	4180426.94	1.08E-03	1.07E-04	9.33E-04	2.33E-04	3.17E-04	2.67E-03	potential residence	3.07E-08	7.45E-07	6.95E-07	1.07E-07	1.58	0.00	1.00E-03	1.07E-04	8.87E-04	2.22E-04	3.02E-04	2.52E-03
567412.29_4180446.94	567412.29	4180446.94	2.96E-04	5.05E-05	1.11E-04	2.63E-05	2.61E-05	5.10E-04	potential residence	5.87E-09	1.42E-07	1.33E-07	2.05E-08	0.30	0.00	2.76E-04	5.05E-05	1.05E-04	2.50E-05	2.48E-05	4.82E-04
567432.29_4180446.94	567432.29	4180446.94	3.14E-04	5.29E-05	1.16E-04	2.73E-05	2.70E-05	5.36E-04	potential residence	6.18E-09	1.50E-07	1.40E-07	2.16E-08	0.32	0.00	2.92E-04	5.29E-05	1.10E-04	2.59E-05	2.57E-05	5.07E-04
568752.29_4180446.94	568752.29	4180446.94	1.27E-03	1.22E-04	1.04E-03	3.20E-04	6.14E-04	3.37E-03	potential residence	3.88E-08	9.40E-07	8.78E-07	1.35E-07	1.99	0.00	1.19E-03	1.22E-04	9.89E-04	3.05E-04	5.84E-04	3.19E-03
568772.29_4180446.94	568772.29	4180446.94	1.20E-03	1.16E-04	9.59E-04	2.83E-04	4.82E-04	3.04E-03	potential residence	3.51E-08	8.49E-07	7.93E-07	1.22E-07	1.80	0.00	1.12E-03	1.16E-04	9.12E-04	2.70E-04	4.58E-04	2.88E-03
568792.29_4180446.94	568792.29	4180446.94	1.14E-03	1.12E-04	8.90E-04	2.54E-04	3.97E-04	2.79E-03	potential residence	3.22E-08	7.80E-07	7.28E-07	1.12E-07	1.65	0.00	1.06E-03	1.12E-04	8.47E-04	2.42E-04	3.77E-04	2.64E-03
568812.29_4180446.94	568812.29	4180446.94	1.08E-03	1.08E-04	8.27E-04	2.29E-04	3.36E-04	2.59E-03	potential residence	2.98E-08	7.22E-07	6.74E-07	1.04E-07	1.53	0.00	1.01E-03	1.08E-04	7.87E-04	2.18E-04	3.20E-04	2.44E-03
567412.29_4180466.94	567412.29	4180466.94	2.95E-04	4.97E-05	1.08E-04	2.62E-05	2.61E-05	5.05E-04	potential residence	5.82E-09	1.41E-07	1.32E-07	2.03E-08	0.30	0.00	2.75E-04	4.97E-05	1.03E-04	2.50E-05	2.48E-05	4.77E-04
567672.29_4180466.94	567672.29	4180466.94	7.83E-04	1.15E-04	2.16E-04	4.26E-05	4.12E-05	1.20E-03	potential residence	1.38E-08	3.34E-07	3.12E-07	4.81E-08	0.71	0.00	7.30E-04	1.15E-04	2.06E-04	4.05E-05	3.92E-05	1.13E-03
568772.29_4180466.94	568772.29	4180466.94	1.21E-03	1.18E-04	8.25E-04	2.74E-04	4.79E-04	2.91E-03	potential residence	3.35E-08	8.12E-07	7.58E-07	1.17E-07	1.72	0.00	1.13E-03	1.18E-04	7.85E-04	2.61E-04	4.55E-04	2.75E-03
568792.29_4180466.94	568792.29	4180466.94	1.15E-03	1.13E-04	7.76E-04	2.47E-04	4.01E-04	2.69E-03	potential residence	3.10E-08	7.50E-07	7.00E-07	1.08E-07	1.59	0.00	1.07E-03	1.13E-04	7.38E-04	2.35E-04	3.81E-04	2.54E-03
568652.29_4180626.94	568652.29	4180626.94	1.32E-03	1.74E-04	3.34E-04	3.11E-04	5.82E-04	2.72E-03	potential residence	3.14E-08	7.60E-07	7.10E-07	1.09E-07	1.61	0.00	1.23E-03	1.74E-04	3.18E-04	2.96E-04	5.53E-04	2.57E-03
568672.29_4180626.94	568672.29	4180626.94	1.25E-03	1.64E-04	3.28E-04	2.79E-04	4.92E-04	2.52E-03	potential residence	2.90E-08	7.03E-07	6.56E-07	1.01E-07	1.49	0.00	1.17E-03	1.64E-04	3.12E-04	2.66E-04	4.68E-04	2.38E-03
568632.29_4180646.94	568632.29	4180646.94	1.29E-03	1.83E-04	3.03E-04	3.19E-04	6.11E-04	2.71E-03	potential residence	3.12E-08	7.56E-07	7.06E-07	1.09E-07	1.60	0.00	1.20E-03	1.83E-04	2.88E-04	3.04E-04	5.81E-04	2.56E-03
568652.29_4180646.94	568652.29	4180646.94	1.23E-03	1.73E-04	2.98E-04	2.87E-04	5.14E-04	2.50E-03	potential residence	2.88E-08	6.98E-07	6.52E-07	1.01E-07	1.48	0.00	1.15E-03	1.73E-04	2.83E-04	2.73E-04	4.89E-04	2.36E-03
568672.29_4180646.94	568672.29	4180646.94	1.17E-03	1.64E-04	2.91E-04	2.59E-04	4.41E-04	2.33E-03	potential residence	2.68E-08	6.49E-07	6.06E-07	9.35E-08	1.38	0.00	1.09E-03	1.64E-04	2.76E-04	2.47E-04	4.20E-04	2.20E-03
568692.29_4180646.94	568692.29	4180646.94	1.12E-03	1.54E-04	2.86E-04	2.35E-04	3.85E-04	2.18E-03	potential residence	2.51E-08	6.08E-07	5.67E-07	8.75E-08	1.29	0.00	1.04E-03	1.54E-04	2.72E-04	2.23E-04	3.66E-04	2.06E-03
567572.29_4180666.94	567572.29	4180666.94	4.22E-04	6.18E-05	1.19E-04	3.55E-05	3.56E-05	6.73E-04	potential residence	7.76E-09	1.88E-07	1.75E-07	2.71E-08	0.40	0.00	3.93E-04	6.18E-05	1.13E-04	3.38E-05	3.39E-05	6.35E-04
567592.29_4180666.94	567592.29	4180666.94	4.56E-04	6.58E-05	1.24E-04	3.75E-05	3.76E-05	7.21E-04	potential residence	8.31E-09	2.01E-07	1.88E-07	2.90E-08	0.43	0.00	4.25E-04	6.58E-05	1.18E-04	3.57E-05	3.57E-05	6.80E-04
568612.29_4180666.94	568612.29	4180666.94	1.25E-03	1.93E-04	2.75E-04	3.26E-04	6.53E-04	2.69E-03	potential residence	3.10E-08	7.52E-07	7.02E-07	1.08E-07	1.59	0.00	1.16E-03	1.93E-04	2.61E-04	3.11E-04	6.22E-04	2.55E-03
568632.29_4180666.94	568632.29	4180666.94	1.19E-03	1.81E-04	2.72E-04	2.93E-04	5.43E-04	2.48E-03	potential residence	2.86E-08	6.93E-07	6.47E-07	9.98E-08	1.47	0.00	1.11E-03	1.81E-04	2.59E-04	2.79E-04	5.17E-04	2.35E-03
568652.29_4180666.94	568652.29	4180666.94	1.14E-03	1.71E-04	2.68E-04	2.66E-04	4.63E-04	2.31E-03	potential residence	2.66E-08	6.45E-07	6.02E-07	9.28E-08	1.37	0.00	1.06E-03	1.71E-04	2.55E-04	2.53E-04	4.41E-04	2.18E-03
568672.29_4180666.94	568672.29	4180666.94	1.09E-03	1.61E-04	2.65E-04	2.42E-04	4.02E-04	2.16E-03	potential residence	2.49E-08	6.04E-07	5.64E-07	8.69E-08	1.28	0.00	1.02E-03	1.61E-04	2.52E-04	2.30E-04	3.83E-04	2.04E-03
568692.29_4180666.94	568692.29	4180666.94	1.05E-03	1.53E-04	2.61E-04	2.22E-04	3.54E-04	2.04E-03	potential residence	2.35E-08	5.68E-07	5.30E-07	8.18E-08	1.20	0.00	9.75E-04	1.53E-04	2.48E-04	2.11E-04	3.37E-04	1.92E-03
567532.29_4180686.94	567532.29	4180686.94	3.58E-04	5.39E-05	1.06E-04	3.15E-05	3.17E-05	5.81E-04	potential residence	6.70E-09	1.62E-07	1.51E-07	2.33E-08	0.34	0.00	3.34E-04	5.39E-05	1.01E-04	2.99E-05	3.01E-05	5.48E-04
567552.29_4180686.94	567552.29	4180686.94	3.84E-04	5.68E-05	1.11E-04	3.32E-05	3.34E-05	6.18E-04	potential residence	7.12E-09	1.73E-07	1.61E-07	2.48E-08	0.37	0.00	3.58E-04	5.68E-05	1.05E-04	3.16E-05	3.18E-05	5.83E-04
567572.29_4180686.94	567572.29	4180686.94	4.14E-04	6.01E-05	1.16E-04	3.50E-05	3.52E-05	6.60E-04	potential residence	7.60E-09	1.84E-07	1.72E-07	2.65E-08	0.39	0.00	3.86E-04	6.01E-05	1.10E-04	3.33E-05	3.35E-05	6.23E-04
567592.29_4180686.94	567592.29	4180686.94	4.47E-04	6.38E-05	1.21E-04	3.71E-05	3.72E-05	7.06E-04	potential residence	8.14E-09	1.97E-07	1.84E-07	2.84E-08	0.42	0.00	4.17E-04	6.38E-05	1.15E-04	3.53E-05	3.54E-05	6.66E-04
567712.29_4180686.94	567712.29	4180686.94	7.90E-04	9.71E-05	1.58E-04	5.37E-05	5.32E-05	1.15E-03	potential residence	1.33E-08	3.22E-07	3.01E-07	4.63E-08	0.68	0.00	7.37E-04	9.71E-05	1.51E-04	5.11E-05	5.06E-05	1.09E-03
567732.29_4180686.94	567732.29	4180686.94	8.87E-04	1.05E-04	1.65E-04	5.74E-05	5.66E-05	1.27E-03	potential residence	1.47E-08	3.55E-07	3.31E-07	5.11E-08	0.75	0.00	8.27E-04	1.05E-04	1.57E-04	5.46E-05	5.39E-05	1.20E-03
567752.29_4180686.94	567752.29	4180686.94	1.00E-03	1.14E-04	1.72E-04	6.14E-05	6.03E-05	1.41E-03	potential residence	1.63E-08	3.94E-07	3.68E-07	5.67E-08	0.83	0.00	9.34E-04	1.14E-04	1.63E-04	5.84E-05	5.74E-05	1.33E-03
567772.29_4180686.94	567772.29	4180686.94	1.14E-03	1.24E-04	1.78E-04	6.57E-05	6.42E-05	1.57E-03	potential residence	1.81E-08	4.39E-07	4.10E-07	6.32E-08	0.93	0.00	1.06E-03	1.24E-04	1.69E-04	6.25E-05	6.11E-05	1.48E-03
568232.29_4180686.94	568232.29	4180686.94	2.94E-03	1.46E-03	2.70E-04	3.46E-04	2.80E-04	5.29E-03	potential residence	6.10E-08	1.48E-06	1.38E-06	2.13E-07	3.13	0.00	2.74E-03	1.46E-03	2.57E-04	3.29E-04	2.66E-04	5.05E-03
568252.29_4180686.94	568252.29	4180686.94	2.77E-03	1.31E-03	2.70E-04	3.81E-04	3.01E-04	5.03E-03	potential residence	5.80E-08	1.41E-06	1.31E-06	2.02E-07	2.98	0.00	2.59E-03	1.31E-03	2.57E-04	3.62E-04	2.86E-04	4.80E-03
568592.29_4180686.94	568592.29	4180686.94	1.19E-03	2.00E-04	2.51E-04	3.32E-04	6.92E-04	2.66E-03	potential residence	3.07E-08	7.44E-07	6.95E-07	1.07E-07	1.58	0.00	1.11E-03	2.00E-04	2.38E-04	3.16E-04	6.59E-04	2.52E-03
568612.29_4180686.94	568612.29	4180686.94	1.14E-03	1.88E-04	2.48E-04	2.98E-04	5.70E-04	2.45E-03	potential residence	2.82E-08	6.83E-07	6.38E-07	9.83E-08	1.45	0.00	1.06E-03	1.88E-04	2.36E-04	2.84E-04	5.43E-04	2.31E-03
568632.29_4180686.94	568632.29	4180686.94	1.10E-03	1.77E-04	2.46E-04	2.70E-04	4.83E-04	2.27E-03	potential residence	2.62E-08	6.34E-07	5.92E-07	9.13E-08	1.34	0.00	1.02E-03	1.77E-04	2.34E-04	2.57E-04	4.59E-04	2.15E-03
568652.29_4180686.94	568652.29	4180686.94	1.05E-03	1.68E-04	2.43E-04	2.46E-04	4.18E-04	2.13E-03	potential residence	2.45E-08	5.94E-07	5.55E-07	8.55E-08	1.26	0.00	9.82E-04	1.68E-04	2.31E-04	2.34E-04	3.97E-04	2.01E-03
567492.29_4180706.94	567492.29	4180706.94	3.09E-04	4.73E-05	9.54E-05	2.80E-05	2.82E-05	5.07E-04	potential residence	5.85E-09	1.42E-07	1.32E-07	2.04E-08	0.30	0.00	2.88E-04	4.73E-05	9.08E-05	2.66E-05	2.69E-05	4.79E-04
567512.29_4180706.94	567512.29	4180706.94	3.28E-04	5.03E-05	9.93E-05	2.95E-05	2.97E-05	5.37E-04	potential residence	6.19E-09	1.50E-07	1.40E-07	2.16E-08	0.32	0.00	3.06E-04	5.03E-05	9.45E-05	2.80E-05	2.83E-05	5.07E-04
567532.29_4180706.94	567532.29	4180706.94	3.51E-04	5.27E-05	1.03E-04	3.10E-05	3.13E-05	5.70E-04	potential residence	6.57E-09	1.59E-07	1.49E-07	2.29E-08	0.34	0.00	3.28E-04	5.27E-05	9.85E-05	2.95E-05	2.98E-05	5.38E-04
567552.29_4180706.94	567552.29	4180706.94	3.77E-04	5.52E-05	1.08E-04	3.27E-05	3.30E-05	6.06E-04	potential residence	6.99E-09	1.69E-07	1.58E-07	2.44E-08	0.36	0.00	3.52E-04	5.52E-05	1.03E-04	3.11E-05	3.14E-05	5.72E-04
567572.29_4180706.94	567572.29	4180706.94	4.06E-04	5.82E-05	1.13E-04	3.45E-05	3.48E-05	6.47E-04	potential residence	7.45E-09	1.81E-07	1.69E-07	2.60E-08	0.38	0.00	3.79E-04	5.82E-05	1.07E-04	3.28E-05	3.31E-05	6.10E-04
567592.29_4180706.94	567592.29	4180706.94	4.39E-04	6.16E-05	1.18E-04	3.65E-05	3.68E-05	6.92E-04	potential residence	7.98E-09	1.93E-07	1.80E-07	2.78E-08	0.41	0.00	4.10E-04	6.16E-05	1.12E-04	3.48E-05	3.50E-05	6.53E-04
567612.29_4180706.94	567612.29	4180706.94	4.77E-04	6.54E-05	1.23E-04	3.87E-05	3.90E-05	7.43E-04	potential residence	8.56E-09	2.07E-07	1.94E-07	2.99E-08	0.44	0.00	4.45E-04	6.54E-05	1.17E-04	3.69E-05	3.71E-05	7.01E-04
567672.29_4180706.94	567672.29	4180706.94	6.26E-04	7.98E-05	1.39E-04	4.68E-05	4.68E-05	9.39E-04	potential residence	1.08E-08	2.62E-07	2.45E-07	3.77E-08	0.56	0.00	5.84E-04	7.98E-05	1.33E-04	4.45E-05	4.45E-05	8.85E-04
567692.29_4180706.94	567692.29	4180706.94	6.92E-04	8.57E-05	1.45E-04	5.00E-05	4.99E-05	1.02E-03	potential residence	1.18E-08	2.86E-07	2.67E-07	4.11E-08	0.61	0.00	6.45E-04	8.57E-05	1.38E-04	4.76E-05	4.75E-05	9.64E-04
567712.29_4180706.94	567712.29	4180706.94	7.69E-04	9.22E-05	1.51E-04	5.36E-05	5.33E-05	1.12E-03	potential residence	1.29E-08	3.12E-07	2.92E-07	4.50E-08	0.66	0.00	7.17E-04	9.22E-05	1.44E-04	5.10E-05	5.07E-05	1.05E-03
567732.29_4180706.94	567732.29	4180706.94	8.59E-04	9.95E-05	1.57E-04	5.75E-05	5.69E-05	1.23E-03	potential residence	1.42E-08	3.43E-07	3.21E-07	4.94E-08	0.73	0.00	8.01E-04	9.95E-05	1.49E-04	5.47E-05	5.42E-05	1.16E-03
567752.29_4180706.94	567752.29	4180706.94	9.65E-04	1.08E-04	1.62E-04	6.17E-05	6.09E-05	1.36E-03	potential residence	1.56E-08	3.79E-07	3.54E-07	5.46E-08	0.80	0.00	8.99E-04	1.08E-04	1.54E-04	5.87E-05	5.79E-05	1.28E-03
567772.29_4180706.94	567772.29	4180706.94	1.09E-03	1.17E-04	1.67E-04	6.64E-05	6.51E-05	1.50E-03	potential residence	1.73E-08	4.20E-07	3.92E-07	6.04E-08	0.89	0.00	1.01E-03	1.17E-04	1.59E-04	6.31E-05	6.20E-05	1.42E-03
568212.29_4180706.94	568212.29	4180706.94	2.52E-03	1.33E-03	2.40E-04	3.62E-04	2.97E-04	4.75E-03	potential residence	5.47E-08	1.33E-06	1.24E-06	1.91E-07	2.81	0.00	2.35E-03	1.33E-03	2.29E-04	3.45E-04	2.82E-04	4.53E-03
568232.29_4180706.94	568232.29	4180706.94	2.43E-03	1.29E-03	2.42E-04	3.99E-04	3.19E-04	4.68E-03	potential residence	5.40E-08	1.31E-06	1.22E-06	1.88E-07	2.77	0.00	2.26E-03	1.29E-03	2.30E-04	3.80E-04	3.04E-04	4.47E-03
568252.29_4180706.94	568252.29	4180706.94	2.31E-03	1.17E-03	2.42E-04	4.44E-04	3.46E-04	4.51E-03	potential residence	5.19E-08	1.26E-06	1.17E-06	1.81E-07	2.67	0.00	2.15E-03	1.17E-03	2.31E-04	4.22E-04	3.29E-04	4.30E-03
568272.29_4180706.94	568272.29	4180706.94	2.20E-03	1.10E-03	2.43E-04	4.97E-04	3.75E-04	4.42E-03	potential residence	5.09E-08	1.23E-06	1.15E-06	1.78E-07	2.61	0.00	2.06E-03	1.10E-03	2.31E-04	4.73E-04	3.56E-04	4.21E-03
568572.29_4180706.94	568572.29	4180706.94	1.13E-03	2.05E-04	2.29E-04	3.36E-04	7.08E-04	2.60E-03	potential residence	3.00E-08	7.27E-07	6.79E-07	1.05E-07	1.54	0.00	1.05E-03	2.05E-04	2.18E-04	3.19E-04	6.74E-04	2.47E-03

568592.29_4180706.94	568592.29	4180706.94	1.08E-03	1.92E-04	2.27E-04	3.01E-04	5.84E-04	2.39E-03	potential residence	2.75E-08	6.67E-07	6.22E-07	9.60E-08	1.41	0.00	1.01E-03	1.92E-04	2.16E-04	2.87E-04	5.55E-04	2.26E-03
568612.29_4180706.94	568612.29	4180706.94	1.04E-03	1.81E-04	2.25E-04	2.73E-04	4.95E-04	2.22E-03	potential residence	2.56E-08	6.19E-07	5.78E-07	8.91E-08	1.31	0.00	9.72E-04	1.81E-04	2.14E-04	2.60E-04	4.71E-04	2.10E-03
568632.29_4180706.94	568632.29	4180706.94	1.01E-03	1.71E-04	2.23E-04	2.49E-04	4.28E-04	2.08E-03	potential residence	2.39E-08	5.80E-07	5.41E-07	8.35E-08	1.23	0.00	9.37E-04	1.71E-04	2.13E-04	2.37E-04	4.07E-04	1.97E-03
568652.29_4180706.94	568652.29	4180706.94	9.68E-04	1.62E-04	2.21E-04	2.28E-04	3.74E-04	1.95E-03	potential residence	2.25E-08	5.45E-07	5.09E-07	7.85E-08	1.16	0.00	9.02E-04	1.62E-04	2.10E-04	2.17E-04	3.56E-04	1.85E-03
567452.29_4180726.94	567452.29	4180726.94	2.68E-04	4.30E-05	8.65E-05	2.51E-05	2.54E-05	4.48E-04	potential residence	5.17E-09	1.25E-07	1.17E-07	1.80E-08	0.27	0.00	2.50E-04	4.30E-05	8.23E-05	2.39E-05	2.42E-05	4.23E-04
567472.29_4180726.94	567472.29	4180726.94	2.85E-04	4.49E-05	8.98E-05	2.63E-05	2.66E-05	4.72E-04	potential residence	5.44E-09	1.32E-07	1.23E-07	1.90E-08	0.28	0.00	2.65E-04	4.49E-05	8.55E-05	2.50E-05	2.53E-05	4.46E-04
567492.29_4180726.94	567492.29	4180726.94	3.03E-04	4.69E-05	9.34E-05	2.76E-05	2.79E-05	4.99E-04	potential residence	5.75E-09	1.39E-07	1.30E-07	2.00E-08	0.29	0.00	2.82E-04	4.69E-05	8.88E-05	2.62E-05	2.65E-05	4.71E-04
567512.29_4180726.94	567512.29	4180726.94	3.23E-04	4.90E-05	9.71E-05	2.90E-05	2.93E-05	5.28E-04	potential residence	6.08E-09	1.47E-07	1.38E-07	2.12E-08	0.31	0.00	3.01E-04	4.90E-05	9.24E-05	2.76E-05	2.79E-05	4.98E-04
567532.29_4180726.94	567532.29	4180726.94	3.46E-04	5.12E-05	1.01E-04	3.05E-05	3.08E-05	5.60E-04	potential residence	6.45E-09	1.56E-07	1.46E-07	2.25E-08	0.33	0.00	3.23E-04	5.12E-05	9.62E-05	2.90E-05	2.93E-05	5.28E-04
567552.29_4180726.94	567552.29	4180726.94	3.72E-04	5.36E-05	1.05E-04	3.21E-05	3.25E-05	5.95E-04	potential residence	6.86E-09	1.66E-07	1.55E-07	2.39E-08	0.35	0.00	3.47E-04	5.36E-05	1.00E-04	3.06E-05	3.09E-05	5.62E-04
567572.29_4180726.94	567572.29	4180726.94	4.00E-04	5.64E-05	1.10E-04	3.40E-05	3.43E-05	6.34E-04	potential residence	7.31E-09	1.77E-07	1.65E-07	2.55E-08	0.38	0.00	3.73E-04	5.64E-05	1.04E-04	3.23E-05	3.26E-05	5.98E-04
567592.29_4180726.94	567592.29	4180726.94	4.32E-04	5.95E-05	1.14E-04	3.59E-05	3.63E-05	6.78E-04	potential residence	7.82E-09	1.89E-07	1.77E-07	2.73E-08	0.40	0.00	4.03E-04	5.95E-05	1.09E-04	3.42E-05	3.45E-05	6.40E-04
567612.29_4180726.94	567612.29	4180726.94	4.69E-04	6.30E-05	1.19E-04	3.81E-05	3.85E-05	7.28E-04	potential residence	8.39E-09	2.03E-07	1.90E-07	2.92E-08	0.43	0.00	4.37E-04	6.30E-05	1.13E-04	3.63E-05	3.66E-05	6.86E-04
567632.29_4180726.94	567632.29	4180726.94	5.11E-04	6.70E-05	1.24E-04	4.06E-05	4.09E-05	7.83E-04	potential residence	9.03E-09	2.19E-07	2.04E-07	3.15E-08	0.46	0.00	4.76E-04	6.70E-05	1.18E-04	3.86E-05	3.89E-05	7.38E-04
567652.29_4180726.94	567652.29	4180726.94	5.58E-04	7.13E-05	1.29E-04	4.32E-05	4.35E-05	8.45E-04	potential residence	9.74E-09	2.36E-07	2.20E-07	3.40E-08	0.50	0.00	5.21E-04	7.13E-05	1.23E-04	4.11E-05	4.14E-05	7.97E-04
567672.29_4180726.94	567672.29	4180726.94	6.12E-04	7.61E-05	1.34E-04	4.62E-05	4.64E-05	9.14E-04	potential residence	1.05E-08	2.55E-07	2.38E-07	3.68E-08	0.54	0.00	5.70E-04	7.61E-05	1.27E-04	4.40E-05	4.42E-05	8.62E-04
567692.29_4180726.94	567692.29	4180726.94	6.75E-04	8.15E-05	1.39E-04	4.95E-05	4.96E-05	9.94E-04	potential residence	1.15E-08	2.78E-07	2.59E-07	3.99E-08	0.59	0.00	6.29E-04	8.15E-05	1.32E-04	4.71E-05	4.72E-05	9.37E-04
567712.29_4180726.94	567712.29	4180726.94	7.46E-04	8.77E-05	1.44E-04	5.32E-05	5.31E-05	1.08E-03	potential residence	1.25E-08	3.03E-07	2.83E-07	4.36E-08	0.64	0.00	6.96E-04	8.77E-05	1.37E-04	5.06E-05	5.05E-05	1.02E-03
567732.29_4180726.94	567732.29	4180726.94	8.29E-04	9.45E-05	1.48E-04	5.73E-05	5.70E-05	1.19E-03	potential residence	1.37E-08	3.31E-07	3.09E-07	4.77E-08	0.70	0.00	7.73E-04	9.45E-05	1.41E-04	5.45E-05	5.42E-05	1.12E-03
567752.29_4180726.94	567752.29	4180726.94	9.24E-04	1.02E-04	1.53E-04	6.17E-05	6.12E-05	1.30E-03	potential residence	1.50E-08	3.64E-07	3.39E-07	5.23E-08	0.77	0.00	8.62E-04	1.02E-04	1.45E-04	5.87E-05	5.82E-05	1.23E-03
567772.29_4180726.94	567772.29	4180726.94	1.03E-03	1.11E-04	1.57E-04	6.67E-05	6.58E-05	1.43E-03	potential residence	1.65E-08	4.00E-07	3.73E-07	5.75E-08	0.85	0.00	9.62E-04	1.11E-04	1.49E-04	6.34E-05	6.26E-05	1.35E-03
568132.29_4180726.94	568132.29	4180726.94	2.37E-03	1.28E-03	2.11E-04	2.89E-04	2.48E-04	4.39E-03	potential residence	5.06E-08	1.23E-06	1.14E-06	1.77E-07	2.60	0.00	2.21E-03	1.28E-03	2.01E-04	2.75E-04	2.36E-04	4.20E-03
568192.29_4180726.94	568192.29	4180726.94	2.16E-03	1.15E-03	2.16E-04	3.84E-04	3.16E-04	4.22E-03	potential residence	4.86E-08	1.18E-06	1.10E-06	1.70E-07	2.50	0.00	2.01E-03	1.15E-03	2.05E-04	3.65E-04	3.01E-04	4.03E-03
568212.29_4180726.94	568212.29	4180726.94	2.09E-03	1.09E-03	2.17E-04	4.25E-04	3.43E-04	4.16E-03	potential residence	4.80E-08	1.16E-06	1.09E-06	1.67E-07	2.46	0.00	1.95E-03	1.09E-03	2.06E-04	4.04E-04	3.27E-04	3.97E-03
568232.29_4180726.94	568232.29	4180726.94	2.02E-03	1.05E-03	2.18E-04	4.73E-04	3.72E-04	4.13E-03	potential residence	4.76E-08	1.15E-06	1.08E-06	1.66E-07	2.44	0.00	1.89E-03	1.05E-03	2.08E-04	4.50E-04	3.54E-04	3.94E-03
568252.29_4180726.94	568252.29	4180726.94	1.95E-03	9.78E-04	2.19E-04	5.31E-04	4.05E-04	4.08E-03	potential residence	4.71E-08	1.14E-06	1.06E-06	1.64E-07	2.42	0.00	1.82E-03	9.78E-04	2.08E-04	5.05E-04	3.85E-04	3.89E-03
568272.29_4180726.94	568272.29	4180726.94	1.87E-03	9.45E-04	2.19E-04	6.04E-04	4.43E-04	4.08E-03	potential residence	4.70E-08	1.14E-06	1.06E-06	1.64E-07	2.41	0.00	1.74E-03	9.45E-04	2.08E-04	5.75E-04	4.21E-04	3.89E-03
568292.29_4180726.94	568292.29	4180726.94	1.79E-03	7.84E-04	2.19E-04	6.99E-04	4.85E-04	3.98E-03	potential residence	4.58E-08	1.11E-06	1.04E-06	1.60E-07	2.35	0.00	1.67E-03	7.84E-04	2.08E-04	6.65E-04	4.62E-04	3.79E-03
568312.29_4180726.94	568312.29	4180726.94	1.72E-03	5.77E-04	2.19E-04	8.35E-04	5.33E-04	3.89E-03	potential residence	4.48E-08	1.09E-06	1.01E-06	1.56E-07	2.30	0.00	1.61E-03	5.77E-04	2.08E-04	7.94E-04	5.07E-04	3.69E-03
568332.29_4180726.94	568332.29	4180726.94	1.66E-03	4.60E-04	2.19E-04	1.05E-03	5.89E-04	3.97E-03	potential residence	4.58E-08	1.11E-06	1.04E-06	1.60E-07	2.35	0.00	1.55E-03	4.60E-04	2.08E-04	9.95E-04	5.60E-04	3.77E-03
568532.29_4180726.94	568532.29	4180726.94	1.09E-03	2.20E-04	2.08E-04	3.76E-04	8.58E-04	2.75E-03	potential residence	3.18E-08	7.69E-07	7.18E-07	1.11E-07	1.63	0.00	1.02E-03	2.20E-04	1.98E-04	3.58E-04	8.16E-04	2.61E-03
568552.29_4180726.94	568552.29	4180726.94	1.06E-03	2.06E-04	2.09E-04	3.36E-04	6.96E-04	2.50E-03	potential residence	2.89E-08	6.99E-07	6.52E-07	1.01E-07	1.48	0.00	9.84E-04	2.06E-04	1.99E-04	3.20E-04	6.62E-04	2.37E-03
568572.29_4180726.94	568572.29	4180726.94	1.02E-03	1.94E-04	2.08E-04	3.02E-04	5.79E-04	2.30E-03	potential residence	2.65E-08	6.43E-07	6.00E-07	9.25E-08	1.36	0.00	9.49E-04	1.94E-04	1.98E-04	2.87E-04	5.51E-04	2.18E-03
568592.29_4180726.94	568592.29	4180726.94	9.85E-04	1.83E-04	2.07E-04	2.74E-04	4.95E-04	2.14E-03	potential residence	2.47E-08	5.99E-07	5.59E-07	8.62E-08	1.27	0.00	9.18E-04	1.83E-04	1.97E-04	2.61E-04	4.71E-04	2.03E-03
568612.29_4180726.94	568612.29	4180726.94	9.51E-04	1.73E-04	2.06E-04	2.50E-04	4.29E-04	2.01E-03	potential residence	2.32E-08	5.61E-07	5.24E-07	8.08E-08	1.19	0.00	8.87E-04	1.73E-04	1.96E-04	2.38E-04	4.08E-04	1.90E-03
568632.29_4180726.94	568632.29	4180726.94	9.17E-04	1.64E-04	2.04E-04	2.29E-04	3.77E-04	1.89E-03	potential residence	2.18E-08	5.28E-07	4.92E-07	7.59E-08	1.12	0.00	8.55E-04	1.64E-04	1.94E-04	2.17E-04	3.58E-04	1.79E-03
568652.29_4180726.94	568652.29	4180726.94	8.85E-04	1.55E-04	2.02E-04	2.11E-04	3.35E-04	1.79E-03	potential residence	2.06E-08	4.99E-07	4.66E-07	7.19E-08	1.06	0.00	8.25E-04	1.55E-04	1.92E-04	2.00E-04	3.18E-04	1.69E-03
568672.29_4180726.94	568672.29	4180726.94	8.56E-04	1.48E-04	2.00E-04	1.95E-04	3.01E-04	1.70E-03	potential residence	1.96E-08	4.74E-07	4.43E-07	6.83E-08	1.00	0.00	7.98E-04	1.48E-04	1.90E-04	1.85E-04	2.86E-04	1.61E-03
568752.29_4180726.94	568752.29	4180726.94	7.46E-04	1.21E-04	1.89E-04	1.47E-04	2.09E-04	1.41E-03	potential residence	1.63E-08	3.94E-07	3.68E-07	5.68E-08	0.84	0.00	6.96E-04	1.21E-04	1.80E-04	1.40E-04	1.98E-04	1.34E-03
567412.29_4180746.94	567412.29	4180746.94	2.36E-04	3.89E-05	7.89E-05	2.26E-05	2.29E-05	4.00E-04	potential residence	4.61E-09	1.12E-07	1.04E-07	1.61E-08	0.24	0.00	2.20E-04	3.89E-05	7.51E-05	2.15E-05	2.18E-05	3.78E-04
567432.29_4180746.94	567432.29	4180746.94	2.50E-04	4.04E-05	8.18E-05	2.36E-05	2.39E-05	4.20E-04	potential residence	4.84E-09	1.17E-07	1.09E-07	1.69E-08	0.25	0.00	2.33E-04	4.04E-05	7.78E-05	2.24E-05	2.27E-05	3.96E-04
567452.29_4180746.94	567452.29	4180746.94	2.64E-04	4.22E-05	8.48E-05	2.47E-05	2.50E-05	4.41E-04	potential residence	5.08E-09	1.23E-07	1.15E-07	1.77E-08	0.26	0.00	2.46E-04	4.22E-05	8.06E-05	2.35E-05	2.38E-05	4.17E-04
567472.29_4180746.94	567472.29	4180746.94	2.81E-04	4.38E-05	8.80E-05	2.58E-05	2.62E-05	4.65E-04	potential residence	5.36E-09	1.30E-07	1.21E-07	1.87E-08	0.27	0.00	2.62E-04	4.38E-05	8.37E-05	2.46E-05	2.49E-05	4.39E-04
567492.29_4180746.94	567492.29	4180746.94	2.99E-04	4.57E-05	9.14E-05	2.71E-05	2.74E-05	4.91E-04	potential residence	5.66E-09	1.37E-07	1.28E-07	1.97E-08	0.29	0.00	2.79E-04	4.57E-05	8.69E-05	2.58E-05	2.61E-05	4.63E-04
567512.29_4180746.94	567512.29	4180746.94	3.19E-04	4.77E-05	9.49E-05	2.84E-05	2.88E-05	5.19E-04	potential residence	5.98E-09	1.45E-07	1.35E-07	2.09E-08	0.31	0.00	2.98E-04	4.77E-05	9.03E-05	2.71E-05	2.74E-05	4.90E-04
567532.29_4180746.94	567532.29	4180746.94	3.42E-04	4.99E-05	9.87E-05	2.99E-05	3.03E-05	5.50E-04	potential residence	6.34E-09	1.54E-07	1.43E-07	2.21E-08	0.33	0.00	3.18E-04	4.99E-05	9.39E-05	2.85E-05	2.88E-05	5.19E-04
567552.29_4180746.94	567552.29	4180746.94	3.67E-04	5.21E-05	1.03E-04	3.15E-05	3.19E-05	5.85E-04	potential residence	6.74E-09	1.63E-07	1.52E-07	2.35E-08	0.35	0.00	3.42E-04	5.21E-05	9.76E-05	3.00E-05	3.04E-05	5.52E-04
567572.29_4180746.94	567572.29	4180746.94	3.95E-04	5.47E-05	1.07E-04	3.33E-05	3.37E-05	6.23E-04	potential residence	7.18E-09	1.74E-07	1.62E-07	2.50E-08	0.37	0.00	3.68E-04	5.47E-05	1.01E-04	3.17E-05	3.21E-05	5.88E-04
567592.29_4180746.94	567592.29	4180746.94	4.26E-04	5.76E-05	1.11E-04	3.53E-05	3.57E-05	6.65E-04	potential residence	7.67E-09	1.86E-07	1.73E-07	2.67E-08	0.39	0.00	3.97E-04	5.76E-05	1.05E-04	3.36E-05	3.40E-05	6.28E-04
567612.29_4180746.94	567612.29	4180746.94	4.61E-04	6.08E-05	1.15E-04	3.75E-05	3.79E-05	7.12E-04	potential residence	8.21E-09	1.99E-07	1.86E-07	2.86E-08	0.42	0.00	4.30E-04	6.08E-05	1.09E-04	3.56E-05	3.60E-05	6.72E-04
567632.29_4180746.94	567632.29	4180746.94	5.01E-04	6.43E-05	1.19E-04	3.99E-05	4.03E-05	7.65E-04	potential residence	8.82E-09	2.14E-07	1.99E-07	3.07E-08	0.45	0.00	4.67E-04	6.43E-05	1.14E-04	3.79E-05	3.83E-05	7.21E-04
567652.29_4180746.94	567652.29	4180746.94	5.47E-04	6.83E-05	1.24E-04	4.25E-05	4.29E-05	8.24E-04	potential residence	9.50E-09	2.30E-07	2.15E-07	3.31E-08	0.49	0.00	5.10E-04	6.83E-05	1.18E-04	4.04E-05	4.08E-05	7.77E-04
567672.29_4180746.94	567672.29	4180746.94	5.96E-04	7.27E-05	1.28E-04	4.55E-05	4.59E-05	8.89E-04	potential residence	1.02E-08	2.48E-07	2.32E-07	3.57E-08	0.53	0.00	5.56E-04	7.27E-05	1.22E-04	4.33E-05	4.37E-05	8.38E-04
567692.29_4180746.94	567692.29	4180746.94	6.56E-04	7.78E-05	1.32E-04	4.88E-05	4.91E-05	9.64E-04	potential residence	1.11E-08	2.69E-07	2.51E-07	3.88E-08	0.57	0.00	6.12E-04	7.78E-05	1.26E-04	4.65E-05	4.67E-05	9.09E-04
567712.29_4180746.94	567712.29	4180746.94	7.22E-04	8.35E-05	1.37E-04	5.26E-05	5.27E-05	1.05E-03	potential residence	1.21E-08	2.92E-07	2.73E-07	4.21E-08	0.62	0.00	6.73E-04	8.35E-05	1.30E-04	5.00E-05	5.02E-05	9.87E-04
567732.29_4180746.94	567732.29	4180746.94	7.97E-04	8.97E-05	1.40E-04	5.67E-05	5.67E-05	1.14E-03	potential residence	1.31E-08	3.18E-07	2.97E-07	4.58E-08	0.67	0.00	7.43E-04	8.97E-05	1.34E-04	5.40E-05	5.40E-05	1.07E-03
567752.29_4180746.94	567752.29	4180746.94	8.81E-04	9.70E-05	1.44E-04	6.14E-05	6.11E-05	1.25E-03	potential residence	1.44E-08	3.48E-07	3.25E-07	5.00E-08	0.74	0.00	8.22E-04	9.70E-05	1.37E-04	5.84E-05	5.81E-05	1.17E-03
567772.29_4180746.94	567772.29	4180746.94	9.73E-04	1.05E-04	1.47E-04	6.66E-05	6.60E-05	1.36E-03	potential residence	1.57E-08	3.79E-07	3.54E-07	5.46E-08	0.80	0.00	9.07E-04	1.05E-04	1.40E-04	6.34E-05	6.28E-05	1.28E-03
567792.29_4180746.94	567792.29	4180746.94	1.07E-03	1.14E-04	1.50E-04	7.25E-05	7.14E-05	1.48E-03	potential residence	1.71E-08	4.13E-07	3.86E-07	5.95E-08	0.88	0.00	1.00E-03	1.14E-04	1.43E-04	6.89E-05	6.80E-05	1.39E-03
568112.29_4180746.94	568112.29	4180746.94	1.99E-03	7.00E-04	1.91E-04	3.02E-04	2.59E-04	3.44E-03	potential residence	3.97E-08	9.62E-07	8.98E-07	1.38E-07	2.04	0.00	1.86E-03	7.00E-04	1.81E-04	2.87E-04	2.47E-04	3.27E-03
568152.29_4180746.94	568152.29	4180746.94	1.91E-03	8.55E-04	1.94E-04	3.70E-04	3.09E-04	3.64E-03	potential residence	4.20E-08	1.02E-06	9.49E-07	1.46E-07	2.15	0.00	1.78E-03	8.55E-04	1.84E-04	3.52E-04	2.94E-04	3.47E-03
568192.29_4180746.94	568192.29	4180746.94	1.81E-03	8.05E-04	1.96E-04	4.58E-04	3.70E-04	3.64E-03	potential residence	4.19E-08	1.02E-06	9.48E-07	1.46E-07	2.15	0.00	1.69E-03	8.05E-04	1.86E-04	4.36E-04	3.52E-04	3.46E-03
568212.29_4180746.94	568212.29	4180746.94	1.75E-03	7.51E-04	1.96E-04	5.13E-04	4.05E-04	3.62E-03	potential residence	4.17E-08	1.01E-06	9.43E-07	1.45E-07	2.14	0.00	1.63E-03	7.51E-04	1.87E-04	4.88E-04	3.86E-04	3.45E-03
568232.29_4180746.94	568232.29	4180746.94	1.71E-03	7.24E-04	1.97E-04	5.79E-04	4.44E-04	3.65E-03	potential residence	4.21E-08	1.02E-06	9.52E-07	1.47E-07	2.16	0.00	1.59E-03	7.24E-04	1.88E-04	5.51E-04	4.23E-04	3.48E-03
568252.29_4180746.94	568252.29	4180746.94	1.66E-03	7.13E-04	1.98E-04	6.62E-04	4.88E-04	3.72E-03	potential residence	4.29E-08	1.04E-06	9.69E-07	1.49E-07	2.20	0.00	1.55E-03	7.13E-04	1.89E-04	6.30E-04	4.64E-04	3.54E-03
568272.29_4180746.94	568272.29	4180746.94	1.60E-03	6.58E-04	1.98E-04	7.69E-04	5.39E-04	3.76E-03	potential residence	4.34E-08	1.05E-06	9.81E-07	1.51E-07	2.23	0.00	1.49E-03	6.58E-04	1.89E-04	7.32E-04	5.13E-04	3.58E-03
568292.29_4180746.94	568292.29	4180746.94	1.54E-03	5.36E-04	1.98E-04	9.19E-04	5.99E-04	3.79E-03	potential residence	4.37E-08	1.06E-06	9.89E-07	1.52E-07	2.24	0.00	1.44E-03	5.36E-04	1.89E-04	8.74E-04	5.70E-04	3.61E-03
568312.29_4180746.94	568312.29	4180746.94	1.49E-03	4.43E-04	1.99E-04	1.16E-03	6.66E-04	3.96E-03	potential residence	4.57E-08	1.11E-06	1.03E-06	1.59E-07	2.34	0.00	1.39E-03	4.43E-04	1.89E-04	1.10E-03	6.34E-04	3.76E-03
568512.29_4180746.94	568512.29	4180746.94	1.02E-03	2.18E-04	1.91E-04	3.74E-04	8.18E-04	2.62E-03	potential residence	3.02E-08	7.31E-07	6.82E-07	1.05E-07	1.55	0.00	9.48E-04	2.18E-04	1.82E-04	3.56E-04	7.78E-04	2.48E-03
568532.29_4180746.94	568532.29	4180746.94	9.84E-04	2.06E-04	1.91E-04	3.34E-04	6.70E-04	2.38E-03	potential residence	2.75E-08	6.66E-07	6.21E-07	9.58E-08	1.41	0.00	9.18E-04	2.06E-04	1.81E-04	3.18E-04	6.37E-04	2.26E-03
568552.29_4180746.94	568552.29	4180746.94	9.52E-04	1.94E-04	1.90E-04	3.01E-04	5.63E-04	2.20E-03	potential residence	2.54E-08	6.14E-07	5.73E-07	8.84E-08	1.30	0.00	8.87E-04	1.94E-04	1.81E-04	2.86E-04	5.36E-04	2.08E-03
568572.29_4180746.94	568572.29	4180746.94	9.23E-04	1.83E-04	1.91E-04	2.73E-04	4.85E-04	2.05E-03	potential residence	2.37E-08	5.74E-07	5.36E-07	8.26E-08	1.22	0.00	8.60E-04	1.83E-04	1.81E-04	2.60E-04	4.61E-04	1.95E-03

568592.29_4180746.94	568592.29	4180746.94	8.95E-04	1.74E-04	1.90E-04	2.50E-04	4.24E-04	1.93E-03	potential residence	2.23E-08	5.40E-07	5.04E-07	7.77E-08	1.14	0.00	8.34E-04	1.74E-04	1.81E-04	2.38E-04	4.04E-04	1.83E-03
568612.29_4180746.94	568612.29	4180746.94	8.64E-04	1.64E-04	1.88E-04	2.29E-04	3.73E-04	1.82E-03	potential residence	2.10E-08	5.08E-07	4.74E-07	7.31E-08	1.08	0.00	8.05E-04	1.64E-04	1.79E-04	2.17E-04	3.55E-04	1.72E-03
568632.29_4180746.94	568632.29	4180746.94	8.35E-04	1.56E-04	1.85E-04	2.10E-04	3.33E-04	1.72E-03	potential residence	1.98E-08	4.80E-07	4.48E-07	6.91E-08	1.02	0.00	7.78E-04	1.56E-04	1.76E-04	2.00E-04	3.17E-04	1.63E-03
568652.29_4180746.94	568652.29	4180746.94	8.08E-04	1.48E-04	1.83E-04	1.95E-04	2.99E-04	1.63E-03	potential residence	1.88E-08	4.56E-07	4.26E-07	6.57E-08	0.97	0.00	7.54E-04	1.48E-04	1.74E-04	1.85E-04	2.85E-04	1.55E-03
568672.29_4180746.94	568672.29	4180746.94	7.83E-04	1.41E-04	1.82E-04	1.81E-04	2.71E-04	1.56E-03	potential residence	1.80E-08	4.35E-07	4.06E-07	6.26E-08	0.92	0.00	7.30E-04	1.41E-04	1.73E-04	1.72E-04	2.58E-04	1.47E-03
568692.29_4180746.94	568692.29	4180746.94	7.59E-04	1.34E-04	1.80E-04	1.69E-04	2.48E-04	1.49E-03	potential residence	1.72E-08	4.16E-07	3.88E-07	5.99E-08	0.88	0.00	7.08E-04	1.34E-04	1.71E-04	1.61E-04	2.36E-04	1.41E-03
568752.29_4180746.94	568752.29	4180746.94	6.90E-04	1.17E-04	1.74E-04	1.39E-04	1.94E-04	1.31E-03	potential residence	1.51E-08	3.67E-07	3.42E-07	5.28E-08	0.78	0.00	6.43E-04	1.17E-04	1.65E-04	1.32E-04	1.85E-04	1.24E-03
568792.29_4180746.94	568792.29	4180746.94	6.51E-04	1.07E-04	1.71E-04	1.24E-04	1.69E-04	1.22E-03	potential residence	1.41E-08	3.41E-07	3.19E-07	4.91E-08	0.72	0.00	6.07E-04	1.07E-04	1.63E-04	1.18E-04	1.61E-04	1.16E-03
568812.29_4180746.94	568812.29	4180746.94	6.34E-04	1.03E-04	1.70E-04	1.19E-04	1.59E-04	1.18E-03	potential residence	1.37E-08	3.31E-07	3.09E-07	4.76E-08	0.70	0.00	5.91E-04	1.03E-04	1.62E-04	1.13E-04	1.51E-04	1.12E-03
567412.29_4180766.94	567412.29	4180766.94	2.33E-04	3.82E-05	7.74E-05	2.22E-05	2.25E-05	3.94E-04	potential residence	4.54E-09	1.10E-07	1.03E-07	1.58E-08	0.23	0.00	2.18E-04	3.82E-05	7.37E-05	2.11E-05	2.15E-05	3.72E-04
567432.29_4180766.94	567432.29	4180766.94	2.47E-04	3.94E-05	8.02E-05	2.32E-05	2.35E-05	4.13E-04	potential residence	4.77E-09	1.15E-07	1.08E-07	1.66E-08	0.24	0.00	2.30E-04	3.94E-05	7.63E-05	2.21E-05	2.24E-05	3.91E-04
567452.29_4180766.94	567452.29	4180766.94	2.62E-04	4.11E-05	8.31E-05	2.42E-05	2.46E-05	4.35E-04	potential residence	5.01E-09	1.21E-07	1.13E-07	1.75E-08	0.26	0.00	2.44E-04	4.11E-05	7.91E-05	2.31E-05	2.34E-05	4.11E-04
567472.29_4180766.94	567472.29	4180766.94	2.78E-04	4.27E-05	8.62E-05	2.54E-05	2.57E-05	4.58E-04	potential residence	5.28E-09	1.28E-07	1.19E-07	1.84E-08	0.27	0.00	2.59E-04	4.27E-05	8.20E-05	2.41E-05	2.45E-05	4.32E-04
567492.29_4180766.94	567492.29	4180766.94	2.95E-04	4.45E-05	8.94E-05	2.66E-05	2.70E-05	4.83E-04	potential residence	5.57E-09	1.35E-07	1.26E-07	1.94E-08	0.29	0.00	2.75E-04	4.45E-05	8.50E-05	2.53E-05	2.57E-05	4.56E-04
567512.29_4180766.94	567512.29	4180766.94	3.15E-04	4.64E-05	9.27E-05	2.79E-05	2.83E-05	5.11E-04	potential residence	5.89E-09	1.43E-07	1.33E-07	2.05E-08	0.30	0.00	2.94E-04	4.64E-05	8.82E-05	2.66E-05	2.69E-05	4.82E-04
567532.29_4180766.94	567532.29	4180766.94	3.37E-04	4.84E-05	9.62E-05	2.94E-05	2.98E-05	5.41E-04	potential residence	6.24E-09	1.51E-07	1.41E-07	2.17E-08	0.32	0.00	3.14E-04	4.84E-05	9.15E-05	2.79E-05	2.83E-05	5.11E-04
567552.29_4180766.94	567552.29	4180766.94	3.62E-04	5.05E-05	9.98E-05	3.09E-05	3.14E-05	5.74E-04	potential residence	6.62E-09	1.60E-07	1.50E-07	2.31E-08	0.34	0.00	3.37E-04	5.05E-05	9.50E-05	2.94E-05	2.98E-05	5.42E-04
567572.29_4180766.94	567572.29	4180766.94	3.89E-04	5.28E-05	1.04E-04	3.27E-05	3.31E-05	6.11E-04	potential residence	7.04E-09	1.71E-07	1.59E-07	2.46E-08	0.36	0.00	3.62E-04	5.28E-05	9.85E-05	3.11E-05	3.15E-05	5.76E-04
567592.29_4180766.94	567592.29	4180766.94	4.19E-04	5.54E-05	1.07E-04	3.46E-05	3.51E-05	6.51E-04	potential residence	7.51E-09	1.82E-07	1.70E-07	2.62E-08	0.39	0.00	3.90E-04	5.54E-05	1.02E-04	3.29E-05	3.34E-05	6.14E-04
567612.29_4180766.94	567612.29	4180766.94	4.52E-04	5.85E-05	1.11E-04	3.67E-05	3.72E-05	6.96E-04	potential residence	8.02E-09	1.94E-07	1.81E-07	2.80E-08	0.41	0.00	4.22E-04	5.85E-05	1.06E-04	3.50E-05	3.54E-05	6.56E-04
567632.29_4180766.94	567632.29	4180766.94	4.91E-04	6.18E-05	1.15E-04	3.91E-05	3.96E-05	7.46E-04	potential residence	8.60E-09	2.08E-07	1.94E-07	3.00E-08	0.44	0.00	4.57E-04	6.18E-05	1.09E-04	3.72E-05	3.77E-05	7.03E-04
567652.29_4180766.94	567652.29	4180766.94	5.33E-04	6.55E-05	1.19E-04	4.17E-05	4.22E-05	8.02E-04	potential residence	9.24E-09	2.24E-07	2.09E-07	3.22E-08	0.47	0.00	4.97E-04	6.55E-05	1.13E-04	3.97E-05	4.02E-05	7.56E-04
567672.29_4180766.94	567672.29	4180766.94	5.82E-04	6.98E-05	1.23E-04	4.46E-05	4.51E-05	8.64E-04	potential residence	9.96E-09	2.41E-07	2.25E-07	3.47E-08	0.51	0.00	5.43E-04	6.98E-05	1.17E-04	4.25E-05	4.29E-05	8.14E-04
567692.29_4180766.94	567692.29	4180766.94	6.36E-04	7.45E-05	1.26E-04	4.79E-05	4.84E-05	9.33E-04	potential residence	1.08E-08	2.61E-07	2.43E-07	3.75E-08	0.55	0.00	5.93E-04	7.45E-05	1.20E-04	4.56E-05	4.60E-05	8.79E-04
567712.29_4180766.94	567712.29	4180766.94	6.97E-04	7.95E-05	1.30E-04	5.17E-05	5.20E-05	1.01E-03	potential residence	1.16E-08	2.82E-07	2.63E-07	4.06E-08	0.60	0.00	6.49E-04	7.95E-05	1.23E-04	4.91E-05	4.95E-05	9.51E-04
567732.29_4180766.94	567732.29	4180766.94	7.63E-04	8.54E-05	1.33E-04	5.59E-05	5.62E-05	1.09E-03	potential residence	1.26E-08	3.05E-07	2.85E-07	4.39E-08	0.65	0.00	7.11E-04	8.54E-05	1.27E-04	5.32E-05	5.34E-05	1.03E-03
567752.29_4180766.94	567752.29	4180766.94	8.34E-04	9.18E-05	1.36E-04	6.07E-05	6.08E-05	1.18E-03	potential residence	1.36E-08	3.30E-07	3.08E-07	4.76E-08	0.70	0.00	7.77E-04	9.18E-05	1.29E-04	5.77E-05	5.78E-05	1.11E-03
567772.29_4180766.94	567772.29	4180766.94	9.11E-04	9.89E-05	1.39E-04	6.62E-05	6.60E-05	1.28E-03	potential residence	1.48E-08	3.58E-07	3.34E-07	5.15E-08	0.76	0.00	8.50E-04	9.89E-05	1.32E-04	6.29E-05	6.28E-05	1.21E-03
567792.29_4180766.94	567792.29	4180766.94	9.92E-04	1.06E-04	1.41E-04	7.24E-05	7.18E-05	1.38E-03	potential residence	1.59E-08	3.86E-07	3.61E-07	5.56E-08	0.82	0.00	9.25E-04	1.06E-04	1.34E-04	6.88E-05	6.83E-05	1.30E-03
567912.29_4180766.94	567912.29	4180766.94	1.43E-03	2.42E-04	1.55E-04	1.29E-04	1.21E-04	2.07E-03	potential residence	2.39E-08	5.79E-07	5.40E-07	8.33E-08	1.23	0.00	1.33E-03	2.42E-04	1.47E-04	1.22E-04	1.15E-04	1.96E-03
568112.29_4180766.94	568112.29	4180766.94	1.66E-03	4.52E-04	1.75E-04	3.55E-04	2.99E-04	2.94E-03	potential residence	3.39E-08	8.22E-07	7.67E-07	1.18E-07	1.74	0.00	1.55E-03	4.52E-04	1.66E-04	3.38E-04	2.85E-04	2.79E-03
568132.29_4180766.94	568132.29	4180766.94	1.64E-03	4.82E-04	1.76E-04	3.97E-04	3.30E-04	3.03E-03	potential residence	3.49E-08	8.45E-07	7.89E-07	1.22E-07	1.79	0.00	1.53E-03	4.82E-04	1.67E-04	3.77E-04	3.14E-04	2.87E-03
568152.29_4180766.94	568152.29	4180766.94	1.61E-03	4.91E-04	1.77E-04	4.45E-04	3.64E-04	3.08E-03	potential residence	3.55E-08	8.61E-07	8.04E-07	1.24E-07	1.82	0.00	1.50E-03	4.91E-04	1.68E-04	4.23E-04	3.46E-04	2.93E-03
568172.29_4180766.94	568172.29	4180766.94	1.57E-03	4.78E-04	1.77E-04	5.01E-04	4.02E-04	3.13E-03	potential residence	3.61E-08	8.73E-07	8.15E-07	1.26E-07	1.85	0.00	1.46E-03	4.78E-04	1.69E-04	4.76E-04	3.82E-04	2.97E-03
568192.29_4180766.94	568192.29	4180766.94	1.53E-03	5.00E-04	1.78E-04	5.67E-04	4.44E-04	3.22E-03	potential residence	3.71E-08	9.00E-07	8.40E-07	1.30E-07	1.91	0.00	1.43E-03	5.00E-04	1.69E-04	5.39E-04	4.22E-04	3.06E-03
568212.29_4180766.94	568212.29	4180766.94	1.50E-03	4.76E-04	1.79E-04	6.47E-04	4.92E-04	3.29E-03	potential residence	3.79E-08	9.18E-07	8.57E-07	1.32E-07	1.95	0.00	1.39E-03	4.76E-04	1.70E-04	6.16E-04	4.68E-04	3.12E-03
568232.29_4180766.94	568232.29	4180766.94	1.46E-03	4.99E-04	1.79E-04	7.48E-04	5.47E-04	3.43E-03	potential residence	3.96E-08	9.59E-07	8.95E-07	1.38E-07	2.03	0.00	1.36E-03	4.99E-04	1.71E-04	7.12E-04	5.21E-04	3.26E-03
568252.29_4180766.94	568252.29	4180766.94	1.42E-03	5.18E-04	1.80E-04	8.79E-04	6.11E-04	3.61E-03	potential residence	4.16E-08	1.01E-06	9.41E-07	1.45E-07	2.14	0.00	1.33E-03	5.18E-04	1.71E-04	8.36E-04	5.81E-04	3.43E-03
568272.29_4180766.94	568272.29	4180766.94	1.38E-03	4.49E-04	1.81E-04	1.06E-03	6.84E-04	3.76E-03	potential residence	4.33E-08	1.05E-06	9.80E-07	1.51E-07	2.22	0.00	1.29E-03	4.49E-04	1.72E-04	1.01E-03	6.51E-04	3.57E-03
568492.29_4180766.94	568492.29	4180766.94	9.44E-04	2.11E-04	1.75E-04	3.68E-04	7.63E-04	2.46E-03	potential residence	2.84E-08	6.87E-07	6.41E-07	9.89E-08	1.46	0.00	8.80E-04	2.11E-04	1.67E-04	3.50E-04	7.26E-04	2.33E-03
568512.29_4180766.94	568512.29	4180766.94	9.15E-04	2.00E-04	1.75E-04	3.29E-04	6.35E-04	2.25E-03	potential residence	2.60E-08	6.29E-07	5.88E-07	9.06E-08	1.33	0.00	8.53E-04	2.00E-04	1.67E-04	3.13E-04	6.04E-04	2.14E-03
568532.29_4180766.94	568532.29	4180766.94	8.86E-04	1.89E-04	1.75E-04	2.97E-04	5.39E-04	2.08E-03	potential residence	2.40E-08	5.82E-07	5.43E-07	8.38E-08	1.23	0.00	8.26E-04	1.89E-04	1.66E-04	2.82E-04	5.13E-04	1.98E-03
568552.29_4180766.94	568552.29	4180766.94	8.57E-04	1.79E-04	1.73E-04	2.68E-04	4.66E-04	1.94E-03	potential residence	2.24E-08	5.43E-07	5.07E-07	7.81E-08	1.15	0.00	7.99E-04	1.79E-04	1.65E-04	2.55E-04	4.43E-04	1.84E-03
568572.29_4180766.94	568572.29	4180766.94	8.33E-04	1.70E-04	1.73E-04	2.46E-04	4.10E-04	1.83E-03	potential residence	2.11E-08	5.12E-07	4.78E-07	7.36E-08	1.08	0.00	7.76E-04	1.70E-04	1.65E-04	2.34E-04	3.90E-04	1.74E-03
568592.29_4180766.94	568592.29	4180766.94	8.10E-04	1.61E-04	1.73E-04	2.27E-04	3.65E-04	1.74E-03	potential residence	2.00E-08	4.85E-07	4.53E-07	6.98E-08	1.03	0.00	7.55E-04	1.61E-04	1.65E-04	2.16E-04	3.48E-04	1.64E-03
568612.29_4180766.94	568612.29	4180766.94	7.85E-04	1.53E-04	1.72E-04	2.10E-04	3.28E-04	1.65E-03	potential residence	1.90E-08	4.60E-07	4.30E-07	6.63E-08	0.98	0.00	7.32E-04	1.53E-04	1.64E-04	1.99E-04	3.12E-04	1.56E-03
568632.29_4180766.94	568632.29	4180766.94	7.60E-04	1.46E-04	1.70E-04	1.93E-04	2.95E-04	1.56E-03	potential residence	1.80E-08	4.37E-07	4.08E-07	6.29E-08	0.93	0.00	7.09E-04	1.46E-04	1.61E-04	1.84E-04	2.81E-04	1.48E-03
568652.29_4180766.94	568652.29	4180766.94	7.37E-04	1.39E-04	1.67E-04	1.79E-04	2.68E-04	1.49E-03	potential residence	1.72E-08	4.16E-07	3.88E-07	5.99E-08	0.88	0.00	6.87E-04	1.39E-04	1.59E-04	1.71E-04	2.55E-04	1.41E-03
568672.29_4180766.94	568672.29	4180766.94	7.15E-04	1.32E-04	1.66E-04	1.67E-04	2.45E-04	1.42E-03	potential residence	1.64E-08	3.98E-07	3.71E-07	5.73E-08	0.84	0.00	6.66E-04	1.32E-04	1.58E-04	1.59E-04	2.33E-04	1.35E-03
568692.29_4180766.94	568692.29	4180766.94	6.95E-04	1.26E-04	1.65E-04	1.57E-04	2.26E-04	1.37E-03	potential residence	1.58E-08	3.82E-07	3.57E-07	5.50E-08	0.81	0.00	6.48E-04	1.26E-04	1.57E-04	1.49E-04	2.15E-04	1.30E-03
568772.29_4180766.94	568772.29	4180766.94	6.21E-04	1.06E-04	1.59E-04	1.24E-04	1.69E-04	1.18E-03	potential residence	1.36E-08	3.29E-07	3.07E-07	4.74E-08	0.70	0.00	5.79E-04	1.06E-04	1.51E-04	1.18E-04	1.61E-04	1.11E-03
568792.29_4180766.94	568792.29	4180766.94	6.02E-04	1.02E-04	1.57E-04	1.17E-04	1.58E-04	1.14E-03	potential residence	1.31E-08	3.17E-07	2.96E-07	4.56E-08	0.67	0.00	5.61E-04	1.02E-04	1.49E-04	1.12E-04	1.50E-04	1.07E-03
568812.29_4180766.94	568812.29	4180766.94	5.85E-04	9.82E-05	1.55E-04	1.11E-04	1.48E-04	1.10E-03	potential residence	1.27E-08	3.07E-07	2.86E-07	4.41E-08	0.65	0.00	5.46E-04	9.82E-05	1.48E-04	1.06E-04	1.41E-04	1.04E-03
567412.29_4180786.94	567412.29	4180786.94	2.31E-04	3.73E-05	7.60E-05	2.18E-05	2.22E-05	3.89E-04	potential residence	4.48E-09	1.08E-07	1.01E-07	1.56E-08	0.23	0.00	2.16E-04	3.73E-05	7.23E-05	2.08E-05	2.11E-05	3.67E-04
567432.29_4180786.94	567432.29	4180786.94	2.44E-04	3.87E-05	7.87E-05	2.28E-05	2.31E-05	4.08E-04	potential residence	4.70E-09	1.14E-07	1.06E-07	1.64E-08	0.24	0.00	2.28E-04	3.87E-05	7.49E-05	2.17E-05	2.20E-05	3.85E-04
567452.29_4180786.94	567452.29	4180786.94	2.59E-04	4.01E-05	8.15E-05	2.38E-05	2.42E-05	4.28E-04	potential residence	4.94E-09	1.20E-07	1.12E-07	1.72E-08	0.25	0.00	2.41E-04	4.01E-05	7.75E-05	2.26E-05	2.30E-05	4.05E-04
567472.29_4180786.94	567472.29	4180786.94	2.75E-04	4.17E-05	8.44E-05	2.49E-05	2.53E-05	4.51E-04	potential residence	5.20E-09	1.26E-07	1.18E-07	1.81E-08	0.27	0.00	2.56E-04	4.17E-05	8.03E-05	2.37E-05	2.41E-05	4.26E-04
567492.29_4180786.94	567492.29	4180786.94	2.92E-04	4.33E-05	8.74E-05	2.61E-05	2.65E-05	4.75E-04	potential residence	5.48E-09	1.33E-07	1.24E-07	1.91E-08	0.28	0.00	2.72E-04	4.33E-05	8.31E-05	2.48E-05	2.52E-05	4.49E-04
567512.29_4180786.94	567512.29	4180786.94	3.12E-04	4.51E-05	9.05E-05	2.74E-05	2.78E-05	5.02E-04	potential residence	5.79E-09	1.40E-07	1.31E-07	2.02E-08	0.30	0.00	2.91E-04	4.51E-05	8.61E-05	2.60E-05	2.64E-05	4.74E-04
567532.29_4180786.94	567532.29	4180786.94	3.33E-04	4.69E-05	9.37E-05	2.88E-05	2.92E-05	5.32E-04	potential residence	6.13E-09	1.48E-07	1.39E-07	2.14E-08	0.31	0.00	3.10E-04	4.69E-05	8.92E-05	2.74E-05	2.78E-05	5.02E-04
567552.29_4180786.94	567552.29	4180786.94	3.56E-04	4.88E-05	9.70E-05	3.03E-05	3.08E-05	5.63E-04	potential residence	6.49E-09	1.57E-07	1.47E-07	2.26E-08	0.33	0.00	3.32E-04	4.88E-05	9.23E-05	2.89E-05	2.93E-05	5.31E-04
567572.29_4180786.94	567572.29	4180786.94	3.83E-04	5.09E-05	1.00E-04	3.20E-05	3.25E-05	5.98E-04	potential residence	6.90E-09	1.67E-07	1.56E-07	2.41E-08	0.35	0.00	3.57E-04	5.09E-05	9.55E-05	3.05E-05	3.09E-05	5.64E-04
567592.29_4180786.94	567592.29	4180786.94	4.12E-04	5.33E-05	1.04E-04	3.39E-05	3.44E-05	6.37E-04	potential residence	7.34E-09	1.78E-07	1.66E-07	2.56E-08	0.38	0.00	3.84E-04	5.33E-05	9.88E-05	3.22E-05	3.27E-05	6.01E-04
567612.29_4180786.94	567612.29	4180786.94	4.44E-04	5.60E-05	1.07E-04	3.60E-05	3.65E-05	6.79E-04	potential residence	7.83E-09	1.90E-07	1.77E-07	2.73E-08	0.40	0.00	4.14E-04	5.60E-05	1.02E-04	3.42E-05	3.47E-05	6.41E-04
567632.29_4180786.94	567632.29	4180786.94	4.80E-04	5.91E-05	1.11E-04	3.83E-05	3.88E-05	7.27E-04	potential residence	8.38E-09	2.03E-07	1.89E-07	2.92E-08	0.43	0.00	4.47E-04	5.91E-05	1.05E-04	3.64E-05	3.69E-05	6.85E-04
567652.29_4180786.94	567652.29	4180786.94	5.21E-04	6.26E-05	1.14E-04	4.08E-05	4.14E-05	7.79E-04	potential residence	8.98E-09	2.18E-07	2.03E-07	3.13E-08	0.46	0.00	4.85E-04	6.26E-05	1.08E-04	3.88E-05	3.94E-05	7.35E-04
567672.29_4180786.94	567672.29	4180786.94	5.65E-04	6.65E-05	1.17E-04	4.37E-05	4.43E-05	8.37E-04	potential residence	9.65E-09	2.34E-07	2.18E-07	3.36E-08	0.50	0.00	5.27E-04	6.65E-05	1.12E-04	4.15E-05	4.21E-05	7.89E-04
567692.29_4180786.94	567692.29	4180786.94	6.14E-04	7.06E-05	1.20E-04	4.69E-05	4.75E-05	9.00E-04	potential residence	1.04E-08	2.51E-07	2.34E-07	3.62E-08	0.53	0.00	5.73E-04	7.06E-05	1.14E-04	4.46E-05	4.52E-05	8.48E-04
567712.29_4180786.94	567712.29	4180786.94	6.67E-04	7.53E-05	1.23E-04	5.06E-05	5.12E-05	9.67E-04	potential residence	1.12E-08	2.70E-07	2.52E-07	3.89E-08	0.57	0.00	6.22E-04	7.53E-05	1.17E-04	4.82E-05	4.87E-05	9.11E-04
567732.29_4180786.94	567732.29	4180786.94	7.25E-04	8.11E-05	1.26E-04	5.48E-05	5.54E-05	1.04E-03	potential residence	1.20E-08	2.91E-07	2.72E-07	4.19E-08	0.62	0.00	6.76E-04	8.11E-05	1.20E-04	5.22E-05	5.27E-05	9.81E-04
567752.29_4180786.94	567752.29	4180786.94	7.85E-04	8.67E-05	1.28E-04	5.97E-05	6.01E-05	1.12E-03	potential residence	1.29E-08	3.13E-07	2.92E-07	4.50E-08	0.66	0.00	7.32E-04	8.67E-05	1.22E-04	5.68E-05	5.72E-05	1.05E-03
567772.29_4180786.94	567772.29	4180786.94	8.50E-04	9.27E-05	1.30E-04	6.52E-05	6.54E-05	1.20E-03	potential residence	1.39E-08	3.36E-07	3.14E-07	4.84E-08	0.71	0.00	7.92E-04	9.27E-05	1.24E-04	6.20E-05	6.23E-05	1.13E-03

567792.29_4180786.94	567792.29	4180786.94	9.16E-04	9.94E-05	1.32E-04	7.16E-05	7.15E-05	1.29E-03	potential residence	1.49E-08	3.60E-07	3.36E-07	5.19E-08	0.76	0.00	8.54E-04	9.94E-05	1.26E-04	6.81E-05	6.80E-05	1.22E-03
567812.29_4180786.94	567812.29	4180786.94	9.80E-04	1.06E-04	1.34E-04	7.91E-05	7.84E-05	1.38E-03	potential residence	1.59E-08	3.85E-07	3.59E-07	5.54E-08	0.82	0.00	9.14E-04	1.06E-04	1.28E-04	7.52E-05	7.46E-05	1.30E-03
567872.29_4180786.94	567872.29	4180786.94	1.17E-03	1.37E-04	1.40E-04	1.09E-04	1.05E-04	1.66E-03	potential residence	1.91E-08	4.62E-07	4.32E-07	6.66E-08	0.98	0.00	1.09E-03	1.37E-04	1.33E-04	1.03E-04	9.97E-05	1.56E-03
567892.29_4180786.94	567892.29	4180786.94	1.19E-03	1.71E-04	1.42E-04	1.22E-04	1.16E-04	1.74E-03	potential residence	2.00E-08	4.85E-07	4.53E-07	6.98E-08	1.03	0.00	1.11E-03	1.71E-04	1.35E-04	1.16E-04	1.10E-04	1.64E-03
567912.29_4180786.94	567912.29	4180786.94	1.23E-03	2.13E-04	1.44E-04	1.36E-04	1.27E-04	1.85E-03	potential residence	2.14E-08	5.18E-07	4.83E-07	7.45E-08	1.10	0.00	1.15E-03	2.13E-04	1.37E-04	1.29E-04	1.21E-04	1.75E-03
568112.29_4180786.94	568112.29	4180786.94	1.41E-03	3.51E-04	1.61E-04	4.29E-04	3.52E-04	2.70E-03	potential residence	3.12E-08	7.55E-07	7.05E-07	1.09E-07	1.60	0.00	1.32E-03	3.51E-04	1.53E-04	4.08E-04	3.35E-04	2.56E-03
568132.29_4180786.94	568132.29	4180786.94	1.39E-03	3.42E-04	1.61E-04	4.87E-04	3.93E-04	2.78E-03	potential residence	3.20E-08	7.75E-07	7.24E-07	1.12E-07	1.64	0.00	1.30E-03	3.42E-04	1.53E-04	4.64E-04	3.74E-04	2.63E-03
568152.29_4180786.94	568152.29	4180786.94	1.37E-03	3.25E-04	1.62E-04	5.56E-04	4.40E-04	2.85E-03	potential residence	3.28E-08	7.96E-07	7.43E-07	1.15E-07	1.69	0.00	1.28E-03	3.25E-04	1.54E-04	5.29E-04	4.18E-04	2.70E-03
568172.29_4180786.94	568172.29	4180786.94	1.34E-03	3.31E-04	1.62E-04	6.37E-04	4.91E-04	2.96E-03	potential residence	3.41E-08	8.27E-07	7.72E-07	1.19E-07	1.75	0.00	1.25E-03	3.31E-04	1.54E-04	6.06E-04	4.67E-04	2.81E-03
568192.29_4180786.94	568192.29	4180786.94	1.32E-03	3.33E-04	1.63E-04	7.38E-04	5.51E-04	3.10E-03	potential residence	3.57E-08	8.66E-07	8.08E-07	1.25E-07	1.83	0.00	1.23E-03	3.33E-04	1.55E-04	7.02E-04	5.24E-04	2.94E-03
568212.29_4180786.94	568212.29	4180786.94	1.29E-03	3.48E-04	1.63E-04	8.69E-04	6.21E-04	3.29E-03	potential residence	3.80E-08	9.19E-07	8.58E-07	1.32E-07	1.95	0.00	1.20E-03	3.48E-04	1.55E-04	8.27E-04	5.91E-04	3.12E-03
568232.29_4180786.94	568232.29	4180786.94	1.26E-03	3.40E-04	1.64E-04	1.05E-03	7.05E-04	3.52E-03	potential residence	4.06E-08	9.84E-07	9.18E-07	1.42E-07	2.08	0.00	1.18E-03	3.40E-04	1.56E-04	9.99E-04	6.71E-04	3.34E-03
568472.29_4180786.94	568472.29	4180786.94	8.75E-04	1.98E-04	1.60E-04	3.58E-04	6.92E-04	2.28E-03	potential residence	2.63E-08	6.37E-07	5.95E-07	9.17E-08	1.35	0.00	8.16E-04	1.98E-04	1.53E-04	3.40E-04	6.58E-04	2.16E-03
568492.29_4180786.94	568492.29	4180786.94	8.50E-04	1.88E-04	1.61E-04	3.22E-04	5.88E-04	2.11E-03	potential residence	2.43E-08	5.89E-07	5.50E-07	8.48E-08	1.25	0.00	7.92E-04	1.88E-04	1.53E-04	3.06E-04	5.59E-04	2.00E-03
568512.29_4180786.94	568512.29	4180786.94	8.27E-04	1.79E-04	1.62E-04	2.92E-04	5.09E-04	1.97E-03	potential residence	2.27E-08	5.50E-07	5.13E-07	7.91E-08	1.16	0.00	7.71E-04	1.79E-04	1.54E-04	2.78E-04	4.84E-04	1.87E-03
568532.29_4180786.94	568532.29	4180786.94	7.97E-04	1.71E-04	1.59E-04	2.63E-04	4.41E-04	1.83E-03	potential residence	2.11E-08	5.11E-07	4.77E-07	7.36E-08	1.08	0.00	7.43E-04	1.71E-04	1.51E-04	2.50E-04	4.20E-04	1.74E-03
568552.29_4180786.94	568552.29	4180786.94	7.73E-04	1.62E-04	1.58E-04	2.40E-04	3.90E-04	1.72E-03	potential residence	1.99E-08	4.81E-07	4.49E-07	6.93E-08	1.02	0.00	7.20E-04	1.62E-04	1.50E-04	2.28E-04	3.71E-04	1.63E-03
568572.29_4180786.94	568572.29	4180786.94	7.53E-04	1.55E-04	1.58E-04	2.22E-04	3.51E-04	1.64E-03	potential residence	1.89E-08	4.58E-07	4.27E-07	6.59E-08	0.97	0.00	7.02E-04	1.55E-04	1.51E-04	2.11E-04	3.34E-04	1.55E-03
568592.29_4180786.94	568592.29	4180786.94	7.33E-04	1.48E-04	1.58E-04	2.06E-04	3.17E-04	1.56E-03	potential residence	1.80E-08	4.36E-07	4.07E-07	6.27E-08	0.92	0.00	6.83E-04	1.48E-04	1.50E-04	1.96E-04	3.02E-04	1.48E-03
568612.29_4180786.94	568612.29	4180786.94	7.14E-04	1.41E-04	1.58E-04	1.92E-04	2.89E-04	1.49E-03	potential residence	1.72E-08	4.17E-07	3.89E-07	6.01E-08	0.88	0.00	6.66E-04	1.41E-04	1.50E-04	1.83E-04	2.75E-04	1.41E-03
568632.29_4180786.94	568632.29	4180786.94	6.93E-04	1.35E-04	1.56E-04	1.78E-04	2.63E-04	1.43E-03	potential residence	1.64E-08	3.98E-07	3.72E-07	5.73E-08	0.84	0.00	6.46E-04	1.35E-04	1.48E-04	1.70E-04	2.51E-04	1.35E-03
568652.29_4180786.94	568652.29	4180786.94	6.73E-04	1.29E-04	1.54E-04	1.66E-04	2.41E-04	1.36E-03	potential residence	1.57E-08	3.81E-07	3.56E-07	5.48E-08	0.81	0.00	6.28E-04	1.29E-04	1.47E-04	1.58E-04	2.30E-04	1.29E-03
568672.29_4180786.94	568672.29	4180786.94	6.55E-04	1.23E-04	1.53E-04	1.56E-04	2.23E-04	1.31E-03	potential residence	1.51E-08	3.66E-07	3.41E-07	5.26E-08	0.77	0.00	6.10E-04	1.23E-04	1.46E-04	1.48E-04	2.12E-04	1.24E-03
568692.29_4180786.94	568692.29	4180786.94	6.37E-04	1.18E-04	1.52E-04	1.46E-04	2.06E-04	1.26E-03	potential residence	1.45E-08	3.52E-07	3.28E-07	5.06E-08	0.75	0.00	5.94E-04	1.18E-04	1.45E-04	1.39E-04	1.96E-04	1.19E-03
568712.29_4180786.94	568712.29	4180786.94	6.21E-04	1.13E-04	1.51E-04	1.38E-04	1.92E-04	1.22E-03	potential residence	1.40E-08	3.39E-07	3.17E-07	4.89E-08	0.72	0.00	5.79E-04	1.13E-04	1.44E-04	1.32E-04	1.83E-04	1.15E-03
568732.29_4180786.94	568732.29	4180786.94	6.05E-04	1.08E-04	1.50E-04	1.31E-04	1.79E-04	1.17E-03	potential residence	1.35E-08	3.27E-07	3.06E-07	4.71E-08	0.69	0.00	5.64E-04	1.08E-04	1.43E-04	1.24E-04	1.70E-04	1.11E-03
568752.29_4180786.94	568752.29	4180786.94	5.88E-04	1.04E-04	1.48E-04	1.23E-04	1.67E-04	1.13E-03	potential residence	1.30E-08	3.16E-07	2.95E-07	4.55E-08	0.67	0.00	5.49E-04	1.04E-04	1.41E-04	1.17E-04	1.59E-04	1.07E-03
568772.29_4180786.94	568772.29	4180786.94	5.72E-04	1.00E-04	1.47E-04	1.17E-04	1.57E-04	1.09E-03	potential residence	1.26E-08	3.05E-07	2.85E-07	4.39E-08	0.65	0.00	5.33E-04	1.00E-04	1.40E-04	1.11E-04	1.49E-04	1.03E-03
568792.29_4180786.94	568792.29	4180786.94	5.56E-04	9.64E-05	1.45E-04	1.10E-04	1.47E-04	1.05E-03	potential residence	1.22E-08	2.94E-07	2.75E-07	4.24E-08	0.62	0.00	5.18E-04	9.64E-05	1.38E-04	1.05E-04	1.40E-04	9.97E-04
568812.29_4180786.94	568812.29	4180786.94	5.41E-04	9.30E-05	1.44E-04	1.05E-04	1.38E-04	1.02E-03	potential residence	1.18E-08	2.85E-07	2.66E-07	4.10E-08	0.60	0.00	5.05E-04	9.30E-05	1.37E-04	9.95E-05	1.32E-04	9.65E-04
567412.29_4180806.94	567412.29	4180806.94	2.29E-04	3.66E-05	7.46E-05	2.15E-05	2.18E-05	3.83E-04	potential residence	4.42E-09	1.07E-07	9.99E-08	1.54E-08	0.23	0.00	2.13E-04	3.66E-05	7.10E-05	2.04E-05	2.07E-05	3.62E-04
567432.29_4180806.94	567432.29	4180806.94	2.42E-04	3.79E-05	7.71E-05	2.24E-05	2.27E-05	4.02E-04	potential residence	4.63E-09	1.12E-07	1.05E-07	1.62E-08	0.24	0.00	2.25E-04	3.79E-05	7.34E-05	2.13E-05	2.16E-05	3.80E-04
567452.29_4180806.94	567452.29	4180806.94	2.56E-04	3.92E-05	7.98E-05	2.34E-05	2.38E-05	4.22E-04	potential residence	4.87E-09	1.18E-07	1.10E-07	1.70E-08	0.25	0.00	2.39E-04	3.92E-05	7.59E-05	2.22E-05	2.26E-05	3.99E-04
567472.29_4180806.94	567472.29	4180806.94	2.72E-04	4.07E-05	8.25E-05	2.44E-05	2.48E-05	4.44E-04	potential residence	5.12E-09	1.24E-07	1.16E-07	1.79E-08	0.26	0.00	2.53E-04	4.07E-05	7.85E-05	2.32E-05	2.36E-05	4.19E-04
567492.29_4180806.94	567492.29	4180806.94	2.89E-04	4.22E-05	8.53E-05	2.56E-05	2.60E-05	4.68E-04	potential residence	5.40E-09	1.31E-07	1.22E-07	1.88E-08	0.28	0.00	2.69E-04	4.22E-05	8.12E-05	2.43E-05	2.47E-05	4.42E-04
567512.29_4180806.94	567512.29	4180806.94	3.07E-04	4.37E-05	8.82E-05	2.69E-05	2.73E-05	4.93E-04	potential residence	5.69E-09	1.38E-07	1.29E-07	1.98E-08	0.29	0.00	2.87E-04	4.37E-05	8.39E-05	2.55E-05	2.60E-05	4.66E-04
567532.29_4180806.94	567532.29	4180806.94	3.28E-04	4.54E-05	9.12E-05	2.82E-05	2.87E-05	5.21E-04	potential residence	6.01E-09	1.46E-07	1.36E-07	2.10E-08	0.31	0.00	3.06E-04	4.54E-05	8.68E-05	2.69E-05	2.73E-05	4.92E-04
567552.29_4180806.94	567552.29	4180806.94	3.51E-04	4.72E-05	9.42E-05	2.97E-05	3.02E-05	5.52E-04	potential residence	6.37E-09	1.54E-07	1.44E-07	2.22E-08	0.33	0.00	3.27E-04	4.72E-05	8.96E-05	2.83E-05	2.87E-05	5.21E-04
567572.29_4180806.94	567572.29	4180806.94	3.76E-04	4.93E-05	9.73E-05	3.13E-05	3.19E-05	5.86E-04	potential residence	6.76E-09	1.64E-07	1.53E-07	2.36E-08	0.35	0.00	3.51E-04	4.93E-05	9.25E-05	2.98E-05	3.03E-05	5.53E-04
567592.29_4180806.94	567592.29	4180806.94	4.04E-04	5.16E-05	1.00E-04	3.32E-05	3.37E-05	6.23E-04	potential residence	7.18E-09	1.74E-07	1.62E-07	2.50E-08	0.37	0.00	3.77E-04	5.16E-05	9.54E-05	3.15E-05	3.21E-05	5.87E-04
567612.29_4180806.94	567612.29	4180806.94	4.35E-04	5.41E-05	1.03E-04	3.52E-05	3.57E-05	6.63E-04	potential residence	7.64E-09	1.85E-07	1.73E-07	2.67E-08	0.39	0.00	4.05E-04	5.41E-05	9.83E-05	3.34E-05	3.40E-05	6.25E-04
567632.29_4180806.94	567632.29	4180806.94	4.69E-04	5.69E-05	1.06E-04	3.74E-05	3.80E-05	7.07E-04	potential residence	8.16E-09	1.98E-07	1.84E-07	2.84E-08	0.42	0.00	4.37E-04	5.69E-05	1.01E-04	3.55E-05	3.61E-05	6.67E-04
567652.29_4180806.94	567652.29	4180806.94	5.06E-04	6.00E-05	1.09E-04	3.98E-05	4.05E-05	7.56E-04	potential residence	8.71E-09	2.11E-07	1.97E-07	3.04E-08	0.45	0.00	4.72E-04	6.00E-05	1.04E-04	3.79E-05	3.85E-05	7.12E-04
567672.29_4180806.94	567672.29	4180806.94	5.46E-04	6.37E-05	1.12E-04	4.26E-05	4.33E-05	8.08E-04	potential residence	9.32E-09	2.26E-07	2.11E-07	3.25E-08	0.48	0.00	5.09E-04	6.37E-05	1.07E-04	4.06E-05	4.12E-05	7.62E-04
567692.29_4180806.94	567692.29	4180806.94	5.89E-04	6.75E-05	1.15E-04	4.58E-05	4.66E-05	8.64E-04	potential residence	9.96E-09	2.41E-07	2.25E-07	3.47E-08	0.51	0.00	5.49E-04	6.75E-05	1.09E-04	4.36E-05	4.43E-05	8.14E-04
567712.29_4180806.94	567712.29	4180806.94	6.36E-04	7.20E-05	1.17E-04	4.94E-05	5.02E-05	9.25E-04	potential residence	1.07E-08	2.58E-07	2.41E-07	3.72E-08	0.55	0.00	5.93E-04	7.20E-05	1.11E-04	4.70E-05	4.77E-05	8.71E-04
567732.29_4180806.94	567732.29	4180806.94	6.86E-04	7.65E-05	1.19E-04	5.36E-05	5.43E-05	9.89E-04	potential residence	1.14E-08	2.76E-07	2.58E-07	3.98E-08	0.59	0.00	6.39E-04	7.65E-05	1.13E-04	5.10E-05	5.17E-05	9.32E-04
567752.29_4180806.94	567752.29	4180806.94	7.36E-04	8.13E-05	1.21E-04	5.84E-05	5.91E-05	1.06E-03	potential residence	1.22E-08	2.95E-07	2.75E-07	4.24E-08	0.62	0.00	6.86E-04	8.13E-05	1.15E-04	5.55E-05	5.62E-05	9.94E-04
567772.29_4180806.94	567772.29	4180806.94	7.89E-04	8.64E-05	1.23E-04	6.39E-05	6.45E-05	1.13E-03	potential residence	1.30E-08	3.15E-07	2.94E-07	4.53E-08	0.67	0.00	7.36E-04	8.64E-05	1.17E-04	6.08E-05	6.14E-05	1.06E-03
567792.29_4180806.94	567792.29	4180806.94	8.41E-04	9.21E-05	1.25E-04	7.04E-05	7.08E-05	1.20E-03	potential residence	1.38E-08	3.35E-07	3.13E-07	4.82E-08	0.71	0.00	7.84E-04	9.21E-05	1.18E-04	6.69E-05	6.73E-05	1.13E-03
567812.29_4180806.94	567812.29	4180806.94	8.93E-04	9.83E-05	1.26E-04	7.80E-05	7.80E-05	1.27E-03	potential residence	1.47E-08	3.55E-07	3.32E-07	5.12E-08	0.75	0.00	8.32E-04	9.83E-05	1.20E-04	7.42E-05	7.42E-05	1.20E-03
567832.29_4180806.94	567832.29	4180806.94	9.41E-04	1.04E-04	1.27E-04	8.71E-05	8.65E-05	1.35E-03	potential residence	1.55E-08	3.76E-07	3.51E-07	5.41E-08	0.80	0.00	8.77E-04	1.04E-04	1.21E-04	8.28E-05	8.23E-05	1.27E-03
567852.29_4180806.94	567852.29	4180806.94	9.67E-04	1.12E-04	1.29E-04	9.79E-05	9.62E-05	1.40E-03	potential residence	1.62E-08	3.92E-07	3.65E-07	5.64E-08	0.83	0.00	9.02E-04	1.12E-04	1.23E-04	9.31E-05	9.16E-05	1.32E-03
567872.29_4180806.94	567872.29	4180806.94	1.01E-03	1.20E-04	1.31E-04	1.10E-04	1.07E-04	1.48E-03	potential residence	1.70E-08	4.12E-07	3.85E-07	5.94E-08	0.87	0.00	9.41E-04	1.20E-04	1.25E-04	1.05E-04	1.02E-04	1.39E-03
567892.29_4180806.94	567892.29	4180806.94	1.04E-03	1.30E-04	1.33E-04	1.25E-04	1.20E-04	1.55E-03	potential residence	1.79E-08	4.33E-07	4.04E-07	6.23E-08	0.92	0.00	9.71E-04	1.30E-04	1.26E-04	1.19E-04	1.14E-04	1.46E-03
567912.29_4180806.94	567912.29	4180806.94	1.07E-03	1.65E-04	1.35E-04	1.43E-04	1.34E-04	1.65E-03	potential residence	1.90E-08	4.61E-07	4.30E-07	6.63E-08	0.98	0.00	1.00E-03	1.65E-04	1.28E-04	1.36E-04	1.28E-04	1.56E-03
568032.29_4180806.94	568032.29	4180806.94	1.20E-03	2.19E-04	1.44E-04	3.10E-04	2.63E-04	2.14E-03	potential residence	2.47E-08	5.97E-07	5.57E-07	8.59E-08	1.27	0.00	1.12E-03	2.19E-04	1.37E-04	2.95E-04	2.50E-04	2.02E-03
568072.29_4180806.94	568072.29	4180806.94	1.22E-03	2.54E-04	1.46E-04	4.09E-04	3.34E-04	2.36E-03	potential residence	2.72E-08	6.59E-07	6.15E-07	9.49E-08	1.40	0.00	1.14E-03	2.54E-04	1.39E-04	3.89E-04	3.18E-04	2.24E-03
568092.29_4180806.94	568092.29	4180806.94	1.21E-03	2.68E-04	1.47E-04	4.71E-04	3.79E-04	2.48E-03	potential residence	2.86E-08	6.92E-07	6.46E-07	9.96E-08	1.47	0.00	1.13E-03	2.68E-04	1.40E-04	4.48E-04	3.60E-04	2.35E-03
568112.29_4180806.94	568112.29	4180806.94	1.21E-03	2.62E-04	1.48E-04	5.44E-04	4.29E-04	2.59E-03	potential residence	2.98E-08	7.23E-07	6.74E-07	1.04E-07	1.53	0.00	1.12E-03	2.62E-04	1.41E-04	5.17E-04	4.08E-04	2.45E-03
568132.29_4180806.94	568132.29	4180806.94	1.19E-03	2.37E-04	1.48E-04	6.29E-04	4.86E-04	2.69E-03	potential residence	3.10E-08	7.52E-07	7.02E-07	1.08E-07	1.59	0.00	1.11E-03	2.37E-04	1.41E-04	5.99E-04	4.62E-04	2.55E-03
568152.29_4180806.94	568152.29	4180806.94	1.18E-03	2.24E-04	1.49E-04	7.34E-04	5.52E-04	2.84E-03	potential residence	3.27E-08	7.93E-07	7.40E-07	1.14E-07	1.68	0.00	1.10E-03	2.24E-04	1.42E-04	6.98E-04	5.25E-04	2.69E-03
568172.29_4180806.94	568172.29	4180806.94	1.16E-03	2.23E-04	1.49E-04	8.65E-04	6.28E-04	3.03E-03	potential residence	3.49E-08	8.45E-07	7.89E-07	1.22E-07	1.79	0.00	1.08E-03	2.23E-04	1.42E-04	8.23E-04	5.98E-04	2.87E-03
568192.29_4180806.94	568192.29	4180806.94	1.14E-03	2.28E-04	1.49E-04	1.05E-03	7.21E-04	3.29E-03	potential residence	3.79E-08	9.18E-07	8.57E-07	1.32E-07	1.94	0.00	1.07E-03	2.28E-04	1.42E-04	9.94E-04	6.86E-04	3.12E-03
568212.29_4180806.94	568212.29	4180806.94	1.13E-03	2.29E-04	1.50E-04	1.31E-03	8.35E-04	3.65E-03	potential residence	4.21E-08	1.02E-06	9.52E-07	1.47E-07	2.16	0.00	1.05E-03	2.29E-04	1.43E-04	1.25E-03	7.95E-04	3.47E-03
568372.29_4180806.94	568372.29	4180806.94	9.18E-04	2.11E-04	1.50E-04	6.02E-04	1.34E-03	3.22E-03	potential residence	3.71E-08	9.00E-07	8.40E-07	1.30E-07	1.91	0.00	8.56E-04	2.11E-04	1.43E-04	5.73E-04	1.28E-03	3.06E-03
568392.29_4180806.94	568392.29	4180806.94	8.87E-04	2.04E-04	1.48E-04	5.08E-04	1.06E-03	2.81E-03	potential residence	3.24E-08	7.84E-07	7.32E-07	1.13E-07	1.66	0.00	8.27E-04	2.04E-04	1.41E-04	4.84E-04	1.01E-03	2.67E-03
568452.29_4180806.94	568452.29	4180806.94	8.09E-04	1.81E-04	1.47E-04	3.43E-04	6.15E-04	2.10E-03	potential residence	2.42E-08	5.85E-07	5.46E-07	8.42E-08	1.24	0.00	7.55E-04	1.81E-04	1.40E-04	3.27E-04	5.85E-04	1.99E-03
568472.29_4180806.94	568472.29	4180806.94	7.87E-04	1.74E-04	1.47E-04	3.10E-04	5.33E-04	1.95E-03	potential residence	2.25E-08	5.45E-07	5.08E-07	7.84E-08	1.15	0.00	7.34E-04	1.74E-04	1.40E-04	2.94E-04	5.07E-04	1.85E-03
568492.29_4180806.94	568492.29	4180806.94	7.64E-04	1.66E-04	1.47E-04	2.80E-04	4.66E-04	1.82E-03	potential residence	2.10E-08	5.09E-07	4.75E-07	7.33E-08	1.08	0.00	7.12E-04	1.66E-04	1.40E-04	2.67E-04	4.43E-04	1.73E-03
568512.29_4180806.94	568512.29	4180806.94	7.47E-04	1.60E-04	1.49E-04	2.59E-04	4.16E-04	1.73E-03	potential residence	1.99E-08	4.83E-07	4.51E-07	6.96E-08	1.02	0.00	6.97E-04	1.60E-04	1.42E-04	2.46E-04	3.96E-04	1.64E-03
568532.29_4180806.94	568532.29	4180806.94	7.23E-04	1.53E-04	1.47E-04	2.36E-04	3.70E-04	1.63E-03	potential residence	1.88E-08	4.55E-07	4.24E-07	6.54E-08	0.96	0.00	6.74E-04	1.53E-04	1.40E-04	2.24E-04	3.52E-04	1.54E-03

568552.29_4180806.94	568552.29	4180806.94	7.01E-04	1.46E-04	1.46E-04	2.16E-04	3.32E-04	1.54E-03	potential residence	1.78E-08	4.30E-07	4.02E-07	6.19E-08	0.91	0.00	6.53E-04	1.46E-04	1.39E-04	2.06E-04	3.16E-04	1.46E-03
568572.29_4180806.94	568572.29	4180806.94	6.83E-04	1.40E-04	1.46E-04	2.01E-04	3.03E-04	1.47E-03	potential residence	1.70E-08	4.11E-07	3.84E-07	5.92E-08	0.87	0.00	6.37E-04	1.40E-04	1.39E-04	1.91E-04	2.88E-04	1.39E-03
568592.29_4180806.94	568592.29	4180806.94	6.67E-04	1.34E-04	1.45E-04	1.88E-04	2.78E-04	1.41E-03	potential residence	1.63E-08	3.94E-07	3.68E-07	5.68E-08	0.84	0.00	6.22E-04	1.34E-04	1.38E-04	1.79E-04	2.64E-04	1.34E-03
568612.29_4180806.94	568612.29	4180806.94	6.50E-04	1.29E-04	1.45E-04	1.75E-04	2.55E-04	1.35E-03	potential residence	1.56E-08	3.78E-07	3.53E-07	5.44E-08	0.80	0.00	6.06E-04	1.29E-04	1.38E-04	1.67E-04	2.43E-04	1.28E-03
568632.29_4180806.94	568632.29	4180806.94	6.34E-04	1.24E-04	1.44E-04	1.64E-04	2.36E-04	1.30E-03	potential residence	1.50E-08	3.63E-07	3.39E-07	5.23E-08	0.77	0.00	5.91E-04	1.24E-04	1.37E-04	1.56E-04	2.24E-04	1.23E-03
568652.29_4180806.94	568652.29	4180806.94	6.16E-04	1.18E-04	1.43E-04	1.54E-04	2.17E-04	1.25E-03	potential residence	1.44E-08	3.48E-07	3.25E-07	5.02E-08	0.74	0.00	5.74E-04	1.18E-04	1.36E-04	1.46E-04	2.07E-04	1.18E-03
568672.29_4180806.94	568672.29	4180806.94	6.01E-04	1.14E-04	1.42E-04	1.45E-04	2.02E-04	1.20E-03	potential residence	1.39E-08	3.36E-07	3.14E-07	4.84E-08	0.71	0.00	5.60E-04	1.14E-04	1.35E-04	1.38E-04	1.92E-04	1.14E-03
568712.29_4180806.94	568712.29	4180806.94	5.71E-04	1.05E-04	1.40E-04	1.29E-04	1.76E-04	1.12E-03	potential residence	1.29E-08	3.13E-07	2.92E-07	4.50E-08	0.66	0.00	5.32E-04	1.05E-04	1.33E-04	1.23E-04	1.67E-04	1.06E-03
568732.29_4180806.94	568732.29	4180806.94	5.56E-04	1.01E-04	1.39E-04	1.22E-04	1.65E-04	1.08E-03	potential residence	1.25E-08	3.03E-07	2.82E-07	4.35E-08	0.64	0.00	5.19E-04	1.01E-04	1.32E-04	1.16E-04	1.57E-04	1.03E-03
568752.29_4180806.94	568752.29	4180806.94	5.41E-04	9.73E-05	1.37E-04	1.15E-04	1.54E-04	1.05E-03	potential residence	1.21E-08	2.92E-07	2.72E-07	4.20E-08	0.62	0.00	5.05E-04	9.73E-05	1.31E-04	1.10E-04	1.47E-04	9.89E-04
568772.29_4180806.94	568772.29	4180806.94	5.27E-04	9.38E-05	1.36E-04	1.09E-04	1.45E-04	1.01E-03	potential residence	1.16E-08	2.82E-07	2.63E-07	4.06E-08	0.60	0.00	4.91E-04	9.38E-05	1.29E-04	1.04E-04	1.38E-04	9.55E-04
568792.29_4180806.94	568792.29	4180806.94	5.14E-04	9.06E-05	1.35E-04	1.04E-04	1.37E-04	9.79E-04	potential residence	1.13E-08	2.73E-07	2.55E-07	3.94E-08	0.58	0.00	4.79E-04	9.06E-05	1.28E-04	9.86E-05	1.30E-04	9.26E-04
568812.29_4180806.94	568812.29	4180806.94	5.03E-04	8.77E-05	1.34E-04	9.92E-05	1.30E-04	9.54E-04	potential residence	1.10E-08	2.66E-07	2.49E-07	3.83E-08	0.56	0.00	4.69E-04	8.77E-05	1.27E-04	9.44E-05	1.24E-04	9.02E-04
567412.29_4180826.94	567412.29	4180826.94	2.27E-04	3.59E-05	7.32E-05	2.11E-05	2.14E-05	3.78E-04	potential residence	4.36E-09	1.06E-07	9.86E-08	1.52E-08	0.22	0.00	2.11E-04	3.59E-05	6.97E-05	2.00E-05	2.04E-05	3.57E-04
567432.29_4180826.94	567432.29	4180826.94	2.40E-04	3.71E-05	7.56E-05	2.20E-05	2.23E-05	3.97E-04	potential residence	4.57E-09	1.11E-07	1.03E-07	1.59E-08	0.23	0.00	2.23E-04	3.71E-05	7.20E-05	2.09E-05	2.12E-05	3.75E-04
567452.29_4180826.94	567452.29	4180826.94	2.54E-04	3.83E-05	7.81E-05	2.29E-05	2.33E-05	4.16E-04	potential residence	4.80E-09	1.16E-07	1.09E-07	1.67E-08	0.25	0.00	2.37E-04	3.83E-05	7.43E-05	2.18E-05	2.22E-05	3.93E-04
567472.29_4180826.94	567472.29	4180826.94	2.69E-04	3.96E-05	8.07E-05	2.40E-05	2.44E-05	4.37E-04	potential residence	5.04E-09	1.22E-07	1.14E-07	1.76E-08	0.26	0.00	2.51E-04	3.96E-05	7.67E-05	2.28E-05	2.32E-05	4.13E-04
567492.29_4180826.94	567492.29	4180826.94	2.85E-04	4.09E-05	8.33E-05	2.51E-05	2.55E-05	4.60E-04	potential residence	5.30E-09	1.28E-07	1.20E-07	1.85E-08	0.27	0.00	2.66E-04	4.09E-05	7.92E-05	2.39E-05	2.43E-05	4.34E-04
567512.29_4180826.94	567512.29	4180826.94	3.03E-04	4.24E-05	8.59E-05	2.63E-05	2.68E-05	4.85E-04	potential residence	5.59E-09	1.35E-07	1.26E-07	1.95E-08	0.29	0.00	2.83E-04	4.24E-05	8.17E-05	2.50E-05	2.55E-05	4.57E-04
567532.29_4180826.94	567532.29	4180826.94	3.23E-04	4.41E-05	8.86E-05	2.76E-05	2.81E-05	5.12E-04	potential residence	5.90E-09	1.43E-07	1.33E-07	2.06E-08	0.30	0.00	3.02E-04	4.41E-05	8.43E-05	2.63E-05	2.68E-05	4.83E-04
567552.29_4180826.94	567552.29	4180826.94	3.46E-04	4.59E-05	9.14E-05	2.91E-05	2.96E-05	5.42E-04	potential residence	6.24E-09	1.51E-07	1.41E-07	2.18E-08	0.32	0.00	3.22E-04	4.59E-05	8.69E-05	2.77E-05	2.82E-05	5.11E-04
567572.29_4180826.94	567572.29	4180826.94	3.70E-04	4.78E-05	9.41E-05	3.06E-05	3.12E-05	5.74E-04	potential residence	6.61E-09	1.60E-07	1.50E-07	2.31E-08	0.34	0.00	3.45E-04	4.78E-05	8.96E-05	2.92E-05	2.97E-05	5.41E-04
567592.29_4180826.94	567592.29	4180826.94	3.96E-04	4.99E-05	9.69E-05	3.24E-05	3.30E-05	6.08E-04	potential residence	7.01E-09	1.70E-07	1.59E-07	2.45E-08	0.36	0.00	3.69E-04	4.99E-05	9.21E-05	3.08E-05	3.14E-05	5.74E-04
567612.29_4180826.94	567612.29	4180826.94	4.25E-04	5.20E-05	9.95E-05	3.43E-05	3.49E-05	6.46E-04	potential residence	7.44E-09	1.80E-07	1.68E-07	2.60E-08	0.38	0.00	3.96E-04	5.20E-05	9.47E-05	3.26E-05	3.32E-05	6.09E-04
567632.29_4180826.94	567632.29	4180826.94	4.56E-04	5.46E-05	1.02E-04	3.65E-05	3.71E-05	6.87E-04	potential residence	7.91E-09	1.92E-07	1.79E-07	2.76E-08	0.41	0.00	4.25E-04	5.46E-05	9.72E-05	3.47E-05	3.53E-05	6.47E-04
567652.29_4180826.94	567652.29	4180826.94	4.89E-04	5.75E-05	1.05E-04	3.89E-05	3.96E-05	7.30E-04	potential residence	8.41E-09	2.04E-07	1.90E-07	2.93E-08	0.43	0.00	4.56E-04	5.75E-05	9.95E-05	3.70E-05	3.77E-05	6.88E-04
567672.29_4180826.94	567672.29	4180826.94	5.26E-04	6.07E-05	1.07E-04	4.16E-05	4.23E-05	7.77E-04	potential residence	8.96E-09	2.17E-07	2.03E-07	3.12E-08	0.46	0.00	4.90E-04	6.07E-05	1.02E-04	3.95E-05	4.03E-05	7.33E-04
567692.29_4180826.94	567692.29	4180826.94	5.65E-04	6.42E-05	1.09E-04	4.46E-05	4.54E-05	8.28E-04	potential residence	9.55E-09	2.31E-07	2.16E-07	3.33E-08	0.49	0.00	5.27E-04	6.42E-05	1.04E-04	4.24E-05	4.32E-05	7.80E-04
567712.29_4180826.94	567712.29	4180826.94	6.05E-04	6.79E-05	1.11E-04	4.81E-05	4.90E-05	8.81E-04	potential residence	1.02E-08	2.46E-07	2.30E-07	3.54E-08	0.52	0.00	5.64E-04	6.79E-05	1.06E-04	4.58E-05	4.66E-05	8.30E-04
567732.29_4180826.94	567732.29	4180826.94	6.47E-04	7.17E-05	1.13E-04	5.21E-05	5.30E-05	9.36E-04	potential residence	1.08E-08	2.61E-07	2.44E-07	3.76E-08	0.55	0.00	6.03E-04	7.17E-05	1.07E-04	4.96E-05	5.04E-05	8.82E-04
567752.29_4180826.94	567752.29	4180826.94	6.89E-04	7.61E-05	1.15E-04	5.67E-05	5.77E-05	9.94E-04	potential residence	1.15E-08	2.78E-07	2.59E-07	3.99E-08	0.59	0.00	6.42E-04	7.61E-05	1.09E-04	5.40E-05	5.49E-05	9.36E-04
567772.29_4180826.94	567772.29	4180826.94	7.32E-04	8.06E-05	1.16E-04	6.21E-05	6.31E-05	1.05E-03	potential residence	1.22E-08	2.94E-07	2.75E-07	4.24E-08	0.62	0.00	6.83E-04	8.06E-05	1.10E-04	5.91E-05	6.00E-05	9.93E-04
567792.29_4180826.94	567792.29	4180826.94	7.73E-04	8.57E-05	1.17E-04	6.86E-05	6.95E-05	1.11E-03	potential residence	1.28E-08	3.11E-07	2.90E-07	4.48E-08	0.66	0.00	7.20E-04	8.57E-05	1.12E-04	6.52E-05	6.61E-05	1.05E-03
567812.29_4180826.94	567812.29	4180826.94	8.11E-04	9.06E-05	1.19E-04	7.63E-05	7.70E-05	1.17E-03	potential residence	1.35E-08	3.28E-07	3.06E-07	4.71E-08	0.69	0.00	7.56E-04	9.06E-05	1.13E-04	7.26E-05	7.33E-05	1.10E-03
567832.29_4180826.94	567832.29	4180826.94	8.48E-04	9.53E-05	1.20E-04	8.56E-05	8.59E-05	1.23E-03	potential residence	1.42E-08	3.45E-07	3.22E-07	4.96E-08	0.73	0.00	7.91E-04	9.53E-05	1.14E-04	8.14E-05	8.17E-05	1.16E-03
567852.29_4180826.94	567852.29	4180826.94	8.84E-04	1.01E-04	1.21E-04	9.69E-05	9.63E-05	1.30E-03	potential residence	1.50E-08	3.63E-07	3.39E-07	5.22E-08	0.77	0.00	8.24E-04	1.01E-04	1.15E-04	9.22E-05	9.16E-05	1.22E-03
567872.29_4180826.94	567872.29	4180826.94	8.93E-04	1.07E-04	1.23E-04	1.11E-04	1.09E-04	1.34E-03	potential residence	1.55E-08	3.75E-07	3.50E-07	5.40E-08	0.79	0.00	8.33E-04	1.07E-04	1.17E-04	1.06E-04	1.04E-04	1.27E-03
567892.29_4180826.94	567892.29	4180826.94	9.21E-04	1.13E-04	1.25E-04	1.28E-04	1.24E-04	1.41E-03	potential residence	1.62E-08	3.94E-07	3.67E-07	5.66E-08	0.83	0.00	8.58E-04	1.13E-04	1.18E-04	1.22E-04	1.18E-04	1.33E-03
567912.29_4180826.94	567912.29	4180826.94	9.47E-04	1.19E-04	1.26E-04	1.48E-04	1.40E-04	1.48E-03	potential residence	1.71E-08	4.14E-07	3.86E-07	5.96E-08	0.88	0.00	8.83E-04	1.19E-04	1.20E-04	1.41E-04	1.34E-04	1.40E-03
567992.29_4180826.94	567992.29	4180826.94	1.02E-03	1.90E-04	1.32E-04	2.73E-04	2.35E-04	1.85E-03	potential residence	2.13E-08	5.15E-07	4.81E-07	7.42E-08	1.09	0.00	9.47E-04	1.90E-04	1.26E-04	2.59E-04	2.24E-04	1.75E-03
568052.29_4180826.94	568052.29	4180826.94	1.05E-03	2.09E-04	1.35E-04	4.43E-04	3.54E-04	2.19E-03	potential residence	2.53E-08	6.12E-07	5.71E-07	8.80E-08	1.30	0.00	9.79E-04	2.09E-04	1.28E-04	4.21E-04	3.36E-04	2.07E-03
568072.29_4180826.94	568072.29	4180826.94	1.05E-03	2.15E-04	1.36E-04	5.24E-04	4.08E-04	2.33E-03	potential residence	2.69E-08	6.51E-07	6.08E-07	9.38E-08	1.38	0.00	9.80E-04	2.15E-04	1.29E-04	4.98E-04	3.88E-04	2.21E-03
568092.29_4180826.94	568092.29	4180826.94	1.04E-03	2.07E-04	1.36E-04	6.20E-04	4.70E-04	2.48E-03	potential residence	2.86E-08	6.92E-07	6.46E-07	9.95E-08	1.47	0.00	9.73E-04	2.07E-04	1.29E-04	5.89E-04	4.48E-04	2.35E-03
568112.29_4180826.94	568112.29	4180826.94	1.04E-03	1.98E-04	1.36E-04	7.35E-04	5.44E-04	2.65E-03	potential residence	3.06E-08	7.41E-07	6.92E-07	1.07E-07	1.57	0.00	9.70E-04	1.98E-04	1.30E-04	6.99E-04	5.17E-04	2.51E-03
568132.29_4180826.94	568132.29	4180826.94	1.03E-03	2.05E-04	1.37E-04	8.76E-04	6.29E-04	2.88E-03	potential residence	3.32E-08	8.03E-07	7.50E-07	1.16E-07	1.70	0.00	9.61E-04	2.05E-04	1.30E-04	8.33E-04	5.98E-04	2.73E-03
568152.29_4180826.94	568152.29	4180826.94	1.03E-03	1.99E-04	1.37E-04	1.06E-03	7.34E-04	3.16E-03	potential residence	3.64E-08	8.82E-07	8.24E-07	1.27E-07	1.87	0.00	9.58E-04	1.99E-04	1.31E-04	1.01E-03	6.98E-04	3.00E-03
568172.29_4180826.94	568172.29	4180826.94	1.02E-03	1.80E-04	1.38E-04	1.32E-03	8.62E-04	3.52E-03	potential residence	4.05E-08	9.82E-07	9.17E-07	1.41E-07	2.08	0.00	9.48E-04	1.80E-04	1.31E-04	1.26E-03	8.20E-04	3.34E-03
568332.29_4180826.94	568332.29	4180826.94	8.68E-04	1.87E-04	1.39E-04	6.43E-04	1.23E-03	3.07E-03	potential residence	3.54E-08	8.57E-07	8.00E-07	1.23E-07	1.82	0.00	8.10E-04	1.87E-04	1.32E-04	6.12E-04	1.17E-03	2.91E-03
568352.29_4180826.94	568352.29	4180826.94	8.46E-04	1.84E-04	1.39E-04	5.48E-04	1.01E-03	2.73E-03	potential residence	3.14E-08	7.61E-07	7.10E-07	1.10E-07	1.61	0.00	7.88E-04	1.84E-04	1.32E-04	5.21E-04	9.61E-04	2.59E-03
568372.29_4180826.94	568372.29	4180826.94	8.21E-04	1.79E-04	1.37E-04	4.71E-04	8.43E-04	2.45E-03	potential residence	2.83E-08	6.85E-07	6.39E-07	9.85E-08	1.45	0.00	7.65E-04	1.79E-04	1.30E-04	4.49E-04	8.02E-04	2.33E-03
568432.29_4180826.94	568432.29	4180826.94	7.54E-04	1.63E-04	1.36E-04	3.28E-04	5.42E-04	1.92E-03	potential residence	2.22E-08	5.37E-07	5.01E-07	7.73E-08	1.14	0.00	7.03E-04	1.63E-04	1.30E-04	3.12E-04	5.15E-04	1.82E-03
568452.29_4180826.94	568452.29	4180826.94	7.32E-04	1.57E-04	1.36E-04	2.96E-04	4.76E-04	1.80E-03	potential residence	2.07E-08	5.02E-07	4.69E-07	7.23E-08	1.06	0.00	6.83E-04	1.57E-04	1.29E-04	2.82E-04	4.53E-04	1.70E-03
568472.29_4180826.94	568472.29	4180826.94	7.11E-04	1.51E-04	1.36E-04	2.69E-04	4.23E-04	1.69E-03	potential residence	1.95E-08	4.72E-07	4.40E-07	6.79E-08	1.00	0.00	6.63E-04	1.51E-04	1.29E-04	2.56E-04	4.02E-04	1.60E-03
568492.29_4180826.94	568492.29	4180826.94	6.93E-04	1.46E-04	1.36E-04	2.47E-04	3.80E-04	1.60E-03	potential residence	1.85E-08	4.47E-07	4.17E-07	6.44E-08	0.95	0.00	6.46E-04	1.46E-04	1.29E-04	2.35E-04	3.61E-04	1.52E-03
568512.29_4180826.94	568512.29	4180826.94	6.76E-04	1.41E-04	1.36E-04	2.28E-04	3.45E-04	1.53E-03	potential residence	1.76E-08	4.26E-07	3.98E-07	6.13E-08	0.90	0.00	6.30E-04	1.41E-04	1.30E-04	2.17E-04	3.28E-04	1.45E-03
568532.29_4180826.94	568532.29	4180826.94	6.59E-04	1.36E-04	1.37E-04	2.12E-04	3.14E-04	1.46E-03	potential residence	1.68E-08	4.07E-07	3.80E-07	5.86E-08	0.86	0.00	6.15E-04	1.36E-04	1.30E-04	2.01E-04	2.99E-04	1.38E-03
568552.29_4180826.94	568552.29	4180826.94	6.39E-04	1.31E-04	1.35E-04	1.95E-04	2.86E-04	1.39E-03	potential residence	1.60E-08	3.87E-07	3.61E-07	5.57E-08	0.82	0.00	5.96E-04	1.31E-04	1.29E-04	1.86E-04	2.72E-04	1.31E-03
568572.29_4180826.94	568572.29	4180826.94	6.21E-04	1.26E-04	1.34E-04	1.82E-04	2.62E-04	1.33E-03	potential residence	1.53E-08	3.70E-07	3.45E-07	5.33E-08	0.78	0.00	5.79E-04	1.26E-04	1.28E-04	1.73E-04	2.50E-04	1.25E-03
568592.29_4180826.94	568592.29	4180826.94	6.07E-04	1.21E-04	1.34E-04	1.70E-04	2.43E-04	1.28E-03	potential residence	1.47E-08	3.56E-07	3.33E-07	5.13E-08	0.75	0.00	5.66E-04	1.21E-04	1.28E-04	1.62E-04	2.31E-04	1.21E-03
568612.29_4180826.94	568612.29	4180826.94	5.94E-04	1.17E-04	1.34E-04	1.61E-04	2.26E-04	1.23E-03	potential residence	1.42E-08	3.44E-07	3.21E-07	4.95E-08	0.73	0.00	5.54E-04	1.17E-04	1.28E-04	1.53E-04	2.15E-04	1.17E-03
568632.29_4180826.94	568632.29	4180826.94	5.80E-04	1.12E-04	1.33E-04	1.51E-04	2.10E-04	1.19E-03	potential residence	1.37E-08	3.31E-07	3.09E-07	4.77E-08	0.70	0.00	5.40E-04	1.12E-04	1.27E-04	1.44E-04	2.00E-04	1.12E-03
568652.29_4180826.94	568652.29	4180826.94	5.66E-04	1.08E-04	1.33E-04	1.42E-04	1.96E-04	1.15E-03	potential residence	1.32E-08	3.20E-07	2.99E-07	4.60E-08	0.68	0.00	5.27E-04	1.08E-04	1.26E-04	1.36E-04	1.87E-04	1.08E-03
568672.29_4180826.94	568672.29	4180826.94	5.52E-04	1.04E-04	1.32E-04	1.34E-04	1.83E-04	1.11E-03	potential residence	1.27E-08	3.09E-07	2.88E-07	4.44E-08	0.65	0.00	5.14E-04	1.04E-04	1.25E-04	1.28E-04	1.75E-04	1.05E-03
568692.29_4180826.94	568692.29	4180826.94	5.37E-04	1.00E-04	1.31E-04	1.27E-04	1.71E-04	1.07E-03	potential residence	1.23E-08	2.98E-07	2.78E-07	4.29E-08	0.63	0.00	5.01E-04	1.00E-04	1.24E-04	1.21E-04	1.63E-04	1.01E-03
568712.29_4180826.94	568712.29	4180826.94	5.24E-04	9.69E-05	1.30E-04	1.20E-04	1.61E-04	1.03E-03	potential residence	1.19E-08	2.88E-07	2.69E-07	4.15E-08	0.61	0.00	4.89E-04	9.69E-05	1.23E-04	1.14E-04	1.53E-04	9.76E-04
568732.29_4180826.94	568732.29	4180826.94	5.11E-04	9.36E-05	1.29E-04	1.13E-04	1.51E-04	9.97E-04	potential residence	1.15E-08	2.78E-07	2.60E-07	4.01E-08	0.59	0.00	4.76E-04	9.36E-05	1.22E-04	1.08E-04	1.44E-04	9.44E-04
568752.29_4180826.94	568752.29	4180826.94	4.99E-04	9.04E-05	1.28E-04	1.08E-04	1.43E-04	9.68E-04	potential residence	1.12E-08	2.70E-07	2.52E-07	3.89E-08	0.57	0.00	4.65E-04	9.04E-05	1.21E-04	1.02E-04	1.36E-04	9.16E-04
568772.29_4180826.94	568772.29	4180826.94	4.88E-04	8.77E-05	1.27E-04	1.03E-04	1.35E-04	9.40E-04	potential residence	1.08E-08	2.63E-07	2.45E-07	3.78E-08	0.56	0.00	4.55E-04	8.77E-05	1.21E-04	9.77E-05	1.28E-04	8.89E-04
568792.29_4180826.94	568792.29	4180826.94	4.78E-04	8.50E-05	1.26E-04	9.82E-05	1.28E-04	9.15E-04	potential residence	1.05E-08	2.55E-07	2.38E-07	3.68E-08	0.54	0.00	4.45E-04	8.50E-05	1.20E-04	9.34E-05	1.22E-04	8.65E-04
568812.29_4180826.94	568812.29	4180826.94	4.67E-04	8.24E-05	1.25E-04	9.38E-05	1.21E-04	8.89E-04	potential residence	1.03E-08	2.48E-07	2.32E-07	3.58E-08	0.53	0.00	4.35E-04	8.24E-05	1.19E-04	8.92E-05	1.16E-04	8.41E-04
567412.29_4180846.94	567412.29	4180846.94	2.25E-04	3.50E-05	7.18E-05	2.07E-05	2.10E-05	3.73E-04	potential residence	4.30E-09	1.04E-07	9.73E-08	1.50E-08	0.22	0.00	2.10E-04	3.50E-05	6.83E-05	1.97E-05	2.00E-05	3.53E-04
567432.29_4180846.94	567432.29	4180846.94	2.37E-04	3.61E-05	7.41E-05	2.15E-05	2.19E-05	3.91E-04	potential residence	4.51E-09	1.09E-07	1.02E-07	1.57E-08	0.23	0.00	2.21E-04	3.61E-05	7.05E-05	2.05E-05	2.09E-05	3.69E-04

567452.29_4180846.94	567452.29	4180846.94	2.51E-04	3.73E-05	7.64E-05	2.25E-05	2.29E-05	4.10E-04	potential residence	4.73E-09	1.14E-07	1.07E-07	1.65E-08	0.24	0.00	2.34E-04	3.73E-05	7.27E-05	2.14E-05	2.18E-05	3.87E-04
567472.29_4180846.94	567472.29	4180846.94	2.66E-04	3.85E-05	7.88E-05	2.35E-05	2.39E-05	4.30E-04	potential residence	4.96E-09	1.20E-07	1.12E-07	1.73E-08	0.25	0.00	2.48E-04	3.85E-05	7.50E-05	2.23E-05	2.27E-05	4.06E-04
567492.29_4180846.94	567492.29	4180846.94	2.82E-04	3.98E-05	8.12E-05	2.46E-05	2.50E-05	4.52E-04	potential residence	5.21E-09	1.26E-07	1.18E-07	1.82E-08	0.27	0.00	2.63E-04	3.98E-05	7.72E-05	2.34E-05	2.38E-05	4.27E-04
567512.29_4180846.94	567512.29	4180846.94	2.99E-04	4.12E-05	8.36E-05	2.57E-05	2.62E-05	4.76E-04	potential residence	5.49E-09	1.33E-07	1.24E-07	1.91E-08	0.28	0.00	2.79E-04	4.12E-05	7.96E-05	2.45E-05	2.50E-05	4.49E-04
567532.29_4180846.94	567532.29	4180846.94	3.19E-04	4.26E-05	8.61E-05	2.70E-05	2.75E-05	5.02E-04	potential residence	5.79E-09	1.40E-07	1.31E-07	2.02E-08	0.30	0.00	2.97E-04	4.26E-05	8.19E-05	2.57E-05	2.62E-05	4.74E-04
567552.29_4180846.94	567552.29	4180846.94	3.40E-04	4.43E-05	8.86E-05	2.84E-05	2.90E-05	5.30E-04	potential residence	6.11E-09	1.48E-07	1.38E-07	2.13E-08	0.31	0.00	3.17E-04	4.43E-05	8.43E-05	2.70E-05	2.75E-05	5.00E-04
567572.29_4180846.94	567572.29	4180846.94	3.63E-04	4.61E-05	9.10E-05	2.99E-05	3.05E-05	5.60E-04	potential residence	6.46E-09	1.56E-07	1.46E-07	2.25E-08	0.33	0.00	3.38E-04	4.61E-05	8.66E-05	2.85E-05	2.90E-05	5.28E-04
567592.29_4180846.94	567592.29	4180846.94	3.87E-04	4.80E-05	9.34E-05	3.16E-05	3.22E-05	5.92E-04	potential residence	6.83E-09	1.65E-07	1.54E-07	2.38E-08	0.35	0.00	3.61E-04	4.80E-05	8.89E-05	3.01E-05	3.07E-05	5.59E-04
567612.29_4180846.94	567612.29	4180846.94	4.13E-04	4.98E-05	9.57E-05	3.35E-05	3.42E-05	6.26E-04	potential residence	7.21E-09	1.75E-07	1.63E-07	2.52E-08	0.37	0.00	3.85E-04	4.98E-05	9.10E-05	3.19E-05	3.25E-05	5.90E-04
567632.29_4180846.94	567632.29	4180846.94	4.42E-04	5.23E-05	9.79E-05	3.56E-05	3.63E-05	6.64E-04	potential residence	7.65E-09	1.85E-07	1.73E-07	2.67E-08	0.39	0.00	4.12E-04	5.23E-05	9.32E-05	3.38E-05	3.45E-05	6.26E-04
567652.29_4180846.94	567652.29	4180846.94	4.72E-04	5.48E-05	1.00E-04	3.79E-05	3.86E-05	7.03E-04	potential residence	8.11E-09	1.96E-07	1.83E-07	2.83E-08	0.42	0.00	4.40E-04	5.48E-05	9.52E-05	3.60E-05	3.68E-05	6.63E-04
567672.29_4180846.94	567672.29	4180846.94	5.05E-04	5.78E-05	1.02E-04	4.04E-05	4.13E-05	7.46E-04	potential residence	8.60E-09	2.08E-07	1.94E-07	3.00E-08	0.44	0.00	4.70E-04	5.78E-05	9.71E-05	3.85E-05	3.93E-05	7.03E-04
567692.29_4180846.94	567692.29	4180846.94	5.39E-04	6.10E-05	1.04E-04	4.34E-05	4.42E-05	7.91E-04	potential residence	9.12E-09	2.21E-07	2.06E-07	3.18E-08	0.47	0.00	5.02E-04	6.10E-05	9.89E-05	4.12E-05	4.21E-05	7.45E-04
567712.29_4180846.94	567712.29	4180846.94	5.73E-04	6.41E-05	1.06E-04	4.67E-05	4.77E-05	8.37E-04	potential residence	9.65E-09	2.34E-07	2.18E-07	3.37E-08	0.50	0.00	5.34E-04	6.41E-05	1.00E-04	4.44E-05	4.53E-05	7.89E-04
567732.29_4180846.94	567732.29	4180846.94	6.09E-04	6.80E-05	1.07E-04	5.05E-05	5.15E-05	8.86E-04	potential residence	1.02E-08	2.48E-07	2.31E-07	3.56E-08	0.52	0.00	5.68E-04	6.80E-05	1.02E-04	4.80E-05	4.90E-05	8.35E-04
567752.29_4180846.94	567752.29	4180846.94	6.44E-04	7.13E-05	1.08E-04	5.49E-05	5.61E-05	9.35E-04	potential residence	1.08E-08	2.61E-07	2.44E-07	3.76E-08	0.55	0.00	6.00E-04	7.13E-05	1.03E-04	5.23E-05	5.33E-05	8.80E-04
567772.29_4180846.94	567772.29	4180846.94	6.76E-04	7.49E-05	1.10E-04	6.02E-05	6.14E-05	9.82E-04	potential residence	1.13E-08	2.74E-07	2.56E-07	3.95E-08	0.58	0.00	6.30E-04	7.49E-05	1.04E-04	5.73E-05	5.84E-05	9.25E-04
567792.29_4180846.94	567792.29	4180846.94	7.08E-04	7.92E-05	1.11E-04	6.64E-05	6.77E-05	1.03E-03	potential residence	1.19E-08	2.88E-07	2.69E-07	4.15E-08	0.61	0.00	6.60E-04	7.92E-05	1.05E-04	6.32E-05	6.44E-05	9.72E-04
567812.29_4180846.94	567812.29	4180846.94	7.39E-04	8.35E-05	1.12E-04	7.39E-05	7.52E-05	1.08E-03	potential residence	1.25E-08	3.02E-07	2.82E-07	4.35E-08	0.64	0.00	6.89E-04	8.35E-05	1.06E-04	7.03E-05	7.15E-05	1.02E-03
567832.29_4180846.94	567832.29	4180846.94	7.52E-04	8.81E-05	1.13E-04	8.32E-05	8.43E-05	1.12E-03	potential residence	1.29E-08	3.13E-07	2.92E-07	4.51E-08	0.66	0.00	7.01E-04	8.81E-05	1.07E-04	7.92E-05	8.02E-05	1.06E-03
567852.29_4180846.94	567852.29	4180846.94	7.79E-04	9.31E-05	1.14E-04	9.46E-05	9.53E-05	1.18E-03	potential residence	1.36E-08	3.28E-07	3.07E-07	4.73E-08	0.70	0.00	7.27E-04	9.31E-05	1.09E-04	9.00E-05	9.06E-05	1.11E-03
567872.29_4180846.94	567872.29	4180846.94	7.99E-04	9.82E-05	1.15E-04	1.09E-04	1.09E-04	1.23E-03	potential residence	1.42E-08	3.44E-07	3.21E-07	4.95E-08	0.73	0.00	7.45E-04	9.82E-05	1.10E-04	1.04E-04	1.04E-04	1.16E-03
567892.29_4180846.94	567892.29	4180846.94	8.22E-04	1.04E-04	1.17E-04	1.28E-04	1.25E-04	1.30E-03	potential residence	1.49E-08	3.62E-07	3.38E-07	5.21E-08	0.77	0.00	7.66E-04	1.04E-04	1.11E-04	1.22E-04	1.19E-04	1.22E-03
567932.29_4180846.94	567932.29	4180846.94	8.47E-04	1.15E-04	1.20E-04	1.82E-04	1.70E-04	1.43E-03	potential residence	1.65E-08	4.00E-07	3.74E-07	5.76E-08	0.85	0.00	7.89E-04	1.15E-04	1.14E-04	1.73E-04	1.62E-04	1.35E-03
567952.29_4180846.94	567952.29	4180846.94	8.62E-04	1.45E-04	1.21E-04	2.20E-04	1.98E-04	1.55E-03	potential residence	1.78E-08	4.32E-07	4.03E-07	6.22E-08	0.91	0.00	8.04E-04	1.45E-04	1.15E-04	2.10E-04	1.89E-04	1.46E-03
567972.29_4180846.94	567972.29	4180846.94	8.80E-04	1.78E-04	1.22E-04	2.66E-04	2.31E-04	1.68E-03	potential residence	1.93E-08	4.68E-07	4.37E-07	6.74E-08	0.99	0.00	8.20E-04	1.78E-04	1.17E-04	2.53E-04	2.20E-04	1.59E-03
567992.29_4180846.94	567992.29	4180846.94	8.93E-04	1.92E-04	1.23E-04	3.22E-04	2.70E-04	1.80E-03	potential residence	2.07E-08	5.03E-07	4.69E-07	7.23E-08	1.06	0.00	8.33E-04	1.92E-04	1.17E-04	3.06E-04	2.57E-04	1.70E-03
568032.29_4180846.94	568032.29	4180846.94	9.09E-04	1.89E-04	1.25E-04	4.78E-04	3.72E-04	2.07E-03	potential residence	2.39E-08	5.79E-07	5.40E-07	8.33E-08	1.23	0.00	8.47E-04	1.89E-04	1.19E-04	4.55E-04	3.54E-04	1.96E-03
568052.29_4180846.94	568052.29	4180846.94	9.14E-04	1.83E-04	1.25E-04	5.88E-04	4.40E-04	2.25E-03	potential residence	2.59E-08	6.28E-07	5.87E-07	9.04E-08	1.33	0.00	8.52E-04	1.83E-04	1.19E-04	5.59E-04	4.19E-04	2.13E-03
568072.29_4180846.94	568072.29	4180846.94	9.14E-04	1.86E-04	1.26E-04	7.23E-04	5.21E-04	2.47E-03	potential residence	2.85E-08	6.90E-07	6.44E-07	9.93E-08	1.46	0.00	8.52E-04	1.86E-04	1.20E-04	6.88E-04	4.96E-04	2.34E-03
568092.29_4180846.94	568092.29	4180846.94	9.13E-04	1.84E-04	1.26E-04	8.93E-04	6.19E-04	2.73E-03	potential residence	3.15E-08	7.63E-07	7.13E-07	1.10E-07	1.62	0.00	8.51E-04	1.84E-04	1.20E-04	8.49E-04	5.89E-04	2.59E-03
568112.29_4180846.94	568112.29	4180846.94	9.10E-04	1.82E-04	1.26E-04	1.11E-03	7.37E-04	3.07E-03	potential residence	3.54E-08	8.57E-07	8.00E-07	1.23E-07	1.82	0.00	8.48E-04	1.82E-04	1.20E-04	1.06E-03	7.01E-04	2.91E-03
568132.29_4180846.94	568132.29	4180846.94	9.06E-04	1.66E-04	1.27E-04	1.41E-03	8.83E-04	3.50E-03	potential residence	4.03E-08	9.76E-07	9.11E-07	1.40E-07	2.07	0.00	8.44E-04	1.66E-04	1.20E-04	1.35E-03	8.40E-04	3.32E-03
568272.29_4180846.94	568272.29	4180846.94	8.31E-04	1.53E-04	1.28E-04	7.71E-04	1.39E-03	3.27E-03	potential residence	3.77E-08	9.14E-07	8.53E-07	1.32E-07	1.94	0.00	7.74E-04	1.53E-04	1.22E-04	7.34E-04	1.32E-03	3.10E-03
568292.29_4180846.94	568292.29	4180846.94	8.14E-04	1.56E-04	1.28E-04	6.51E-04	1.12E-03	2.87E-03	potential residence	3.31E-08	8.01E-07	7.48E-07	1.15E-07	1.70	0.00	7.59E-04	1.56E-04	1.22E-04	6.20E-04	1.06E-03	2.72E-03
568312.29_4180846.94	568312.29	4180846.94	7.97E-04	1.58E-04	1.28E-04	5.60E-04	9.34E-04	2.58E-03	potential residence	2.97E-08	7.20E-07	6.72E-07	1.04E-07	1.52	0.00	7.43E-04	1.58E-04	1.22E-04	5.33E-04	8.89E-04	2.44E-03
568332.29_4180846.94	568332.29	4180846.94	7.78E-04	1.58E-04	1.28E-04	4.86E-04	7.94E-04	2.34E-03	potential residence	2.70E-08	6.55E-07	6.11E-07	9.42E-08	1.39	0.00	7.25E-04	1.58E-04	1.22E-04	4.63E-04	7.56E-04	2.22E-03
568352.29_4180846.94	568352.29	4180846.94	7.55E-04	1.56E-04	1.26E-04	4.24E-04	6.82E-04	2.14E-03	potential residence	2.47E-08	5.98E-07	5.59E-07	8.61E-08	1.27	0.00	7.04E-04	1.56E-04	1.20E-04	4.04E-04	6.49E-04	2.03E-03
568392.29_4180846.94	568392.29	4180846.94	7.17E-04	1.50E-04	1.25E-04	3.37E-04	5.26E-04	1.85E-03	potential residence	2.14E-08	5.18E-07	4.83E-07	7.45E-08	1.10	0.00	6.68E-04	1.50E-04	1.19E-04	3.21E-04	5.00E-04	1.76E-03
568412.29_4180846.94	568412.29	4180846.94	7.02E-04	1.46E-04	1.26E-04	3.07E-04	4.71E-04	1.75E-03	potential residence	2.02E-08	4.89E-07	4.57E-07	7.04E-08	1.04	0.00	6.54E-04	1.46E-04	1.20E-04	2.92E-04	4.48E-04	1.66E-03
568432.29_4180846.94	568432.29	4180846.94	6.87E-04	1.42E-04	1.28E-04	2.82E-04	4.25E-04	1.66E-03	potential residence	1.92E-08	4.65E-07	4.34E-07	6.69E-08	0.98	0.00	6.41E-04	1.42E-04	1.21E-04	2.68E-04	4.05E-04	1.58E-03
568452.29_4180846.94	568452.29	4180846.94	6.66E-04	1.38E-04	1.26E-04	2.56E-04	3.82E-04	1.57E-03	potential residence	1.81E-08	4.38E-07	4.09E-07	6.30E-08	0.93	0.00	6.21E-04	1.38E-04	1.20E-04	2.44E-04	3.63E-04	1.49E-03
568472.29_4180846.94	568472.29	4180846.94	6.47E-04	1.33E-04	1.26E-04	2.35E-04	3.45E-04	1.49E-03	potential residence	1.71E-08	4.15E-07	3.87E-07	5.97E-08	0.88	0.00	6.03E-04	1.33E-04	1.20E-04	2.23E-04	3.28E-04	1.41E-03
568492.29_4180846.94	568492.29	4180846.94	6.31E-04	1.29E-04	1.26E-04	2.18E-04	3.16E-04	1.42E-03	potential residence	1.64E-08	3.96E-07	3.70E-07	5.71E-08	0.84	0.00	5.88E-04	1.29E-04	1.20E-04	2.07E-04	3.00E-04	1.34E-03
568512.29_4180846.94	568512.29	4180846.94	6.16E-04	1.25E-04	1.26E-04	2.02E-04	2.90E-04	1.36E-03	potential residence	1.57E-08	3.80E-07	3.54E-07	5.46E-08	0.80	0.00	5.74E-04	1.25E-04	1.20E-04	1.93E-04	2.76E-04	1.29E-03
568532.29_4180846.94	568532.29	4180846.94	6.02E-04	1.21E-04	1.27E-04	1.89E-04	2.69E-04	1.31E-03	potential residence	1.51E-08	3.65E-07	3.41E-07	5.25E-08	0.77	0.00	5.61E-04	1.21E-04	1.20E-04	1.80E-04	2.56E-04	1.24E-03
568552.29_4180846.94	568552.29	4180846.94	5.86E-04	1.17E-04	1.26E-04	1.76E-04	2.48E-04	1.25E-03	potential residence	1.44E-08	3.50E-07	3.26E-07	5.03E-08	0.74	0.00	5.46E-04	1.17E-04	1.20E-04	1.68E-04	2.36E-04	1.19E-03
568572.29_4180846.94	568572.29	4180846.94	5.69E-04	1.13E-04	1.25E-04	1.65E-04	2.30E-04	1.20E-03	potential residence	1.38E-08	3.35E-07	3.13E-07	4.83E-08	0.71	0.00	5.31E-04	1.13E-04	1.19E-04	1.57E-04	2.18E-04	1.14E-03
568592.29_4180846.94	568592.29	4180846.94	5.57E-04	1.09E-04	1.25E-04	1.55E-04	2.15E-04	1.16E-03	potential residence	1.34E-08	3.24E-07	3.03E-07	4.67E-08	0.69	0.00	5.19E-04	1.09E-04	1.19E-04	1.48E-04	2.04E-04	1.10E-03
568612.29_4180846.94	568612.29	4180846.94	5.45E-04	1.05E-04	1.25E-04	1.47E-04	2.01E-04	1.12E-03	potential residence	1.29E-08	3.13E-07	2.93E-07	4.51E-08	0.66	0.00	5.08E-04	1.05E-04	1.19E-04	1.40E-04	1.91E-04	1.06E-03
568632.29_4180846.94	568632.29	4180846.94	5.32E-04	1.02E-04	1.24E-04	1.38E-04	1.88E-04	1.08E-03	potential residence	1.25E-08	3.03E-07	2.83E-07	4.36E-08	0.64	0.00	4.96E-04	1.02E-04	1.18E-04	1.32E-04	1.79E-04	1.03E-03
568652.29_4180846.94	568652.29	4180846.94	5.20E-04	9.84E-05	1.23E-04	1.31E-04	1.77E-04	1.05E-03	potential residence	1.21E-08	2.93E-07	2.74E-07	4.22E-08	0.62	0.00	4.85E-04	9.84E-05	1.17E-04	1.25E-04	1.68E-04	9.93E-04
568672.29_4180846.94	568672.29	4180846.94	5.06E-04	9.50E-05	1.22E-04	1.24E-04	1.66E-04	1.01E-03	potential residence	1.17E-08	2.83E-07	2.64E-07	4.07E-08	0.60	0.00	4.72E-04	9.50E-05	1.16E-04	1.18E-04	1.57E-04	9.58E-04
568692.29_4180846.94	568692.29	4180846.94	4.94E-04	9.19E-05	1.21E-04	1.17E-04	1.56E-04	9.79E-04	potential residence	1.13E-08	2.73E-07	2.55E-07	3.94E-08	0.58	0.00	4.60E-04	9.19E-05	1.15E-04	1.11E-04	1.48E-04	9.26E-04
568712.29_4180846.94	568712.29	4180846.94	4.82E-04	8.89E-05	1.20E-04	1.11E-04	1.46E-04	9.48E-04	potential residence	1.09E-08	2.65E-07	2.47E-07	3.81E-08	0.56	0.00	4.49E-04	8.89E-05	1.14E-04	1.05E-04	1.39E-04	8.97E-04
568732.29_4180846.94	568732.29	4180846.94	4.72E-04	8.64E-05	1.20E-04	1.06E-04	1.39E-04	9.22E-04	potential residence	1.06E-08	2.58E-07	2.40E-07	3.71E-08	0.55	0.00	4.40E-04	8.64E-05	1.14E-04	1.00E-04	1.32E-04	8.73E-04
568752.29_4180846.94	568752.29	4180846.94	4.63E-04	8.40E-05	1.20E-04	1.01E-04	1.32E-04	9.00E-04	potential residence	1.04E-08	2.51E-07	2.35E-07	3.62E-08	0.53	0.00	4.32E-04	8.40E-05	1.14E-04	9.64E-05	1.26E-04	8.52E-04
568772.29_4180846.94	568772.29	4180846.94	4.53E-04	8.15E-05	1.19E-04	9.68E-05	1.26E-04	8.76E-04	potential residence	1.01E-08	2.45E-07	2.28E-07	3.52E-08	0.52	0.00	4.23E-04	8.15E-05	1.13E-04	9.21E-05	1.19E-04	8.29E-04
568792.29_4180846.94	568792.29	4180846.94	4.43E-04	7.92E-05	1.18E-04	9.24E-05	1.19E-04	8.51E-04	potential residence	9.82E-09	2.38E-07	2.22E-07	3.42E-08	0.50	0.00	4.13E-04	7.92E-05	1.12E-04	8.79E-05	1.13E-04	8.05E-04
568812.29_4180846.94	568812.29	4180846.94	4.34E-04	7.70E-05	1.17E-04	8.86E-05	1.13E-04	8.30E-04	potential residence	9.57E-09	2.32E-07	2.16E-07	3.34E-08	0.49	0.00	4.05E-04	7.70E-05	1.11E-04	8.42E-05	1.08E-04	7.85E-04
567412.29_4180866.94	567412.29	4180866.94	2.23E-04	3.42E-05	7.04E-05	2.03E-05	2.07E-05	3.68E-04	potential residence	4.24E-09	1.03E-07	9.59E-08	1.48E-08	0.22	0.00	2.08E-04	3.42E-05	6.69E-05	1.93E-05	1.97E-05	3.48E-04
567432.29_4180866.94	567432.29	4180866.94	2.35E-04	3.52E-05	7.25E-05	2.11E-05	2.15E-05	3.85E-04	potential residence	4.44E-09	1.08E-07	1.00E-07	1.55E-08	0.23	0.00	2.19E-04	3.52E-05	6.89E-05	2.01E-05	2.05E-05	3.64E-04
567452.29_4180866.94	567452.29	4180866.94	2.48E-04	3.63E-05	7.46E-05	2.20E-05	2.24E-05	4.04E-04	potential residence	4.65E-09	1.13E-07	1.05E-07	1.62E-08	0.24	0.00	2.31E-04	3.63E-05	7.10E-05	2.09E-05	2.14E-05	3.81E-04
567472.29_4180866.94	567472.29	4180866.94	2.63E-04	3.74E-05	7.69E-05	2.30E-05	2.34E-05	4.23E-04	potential residence	4.88E-09	1.18E-07	1.10E-07	1.70E-08	0.25	0.00	2.45E-04	3.74E-05	7.31E-05	2.19E-05	2.23E-05	3.99E-04
567492.29_4180866.94	567492.29	4180866.94	2.78E-04	3.86E-05	7.91E-05	2.40E-05	2.45E-05	4.44E-04	potential residence	5.12E-09	1.24E-07	1.16E-07	1.79E-08	0.26	0.00	2.59E-04	3.86E-05	7.52E-05	2.29E-05	2.33E-05	4.19E-04
567512.29_4180866.94	567512.29	4180866.94	2.95E-04	4.00E-05	8.13E-05	2.52E-05	2.57E-05	4.67E-04	potential residence	5.39E-09	1.30E-07	1.22E-07	1.88E-08	0.28	0.00	2.75E-04	4.00E-05	7.73E-05	2.39E-05	2.44E-05	4.41E-04
567532.29_4180866.94	567532.29	4180866.94	3.14E-04	4.13E-05	8.35E-05	2.64E-05	2.69E-05	4.92E-04	potential residence	5.67E-09	1.37E-07	1.28E-07	1.98E-08	0.29	0.00	2.92E-04	4.13E-05	7.95E-05	2.51E-05	2.56E-05	4.64E-04
567552.29_4180866.94	567552.29	4180866.94	3.33E-04	4.28E-05	8.57E-05	2.77E-05	2.83E-05	5.18E-04	potential residence	5.97E-09	1.45E-07	1.35E-07	2.08E-08	0.31	0.00	3.11E-04	4.28E-05	8.16E-05	2.64E-05	2.69E-05	4.88E-04
567572.29_4180866.94	567572.29	4180866.94	3.54E-04	4.43E-05	8.79E-05	2.92E-05	2.98E-05	5.45E-04	potential residence	6.29E-09	1.52E-07	1.42E-07	2.19E-08	0.32	0.00	3.30E-04	4.43E-05	8.36E-05	2.78E-05	2.84E-05	5.14E-04
567592.29_4180866.94	567592.29	4180866.94	3.76E-04	4.61E-05	8.99E-05	3.09E-05	3.15E-05	5.75E-04	potential residence	6.63E-09	1.60E-07	1.50E-07	2.31E-08	0.34	0.00	3.51E-04	4.61E-05	8.56E-05	2.94E-05	3.00E-05	5.42E-04
567612.29_4180866.94	567612.29	4180866.94	4.01E-04	4.82E-05	9.20E-05	3.27E-05	3.34E-05	6.07E-04	potential residence	7.00E-09	1.69E-07	1.58E-07	2.44E-08	0.36	0.00	3.74E-04	4.82E-05	8.75E-05	3.11E-05	3.17E-05	5.72E-04
567632.29_4180866.94	567632.29	4180866.94	4.27E-04	5.05E-05	9.39E-05	3.46E-05	3.54E-05	6.41E-04	potential residence	7.39E-09	1.79E-07	1.67E-07	2.58E-08	0.38	0.00	3.98E-04	5.05E-05	8.93E-05	3.29E-05	3.37E-05	6.04E-04

567652.29_4180866.94	567652.29	4180866.94	4.54E-04	5.27E-05	9.58E-05	3.68E-05	3.76E-05	6.77E-04	potential residence	7.81E-09	1.89E-07	1.76E-07	2.72E-08	0.40	0.00	4.23E-04	5.27E-05	9.11E-05	3.50E-05	3.58E-05	6.38E-04
567672.29_4180866.94	567672.29	4180866.94	4.83E-04	5.54E-05	9.75E-05	3.93E-05	4.02E-05	7.15E-04	potential residence	8.24E-09	2.00E-07	1.86E-07	2.87E-08	0.42	0.00	4.50E-04	5.54E-05	9.27E-05	3.74E-05	3.82E-05	6.74E-04
567692.29_4180866.94	567692.29	4180866.94	5.13E-04	5.78E-05	9.91E-05	4.20E-05	4.30E-05	7.55E-04	potential residence	8.70E-09	2.11E-07	1.97E-07	3.03E-08	0.45	0.00	4.78E-04	5.78E-05	9.43E-05	4.00E-05	4.09E-05	7.11E-04
567712.29_4180866.94	567712.29	4180866.94	5.42E-04	6.07E-05	1.00E-04	4.52E-05	4.63E-05	7.94E-04	potential residence	9.16E-09	2.22E-07	2.07E-07	3.19E-08	0.47	0.00	5.05E-04	6.07E-05	9.56E-05	4.30E-05	4.40E-05	7.48E-04
567732.29_4180866.94	567732.29	4180866.94	5.70E-04	6.35E-05	1.02E-04	4.89E-05	5.00E-05	8.34E-04	potential residence	9.61E-09	2.33E-07	2.17E-07	3.35E-08	0.49	0.00	5.31E-04	6.35E-05	9.67E-05	4.65E-05	4.76E-05	7.86E-04
567752.29_4180866.94	567752.29	4180866.94	5.98E-04	6.70E-05	1.03E-04	5.31E-05	5.44E-05	8.75E-04	potential residence	1.01E-08	2.44E-07	2.28E-07	3.52E-08	0.52	0.00	5.57E-04	6.70E-05	9.77E-05	5.05E-05	5.17E-05	8.24E-04
567772.29_4180866.94	567772.29	4180866.94	6.17E-04	7.03E-05	1.04E-04	5.81E-05	5.95E-05	9.08E-04	potential residence	1.05E-08	2.54E-07	2.37E-07	3.65E-08	0.54	0.00	5.75E-04	7.03E-05	9.85E-05	5.53E-05	5.66E-05	8.56E-04
567792.29_4180866.94	567792.29	4180866.94	6.41E-04	7.38E-05	1.04E-04	6.40E-05	6.56E-05	9.48E-04	potential residence	1.09E-08	2.65E-07	2.47E-07	3.81E-08	0.56	0.00	5.97E-04	7.38E-05	9.94E-05	6.09E-05	6.24E-05	8.94E-04
567812.29_4180866.94	567812.29	4180866.94	6.62E-04	7.80E-05	1.05E-04	7.12E-05	7.29E-05	9.89E-04	potential residence	1.14E-08	2.76E-07	2.58E-07	3.98E-08	0.59	0.00	6.17E-04	7.80E-05	1.00E-04	6.77E-05	6.93E-05	9.32E-04
567832.29_4180866.94	567832.29	4180866.94	6.83E-04	8.24E-05	1.06E-04	8.00E-05	8.18E-05	1.03E-03	potential residence	1.19E-08	2.88E-07	2.69E-07	4.15E-08	0.61	0.00	6.36E-04	8.24E-05	1.01E-04	7.61E-05	7.78E-05	9.74E-04
567852.29_4180866.94	567852.29	4180866.94	7.02E-04	8.71E-05	1.08E-04	9.11E-05	9.29E-05	1.08E-03	potential residence	1.25E-08	3.02E-07	2.82E-07	4.34E-08	0.64	0.00	6.55E-04	8.71E-05	1.02E-04	8.66E-05	8.84E-05	1.02E-03
567872.29_4180866.94	567872.29	4180866.94	7.19E-04	9.17E-05	1.09E-04	1.06E-04	1.07E-04	1.13E-03	potential residence	1.31E-08	3.16E-07	2.95E-07	4.55E-08	0.67	0.00	6.71E-04	9.17E-05	1.03E-04	1.00E-04	1.02E-04	1.07E-03
567892.29_4180866.94	567892.29	4180866.94	7.34E-04	9.64E-05	1.10E-04	1.25E-04	1.25E-04	1.19E-03	potential residence	1.37E-08	3.32E-07	3.10E-07	4.78E-08	0.70	0.00	6.84E-04	9.64E-05	1.05E-04	1.19E-04	1.19E-04	1.12E-03
567912.29_4180866.94	567912.29	4180866.94	7.45E-04	1.02E-04	1.11E-04	1.51E-04	1.49E-04	1.26E-03	potential residence	1.45E-08	3.51E-07	3.28E-07	5.05E-08	0.74	0.00	6.94E-04	1.02E-04	1.06E-04	1.44E-04	1.41E-04	1.19E-03
567932.29_4180866.94	567932.29	4180866.94	7.53E-04	1.07E-04	1.12E-04	1.88E-04	1.79E-04	1.34E-03	potential residence	1.54E-08	3.74E-07	3.49E-07	5.38E-08	0.79	0.00	7.02E-04	1.07E-04	1.07E-04	1.79E-04	1.70E-04	1.26E-03
567952.29_4180866.94	567952.29	4180866.94	7.65E-04	1.11E-04	1.13E-04	2.39E-04	2.16E-04	1.44E-03	potential residence	1.66E-08	4.03E-07	3.76E-07	5.80E-08	0.85	0.00	7.13E-04	1.11E-04	1.08E-04	2.27E-04	2.06E-04	1.36E-03
567992.29_4180866.94	567992.29	4180866.94	7.88E-04	1.49E-04	1.15E-04	3.95E-04	3.17E-04	1.76E-03	potential residence	2.03E-08	4.93E-07	4.60E-07	7.09E-08	1.04	0.00	7.35E-04	1.49E-04	1.10E-04	3.76E-04	3.02E-04	1.67E-03
568012.29_4180866.94	568012.29	4180866.94	7.93E-04	1.64E-04	1.16E-04	5.10E-04	3.86E-04	1.97E-03	potential residence	2.27E-08	5.50E-07	5.13E-07	7.91E-08	1.16	0.00	7.39E-04	1.64E-04	1.10E-04	4.85E-04	3.68E-04	1.87E-03
568032.29_4180866.94	568032.29	4180866.94	7.99E-04	1.68E-04	1.16E-04	6.64E-04	4.74E-04	2.22E-03	potential residence	2.56E-08	6.20E-07	5.79E-07	8.93E-08	1.31	0.00	7.45E-04	1.68E-04	1.11E-04	6.32E-04	4.51E-04	2.11E-03
568052.29_4180866.94	568052.29	4180866.94	8.01E-04	1.69E-04	1.17E-04	8.67E-04	5.83E-04	2.54E-03	potential residence	2.92E-08	7.08E-07	6.61E-07	1.02E-07	1.50	0.00	7.47E-04	1.69E-04	1.11E-04	8.25E-04	5.55E-04	2.41E-03
568072.29_4180866.94	568072.29	4180866.94	8.03E-04	1.58E-04	1.17E-04	1.14E-03	7.19E-04	2.93E-03	potential residence	3.38E-08	8.19E-07	7.65E-07	1.18E-07	1.74	0.00	7.48E-04	1.58E-04	1.11E-04	1.08E-03	6.84E-04	2.78E-03
568232.29_4180866.94	568232.29	4180866.94	7.67E-04	1.17E-04	1.18E-04	7.49E-04	1.23E-03	2.98E-03	potential residence	3.44E-08	8.32E-07	7.77E-07	1.20E-07	1.76	0.00	7.15E-04	1.17E-04	1.12E-04	7.13E-04	1.17E-03	2.83E-03
568252.29_4180866.94	568252.29	4180866.94	7.53E-04	1.21E-04	1.17E-04	6.34E-04	1.00E-03	2.63E-03	potential residence	3.03E-08	7.34E-07	6.85E-07	1.06E-07	1.55	0.00	7.02E-04	1.21E-04	1.11E-04	6.04E-04	9.54E-04	2.49E-03
568272.29_4180866.94	568272.29	4180866.94	7.41E-04	1.26E-04	1.17E-04	5.49E-04	8.48E-04	2.38E-03	potential residence	2.74E-08	6.65E-07	6.20E-07	9.57E-08	1.41	0.00	6.91E-04	1.26E-04	1.11E-04	5.23E-04	8.07E-04	2.26E-03
568292.29_4180866.94	568292.29	4180866.94	7.28E-04	1.30E-04	1.17E-04	4.81E-04	7.31E-04	2.19E-03	potential residence	2.52E-08	6.11E-07	5.70E-07	8.79E-08	1.29	0.00	6.79E-04	1.30E-04	1.11E-04	4.58E-04	6.96E-04	2.07E-03
568312.29_4180866.94	568312.29	4180866.94	7.15E-04	1.32E-04	1.17E-04	4.27E-04	6.42E-04	2.03E-03	potential residence	2.34E-08	5.68E-07	5.30E-07	8.17E-08	1.20	0.00	6.67E-04	1.32E-04	1.12E-04	4.06E-04	6.10E-04	1.93E-03
568332.29_4180866.94	568332.29	4180866.94	6.98E-04	1.33E-04	1.16E-04	3.79E-04	5.64E-04	1.89E-03	potential residence	2.18E-08	5.28E-07	4.93E-07	7.60E-08	1.12	0.00	6.50E-04	1.33E-04	1.11E-04	3.61E-04	5.37E-04	1.79E-03
568372.29_4180866.94	568372.29	4180866.94	6.67E-04	1.32E-04	1.16E-04	3.08E-04	4.52E-04	1.67E-03	potential residence	1.93E-08	4.68E-07	4.37E-07	6.73E-08	0.99	0.00	6.21E-04	1.32E-04	1.11E-04	2.93E-04	4.30E-04	1.59E-03
568392.29_4180866.94	568392.29	4180866.94	6.52E-04	1.30E-04	1.17E-04	2.82E-04	4.09E-04	1.59E-03	potential residence	1.83E-08	4.44E-07	4.14E-07	6.38E-08	0.94	0.00	6.08E-04	1.30E-04	1.11E-04	2.68E-04	3.89E-04	1.51E-03
568412.29_4180866.94	568412.29	4180866.94	6.38E-04	1.27E-04	1.17E-04	2.59E-04	3.73E-04	1.51E-03	potential residence	1.75E-08	4.23E-07	3.95E-07	6.09E-08	0.90	0.00	5.95E-04	1.27E-04	1.11E-04	2.47E-04	3.55E-04	1.43E-03
568432.29_4180866.94	568432.29	4180866.94	6.25E-04	1.24E-04	1.18E-04	2.41E-04	3.42E-04	1.45E-03	potential residence	1.67E-08	4.05E-07	3.78E-07	5.83E-08	0.86	0.00	5.83E-04	1.24E-04	1.12E-04	2.29E-04	3.26E-04	1.37E-03
568452.29_4180866.94	568452.29	4180866.94	6.09E-04	1.21E-04	1.18E-04	2.22E-04	3.13E-04	1.38E-03	potential residence	1.59E-08	3.86E-07	3.60E-07	5.56E-08	0.82	0.00	5.68E-04	1.21E-04	1.12E-04	2.11E-04	2.98E-04	1.31E-03
568472.29_4180866.94	568472.29	4180866.94	5.94E-04	1.17E-04	1.18E-04	2.07E-04	2.89E-04	1.32E-03	potential residence	1.53E-08	3.70E-07	3.45E-07	5.32E-08	0.78	0.00	5.54E-04	1.17E-04	1.12E-04	1.96E-04	2.75E-04	1.25E-03
568492.29_4180866.94	568492.29	4180866.94	5.77E-04	1.14E-04	1.17E-04	1.92E-04	2.66E-04	1.27E-03	potential residence	1.46E-08	3.53E-07	3.30E-07	5.09E-08	0.75	0.00	5.38E-04	1.14E-04	1.12E-04	1.82E-04	2.53E-04	1.20E-03
568512.29_4180866.94	568512.29	4180866.94	5.61E-04	1.10E-04	1.17E-04	1.78E-04	2.46E-04	1.21E-03	potential residence	1.40E-08	3.39E-07	3.16E-07	4.87E-08	0.72	0.00	5.23E-04	1.10E-04	1.11E-04	1.69E-04	2.34E-04	1.15E-03
568532.29_4180866.94	568532.29	4180866.94	5.50E-04	1.07E-04	1.17E-04	1.69E-04	2.31E-04	1.17E-03	potential residence	1.35E-08	3.28E-07	3.06E-07	4.72E-08	0.69	0.00	5.13E-04	1.07E-04	1.12E-04	1.60E-04	2.19E-04	1.11E-03
568552.29_4180866.94	568552.29	4180866.94	5.38E-04	1.04E-04	1.17E-04	1.59E-04	2.16E-04	1.13E-03	potential residence	1.31E-08	3.17E-07	2.95E-07	4.56E-08	0.67	0.00	5.01E-04	1.04E-04	1.12E-04	1.51E-04	2.05E-04	1.07E-03
568572.29_4180866.94	568572.29	4180866.94	5.25E-04	1.01E-04	1.17E-04	1.50E-04	2.02E-04	1.10E-03	potential residence	1.26E-08	3.06E-07	2.85E-07	4.40E-08	0.65	0.00	4.90E-04	1.01E-04	1.11E-04	1.42E-04	1.93E-04	1.04E-03
568592.29_4180866.94	568592.29	4180866.94	5.13E-04	9.79E-05	1.17E-04	1.41E-04	1.90E-04	1.06E-03	potential residence	1.22E-08	2.96E-07	2.76E-07	4.26E-08	0.63	0.00	4.78E-04	9.79E-05	1.11E-04	1.34E-04	1.81E-04	1.00E-03
568612.29_4180866.94	568612.29	4180866.94	5.01E-04	9.50E-05	1.16E-04	1.34E-04	1.79E-04	1.02E-03	potential residence	1.18E-08	2.86E-07	2.67E-07	4.12E-08	0.61	0.00	4.67E-04	9.50E-05	1.10E-04	1.27E-04	1.70E-04	9.69E-04
568632.29_4180866.94	568632.29	4180866.94	4.88E-04	9.20E-05	1.15E-04	1.26E-04	1.68E-04	9.88E-04	potential residence	1.14E-08	2.76E-07	2.58E-07	3.97E-08	0.58	0.00	4.55E-04	9.20E-05	1.09E-04	1.19E-04	1.59E-04	9.35E-04
568652.29_4180866.94	568652.29	4180866.94	4.78E-04	8.94E-05	1.15E-04	1.20E-04	1.59E-04	9.61E-04	potential residence	1.11E-08	2.68E-07	2.50E-07	3.86E-08	0.57	0.00	4.46E-04	8.94E-05	1.09E-04	1.14E-04	1.51E-04	9.09E-04
568672.29_4180866.94	568672.29	4180866.94	4.67E-04	8.67E-05	1.14E-04	1.14E-04	1.50E-04	9.32E-04	potential residence	1.07E-08	2.60E-07	2.43E-07	3.74E-08	0.55	0.00	4.35E-04	8.67E-05	1.09E-04	1.08E-04	1.43E-04	8.82E-04
568692.29_4180866.94	568692.29	4180866.94	4.55E-04	8.41E-05	1.13E-04	1.08E-04	1.41E-04	9.01E-04	potential residence	1.04E-08	2.52E-07	2.35E-07	3.62E-08	0.53	0.00	4.24E-04	8.41E-05	1.07E-04	1.02E-04	1.34E-04	8.53E-04
568712.29_4180866.94	568712.29	4180866.94	4.47E-04	8.18E-05	1.13E-04	1.03E-04	1.34E-04	8.79E-04	potential residence	1.01E-08	2.45E-07	2.29E-07	3.53E-08	0.52	0.00	4.16E-04	8.18E-05	1.07E-04	9.81E-05	1.28E-04	8.32E-04
568732.29_4180866.94	568732.29	4180866.94	4.37E-04	7.96E-05	1.12E-04	9.86E-05	1.28E-04	8.55E-04	potential residence	9.86E-09	2.39E-07	2.23E-07	3.44E-08	0.51	0.00	4.08E-04	7.96E-05	1.07E-04	9.38E-05	1.21E-04	8.09E-04
568752.29_4180866.94	568752.29	4180866.94	4.29E-04	7.75E-05	1.12E-04	9.46E-05	1.22E-04	8.35E-04	potential residence	9.63E-09	2.33E-07	2.18E-07	3.36E-08	0.49	0.00	4.00E-04	7.75E-05	1.07E-04	9.00E-05	1.16E-04	7.90E-04
568792.29_4180866.94	568792.29	4180866.94	4.12E-04	7.36E-05	1.11E-04	8.68E-05	1.11E-04	7.93E-04	potential residence	9.15E-09	2.22E-07	2.07E-07	3.19E-08	0.47	0.00	3.84E-04	7.36E-05	1.05E-04	8.26E-05	1.05E-04	7.51E-04
567412.29_4180886.94	567412.29	4180886.94	2.20E-04	3.35E-05	6.89E-05	1.99E-05	2.03E-05	3.63E-04	potential residence	4.18E-09	1.01E-07	9.46E-08	1.46E-08	0.21	0.00	2.05E-04	3.35E-05	6.56E-05	1.89E-05	1.93E-05	3.43E-04
567432.29_4180886.94	567432.29	4180886.94	2.32E-04	3.44E-05	7.09E-05	2.07E-05	2.11E-05	3.79E-04	potential residence	4.37E-09	1.06E-07	9.89E-08	1.52E-08	0.22	0.00	2.17E-04	3.44E-05	6.74E-05	1.97E-05	2.01E-05	3.58E-04
567452.29_4180886.94	567452.29	4180886.94	2.45E-04	3.53E-05	7.29E-05	2.16E-05	2.20E-05	3.97E-04	potential residence	4.57E-09	1.11E-07	1.03E-07	1.59E-08	0.23	0.00	2.28E-04	3.53E-05	6.93E-05	2.05E-05	2.09E-05	3.75E-04
567472.29_4180886.94	567472.29	4180886.94	2.59E-04	3.64E-05	7.49E-05	2.25E-05	2.30E-05	4.16E-04	potential residence	4.79E-09	1.16E-07	1.08E-07	1.67E-08	0.25	0.00	2.41E-04	3.64E-05	7.12E-05	2.14E-05	2.18E-05	3.92E-04
567492.29_4180886.94	567492.29	4180886.94	2.74E-04	3.76E-05	7.69E-05	2.35E-05	2.40E-05	4.36E-04	potential residence	5.03E-09	1.22E-07	1.14E-07	1.75E-08	0.26	0.00	2.55E-04	3.76E-05	7.32E-05	2.24E-05	2.28E-05	4.11E-04
567512.29_4180886.94	567512.29	4180886.94	2.90E-04	3.88E-05	7.90E-05	2.46E-05	2.51E-05	4.58E-04	potential residence	5.28E-09	1.28E-07	1.19E-07	1.84E-08	0.27	0.00	2.71E-04	3.88E-05	7.51E-05	2.34E-05	2.39E-05	4.32E-04
567532.29_4180886.94	567532.29	4180886.94	3.07E-04	4.00E-05	8.09E-05	2.58E-05	2.64E-05	4.80E-04	potential residence	5.54E-09	1.34E-07	1.25E-07	1.93E-08	0.28	0.00	2.86E-04	4.00E-05	7.70E-05	2.45E-05	2.51E-05	4.53E-04
567552.29_4180886.94	567552.29	4180886.94	3.25E-04	4.13E-05	8.29E-05	2.71E-05	2.77E-05	5.04E-04	potential residence	5.81E-09	1.41E-07	1.31E-07	2.03E-08	0.30	0.00	3.03E-04	4.13E-05	7.89E-05	2.58E-05	2.63E-05	4.76E-04
567572.29_4180886.94	567572.29	4180886.94	3.45E-04	4.30E-05	8.48E-05	2.85E-05	2.92E-05	5.30E-04	potential residence	6.11E-09	1.48E-07	1.38E-07	2.13E-08	0.31	0.00	3.22E-04	4.30E-05	8.06E-05	2.71E-05	2.77E-05	5.00E-04
567592.29_4180886.94	567592.29	4180886.94	3.66E-04	4.47E-05	8.66E-05	3.01E-05	3.07E-05	5.58E-04	potential residence	6.43E-09	1.56E-07	1.45E-07	2.24E-08	0.33	0.00	3.41E-04	4.47E-05	8.24E-05	2.86E-05	2.92E-05	5.26E-04
567612.29_4180886.94	567612.29	4180886.94	3.88E-04	4.66E-05	8.84E-05	3.18E-05	3.25E-05	5.88E-04	potential residence	6.77E-09	1.64E-07	1.53E-07	2.36E-08	0.35	0.00	3.62E-04	4.66E-05	8.41E-05	3.02E-05	3.09E-05	5.54E-04
567632.29_4180886.94	567632.29	4180886.94	4.11E-04	4.81E-05	9.01E-05	3.37E-05	3.44E-05	6.18E-04	potential residence	7.12E-09	1.72E-07	1.61E-07	2.48E-08	0.37	0.00	3.84E-04	4.81E-05	8.57E-05	3.20E-05	3.28E-05	5.82E-04
567652.29_4180886.94	567652.29	4180886.94	4.36E-04	5.02E-05	9.17E-05	3.57E-05	3.66E-05	6.50E-04	potential residence	7.50E-09	1.82E-07	1.70E-07	2.61E-08	0.38	0.00	4.07E-04	5.02E-05	8.72E-05	3.40E-05	3.48E-05	6.13E-04
567672.29_4180886.94	567672.29	4180886.94	4.61E-04	5.23E-05	9.31E-05	3.81E-05	3.90E-05	6.83E-04	potential residence	7.88E-09	1.91E-07	1.78E-07	2.75E-08	0.40	0.00	4.30E-04	5.23E-05	8.86E-05	3.62E-05	3.71E-05	6.44E-04
567692.29_4180886.94	567692.29	4180886.94	4.85E-04	5.50E-05	9.43E-05	4.08E-05	4.18E-05	7.17E-04	potential residence	8.26E-09	2.00E-07	1.87E-07	2.88E-08	0.42	0.00	4.52E-04	5.50E-05	8.97E-05	3.88E-05	3.97E-05	6.75E-04
567712.29_4180886.94	567712.29	4180886.94	5.10E-04	5.74E-05	9.55E-05	4.37E-05	4.48E-05	7.52E-04	potential residence	8.67E-09	2.10E-07	1.96E-07	3.02E-08	0.44	0.00	4.76E-04	5.74E-05	9.09E-05	4.16E-05	4.26E-05	7.08E-04
567732.29_4180886.94	567732.29	4180886.94	5.33E-04	6.03E-05	9.65E-05	4.72E-05	4.84E-05	7.86E-04	potential residence	9.06E-09	2.19E-07	2.05E-07	3.16E-08	0.46	0.00	4.97E-04	6.03E-05	9.18E-05	4.49E-05	4.61E-05	7.40E-04
567752.29_4180886.94	567752.29	4180886.94	5.50E-04	6.33E-05	9.73E-05	5.12E-05	5.26E-05	8.15E-04	potential residence	9.39E-09	2.27E-07	2.12E-07	3.27E-08	0.48	0.00	5.13E-04	6.33E-05	9.26E-05	4.87E-05	5.00E-05	7.68E-04
567772.29_4180886.94	567772.29	4180886.94	5.70E-04	6.66E-05	9.81E-05	5.59E-05	5.74E-05	8.48E-04	potential residence	9.77E-09	2.37E-07	2.21E-07	3.41E-08	0.50	0.00	5.31E-04	6.66E-05	9.33E-05	5.32E-05	5.46E-05	7.99E-04
567792.29_4180886.94	567792.29	4180886.94	5.88E-04	7.02E-05	9.88E-05	6.14E-05	6.31E-05	8.82E-04	potential residence	1.02E-08	2.46E-07	2.30E-07	3.54E-08	0.52	0.00	5.48E-04	7.02E-05	9.40E-05	5.84E-05	6.01E-05	8.31E-04
567812.29_4180886.94	567812.29	4180886.94	6.05E-04	7.34E-05	9.96E-05	6.81E-05	7.01E-05	9.16E-04	potential residence	1.06E-08	2.56E-07	2.39E-07	3.68E-08	0.54	0.00	5.64E-04	7.34E-05	9.48E-05	6.48E-05	6.67E-05	8.63E-04
567832.29_4180886.94	567832.29	4180886.94	6.20E-04	7.74E-05	1.00E-04	7.63E-05	7.86E-05	9.53E-04	potential residence	1.10E-08	2.66E-07	2.48E-07	3.83E-08	0.56	0.00	5.78E-04	7.74E-05	9.56E-05	7.26E-05	7.48E-05	8.99E-04
567852.29_4180886.94	567852.29	4180886.94	6.34E-04	8.18E-05	1.01E-04	8.67E-05	8.94E-05	9.93E-04	potential residence	1.14E-08	2.77E-07	2.59E-07	3.99E-08	0.59	0.00	5.91E-04	8.18E-05	9.65E-05	8.25E-05	8.51E-05	9.37E-04
567872.29_4180886.94	567872.29	4180886.94	6.48E-04	8.59E-05	1.03E-04	1.00E-04	1.03E-04	1.04E-03	potential residence	1.20E-08	2.90E-07	2.71E-07	4.18E-08	0.62	0.00	6.04E-04	8.59E-05	9.75E-05	9.54E-05	9.82E-05	9.81E-04

567892.29_4180886.94	567892.29	4180886.94	6.60E-04	9.04E-05	1.04E-04	1.19E-04	1.22E-04	1.09E-03	potential residence	1.26E-08	3.05E-07	2.85E-07	4.40E-08	0.65	0.00	6.15E-04	9.04E-05	9.86E-05	1.13E-04	1.16E-04	1.03E-03
567912.29_4180886.94	567912.29	4180886.94	6.69E-04	9.45E-05	1.05E-04	1.45E-04	1.47E-04	1.16E-03	potential residence	1.34E-08	3.24E-07	3.02E-07	4.66E-08	0.69	0.00	6.24E-04	9.45E-05	9.96E-05	1.38E-04	1.40E-04	1.10E-03
567932.29_4180886.94	567932.29	4180886.94	6.75E-04	9.74E-05	1.06E-04	1.85E-04	1.83E-04	1.25E-03	potential residence	1.44E-08	3.48E-07	3.25E-07	5.01E-08	0.74	0.00	6.30E-04	9.74E-05	1.00E-04	1.76E-04	1.74E-04	1.18E-03
567952.29_4180886.94	567952.29	4180886.94	6.83E-04	9.98E-05	1.06E-04	2.49E-04	2.32E-04	1.37E-03	potential residence	1.58E-08	3.83E-07	3.57E-07	5.51E-08	0.81	0.00	6.37E-04	9.98E-05	1.01E-04	2.37E-04	2.21E-04	1.30E-03
567992.29_4180886.94	567992.29	4180886.94	7.00E-04	1.05E-04	1.08E-04	5.15E-04	3.87E-04	1.82E-03	potential residence	2.09E-08	5.07E-07	4.73E-07	7.30E-08	1.07	0.00	6.53E-04	1.05E-04	1.03E-04	4.90E-04	3.69E-04	1.72E-03
568012.29_4180886.94	568012.29	4180886.94	7.07E-04	1.17E-04	1.08E-04	7.47E-04	5.03E-04	2.18E-03	potential residence	2.51E-08	6.09E-07	5.69E-07	8.77E-08	1.29	0.00	6.59E-04	1.17E-04	1.03E-04	7.11E-04	4.78E-04	2.07E-03
568172.29_4180886.94	568172.29	4180886.94	7.04E-04	1.02E-04	1.09E-04	7.99E-04	1.36E-03	3.07E-03	potential residence	3.54E-08	8.57E-07	8.00E-07	1.23E-07	1.82	0.00	6.56E-04	1.02E-04	1.03E-04	7.60E-04	1.29E-03	2.91E-03
568192.29_4180886.94	568192.29	4180886.94	7.00E-04	1.01E-04	1.09E-04	6.86E-04	1.09E-03	2.68E-03	potential residence	3.09E-08	7.49E-07	6.99E-07	1.08E-07	1.59	0.00	6.53E-04	1.01E-04	1.04E-04	6.53E-04	1.03E-03	2.54E-03
568212.29_4180886.94	568212.29	4180886.94	6.95E-04	9.95E-05	1.09E-04	5.97E-04	9.03E-04	2.40E-03	potential residence	2.77E-08	6.71E-07	6.27E-07	9.66E-08	1.42	0.00	6.48E-04	9.95E-05	1.04E-04	5.68E-04	8.59E-04	2.28E-03
568232.29_4180886.94	568232.29	4180886.94	6.86E-04	9.94E-05	1.09E-04	5.22E-04	7.69E-04	2.19E-03	potential residence	2.52E-08	6.10E-07	5.70E-07	8.78E-08	1.29	0.00	6.40E-04	9.94E-05	1.03E-04	4.97E-04	7.31E-04	2.07E-03
568252.29_4180886.94	568252.29	4180886.94	6.76E-04	1.01E-04	1.08E-04	4.60E-04	6.66E-04	2.01E-03	potential residence	2.32E-08	5.62E-07	5.24E-07	8.08E-08	1.19	0.00	6.30E-04	1.01E-04	1.03E-04	4.38E-04	6.34E-04	1.91E-03
568272.29_4180886.94	568272.29	4180886.94	6.66E-04	1.05E-04	1.08E-04	4.11E-04	5.88E-04	1.88E-03	potential residence	2.17E-08	5.24E-07	4.90E-07	7.55E-08	1.11	0.00	6.21E-04	1.05E-04	1.03E-04	3.91E-04	5.60E-04	1.78E-03
568292.29_4180886.94	568292.29	4180886.94	6.56E-04	1.09E-04	1.08E-04	3.70E-04	5.26E-04	1.77E-03	potential residence	2.04E-08	4.94E-07	4.61E-07	7.11E-08	1.05	0.00	6.12E-04	1.09E-04	1.03E-04	3.52E-04	5.00E-04	1.68E-03
568312.29_4180886.94	568312.29	4180886.94	6.41E-04	1.12E-04	1.08E-04	3.31E-04	4.69E-04	1.66E-03	potential residence	1.91E-08	4.64E-07	4.33E-07	6.67E-08	0.98	0.00	5.97E-04	1.12E-04	1.02E-04	3.15E-04	4.46E-04	1.57E-03
568352.29_4180886.94	568352.29	4180886.94	6.18E-04	1.14E-04	1.08E-04	2.77E-04	3.89E-04	1.51E-03	potential residence	1.74E-08	4.21E-07	3.93E-07	6.06E-08	0.89	0.00	5.77E-04	1.14E-04	1.03E-04	2.64E-04	3.70E-04	1.43E-03
568372.29_4180886.94	568372.29	4180886.94	6.08E-04	1.14E-04	1.09E-04	2.56E-04	3.57E-04	1.44E-03	potential residence	1.66E-08	4.03E-07	3.76E-07	5.80E-08	0.85	0.00	5.67E-04	1.14E-04	1.03E-04	2.44E-04	3.40E-04	1.37E-03
568392.29_4180886.94	568392.29	4180886.94	5.95E-04	1.13E-04	1.09E-04	2.37E-04	3.28E-04	1.38E-03	potential residence	1.59E-08	3.85E-07	3.60E-07	5.55E-08	0.82	0.00	5.54E-04	1.13E-04	1.03E-04	2.25E-04	3.12E-04	1.31E-03
568412.29_4180886.94	568412.29	4180886.94	5.82E-04	1.11E-04	1.09E-04	2.20E-04	3.02E-04	1.32E-03	potential residence	1.53E-08	3.70E-07	3.45E-07	5.32E-08	0.78	0.00	5.42E-04	1.11E-04	1.04E-04	2.09E-04	2.88E-04	1.25E-03
568432.29_4180886.94	568432.29	4180886.94	5.70E-04	1.09E-04	1.09E-04	2.05E-04	2.80E-04	1.27E-03	potential residence	1.47E-08	3.56E-07	3.32E-07	5.12E-08	0.75	0.00	5.31E-04	1.09E-04	1.04E-04	1.95E-04	2.67E-04	1.21E-03
568452.29_4180886.94	568452.29	4180886.94	5.58E-04	1.06E-04	1.10E-04	1.92E-04	2.61E-04	1.23E-03	potential residence	1.41E-08	3.43E-07	3.20E-07	4.93E-08	0.73	0.00	5.20E-04	1.06E-04	1.04E-04	1.83E-04	2.48E-04	1.16E-03
568472.29_4180886.94	568472.29	4180886.94	5.44E-04	1.03E-04	1.10E-04	1.80E-04	2.43E-04	1.18E-03	potential residence	1.36E-08	3.29E-07	3.07E-07	4.74E-08	0.70	0.00	5.07E-04	1.03E-04	1.04E-04	1.71E-04	2.31E-04	1.12E-03
568492.29_4180886.94	568492.29	4180886.94	5.30E-04	1.01E-04	1.09E-04	1.69E-04	2.26E-04	1.14E-03	potential residence	1.31E-08	3.17E-07	2.96E-07	4.56E-08	0.67	0.00	4.94E-04	1.01E-04	1.04E-04	1.60E-04	2.15E-04	1.07E-03
568512.29_4180886.94	568512.29	4180886.94	5.17E-04	9.79E-05	1.09E-04	1.58E-04	2.12E-04	1.09E-03	potential residence	1.26E-08	3.06E-07	2.85E-07	4.40E-08	0.65	0.00	4.82E-04	9.79E-05	1.04E-04	1.51E-04	2.02E-04	1.04E-03
568532.29_4180886.94	568532.29	4180886.94	5.07E-04	9.53E-05	1.10E-04	1.50E-04	2.00E-04	1.06E-03	potential residence	1.22E-08	2.97E-07	2.77E-07	4.27E-08	0.63	0.00	4.73E-04	9.53E-05	1.04E-04	1.43E-04	1.90E-04	1.01E-03
568552.29_4180886.94	568552.29	4180886.94	4.96E-04	9.27E-05	1.09E-04	1.42E-04	1.89E-04	1.03E-03	potential residence	1.19E-08	2.87E-07	2.68E-07	4.14E-08	0.61	0.00	4.62E-04	9.27E-05	1.04E-04	1.35E-04	1.79E-04	9.74E-04
568572.29_4180886.94	568572.29	4180886.94	4.84E-04	9.02E-05	1.09E-04	1.35E-04	1.78E-04	9.96E-04	potential residence	1.15E-08	2.78E-07	2.60E-07	4.00E-08	0.59	0.00	4.52E-04	9.02E-05	1.04E-04	1.28E-04	1.69E-04	9.43E-04
568592.29_4180886.94	568592.29	4180886.94	4.72E-04	8.77E-05	1.08E-04	1.27E-04	1.68E-04	9.62E-04	potential residence	1.11E-08	2.69E-07	2.51E-07	3.87E-08	0.57	0.00	4.40E-04	8.77E-05	1.03E-04	1.21E-04	1.59E-04	9.11E-04
568612.29_4180886.94	568612.29	4180886.94	4.61E-04	8.53E-05	1.08E-04	1.20E-04	1.58E-04	9.32E-04	potential residence	1.07E-08	2.60E-07	2.43E-07	3.75E-08	0.55	0.00	4.30E-04	8.53E-05	1.02E-04	1.14E-04	1.51E-04	8.82E-04
568632.29_4180886.94	568632.29	4180886.94	4.50E-04	8.30E-05	1.07E-04	1.14E-04	1.50E-04	9.04E-04	potential residence	1.04E-08	2.53E-07	2.36E-07	3.64E-08	0.54	0.00	4.20E-04	8.30E-05	1.02E-04	1.09E-04	1.42E-04	8.56E-04
568652.29_4180886.94	568652.29	4180886.94	4.42E-04	8.09E-05	1.07E-04	1.10E-04	1.43E-04	8.82E-04	potential residence	1.02E-08	2.46E-07	2.30E-07	3.55E-08	0.52	0.00	4.12E-04	8.09E-05	1.02E-04	1.04E-04	1.36E-04	8.35E-04
568672.29_4180886.94	568672.29	4180886.94	4.34E-04	7.89E-05	1.07E-04	1.05E-04	1.36E-04	8.61E-04	potential residence	9.92E-09	2.40E-07	2.24E-07	3.46E-08	0.51	0.00	4.04E-04	7.89E-05	1.02E-04	1.00E-04	1.29E-04	8.14E-04
568692.29_4180886.94	568692.29	4180886.94	4.23E-04	7.68E-05	1.06E-04	9.98E-05	1.29E-04	8.34E-04	potential residence	9.62E-09	2.33E-07	2.17E-07	3.35E-08	0.49	0.00	3.94E-04	7.68E-05	1.01E-04	9.49E-05	1.22E-04	7.90E-04
568712.29_4180886.94	568712.29	4180886.94	4.14E-04	7.49E-05	1.06E-04	9.55E-05	1.23E-04	8.13E-04	potential residence	9.37E-09	2.27E-07	2.12E-07	3.27E-08	0.48	0.00	3.86E-04	7.49E-05	1.01E-04	9.09E-05	1.17E-04	7.69E-04
568732.29_4180886.94	568732.29	4180886.94	4.06E-04	7.31E-05	1.05E-04	9.15E-05	1.17E-04	7.92E-04	potential residence	9.14E-09	2.21E-07	2.07E-07	3.19E-08	0.47	0.00	3.78E-04	7.31E-05	1.00E-04	8.70E-05	1.11E-04	7.50E-04
568752.29_4180886.94	568752.29	4180886.94	3.97E-04	7.14E-05	1.05E-04	8.75E-05	1.12E-04	7.72E-04	potential residence	8.90E-09	2.16E-07	2.01E-07	3.10E-08	0.46	0.00	3.70E-04	7.14E-05	9.95E-05	8.32E-05	1.06E-04	7.31E-04
568772.29_4180886.94	568772.29	4180886.94	3.91E-04	6.99E-05	1.05E-04	8.47E-05	1.07E-04	7.58E-04	potential residence	8.74E-09	2.12E-07	1.98E-07	3.05E-08	0.45	0.00	3.65E-04	6.99E-05	9.96E-05	8.06E-05	1.02E-04	7.17E-04
568812.29_4180886.94	568812.29	4180886.94	3.76E-04	6.69E-05	1.03E-04	7.82E-05	9.83E-05	7.23E-04	potential residence	8.34E-09	2.02E-07	1.88E-07	2.91E-08	0.43	0.00	3.51E-04	6.69E-05	9.84E-05	7.44E-05	9.35E-05	6.84E-04
567412.29_4180906.94	567412.29	4180906.94	2.18E-04	3.27E-05	6.74E-05	1.95E-05	1.99E-05	3.57E-04	potential residence	4.12E-09	9.98E-08	9.32E-08	1.44E-08	0.21	0.00	2.03E-04	3.27E-05	6.41E-05	1.85E-05	1.89E-05	3.38E-04
567432.29_4180906.94	567432.29	4180906.94	2.29E-04	3.35E-05	6.93E-05	2.02E-05	2.07E-05	3.73E-04	potential residence	4.30E-09	1.04E-07	9.73E-08	1.50E-08	0.22	0.00	2.14E-04	3.35E-05	6.59E-05	1.93E-05	1.97E-05	3.52E-04
567452.29_4180906.94	567452.29	4180906.94	2.42E-04	3.45E-05	7.11E-05	2.11E-05	2.15E-05	3.90E-04	potential residence	4.50E-09	1.09E-07	1.02E-07	1.57E-08	0.23	0.00	2.26E-04	3.45E-05	6.76E-05	2.01E-05	2.05E-05	3.68E-04
567472.29_4180906.94	567472.29	4180906.94	2.55E-04	3.55E-05	7.29E-05	2.20E-05	2.25E-05	4.08E-04	potential residence	4.71E-09	1.14E-07	1.06E-07	1.64E-08	0.24	0.00	2.38E-04	3.55E-05	6.94E-05	2.09E-05	2.14E-05	3.85E-04
567492.29_4180906.94	567492.29	4180906.94	2.69E-04	3.65E-05	7.48E-05	2.30E-05	2.35E-05	4.27E-04	potential residence	4.92E-09	1.19E-07	1.11E-07	1.72E-08	0.25	0.00	2.51E-04	3.65E-05	7.11E-05	2.19E-05	2.23E-05	4.03E-04
567512.29_4180906.94	567512.29	4180906.94	2.85E-04	3.77E-05	7.66E-05	2.40E-05	2.45E-05	4.48E-04	potential residence	5.16E-09	1.25E-07	1.17E-07	1.80E-08	0.26	0.00	2.65E-04	3.77E-05	7.29E-05	2.29E-05	2.34E-05	4.22E-04
567532.29_4180906.94	567532.29	4180906.94	3.01E-04	3.91E-05	7.84E-05	2.52E-05	2.57E-05	4.69E-04	potential residence	5.41E-09	1.31E-07	1.22E-07	1.89E-08	0.28	0.00	2.81E-04	3.91E-05	7.46E-05	2.39E-05	2.45E-05	4.43E-04
567552.29_4180906.94	567552.29	4180906.94	3.18E-04	4.02E-05	8.01E-05	2.64E-05	2.70E-05	4.92E-04	potential residence	5.67E-09	1.37E-07	1.28E-07	1.98E-08	0.29	0.00	2.96E-04	4.02E-05	7.62E-05	2.51E-05	2.57E-05	4.64E-04
567572.29_4180906.94	567572.29	4180906.94	3.36E-04	4.15E-05	8.18E-05	2.78E-05	2.84E-05	5.15E-04	potential residence	5.94E-09	1.44E-07	1.34E-07	2.07E-08	0.30	0.00	3.13E-04	4.15E-05	7.78E-05	2.64E-05	2.70E-05	4.86E-04
567592.29_4180906.94	567592.29	4180906.94	3.55E-04	4.29E-05	8.34E-05	2.93E-05	2.99E-05	5.41E-04	potential residence	6.23E-09	1.51E-07	1.41E-07	2.17E-08	0.32	0.00	3.31E-04	4.29E-05	7.93E-05	2.78E-05	2.85E-05	5.10E-04
567612.29_4180906.94	567612.29	4180906.94	3.75E-04	4.48E-05	8.49E-05	3.09E-05	3.16E-05	5.67E-04	potential residence	6.54E-09	1.58E-07	1.48E-07	2.28E-08	0.34	0.00	3.50E-04	4.48E-05	8.08E-05	2.94E-05	3.01E-05	5.35E-04
567632.29_4180906.94	567632.29	4180906.94	3.96E-04	4.62E-05	8.64E-05	3.27E-05	3.35E-05	5.94E-04	potential residence	6.85E-09	1.66E-07	1.55E-07	2.39E-08	0.35	0.00	3.69E-04	4.62E-05	8.22E-05	3.11E-05	3.18E-05	5.60E-04
567652.29_4180906.94	567652.29	4180906.94	4.16E-04	4.82E-05	8.76E-05	3.47E-05	3.56E-05	6.22E-04	potential residence	7.18E-09	1.74E-07	1.62E-07	2.50E-08	0.37	0.00	3.88E-04	4.82E-05	8.34E-05	3.30E-05	3.38E-05	5.87E-04
567672.29_4180906.94	567672.29	4180906.94	4.34E-04	5.02E-05	8.88E-05	3.69E-05	3.79E-05	6.48E-04	potential residence	7.47E-09	1.81E-07	1.69E-07	2.60E-08	0.38	0.00	4.04E-04	5.02E-05	8.45E-05	3.51E-05	3.60E-05	6.10E-04
567692.29_4180906.94	567692.29	4180906.94	4.55E-04	5.25E-05	8.98E-05	3.94E-05	4.05E-05	6.77E-04	potential residence	7.80E-09	1.89E-07	1.76E-07	2.72E-08	0.40	0.00	4.24E-04	5.25E-05	8.55E-05	3.75E-05	3.85E-05	6.38E-04
567712.29_4180906.94	567712.29	4180906.94	4.79E-04	5.51E-05	9.08E-05	4.22E-05	4.34E-05	7.10E-04	potential residence	8.19E-09	1.98E-07	1.85E-07	2.86E-08	0.42	0.00	4.46E-04	5.51E-05	8.64E-05	4.02E-05	4.13E-05	6.69E-04
567732.29_4180906.94	567732.29	4180906.94	4.98E-04	5.77E-05	9.16E-05	4.55E-05	4.67E-05	7.40E-04	potential residence	8.53E-09	2.07E-07	1.93E-07	2.97E-08	0.44	0.00	4.65E-04	5.77E-05	8.72E-05	4.33E-05	4.45E-05	6.97E-04
567752.29_4180906.94	567752.29	4180906.94	5.11E-04	6.02E-05	9.23E-05	4.92E-05	5.06E-05	7.64E-04	potential residence	8.80E-09	2.13E-07	1.99E-07	3.07E-08	0.45	0.00	4.77E-04	6.02E-05	8.78E-05	4.68E-05	4.82E-05	7.20E-04
567772.29_4180906.94	567772.29	4180906.94	5.27E-04	6.32E-05	9.29E-05	5.36E-05	5.52E-05	7.91E-04	potential residence	9.12E-09	2.21E-07	2.06E-07	3.18E-08	0.47	0.00	4.91E-04	6.32E-05	8.84E-05	5.10E-05	5.25E-05	7.46E-04
567792.29_4180906.94	567792.29	4180906.94	5.40E-04	6.65E-05	9.35E-05	5.87E-05	6.06E-05	8.20E-04	potential residence	9.45E-09	2.29E-07	2.14E-07	3.29E-08	0.48	0.00	5.04E-04	6.65E-05	8.90E-05	5.58E-05	5.76E-05	7.73E-04
567812.29_4180906.94	567812.29	4180906.94	5.53E-04	7.00E-05	9.42E-05	6.49E-05	6.71E-05	8.49E-04	potential residence	9.79E-09	2.37E-07	2.21E-07	3.41E-08	0.50	0.00	5.15E-04	7.00E-05	8.96E-05	6.17E-05	6.38E-05	8.00E-04
567832.29_4180906.94	567832.29	4180906.94	5.63E-04	7.34E-05	9.49E-05	7.24E-05	7.51E-05	8.79E-04	potential residence	1.01E-08	2.45E-07	2.29E-07	3.53E-08	0.52	0.00	5.25E-04	7.34E-05	9.03E-05	6.89E-05	7.14E-05	8.29E-04
567852.29_4180906.94	567852.29	4180906.94	5.74E-04	7.69E-05	9.57E-05	8.18E-05	8.51E-05	9.13E-04	potential residence	1.05E-08	2.55E-07	2.38E-07	3.67E-08	0.54	0.00	5.35E-04	7.69E-05	9.11E-05	7.78E-05	8.09E-05	8.62E-04
567872.29_4180906.94	567872.29	4180906.94	5.85E-04	8.07E-05	9.67E-05	9.40E-05	9.81E-05	9.54E-04	potential residence	1.10E-08	2.66E-07	2.49E-07	3.83E-08	0.56	0.00	5.45E-04	8.07E-05	9.20E-05	8.95E-05	9.33E-05	9.00E-04
567892.29_4180906.94	567892.29	4180906.94	5.96E-04	8.43E-05	9.77E-05	1.11E-04	1.16E-04	1.00E-03	potential residence	1.16E-08	2.80E-07	2.62E-07	4.04E-08	0.59	0.00	5.56E-04	8.43E-05	9.30E-05	1.05E-04	1.10E-04	9.48E-04
567912.29_4180906.94	567912.29	4180906.94	6.04E-04	8.66E-05	9.86E-05	1.34E-04	1.41E-04	1.06E-03	potential residence	1.23E-08	2.97E-07	2.77E-07	4.28E-08	0.63	0.00	5.63E-04	8.66E-05	9.38E-05	1.28E-04	1.34E-04	1.00E-03
567932.29_4180906.94	567932.29	4180906.94	6.11E-04	8.90E-05	9.95E-05	1.71E-04	1.78E-04	1.15E-03	potential residence	1.32E-08	3.21E-07	2.99E-07	4.62E-08	0.68	0.00	5.69E-04	8.90E-05	9.46E-05	1.63E-04	1.70E-04	1.09E-03
568132.29_4180906.94	568132.29	4180906.94	6.35E-04	9.23E-05	1.01E-04	6.83E-04	1.16E-03	2.67E-03	potential residence	3.08E-08	7.46E-07	6.96E-07	1.07E-07	1.58	0.00	5.92E-04	9.23E-05	9.60E-05	6.50E-04	1.10E-03	2.53E-03
568152.29_4180906.94	568152.29	4180906.94	6.34E-04	9.23E-05	1.01E-04	5.96E-04	9.46E-04	2.37E-03	potential residence	2.73E-08	6.62E-07	6.18E-07	9.52E-08	1.40	0.00	5.91E-04	9.23E-05	9.62E-05	5.67E-04	9.00E-04	2.25E-03
568172.29_4180906.94	568172.29	4180906.94	6.29E-04	9.09E-05	1.01E-04	5.24E-04	7.91E-04	2.14E-03	potential residence	2.46E-08	5.96E-07	5.57E-07	8.58E-08	1.26	0.00	5.87E-04	9.09E-05	9.56E-05	4.98E-04	7.53E-04	2.02E-03
568192.29_4180906.94	568192.29	4180906.94	6.28E-04	8.95E-05	1.01E-04	4.69E-04	6.86E-04	1.97E-03	potential residence	2.27E-08	5.51E-07	5.14E-07	7.93E-08	1.17	0.00	5.85E-04	8.95E-05	9.60E-05	4.47E-04	6.52E-04	1.87E-03
568212.29_4180906.94	568212.29	4180906.94	6.24E-04	8.81E-05	1.01E-04	4.23E-04	6.04E-04	1.84E-03	potential residence	2.12E-08	5.14E-07	4.80E-07	7.40E-08	1.09	0.00	5.82E-04	8.81E-05	9.63E-05	4.03E-04	5.74E-04	1.74E-03
568232.29_4180906.94	568232.29	4180906.94	6.20E-04	8.68E-05	1.01E-04	3.84E-04	5.39E-04	1.73E-03	potential residence	2.00E-08	4.83E-07	4.51E-07	6.96E-08	1.02	0.00	5.78E-04	8.68E-05	9.65E-05	3.65E-04	5.12E-04	1.64E-03
568252.29_4180906.94	568252.29	4180906.94	6.11E-04	8.71E-05	1.01E-04	3.47E-04	4.81E-04	1.63E-03	potential residence	1.87E-08	4.54E-07	4.24E-07	6.54E-08	0.96	0.00	5.69E-04	8.71E-05	9.58E-05	3.30E-04	4.58E-04	1.54E-03
568272.29_4180906.94	568272.29	4180906.94	6.01E-04	8.93E-05	1.00E-04	3.15E-04	4.34E-04	1.54E-03	potential residence	1.78E-08	4.30E-07	4.01E-07	6.19E-08	0.91	0.00	5.61E-04	8.93E-05	9.55E-05	3.00E-04	4.13E-04	1.46E-03

568332.29_4180906.94	568332.29	4180906.94	5.74E-04	9.78E-05	1.01E-04	2.46E-04	3.35E-04	1.35E-03	potential residence	1.56E-08	3.78E-07	3.53E-07	5.44E-08	0.80	0.00	5.35E-04	9.78E-05	9.58E-05	2.34E-04	3.19E-04	1.28E-03
568352.29_4180906.94	568352.29	4180906.94	5.68E-04	9.89E-05	1.02E-04	2.31E-04	3.12E-04	1.31E-03	potential residence	1.51E-08	3.66E-07	3.42E-07	5.27E-08	0.78	0.00	5.30E-04	9.89E-05	9.67E-05	2.19E-04	2.97E-04	1.24E-03
568372.29_4180906.94	568372.29	4180906.94	5.57E-04	9.90E-05	1.02E-04	2.14E-04	2.89E-04	1.26E-03	potential residence	1.45E-08	3.52E-07	3.28E-07	5.07E-08	0.75	0.00	5.19E-04	9.90E-05	9.66E-05	2.04E-04	2.75E-04	1.19E-03
568392.29_4180906.94	568392.29	4180906.94	5.45E-04	9.84E-05	1.02E-04	2.00E-04	2.68E-04	1.21E-03	potential residence	1.40E-08	3.39E-07	3.16E-07	4.88E-08	0.72	0.00	5.08E-04	9.84E-05	9.67E-05	1.91E-04	2.55E-04	1.15E-03
568412.29_4180906.94	568412.29	4180906.94	5.33E-04	9.73E-05	1.02E-04	1.87E-04	2.50E-04	1.17E-03	potential residence	1.35E-08	3.26E-07	3.05E-07	4.70E-08	0.69	0.00	4.97E-04	9.73E-05	9.66E-05	1.78E-04	2.37E-04	1.11E-03
568432.29_4180906.94	568432.29	4180906.94	5.23E-04	9.59E-05	1.02E-04	1.77E-04	2.34E-04	1.13E-03	potential residence	1.30E-08	3.16E-07	2.95E-07	4.55E-08	0.67	0.00	4.88E-04	9.59E-05	9.71E-05	1.68E-04	2.23E-04	1.07E-03
568452.29_4180906.94	568452.29	4180906.94	5.12E-04	9.41E-05	1.02E-04	1.67E-04	2.20E-04	1.09E-03	potential residence	1.26E-08	3.06E-07	2.85E-07	4.40E-08	0.65	0.00	4.78E-04	9.41E-05	9.73E-05	1.58E-04	2.09E-04	1.04E-03
568472.29_4180906.94	568472.29	4180906.94	5.01E-04	9.21E-05	1.02E-04	1.57E-04	2.06E-04	1.06E-03	potential residence	1.22E-08	2.96E-07	2.76E-07	4.26E-08	0.63	0.00	4.67E-04	9.21E-05	9.74E-05	1.50E-04	1.96E-04	1.00E-03
568492.29_4180906.94	568492.29	4180906.94	4.90E-04	8.98E-05	1.02E-04	1.49E-04	1.94E-04	1.02E-03	potential residence	1.18E-08	2.86E-07	2.67E-07	4.12E-08	0.61	0.00	4.56E-04	8.98E-05	9.74E-05	1.41E-04	1.85E-04	9.70E-04
568512.29_4180906.94	568512.29	4180906.94	4.80E-04	8.76E-05	1.03E-04	1.41E-04	1.84E-04	9.95E-04	potential residence	1.15E-08	2.78E-07	2.59E-07	4.00E-08	0.59	0.00	4.47E-04	8.76E-05	9.76E-05	1.34E-04	1.75E-04	9.42E-04
568532.29_4180906.94	568532.29	4180906.94	4.69E-04	8.52E-05	1.02E-04	1.34E-04	1.74E-04	9.64E-04	potential residence	1.11E-08	2.69E-07	2.51E-07	3.88E-08	0.57	0.00	4.37E-04	8.52E-05	9.75E-05	1.27E-04	1.66E-04	9.13E-04
568552.29_4180906.94	568552.29	4180906.94	4.57E-04	8.31E-05	1.02E-04	1.26E-04	1.65E-04	9.33E-04	potential residence	1.08E-08	2.61E-07	2.43E-07	3.75E-08	0.55	0.00	4.26E-04	8.31E-05	9.70E-05	1.20E-04	1.57E-04	8.83E-04
568572.29_4180906.94	568572.29	4180906.94	4.48E-04	8.09E-05	1.02E-04	1.20E-04	1.57E-04	9.07E-04	potential residence	1.05E-08	2.53E-07	2.36E-07	3.65E-08	0.54	0.00	4.17E-04	8.09E-05	9.68E-05	1.15E-04	1.49E-04	8.58E-04
568592.29_4180906.94	568592.29	4180906.94	4.37E-04	7.89E-05	1.01E-04	1.15E-04	1.48E-04	8.80E-04	potential residence	1.01E-08	2.46E-07	2.29E-07	3.54E-08	0.52	0.00	4.07E-04	7.89E-05	9.63E-05	1.09E-04	1.41E-04	8.33E-04
568612.29_4180906.94	568612.29	4180906.94	4.27E-04	7.69E-05	1.01E-04	1.09E-04	1.41E-04	8.54E-04	potential residence	9.85E-09	2.38E-07	2.23E-07	3.43E-08	0.51	0.00	3.98E-04	7.69E-05	9.57E-05	1.04E-04	1.34E-04	8.08E-04
568632.29_4180906.94	568632.29	4180906.94	4.17E-04	7.50E-05	1.00E-04	1.04E-04	1.34E-04	8.31E-04	potential residence	9.57E-09	2.32E-07	2.16E-07	3.34E-08	0.49	0.00	3.89E-04	7.50E-05	9.54E-05	9.88E-05	1.28E-04	7.86E-04
568652.29_4180906.94	568652.29	4180906.94	4.08E-04	7.32E-05	9.97E-05	9.92E-05	1.28E-04	8.08E-04	Ascend Elementary	9.31E-09	2.26E-07	2.11E-07	3.25E-08	0.48	0.00	3.81E-04	7.32E-05	9.49E-05	9.44E-05	1.21E-04	7.64E-04
568672.29_4180906.94	568672.29	4180906.94	4.01E-04	7.16E-05	9.98E-05	9.57E-05	1.22E-04	7.90E-04	Ascend Elementary	9.11E-09	2.21E-07	2.06E-07	3.18E-08	0.47	0.00	3.74E-04	7.16E-05	9.50E-05	9.10E-05	1.16E-04	7.48E-04
568692.29_4180906.94	568692.29	4180906.94	3.94E-04	7.00E-05	9.99E-05	9.22E-05	1.17E-04	7.74E-04	potential residence	8.92E-09	2.16E-07	2.02E-07	3.11E-08	0.46	0.00	3.67E-04	7.00E-05	9.50E-05	8.77E-05	1.12E-04	7.32E-04
568712.29_4180906.94	568712.29	4180906.94	3.85E-04	6.84E-05	9.90E-05	8.78E-05	1.12E-04	7.52E-04	potential residence	8.67E-09	2.10E-07	1.96E-07	3.02E-08	0.44	0.00	3.59E-04	6.84E-05	9.42E-05	8.36E-05	1.06E-04	7.11E-04
568732.29_4180906.94	568732.29	4180906.94	3.78E-04	6.71E-05	9.91E-05	8.50E-05	1.07E-04	7.37E-04	potential residence	8.49E-09	2.06E-07	1.92E-07	2.96E-08	0.44	0.00	3.53E-04	6.71E-05	9.42E-05	8.08E-05	1.02E-04	6.97E-04
568772.29_4180906.94	568772.29	4180906.94	3.65E-04	6.44E-05	9.84E-05	7.88E-05	9.88E-05	7.05E-04	potential residence	8.13E-09	1.97E-07	1.84E-07	2.83E-08	0.42	0.00	3.40E-04	6.44E-05	9.36E-05	7.50E-05	9.40E-05	6.67E-04
568812.29_4180906.94	568812.29	4180906.94	3.51E-04	6.20E-05	9.72E-05	7.29E-05	9.10E-05	6.74E-04	potential residence	7.77E-09	1.88E-07	1.76E-07	2.71E-08	0.40	0.00	3.27E-04	6.20E-05	9.25E-05	6.94E-05	8.66E-05	6.37E-04
567412.29_4180926.94	567412.29	4180926.94	2.16E-04	3.20E-05	6.59E-05	1.90E-05	1.95E-05	3.52E-04	potential residence	4.06E-09	9.83E-08	9.17E-08	1.41E-08	0.21	0.00	2.01E-04	3.20E-05	6.27E-05	1.81E-05	1.85E-05	3.32E-04
567432.29_4180926.94	567432.29	4180926.94	2.27E-04	3.29E-05	6.76E-05	1.98E-05	2.02E-05	3.67E-04	potential residence	4.23E-09	1.03E-07	9.57E-08	1.48E-08	0.22	0.00	2.11E-04	3.29E-05	6.43E-05	1.88E-05	1.92E-05	3.47E-04
567452.29_4180926.94	567452.29	4180926.94	2.38E-04	3.34E-05	6.93E-05	2.06E-05	2.11E-05	3.83E-04	potential residence	4.41E-09	1.07E-07	9.97E-08	1.54E-08	0.23	0.00	2.22E-04	3.34E-05	6.59E-05	1.96E-05	2.01E-05	3.61E-04
567472.29_4180926.94	567472.29	4180926.94	2.51E-04	3.44E-05	7.10E-05	2.15E-05	2.20E-05	4.00E-04	potential residence	4.61E-09	1.12E-07	1.04E-07	1.61E-08	0.24	0.00	2.34E-04	3.44E-05	6.75E-05	2.04E-05	2.09E-05	3.77E-04
567492.29_4180926.94	567492.29	4180926.94	2.64E-04	3.53E-05	7.26E-05	2.24E-05	2.29E-05	4.18E-04	potential residence	4.81E-09	1.17E-07	1.09E-07	1.68E-08	0.25	0.00	2.46E-04	3.53E-05	6.91E-05	2.13E-05	2.18E-05	3.94E-04
567512.29_4180926.94	567512.29	4180926.94	2.79E-04	3.66E-05	7.42E-05	2.34E-05	2.40E-05	4.37E-04	potential residence	5.04E-09	1.22E-07	1.14E-07	1.76E-08	0.26	0.00	2.60E-04	3.66E-05	7.06E-05	2.23E-05	2.28E-05	4.12E-04
567532.29_4180926.94	567532.29	4180926.94	2.94E-04	3.78E-05	7.58E-05	2.45E-05	2.51E-05	4.57E-04	potential residence	5.27E-09	1.28E-07	1.19E-07	1.84E-08	0.27	0.00	2.74E-04	3.78E-05	7.22E-05	2.33E-05	2.39E-05	4.31E-04
567552.29_4180926.94	567552.29	4180926.94	3.10E-04	3.90E-05	7.74E-05	2.57E-05	2.63E-05	4.78E-04	potential residence	5.51E-09	1.33E-07	1.25E-07	1.92E-08	0.28	0.00	2.89E-04	3.90E-05	7.36E-05	2.45E-05	2.51E-05	4.51E-04
567572.29_4180926.94	567572.29	4180926.94	3.26E-04	4.01E-05	7.88E-05	2.70E-05	2.77E-05	5.00E-04	potential residence	5.76E-09	1.40E-07	1.30E-07	2.01E-08	0.30	0.00	3.04E-04	4.01E-05	7.50E-05	2.57E-05	2.63E-05	4.71E-04
567592.29_4180926.94	567592.29	4180926.94	3.43E-04	4.16E-05	8.02E-05	2.84E-05	2.91E-05	5.23E-04	potential residence	6.03E-09	1.46E-07	1.36E-07	2.10E-08	0.31	0.00	3.20E-04	4.16E-05	7.63E-05	2.71E-05	2.77E-05	4.93E-04
567612.29_4180926.94	567612.29	4180926.94	3.61E-04	4.33E-05	8.15E-05	3.00E-05	3.07E-05	5.47E-04	potential residence	6.30E-09	1.53E-07	1.42E-07	2.20E-08	0.32	0.00	3.37E-04	4.33E-05	7.76E-05	2.85E-05	2.92E-05	5.15E-04
567632.29_4180926.94	567632.29	4180926.94	3.79E-04	4.49E-05	8.27E-05	3.17E-05	3.25E-05	5.71E-04	potential residence	6.58E-09	1.59E-07	1.49E-07	2.29E-08	0.34	0.00	3.53E-04	4.49E-05	7.87E-05	3.02E-05	3.09E-05	5.38E-04
567652.29_4180926.94	567652.29	4180926.94	3.94E-04	4.67E-05	8.38E-05	3.36E-05	3.45E-05	5.93E-04	potential residence	6.83E-09	1.66E-07	1.55E-07	2.38E-08	0.35	0.00	3.67E-04	4.67E-05	7.97E-05	3.20E-05	3.28E-05	5.59E-04
567672.29_4180926.94	567672.29	4180926.94	4.12E-04	4.85E-05	8.48E-05	3.57E-05	3.67E-05	6.18E-04	potential residence	7.12E-09	1.72E-07	1.61E-07	2.48E-08	0.37	0.00	3.84E-04	4.85E-05	8.07E-05	3.40E-05	3.49E-05	5.82E-04
567692.29_4180926.94	567692.29	4180926.94	4.29E-04	5.06E-05	8.56E-05	3.81E-05	3.91E-05	6.43E-04	potential residence	7.41E-09	1.79E-07	1.68E-07	2.58E-08	0.38	0.00	4.00E-04	5.06E-05	8.15E-05	3.62E-05	3.72E-05	6.06E-04
567712.29_4180926.94	567712.29	4180926.94	4.46E-04	5.27E-05	8.64E-05	4.07E-05	4.19E-05	6.67E-04	potential residence	7.69E-09	1.86E-07	1.74E-07	2.68E-08	0.39	0.00	4.16E-04	5.27E-05	8.22E-05	3.87E-05	3.99E-05	6.29E-04
567732.29_4180926.94	567732.29	4180926.94	4.61E-04	5.51E-05	8.70E-05	4.37E-05	4.51E-05	6.92E-04	potential residence	7.98E-09	1.93E-07	1.80E-07	2.78E-08	0.41	0.00	4.30E-04	5.51E-05	8.28E-05	4.16E-05	4.29E-05	6.52E-04
567752.29_4180926.94	567752.29	4180926.94	4.75E-04	5.78E-05	8.76E-05	4.72E-05	4.87E-05	7.16E-04	potential residence	8.25E-09	2.00E-07	1.87E-07	2.88E-08	0.42	0.00	4.42E-04	5.78E-05	8.33E-05	4.49E-05	4.63E-05	6.75E-04
567772.29_4180926.94	567772.29	4180926.94	4.86E-04	6.05E-05	8.81E-05	5.12E-05	5.29E-05	7.39E-04	potential residence	8.52E-09	2.06E-07	1.93E-07	2.97E-08	0.44	0.00	4.53E-04	6.05E-05	8.38E-05	4.87E-05	5.04E-05	6.97E-04
567792.29_4180926.94	567792.29	4180926.94	4.95E-04	6.34E-05	8.85E-05	5.59E-05	5.79E-05	7.61E-04	potential residence	8.78E-09	2.13E-07	1.98E-07	3.06E-08	0.45	0.00	4.62E-04	6.34E-05	8.42E-05	5.32E-05	5.51E-05	7.18E-04
567812.29_4180926.94	567812.29	4180926.94	5.05E-04	6.62E-05	8.91E-05	6.15E-05	6.39E-05	7.86E-04	potential residence	9.06E-09	2.20E-07	2.05E-07	3.16E-08	0.47	0.00	4.71E-04	6.62E-05	8.48E-05	5.86E-05	6.08E-05	7.42E-04
567832.29_4180926.94	567832.29	4180926.94	5.14E-04	6.94E-05	8.98E-05	6.83E-05	7.12E-05	8.13E-04	potential residence	9.37E-09	2.27E-07	2.12E-07	3.27E-08	0.48	0.00	4.79E-04	6.94E-05	8.54E-05	6.50E-05	6.77E-05	7.67E-04
567852.29_4180926.94	567852.29	4180926.94	5.22E-04	7.26E-05	9.05E-05	7.68E-05	8.03E-05	8.42E-04	potential residence	9.71E-09	2.35E-07	2.20E-07	3.39E-08	0.50	0.00	4.87E-04	7.26E-05	8.61E-05	7.30E-05	7.64E-05	7.95E-04
567872.29_4180926.94	567872.29	4180926.94	5.31E-04	7.53E-05	9.13E-05	8.75E-05	9.20E-05	8.77E-04	potential residence	1.01E-08	2.45E-07	2.29E-07	3.52E-08	0.52	0.00	4.95E-04	7.53E-05	8.69E-05	8.32E-05	8.75E-05	8.28E-04
567892.29_4180926.94	567892.29	4180926.94	5.40E-04	7.77E-05	9.22E-05	1.02E-04	1.08E-04	9.19E-04	potential residence	1.06E-08	2.57E-07	2.40E-07	3.70E-08	0.54	0.00	5.04E-04	7.77E-05	8.77E-05	9.68E-05	1.02E-04	8.68E-04
567912.29_4180926.94	567912.29	4180926.94	5.46E-04	7.97E-05	9.29E-05	1.21E-04	1.30E-04	9.70E-04	potential residence	1.12E-08	2.71E-07	2.53E-07	3.90E-08	0.57	0.00	5.09E-04	7.97E-05	8.84E-05	1.16E-04	1.24E-04	9.16E-04
568092.29_4180926.94	568092.29	4180926.94	5.74E-04	8.35E-05	9.44E-05	5.36E-04	9.54E-04	2.24E-03	potential residence	2.58E-08	6.26E-07	5.84E-07	9.01E-08	1.33	0.00	5.35E-04	8.35E-05	8.98E-05	5.10E-04	9.08E-04	2.13E-03
568112.29_4180926.94	568112.29	4180926.94	5.71E-04	8.30E-05	9.38E-05	4.78E-04	7.87E-04	2.01E-03	potential residence	2.32E-08	5.62E-07	5.25E-07	8.09E-08	1.19	0.00	5.32E-04	8.30E-05	8.93E-05	4.55E-04	7.49E-04	1.91E-03
568132.29_4180926.94	568132.29	4180926.94	5.71E-04	8.29E-05	9.40E-05	4.36E-04	6.77E-04	1.86E-03	potential residence	2.15E-08	5.20E-07	4.85E-07	7.48E-08	1.10	0.00	5.33E-04	8.29E-05	8.94E-05	4.15E-04	6.44E-04	1.76E-03
568152.29_4180926.94	568152.29	4180926.94	5.72E-04	8.26E-05	9.43E-05	3.99E-04	5.95E-04	1.74E-03	potential residence	2.01E-08	4.87E-07	4.54E-07	7.00E-08	1.03	0.00	5.33E-04	8.26E-05	8.97E-05	3.80E-04	5.66E-04	1.65E-03
568172.29_4180926.94	568172.29	4180926.94	5.68E-04	8.17E-05	9.39E-05	3.65E-04	5.26E-04	1.64E-03	potential residence	1.88E-08	4.57E-07	4.26E-07	6.57E-08	0.97	0.00	5.30E-04	8.17E-05	8.94E-05	3.47E-04	5.01E-04	1.55E-03
568192.29_4180926.94	568192.29	4180926.94	5.68E-04	8.06E-05	9.43E-05	3.37E-04	4.75E-04	1.55E-03	potential residence	1.79E-08	4.34E-07	4.05E-07	6.25E-08	0.92	0.00	5.29E-04	8.06E-05	8.97E-05	3.21E-04	4.52E-04	1.47E-03
568212.29_4180926.94	568212.29	4180926.94	5.64E-04	7.91E-05	9.43E-05	3.11E-04	4.31E-04	1.48E-03	potential residence	1.71E-08	4.13E-07	3.86E-07	5.95E-08	0.88	0.00	5.26E-04	7.91E-05	8.97E-05	2.96E-04	4.10E-04	1.40E-03
568232.29_4180926.94	568232.29	4180926.94	5.61E-04	7.74E-05	9.46E-05	2.88E-04	3.95E-04	1.42E-03	potential residence	1.63E-08	3.95E-07	3.69E-07	5.69E-08	0.84	0.00	5.23E-04	7.74E-05	9.00E-05	2.74E-04	3.76E-04	1.34E-03
568252.29_4180926.94	568252.29	4180926.94	5.52E-04	7.66E-05	9.38E-05	2.65E-04	3.60E-04	1.35E-03	potential residence	1.55E-08	3.76E-07	3.51E-07	5.42E-08	0.80	0.00	5.15E-04	7.66E-05	8.92E-05	2.52E-04	3.43E-04	1.28E-03
568312.29_4180926.94	568312.29	4180926.94	5.32E-04	8.22E-05	9.40E-05	2.15E-04	2.87E-04	1.21E-03	potential residence	1.40E-08	3.38E-07	3.16E-07	4.87E-08	0.72	0.00	4.96E-04	8.22E-05	8.94E-05	2.04E-04	2.74E-04	1.15E-03
568332.29_4180926.94	568332.29	4180926.94	5.24E-04	8.46E-05	9.41E-05	2.01E-04	2.68E-04	1.17E-03	potential residence	1.35E-08	3.27E-07	3.06E-07	4.71E-08	0.69	0.00	4.89E-04	8.46E-05	8.95E-05	1.92E-04	2.55E-04	1.11E-03
568352.29_4180926.94	568352.29	4180926.94	5.18E-04	8.61E-05	9.47E-05	1.90E-04	2.52E-04	1.14E-03	potential residence	1.32E-08	3.19E-07	2.98E-07	4.59E-08	0.68	0.00	4.83E-04	8.61E-05	9.01E-05	1.81E-04	2.40E-04	1.08E-03
568372.29_4180926.94	568372.29	4180926.94	5.10E-04	8.68E-05	9.50E-05	1.80E-04	2.37E-04	1.11E-03	potential residence	1.28E-08	3.10E-07	2.89E-07	4.46E-08	0.66	0.00	4.76E-04	8.68E-05	9.04E-05	1.71E-04	2.25E-04	1.05E-03
568392.29_4180926.94	568392.29	4180926.94	5.01E-04	8.67E-05	9.51E-05	1.69E-04	2.22E-04	1.07E-03	potential residence	1.24E-08	3.00E-07	2.80E-07	4.32E-08	0.64	0.00	4.67E-04	8.67E-05	9.05E-05	1.61E-04	2.11E-04	1.02E-03
568412.29_4180926.94	568412.29	4180926.94	4.91E-04	8.61E-05	9.52E-05	1.60E-04	2.09E-04	1.04E-03	potential residence	1.20E-08	2.91E-07	2.71E-07	4.18E-08	0.62	0.00	4.57E-04	8.61E-05	9.06E-05	1.52E-04	1.99E-04	9.85E-04
568432.29_4180926.94	568432.29	4180926.94	4.80E-04	8.52E-05	9.52E-05	1.51E-04	1.96E-04	1.01E-03	potential residence	1.16E-08	2.82E-07	2.63E-07	4.05E-08	0.60	0.00	4.48E-04	8.52E-05	9.06E-05	1.44E-04	1.87E-04	9.54E-04
568452.29_4180926.94	568452.29	4180926.94	4.71E-04	8.39E-05	9.55E-05	1.44E-04	1.86E-04	9.80E-04	potential residence	1.13E-08	2.74E-07	2.55E-07	3.94E-08	0.58	0.00	4.39E-04	8.39E-05	9.08E-05	1.37E-04	1.77E-04	9.27E-04
568472.29_4180926.94	568472.29	4180926.94	4.63E-04	8.24E-05	9.59E-05	1.37E-04	1.77E-04	9.55E-04	potential residence	1.10E-08	2.67E-07	2.49E-07	3.84E-08	0.57	0.00	4.31E-04	8.24E-05	9.13E-05	1.31E-04	1.68E-04	9.04E-04
568492.29_4180926.94	568492.29	4180926.94	4.53E-04	8.06E-05	9.59E-05	1.30E-04	1.68E-04	9.27E-04	potential residence	1.07E-08	2.59E-07	2.42E-07	3.73E-08	0.55	0.00	4.22E-04	8.06E-05	9.13E-05	1.24E-04	1.59E-04	8.78E-04
568512.29_4180926.94	568512.29	4180926.94	4.43E-04	7.87E-05	9.59E-05	1.24E-04	1.59E-04	9.01E-04	potential residence	1.04E-08	2.52E-07	2.35E-07	3.62E-08	0.53	0.00	4.13E-04	7.87E-05	9.13E-05	1.18E-04	1.52E-04	8.53E-04
568532.29_4180926.94	568532.29	4180926.94	4.31E-04	7.67E-05	9.51E-05	1.17E-04	1.51E-04	8.71E-04	potential residence	1.00E-08	2.43E-07	2.27E-07	3.50E-08	0.52	0.00	4.02E-04	7.67E-05	9.04E-05	1.11E-04	1.43E-04	8.24E-04
568552.29_4180926.94	568552.29	4180926.94	4.22E-04	7.47E-05	9.49E-05	1.12E-04	1.44E-04	8.47E-04	potential residence	9.77E-09	2.37E-07	2.21E-07	3.41E-08	0.50	0.00	3.94E-04	7.47E-05	9.03E-05	1.06E-04	1.37E-04	8.02E-04
568572.29_4180926.94	568572.29	4180926.94	4.15E-04	7.30E-05	9.53E-05	1.08E-04	1.38E-04	8.29E-04	potential residence	9.56E-09	2.32E-07	2.16E-07	3.33E-08	0.49	0.00	3.87E-04	7.30E-05	9.06E-05	1.03E-04	1.31E-04	7.85E-04

568592.29_4180926.94	568592.29	4180926.94	4.06E-04	7.12E-05	9.49E-05	1.03E-04	1.32E-04	8.07E-04	potential residence	9.30E-09	2.25E-07	2.10E-07	3.24E-08	0.48	0.00	3.79E-04	7.12E-05	9.02E-05	9.81E-05	1.25E-04	7.63E-04
568612.29_4180926.94	568612.29	4180926.94	3.97E-04	6.95E-05	9.43E-05	9.83E-05	1.26E-04	7.84E-04	Ascend Elementary	9.04E-09	2.19E-07	2.04E-07	3.15E-08	0.46	0.00	3.70E-04	6.95E-05	8.97E-05	9.35E-05	1.19E-04	7.42E-04
568632.29_4180926.94	568632.29	4180926.94	3.88E-04	6.79E-05	9.37E-05	9.40E-05	1.20E-04	7.63E-04	Ascend Elementary	8.80E-09	2.13E-07	1.99E-07	3.07E-08	0.45	0.00	3.61E-04	6.79E-05	8.92E-05	8.94E-05	1.14E-04	7.22E-04
568652.29_4180926.94	568652.29	4180926.94	3.80E-04	6.65E-05	9.35E-05	9.03E-05	1.15E-04	7.45E-04	Ascend Elementary	8.59E-09	2.08E-07	1.94E-07	2.99E-08	0.44	0.00	3.54E-04	6.65E-05	8.89E-05	8.59E-05	1.09E-04	7.05E-04
568672.29_4180926.94	568672.29	4180926.94	3.72E-04	6.51E-05	9.32E-05	8.69E-05	1.10E-04	7.27E-04	Ascend Elementary	8.39E-09	2.03E-07	1.90E-07	2.92E-08	0.43	0.00	3.47E-04	6.51E-05	8.87E-05	8.26E-05	1.05E-04	6.88E-04
568692.29_4180926.94	568692.29	4180926.94	3.67E-04	6.39E-05	9.37E-05	8.45E-05	1.06E-04	7.15E-04	Ascend Elementary	8.25E-09	2.00E-07	1.86E-07	2.88E-08	0.42	0.00	3.42E-04	6.39E-05	8.92E-05	8.04E-05	1.01E-04	6.77E-04
568732.29_4180926.94	568732.29	4180926.94	3.53E-04	6.15E-05	9.31E-05	7.82E-05	9.80E-05	6.84E-04	potential residence	7.88E-09	1.91E-07	1.78E-07	2.75E-08	0.40	0.00	3.29E-04	6.15E-05	8.86E-05	7.44E-05	9.32E-05	6.47E-04
568752.29_4180926.94	568752.29	4180926.94	3.46E-04	6.04E-05	9.29E-05	7.55E-05	9.43E-05	6.70E-04	potential residence	7.72E-09	1.87E-07	1.75E-07	2.69E-08	0.40	0.00	3.23E-04	6.04E-05	8.83E-05	7.18E-05	8.97E-05	6.33E-04
568772.29_4180926.94	568772.29	4180926.94	3.40E-04	5.93E-05	9.25E-05	7.29E-05	9.08E-05	6.56E-04	potential residence	7.56E-09	1.83E-07	1.71E-07	2.64E-08	0.39	0.00	3.17E-04	5.93E-05	8.80E-05	6.94E-05	8.64E-05	6.20E-04
568792.29_4180926.94	568792.29	4180926.94	3.34E-04	5.84E-05	9.21E-05	7.04E-05	8.74E-05	6.42E-04	potential residence	7.40E-09	1.79E-07	1.67E-07	2.58E-08	0.38	0.00	3.11E-04	5.84E-05	8.76E-05	6.69E-05	8.31E-05	6.07E-04
568812.29_4180926.94	568812.29	4180926.94	3.28E-04	5.75E-05	9.17E-05	6.81E-05	8.43E-05	6.30E-04	potential residence	7.26E-09	1.76E-07	1.64E-07	2.53E-08	0.37	0.00	3.06E-04	5.75E-05	8.73E-05	6.48E-05	8.02E-05	5.96E-04
567412.29_4180946.94	567412.29	4180946.94	2.13E-04	3.11E-05	6.43E-05	1.86E-05	1.91E-05	3.46E-04	potential residence	3.99E-09	9.66E-08	9.01E-08	1.39E-08	0.20	0.00	1.98E-04	3.11E-05	6.12E-05	1.77E-05	1.81E-05	3.26E-04
567432.29_4180946.94	567432.29	4180946.94	2.23E-04	3.18E-05	6.59E-05	1.94E-05	1.98E-05	3.60E-04	potential residence	4.15E-09	1.01E-07	9.38E-08	1.45E-08	0.21	0.00	2.08E-04	3.18E-05	6.27E-05	1.84E-05	1.89E-05	3.40E-04
567452.29_4180946.94	567452.29	4180946.94	2.34E-04	3.25E-05	6.74E-05	2.02E-05	2.06E-05	3.75E-04	potential residence	4.32E-09	1.05E-07	9.78E-08	1.51E-08	0.22	0.00	2.18E-04	3.25E-05	6.41E-05	1.92E-05	1.96E-05	3.54E-04
567472.29_4180946.94	567472.29	4180946.94	2.46E-04	3.34E-05	6.89E-05	2.10E-05	2.15E-05	3.91E-04	potential residence	4.51E-09	1.09E-07	1.02E-07	1.57E-08	0.23	0.00	2.30E-04	3.34E-05	6.56E-05	2.00E-05	2.04E-05	3.69E-04
567492.29_4180946.94	567492.29	4180946.94	2.59E-04	3.44E-05	7.04E-05	2.19E-05	2.24E-05	4.08E-04	potential residence	4.70E-09	1.14E-07	1.06E-07	1.64E-08	0.24	0.00	2.41E-04	3.44E-05	6.70E-05	2.08E-05	2.13E-05	3.85E-04
567512.29_4180946.94	567512.29	4180946.94	2.72E-04	3.54E-05	7.19E-05	2.29E-05	2.34E-05	4.26E-04	potential residence	4.91E-09	1.19E-07	1.11E-07	1.71E-08	0.25	0.00	2.54E-04	3.54E-05	6.84E-05	2.18E-05	2.23E-05	4.02E-04
567532.29_4180946.94	567532.29	4180946.94	2.86E-04	3.66E-05	7.33E-05	2.39E-05	2.45E-05	4.45E-04	potential residence	5.13E-09	1.24E-07	1.16E-07	1.79E-08	0.26	0.00	2.67E-04	3.66E-05	6.98E-05	2.27E-05	2.33E-05	4.19E-04
567552.29_4180946.94	567552.29	4180946.94	3.01E-04	3.79E-05	7.47E-05	2.51E-05	2.57E-05	4.64E-04	potential residence	5.35E-09	1.30E-07	1.21E-07	1.86E-08	0.27	0.00	2.80E-04	3.79E-05	7.10E-05	2.38E-05	2.44E-05	4.37E-04
567572.29_4180946.94	567572.29	4180946.94	3.16E-04	3.91E-05	7.59E-05	2.63E-05	2.69E-05	4.84E-04	potential residence	5.58E-09	1.35E-07	1.26E-07	1.95E-08	0.29	0.00	2.94E-04	3.91E-05	7.23E-05	2.50E-05	2.56E-05	4.56E-04
567592.29_4180946.94	567592.29	4180946.94	3.31E-04	4.04E-05	7.71E-05	2.76E-05	2.83E-05	5.05E-04	potential residence	5.82E-09	1.41E-07	1.31E-07	2.03E-08	0.30	0.00	3.09E-04	4.04E-05	7.34E-05	2.63E-05	2.70E-05	4.76E-04
567612.29_4180946.94	567612.29	4180946.94	3.47E-04	4.22E-05	7.83E-05	2.91E-05	2.99E-05	5.26E-04	potential residence	6.06E-09	1.47E-07	1.37E-07	2.11E-08	0.31	0.00	3.23E-04	4.22E-05	7.45E-05	2.77E-05	2.84E-05	4.96E-04
567632.29_4180946.94	567632.29	4180946.94	3.60E-04	4.36E-05	7.92E-05	3.07E-05	3.16E-05	5.45E-04	potential residence	6.28E-09	1.52E-07	1.42E-07	2.19E-08	0.32	0.00	3.35E-04	4.36E-05	7.54E-05	2.92E-05	3.00E-05	5.13E-04
567652.29_4180946.94	567652.29	4180946.94	3.75E-04	4.52E-05	8.01E-05	3.25E-05	3.34E-05	5.66E-04	potential residence	6.53E-09	1.58E-07	1.48E-07	2.28E-08	0.34	0.00	3.50E-04	4.52E-05	7.63E-05	3.09E-05	3.18E-05	5.34E-04
567672.29_4180946.94	567672.29	4180946.94	3.90E-04	4.69E-05	8.10E-05	3.45E-05	3.55E-05	5.88E-04	potential residence	6.78E-09	1.64E-07	1.53E-07	2.36E-08	0.35	0.00	3.64E-04	4.69E-05	7.70E-05	3.28E-05	3.37E-05	5.54E-04
567692.29_4180946.94	567692.29	4180946.94	4.05E-04	4.87E-05	8.17E-05	3.67E-05	3.78E-05	6.10E-04	potential residence	7.03E-09	1.70E-07	1.59E-07	2.45E-08	0.36	0.00	3.77E-04	4.87E-05	7.77E-05	3.49E-05	3.59E-05	5.75E-04
567712.29_4180946.94	567712.29	4180946.94	4.18E-04	5.10E-05	8.23E-05	3.92E-05	4.04E-05	6.31E-04	potential residence	7.27E-09	1.76E-07	1.64E-07	2.54E-08	0.37	0.00	3.90E-04	5.10E-05	7.83E-05	3.73E-05	3.84E-05	5.95E-04
567732.29_4180946.94	567732.29	4180946.94	4.30E-04	5.33E-05	8.28E-05	4.20E-05	4.33E-05	6.51E-04	potential residence	7.51E-09	1.82E-07	1.70E-07	2.62E-08	0.39	0.00	4.01E-04	5.33E-05	7.87E-05	4.00E-05	4.12E-05	6.14E-04
567752.29_4180946.94	567752.29	4180946.94	4.40E-04	5.56E-05	8.32E-05	4.52E-05	4.67E-05	6.71E-04	potential residence	7.73E-09	1.87E-07	1.75E-07	2.70E-08	0.40	0.00	4.10E-04	5.56E-05	7.91E-05	4.30E-05	4.44E-05	6.33E-04
567772.29_4180946.94	567772.29	4180946.94	4.48E-04	5.79E-05	8.35E-05	4.89E-05	5.06E-05	6.89E-04	potential residence	7.94E-09	1.92E-07	1.80E-07	2.77E-08	0.41	0.00	4.18E-04	5.79E-05	7.95E-05	4.65E-05	4.82E-05	6.50E-04
567792.29_4180946.94	567792.29	4180946.94	4.55E-04	6.03E-05	8.39E-05	5.32E-05	5.52E-05	7.08E-04	potential residence	8.16E-09	1.98E-07	1.85E-07	2.85E-08	0.42	0.00	4.25E-04	6.03E-05	7.98E-05	5.06E-05	5.25E-05	6.68E-04
567812.29_4180946.94	567812.29	4180946.94	4.63E-04	6.31E-05	8.44E-05	5.83E-05	6.06E-05	7.29E-04	potential residence	8.41E-09	2.04E-07	1.90E-07	2.93E-08	0.43	0.00	4.31E-04	6.31E-05	8.03E-05	5.54E-05	5.77E-05	6.88E-04
567832.29_4180946.94	567832.29	4180946.94	4.70E-04	6.57E-05	8.50E-05	6.44E-05	6.72E-05	7.53E-04	potential residence	8.68E-09	2.10E-07	1.96E-07	3.03E-08	0.45	0.00	4.39E-04	6.57E-05	8.09E-05	6.13E-05	6.40E-05	7.10E-04
567852.29_4180946.94	567852.29	4180946.94	4.77E-04	6.77E-05	8.56E-05	7.18E-05	7.53E-05	7.77E-04	potential residence	8.96E-09	2.17E-07	2.03E-07	3.12E-08	0.46	0.00	4.45E-04	6.77E-05	8.15E-05	6.83E-05	7.17E-05	7.34E-04
568052.29_4180946.94	568052.29	4180946.94	5.20E-04	7.56E-05	8.89E-05	3.40E-04	6.55E-04	1.68E-03	potential residence	1.94E-08	4.69E-07	4.38E-07	6.75E-08	0.99	0.00	4.85E-04	7.56E-05	8.46E-05	3.24E-04	6.24E-04	1.59E-03
568072.29_4180946.94	568072.29	4180946.94	5.20E-04	7.56E-05	8.87E-05	3.35E-04	5.88E-04	1.61E-03	potential residence	1.85E-08	4.49E-07	4.19E-07	6.46E-08	0.95	0.00	4.85E-04	7.56E-05	8.43E-05	3.19E-04	5.59E-04	1.52E-03
568092.29_4180946.94	568092.29	4180946.94	5.18E-04	7.52E-05	8.81E-05	3.22E-04	5.25E-04	1.53E-03	potential residence	1.76E-08	4.27E-07	3.98E-07	6.14E-08	0.90	0.00	4.83E-04	7.52E-05	8.38E-05	3.06E-04	5.00E-04	1.45E-03
568112.29_4180946.94	568112.29	4180946.94	5.17E-04	7.49E-05	8.80E-05	3.07E-04	4.74E-04	1.46E-03	potential residence	1.68E-08	4.08E-07	3.81E-07	5.87E-08	0.86	0.00	4.82E-04	7.49E-05	8.37E-05	2.92E-04	4.51E-04	1.38E-03
568132.29_4180946.94	568132.29	4180946.94	5.17E-04	7.49E-05	8.80E-05	2.92E-04	4.33E-04	1.41E-03	potential residence	1.62E-08	3.92E-07	3.66E-07	5.65E-08	0.83	0.00	4.82E-04	7.49E-05	8.37E-05	2.78E-04	4.12E-04	1.33E-03
568152.29_4180946.94	568152.29	4180946.94	5.17E-04	7.45E-05	8.81E-05	2.77E-04	3.99E-04	1.36E-03	potential residence	1.56E-08	3.79E-07	3.53E-07	5.45E-08	0.80	0.00	4.82E-04	7.45E-05	8.38E-05	2.64E-04	3.80E-04	1.28E-03
568172.29_4180946.94	568172.29	4180946.94	5.16E-04	7.38E-05	8.80E-05	2.62E-04	3.68E-04	1.31E-03	potential residence	1.51E-08	3.65E-07	3.41E-07	5.26E-08	0.77	0.00	4.81E-04	7.38E-05	8.38E-05	2.49E-04	3.50E-04	1.24E-03
568192.29_4180946.94	568192.29	4180946.94	5.14E-04	7.30E-05	8.80E-05	2.47E-04	3.41E-04	1.26E-03	potential residence	1.46E-08	3.53E-07	3.29E-07	5.08E-08	0.75	0.00	4.79E-04	7.30E-05	8.37E-05	2.35E-04	3.25E-04	1.20E-03
568212.29_4180946.94	568212.29	4180946.94	5.11E-04	7.17E-05	8.79E-05	2.33E-04	3.17E-04	1.22E-03	potential residence	1.41E-08	3.41E-07	3.18E-07	4.90E-08	0.72	0.00	4.76E-04	7.17E-05	8.36E-05	2.21E-04	3.02E-04	1.15E-03
568232.29_4180946.94	568232.29	4180946.94	5.07E-04	7.00E-05	8.78E-05	2.19E-04	2.96E-04	1.18E-03	potential residence	1.36E-08	3.30E-07	3.08E-07	4.74E-08	0.70	0.00	4.73E-04	7.00E-05	8.35E-05	2.08E-04	2.82E-04	1.12E-03
568292.29_4180946.94	568292.29	4180946.94	4.93E-04	6.94E-05	8.78E-05	1.84E-04	2.44E-04	1.08E-03	potential residence	1.24E-08	3.01E-07	2.81E-07	4.34E-08	0.64	0.00	4.59E-04	6.94E-05	8.36E-05	1.75E-04	2.33E-04	1.02E-03
568312.29_4180946.94	568312.29	4180946.94	4.87E-04	7.14E-05	8.81E-05	1.75E-04	2.31E-04	1.05E-03	potential residence	1.21E-08	2.94E-07	2.74E-07	4.23E-08	0.62	0.00	4.54E-04	7.14E-05	8.38E-05	1.66E-04	2.19E-04	9.95E-04
568332.29_4180946.94	568332.29	4180946.94	4.80E-04	7.37E-05	8.81E-05	1.65E-04	2.17E-04	1.02E-03	potential residence	1.18E-08	2.86E-07	2.67E-07	4.12E-08	0.61	0.00	4.48E-04	7.37E-05	8.38E-05	1.57E-04	2.07E-04	9.69E-04
568352.29_4180946.94	568352.29	4180946.94	4.75E-04	7.54E-05	8.86E-05	1.58E-04	2.06E-04	1.00E-03	potential residence	1.16E-08	2.80E-07	2.61E-07	4.03E-08	0.59	0.00	4.43E-04	7.54E-05	8.43E-05	1.50E-04	1.96E-04	9.49E-04
568372.29_4180946.94	568372.29	4180946.94	4.70E-04	7.64E-05	8.92E-05	1.51E-04	1.96E-04	9.82E-04	potential residence	1.13E-08	2.74E-07	2.56E-07	3.95E-08	0.58	0.00	4.38E-04	7.64E-05	8.49E-05	1.44E-04	1.86E-04	9.29E-04
568392.29_4180946.94	568392.29	4180946.94	4.60E-04	7.67E-05	8.91E-05	1.43E-04	1.85E-04	9.55E-04	potential residence	1.10E-08	2.67E-07	2.49E-07	3.84E-08	0.56	0.00	4.29E-04	7.67E-05	8.48E-05	1.36E-04	1.76E-04	9.03E-04
568412.29_4180946.94	568412.29	4180946.94	4.53E-04	7.65E-05	8.94E-05	1.37E-04	1.76E-04	9.31E-04	potential residence	1.07E-08	2.60E-07	2.43E-07	3.74E-08	0.55	0.00	4.22E-04	7.65E-05	8.50E-05	1.30E-04	1.67E-04	8.81E-04
568432.29_4180946.94	568432.29	4180946.94	4.45E-04	7.60E-05	8.97E-05	1.31E-04	1.67E-04	9.09E-04	potential residence	1.05E-08	2.54E-07	2.37E-07	3.65E-08	0.54	0.00	4.15E-04	7.60E-05	8.53E-05	1.25E-04	1.59E-04	8.60E-04
568452.29_4180946.94	568452.29	4180946.94	4.37E-04	7.52E-05	8.98E-05	1.25E-04	1.59E-04	8.86E-04	potential residence	1.02E-08	2.47E-07	2.31E-07	3.56E-08	0.52	0.00	4.07E-04	7.52E-05	8.55E-05	1.19E-04	1.51E-04	8.38E-04
568472.29_4180946.94	568472.29	4180946.94	4.28E-04	7.41E-05	9.00E-05	1.19E-04	1.52E-04	8.64E-04	potential residence	9.95E-09	2.41E-07	2.25E-07	3.47E-08	0.51	0.00	3.99E-04	7.41E-05	8.56E-05	1.14E-04	1.44E-04	8.17E-04
568492.29_4180946.94	568492.29	4180946.94	4.20E-04	7.28E-05	9.00E-05	1.14E-04	1.45E-04	8.42E-04	potential residence	9.71E-09	2.35E-07	2.20E-07	3.39E-08	0.50	0.00	3.92E-04	7.28E-05	8.57E-05	1.09E-04	1.38E-04	7.97E-04
568512.29_4180946.94	568512.29	4180946.94	4.11E-04	7.12E-05	8.98E-05	1.09E-04	1.38E-04	8.19E-04	potential residence	9.44E-09	2.29E-07	2.14E-07	3.29E-08	0.48	0.00	3.83E-04	7.12E-05	8.54E-05	1.04E-04	1.32E-04	7.75E-04
568532.29_4180946.94	568532.29	4180946.94	4.01E-04	6.95E-05	8.93E-05	1.04E-04	1.32E-04	7.96E-04	potential residence	9.18E-09	2.22E-07	2.08E-07	3.20E-08	0.47	0.00	3.74E-04	6.95E-05	8.50E-05	9.90E-05	1.26E-04	7.53E-04
568552.29_4180946.94	568552.29	4180946.94	3.94E-04	6.78E-05	8.95E-05	1.00E-04	1.27E-04	7.79E-04	potential residence	8.98E-09	2.17E-07	2.03E-07	3.13E-08	0.46	0.00	3.68E-04	6.78E-05	8.51E-05	9.53E-05	1.21E-04	7.37E-04
568572.29_4180946.94	568572.29	4180946.94	3.86E-04	6.63E-05	8.93E-05	9.63E-05	1.22E-04	7.60E-04	potential residence	8.76E-09	2.12E-07	1.98E-07	3.06E-08	0.45	0.00	3.60E-04	6.63E-05	8.50E-05	9.16E-05	1.16E-04	7.19E-04
568592.29_4180946.94	568592.29	4180946.94	3.77E-04	6.46E-05	8.87E-05	9.21E-05	1.17E-04	7.39E-04	Ascend Elementary	8.52E-09	2.06E-07	1.93E-07	2.97E-08	0.44	0.00	3.52E-04	6.46E-05	8.44E-05	8.76E-05	1.11E-04	6.99E-04
568612.29_4180946.94	568612.29	4180946.94	3.70E-04	6.32E-05	8.85E-05	8.87E-05	1.12E-04	7.22E-04	Ascend Elementary	8.33E-09	2.02E-07	1.88E-07	2.90E-08	0.43	0.00	3.45E-04	6.32E-05	8.42E-05	8.44E-05	1.07E-04	6.83E-04
568632.29_4180946.94	568632.29	4180946.94	3.62E-04	6.19E-05	8.82E-05	8.54E-05	1.08E-04	7.05E-04	Ascend Elementary	8.13E-09	1.97E-07	1.84E-07	2.84E-08	0.42	0.00	3.38E-04	6.19E-05	8.39E-05	8.12E-05	1.02E-04	6.67E-04
568652.29_4180946.94	568652.29	4180946.94	3.55E-04	6.07E-05	8.80E-05	8.23E-05	1.03E-04	6.89E-04	Ascend Elementary	7.95E-09	1.92E-07	1.80E-07	2.77E-08	0.41	0.00	3.31E-04	6.07E-05	8.37E-05	7.83E-05	9.83E-05	6.52E-04
568672.29_4180946.94	568672.29	4180946.94	3.49E-04	5.95E-05	8.82E-05	7.98E-05	9.99E-05	6.77E-04	Ascend Elementary	7.80E-09	1.89E-07	1.76E-07	2.72E-08	0.40	0.00	3.26E-04	5.95E-05	8.39E-05	7.59E-05	9.50E-05	6.40E-04
568712.29_4180946.94	568712.29	4180946.94	3.37E-04	5.75E-05	8.80E-05	7.46E-05	9.28E-05	6.50E-04	potential residence	7.49E-09	1.81E-07	1.69E-07	2.61E-08	0.38	0.00	3.14E-04	5.75E-05	8.37E-05	7.10E-05	8.83E-05	6.14E-04
568732.29_4180946.94	568732.29	4180946.94	3.30E-04	5.65E-05	8.77E-05	7.21E-05	8.94E-05	6.36E-04	potential residence	7.33E-09	1.78E-07	1.66E-07	2.56E-08	0.38	0.00	3.08E-04	5.65E-05	8.35E-05	6.86E-05	8.51E-05	6.02E-04
568752.29_4180946.94	568752.29	4180946.94	3.24E-04	5.56E-05	8.75E-05	6.97E-05	8.63E-05	6.23E-04	potential residence	7.19E-09	1.74E-07	1.62E-07	2.51E-08	0.37	0.00	3.02E-04	5.56E-05	8.32E-05	6.63E-05	8.21E-05	5.90E-04
568772.29_4180946.94	568772.29	4180946.94	3.18E-04	5.48E-05	8.72E-05	6.74E-05	8.33E-05	6.11E-04	potential residence	7.04E-09	1.71E-07	1.59E-07	2.46E-08	0.36	0.00	2.97E-04	5.48E-05	8.29E-05	6.42E-05	7.92E-05	5.78E-04
568792.29_4180946.94	568792.29	4180946.94	3.13E-04	5.40E-05	8.68E-05	6.53E-05	8.04E-05	5.99E-04	potential residence	6.91E-09	1.67E-07	1.56E-07	2.41E-08	0.35	0.00	2.91E-04	5.40E-05	8.26E-05	6.21E-05	7.65E-05	5.67E-04
568812.29_4180946.94	568812.29	4180946.94	3.08E-04	5.33E-05	8.67E-05	6.34E-05	7.79E-05	5.89E-04	potential residence	6.79E-09	1.64E-07	1.54E-07	2.37E-08	0.35	0.00	2.87E-04	5.33E-05	8.25E-05	6.03E-05	7.41E-05	5.57E-04
567412.29_4180966.94	567412.29	4180966.94	2.10E-04	3.04E-05	6.28E-05	1.82E-05	1.87E-05	3.40E-04	potential residence	3.92E-09	9.48E-08	8.85E-08	1.37E-08	0.20	0.00	1.95E-04	3.04E-05	5.97E-05	1.74E-05	1.77E-05	3.21E-04
567432.29_4180966.94	567432.29	4180966.94	2.20E-04	3.10E-05	6.42E-05	1.89E-05	1.94E-05	3.53E-04	potential residence	4.07E-09	9.86E-08	9.20E-08	1.42E-08	0.21	0.00	2.05E-04	3.10E-05	6.11E-05	1.80E-05	1.84E-05	3.33E-04

567452.29_4180966.94	567452.29	4180966.94	2.30E-04	3.17E-05	6.56E-05	1.97E-05	2.02E-05	3.67E-04	potential residence	4.23E-09	1.03E-07	9.57E-08	1.48E-08	0.22	0.00	2.14E-04	3.17E-05	6.24E-05	1.87E-05	1.92E-05	3.46E-04
567472.29_4180966.94	567472.29	4180966.94	2.41E-04	3.28E-05	6.70E-05	2.05E-05	2.10E-05	3.83E-04	potential residence	4.41E-09	1.07E-07	9.97E-08	1.54E-08	0.23	0.00	2.25E-04	3.28E-05	6.37E-05	1.95E-05	2.00E-05	3.61E-04
567492.29_4180966.94	567492.29	4180966.94	2.53E-04	3.37E-05	6.83E-05	2.14E-05	2.19E-05	3.98E-04	potential residence	4.59E-09	1.11E-07	1.04E-07	1.60E-08	0.24	0.00	2.36E-04	3.37E-05	6.50E-05	2.03E-05	2.08E-05	3.76E-04
567512.29_4180966.94	567512.29	4180966.94	2.65E-04	3.46E-05	6.96E-05	2.23E-05	2.28E-05	4.15E-04	potential residence	4.78E-09	1.16E-07	1.08E-07	1.67E-08	0.25	0.00	2.47E-04	3.46E-05	6.62E-05	2.12E-05	2.17E-05	3.91E-04
567532.29_4180966.94	567532.29	4180966.94	2.78E-04	3.58E-05	7.08E-05	2.33E-05	2.39E-05	4.32E-04	potential residence	4.98E-09	1.21E-07	1.13E-07	1.74E-08	0.26	0.00	2.59E-04	3.58E-05	6.74E-05	2.22E-05	2.27E-05	4.07E-04
567552.29_4180966.94	567552.29	4180966.94	2.91E-04	3.69E-05	7.20E-05	2.44E-05	2.50E-05	4.50E-04	potential residence	5.18E-09	1.26E-07	1.17E-07	1.81E-08	0.27	0.00	2.72E-04	3.69E-05	6.85E-05	2.32E-05	2.38E-05	4.24E-04
567572.29_4180966.94	567572.29	4180966.94	3.02E-04	3.78E-05	7.31E-05	2.56E-05	2.62E-05	4.65E-04	potential residence	5.36E-09	1.30E-07	1.21E-07	1.87E-08	0.28	0.00	2.82E-04	3.78E-05	6.95E-05	2.43E-05	2.49E-05	4.38E-04
567592.29_4180966.94	567592.29	4180966.94	3.18E-04	3.94E-05	7.41E-05	2.68E-05	2.75E-05	4.86E-04	potential residence	5.60E-09	1.36E-07	1.27E-07	1.95E-08	0.29	0.00	2.97E-04	3.94E-05	7.05E-05	2.55E-05	2.62E-05	4.58E-04
567612.29_4180966.94	567612.29	4180966.94	3.32E-04	4.10E-05	7.51E-05	2.82E-05	2.90E-05	5.05E-04	potential residence	5.83E-09	1.41E-07	1.32E-07	2.03E-08	0.30	0.00	3.10E-04	4.10E-05	7.14E-05	2.69E-05	2.76E-05	4.77E-04
567632.29_4180966.94	567632.29	4180966.94	3.44E-04	4.24E-05	7.59E-05	2.98E-05	3.06E-05	5.22E-04	potential residence	6.02E-09	1.46E-07	1.36E-07	2.10E-08	0.31	0.00	3.20E-04	4.24E-05	7.22E-05	2.83E-05	2.91E-05	4.92E-04
567652.29_4180966.94	567652.29	4180966.94	3.57E-04	4.39E-05	7.67E-05	3.15E-05	3.23E-05	5.41E-04	potential residence	6.23E-09	1.51E-07	1.41E-07	2.17E-08	0.32	0.00	3.32E-04	4.39E-05	7.29E-05	2.99E-05	3.08E-05	5.10E-04
567672.29_4180966.94	567672.29	4180966.94	3.69E-04	4.57E-05	7.73E-05	3.33E-05	3.43E-05	5.60E-04	potential residence	6.45E-09	1.56E-07	1.46E-07	2.25E-08	0.33	0.00	3.44E-04	4.57E-05	7.36E-05	3.17E-05	3.26E-05	5.28E-04
567692.29_4180966.94	567692.29	4180966.94	3.81E-04	4.74E-05	7.79E-05	3.54E-05	3.64E-05	5.78E-04	potential residence	6.66E-09	1.61E-07	1.51E-07	2.32E-08	0.34	0.00	3.55E-04	4.74E-05	7.41E-05	3.37E-05	3.47E-05	5.45E-04
567712.29_4180966.94	567712.29	4180966.94	3.91E-04	4.93E-05	7.83E-05	3.77E-05	3.89E-05	5.96E-04	potential residence	6.87E-09	1.66E-07	1.55E-07	2.39E-08	0.35	0.00	3.65E-04	4.93E-05	7.45E-05	3.59E-05	3.70E-05	5.62E-04
567732.29_4180966.94	567732.29	4180966.94	4.01E-04	5.13E-05	7.87E-05	4.03E-05	4.16E-05	6.13E-04	potential residence	7.06E-09	1.71E-07	1.60E-07	2.46E-08	0.36	0.00	3.73E-04	5.13E-05	7.49E-05	3.84E-05	3.96E-05	5.78E-04
567752.29_4180966.94	567752.29	4180966.94	4.09E-04	5.34E-05	7.90E-05	4.33E-05	4.48E-05	6.29E-04	potential residence	7.26E-09	1.76E-07	1.64E-07	2.53E-08	0.37	0.00	3.81E-04	5.34E-05	7.52E-05	4.12E-05	4.26E-05	5.94E-04
567772.29_4180966.94	567772.29	4180966.94	4.15E-04	5.55E-05	7.93E-05	4.67E-05	4.84E-05	6.45E-04	potential residence	7.44E-09	1.80E-07	1.68E-07	2.59E-08	0.38	0.00	3.87E-04	5.55E-05	7.55E-05	4.44E-05	4.60E-05	6.08E-04
567792.29_4180966.94	567792.29	4180966.94	4.19E-04	5.77E-05	7.96E-05	5.06E-05	5.25E-05	6.60E-04	potential residence	7.60E-09	1.84E-07	1.72E-07	2.65E-08	0.39	0.00	3.91E-04	5.77E-05	7.57E-05	4.81E-05	5.00E-05	6.22E-04
567812.29_4180966.94	567812.29	4180966.94	4.26E-04	5.97E-05	8.00E-05	5.52E-05	5.75E-05	6.78E-04	potential residence	7.82E-09	1.89E-07	1.77E-07	2.73E-08	0.40	0.00	3.97E-04	5.97E-05	7.62E-05	5.25E-05	5.47E-05	6.40E-04
568012.29_4180966.94	568012.29	4180966.94	4.71E-04	6.81E-05	8.40E-05	1.93E-04	2.93E-04	1.11E-03	potential residence	1.28E-08	3.10E-07	2.89E-07	4.46E-08	0.66	0.00	4.39E-04	6.81E-05	7.99E-05	1.84E-04	2.79E-04	1.05E-03
568032.29_4180966.94	568032.29	4180966.94	4.72E-04	6.84E-05	8.36E-05	2.05E-04	3.19E-04	1.15E-03	potential residence	1.32E-08	3.20E-07	2.99E-07	4.61E-08	0.68	0.00	4.40E-04	6.84E-05	7.96E-05	1.95E-04	3.04E-04	1.09E-03
568052.29_4180966.94	568052.29	4180966.94	4.72E-04	6.86E-05	8.31E-05	2.11E-04	3.29E-04	1.16E-03	potential residence	1.34E-08	3.25E-07	3.03E-07	4.68E-08	0.69	0.00	4.40E-04	6.86E-05	7.91E-05	2.01E-04	3.13E-04	1.10E-03
568072.29_4180966.94	568072.29	4180966.94	4.71E-04	6.85E-05	8.28E-05	2.13E-04	3.25E-04	1.16E-03	potential residence	1.34E-08	3.24E-07	3.02E-07	4.66E-08	0.69	0.00	4.39E-04	6.85E-05	7.88E-05	2.03E-04	3.09E-04	1.10E-03
568092.29_4180966.94	568092.29	4180966.94	4.73E-04	6.83E-05	8.30E-05	2.14E-04	3.19E-04	1.16E-03	potential residence	1.33E-08	3.23E-07	3.02E-07	4.65E-08	0.68	0.00	4.41E-04	6.83E-05	7.89E-05	2.04E-04	3.03E-04	1.10E-03
568112.29_4180966.94	568112.29	4180966.94	4.70E-04	6.81E-05	8.25E-05	2.09E-04	3.03E-04	1.13E-03	potential residence	1.31E-08	3.16E-07	2.95E-07	4.55E-08	0.67	0.00	4.38E-04	6.81E-05	7.85E-05	1.99E-04	2.89E-04	1.07E-03
568132.29_4180966.94	568132.29	4180966.94	4.70E-04	6.80E-05	8.25E-05	2.05E-04	2.91E-04	1.12E-03	potential residence	1.29E-08	3.12E-07	2.91E-07	4.49E-08	0.66	0.00	4.38E-04	6.80E-05	7.85E-05	1.95E-04	2.77E-04	1.06E-03
568152.29_4180966.94	568152.29	4180966.94	4.70E-04	6.75E-05	8.25E-05	1.99E-04	2.78E-04	1.10E-03	potential residence	1.26E-08	3.06E-07	2.86E-07	4.41E-08	0.65	0.00	4.38E-04	6.75E-05	7.85E-05	1.90E-04	2.64E-04	1.04E-03
568172.29_4180966.94	568172.29	4180966.94	4.71E-04	6.70E-05	8.27E-05	1.94E-04	2.66E-04	1.08E-03	potential residence	1.25E-08	3.02E-07	2.82E-07	4.34E-08	0.64	0.00	4.39E-04	6.70E-05	7.87E-05	1.84E-04	2.53E-04	1.02E-03
568192.29_4180966.94	568192.29	4180966.94	4.69E-04	6.64E-05	8.25E-05	1.86E-04	2.52E-04	1.06E-03	potential residence	1.22E-08	2.95E-07	2.75E-07	4.24E-08	0.62	0.00	4.37E-04	6.64E-05	7.85E-05	1.77E-04	2.40E-04	9.99E-04
568212.29_4180966.94	568212.29	4180966.94	4.63E-04	6.53E-05	8.19E-05	1.76E-04	2.37E-04	1.02E-03	potential residence	1.18E-08	2.86E-07	2.67E-07	4.11E-08	0.61	0.00	4.31E-04	6.53E-05	7.79E-05	1.68E-04	2.26E-04	9.68E-04
568272.29_4180966.94	568272.29	4180966.94	4.57E-04	6.14E-05	8.26E-05	1.57E-04	2.07E-04	9.64E-04	potential residence	1.11E-08	2.69E-07	2.51E-07	3.88E-08	0.57	0.00	4.26E-04	6.14E-05	7.86E-05	1.49E-04	1.96E-04	9.11E-04
568292.29_4180966.94	568292.29	4180966.94	4.52E-04	6.16E-05	8.26E-05	1.50E-04	1.96E-04	9.42E-04	potential residence	1.09E-08	2.63E-07	2.46E-07	3.79E-08	0.56	0.00	4.21E-04	6.16E-05	7.86E-05	1.42E-04	1.87E-04	8.91E-04
568312.29_4180966.94	568312.29	4180966.94	4.46E-04	6.28E-05	8.25E-05	1.43E-04	1.86E-04	9.21E-04	potential residence	1.06E-08	2.57E-07	2.40E-07	3.70E-08	0.54	0.00	4.16E-04	6.28E-05	7.85E-05	1.36E-04	1.77E-04	8.70E-04
568332.29_4180966.94	568332.29	4180966.94	4.41E-04	6.46E-05	8.27E-05	1.37E-04	1.78E-04	9.03E-04	potential residence	1.04E-08	2.52E-07	2.35E-07	3.63E-08	0.53	0.00	4.11E-04	6.46E-05	7.87E-05	1.30E-04	1.69E-04	8.54E-04
568352.29_4180966.94	568352.29	4180966.94	4.37E-04	6.64E-05	8.31E-05	1.32E-04	1.70E-04	8.88E-04	potential residence	1.02E-08	2.48E-07	2.31E-07	3.57E-08	0.53	0.00	4.07E-04	6.64E-05	7.91E-05	1.25E-04	1.62E-04	8.40E-04
568372.29_4180966.94	568372.29	4180966.94	4.32E-04	6.77E-05	8.36E-05	1.27E-04	1.63E-04	8.73E-04	potential residence	1.01E-08	2.44E-07	2.27E-07	3.51E-08	0.52	0.00	4.02E-04	6.77E-05	7.95E-05	1.21E-04	1.55E-04	8.25E-04
568392.29_4180966.94	568392.29	4180966.94	4.26E-04	6.83E-05	8.40E-05	1.22E-04	1.56E-04	8.56E-04	potential residence	9.87E-09	2.39E-07	2.23E-07	3.44E-08	0.51	0.00	3.97E-04	6.83E-05	7.99E-05	1.16E-04	1.48E-04	8.10E-04
568412.29_4180966.94	568412.29	4180966.94	4.19E-04	6.84E-05	8.42E-05	1.18E-04	1.49E-04	8.39E-04	potential residence	9.67E-09	2.34E-07	2.19E-07	3.37E-08	0.50	0.00	3.91E-04	6.84E-05	8.01E-05	1.12E-04	1.42E-04	7.93E-04
568432.29_4180966.94	568432.29	4180966.94	4.12E-04	6.81E-05	8.44E-05	1.13E-04	1.43E-04	8.20E-04	potential residence	9.46E-09	2.29E-07	2.14E-07	3.30E-08	0.49	0.00	3.84E-04	6.81E-05	8.03E-05	1.08E-04	1.36E-04	7.76E-04
568452.29_4180966.94	568452.29	4180966.94	4.04E-04	6.76E-05	8.43E-05	1.08E-04	1.36E-04	8.01E-04	potential residence	9.23E-09	2.24E-07	2.09E-07	3.22E-08	0.47	0.00	3.77E-04	6.76E-05	8.02E-05	1.03E-04	1.30E-04	7.57E-04
568472.29_4180966.94	568472.29	4180966.94	3.96E-04	6.68E-05	8.43E-05	1.04E-04	1.31E-04	7.82E-04	potential residence	9.01E-09	2.18E-07	2.04E-07	3.14E-08	0.46	0.00	3.69E-04	6.68E-05	8.02E-05	9.88E-05	1.24E-04	7.39E-04
568492.29_4180966.94	568492.29	4180966.94	3.91E-04	6.59E-05	8.48E-05	1.01E-04	1.26E-04	7.68E-04	potential residence	8.85E-09	2.14E-07	2.00E-07	3.09E-08	0.45	0.00	3.64E-04	6.59E-05	8.06E-05	9.57E-05	1.20E-04	7.27E-04
568512.29_4180966.94	568512.29	4180966.94	3.83E-04	6.47E-05	8.46E-05	9.67E-05	1.21E-04	7.50E-04	potential residence	8.65E-09	2.09E-07	1.95E-07	3.01E-08	0.44	0.00	3.57E-04	6.47E-05	8.05E-05	9.19E-05	1.15E-04	7.09E-04
568532.29_4180966.94	568532.29	4180966.94	3.75E-04	6.34E-05	8.43E-05	9.27E-05	1.16E-04	7.31E-04	potential residence	8.43E-09	2.04E-07	1.91E-07	2.94E-08	0.43	0.00	3.49E-04	6.34E-05	8.02E-05	8.81E-05	1.11E-04	6.92E-04
568552.29_4180966.94	568552.29	4180966.94	3.67E-04	6.20E-05	8.38E-05	8.90E-05	1.12E-04	7.13E-04	potential residence	8.22E-09	1.99E-07	1.86E-07	2.87E-08	0.42	0.00	3.42E-04	6.20E-05	7.97E-05	8.46E-05	1.06E-04	6.74E-04
568572.29_4180966.94	568572.29	4180966.94	3.60E-04	6.05E-05	8.37E-05	8.58E-05	1.08E-04	6.97E-04	potential residence	8.04E-09	1.95E-07	1.82E-07	2.80E-08	0.41	0.00	3.35E-04	6.05E-05	7.96E-05	8.17E-05	1.02E-04	6.60E-04
568592.29_4180966.94	568592.29	4180966.94	3.54E-04	5.92E-05	8.37E-05	8.31E-05	1.04E-04	6.84E-04	potential residence	7.88E-09	1.91E-07	1.78E-07	2.75E-08	0.40	0.00	3.30E-04	5.92E-05	7.97E-05	7.91E-05	9.90E-05	6.47E-04
568612.29_4180966.94	568612.29	4180966.94	3.46E-04	5.79E-05	8.34E-05	8.01E-05	1.00E-04	6.68E-04	Ascend Elementary	7.70E-09	1.87E-07	1.74E-07	2.69E-08	0.40	0.00	3.23E-04	5.79E-05	7.93E-05	7.62E-05	9.53E-05	6.32E-04
568632.29_4180966.94	568632.29	4180966.94	3.40E-04	5.67E-05	8.33E-05	7.75E-05	9.67E-05	6.54E-04	Ascend Elementary	7.54E-09	1.83E-07	1.70E-07	2.63E-08	0.39	0.00	3.17E-04	5.67E-05	7.92E-05	7.38E-05	9.20E-05	6.19E-04
568672.29_4180966.94	568672.29	4180966.94	3.27E-04	5.46E-05	8.31E-05	7.27E-05	9.02E-05	6.28E-04	potential residence	7.24E-09	1.75E-07	1.64E-07	2.52E-08	0.37	0.00	3.05E-04	5.46E-05	7.91E-05	6.92E-05	8.58E-05	5.94E-04
568692.29_4180966.94	568692.29	4180966.94	3.21E-04	5.37E-05	8.28E-05	7.03E-05	8.70E-05	6.15E-04	potential residence	7.09E-09	1.72E-07	1.60E-07	2.47E-08	0.36	0.00	2.99E-04	5.37E-05	7.88E-05	6.69E-05	8.28E-05	5.81E-04
568712.29_4180966.94	568712.29	4180966.94	3.16E-04	5.29E-05	8.30E-05	6.84E-05	8.44E-05	6.04E-04	potential residence	6.97E-09	1.69E-07	1.58E-07	2.43E-08	0.36	0.00	2.94E-04	5.29E-05	7.89E-05	6.51E-05	8.03E-05	5.72E-04
568732.29_4180966.94	568732.29	4180966.94	3.10E-04	5.21E-05	8.30E-05	6.64E-05	8.17E-05	5.94E-04	potential residence	6.84E-09	1.66E-07	1.55E-07	2.39E-08	0.35	0.00	2.89E-04	5.21E-05	7.89E-05	6.32E-05	7.78E-05	5.61E-04
568752.29_4180966.94	568752.29	4180966.94	3.04E-04	5.14E-05	8.25E-05	6.42E-05	7.89E-05	5.81E-04	potential residence	6.70E-09	1.62E-07	1.51E-07	2.34E-08	0.34	0.00	2.84E-04	5.14E-05	7.85E-05	6.11E-05	7.50E-05	5.50E-04
568772.29_4180966.94	568772.29	4180966.94	2.99E-04	5.07E-05	8.22E-05	6.23E-05	7.63E-05	5.70E-04	potential residence	6.57E-09	1.59E-07	1.49E-07	2.29E-08	0.34	0.00	2.78E-04	5.07E-05	7.82E-05	5.92E-05	7.26E-05	5.39E-04
568792.29_4180966.94	568792.29	4180966.94	2.94E-04	5.01E-05	8.21E-05	6.05E-05	7.40E-05	5.61E-04	potential residence	6.46E-09	1.57E-07	1.46E-07	2.25E-08	0.33	0.00	2.74E-04	5.01E-05	7.81E-05	5.76E-05	7.04E-05	5.30E-04
568812.29_4180966.94	568812.29	4180966.94	2.89E-04	4.95E-05	8.18E-05	5.87E-05	7.17E-05	5.50E-04	potential residence	6.34E-09	1.54E-07	1.43E-07	2.21E-08	0.33	0.00	2.69E-04	4.95E-05	7.78E-05	5.59E-05	6.82E-05	5.21E-04
567412.29_4180986.94	567412.29	4180986.94	2.06E-04	2.97E-05	6.12E-05	1.79E-05	1.83E-05	3.33E-04	potential residence	3.84E-09	9.30E-08	8.68E-08	1.34E-08	0.20	0.00	1.92E-04	2.97E-05	5.82E-05	1.70E-05	1.74E-05	3.14E-04
567432.29_4180986.94	567432.29	4180986.94	2.16E-04	3.05E-05	6.25E-05	1.85E-05	1.89E-05	3.46E-04	potential residence	3.99E-09	9.67E-08	9.02E-08	1.39E-08	0.20	0.00	2.01E-04	3.05E-05	5.95E-05	1.76E-05	1.80E-05	3.27E-04
567452.29_4180986.94	567452.29	4180986.94	2.26E-04	3.13E-05	6.38E-05	1.92E-05	1.97E-05	3.60E-04	potential residence	4.15E-09	1.00E-07	9.37E-08	1.45E-08	0.21	0.00	2.10E-04	3.13E-05	6.07E-05	1.83E-05	1.87E-05	3.39E-04
567472.29_4180986.94	567472.29	4180986.94	2.36E-04	3.22E-05	6.50E-05	2.00E-05	2.05E-05	3.74E-04	potential residence	4.31E-09	1.04E-07	9.75E-08	1.50E-08	0.22	0.00	2.20E-04	3.22E-05	6.18E-05	1.90E-05	1.95E-05	3.53E-04
567492.29_4180986.94	567492.29	4180986.94	2.47E-04	3.30E-05	6.62E-05	2.08E-05	2.13E-05	3.89E-04	potential residence	4.48E-09	1.08E-07	1.01E-07	1.56E-08	0.23	0.00	2.30E-04	3.30E-05	6.30E-05	1.98E-05	2.03E-05	3.66E-04
567512.29_4180986.94	567512.29	4180986.94	2.58E-04	3.39E-05	6.73E-05	2.17E-05	2.23E-05	4.03E-04	potential residence	4.65E-09	1.13E-07	1.05E-07	1.62E-08	0.24	0.00	2.41E-04	3.39E-05	6.40E-05	2.07E-05	2.12E-05	3.81E-04
567532.29_4180986.94	567532.29	4180986.94	2.70E-04	3.48E-05	6.84E-05	2.27E-05	2.33E-05	4.19E-04	potential residence	4.83E-09	1.17E-07	1.09E-07	1.68E-08	0.25	0.00	2.52E-04	3.48E-05	6.51E-05	2.16E-05	2.21E-05	3.95E-04
567552.29_4180986.94	567552.29	4180986.94	2.82E-04	3.60E-05	6.94E-05	2.37E-05	2.43E-05	4.35E-04	potential residence	5.02E-09	1.22E-07	1.13E-07	1.75E-08	0.26	0.00	2.63E-04	3.60E-05	6.61E-05	2.26E-05	2.31E-05	4.11E-04
567572.29_4180986.94	567572.29	4180986.94	2.92E-04	3.72E-05	7.04E-05	2.49E-05	2.55E-05	4.50E-04	potential residence	5.18E-09	1.26E-07	1.17E-07	1.81E-08	0.27	0.00	2.72E-04	3.72E-05	6.69E-05	2.36E-05	2.42E-05	4.24E-04
567592.29_4180986.94	567592.29	4180986.94	3.04E-04	3.84E-05	7.12E-05	2.61E-05	2.67E-05	4.66E-04	potential residence	5.38E-09	1.30E-07	1.22E-07	1.87E-08	0.28	0.00	2.83E-04	3.84E-05	6.78E-05	2.48E-05	2.54E-05	4.40E-04
567612.29_4180986.94	567612.29	4180986.94	3.16E-04	3.97E-05	7.20E-05	2.74E-05	2.81E-05	4.83E-04	potential residence	5.57E-09	1.35E-07	1.26E-07	1.94E-08	0.29	0.00	2.95E-04	3.97E-05	6.85E-05	2.61E-05	2.67E-05	4.56E-04
567632.29_4180986.94	567632.29	4180986.94	3.28E-04	4.13E-05	7.28E-05	2.88E-05	2.96E-05	5.00E-04	potential residence	5.76E-09	1.40E-07	1.30E-07	2.01E-08	0.30	0.00	3.05E-04	4.13E-05	6.92E-05	2.74E-05	2.82E-05	4.71E-04
567652.29_4180986.94	567652.29	4180986.94	3.39E-04	4.29E-05	7.34E-05	3.04E-05	3.13E-05	5.17E-04	potential residence	5.96E-09	1.44E-07	1.35E-07	2.08E-08	0.31	0.00	3.16E-04	4.29E-05	6.98E-05	2.90E-05	2.97E-05	4.87E-04
567672.29_4180986.94	567672.29	4180986.94	3.49E-04	4.45E-05	7.39E-05	3.22E-05	3.31E-05	5.32E-04	potential residence	6.14E-09	1.49E-07	1.39E-07	2.14E-08	0.31	0.00	3.25E-04	4.45E-05	7.03E-05	3.06E-05	3.15E-05	5.02E-04
567692.29_4180986.94	567692.29	4180986.94	3.58E-04	4.61E-05	7.43E-05	3.41E-05	3.51E-05	5.48E-04	potential residence	6.31E-09	1.53E-07	1.43E-07	2.20E-08	0.32	0.00	3.34E-04	4.61E-05	7.07E-05	3.25E-05	3.34E-05	5.16E-04

567712.29_4180986.94	567712.29	4180986.94	3.66E-04	4.77E-05	7.46E-05	3.63E-05	3.74E-05	5.62E-04	potential residence	6.48E-09	1.57E-07	1.47E-07	2.26E-08	0.33	0.00	3.42E-04	4.77E-05	7.10E-05	3.45E-05	3.56E-05	5.30E-04
567732.29_4180986.94	567732.29	4180986.94	3.73E-04	4.93E-05	7.49E-05	3.88E-05	4.00E-05	5.76E-04	potential residence	6.64E-09	1.61E-07	1.50E-07	2.32E-08	0.34	0.00	3.48E-04	4.93E-05	7.12E-05	3.69E-05	3.80E-05	5.43E-04
567752.29_4180986.94	567752.29	4180986.94	3.79E-04	5.13E-05	7.51E-05	4.15E-05	4.29E-05	5.90E-04	potential residence	6.80E-09	1.65E-07	1.54E-07	2.37E-08	0.35	0.00	3.54E-04	5.13E-05	7.15E-05	3.95E-05	4.08E-05	5.57E-04
568032.29_4180986.94	568032.29	4180986.94	4.32E-04	6.26E-05	7.87E-05	1.47E-04	2.00E-04	9.20E-04	potential residence	1.06E-08	2.57E-07	2.40E-07	3.70E-08	0.54	0.00	4.02E-04	6.26E-05	7.49E-05	1.39E-04	1.90E-04	8.70E-04
568052.29_4180986.94	568052.29	4180986.94	4.31E-04	6.24E-05	7.82E-05	1.51E-04	2.07E-04	9.29E-04	potential residence	1.07E-08	2.59E-07	2.42E-07	3.73E-08	0.55	0.00	4.01E-04	6.24E-05	7.44E-05	1.43E-04	1.97E-04	8.79E-04
568072.29_4180986.94	568072.29	4180986.94	4.29E-04	6.23E-05	7.79E-05	1.53E-04	2.10E-04	9.33E-04	potential residence	1.08E-08	2.60E-07	2.43E-07	3.75E-08	0.55	0.00	4.00E-04	6.23E-05	7.41E-05	1.45E-04	2.00E-04	8.82E-04
568092.29_4180986.94	568092.29	4180986.94	4.32E-04	6.23E-05	7.80E-05	1.55E-04	2.12E-04	9.39E-04	potential residence	1.08E-08	2.62E-07	2.45E-07	3.77E-08	0.56	0.00	4.02E-04	6.23E-05	7.42E-05	1.47E-04	2.02E-04	8.88E-04
568112.29_4180986.94	568112.29	4180986.94	4.29E-04	6.22E-05	7.76E-05	1.53E-04	2.09E-04	9.32E-04	potential residence	1.07E-08	2.60E-07	2.43E-07	3.74E-08	0.55	0.00	4.00E-04	6.22E-05	7.38E-05	1.46E-04	1.99E-04	8.81E-04
568132.29_4180986.94	568132.29	4180986.94	4.28E-04	6.19E-05	7.74E-05	1.51E-04	2.05E-04	9.24E-04	potential residence	1.07E-08	2.58E-07	2.41E-07	3.72E-08	0.55	0.00	3.99E-04	6.19E-05	7.36E-05	1.44E-04	1.95E-04	8.74E-04
568152.29_4180986.94	568152.29	4180986.94	4.29E-04	6.15E-05	7.75E-05	1.50E-04	2.01E-04	9.20E-04	potential residence	1.06E-08	2.57E-07	2.40E-07	3.70E-08	0.54	0.00	4.00E-04	6.15E-05	7.37E-05	1.42E-04	1.92E-04	8.70E-04
568172.29_4180986.94	568172.29	4180986.94	4.30E-04	6.11E-05	7.76E-05	1.47E-04	1.97E-04	9.12E-04	potential residence	1.05E-08	2.55E-07	2.38E-07	3.67E-08	0.54	0.00	4.01E-04	6.11E-05	7.38E-05	1.40E-04	1.87E-04	8.63E-04
568192.29_4180986.94	568192.29	4180986.94	4.26E-04	6.06E-05	7.71E-05	1.42E-04	1.89E-04	8.95E-04	potential residence	1.03E-08	2.50E-07	2.33E-07	3.60E-08	0.53	0.00	3.97E-04	6.06E-05	7.34E-05	1.35E-04	1.80E-04	8.46E-04
568252.29_4180986.94	568252.29	4180986.94	4.21E-04	5.72E-05	7.73E-05	1.30E-04	1.71E-04	8.57E-04	potential residence	9.88E-09	2.39E-07	2.23E-07	3.45E-08	0.51	0.00	3.93E-04	5.72E-05	7.36E-05	1.24E-04	1.63E-04	8.10E-04
568272.29_4180986.94	568272.29	4180986.94	4.19E-04	5.60E-05	7.76E-05	1.27E-04	1.65E-04	8.44E-04	potential residence	9.73E-09	2.36E-07	2.20E-07	3.39E-08	0.50	0.00	3.91E-04	5.60E-05	7.38E-05	1.20E-04	1.57E-04	7.98E-04
568292.29_4180986.94	568292.29	4180986.94	4.15E-04	5.55E-05	7.76E-05	1.22E-04	1.59E-04	8.30E-04	potential residence	9.56E-09	2.32E-07	2.16E-07	3.33E-08	0.49	0.00	3.87E-04	5.55E-05	7.39E-05	1.16E-04	1.51E-04	7.84E-04
568312.29_4180986.94	568312.29	4180986.94	4.11E-04	5.60E-05	7.77E-05	1.18E-04	1.52E-04	8.15E-04	potential residence	9.39E-09	2.27E-07	2.12E-07	3.27E-08	0.48	0.00	3.83E-04	5.60E-05	7.39E-05	1.12E-04	1.45E-04	7.70E-04
568332.29_4180986.94	568332.29	4180986.94	4.07E-04	5.73E-05	7.79E-05	1.14E-04	1.47E-04	8.03E-04	potential residence	9.26E-09	2.24E-07	2.09E-07	3.23E-08	0.48	0.00	3.79E-04	5.73E-05	7.42E-05	1.09E-04	1.40E-04	7.59E-04
568352.29_4180986.94	568352.29	4180986.94	4.03E-04	5.88E-05	7.83E-05	1.11E-04	1.42E-04	7.93E-04	potential residence	9.14E-09	2.21E-07	2.07E-07	3.19E-08	0.47	0.00	3.76E-04	5.88E-05	7.45E-05	1.06E-04	1.35E-04	7.50E-04
568392.29_4180986.94	568392.29	4180986.94	3.94E-04	6.10E-05	7.90E-05	1.04E-04	1.31E-04	7.69E-04	potential residence	8.87E-09	2.15E-07	2.01E-07	3.09E-08	0.46	0.00	3.67E-04	6.10E-05	7.52E-05	9.92E-05	1.25E-04	7.27E-04
568412.29_4180986.94	568412.29	4180986.94	3.88E-04	6.14E-05	7.92E-05	1.01E-04	1.27E-04	7.56E-04	potential residence	8.71E-09	2.11E-07	1.97E-07	3.04E-08	0.45	0.00	3.62E-04	6.14E-05	7.54E-05	9.59E-05	1.20E-04	7.15E-04
568432.29_4180986.94	568432.29	4180986.94	3.81E-04	6.14E-05	7.92E-05	9.73E-05	1.22E-04	7.41E-04	potential residence	8.54E-09	2.07E-07	1.93E-07	2.98E-08	0.44	0.00	3.55E-04	6.14E-05	7.54E-05	9.25E-05	1.16E-04	7.00E-04
568452.29_4180986.94	568452.29	4180986.94	3.75E-04	6.10E-05	7.93E-05	9.38E-05	1.17E-04	7.26E-04	potential residence	8.37E-09	2.03E-07	1.89E-07	2.92E-08	0.43	0.00	3.49E-04	6.10E-05	7.54E-05	8.93E-05	1.11E-04	6.86E-04
568472.29_4180986.94	568472.29	4180986.94	3.68E-04	6.05E-05	7.93E-05	9.07E-05	1.13E-04	7.12E-04	potential residence	8.21E-09	1.99E-07	1.86E-07	2.86E-08	0.42	0.00	3.43E-04	6.05E-05	7.55E-05	8.63E-05	1.08E-04	6.73E-04
568492.29_4180986.94	568492.29	4180986.94	3.63E-04	5.98E-05	7.96E-05	8.81E-05	1.10E-04	7.00E-04	potential residence	8.07E-09	1.95E-07	1.82E-07	2.81E-08	0.41	0.00	3.39E-04	5.98E-05	7.57E-05	8.38E-05	1.04E-04	6.62E-04
568512.29_4180986.94	568512.29	4180986.94	3.57E-04	5.90E-05	7.97E-05	8.53E-05	1.06E-04	6.87E-04	potential residence	7.92E-09	1.92E-07	1.79E-07	2.76E-08	0.41	0.00	3.33E-04	5.90E-05	7.58E-05	8.11E-05	1.01E-04	6.50E-04
568532.29_4180986.94	568532.29	4180986.94	3.50E-04	5.79E-05	7.94E-05	8.23E-05	1.02E-04	6.72E-04	potential residence	7.75E-09	1.88E-07	1.75E-07	2.70E-08	0.40	0.00	3.27E-04	5.79E-05	7.56E-05	7.83E-05	9.74E-05	6.36E-04
568552.29_4180986.94	568552.29	4180986.94	3.43E-04	5.68E-05	7.91E-05	7.94E-05	9.88E-05	6.57E-04	potential residence	7.58E-09	1.84E-07	1.71E-07	2.64E-08	0.39	0.00	3.20E-04	5.68E-05	7.52E-05	7.56E-05	9.40E-05	6.22E-04
568572.29_4180986.94	568572.29	4180986.94	3.38E-04	5.57E-05	7.92E-05	7.73E-05	9.60E-05	6.46E-04	potential residence	7.45E-09	1.80E-07	1.68E-07	2.60E-08	0.38	0.00	3.15E-04	5.57E-05	7.54E-05	7.35E-05	9.13E-05	6.11E-04
568592.29_4180986.94	568592.29	4180986.94	3.32E-04	5.45E-05	7.91E-05	7.49E-05	9.29E-05	6.33E-04	potential residence	7.30E-09	1.77E-07	1.65E-07	2.55E-08	0.37	0.00	3.09E-04	5.45E-05	7.52E-05	7.12E-05	8.84E-05	5.99E-04
568632.29_4180986.94	568632.29	4180986.94	3.20E-04	5.23E-05	7.88E-05	7.04E-05	8.70E-05	6.08E-04	potential residence	7.01E-09	1.70E-07	1.59E-07	2.44E-08	0.36	0.00	2.98E-04	5.23E-05	7.49E-05	6.70E-05	8.28E-05	5.75E-04
568652.29_4180986.94	568652.29	4180986.94	3.13E-04	5.13E-05	7.83E-05	6.80E-05	8.40E-05	5.95E-04	potential residence	6.85E-09	1.66E-07	1.55E-07	2.39E-08	0.35	0.00	2.92E-04	5.13E-05	7.45E-05	6.47E-05	7.99E-05	5.62E-04
568672.29_4180986.94	568672.29	4180986.94	3.07E-04	5.04E-05	7.80E-05	6.59E-05	8.11E-05	5.82E-04	potential residence	6.71E-09	1.63E-07	1.52E-07	2.34E-08	0.34	0.00	2.86E-04	5.04E-05	7.42E-05	6.27E-05	7.72E-05	5.50E-04
568692.29_4180986.94	568692.29	4180986.94	3.02E-04	4.96E-05	7.81E-05	6.42E-05	7.88E-05	5.72E-04	potential residence	6.60E-09	1.60E-07	1.49E-07	2.30E-08	0.34	0.00	2.81E-04	4.96E-05	7.43E-05	6.10E-05	7.50E-05	5.41E-04
568712.29_4180986.94	568712.29	4180986.94	2.97E-04	4.89E-05	7.83E-05	6.26E-05	7.66E-05	5.63E-04	potential residence	6.49E-09	1.57E-07	1.47E-07	2.26E-08	0.33	0.00	2.77E-04	4.89E-05	7.45E-05	5.95E-05	7.29E-05	5.33E-04
568732.29_4180986.94	568732.29	4180986.94	2.92E-04	4.83E-05	7.84E-05	6.10E-05	7.45E-05	5.54E-04	potential residence	6.39E-09	1.55E-07	1.45E-07	2.23E-08	0.33	0.00	2.72E-04	4.83E-05	7.46E-05	5.81E-05	7.09E-05	5.24E-04
568752.29_4180986.94	568752.29	4180986.94	2.87E-04	4.76E-05	7.82E-05	5.93E-05	7.23E-05	5.44E-04	potential residence	6.27E-09	1.52E-07	1.42E-07	2.19E-08	0.32	0.00	2.67E-04	4.76E-05	7.44E-05	5.64E-05	6.87E-05	5.14E-04
568772.29_4180986.94	568772.29	4180986.94	2.81E-04	4.71E-05	7.78E-05	5.75E-05	7.01E-05	5.34E-04	potential residence	6.16E-09	1.49E-07	1.39E-07	2.15E-08	0.32	0.00	2.62E-04	4.71E-05	7.41E-05	5.47E-05	6.66E-05	5.05E-04
568792.29_4180986.94	568792.29	4180986.94	2.76E-04	4.65E-05	7.75E-05	5.59E-05	6.79E-05	5.24E-04	potential residence	6.04E-09	1.46E-07	1.37E-07	2.11E-08	0.31	0.00	2.58E-04	4.65E-05	7.37E-05	5.32E-05	6.46E-05	4.96E-04
568812.29_4180986.94	568812.29	4180986.94	2.72E-04	4.61E-05	7.73E-05	5.44E-05	6.60E-05	5.16E-04	potential residence	5.94E-09	1.44E-07	1.34E-07	2.07E-08	0.30	0.00	2.53E-04	4.61E-05	7.36E-05	5.18E-05	6.28E-05	4.87E-04
567412.29_4181006.94	567412.29	4181006.94	2.02E-04	2.90E-05	5.96E-05	1.75E-05	1.79E-05	3.26E-04	potential residence	3.76E-09	9.11E-08	8.50E-08	1.31E-08	0.19	0.00	1.89E-04	2.90E-05	5.67E-05	1.66E-05	1.70E-05	3.08E-04
567432.29_4181006.94	567432.29	4181006.94	2.11E-04	2.99E-05	6.08E-05	1.81E-05	1.85E-05	3.39E-04	potential residence	3.91E-09	9.46E-08	8.83E-08	1.36E-08	0.20	0.00	1.97E-04	2.99E-05	5.78E-05	1.72E-05	1.76E-05	3.20E-04
567452.29_4181006.94	567452.29	4181006.94	2.21E-04	3.09E-05	6.20E-05	1.88E-05	1.92E-05	3.52E-04	potential residence	4.06E-09	9.83E-08	9.18E-08	1.42E-08	0.21	0.00	2.06E-04	3.09E-05	5.89E-05	1.79E-05	1.83E-05	3.32E-04
567472.29_4181006.94	567472.29	4181006.94	2.31E-04	3.15E-05	6.30E-05	1.95E-05	2.00E-05	3.65E-04	potential residence	4.20E-09	1.02E-07	9.51E-08	1.47E-08	0.22	0.00	2.15E-04	3.15E-05	6.00E-05	1.86E-05	1.90E-05	3.44E-04
567492.29_4181006.94	567492.29	4181006.94	2.40E-04	3.21E-05	6.41E-05	2.03E-05	2.08E-05	3.78E-04	potential residence	4.35E-09	1.05E-07	9.84E-08	1.52E-08	0.22	0.00	2.24E-04	3.21E-05	6.09E-05	1.94E-05	1.98E-05	3.56E-04
567512.29_4181006.94	567512.29	4181006.94	2.49E-04	3.30E-05	6.51E-05	2.12E-05	2.17E-05	3.90E-04	potential residence	4.50E-09	1.09E-07	1.02E-07	1.57E-08	0.23	0.00	2.32E-04	3.30E-05	6.19E-05	2.02E-05	2.06E-05	3.68E-04
567532.29_4181006.94	567532.29	4181006.94	2.61E-04	3.41E-05	6.60E-05	2.21E-05	2.26E-05	4.06E-04	potential residence	4.68E-09	1.13E-07	1.06E-07	1.63E-08	0.24	0.00	2.43E-04	3.41E-05	6.28E-05	2.10E-05	2.15E-05	3.83E-04
567552.29_4181006.94	567552.29	4181006.94	2.72E-04	3.52E-05	6.69E-05	2.31E-05	2.37E-05	4.21E-04	potential residence	4.85E-09	1.18E-07	1.10E-07	1.69E-08	0.25	0.00	2.54E-04	3.52E-05	6.37E-05	2.20E-05	2.25E-05	3.97E-04
567572.29_4181006.94	567572.29	4181006.94	2.83E-04	3.63E-05	6.77E-05	2.42E-05	2.48E-05	4.36E-04	potential residence	5.02E-09	1.22E-07	1.14E-07	1.75E-08	0.26	0.00	2.64E-04	3.63E-05	6.44E-05	2.30E-05	2.35E-05	4.11E-04
567592.29_4181006.94	567592.29	4181006.94	2.92E-04	3.75E-05	6.85E-05	2.53E-05	2.59E-05	4.49E-04	potential residence	5.17E-09	1.25E-07	1.17E-07	1.80E-08	0.27	0.00	2.72E-04	3.75E-05	6.51E-05	2.41E-05	2.47E-05	4.23E-04
567612.29_4181006.94	567612.29	4181006.94	3.02E-04	3.89E-05	6.91E-05	2.66E-05	2.72E-05	4.64E-04	potential residence	5.35E-09	1.30E-07	1.21E-07	1.86E-08	0.27	0.00	2.82E-04	3.89E-05	6.58E-05	2.53E-05	2.59E-05	4.37E-04
567632.29_4181006.94	567632.29	4181006.94	3.11E-04	4.02E-05	6.97E-05	2.80E-05	2.87E-05	4.78E-04	potential residence	5.51E-09	1.33E-07	1.25E-07	1.92E-08	0.28	0.00	2.90E-04	4.02E-05	6.63E-05	2.66E-05	2.73E-05	4.51E-04
567652.29_4181006.94	567652.29	4181006.94	3.20E-04	4.16E-05	7.02E-05	2.95E-05	3.02E-05	4.92E-04	potential residence	5.67E-09	1.37E-07	1.28E-07	1.98E-08	0.29	0.00	2.99E-04	4.16E-05	6.67E-05	2.80E-05	2.88E-05	4.64E-04
567672.29_4181006.94	567672.29	4181006.94	3.29E-04	4.31E-05	7.06E-05	3.11E-05	3.20E-05	5.06E-04	potential residence	5.83E-09	1.41E-07	1.32E-07	2.03E-08	0.30	0.00	3.07E-04	4.31E-05	6.71E-05	2.96E-05	3.04E-05	4.77E-04
567692.29_4181006.94	567692.29	4181006.94	3.36E-04	4.46E-05	7.09E-05	3.30E-05	3.39E-05	5.19E-04	potential residence	5.98E-09	1.45E-07	1.35E-07	2.08E-08	0.31	0.00	3.14E-04	4.46E-05	6.74E-05	3.14E-05	3.22E-05	4.89E-04
567712.29_4181006.94	567712.29	4181006.94	3.42E-04	4.60E-05	7.11E-05	3.50E-05	3.60E-05	5.30E-04	potential residence	6.11E-09	1.48E-07	1.38E-07	2.13E-08	0.31	0.00	3.19E-04	4.60E-05	6.76E-05	3.33E-05	3.42E-05	5.00E-04
568032.29_4181006.94	568032.29	4181006.94	3.95E-04	5.71E-05	7.39E-05	1.13E-04	1.44E-04	7.83E-04	potential residence	9.03E-09	2.19E-07	2.04E-07	3.15E-08	0.46	0.00	3.68E-04	5.71E-05	7.03E-05	1.08E-04	1.37E-04	7.40E-04
568052.29_4181006.94	568052.29	4181006.94	3.95E-04	5.71E-05	7.38E-05	1.16E-04	1.49E-04	7.91E-04	potential residence	9.12E-09	2.21E-07	2.06E-07	3.18E-08	0.47	0.00	3.69E-04	5.71E-05	7.02E-05	1.10E-04	1.42E-04	7.48E-04
568072.29_4181006.94	568072.29	4181006.94	3.93E-04	5.69E-05	7.34E-05	1.17E-04	1.52E-04	7.93E-04	potential residence	9.14E-09	2.21E-07	2.07E-07	3.19E-08	0.47	0.00	3.67E-04	5.69E-05	6.98E-05	1.11E-04	1.45E-04	7.50E-04
568092.29_4181006.94	568092.29	4181006.94	3.94E-04	5.69E-05	7.33E-05	1.18E-04	1.54E-04	7.97E-04	potential residence	9.19E-09	2.22E-07	2.08E-07	3.20E-08	0.47	0.00	3.67E-04	5.69E-05	6.97E-05	1.13E-04	1.47E-04	7.53E-04
568112.29_4181006.94	568112.29	4181006.94	3.95E-04	5.70E-05	7.33E-05	1.19E-04	1.55E-04	7.99E-04	potential residence	9.21E-09	2.23E-07	2.08E-07	3.21E-08	0.47	0.00	3.68E-04	5.70E-05	6.97E-05	1.13E-04	1.48E-04	7.56E-04
568132.29_4181006.94	568132.29	4181006.94	3.94E-04	5.66E-05	7.31E-05	1.18E-04	1.54E-04	7.96E-04	potential residence	9.17E-09	2.22E-07	2.07E-07	3.20E-08	0.47	0.00	3.67E-04	5.66E-05	6.95E-05	1.12E-04	1.47E-04	7.52E-04
568152.29_4181006.94	568152.29	4181006.94	3.94E-04	5.63E-05	7.30E-05	1.17E-04	1.53E-04	7.93E-04	potential residence	9.14E-09	2.21E-07	2.07E-07	3.19E-08	0.47	0.00	3.67E-04	5.63E-05	6.94E-05	1.11E-04	1.45E-04	7.50E-04
568172.29_4181006.94	568172.29	4181006.94	3.92E-04	5.59E-05	7.27E-05	1.15E-04	1.50E-04	7.85E-04	potential residence	9.05E-09	2.19E-07	2.05E-07	3.16E-08	0.46	0.00	3.65E-04	5.59E-05	6.91E-05	1.09E-04	1.43E-04	7.42E-04
568232.29_4181006.94	568232.29	4181006.94	3.90E-04	5.41E-05	7.29E-05	1.09E-04	1.41E-04	7.67E-04	potential residence	8.84E-09	2.14E-07	2.00E-07	3.08E-08	0.45	0.00	3.63E-04	5.41E-05	6.93E-05	1.04E-04	1.35E-04	7.25E-04
568252.29_4181006.94	568252.29	4181006.94	3.88E-04	5.28E-05	7.29E-05	1.06E-04	1.38E-04	7.58E-04	potential residence	8.74E-09	2.12E-07	1.98E-07	3.05E-08	0.45	0.00	3.62E-04	5.28E-05	6.94E-05	1.01E-04	1.31E-04	7.16E-04
568272.29_4181006.94	568272.29	4181006.94	3.85E-04	5.16E-05	7.30E-05	1.04E-04	1.34E-04	7.48E-04	potential residence	8.62E-09	2.09E-07	1.95E-07	3.01E-08	0.44	0.00	3.59E-04	5.16E-05	6.94E-05	9.87E-05	1.27E-04	7.06E-04
568292.29_4181006.94	568292.29	4181006.94	3.83E-04	5.07E-05	7.32E-05	1.01E-04	1.30E-04	7.38E-04	potential residence	8.51E-09	2.06E-07	1.92E-07	2.97E-08	0.44	0.00	3.57E-04	5.07E-05	6.96E-05	9.64E-05	1.24E-04	6.97E-04
568312.29_4181006.94	568312.29	4181006.94	3.79E-04	5.06E-05	7.32E-05	9.85E-05	1.26E-04	7.27E-04	potential residence	8.38E-09	2.03E-07	1.89E-07	2.92E-08	0.43	0.00	3.53E-04	5.06E-05	6.96E-05	9.37E-05	1.20E-04	6.87E-04
568332.29_4181006.94	568332.29	4181006.94	3.76E-04	5.13E-05	7.35E-05	9.62E-05	1.22E-04	7.19E-04	potential residence	8.29E-09	2.01E-07	1.87E-07	2.89E-08	0.43	0.00	3.50E-04	5.13E-05	6.99E-05	9.15E-05	1.16E-04	6.79E-04
568372.29_4181006.94	568372.29	4181006.94	3.69E-04	5.38E-05	7.42E-05	9.16E-05	1.15E-04	7.03E-04	potential residence	8.11E-09	1.96E-07	1.83E-07	2.83E-08	0.42	0.00	3.44E-04	5.38E-05	7.05E-05	8.72E-05	1.09E-04	6.65E-04
568392.29_4181006.94	568392.29	4181006.94	3.64E-04	5.48E-05	7.43E-05	8.91E-05	1.11E-04	6.94E-04	potential residence	7.99E-09	1.94E-07	1.81E-07	2.79E-08	0.41	0.00	3.39E-04	5.48E-05	7.07E-05	8.48E-05	1.06E-04	6.56E-04
568412.29_4181006.94	568412.29	4181006.94	3.60E-04	5.54E-05	7.47E-05	8.71E-05	1.08E-04	6.86E-04	potential residence	7.90E-09	1.91E-07	1.79E-07	2.76E-08	0.41	0.00	3.36E-04	5.54E-05	7.11E-05	8.28E-05	1.03E-04	6.48E-04

568432.29_4181006.94	568432.29	4181006.94	3.54E-04	5.55E-05	7.47E-05	8.43E-05	1.05E-04	6.73E-04	potential residence	7.76E-09	1.88E-07	1.75E-07	2.71E-08	0.40	0.00	3.30E-04	5.55E-05	7.11E-05	8.02E-05	9.95E-05	6.36E-04
568452.29_4181006.94	568452.29	4181006.94	3.49E-04	5.53E-05	7.48E-05	8.19E-05	1.01E-04	6.62E-04	potential residence	7.63E-09	1.85E-07	1.73E-07	2.66E-08	0.39	0.00	3.25E-04	5.53E-05	7.11E-05	7.79E-05	9.64E-05	6.26E-04
568472.29_4181006.94	568472.29	4181006.94	3.44E-04	5.50E-05	7.51E-05	8.00E-05	9.87E-05	6.53E-04	potential residence	7.53E-09	1.82E-07	1.70E-07	2.63E-08	0.39	0.00	3.21E-04	5.50E-05	7.15E-05	7.61E-05	9.39E-05	6.18E-04
568492.29_4181006.94	568492.29	4181006.94	3.38E-04	5.44E-05	7.50E-05	7.75E-05	9.57E-05	6.41E-04	potential residence	7.39E-09	1.79E-07	1.67E-07	2.58E-08	0.38	0.00	3.16E-04	5.44E-05	7.14E-05	7.37E-05	9.10E-05	6.06E-04
568512.29_4181006.94	568512.29	4181006.94	3.33E-04	5.38E-05	7.51E-05	7.54E-05	9.31E-05	6.31E-04	potential residence	7.27E-09	1.76E-07	1.64E-07	2.54E-08	0.37	0.00	3.11E-04	5.38E-05	7.14E-05	7.18E-05	8.85E-05	5.96E-04
568532.29_4181006.94	568532.29	4181006.94	3.28E-04	5.31E-05	7.50E-05	7.33E-05	9.05E-05	6.20E-04	potential residence	7.15E-09	1.73E-07	1.62E-07	2.49E-08	0.37	0.00	3.06E-04	5.31E-05	7.14E-05	6.98E-05	8.61E-05	5.86E-04
568552.29_4181006.94	568552.29	4181006.94	3.22E-04	5.23E-05	7.48E-05	7.11E-05	8.78E-05	6.08E-04	potential residence	7.01E-09	1.70E-07	1.59E-07	2.45E-08	0.36	0.00	3.01E-04	5.23E-05	7.12E-05	6.77E-05	8.35E-05	5.75E-04
568572.29_4181006.94	568572.29	4181006.94	3.17E-04	5.14E-05	7.47E-05	6.92E-05	8.53E-05	5.98E-04	potential residence	6.89E-09	1.67E-07	1.56E-07	2.40E-08	0.35	0.00	2.96E-04	5.14E-05	7.11E-05	6.58E-05	8.12E-05	5.65E-04
568592.29_4181006.94	568592.29	4181006.94	3.11E-04	5.04E-05	7.45E-05	6.72E-05	8.27E-05	5.86E-04	potential residence	6.76E-09	1.64E-07	1.53E-07	2.36E-08	0.35	0.00	2.90E-04	5.04E-05	7.09E-05	6.39E-05	7.87E-05	5.54E-04
568612.29_4181006.94	568612.29	4181006.94	3.06E-04	4.94E-05	7.45E-05	6.54E-05	8.04E-05	5.76E-04	potential residence	6.64E-09	1.61E-07	1.50E-07	2.31E-08	0.34	0.00	2.85E-04	4.94E-05	7.08E-05	6.22E-05	7.65E-05	5.44E-04
568632.29_4181006.94	568632.29	4181006.94	3.01E-04	4.85E-05	7.44E-05	6.37E-05	7.82E-05	5.66E-04	potential residence	6.52E-09	1.58E-07	1.47E-07	2.27E-08	0.33	0.00	2.80E-04	4.85E-05	7.08E-05	6.06E-05	7.44E-05	5.35E-04
568652.29_4181006.94	568652.29	4181006.94	2.95E-04	4.76E-05	7.40E-05	6.18E-05	7.57E-05	5.54E-04	potential residence	6.38E-09	1.55E-07	1.44E-07	2.23E-08	0.33	0.00	2.75E-04	4.76E-05	7.04E-05	5.88E-05	7.20E-05	5.24E-04
568672.29_4181006.94	568672.29	4181006.94	2.89E-04	4.68E-05	7.36E-05	5.99E-05	7.32E-05	5.42E-04	potential residence	6.25E-09	1.51E-07	1.41E-07	2.18E-08	0.32	0.00	2.69E-04	4.68E-05	7.00E-05	5.70E-05	6.97E-05	5.12E-04
568692.29_4181006.94	568692.29	4181006.94	2.84E-04	4.61E-05	7.37E-05	5.85E-05	7.14E-05	5.34E-04	potential residence	6.15E-09	1.49E-07	1.39E-07	2.14E-08	0.32	0.00	2.65E-04	4.61E-05	7.01E-05	5.57E-05	6.79E-05	5.05E-04
568712.29_4181006.94	568712.29	4181006.94	2.80E-04	4.55E-05	7.40E-05	5.73E-05	6.97E-05	5.26E-04	potential residence	6.07E-09	1.47E-07	1.37E-07	2.11E-08	0.31	0.00	2.61E-04	4.55E-05	7.04E-05	5.45E-05	6.63E-05	4.97E-04
568732.29_4181006.94	568732.29	4181006.94	2.75E-04	4.49E-05	7.40E-05	5.59E-05	6.79E-05	5.18E-04	potential residence	5.97E-09	1.45E-07	1.35E-07	2.08E-08	0.31	0.00	2.57E-04	4.49E-05	7.04E-05	5.32E-05	6.46E-05	4.90E-04
568752.29_4181006.94	568752.29	4181006.94	2.71E-04	4.44E-05	7.40E-05	5.46E-05	6.61E-05	5.10E-04	potential residence	5.88E-09	1.42E-07	1.33E-07	2.05E-08	0.30	0.00	2.52E-04	4.44E-05	7.04E-05	5.19E-05	6.29E-05	4.82E-04
568772.29_4181006.94	568772.29	4181006.94	2.66E-04	4.39E-05	7.38E-05	5.32E-05	6.43E-05	5.01E-04	potential residence	5.78E-09	1.40E-07	1.31E-07	2.01E-08	0.30	0.00	2.48E-04	4.39E-05	7.02E-05	5.06E-05	6.12E-05	4.74E-04
568792.29_4181006.94	568792.29	4181006.94	2.61E-04	4.34E-05	7.35E-05	5.17E-05	6.25E-05	4.92E-04	potential residence	5.67E-09	1.37E-07	1.28E-07	1.98E-08	0.29	0.00	2.43E-04	4.34E-05	7.00E-05	4.92E-05	5.95E-05	4.65E-04
568812.29_4181006.94	568812.29	4181006.94	2.57E-04	4.30E-05	7.33E-05	5.04E-05	6.08E-05	4.84E-04	potential residence	5.58E-09	1.35E-07	1.26E-07	1.95E-08	0.29	0.00	2.39E-04	4.30E-05	6.98E-05	4.80E-05	5.79E-05	4.58E-04
567412.29_4181026.94	567412.29	4181026.94	1.99E-04	2.90E-05	5.81E-05	1.71E-05	1.75E-05	3.21E-04	potential residence	3.70E-09	8.95E-08	8.35E-08	1.29E-08	0.19	0.00	1.85E-04	2.90E-05	5.53E-05	1.62E-05	1.66E-05	3.03E-04
567432.29_4181026.94	567432.29	4181026.94	2.05E-04	2.86E-05	5.90E-05	1.77E-05	1.81E-05	3.28E-04	potential residence	3.78E-09	9.16E-08	8.55E-08	1.32E-08	0.19	0.00	1.91E-04	2.86E-05	5.61E-05	1.69E-05	1.72E-05	3.10E-04
567452.29_4181026.94	567452.29	4181026.94	2.16E-04	3.04E-05	6.01E-05	1.84E-05	1.88E-05	3.44E-04	potential residence	3.96E-09	9.60E-08	8.96E-08	1.38E-08	0.20	0.00	2.01E-04	3.04E-05	5.72E-05	1.75E-05	1.79E-05	3.24E-04
567472.29_4181026.94	567472.29	4181026.94	2.25E-04	3.09E-05	6.11E-05	1.91E-05	1.95E-05	3.55E-04	potential residence	4.10E-09	9.92E-08	9.26E-08	1.43E-08	0.21	0.00	2.09E-04	3.09E-05	5.81E-05	1.82E-05	1.86E-05	3.35E-04
567492.29_4181026.94	567492.29	4181026.94	2.32E-04	3.15E-05	6.20E-05	1.99E-05	2.03E-05	3.66E-04	potential residence	4.22E-09	1.02E-07	9.54E-08	1.47E-08	0.22	0.00	2.17E-04	3.15E-05	5.90E-05	1.89E-05	1.93E-05	3.45E-04
567512.29_4181026.94	567512.29	4181026.94	2.41E-04	3.23E-05	6.29E-05	2.07E-05	2.12E-05	3.78E-04	potential residence	4.36E-09	1.06E-07	9.86E-08	1.52E-08	0.22	0.00	2.25E-04	3.23E-05	5.98E-05	1.97E-05	2.01E-05	3.57E-04
567532.29_4181026.94	567532.29	4181026.94	2.51E-04	3.33E-05	6.37E-05	2.16E-05	2.21E-05	3.92E-04	potential residence	4.52E-09	1.09E-07	1.02E-07	1.57E-08	0.23	0.00	2.34E-04	3.33E-05	6.06E-05	2.05E-05	2.10E-05	3.69E-04
567552.29_4181026.94	567552.29	4181026.94	2.61E-04	3.45E-05	6.45E-05	2.25E-05	2.30E-05	4.05E-04	potential residence	4.67E-09	1.13E-07	1.06E-07	1.63E-08	0.24	0.00	2.43E-04	3.45E-05	6.13E-05	2.14E-05	2.19E-05	3.82E-04
567572.29_4181026.94	567572.29	4181026.94	2.70E-04	3.56E-05	6.52E-05	2.35E-05	2.41E-05	4.18E-04	potential residence	4.82E-09	1.17E-07	1.09E-07	1.68E-08	0.25	0.00	2.52E-04	3.56E-05	6.20E-05	2.24E-05	2.29E-05	3.95E-04
567592.29_4181026.94	567592.29	4181026.94	2.79E-04	3.68E-05	6.58E-05	2.46E-05	2.52E-05	4.32E-04	potential residence	4.97E-09	1.20E-07	1.12E-07	1.73E-08	0.26	0.00	2.60E-04	3.68E-05	6.26E-05	2.34E-05	2.40E-05	4.07E-04
567612.29_4181026.94	567612.29	4181026.94	2.87E-04	3.79E-05	6.63E-05	2.58E-05	2.65E-05	4.44E-04	potential residence	5.12E-09	1.24E-07	1.16E-07	1.78E-08	0.26	0.00	2.68E-04	3.79E-05	6.31E-05	2.46E-05	2.52E-05	4.19E-04
567632.29_4181026.94	567632.29	4181026.94	2.96E-04	3.91E-05	6.67E-05	2.71E-05	2.78E-05	4.56E-04	potential residence	5.26E-09	1.27E-07	1.19E-07	1.83E-08	0.27	0.00	2.76E-04	3.91E-05	6.35E-05	2.58E-05	2.64E-05	4.30E-04
567652.29_4181026.94	567652.29	4181026.94	3.04E-04	4.04E-05	6.71E-05	2.86E-05	2.93E-05	4.69E-04	potential residence	5.41E-09	1.31E-07	1.22E-07	1.88E-08	0.28	0.00	2.83E-04	4.04E-05	6.39E-05	2.72E-05	2.79E-05	4.42E-04
567672.29_4181026.94	567672.29	4181026.94	3.10E-04	4.15E-05	6.74E-05	3.01E-05	3.09E-05	4.79E-04	potential residence	5.53E-09	1.34E-07	1.25E-07	1.93E-08	0.28	0.00	2.89E-04	4.15E-05	6.41E-05	2.87E-05	2.94E-05	4.52E-04
568032.29_4181026.94	568032.29	4181026.94	3.63E-04	5.25E-05	6.97E-05	9.13E-05	1.12E-04	6.89E-04	potential residence	7.94E-09	1.92E-07	1.80E-07	2.77E-08	0.41	0.00	3.38E-04	5.25E-05	6.63E-05	8.69E-05	1.07E-04	6.51E-04
568052.29_4181026.94	568052.29	4181026.94	3.63E-04	5.25E-05	6.95E-05	9.28E-05	1.15E-04	6.93E-04	potential residence	7.99E-09	1.93E-07	1.81E-07	2.79E-08	0.41	0.00	3.38E-04	5.25E-05	6.61E-05	8.83E-05	1.10E-04	6.55E-04
568072.29_4181026.94	568072.29	4181026.94	3.63E-04	5.24E-05	6.94E-05	9.41E-05	1.18E-04	6.97E-04	potential residence	8.03E-09	1.95E-07	1.82E-07	2.80E-08	0.41	0.00	3.38E-04	5.24E-05	6.60E-05	8.95E-05	1.12E-04	6.58E-04
568092.29_4181026.94	568092.29	4181026.94	3.63E-04	5.24E-05	6.92E-05	9.48E-05	1.20E-04	6.99E-04	potential residence	8.06E-09	1.95E-07	1.82E-07	2.81E-08	0.41	0.00	3.38E-04	5.24E-05	6.58E-05	9.02E-05	1.14E-04	6.61E-04
568112.29_4181026.94	568112.29	4181026.94	3.63E-04	5.23E-05	6.92E-05	9.53E-05	1.21E-04	7.01E-04	potential residence	8.08E-09	1.96E-07	1.83E-07	2.82E-08	0.41	0.00	3.39E-04	5.23E-05	6.58E-05	9.07E-05	1.15E-04	6.63E-04
568132.29_4181026.94	568132.29	4181026.94	3.62E-04	5.20E-05	6.89E-05	9.49E-05	1.21E-04	6.99E-04	potential residence	8.06E-09	1.95E-07	1.82E-07	2.81E-08	0.41	0.00	3.38E-04	5.20E-05	6.56E-05	9.03E-05	1.15E-04	6.61E-04
568192.29_4181026.94	568192.29	4181026.94	3.61E-04	5.11E-05	6.86E-05	9.22E-05	1.18E-04	6.91E-04	potential residence	7.96E-09	1.93E-07	1.80E-07	2.78E-08	0.41	0.00	3.36E-04	5.11E-05	6.52E-05	8.77E-05	1.12E-04	6.53E-04
568212.29_4181026.94	568212.29	4181026.94	3.63E-04	5.06E-05	6.90E-05	9.18E-05	1.17E-04	6.91E-04	potential residence	7.97E-09	1.93E-07	1.80E-07	2.78E-08	0.41	0.00	3.38E-04	5.06E-05	6.56E-05	8.73E-05	1.12E-04	6.53E-04
568232.29_4181026.94	568232.29	4181026.94	3.60E-04	5.00E-05	6.88E-05	8.99E-05	1.15E-04	6.84E-04	potential residence	7.88E-09	1.91E-07	1.78E-07	2.75E-08	0.40	0.00	3.36E-04	5.00E-05	6.55E-05	8.55E-05	1.09E-04	6.46E-04
568252.29_4181026.94	568252.29	4181026.94	3.59E-04	4.90E-05	6.90E-05	8.86E-05	1.13E-04	6.79E-04	potential residence	7.83E-09	1.90E-07	1.77E-07	2.73E-08	0.40	0.00	3.35E-04	4.90E-05	6.57E-05	8.43E-05	1.08E-04	6.42E-04
568272.29_4181026.94	568272.29	4181026.94	3.57E-04	4.78E-05	6.91E-05	8.69E-05	1.11E-04	6.71E-04	potential residence	7.74E-09	1.87E-07	1.75E-07	2.70E-08	0.40	0.00	3.33E-04	4.78E-05	6.57E-05	8.27E-05	1.05E-04	6.34E-04
568292.29_4181026.94	568292.29	4181026.94	3.55E-04	4.68E-05	6.92E-05	8.53E-05	1.08E-04	6.64E-04	potential residence	7.65E-09	1.85E-07	1.73E-07	2.67E-08	0.39	0.00	3.31E-04	4.68E-05	6.58E-05	8.11E-05	1.03E-04	6.27E-04
568332.29_4181026.94	568332.29	4181026.94	3.48E-04	4.65E-05	6.95E-05	8.19E-05	1.03E-04	6.49E-04	potential residence	7.48E-09	1.81E-07	1.69E-07	2.61E-08	0.38	0.00	3.25E-04	4.65E-05	6.61E-05	7.79E-05	9.78E-05	6.13E-04
568352.29_4181026.94	568352.29	4181026.94	3.45E-04	4.73E-05	6.97E-05	8.03E-05	1.00E-04	6.43E-04	potential residence	7.41E-09	1.79E-07	1.68E-07	2.58E-08	0.38	0.00	3.22E-04	4.73E-05	6.63E-05	7.64E-05	9.53E-05	6.07E-04
568372.29_4181026.94	568372.29	4181026.94	3.42E-04	4.84E-05	7.00E-05	7.87E-05	9.77E-05	6.37E-04	potential residence	7.34E-09	1.78E-07	1.66E-07	2.56E-08	0.38	0.00	3.19E-04	4.84E-05	6.66E-05	7.49E-05	9.30E-05	6.01E-04
568392.29_4181026.94	568392.29	4181026.94	3.38E-04	4.94E-05	7.01E-05	7.68E-05	9.51E-05	6.29E-04	potential residence	7.25E-09	1.76E-07	1.64E-07	2.53E-08	0.37	0.00	3.15E-04	4.94E-05	6.67E-05	7.31E-05	9.05E-05	5.94E-04
568412.29_4181026.94	568412.29	4181026.94	3.33E-04	5.01E-05	7.02E-05	7.50E-05	9.25E-05	6.21E-04	potential residence	7.16E-09	1.73E-07	1.62E-07	2.50E-08	0.37	0.00	3.10E-04	5.01E-05	6.68E-05	7.14E-05	8.80E-05	5.87E-04
568432.29_4181026.94	568432.29	4181026.94	3.31E-04	5.05E-05	7.08E-05	7.39E-05	9.07E-05	6.16E-04	potential residence	7.10E-09	1.72E-07	1.61E-07	2.48E-08	0.36	0.00	3.08E-04	5.05E-05	6.73E-05	7.03E-05	8.63E-05	5.83E-04
568452.29_4181026.94	568452.29	4181026.94	3.25E-04	5.04E-05	7.08E-05	7.20E-05	8.82E-05	6.07E-04	potential residence	6.99E-09	1.69E-07	1.58E-07	2.44E-08	0.36	0.00	3.03E-04	5.04E-05	6.73E-05	6.85E-05	8.39E-05	5.74E-04
568472.29_4181026.94	568472.29	4181026.94	3.21E-04	5.02E-05	7.08E-05	7.02E-05	8.60E-05	5.98E-04	potential residence	6.89E-09	1.67E-07	1.56E-07	2.40E-08	0.35	0.00	2.99E-04	5.02E-05	6.74E-05	6.68E-05	8.18E-05	5.65E-04
568492.29_4181026.94	568492.29	4181026.94	3.17E-04	4.98E-05	7.09E-05	6.86E-05	8.40E-05	5.90E-04	potential residence	6.80E-09	1.65E-07	1.54E-07	2.37E-08	0.35	0.00	2.95E-04	4.98E-05	6.75E-05	6.53E-05	7.99E-05	5.58E-04
568512.29_4181026.94	568512.29	4181026.94	3.12E-04	4.93E-05	7.10E-05	6.70E-05	8.21E-05	5.82E-04	potential residence	6.71E-09	1.62E-07	1.52E-07	2.34E-08	0.34	0.00	2.91E-04	4.93E-05	6.75E-05	6.38E-05	7.81E-05	5.50E-04
568532.29_4181026.94	568532.29	4181026.94	3.08E-04	4.88E-05	7.09E-05	6.53E-05	8.00E-05	5.73E-04	potential residence	6.60E-09	1.60E-07	1.49E-07	2.30E-08	0.34	0.00	2.87E-04	4.88E-05	6.75E-05	6.22E-05	7.61E-05	5.41E-04
568572.29_4181026.94	568572.29	4181026.94	2.98E-04	4.75E-05	7.05E-05	6.20E-05	7.59E-05	5.53E-04	potential residence	6.38E-09	1.55E-07	1.44E-07	2.22E-08	0.33	0.00	2.77E-04	4.75E-05	6.71E-05	5.90E-05	7.22E-05	5.23E-04
568592.29_4181026.94	568592.29	4181026.94	2.93E-04	4.67E-05	7.05E-05	6.05E-05	7.40E-05	5.45E-04	potential residence	6.28E-09	1.52E-07	1.42E-07	2.19E-08	0.32	0.00	2.73E-04	4.67E-05	6.70E-05	5.76E-05	7.04E-05	5.15E-04
568612.29_4181026.94	568612.29	4181026.94	2.88E-04	4.59E-05	7.04E-05	5.91E-05	7.21E-05	5.36E-04	potential residence	6.17E-09	1.50E-07	1.40E-07	2.15E-08	0.32	0.00	2.69E-04	4.59E-05	6.69E-05	5.62E-05	6.86E-05	5.06E-04
568632.29_4181026.94	568632.29	4181026.94	2.84E-04	4.52E-05	7.03E-05	5.77E-05	7.03E-05	5.27E-04	potential residence	6.08E-09	1.47E-07	1.37E-07	2.12E-08	0.31	0.00	2.64E-04	4.52E-05	6.69E-05	5.49E-05	6.69E-05	4.98E-04
568652.29_4181026.94	568652.29	4181026.94	2.79E-04	4.44E-05	7.02E-05	5.63E-05	6.85E-05	5.18E-04	potential residence	5.97E-09	1.45E-07	1.35E-07	2.08E-08	0.31	0.00	2.60E-04	4.44E-05	6.68E-05	5.35E-05	6.51E-05	4.90E-04
568672.29_4181026.94	568672.29	4181026.94	2.73E-04	4.37E-05	6.99E-05	5.48E-05	6.65E-05	5.08E-04	potential residence	5.85E-09	1.42E-07	1.32E-07	2.04E-08	0.30	0.00	2.55E-04	4.37E-05	6.65E-05	5.21E-05	6.33E-05	4.80E-04
568692.29_4181026.94	568692.29	4181026.94	2.68E-04	4.30E-05	6.99E-05	5.35E-05	6.49E-05	5.00E-04	potential residence	5.76E-09	1.40E-07	1.30E-07	2.01E-08	0.30	0.00	2.50E-04	4.30E-05	6.65E-05	5.09E-05	6.17E-05	4.72E-04
568712.29_4181026.94	568712.29	4181026.94	2.65E-04	4.25E-05	7.01E-05	5.25E-05	6.34E-05	4.93E-04	potential residence	5.68E-09	1.38E-07	1.29E-07	1.98E-08	0.29	0.00	2.47E-04	4.25E-05	6.67E-05	4.99E-05	6.04E-05	4.66E-04
568732.29_4181026.94	568732.29	4181026.94	2.60E-04	4.19E-05	7.01E-05	5.13E-05	6.19E-05	4.85E-04	potential residence	5.59E-09	1.35E-07	1.26E-07	1.95E-08	0.29	0.00	2.42E-04	4.19E-05	6.67E-05	4.88E-05	5.89E-05	4.59E-04
568772.29_4181026.94	568772.29	4181026.94	2.52E-04	4.11E-05	7.00E-05	4.91E-05	5.90E-05	4.71E-04	potential residence	5.43E-09	1.31E-07	1.23E-07	1.89E-08	0.28	0.00	2.35E-04	4.11E-05	6.66E-05	4.67E-05	5.61E-05	4.45E-04
568792.29_4181026.94	568792.29	4181026.94	2.47E-04	4.07E-05	6.98E-05	4.79E-05	5.75E-05	4.63E-04	potential residence	5.34E-09	1.29E-07	1.21E-07	1.86E-08	0.27	0.00	2.31E-04	4.07E-05	6.64E-05	4.56E-05	5.47E-05	4.38E-04
568812.29_4181026.94	568812.29	4181026.94	2.43E-04	4.04E-05	6.97E-05	4.68E-05	5.61E-05	4.56E-04	potential residence	5.26E-09	1.27E-07	1.19E-07	1.83E-08	0.27	0.00	2.27E-04	4.04E-05	6.63E-05	4.45E-05	5.34E-05	4.31E-04
567412.29_4181046.94	567412.29	4181046.94	1.95E-04	2.86E-05	5.65E-05	1.67E-05	1.71E-05	3.14E-04	potential residence	3.62E-09	8.76E-08	8.18E-08	1.26E-08	0.19	0.00	1.82E-04	2.86E-05	5.38E-05	1.59E-05	1.62E-05	2.96E-04
567432.29_4181046.94	567432.29	4181046.94	2.01E-04	2.86E-05	5.74E-05	1.73E-05	1.77E-05	3.22E-04	potential residence	3.71E-09	9.00E-08	8.40E-08	1.30E-08	0.19	0.00	1.88E-04	2.86E-05	5.46E-05	1.65E-05	1.69E-05	3.04E-04
567452.29_4181046.94	567452.29	4181046.94	2.07E-04	2.85E-05	5.81E-05	1.80E-05	1.84E-05	3.30E-04	potential residence	3.80E-09	9.21E-08	8.60E-08	1.33E-08	0.20	0.00	1.93E-04	2.85E-05	5.53E-05	1.71E-05	1.75E-05	3.11E-04

567472.29_4181046.94	567472.29	4181046.94	2.19E-04	3.05E-05	5.92E-05	1.86E-05	1.91E-05	3.46E-04	potential residence	3.99E-09	9.67E-08	9.02E-08	1.39E-08	0.20	0.00	2.04E-04	3.05E-05	5.63E-05	1.77E-05	1.81E-05	3.27E-04
567492.29_4181046.94	567492.29	4181046.94	2.26E-04	3.09E-05	6.00E-05	1.94E-05	1.98E-05	3.56E-04	potential residence	4.10E-09	9.93E-08	9.27E-08	1.43E-08	0.21	0.00	2.10E-04	3.09E-05	5.71E-05	1.84E-05	1.89E-05	3.36E-04
567512.29_4181046.94	567512.29	4181046.94	2.34E-04	3.19E-05	6.08E-05	2.02E-05	2.06E-05	3.68E-04	potential residence	4.24E-09	1.03E-07	9.58E-08	1.48E-08	0.22	0.00	2.18E-04	3.19E-05	5.78E-05	1.92E-05	1.96E-05	3.47E-04
567532.29_4181046.94	567532.29	4181046.94	2.43E-04	3.30E-05	6.15E-05	2.10E-05	2.15E-05	3.80E-04	potential residence	4.38E-09	1.06E-07	9.90E-08	1.53E-08	0.22	0.00	2.26E-04	3.30E-05	5.85E-05	2.00E-05	2.04E-05	3.58E-04
567552.29_4181046.94	567552.29	4181046.94	2.51E-04	3.39E-05	6.21E-05	2.19E-05	2.24E-05	3.91E-04	potential residence	4.51E-09	1.09E-07	1.02E-07	1.57E-08	0.23	0.00	2.34E-04	3.39E-05	5.91E-05	2.09E-05	2.13E-05	3.69E-04
567572.29_4181046.94	567572.29	4181046.94	2.59E-04	3.48E-05	6.27E-05	2.29E-05	2.34E-05	4.03E-04	potential residence	4.64E-09	1.12E-07	1.05E-07	1.62E-08	0.24	0.00	2.41E-04	3.48E-05	5.96E-05	2.18E-05	2.23E-05	3.80E-04
567592.29_4181046.94	567592.29	4181046.94	2.67E-04	3.59E-05	6.32E-05	2.40E-05	2.45E-05	4.14E-04	potential residence	4.78E-09	1.16E-07	1.08E-07	1.67E-08	0.25	0.00	2.49E-04	3.59E-05	6.01E-05	2.28E-05	2.33E-05	3.91E-04
567612.29_4181046.94	567612.29	4181046.94	2.74E-04	3.70E-05	6.36E-05	2.51E-05	2.57E-05	4.26E-04	potential residence	4.91E-09	1.19E-07	1.11E-07	1.71E-08	0.25	0.00	2.56E-04	3.70E-05	6.05E-05	2.39E-05	2.44E-05	4.02E-04
567632.29_4181046.94	567632.29	4181046.94	2.81E-04	3.80E-05	6.39E-05	2.64E-05	2.70E-05	4.36E-04	potential residence	5.02E-09	1.22E-07	1.14E-07	1.75E-08	0.26	0.00	2.62E-04	3.80E-05	6.08E-05	2.51E-05	2.57E-05	4.11E-04
568052.29_4181046.94	568052.29	4181046.94	3.34E-04	4.83E-05	6.56E-05	7.68E-05	9.35E-05	6.18E-04	potential residence	7.12E-09	1.72E-07	1.61E-07	2.48E-08	0.37	0.00	3.11E-04	4.83E-05	6.24E-05	7.31E-05	8.90E-05	5.84E-04
568072.29_4181046.94	568072.29	4181046.94	3.33E-04	4.83E-05	6.53E-05	7.72E-05	9.49E-05	6.18E-04	potential residence	7.13E-09	1.73E-07	1.61E-07	2.49E-08	0.37	0.00	3.10E-04	4.83E-05	6.21E-05	7.35E-05	9.03E-05	5.84E-04
568092.29_4181046.94	568092.29	4181046.94	3.33E-04	4.84E-05	6.52E-05	7.79E-05	9.64E-05	6.21E-04	potential residence	7.16E-09	1.73E-07	1.62E-07	2.50E-08	0.37	0.00	3.11E-04	4.84E-05	6.21E-05	7.41E-05	9.17E-05	5.87E-04
568112.29_4181046.94	568112.29	4181046.94	3.33E-04	4.81E-05	6.51E-05	7.80E-05	9.72E-05	6.22E-04	potential residence	7.17E-09	1.74E-07	1.62E-07	2.50E-08	0.37	0.00	3.11E-04	4.81E-05	6.19E-05	7.43E-05	9.25E-05	5.88E-04
568132.29_4181046.94	568132.29	4181046.94	3.33E-04	4.78E-05	6.49E-05	7.80E-05	9.77E-05	6.22E-04	potential residence	7.17E-09	1.74E-07	1.62E-07	2.50E-08	0.37	0.00	3.11E-04	4.78E-05	6.18E-05	7.42E-05	9.29E-05	5.88E-04
568172.29_4181046.94	568172.29	4181046.94	3.35E-04	4.74E-05	6.49E-05	7.76E-05	9.77E-05	6.22E-04	potential residence	7.17E-09	1.74E-07	1.62E-07	2.50E-08	0.37	0.00	3.12E-04	4.74E-05	6.18E-05	7.38E-05	9.30E-05	5.88E-04
568192.29_4181046.94	568192.29	4181046.94	3.35E-04	4.71E-05	6.51E-05	7.73E-05	9.74E-05	6.22E-04	potential residence	7.17E-09	1.74E-07	1.62E-07	2.50E-08	0.37	0.00	3.13E-04	4.71E-05	6.19E-05	7.35E-05	9.26E-05	5.88E-04
568212.29_4181046.94	568212.29	4181046.94	3.36E-04	4.68E-05	6.53E-05	7.68E-05	9.68E-05	6.21E-04	potential residence	7.16E-09	1.74E-07	1.62E-07	2.50E-08	0.37	0.00	3.13E-04	4.68E-05	6.21E-05	7.31E-05	9.21E-05	5.87E-04
568232.29_4181046.94	568232.29	4181046.94	3.34E-04	4.63E-05	6.52E-05	7.57E-05	9.54E-05	6.17E-04	potential residence	7.11E-09	1.72E-07	1.61E-07	2.48E-08	0.36	0.00	3.11E-04	4.63E-05	6.20E-05	7.20E-05	9.07E-05	5.82E-04
568252.29_4181046.94	568252.29	4181046.94	3.33E-04	4.56E-05	6.53E-05	7.48E-05	9.41E-05	6.12E-04	potential residence	7.06E-09	1.71E-07	1.60E-07	2.46E-08	0.36	0.00	3.10E-04	4.56E-05	6.21E-05	7.11E-05	8.95E-05	5.79E-04
568292.29_4181046.94	568292.29	4181046.94	3.29E-04	4.36E-05	6.55E-05	7.27E-05	9.09E-05	6.01E-04	potential residence	6.93E-09	1.68E-07	1.57E-07	2.42E-08	0.36	0.00	3.07E-04	4.36E-05	6.23E-05	6.91E-05	8.65E-05	5.68E-04
568312.29_4181046.94	568312.29	4181046.94	3.26E-04	4.29E-05	6.55E-05	7.13E-05	8.90E-05	5.94E-04	potential residence	6.85E-09	1.66E-07	1.55E-07	2.39E-08	0.35	0.00	3.04E-04	4.29E-05	6.23E-05	6.78E-05	8.46E-05	5.61E-04
568332.29_4181046.94	568332.29	4181046.94	3.23E-04	4.27E-05	6.57E-05	7.02E-05	8.72E-05	5.89E-04	potential residence	6.79E-09	1.64E-07	1.54E-07	2.37E-08	0.35	0.00	3.01E-04	4.27E-05	6.25E-05	6.68E-05	8.30E-05	5.56E-04
568352.29_4181046.94	568352.29	4181046.94	3.20E-04	4.31E-05	6.59E-05	6.91E-05	8.54E-05	5.84E-04	potential residence	6.73E-09	1.63E-07	1.52E-07	2.35E-08	0.35	0.00	2.99E-04	4.31E-05	6.27E-05	6.58E-05	8.13E-05	5.51E-04
568372.29_4181046.94	568372.29	4181046.94	3.17E-04	4.39E-05	6.61E-05	6.80E-05	8.37E-05	5.79E-04	potential residence	6.67E-09	1.62E-07	1.51E-07	2.33E-08	0.34	0.00	2.96E-04	4.39E-05	6.28E-05	6.47E-05	7.96E-05	5.47E-04
568392.29_4181046.94	568392.29	4181046.94	3.15E-04	4.47E-05	6.65E-05	6.71E-05	8.21E-05	5.75E-04	potential residence	6.63E-09	1.61E-07	1.50E-07	2.31E-08	0.34	0.00	2.93E-04	4.47E-05	6.32E-05	6.38E-05	7.81E-05	5.43E-04
568412.29_4181046.94	568412.29	4181046.94	3.11E-04	4.55E-05	6.66E-05	6.59E-05	8.04E-05	5.70E-04	potential residence	6.57E-09	1.59E-07	1.48E-07	2.29E-08	0.34	0.00	2.90E-04	4.55E-05	6.34E-05	6.27E-05	7.65E-05	5.38E-04
568432.29_4181046.94	568432.29	4181046.94	3.08E-04	4.60E-05	6.70E-05	6.48E-05	7.89E-05	5.65E-04	potential residence	6.51E-09	1.58E-07	1.47E-07	2.27E-08	0.33	0.00	2.87E-04	4.60E-05	6.37E-05	6.17E-05	7.51E-05	5.34E-04
568452.29_4181046.94	568452.29	4181046.94	3.04E-04	4.61E-05	6.71E-05	6.35E-05	7.72E-05	5.58E-04	potential residence	6.44E-09	1.56E-07	1.46E-07	2.24E-08	0.33	0.00	2.84E-04	4.61E-05	6.38E-05	6.04E-05	7.35E-05	5.28E-04
568472.29_4181046.94	568472.29	4181046.94	3.00E-04	4.60E-05	6.71E-05	6.22E-05	7.56E-05	5.51E-04	potential residence	6.35E-09	1.54E-07	1.44E-07	2.22E-08	0.33	0.00	2.80E-04	4.60E-05	6.38E-05	5.92E-05	7.19E-05	5.21E-04
568492.29_4181046.94	568492.29	4181046.94	2.97E-04	4.57E-05	6.72E-05	6.09E-05	7.41E-05	5.44E-04	potential residence	6.28E-09	1.52E-07	1.42E-07	2.19E-08	0.32	0.00	2.76E-04	4.57E-05	6.39E-05	5.80E-05	7.05E-05	5.14E-04
568512.29_4181046.94	568512.29	4181046.94	2.93E-04	4.54E-05	6.71E-05	5.97E-05	7.25E-05	5.37E-04	potential residence	6.19E-09	1.50E-07	1.40E-07	2.16E-08	0.32	0.00	2.73E-04	4.54E-05	6.39E-05	5.68E-05	6.90E-05	5.08E-04
568532.29_4181046.94	568532.29	4181046.94	2.89E-04	4.49E-05	6.71E-05	5.83E-05	7.10E-05	5.30E-04	potential residence	6.11E-09	1.48E-07	1.38E-07	2.13E-08	0.31	0.00	2.69E-04	4.49E-05	6.38E-05	5.55E-05	6.75E-05	5.01E-04
568552.29_4181046.94	568552.29	4181046.94	2.84E-04	4.45E-05	6.69E-05	5.71E-05	6.94E-05	5.22E-04	potential residence	6.02E-09	1.46E-07	1.36E-07	2.10E-08	0.31	0.00	2.65E-04	4.45E-05	6.37E-05	5.43E-05	6.60E-05	4.94E-04
568572.29_4181046.94	568572.29	4181046.94	2.79E-04	4.40E-05	6.65E-05	5.54E-05	6.76E-05	5.13E-04	potential residence	5.91E-09	1.43E-07	1.34E-07	2.06E-08	0.30	0.00	2.60E-04	4.40E-05	6.33E-05	5.27E-05	6.43E-05	4.84E-04
568592.29_4181046.94	568592.29	4181046.94	2.75E-04	4.34E-05	6.65E-05	5.44E-05	6.61E-05	5.06E-04	potential residence	5.83E-09	1.41E-07	1.32E-07	2.03E-08	0.30	0.00	2.57E-04	4.34E-05	6.32E-05	5.17E-05	6.29E-05	4.78E-04
568612.29_4181046.94	568612.29	4181046.94	2.71E-04	4.28E-05	6.64E-05	5.31E-05	6.46E-05	4.98E-04	potential residence	5.74E-09	1.39E-07	1.30E-07	2.00E-08	0.29	0.00	2.53E-04	4.28E-05	6.32E-05	5.05E-05	6.15E-05	4.71E-04
568632.29_4181046.94	568632.29	4181046.94	2.67E-04	4.22E-05	6.65E-05	5.22E-05	6.33E-05	4.92E-04	potential residence	5.67E-09	1.37E-07	1.28E-07	1.98E-08	0.29	0.00	2.49E-04	4.22E-05	6.33E-05	4.97E-05	6.02E-05	4.65E-04
568652.29_4181046.94	568652.29	4181046.94	2.63E-04	4.15E-05	6.65E-05	5.12E-05	6.19E-05	4.85E-04	potential residence	5.59E-09	1.35E-07	1.26E-07	1.95E-08	0.29	0.00	2.45E-04	4.15E-05	6.33E-05	4.87E-05	5.89E-05	4.58E-04
568672.29_4181046.94	568672.29	4181046.94	2.59E-04	4.09E-05	6.65E-05	5.01E-05	6.04E-05	4.77E-04	potential residence	5.50E-09	1.33E-07	1.24E-07	1.92E-08	0.28	0.00	2.41E-04	4.09E-05	6.32E-05	4.77E-05	5.75E-05	4.51E-04
568692.29_4181046.94	568692.29	4181046.94	2.55E-04	4.03E-05	6.64E-05	4.90E-05	5.91E-05	4.69E-04	potential residence	5.41E-09	1.31E-07	1.22E-07	1.89E-08	0.28	0.00	2.37E-04	4.03E-05	6.32E-05	4.67E-05	5.62E-05	4.44E-04
568712.29_4181046.94	568712.29	4181046.94	2.51E-04	3.98E-05	6.65E-05	4.81E-05	5.78E-05	4.63E-04	potential residence	5.33E-09	1.29E-07	1.21E-07	1.86E-08	0.27	0.00	2.34E-04	3.98E-05	6.32E-05	4.57E-05	5.50E-05	4.37E-04
568732.29_4181046.94	568732.29	4181046.94	2.46E-04	3.94E-05	6.65E-05	4.71E-05	5.65E-05	4.56E-04	potential residence	5.26E-09	1.27E-07	1.19E-07	1.83E-08	0.27	0.00	2.30E-04	3.94E-05	6.32E-05	4.48E-05	5.38E-05	4.31E-04
568752.29_4181046.94	568752.29	4181046.94	2.43E-04	3.90E-05	6.65E-05	4.62E-05	5.53E-05	4.50E-04	potential residence	5.18E-09	1.26E-07	1.17E-07	1.81E-08	0.27	0.00	2.26E-04	3.90E-05	6.33E-05	4.40E-05	5.27E-05	4.25E-04
568772.29_4181046.94	568772.29	4181046.94	2.39E-04	3.86E-05	6.65E-05	4.53E-05	5.42E-05	4.43E-04	potential residence	5.11E-09	1.24E-07	1.16E-07	1.78E-08	0.26	0.00	2.23E-04	3.86E-05	6.33E-05	4.31E-05	5.15E-05	4.19E-04
567412.29_4181066.94	567412.29	4181066.94	1.90E-04	2.78E-05	5.49E-05	1.64E-05	1.67E-05	3.06E-04	potential residence	3.53E-09	8.55E-08	7.98E-08	1.23E-08	0.18	0.00	1.77E-04	2.78E-05	5.22E-05	1.56E-05	1.59E-05	2.89E-04
567432.29_4181066.94	567432.29	4181066.94	1.98E-04	2.87E-05	5.58E-05	1.69E-05	1.73E-05	3.17E-04	potential residence	3.65E-09	8.84E-08	8.25E-08	1.27E-08	0.19	0.00	1.84E-04	2.87E-05	5.31E-05	1.61E-05	1.65E-05	2.99E-04
567452.29_4181066.94	567452.29	4181066.94	2.03E-04	2.87E-05	5.65E-05	1.76E-05	1.80E-05	3.24E-04	potential residence	3.74E-09	9.05E-08	8.44E-08	1.30E-08	0.19	0.00	1.90E-04	2.87E-05	5.38E-05	1.67E-05	1.71E-05	3.06E-04
567472.29_4181066.94	567472.29	4181066.94	2.11E-04	2.98E-05	5.73E-05	1.82E-05	1.86E-05	3.35E-04	potential residence	3.86E-09	9.36E-08	8.74E-08	1.35E-08	0.20	0.00	1.97E-04	2.98E-05	5.45E-05	1.74E-05	1.77E-05	3.16E-04
567492.29_4181066.94	567492.29	4181066.94	2.20E-04	3.07E-05	5.80E-05	1.89E-05	1.93E-05	3.47E-04	potential residence	4.00E-09	9.69E-08	9.05E-08	1.40E-08	0.21	0.00	2.05E-04	3.07E-05	5.52E-05	1.80E-05	1.84E-05	3.28E-04
567512.29_4181066.94	567512.29	4181066.94	2.26E-04	3.15E-05	5.87E-05	1.97E-05	2.01E-05	3.56E-04	potential residence	4.11E-09	9.95E-08	9.29E-08	1.43E-08	0.21	0.00	2.11E-04	3.15E-05	5.58E-05	1.87E-05	1.91E-05	3.36E-04
567532.29_4181066.94	567532.29	4181066.94	2.34E-04	3.22E-05	5.93E-05	2.05E-05	2.09E-05	3.67E-04	potential residence	4.23E-09	1.02E-07	9.55E-08	1.47E-08	0.22	0.00	2.18E-04	3.22E-05	5.64E-05	1.95E-05	1.99E-05	3.46E-04
567552.29_4181066.94	567552.29	4181066.94	2.41E-04	3.31E-05	5.98E-05	2.14E-05	2.18E-05	3.77E-04	potential residence	4.34E-09	1.05E-07	9.82E-08	1.51E-08	0.22	0.00	2.25E-04	3.31E-05	5.69E-05	2.04E-05	2.08E-05	3.56E-04
567572.29_4181066.94	567572.29	4181066.94	2.48E-04	3.40E-05	6.03E-05	2.23E-05	2.28E-05	3.87E-04	potential residence	4.46E-09	1.08E-07	1.01E-07	1.56E-08	0.23	0.00	2.31E-04	3.40E-05	5.73E-05	2.13E-05	2.17E-05	3.65E-04
567592.29_4181066.94	567592.29	4181066.94	2.55E-04	3.50E-05	6.07E-05	2.34E-05	2.38E-05	3.98E-04	potential residence	4.58E-09	1.11E-07	1.04E-07	1.60E-08	0.24	0.00	2.37E-04	3.50E-05	5.77E-05	2.22E-05	2.27E-05	3.75E-04
568052.29_4181066.94	568052.29	4181066.94	3.09E-04	4.48E-05	6.21E-05	6.52E-05	7.83E-05	5.59E-04	potential residence	6.45E-09	1.56E-07	1.46E-07	2.25E-08	0.33	0.00	2.88E-04	4.48E-05	5.91E-05	6.20E-05	7.45E-05	5.29E-04
568072.29_4181066.94	568072.29	4181066.94	3.09E-04	4.49E-05	6.19E-05	6.55E-05	7.94E-05	5.60E-04	potential residence	6.46E-09	1.56E-07	1.46E-07	2.25E-08	0.33	0.00	2.88E-04	4.49E-05	5.89E-05	6.23E-05	7.55E-05	5.29E-04
568092.29_4181066.94	568092.29	4181066.94	3.09E-04	4.48E-05	6.18E-05	6.58E-05	8.04E-05	5.62E-04	potential residence	6.48E-09	1.57E-07	1.46E-07	2.26E-08	0.33	0.00	2.88E-04	4.48E-05	5.88E-05	6.26E-05	7.65E-05	5.31E-04
568112.29_4181066.94	568112.29	4181066.94	3.09E-04	4.45E-05	6.16E-05	6.59E-05	8.10E-05	5.62E-04	potential residence	6.48E-09	1.57E-07	1.46E-07	2.26E-08	0.33	0.00	2.88E-04	4.45E-05	5.86E-05	6.27E-05	7.70E-05	5.31E-04
568192.29_4181066.94	568192.29	4181066.94	3.12E-04	4.36E-05	6.17E-05	6.57E-05	8.17E-05	5.64E-04	potential residence	6.50E-09	1.58E-07	1.47E-07	2.27E-08	0.33	0.00	2.90E-04	4.36E-05	5.87E-05	6.25E-05	7.78E-05	5.33E-04
568212.29_4181066.94	568212.29	4181066.94	3.11E-04	4.33E-05	6.17E-05	6.53E-05	8.12E-05	5.63E-04	potential residence	6.49E-09	1.57E-07	1.47E-07	2.26E-08	0.33	0.00	2.90E-04	4.33E-05	5.87E-05	6.21E-05	7.73E-05	5.32E-04
568232.29_4181066.94	568232.29	4181066.94	3.12E-04	4.30E-05	6.20E-05	6.49E-05	8.08E-05	5.62E-04	potential residence	6.48E-09	1.57E-07	1.47E-07	2.26E-08	0.33	0.00	2.90E-04	4.30E-05	5.89E-05	6.18E-05	7.69E-05	5.31E-04
568272.29_4181066.94	568272.29	4181066.94	3.08E-04	4.17E-05	6.20E-05	6.35E-05	7.87E-05	5.54E-04	potential residence	6.39E-09	1.55E-07	1.44E-07	2.23E-08	0.33	0.00	2.87E-04	4.17E-05	5.90E-05	6.04E-05	7.49E-05	5.23E-04
568292.29_4181066.94	568292.29	4181066.94	3.06E-04	4.08E-05	6.20E-05	6.26E-05	7.74E-05	5.48E-04	potential residence	6.32E-09	1.53E-07	1.43E-07	2.20E-08	0.32	0.00	2.85E-04	4.08E-05	5.90E-05	5.95E-05	7.36E-05	5.18E-04
568312.29_4181066.94	568312.29	4181066.94	3.03E-04	4.00E-05	6.20E-05	6.17E-05	7.61E-05	5.43E-04	potential residence	6.26E-09	1.52E-07	1.41E-07	2.18E-08	0.32	0.00	2.82E-04	4.00E-05	5.90E-05	5.87E-05	7.24E-05	5.13E-04
568332.29_4181066.94	568332.29	4181066.94	3.01E-04	3.95E-05	6.22E-05	6.10E-05	7.49E-05	5.39E-04	potential residence	6.21E-09	1.50E-07	1.40E-07	2.17E-08	0.32	0.00	2.81E-04	3.95E-05	5.92E-05	5.81E-05	7.13E-05	5.09E-04
568352.29_4181066.94	568352.29	4181066.94	2.98E-04	3.96E-05	6.23E-05	6.02E-05	7.36E-05	5.34E-04	potential residence	6.15E-09	1.49E-07	1.39E-07	2.15E-08	0.32	0.00	2.78E-04	3.96E-05	5.93E-05	5.73E-05	7.00E-05	5.04E-04
568372.29_4181066.94	568372.29	4181066.94	2.96E-04	4.00E-05	6.27E-05	5.96E-05	7.25E-05	5.31E-04	potential residence	6.12E-09	1.48E-07	1.38E-07	2.13E-08	0.31	0.00	2.76E-04	4.00E-05	5.97E-05	5.67E-05	6.90E-05	5.01E-04
568392.29_4181066.94	568392.29	4181066.94	2.93E-04	4.07E-05	6.28E-05	5.87E-05	7.12E-05	5.26E-04	potential residence	6.07E-09	1.47E-07	1.37E-07	2.11E-08	0.31	0.00	2.73E-04	4.07E-05	5.98E-05	5.58E-05	6.77E-05	4.97E-04
568412.29_4181066.94	568412.29	4181066.94	2.90E-04	4.14E-05	6.31E-05	5.80E-05	7.01E-05	5.23E-04	potential residence	6.03E-09	1.46E-07	1.36E-07	2.10E-08	0.31	0.00	2.71E-04	4.14E-05	6.00E-05	5.52E-05	6.67E-05	4.94E-04
568432.29_4181066.94	568432.29	4181066.94	2.88E-04	4.20E-05	6.35E-05	5.73E-05	6.91E-05	5.20E-04	potential residence	5.99E-09	1.45E-07	1.36E-07	2.09E-08	0.31	0.00	2.69E-04	4.20E-05	6.04E-05	5.45E-05	6.58E-05	4.91E-04
568452.29_4181066.94	568452.29	4181066.94	2.85E-04	4.23E-05	6.37E-05	5.64E-05	6.80E-05	5.16E-04	potential residence	5.94E-09	1.44E-07	1.34E-07	2.07E-08	0.30	0.00	2.66E-04	4.23E-05	6.06E-05	5.37E-05	6.47E-05	4.87E-04
568472.29_4181066.94	568472.29	4181066.94	2.81E-04	4.24E-05	6.36E-05	5.53E-05	6.67E-05	5.09E-04	potential residence	5.87E-09	1.42E-07	1.33E-07	2.05E-08	0.30	0.00	2.62E-04	4.24E-05	6.05E-05	5.26E-05	6.35E-05	4.81E-04

568492.29_4181066.94	568492.29	4181066.94	2.78E-04	4.22E-05	6.37E-05	5.44E-05	6.56E-05	5.04E-04	potential residence	5.81E-09	1.41E-07	1.31E-07	2.03E-08	0.30	0.00	2.59E-04	4.22E-05	6.06E-05	5.17E-05	6.24E-05	4.76E-04
568512.29_4181066.94	568512.29	4181066.94	2.75E-04	4.19E-05	6.36E-05	5.34E-05	6.44E-05	4.98E-04	potential residence	5.74E-09	1.39E-07	1.30E-07	2.00E-08	0.29	0.00	2.56E-04	4.19E-05	6.05E-05	5.08E-05	6.13E-05	4.71E-04
568532.29_4181066.94	568532.29	4181066.94	2.72E-04	4.16E-05	6.37E-05	5.25E-05	6.34E-05	4.93E-04	potential residence	5.68E-09	1.38E-07	1.29E-07	1.98E-08	0.29	0.00	2.53E-04	4.16E-05	6.06E-05	4.99E-05	6.03E-05	4.66E-04
568552.29_4181066.94	568552.29	4181066.94	2.67E-04	4.12E-05	6.34E-05	5.13E-05	6.20E-05	4.85E-04	potential residence	5.60E-09	1.36E-07	1.27E-07	1.95E-08	0.29	0.00	2.49E-04	4.12E-05	6.03E-05	4.88E-05	5.90E-05	4.59E-04
568572.29_4181066.94	568572.29	4181066.94	2.63E-04	4.08E-05	6.32E-05	5.01E-05	6.07E-05	4.78E-04	potential residence	5.51E-09	1.34E-07	1.25E-07	1.92E-08	0.28	0.00	2.46E-04	4.08E-05	6.01E-05	4.77E-05	5.77E-05	4.52E-04
568592.29_4181066.94	568592.29	4181066.94	2.59E-04	4.04E-05	6.30E-05	4.90E-05	5.93E-05	4.71E-04	potential residence	5.43E-09	1.32E-07	1.23E-07	1.89E-08	0.28	0.00	2.42E-04	4.04E-05	5.99E-05	4.66E-05	5.64E-05	4.45E-04
568612.29_4181066.94	568612.29	4181066.94	2.56E-04	4.00E-05	6.31E-05	4.83E-05	5.84E-05	4.66E-04	potential residence	5.37E-09	1.30E-07	1.22E-07	1.87E-08	0.28	0.00	2.39E-04	4.00E-05	6.01E-05	4.59E-05	5.55E-05	4.41E-04
568632.29_4181066.94	568632.29	4181066.94	2.53E-04	3.95E-05	6.31E-05	4.74E-05	5.72E-05	4.60E-04	potential residence	5.30E-09	1.28E-07	1.20E-07	1.85E-08	0.27	0.00	2.36E-04	3.95E-05	6.00E-05	4.51E-05	5.44E-05	4.34E-04
568652.29_4181066.94	568652.29	4181066.94	2.49E-04	3.90E-05	6.31E-05	4.66E-05	5.61E-05	4.54E-04	potential residence	5.23E-09	1.27E-07	1.18E-07	1.82E-08	0.27	0.00	2.32E-04	3.90E-05	6.00E-05	4.44E-05	5.33E-05	4.29E-04
568672.29_4181066.94	568672.29	4181066.94	2.45E-04	3.85E-05	6.31E-05	4.58E-05	5.49E-05	4.48E-04	potential residence	5.16E-09	1.25E-07	1.17E-07	1.80E-08	0.26	0.00	2.29E-04	3.85E-05	6.00E-05	4.35E-05	5.23E-05	4.23E-04
568692.29_4181066.94	568692.29	4181066.94	2.41E-04	3.80E-05	6.29E-05	4.47E-05	5.37E-05	4.40E-04	potential residence	5.08E-09	1.23E-07	1.15E-07	1.77E-08	0.26	0.00	2.25E-04	3.80E-05	5.99E-05	4.26E-05	5.11E-05	4.16E-04
568712.29_4181066.94	568712.29	4181066.94	2.38E-04	3.75E-05	6.31E-05	4.41E-05	5.27E-05	4.35E-04	potential residence	5.02E-09	1.21E-07	1.13E-07	1.75E-08	0.26	0.00	2.22E-04	3.75E-05	6.00E-05	4.20E-05	5.02E-05	4.11E-04
568732.29_4181066.94	568732.29	4181066.94	2.34E-04	3.71E-05	6.32E-05	4.33E-05	5.17E-05	4.29E-04	potential residence	4.95E-09	1.20E-07	1.12E-07	1.73E-08	0.25	0.00	2.18E-04	3.71E-05	6.01E-05	4.12E-05	4.92E-05	4.06E-04
568812.29_4181066.94	568812.29	4181066.94	2.19E-04	3.59E-05	6.30E-05	4.02E-05	4.77E-05	4.06E-04	potential residence	4.68E-09	1.13E-07	1.06E-07	1.63E-08	0.24	0.00	2.05E-04	3.59E-05	5.99E-05	3.82E-05	4.54E-05	3.84E-04
567412.29_4181086.94	567412.29	4181086.94	1.86E-04	2.74E-05	5.34E-05	1.60E-05	1.64E-05	2.99E-04	potential residence	3.45E-09	8.35E-08	7.80E-08	1.20E-08	0.18	0.00	1.73E-04	2.74E-05	5.08E-05	1.53E-05	1.56E-05	2.82E-04
567432.29_4181086.94	567432.29	4181086.94	1.93E-04	2.83E-05	5.41E-05	1.66E-05	1.69E-05	3.09E-04	potential residence	3.56E-09	8.62E-08	8.05E-08	1.24E-08	0.18	0.00	1.80E-04	2.83E-05	5.15E-05	1.58E-05	1.61E-05	2.91E-04
567452.29_4181086.94	567452.29	4181086.94	1.99E-04	2.88E-05	5.48E-05	1.72E-05	1.75E-05	3.18E-04	potential residence	3.66E-09	8.88E-08	8.28E-08	1.28E-08	0.19	0.00	1.86E-04	2.88E-05	5.22E-05	1.64E-05	1.67E-05	3.00E-04
567472.29_4181086.94	567472.29	4181086.94	2.05E-04	2.92E-05	5.54E-05	1.78E-05	1.82E-05	3.25E-04	potential residence	3.75E-09	9.08E-08	8.48E-08	1.31E-08	0.19	0.00	1.91E-04	2.92E-05	5.27E-05	1.70E-05	1.73E-05	3.07E-04
567492.29_4181086.94	567492.29	4181086.94	2.12E-04	3.02E-05	5.61E-05	1.85E-05	1.89E-05	3.35E-04	potential residence	3.87E-09	9.36E-08	8.74E-08	1.35E-08	0.20	0.00	1.97E-04	3.02E-05	5.33E-05	1.76E-05	1.80E-05	3.16E-04
567512.29_4181086.94	567512.29	4181086.94	2.18E-04	3.09E-05	5.66E-05	1.93E-05	1.96E-05	3.45E-04	potential residence	3.97E-09	9.63E-08	8.99E-08	1.39E-08	0.20	0.00	2.04E-04	3.09E-05	5.39E-05	1.83E-05	1.87E-05	3.25E-04
567532.29_4181086.94	567532.29	4181086.94	2.25E-04	3.17E-05	5.71E-05	2.01E-05	2.04E-05	3.54E-04	potential residence	4.08E-09	9.89E-08	9.24E-08	1.42E-08	0.21	0.00	2.10E-04	3.17E-05	5.44E-05	1.91E-05	1.94E-05	3.34E-04
567552.29_4181086.94	567552.29	4181086.94	2.31E-04	3.24E-05	5.76E-05	2.09E-05	2.13E-05	3.63E-04	potential residence	4.19E-09	1.01E-07	9.47E-08	1.46E-08	0.21	0.00	2.15E-04	3.24E-05	5.48E-05	1.99E-05	2.03E-05	3.43E-04
568052.29_4181086.94	568052.29	4181086.94	2.88E-04	4.17E-05	5.91E-05	5.65E-05	6.73E-05	5.13E-04	potential residence	5.91E-09	1.43E-07	1.34E-07	2.06E-08	0.30	0.00	2.69E-04	4.17E-05	5.62E-05	5.37E-05	6.40E-05	4.84E-04
568072.29_4181086.94	568072.29	4181086.94	2.87E-04	4.18E-05	5.87E-05	5.64E-05	6.78E-05	5.12E-04	potential residence	5.90E-09	1.43E-07	1.33E-07	2.06E-08	0.30	0.00	2.68E-04	4.18E-05	5.59E-05	5.37E-05	6.45E-05	4.83E-04
568092.29_4181086.94	568092.29	4181086.94	2.87E-04	4.16E-05	5.86E-05	5.65E-05	6.84E-05	5.12E-04	potential residence	5.90E-09	1.43E-07	1.34E-07	2.06E-08	0.30	0.00	2.68E-04	4.16E-05	5.58E-05	5.38E-05	6.51E-05	4.84E-04
568192.29_4181086.94	568192.29	4181086.94	2.90E-04	4.05E-05	5.86E-05	5.67E-05	6.98E-05	5.16E-04	potential residence	5.95E-09	1.44E-07	1.34E-07	2.07E-08	0.31	0.00	2.71E-04	4.05E-05	5.57E-05	5.39E-05	6.64E-05	4.87E-04
568232.29_4181086.94	568232.29	4181086.94	2.90E-04	4.00E-05	5.88E-05	5.62E-05	6.92E-05	5.14E-04	potential residence	5.93E-09	1.44E-07	1.34E-07	2.07E-08	0.30	0.00	2.71E-04	4.00E-05	5.60E-05	5.35E-05	6.58E-05	4.86E-04
568252.29_4181086.94	568252.29	4181086.94	2.89E-04	3.96E-05	5.88E-05	5.58E-05	6.85E-05	5.12E-04	potential residence	5.90E-09	1.43E-07	1.33E-07	2.06E-08	0.30	0.00	2.69E-04	3.96E-05	5.60E-05	5.31E-05	6.52E-05	4.83E-04
568272.29_4181086.94	568272.29	4181086.94	2.86E-04	3.90E-05	5.87E-05	5.50E-05	6.75E-05	5.06E-04	potential residence	5.84E-09	1.41E-07	1.32E-07	2.04E-08	0.30	0.00	2.67E-04	3.90E-05	5.58E-05	5.23E-05	6.42E-05	4.78E-04
568292.29_4181086.94	568292.29	4181086.94	2.85E-04	3.82E-05	5.87E-05	5.45E-05	6.67E-05	5.03E-04	potential residence	5.79E-09	1.40E-07	1.31E-07	2.02E-08	0.30	0.00	2.65E-04	3.82E-05	5.59E-05	5.18E-05	6.35E-05	4.75E-04
568312.29_4181086.94	568312.29	4181086.94	2.82E-04	3.74E-05	5.88E-05	5.39E-05	6.58E-05	4.98E-04	potential residence	5.74E-09	1.39E-07	1.30E-07	2.00E-08	0.29	0.00	2.63E-04	3.74E-05	5.59E-05	5.13E-05	6.26E-05	4.70E-04
568332.29_4181086.94	568332.29	4181086.94	2.81E-04	3.69E-05	5.91E-05	5.35E-05	6.50E-05	4.95E-04	potential residence	5.71E-09	1.38E-07	1.29E-07	1.99E-08	0.29	0.00	2.62E-04	3.69E-05	5.62E-05	5.09E-05	6.19E-05	4.68E-04
568352.29_4181086.94	568352.29	4181086.94	2.79E-04	3.67E-05	5.93E-05	5.31E-05	6.42E-05	4.92E-04	potential residence	5.67E-09	1.37E-07	1.28E-07	1.98E-08	0.29	0.00	2.60E-04	3.67E-05	5.64E-05	5.05E-05	6.11E-05	4.64E-04
568372.29_4181086.94	568372.29	4181086.94	2.76E-04	3.69E-05	5.94E-05	5.25E-05	6.33E-05	4.88E-04	potential residence	5.63E-09	1.36E-07	1.27E-07	1.96E-08	0.29	0.00	2.57E-04	3.69E-05	5.66E-05	5.00E-05	6.02E-05	4.61E-04
568392.29_4181086.94	568392.29	4181086.94	2.74E-04	3.73E-05	5.98E-05	5.21E-05	6.26E-05	4.86E-04	potential residence	5.61E-09	1.36E-07	1.27E-07	1.95E-08	0.29	0.00	2.56E-04	3.73E-05	5.69E-05	4.96E-05	5.96E-05	4.59E-04
568412.29_4181086.94	568412.29	4181086.94	2.72E-04	3.80E-05	6.00E-05	5.16E-05	6.18E-05	4.83E-04	potential residence	5.57E-09	1.35E-07	1.26E-07	1.94E-08	0.29	0.00	2.54E-04	3.80E-05	5.71E-05	4.91E-05	5.88E-05	4.57E-04
568432.29_4181086.94	568432.29	4181086.94	2.70E-04	3.85E-05	6.03E-05	5.10E-05	6.10E-05	4.80E-04	potential residence	5.54E-09	1.34E-07	1.25E-07	1.93E-08	0.28	0.00	2.51E-04	3.85E-05	5.73E-05	4.85E-05	5.80E-05	4.54E-04
568452.29_4181086.94	568452.29	4181086.94	2.67E-04	3.89E-05	6.04E-05	5.03E-05	6.01E-05	4.77E-04	potential residence	5.49E-09	1.33E-07	1.24E-07	1.92E-08	0.28	0.00	2.49E-04	3.89E-05	5.74E-05	4.78E-05	5.72E-05	4.50E-04
568472.29_4181086.94	568472.29	4181086.94	2.64E-04	3.91E-05	6.04E-05	4.95E-05	5.93E-05	4.72E-04	potential residence	5.44E-09	1.32E-07	1.23E-07	1.90E-08	0.28	0.00	2.46E-04	3.91E-05	5.75E-05	4.71E-05	5.64E-05	4.46E-04
568492.29_4181086.94	568492.29	4181086.94	2.61E-04	3.91E-05	6.04E-05	4.87E-05	5.84E-05	4.68E-04	potential residence	5.39E-09	1.31E-07	1.22E-07	1.88E-08	0.28	0.00	2.43E-04	3.91E-05	5.75E-05	4.64E-05	5.56E-05	4.42E-04
568532.29_4181086.94	568532.29	4181086.94	2.54E-04	3.87E-05	5.99E-05	4.64E-05	5.59E-05	4.55E-04	potential residence	5.24E-09	1.27E-07	1.19E-07	1.83E-08	0.27	0.00	2.37E-04	3.87E-05	5.70E-05	4.41E-05	5.32E-05	4.30E-04
568552.29_4181086.94	568552.29	4181086.94	2.50E-04	3.84E-05	5.97E-05	4.55E-05	5.46E-05	4.49E-04	potential residence	5.17E-09	1.25E-07	1.17E-07	1.80E-08	0.27	0.00	2.34E-04	3.84E-05	5.68E-05	4.32E-05	5.20E-05	4.24E-04
568572.29_4181086.94	568572.29	4181086.94	2.49E-04	3.81E-05	6.01E-05	4.54E-05	5.46E-05	4.47E-04	potential residence	5.15E-09	1.25E-07	1.17E-07	1.80E-08	0.26	0.00	2.32E-04	3.81E-05	5.72E-05	4.32E-05	5.20E-05	4.22E-04
568592.29_4181086.94	568592.29	4181086.94	2.46E-04	3.77E-05	6.00E-05	4.46E-05	5.36E-05	4.42E-04	potential residence	5.09E-09	1.23E-07	1.15E-07	1.78E-08	0.26	0.00	2.29E-04	3.77E-05	5.71E-05	4.25E-05	5.10E-05	4.17E-04
568612.29_4181086.94	568612.29	4181086.94	2.42E-04	3.74E-05	5.98E-05	4.36E-05	5.24E-05	4.35E-04	potential residence	5.02E-09	1.22E-07	1.13E-07	1.75E-08	0.26	0.00	2.26E-04	3.74E-05	5.69E-05	4.15E-05	4.99E-05	4.11E-04
568632.29_4181086.94	568632.29	4181086.94	2.39E-04	3.70E-05	5.97E-05	4.28E-05	5.14E-05	4.30E-04	potential residence	4.95E-09	1.20E-07	1.12E-07	1.73E-08	0.25	0.00	2.23E-04	3.70E-05	5.68E-05	4.07E-05	4.89E-05	4.06E-04
568652.29_4181086.94	568652.29	4181086.94	2.36E-04	3.66E-05	5.99E-05	4.24E-05	5.08E-05	4.25E-04	potential residence	4.90E-09	1.19E-07	1.11E-07	1.71E-08	0.25	0.00	2.20E-04	3.66E-05	5.69E-05	4.03E-05	4.83E-05	4.02E-04
568672.29_4181086.94	568672.29	4181086.94	2.33E-04	3.62E-05	6.00E-05	4.19E-05	5.00E-05	4.21E-04	potential residence	4.85E-09	1.18E-07	1.10E-07	1.69E-08	0.25	0.00	2.17E-04	3.62E-05	5.71E-05	3.98E-05	4.76E-05	3.98E-04
568692.29_4181086.94	568692.29	4181086.94	2.29E-04	3.58E-05	6.00E-05	4.11E-05	4.91E-05	4.15E-04	potential residence	4.79E-09	1.16E-07	1.08E-07	1.67E-08	0.25	0.00	2.14E-04	3.58E-05	5.71E-05	3.91E-05	4.67E-05	3.93E-04
568712.29_4181086.94	568712.29	4181086.94	2.26E-04	3.54E-05	6.01E-05	4.05E-05	4.82E-05	4.10E-04	potential residence	4.73E-09	1.15E-07	1.07E-07	1.65E-08	0.24	0.00	2.11E-04	3.54E-05	5.72E-05	3.85E-05	4.59E-05	3.88E-04
568772.29_4181086.94	568772.29	4181086.94	2.16E-04	3.45E-05	6.01E-05	3.86E-05	4.57E-05	3.95E-04	potential residence	4.55E-09	1.10E-07	1.03E-07	1.59E-08	0.23	0.00	2.01E-04	3.45E-05	5.72E-05	3.67E-05	4.35E-05	3.73E-04
568792.29_4181086.94	568792.29	4181086.94	2.12E-04	3.42E-05	6.01E-05	3.79E-05	4.49E-05	3.89E-04	potential residence	4.49E-09	1.09E-07	1.02E-07	1.57E-08	0.23	0.00	1.98E-04	3.42E-05	5.71E-05	3.61E-05	4.27E-05	3.68E-04
568812.29_4181086.94	568812.29	4181086.94	2.09E-04	3.40E-05	6.00E-05	3.73E-05	4.41E-05	3.84E-04	potential residence	4.43E-09	1.07E-07	1.00E-07	1.55E-08	0.23	0.00	1.95E-04	3.40E-05	5.71E-05	3.55E-05	4.19E-05	3.63E-04
567412.29_4181106.94	567412.29	4181106.94	1.82E-04	2.74E-05	5.19E-05	1.57E-05	1.60E-05	2.93E-04	potential residence	3.37E-09	8.17E-08	7.63E-08	1.18E-08	0.17	0.00	1.69E-04	2.74E-05	4.93E-05	1.49E-05	1.52E-05	2.76E-04
567432.29_4181106.94	567432.29	4181106.94	1.88E-04	2.79E-05	5.25E-05	1.63E-05	1.66E-05	3.01E-04	potential residence	3.47E-09	8.40E-08	7.84E-08	1.21E-08	0.18	0.00	1.75E-04	2.79E-05	4.99E-05	1.55E-05	1.58E-05	2.84E-04
567452.29_4181106.94	567452.29	4181106.94	1.93E-04	2.84E-05	5.31E-05	1.69E-05	1.72E-05	3.08E-04	potential residence	3.55E-09	8.61E-08	8.04E-08	1.24E-08	0.18	0.00	1.80E-04	2.84E-05	5.05E-05	1.60E-05	1.63E-05	2.91E-04
567472.29_4181106.94	567472.29	4181106.94	1.98E-04	2.88E-05	5.36E-05	1.75E-05	1.78E-05	3.16E-04	potential residence	3.64E-09	8.82E-08	8.24E-08	1.27E-08	0.19	0.00	1.85E-04	2.88E-05	5.10E-05	1.66E-05	1.69E-05	2.98E-04
567492.29_4181106.94	567492.29	4181106.94	2.04E-04	2.95E-05	5.42E-05	1.81E-05	1.85E-05	3.24E-04	potential residence	3.74E-09	9.06E-08	8.46E-08	1.30E-08	0.19	0.00	1.90E-04	2.95E-05	5.15E-05	1.73E-05	1.76E-05	3.06E-04
567512.29_4181106.94	567512.29	4181106.94	2.10E-04	3.03E-05	5.46E-05	1.89E-05	1.92E-05	3.33E-04	potential residence	3.84E-09	9.31E-08	8.69E-08	1.34E-08	0.20	0.00	1.96E-04	3.03E-05	5.20E-05	1.79E-05	1.83E-05	3.15E-04
568072.29_4181106.94	568072.29	4181106.94	2.68E-04	3.90E-05	5.59E-05	4.93E-05	5.89E-05	4.71E-04	potential residence	5.43E-09	1.31E-07	1.23E-07	1.89E-08	0.28	0.00	2.50E-04	3.90E-05	5.31E-05	4.69E-05	5.60E-05	4.45E-04
568192.29_4181106.94	568192.29	4181106.94	2.71E-04	3.77E-05	5.58E-05	4.94E-05	6.04E-05	4.75E-04	potential residence	5.47E-09	1.33E-07	1.24E-07	1.91E-08	0.28	0.00	2.53E-04	3.77E-05	5.31E-05	4.70E-05	5.74E-05	4.48E-04
568212.29_4181106.94	568212.29	4181106.94	2.71E-04	3.75E-05	5.57E-05	4.92E-05	6.01E-05	4.73E-04	potential residence	5.46E-09	1.32E-07	1.23E-07	1.90E-08	0.28	0.00	2.52E-04	3.75E-05	5.30E-05	4.68E-05	5.72E-05	4.47E-04
568232.29_4181106.94	568232.29	4181106.94	2.70E-04	3.73E-05	5.58E-05	4.90E-05	5.98E-05	4.72E-04	potential residence	5.44E-09	1.32E-07	1.23E-07	1.90E-08	0.28	0.00	2.52E-04	3.73E-05	5.31E-05	4.66E-05	5.69E-05	4.46E-04
568252.29_4181106.94	568252.29	4181106.94	2.70E-04	3.70E-05	5.58E-05	4.87E-05	5.94E-05	4.71E-04	potential residence	5.42E-09	1.31E-07	1.23E-07	1.89E-08	0.28	0.00	2.51E-04	3.70E-05	5.31E-05	4.64E-05	5.65E-05	4.44E-04
568272.29_4181106.94	568272.29	4181106.94	2.68E-04	3.65E-05	5.58E-05	4.84E-05	5.88E-05	4.67E-04	potential residence	5.39E-09	1.30E-07	1.22E-07	1.88E-08	0.28	0.00	2.50E-04	3.65E-05	5.31E-05	4.60E-05	5.60E-05	4.41E-04
568292.29_4181106.94	568292.29	4181106.94	2.66E-04	3.59E-05	5.59E-05	4.81E-05	5.83E-05	4.64E-04	potential residence	5.35E-09	1.30E-07	1.21E-07	1.87E-08	0.27	0.00	2.48E-04	3.59E-05	5.32E-05	4.57E-05	5.54E-05	4.39E-04
568312.29_4181106.94	568312.29	4181106.94	2.65E-04	3.52E-05	5.61E-05	4.78E-05	5.77E-05	4.62E-04	potential residence	5.32E-09	1.29E-07	1.20E-07	1.86E-08	0.27	0.00	2.47E-04	3.52E-05	5.33E-05	4.55E-05	5.49E-05	4.36E-04
568332.29_4181106.94	568332.29	4181106.94	2.62E-04	3.46E-05	5.59E-05	4.72E-05	5.68E-05	4.56E-04	potential residence	5.26E-09	1.27E-07	1.19E-07	1.83E-08	0.27	0.00	2.44E-04	3.46E-05	5.32E-05	4.49E-05	5.41E-05	4.31E-04
568352.29_4181106.94	568352.29	4181106.94	2.61E-04	3.42E-05	5.64E-05	4.71E-05	5.64E-05	4.55E-04	potential residence	5.24E-09	1.27E-07	1.19E-07	1.83E-08	0.27	0.00	2.43E-04	3.42E-05	5.36E-05	4.48E-05	5.37E-05	4.29E-04
568372.29_4181106.94	568372.29	4181106.94	2.59E-04	3.42E-05	5.67E-05	4.69E-05	5.60E-05	4.53E-04	potential residence	5.22E-09	1.27E-07	1.18E-07	1.82E-08	0.27	0.00	2.42E-04	3.42E-05	5.40E-05	4.46E-05	5.32E-05	4.28E-04
568392.29_4181106.94	568392.29	4181106.94	2.57E-04	3.45E-05	5.69E-05	4.66E-05	5.54E-05	4.51E-04	potential residence	5.20E-09	1.26E-07	1.17E-07	1.81E-08	0.27	0.00	2.40E-04	3.45E-05	5.42E-05	4.43E-05	5.27E-05	4.26E-04
568412.29_4181106.94	568412.29	4181106.94	2.55E-04	3.50E-05	5.71E-05	4.61E-05	5.48E-05	4.48E-04	potential residence	5.16E-09	1.25E-07	1.17E-07	1.80E-08	0.27	0.00	2.38E-04	3.50E-05	5.43E-05	4.39E-05	5.21E-05	4.23E-04

568432.29_4181106.94	568432.29	4181106.94	2.53E-04	3.55E-05	5.73E-05	4.57E-05	5.42E-05	4.46E-04	potential residence	5.14E-09	1.24E-07	1.16E-07	1.79E-08	0.26	0.00	2.36E-04	3.55E-05	5.45E-05	4.34E-05	5.16E-05	4.21E-04
568452.29_4181106.94	568452.29	4181106.94	2.50E-04	3.59E-05	5.74E-05	4.51E-05	5.35E-05	4.42E-04	potential residence	5.10E-09	1.23E-07	1.15E-07	1.78E-08	0.26	0.00	2.33E-04	3.59E-05	5.46E-05	4.29E-05	5.09E-05	4.18E-04
568472.29_4181106.94	568472.29	4181106.94	2.48E-04	3.62E-05	5.73E-05	4.44E-05	5.28E-05	4.38E-04	potential residence	5.05E-09	1.22E-07	1.14E-07	1.76E-08	0.26	0.00	2.31E-04	3.62E-05	5.45E-05	4.22E-05	5.03E-05	4.14E-04
568492.29_4181106.94	568492.29	4181106.94	2.45E-04	3.63E-05	5.74E-05	4.38E-05	5.22E-05	4.35E-04	potential residence	5.01E-09	1.21E-07	1.13E-07	1.75E-08	0.26	0.00	2.29E-04	3.63E-05	5.46E-05	4.16E-05	4.97E-05	4.11E-04
568512.29_4181106.94	568512.29	4181106.94	2.43E-04	3.63E-05	5.74E-05	4.32E-05	5.16E-05	4.32E-04	potential residence	4.98E-09	1.21E-07	1.13E-07	1.74E-08	0.26	0.00	2.27E-04	3.63E-05	5.46E-05	4.11E-05	4.91E-05	4.08E-04
568532.29_4181106.94	568532.29	4181106.94	2.39E-04	3.61E-05	5.70E-05	4.20E-05	5.04E-05	4.25E-04	potential residence	4.90E-09	1.19E-07	1.11E-07	1.71E-08	0.25	0.00	2.23E-04	3.61E-05	5.43E-05	4.00E-05	4.79E-05	4.02E-04
568552.29_4181106.94	568552.29	4181106.94	2.36E-04	3.59E-05	5.65E-05	4.09E-05	4.87E-05	4.18E-04	potential residence	4.81E-09	1.17E-07	1.09E-07	1.68E-08	0.25	0.00	2.20E-04	3.59E-05	5.38E-05	3.89E-05	4.64E-05	3.95E-04
568572.29_4181106.94	568572.29	4181106.94	2.35E-04	3.56E-05	5.72E-05	4.11E-05	4.92E-05	4.18E-04	potential residence	4.82E-09	1.17E-07	1.09E-07	1.68E-08	0.25	0.00	2.19E-04	3.56E-05	5.44E-05	3.91E-05	4.68E-05	3.95E-04
568592.29_4181106.94	568592.29	4181106.94	2.32E-04	3.54E-05	5.70E-05	4.03E-05	4.83E-05	4.13E-04	potential residence	4.76E-09	1.15E-07	1.08E-07	1.66E-08	0.24	0.00	2.16E-04	3.54E-05	5.42E-05	3.84E-05	4.60E-05	3.90E-04
568612.29_4181106.94	568612.29	4181106.94	2.29E-04	3.51E-05	5.68E-05	3.96E-05	4.71E-05	4.07E-04	potential residence	4.70E-09	1.14E-07	1.06E-07	1.64E-08	0.24	0.00	2.13E-04	3.51E-05	5.40E-05	3.77E-05	4.48E-05	3.85E-04
568632.29_4181106.94	568632.29	4181106.94	2.26E-04	3.48E-05	5.68E-05	3.91E-05	4.65E-05	4.03E-04	potential residence	4.65E-09	1.13E-07	1.05E-07	1.62E-08	0.24	0.00	2.11E-04	3.48E-05	5.41E-05	3.72E-05	4.42E-05	3.81E-04
568652.29_4181106.94	568652.29	4181106.94	2.24E-04	3.45E-05	5.70E-05	3.87E-05	4.61E-05	4.00E-04	potential residence	4.61E-09	1.12E-07	1.04E-07	1.61E-08	0.24	0.00	2.09E-04	3.45E-05	5.42E-05	3.68E-05	4.39E-05	3.78E-04
568672.29_4181106.94	568672.29	4181106.94	2.21E-04	3.42E-05	5.71E-05	3.83E-05	4.56E-05	3.96E-04	potential residence	4.57E-09	1.11E-07	1.03E-07	1.59E-08	0.23	0.00	2.06E-04	3.42E-05	5.43E-05	3.65E-05	4.34E-05	3.74E-04
568752.29_4181106.94	568752.29	4181106.94	2.09E-04	3.30E-05	5.73E-05	3.62E-05	4.28E-05	3.78E-04	potential residence	4.36E-09	1.06E-07	9.86E-08	1.52E-08	0.22	0.00	1.95E-04	3.30E-05	5.45E-05	3.44E-05	4.07E-05	3.57E-04
568772.29_4181106.94	568772.29	4181106.94	2.06E-04	3.27E-05	5.72E-05	3.56E-05	4.20E-05	3.73E-04	potential residence	4.30E-09	1.04E-07	9.73E-08	1.50E-08	0.22	0.00	1.92E-04	3.27E-05	5.44E-05	3.39E-05	4.00E-05	3.53E-04
568792.29_4181106.94	568792.29	4181106.94	2.03E-04	3.25E-05	5.73E-05	3.51E-05	4.14E-05	3.69E-04	potential residence	4.25E-09	1.03E-07	9.62E-08	1.48E-08	0.22	0.00	1.89E-04	3.25E-05	5.45E-05	3.34E-05	3.94E-05	3.49E-04
567412.29_4181126.94	567412.29	4181126.94	1.77E-04	2.70E-05	5.03E-05	1.54E-05	1.57E-05	2.85E-04	potential residence	3.29E-09	7.97E-08	7.44E-08	1.15E-08	0.17	0.00	1.65E-04	2.70E-05	4.79E-05	1.47E-05	1.49E-05	2.69E-04
567432.29_4181126.94	567432.29	4181126.94	1.81E-04	2.74E-05	5.09E-05	1.60E-05	1.62E-05	2.92E-04	potential residence	3.37E-09	8.15E-08	7.61E-08	1.17E-08	0.17	0.00	1.69E-04	2.74E-05	4.84E-05	1.52E-05	1.54E-05	2.76E-04
567452.29_4181126.94	567452.29	4181126.94	1.87E-04	2.80E-05	5.14E-05	1.65E-05	1.68E-05	3.00E-04	potential residence	3.45E-09	8.37E-08	7.81E-08	1.20E-08	0.18	0.00	1.74E-04	2.80E-05	4.89E-05	1.57E-05	1.60E-05	2.83E-04
567472.29_4181126.94	567472.29	4181126.94	1.92E-04	2.84E-05	5.19E-05	1.71E-05	1.74E-05	3.07E-04	potential residence	3.54E-09	8.56E-08	7.99E-08	1.23E-08	0.18	0.00	1.79E-04	2.84E-05	4.94E-05	1.63E-05	1.66E-05	2.90E-04
567492.29_4181126.94	567492.29	4181126.94	1.98E-04	2.91E-05	5.23E-05	1.78E-05	1.81E-05	3.15E-04	potential residence	3.63E-09	8.79E-08	8.21E-08	1.27E-08	0.19	0.00	1.84E-04	2.91E-05	4.98E-05	1.69E-05	1.72E-05	2.97E-04
568132.29_4181126.94	568132.29	4181126.94	2.52E-04	3.56E-05	5.31E-05	4.36E-05	5.26E-05	4.37E-04	potential residence	5.04E-09	1.22E-07	1.14E-07	1.76E-08	0.26	0.00	2.35E-04	3.56E-05	5.05E-05	4.15E-05	5.00E-05	4.13E-04
568172.29_4181126.94	568172.29	4181126.94	2.53E-04	3.53E-05	5.30E-05	4.35E-05	5.28E-05	4.38E-04	potential residence	5.05E-09	1.22E-07	1.14E-07	1.76E-08	0.26	0.00	2.36E-04	3.53E-05	5.04E-05	4.14E-05	5.02E-05	4.13E-04
568192.29_4181126.94	568192.29	4181126.94	2.53E-04	3.51E-05	5.30E-05	4.35E-05	5.27E-05	4.38E-04	potential residence	5.05E-09	1.22E-07	1.14E-07	1.76E-08	0.26	0.00	2.36E-04	3.51E-05	5.04E-05	4.14E-05	5.02E-05	4.13E-04
568212.29_4181126.94	568212.29	4181126.94	2.54E-04	3.49E-05	5.31E-05	4.34E-05	5.26E-05	4.38E-04	potential residence	5.05E-09	1.22E-07	1.14E-07	1.76E-08	0.26	0.00	2.36E-04	3.49E-05	5.05E-05	4.13E-05	5.01E-05	4.13E-04
568232.29_4181126.94	568232.29	4181126.94	2.53E-04	3.47E-05	5.30E-05	4.32E-05	5.23E-05	4.36E-04	potential residence	5.02E-09	1.22E-07	1.14E-07	1.75E-08	0.26	0.00	2.35E-04	3.47E-05	5.04E-05	4.11E-05	4.98E-05	4.11E-04
568252.29_4181126.94	568252.29	4181126.94	2.53E-04	3.46E-05	5.32E-05	4.32E-05	5.22E-05	4.36E-04	potential residence	5.03E-09	1.22E-07	1.14E-07	1.75E-08	0.26	0.00	2.36E-04	3.46E-05	5.06E-05	4.11E-05	4.97E-05	4.12E-04
568272.29_4181126.94	568272.29	4181126.94	2.52E-04	3.43E-05	5.33E-05	4.31E-05	5.19E-05	4.34E-04	potential residence	5.01E-09	1.21E-07	1.13E-07	1.75E-08	0.26	0.00	2.35E-04	3.43E-05	5.07E-05	4.10E-05	4.94E-05	4.10E-04
568292.29_4181126.94	568292.29	4181126.94	2.50E-04	3.37E-05	5.32E-05	4.27E-05	5.13E-05	4.31E-04	potential residence	4.96E-09	1.20E-07	1.12E-07	1.73E-08	0.25	0.00	2.33E-04	3.37E-05	5.06E-05	4.07E-05	4.88E-05	4.07E-04
568312.29_4181126.94	568312.29	4181126.94	2.47E-04	3.31E-05	5.32E-05	4.24E-05	5.08E-05	4.27E-04	potential residence	4.92E-09	1.19E-07	1.11E-07	1.72E-08	0.25	0.00	2.31E-04	3.31E-05	5.06E-05	4.04E-05	4.83E-05	4.03E-04
568332.29_4181126.94	568332.29	4181126.94	2.46E-04	3.26E-05	5.35E-05	4.23E-05	5.04E-05	4.25E-04	potential residence	4.90E-09	1.19E-07	1.11E-07	1.71E-08	0.25	0.00	2.29E-04	3.26E-05	5.09E-05	4.03E-05	4.80E-05	4.01E-04
568352.29_4181126.94	568352.29	4181126.94	2.45E-04	3.22E-05	5.38E-05	4.22E-05	5.01E-05	4.23E-04	potential residence	4.88E-09	1.18E-07	1.10E-07	1.70E-08	0.25	0.00	2.28E-04	3.22E-05	5.12E-05	4.02E-05	4.77E-05	4.00E-04
568372.29_4181126.94	568372.29	4181126.94	2.43E-04	3.20E-05	5.41E-05	4.21E-05	4.98E-05	4.21E-04	potential residence	4.86E-09	1.18E-07	1.10E-07	1.69E-08	0.25	0.00	2.27E-04	3.20E-05	5.14E-05	4.00E-05	4.73E-05	3.98E-04
568392.29_4181126.94	568392.29	4181126.94	2.42E-04	3.21E-05	5.43E-05	4.19E-05	4.94E-05	4.20E-04	potential residence	4.84E-09	1.17E-07	1.09E-07	1.69E-08	0.25	0.00	2.26E-04	3.21E-05	5.17E-05	3.99E-05	4.70E-05	3.96E-04
568412.29_4181126.94	568412.29	4181126.94	2.40E-04	3.24E-05	5.44E-05	4.15E-05	4.89E-05	4.17E-04	potential residence	4.81E-09	1.16E-07	1.09E-07	1.68E-08	0.25	0.00	2.23E-04	3.24E-05	5.18E-05	3.95E-05	4.65E-05	3.94E-04
568432.29_4181126.94	568432.29	4181126.94	2.38E-04	3.29E-05	5.46E-05	4.12E-05	4.85E-05	4.15E-04	potential residence	4.78E-09	1.16E-07	1.08E-07	1.67E-08	0.25	0.00	2.22E-04	3.29E-05	5.19E-05	3.92E-05	4.61E-05	3.92E-04
568452.29_4181126.94	568452.29	4181126.94	2.36E-04	3.33E-05	5.46E-05	4.07E-05	4.80E-05	4.12E-04	potential residence	4.75E-09	1.15E-07	1.07E-07	1.66E-08	0.24	0.00	2.20E-04	3.33E-05	5.20E-05	3.87E-05	4.57E-05	3.89E-04
568472.29_4181126.94	568472.29	4181126.94	2.33E-04	3.36E-05	5.46E-05	4.01E-05	4.74E-05	4.09E-04	potential residence	4.71E-09	1.14E-07	1.07E-07	1.64E-08	0.24	0.00	2.17E-04	3.36E-05	5.19E-05	3.82E-05	4.51E-05	3.86E-04
568492.29_4181126.94	568492.29	4181126.94	2.32E-04	3.38E-05	5.48E-05	3.98E-05	4.71E-05	4.07E-04	potential residence	4.69E-09	1.14E-07	1.06E-07	1.64E-08	0.24	0.00	2.16E-04	3.38E-05	5.21E-05	3.79E-05	4.49E-05	3.85E-04
568512.29_4181126.94	568512.29	4181126.94	2.29E-04	3.39E-05	5.46E-05	3.89E-05	4.63E-05	4.02E-04	potential residence	4.64E-09	1.12E-07	1.05E-07	1.62E-08	0.24	0.00	2.13E-04	3.39E-05	5.19E-05	3.70E-05	4.40E-05	3.80E-04
568532.29_4181126.94	568532.29	4181126.94	2.27E-04	3.38E-05	5.45E-05	3.83E-05	4.57E-05	3.99E-04	potential residence	4.60E-09	1.11E-07	1.04E-07	1.60E-08	0.24	0.00	2.11E-04	3.38E-05	5.18E-05	3.65E-05	4.35E-05	3.77E-04
568552.29_4181126.94	568552.29	4181126.94	2.23E-04	3.37E-05	5.39E-05	3.73E-05	4.42E-05	3.92E-04	potential residence	4.52E-09	1.09E-07	1.02E-07	1.57E-08	0.23	0.00	2.08E-04	3.37E-05	5.13E-05	3.55E-05	4.20E-05	3.70E-04
568572.29_4181126.94	568572.29	4181126.94	2.22E-04	3.35E-05	5.42E-05	3.72E-05	4.41E-05	3.91E-04	potential residence	4.50E-09	1.09E-07	1.02E-07	1.57E-08	0.23	0.00	2.07E-04	3.35E-05	5.16E-05	3.54E-05	4.19E-05	3.69E-04
568592.29_4181126.94	568592.29	4181126.94	2.20E-04	3.32E-05	5.43E-05	3.69E-05	4.38E-05	3.88E-04	potential residence	4.48E-09	1.08E-07	1.01E-07	1.56E-08	0.23	0.00	2.05E-04	3.32E-05	5.17E-05	3.51E-05	4.17E-05	3.67E-04
568612.29_4181126.94	568612.29	4181126.94	2.17E-04	3.30E-05	5.42E-05	3.63E-05	4.29E-05	3.84E-04	potential residence	4.42E-09	1.07E-07	1.00E-07	1.54E-08	0.23	0.00	2.02E-04	3.30E-05	5.15E-05	3.45E-05	4.08E-05	3.62E-04
568632.29_4181126.94	568632.29	4181126.94	2.15E-04	3.28E-05	5.43E-05	3.59E-05	4.25E-05	3.80E-04	potential residence	4.39E-09	1.06E-07	9.92E-08	1.53E-08	0.23	0.00	2.00E-04	3.28E-05	5.16E-05	3.41E-05	4.04E-05	3.59E-04
568712.29_4181126.94	568712.29	4181126.94	2.05E-04	3.19E-05	5.45E-05	3.42E-05	4.04E-05	3.66E-04	potential residence	4.21E-09	1.02E-07	9.53E-08	1.47E-08	0.22	0.00	1.91E-04	3.19E-05	5.18E-05	3.25E-05	3.84E-05	3.45E-04
568732.29_4181126.94	568732.29	4181126.94	2.01E-04	3.16E-05	5.42E-05	3.36E-05	3.94E-05	3.60E-04	potential residence	4.15E-09	1.01E-07	9.39E-08	1.45E-08	0.21	0.00	1.88E-04	3.16E-05	5.16E-05	3.19E-05	3.75E-05	3.40E-04
568752.29_4181126.94	568752.29	4181126.94	1.98E-04	3.14E-05	5.42E-05	3.30E-05	3.88E-05	3.56E-04	potential residence	4.10E-09	9.93E-08	9.27E-08	1.43E-08	0.21	0.00	1.85E-04	3.14E-05	5.16E-05	3.14E-05	3.69E-05	3.36E-04
568772.29_4181126.94	568772.29	4181126.94	1.96E-04	3.12E-05	5.45E-05	3.28E-05	3.86E-05	3.53E-04	potential residence	4.07E-09	9.86E-08	9.21E-08	1.42E-08	0.21	0.00	1.83E-04	3.12E-05	5.19E-05	3.12E-05	3.68E-05	3.34E-04
568792.29_4181126.94	568792.29	4181126.94	1.94E-04	3.10E-05	5.46E-05	3.25E-05	3.81E-05	3.50E-04	potential residence	4.03E-09	9.77E-08	9.12E-08	1.41E-08	0.21	0.00	1.80E-04	3.10E-05	5.19E-05	3.09E-05	3.63E-05	3.31E-04
568812.29_4181126.94	568812.29	4181126.94	1.91E-04	3.08E-05	5.46E-05	3.21E-05	3.77E-05	3.46E-04	potential residence	3.99E-09	9.66E-08	9.02E-08	1.39E-08	0.20	0.00	1.78E-04	3.08E-05	5.20E-05	3.06E-05	3.58E-05	3.27E-04
567412.29_4181146.94	567412.29	4181146.94	1.71E-04	2.65E-05	4.88E-05	1.51E-05	1.54E-05	2.77E-04	potential residence	3.19E-09	7.74E-08	7.22E-08	1.11E-08	0.16	0.00	1.60E-04	2.65E-05	4.64E-05	1.44E-05	1.46E-05	2.62E-04
567432.29_4181146.94	567432.29	4181146.94	1.76E-04	2.68E-05	4.93E-05	1.57E-05	1.59E-05	2.83E-04	potential residence	3.27E-09	7.91E-08	7.38E-08	1.14E-08	0.17	0.00	1.64E-04	2.68E-05	4.69E-05	1.49E-05	1.51E-05	2.67E-04
567452.29_4181146.94	567452.29	4181146.94	1.81E-04	2.73E-05	4.98E-05	1.62E-05	1.65E-05	2.91E-04	potential residence	3.35E-09	8.11E-08	7.57E-08	1.17E-08	0.17	0.00	1.69E-04	2.73E-05	4.73E-05	1.54E-05	1.57E-05	2.74E-04
567472.29_4181146.94	567472.29	4181146.94	1.86E-04	2.81E-05	5.02E-05	1.68E-05	1.71E-05	2.98E-04	potential residence	3.44E-09	8.33E-08	7.77E-08	1.20E-08	0.18	0.00	1.73E-04	2.81E-05	4.77E-05	1.60E-05	1.63E-05	2.81E-04
567492.29_4181146.94	567492.29	4181146.94	1.91E-04	2.87E-05	5.06E-05	1.75E-05	1.77E-05	3.06E-04	potential residence	3.52E-09	8.53E-08	7.96E-08	1.23E-08	0.18	0.00	1.78E-04	2.87E-05	4.81E-05	1.66E-05	1.69E-05	2.88E-04
567512.29_4181146.94	567512.29	4181146.94	1.96E-04	2.94E-05	5.09E-05	1.81E-05	1.84E-05	3.13E-04	potential residence	3.61E-09	8.73E-08	8.15E-08	1.26E-08	0.19	0.00	1.83E-04	2.94E-05	4.84E-05	1.72E-05	1.75E-05	2.95E-04
568132.29_4181146.94	568132.29	4181146.94	2.36E-04	3.32E-05	5.05E-05	3.87E-05	4.64E-05	4.05E-04	potential residence	4.67E-09	1.13E-07	1.06E-07	1.63E-08	0.24	0.00	2.20E-04	3.32E-05	4.80E-05	3.69E-05	4.42E-05	3.82E-04
568152.29_4181146.94	568152.29	4181146.94	2.36E-04	3.31E-05	5.05E-05	3.87E-05	4.65E-05	4.05E-04	potential residence	4.67E-09	1.13E-07	1.06E-07	1.63E-08	0.24	0.00	2.20E-04	3.31E-05	4.80E-05	3.68E-05	4.42E-05	3.83E-04
568172.29_4181146.94	568172.29	4181146.94	2.38E-04	3.30E-05	5.06E-05	3.88E-05	4.66E-05	4.07E-04	potential residence	4.69E-09	1.14E-07	1.06E-07	1.63E-08	0.24	0.00	2.22E-04	3.30E-05	4.81E-05	3.69E-05	4.44E-05	3.84E-04
568192.29_4181146.94	568192.29	4181146.94	2.37E-04	3.28E-05	5.05E-05	3.86E-05	4.65E-05	4.06E-04	potential residence	4.68E-09	1.13E-07	1.06E-07	1.63E-08	0.24	0.00	2.21E-04	3.28E-05	4.80E-05	3.67E-05	4.43E-05	3.83E-04
568212.29_4181146.94	568212.29	4181146.94	2.38E-04	3.26E-05	5.05E-05	3.86E-05	4.65E-05	4.06E-04	potential residence	4.68E-09	1.13E-07	1.06E-07	1.63E-08	0.24	0.00	2.22E-04	3.26E-05	4.81E-05	3.67E-05	4.42E-05	3.83E-04
568232.29_4181146.94	568232.29	4181146.94	2.38E-04	3.25E-05	5.07E-05	3.87E-05	4.65E-05	4.06E-04	potential residence	4.68E-09	1.13E-07	1.06E-07	1.63E-08	0.24	0.00	2.22E-04	3.25E-05	4.83E-05	3.68E-05	4.42E-05	3.84E-04
568252.29_4181146.94	568252.29	4181146.94	2.37E-04	3.24E-05	5.08E-05	3.86E-05	4.63E-05	4.05E-04	potential residence	4.67E-09	1.13E-07	1.06E-07	1.63E-08	0.24	0.00	2.21E-04	3.24E-05	4.83E-05	3.67E-05	4.40E-05	3.83E-04
568272.29_4181146.94	568272.29	4181146.94	2.36E-04	3.21E-05	5.07E-05	3.84E-05	4.59E-05	4.03E-04	potential residence	4.64E-09	1.12E-07	1.05E-07	1.62E-08	0.24	0.00	2.20E-04	3.21E-05	4.82E-05	3.65E-05	4.37E-05	3.80E-04
568292.29_4181146.94	568292.29	4181146.94	2.34E-04	3.18E-05	5.07E-05	3.82E-05	4.56E-05	4.00E-04	potential residence	4.62E-09	1.12E-07	1.04E-07	1.61E-08	0.24	0.00	2.18E-04	3.18E-05	4.82E-05	3.64E-05	4.34E-05	3.78E-04
568312.29_4181146.94	568312.29	4181146.94	2.33E-04	3.13E-05	5.09E-05	3.82E-05	4.53E-05	3.99E-04	potential residence	4.60E-09	1.11E-07	1.04E-07	1.60E-08	0.24	0.00	2.17E-04	3.13E-05	4.84E-05	3.64E-05	4.31E-05	3.77E-04
568332.29_4181146.94	568332.29	4181146.94	2.32E-04	3.08E-05	5.11E-05	3.82E-05	4.51E-05	3.97E-04	potential residence	4.58E-09	1.11E-07	1.04E-07	1.60E-08	0.23	0.00	2.16E-04	3.08E-05	4.87E-05	3.63E-05	4.29E-05	3.75E-04
568352.29_4181146.94	568352.29	4181146.94	2.30E-04	3.04E-05	5.13E-05	3.80E-05	4.48E-05	3.95E-04	potential residence	4.55E-09	1.10E-07	1.03E-07	1.59E-08	0.23	0.00	2.15E-04	3.04E-05	4.88E-05	3.62E-05	4.26E-05	3.72E-04
568372.29_4181146.94	568372.29	4181146.94	2.29E-04	3.01E-05	5.15E-05	3.79E-05	4.45E-05	3.93E-04	potential residence	4.53E-09	1.10E-07	1.02E-07	1.58E-08	0.23	0.00	2.13E-04	3.01E-05	4.90E-05	3.61E-05	4.23E-05	3.71E-04
568392.29_4181146.94	568392.29	4181146.94	2.27E-04	3.01E-05	5.18E-05	3.78E-05	4.43E-05	3.91E-04	potential residence	4.51E-09	1.09E-07	1.02E-07	1.57E-08	0.23	0.00	2.12E-04	3.01E-05	4.92E-05	3.60E-05	4.21E-05	3.69E-04

568412.29_4181146.94	568412.29	4181146.94	2.25E-04	3.03E-05	5.18E-05	3.75E-05	4.39E-05	3.89E-04	potential residence	4.48E-09	1.09E-07	1.01E-07	1.56E-08	0.23	0.00	2.10E-04	3.03E-05	4.93E-05	3.57E-05	4.17E-05	3.67E-04
568432.29_4181146.94	568432.29	4181146.94	2.24E-04	3.06E-05	5.20E-05	3.72E-05	4.36E-05	3.87E-04	potential residence	4.46E-09	1.08E-07	1.01E-07	1.56E-08	0.23	0.00	2.09E-04	3.06E-05	4.94E-05	3.54E-05	4.15E-05	3.65E-04
568452.29_4181146.94	568452.29	4181146.94	2.22E-04	3.10E-05	5.20E-05	3.68E-05	4.32E-05	3.85E-04	potential residence	4.44E-09	1.07E-07	1.00E-07	1.55E-08	0.23	0.00	2.07E-04	3.10E-05	4.95E-05	3.50E-05	4.11E-05	3.63E-04
568492.29_4181146.94	568492.29	4181146.94	2.19E-04	3.16E-05	5.22E-05	3.62E-05	4.26E-05	3.81E-04	potential residence	4.39E-09	1.06E-07	9.93E-08	1.53E-08	0.23	0.00	2.04E-04	3.16E-05	4.97E-05	3.44E-05	4.05E-05	3.60E-04
568512.29_4181146.94	568512.29	4181146.94	2.16E-04	3.17E-05	5.20E-05	3.54E-05	4.17E-05	3.77E-04	potential residence	4.34E-09	1.05E-07	9.82E-08	1.51E-08	0.22	0.00	2.01E-04	3.17E-05	4.94E-05	3.37E-05	3.96E-05	3.56E-04
568532.29_4181146.94	568532.29	4181146.94	2.13E-04	3.18E-05	5.17E-05	3.47E-05	4.08E-05	3.72E-04	potential residence	4.29E-09	1.04E-07	9.70E-08	1.50E-08	0.22	0.00	1.99E-04	3.18E-05	4.92E-05	3.30E-05	3.89E-05	3.52E-04
568552.29_4181146.94	568552.29	4181146.94	2.11E-04	3.17E-05	5.15E-05	3.42E-05	4.03E-05	3.69E-04	potential residence	4.25E-09	1.03E-07	9.61E-08	1.48E-08	0.22	0.00	1.97E-04	3.17E-05	4.90E-05	3.25E-05	3.83E-05	3.48E-04
568572.29_4181146.94	568572.29	4181146.94	2.09E-04	3.15E-05	5.16E-05	3.39E-05	3.99E-05	3.66E-04	potential residence	4.22E-09	1.02E-07	9.55E-08	1.47E-08	0.22	0.00	1.95E-04	3.15E-05	4.91E-05	3.22E-05	3.80E-05	3.46E-04
568592.29_4181146.94	568592.29	4181146.94	2.08E-04	3.14E-05	5.17E-05	3.36E-05	3.97E-05	3.64E-04	potential residence	4.20E-09	1.02E-07	9.50E-08	1.46E-08	0.22	0.00	1.94E-04	3.14E-05	4.92E-05	3.20E-05	3.77E-05	3.44E-04
568612.29_4181146.94	568612.29	4181146.94	2.06E-04	3.12E-05	5.18E-05	3.33E-05	3.93E-05	3.62E-04	potential residence	4.17E-09	1.01E-07	9.43E-08	1.45E-08	0.21	0.00	1.92E-04	3.12E-05	4.92E-05	3.17E-05	3.73E-05	3.42E-04
568672.29_4181146.94	568672.29	4181146.94	2.00E-04	3.07E-05	5.19E-05	3.23E-05	3.79E-05	3.53E-04	potential residence	4.07E-09	9.85E-08	9.19E-08	1.42E-08	0.21	0.00	1.86E-04	3.07E-05	4.94E-05	3.07E-05	3.61E-05	3.33E-04
568692.29_4181146.94	568692.29	4181146.94	1.97E-04	3.05E-05	5.18E-05	3.19E-05	3.73E-05	3.49E-04	potential residence	4.02E-09	9.74E-08	9.09E-08	1.40E-08	0.21	0.00	1.84E-04	3.05E-05	4.93E-05	3.03E-05	3.55E-05	3.30E-04
568712.29_4181146.94	568712.29	4181146.94	1.95E-04	3.03E-05	5.19E-05	3.15E-05	3.69E-05	3.46E-04	potential residence	3.98E-09	9.65E-08	9.01E-08	1.39E-08	0.20	0.00	1.82E-04	3.03E-05	4.94E-05	3.00E-05	3.51E-05	3.27E-04
568732.29_4181146.94	568732.29	4181146.94	1.92E-04	3.01E-05	5.18E-05	3.11E-05	3.63E-05	3.42E-04	potential residence	3.94E-09	9.54E-08	8.90E-08	1.37E-08	0.20	0.00	1.79E-04	3.01E-05	4.93E-05	2.95E-05	3.46E-05	3.23E-04
568752.29_4181146.94	568752.29	4181146.94	1.89E-04	2.99E-05	5.17E-05	3.06E-05	3.57E-05	3.37E-04	potential residence	3.89E-09	9.42E-08	8.79E-08	1.36E-08	0.20	0.00	1.76E-04	2.99E-05	4.92E-05	2.91E-05	3.40E-05	3.19E-04
568772.29_4181146.94	568772.29	4181146.94	1.87E-04	2.97E-05	5.20E-05	3.05E-05	3.56E-05	3.35E-04	potential residence	3.86E-09	9.36E-08	8.74E-08	1.35E-08	0.20	0.00	1.75E-04	2.97E-05	4.95E-05	2.90E-05	3.39E-05	3.17E-04
568792.29_4181146.94	568792.29	4181146.94	1.85E-04	2.96E-05	5.21E-05	3.01E-05	3.51E-05	3.32E-04	potential residence	3.82E-09	9.26E-08	8.65E-08	1.33E-08	0.20	0.00	1.72E-04	2.96E-05	4.95E-05	2.86E-05	3.34E-05	3.14E-04
568812.29_4181146.94	568812.29	4181146.94	1.82E-04	2.94E-05	5.21E-05	2.97E-05	3.48E-05	3.28E-04	potential residence	3.79E-09	9.17E-08	8.56E-08	1.32E-08	0.19	0.00	1.70E-04	2.94E-05	4.96E-05	2.83E-05	3.31E-05	3.10E-04
567412.29_4181166.94	567412.29	4181166.94	1.66E-04	2.59E-05	4.73E-05	1.49E-05	1.51E-05	2.69E-04	potential residence	3.10E-09	7.51E-08	7.01E-08	1.08E-08	0.16	0.00	1.55E-04	2.59E-05	4.50E-05	1.41E-05	1.44E-05	2.54E-04
567432.29_4181166.94	567432.29	4181166.94	1.71E-04	2.66E-05	4.78E-05	1.54E-05	1.56E-05	2.76E-04	potential residence	3.18E-09	7.71E-08	7.20E-08	1.11E-08	0.16	0.00	1.59E-04	2.66E-05	4.55E-05	1.46E-05	1.49E-05	2.61E-04
567452.29_4181166.94	567452.29	4181166.94	1.75E-04	2.71E-05	4.82E-05	1.59E-05	1.62E-05	2.83E-04	potential residence	3.26E-09	7.89E-08	7.37E-08	1.14E-08	0.17	0.00	1.64E-04	2.71E-05	4.58E-05	1.52E-05	1.54E-05	2.67E-04
567472.29_4181166.94	567472.29	4181166.94	1.80E-04	2.77E-05	4.85E-05	1.65E-05	1.68E-05	2.90E-04	potential residence	3.34E-09	8.09E-08	7.55E-08	1.16E-08	0.17	0.00	1.68E-04	2.77E-05	4.62E-05	1.57E-05	1.60E-05	2.73E-04
567492.29_4181166.94	567492.29	4181166.94	1.84E-04	2.82E-05	4.88E-05	1.71E-05	1.74E-05	2.96E-04	potential residence	3.41E-09	8.26E-08	7.71E-08	1.19E-08	0.18	0.00	1.72E-04	2.82E-05	4.65E-05	1.63E-05	1.65E-05	2.79E-04
567512.29_4181166.94	567512.29	4181166.94	1.88E-04	2.88E-05	4.91E-05	1.78E-05	1.81E-05	3.02E-04	potential residence	3.48E-09	8.44E-08	7.88E-08	1.21E-08	0.18	0.00	1.76E-04	2.88E-05	4.67E-05	1.69E-05	1.72E-05	2.85E-04
568112.29_4181166.94	568112.29	4181166.94	2.21E-04	3.13E-05	4.82E-05	3.47E-05	4.13E-05	3.76E-04	potential residence	4.34E-09	1.05E-07	9.80E-08	1.51E-08	0.22	0.00	2.06E-04	3.13E-05	4.58E-05	3.30E-05	3.93E-05	3.55E-04
568132.29_4181166.94	568132.29	4181166.94	2.21E-04	3.11E-05	4.81E-05	3.47E-05	4.14E-05	3.77E-04	potential residence	4.34E-09	1.05E-07	9.82E-08	1.51E-08	0.22	0.00	2.06E-04	3.11E-05	4.58E-05	3.30E-05	3.94E-05	3.56E-04
568152.29_4181166.94	568152.29	4181166.94	2.22E-04	3.09E-05	4.81E-05	3.46E-05	4.14E-05	3.77E-04	potential residence	4.34E-09	1.05E-07	9.81E-08	1.51E-08	0.22	0.00	2.07E-04	3.09E-05	4.57E-05	3.29E-05	3.94E-05	3.55E-04
568192.29_4181166.94	568192.29	4181166.94	2.24E-04	3.07E-05	4.84E-05	3.48E-05	4.16E-05	3.80E-04	potential residence	4.38E-09	1.06E-07	9.90E-08	1.53E-08	0.22	0.00	2.09E-04	3.07E-05	4.60E-05	3.31E-05	3.96E-05	3.58E-04
568212.29_4181166.94	568212.29	4181166.94	2.24E-04	3.06E-05	4.84E-05	3.48E-05	4.16E-05	3.80E-04	potential residence	4.37E-09	1.06E-07	9.89E-08	1.53E-08	0.22	0.00	2.09E-04	3.06E-05	4.61E-05	3.31E-05	3.95E-05	3.58E-04
568232.29_4181166.94	568232.29	4181166.94	2.23E-04	3.04E-05	4.84E-05	3.47E-05	4.14E-05	3.78E-04	potential residence	4.36E-09	1.06E-07	9.86E-08	1.52E-08	0.22	0.00	2.08E-04	3.04E-05	4.60E-05	3.30E-05	3.94E-05	3.57E-04
568252.29_4181166.94	568252.29	4181166.94	2.22E-04	3.03E-05	4.83E-05	3.46E-05	4.12E-05	3.77E-04	potential residence	4.34E-09	1.05E-07	9.82E-08	1.51E-08	0.22	0.00	2.07E-04	3.03E-05	4.59E-05	3.29E-05	3.92E-05	3.56E-04
568272.29_4181166.94	568272.29	4181166.94	2.22E-04	3.02E-05	4.84E-05	3.46E-05	4.10E-05	3.76E-04	potential residence	4.33E-09	1.05E-07	9.80E-08	1.51E-08	0.22	0.00	2.07E-04	3.02E-05	4.60E-05	3.29E-05	3.90E-05	3.55E-04
568292.29_4181166.94	568292.29	4181166.94	2.21E-04	2.99E-05	4.85E-05	3.46E-05	4.09E-05	3.75E-04	potential residence	4.32E-09	1.05E-07	9.76E-08	1.51E-08	0.22	0.00	2.06E-04	2.99E-05	4.62E-05	3.29E-05	3.89E-05	3.54E-04
568312.29_4181166.94	568312.29	4181166.94	2.20E-04	2.96E-05	4.87E-05	3.45E-05	4.07E-05	3.73E-04	potential residence	4.30E-09	1.04E-07	9.73E-08	1.50E-08	0.22	0.00	2.05E-04	2.96E-05	4.63E-05	3.29E-05	3.87E-05	3.52E-04
568332.29_4181166.94	568332.29	4181166.94	2.18E-04	2.91E-05	4.88E-05	3.45E-05	4.04E-05	3.71E-04	potential residence	4.28E-09	1.04E-07	9.67E-08	1.49E-08	0.22	0.00	2.03E-04	2.91E-05	4.64E-05	3.28E-05	3.85E-05	3.50E-04
568352.29_4181166.94	568352.29	4181166.94	2.17E-04	2.88E-05	4.89E-05	3.43E-05	4.02E-05	3.69E-04	potential residence	4.25E-09	1.03E-07	9.61E-08	1.48E-08	0.22	0.00	2.02E-04	2.88E-05	4.65E-05	3.27E-05	3.82E-05	3.48E-04
568372.29_4181166.94	568372.29	4181166.94	2.15E-04	2.85E-05	4.91E-05	3.43E-05	4.00E-05	3.67E-04	potential residence	4.23E-09	1.02E-07	9.57E-08	1.48E-08	0.22	0.00	2.01E-04	2.85E-05	4.67E-05	3.26E-05	3.81E-05	3.46E-04
568392.29_4181166.94	568392.29	4181166.94	2.14E-04	2.83E-05	4.94E-05	3.42E-05	3.99E-05	3.66E-04	potential residence	4.22E-09	1.02E-07	9.54E-08	1.47E-08	0.22	0.00	2.00E-04	2.83E-05	4.70E-05	3.26E-05	3.79E-05	3.45E-04
568412.29_4181166.94	568412.29	4181166.94	2.12E-04	2.84E-05	4.94E-05	3.39E-05	3.96E-05	3.63E-04	potential residence	4.19E-09	1.01E-07	9.47E-08	1.46E-08	0.22	0.00	1.98E-04	2.84E-05	4.70E-05	3.23E-05	3.76E-05	3.43E-04
568432.29_4181166.94	568432.29	4181166.94	2.11E-04	2.87E-05	4.95E-05	3.36E-05	3.92E-05	3.62E-04	potential residence	4.17E-09	1.01E-07	9.42E-08	1.45E-08	0.21	0.00	1.96E-04	2.87E-05	4.71E-05	3.20E-05	3.73E-05	3.41E-04
568452.29_4181166.94	568452.29	4181166.94	2.09E-04	2.90E-05	4.96E-05	3.34E-05	3.90E-05	3.60E-04	potential residence	4.15E-09	1.01E-07	9.39E-08	1.45E-08	0.21	0.00	1.95E-04	2.90E-05	4.72E-05	3.18E-05	3.71E-05	3.40E-04
568472.29_4181166.94	568472.29	4181166.94	2.08E-04	2.93E-05	4.97E-05	3.32E-05	3.89E-05	3.59E-04	potential residence	4.14E-09	1.00E-07	9.35E-08	1.44E-08	0.21	0.00	1.94E-04	2.93E-05	4.73E-05	3.15E-05	3.70E-05	3.39E-04
568492.29_4181166.94	568492.29	4181166.94	2.06E-04	2.96E-05	4.96E-05	3.27E-05	3.82E-05	3.56E-04	potential residence	4.10E-09	9.93E-08	9.27E-08	1.43E-08	0.21	0.00	1.92E-04	2.96E-05	4.72E-05	3.11E-05	3.63E-05	3.36E-04
568512.29_4181166.94	568512.29	4181166.94	2.04E-04	2.98E-05	4.97E-05	3.25E-05	3.80E-05	3.54E-04	potential residence	4.08E-09	9.89E-08	9.23E-08	1.42E-08	0.21	0.00	1.90E-04	2.98E-05	4.73E-05	3.09E-05	3.62E-05	3.35E-04
568532.29_4181166.94	568532.29	4181166.94	2.02E-04	2.99E-05	4.93E-05	3.18E-05	3.72E-05	3.50E-04	potential residence	4.03E-09	9.76E-08	9.12E-08	1.41E-08	0.21	0.00	1.88E-04	2.99E-05	4.69E-05	3.02E-05	3.54E-05	3.30E-04
568552.29_4181166.94	568552.29	4181166.94	2.00E-04	2.99E-05	4.93E-05	3.14E-05	3.69E-05	3.48E-04	potential residence	4.01E-09	9.70E-08	9.06E-08	1.40E-08	0.21	0.00	1.87E-04	2.99E-05	4.69E-05	2.99E-05	3.51E-05	3.28E-04
568572.29_4181166.94	568572.29	4181166.94	1.99E-04	2.98E-05	4.94E-05	3.13E-05	3.67E-05	3.46E-04	potential residence	3.99E-09	9.67E-08	9.02E-08	1.39E-08	0.20	0.00	1.86E-04	2.98E-05	4.70E-05	2.98E-05	3.49E-05	3.27E-04
568652.29_4181166.94	568652.29	4181166.94	1.92E-04	2.93E-05	4.94E-05	3.00E-05	3.51E-05	3.36E-04	potential residence	3.87E-09	9.37E-08	8.75E-08	1.35E-08	0.20	0.00	1.79E-04	2.93E-05	4.70E-05	2.85E-05	3.33E-05	3.17E-04
568672.29_4181166.94	568672.29	4181166.94	1.90E-04	2.91E-05	4.94E-05	2.97E-05	3.47E-05	3.33E-04	potential residence	3.84E-09	9.29E-08	8.68E-08	1.34E-08	0.20	0.00	1.77E-04	2.91E-05	4.70E-05	2.82E-05	3.30E-05	3.14E-04
568692.29_4181166.94	568692.29	4181166.94	1.88E-04	2.90E-05	4.94E-05	2.93E-05	3.42E-05	3.30E-04	potential residence	3.80E-09	9.20E-08	8.59E-08	1.32E-08	0.20	0.00	1.75E-04	2.90E-05	4.70E-05	2.79E-05	3.25E-05	3.11E-04
568712.29_4181166.94	568712.29	4181166.94	1.86E-04	2.89E-05	4.95E-05	2.91E-05	3.39E-05	3.27E-04	potential residence	3.77E-09	9.14E-08	8.53E-08	1.32E-08	0.19	0.00	1.73E-04	2.89E-05	4.71E-05	2.77E-05	3.23E-05	3.09E-04
568732.29_4181166.94	568732.29	4181166.94	1.84E-04	2.87E-05	4.96E-05	2.88E-05	3.36E-05	3.24E-04	potential residence	3.74E-09	9.06E-08	8.46E-08	1.30E-08	0.19	0.00	1.71E-04	2.87E-05	4.72E-05	2.74E-05	3.19E-05	3.07E-04
568752.29_4181166.94	568752.29	4181166.94	1.82E-04	2.86E-05	4.97E-05	2.85E-05	3.32E-05	3.22E-04	potential residence	3.71E-09	8.98E-08	8.38E-08	1.29E-08	0.19	0.00	1.69E-04	2.86E-05	4.72E-05	2.72E-05	3.16E-05	3.04E-04
568772.29_4181166.94	568772.29	4181166.94	1.79E-04	2.84E-05	4.97E-05	2.83E-05	3.28E-05	3.18E-04	potential residence	3.67E-09	8.89E-08	8.30E-08	1.28E-08	0.19	0.00	1.67E-04	2.84E-05	4.73E-05	2.69E-05	3.12E-05	3.01E-04
568792.29_4181166.94	568792.29	4181166.94	1.77E-04	2.83E-05	4.96E-05	2.79E-05	3.23E-05	3.15E-04	potential residence	3.63E-09	8.79E-08	8.20E-08	1.27E-08	0.19	0.00	1.65E-04	2.83E-05	4.72E-05	2.65E-05	3.08E-05	2.97E-04
568812.29_4181166.94	568812.29	4181166.94	1.75E-04	2.82E-05	4.98E-05	2.77E-05	3.21E-05	3.12E-04	potential residence	3.60E-09	8.72E-08	8.14E-08	1.26E-08	0.18	0.00	1.63E-04	2.82E-05	4.74E-05	2.64E-05	3.05E-05	2.95E-04
567412.29_4181186.94	567412.29	4181186.94	1.62E-04	2.58E-05	4.59E-05	1.46E-05	1.48E-05	2.63E-04	potential residence	3.03E-09	7.34E-08	6.85E-08	1.06E-08	0.16	0.00	1.51E-04	2.58E-05	4.37E-05	1.39E-05	1.41E-05	2.48E-04
567432.29_4181186.94	567432.29	4181186.94	1.66E-04	2.63E-05	4.63E-05	1.51E-05	1.54E-05	2.69E-04	potential residence	3.10E-09	7.51E-08	7.01E-08	1.08E-08	0.16	0.00	1.55E-04	2.63E-05	4.40E-05	1.44E-05	1.46E-05	2.54E-04
567452.29_4181186.94	567452.29	4181186.94	1.70E-04	2.68E-05	4.66E-05	1.57E-05	1.59E-05	2.75E-04	potential residence	3.17E-09	7.68E-08	7.17E-08	1.11E-08	0.16	0.00	1.59E-04	2.68E-05	4.44E-05	1.49E-05	1.51E-05	2.60E-04
567472.29_4181186.94	567472.29	4181186.94	1.74E-04	2.73E-05	4.69E-05	1.62E-05	1.65E-05	2.81E-04	potential residence	3.24E-09	7.84E-08	7.32E-08	1.13E-08	0.17	0.00	1.62E-04	2.73E-05	4.46E-05	1.54E-05	1.57E-05	2.65E-04
567492.29_4181186.94	567492.29	4181186.94	1.78E-04	2.77E-05	4.72E-05	1.68E-05	1.71E-05	2.86E-04	potential residence	3.30E-09	8.00E-08	7.47E-08	1.15E-08	0.17	0.00	1.66E-04	2.77E-05	4.49E-05	1.60E-05	1.63E-05	2.71E-04
567512.29_4181186.94	567512.29	4181186.94	1.81E-04	2.81E-05	4.74E-05	1.75E-05	1.77E-05	2.92E-04	potential residence	3.36E-09	8.14E-08	7.60E-08	1.17E-08	0.17	0.00	1.69E-04	2.81E-05	4.51E-05	1.66E-05	1.69E-05	2.75E-04
567532.29_4181186.94	567532.29	4181186.94	1.84E-04	2.84E-05	4.75E-05	1.81E-05	1.84E-05	2.97E-04	potential residence	3.42E-09	8.28E-08	7.73E-08	1.19E-08	0.18	0.00	1.72E-04	2.84E-05	4.52E-05	1.72E-05	1.75E-05	2.80E-04
568112.29_4181186.94	568112.29	4181186.94	2.07E-04	2.94E-05	4.59E-05	3.13E-05	3.71E-05	3.51E-04	potential residence	4.04E-09	9.79E-08	9.14E-08	1.41E-08	0.21	0.00	1.93E-04	2.94E-05	4.37E-05	2.98E-05	3.53E-05	3.31E-04
568132.29_4181186.94	568132.29	4181186.94	2.08E-04	2.92E-05	4.59E-05	3.13E-05	3.71E-05	3.51E-04	potential residence	4.05E-09	9.81E-08	9.16E-08	1.41E-08	0.21	0.00	1.94E-04	2.92E-05	4.37E-05	2.98E-05	3.53E-05	3.32E-04
568192.29_4181186.94	568192.29	4181186.94	2.11E-04	2.88E-05	4.62E-05	3.14E-05	3.74E-05	3.55E-04	potential residence	4.09E-09	9.91E-08	9.25E-08	1.43E-08	0.21	0.00	1.97E-04	2.88E-05	4.40E-05	2.99E-05	3.55E-05	3.35E-04
568212.29_4181186.94	568212.29	4181186.94	2.10E-04	2.87E-05	4.61E-05	3.13E-05	3.72E-05	3.53E-04	potential residence	4.07E-09	9.87E-08	9.21E-08	1.42E-08	0.21	0.00	1.96E-04	2.87E-05	4.38E-05	2.97E-05	3.54E-05	3.34E-04
568232.29_4181186.94	568232.29	4181186.94	2.10E-04	2.86E-05	4.60E-05	3.12E-05	3.70E-05	3.52E-04	potential residence	4.06E-09	9.84E-08	9.18E-08	1.42E-08	0.21	0.00	1.95E-04	2.86E-05	4.38E-05	2.97E-05	3.52E-05	3.33E-04
568252.29_4181186.94	568252.29	4181186.94	2.10E-04	2.85E-05	4.62E-05	3.13E-05	3.70E-05	3.52E-04	potential residence	4.06E-09	9.84E-08	9.19E-08	1.42E-08	0.21	0.00	1.95E-04	2.85E-05	4.39E-05	2.97E-05	3.52E-05	3.33E-04
568272.29_4181186.94	568272.29	4181186.94	2.09E-04	2.84E-05	4.63E-05	3.13E-05	3.69E-05	3.52E-04	potential residence	4.06E-09	9.82E-08	9.17E-08	1.41E-08	0.21	0.00	1.95E-04	2.84E-05	4.40E-05	2.98E-05	3.51E-05	3.32E-04
568292.29_4181186.94	568292.29	4181186.94	2.07E-04	2.82E-05	4.62E-05	3.11E-05	3.66E-05	3.50E-04	potential residence	4.03E-09	9.76E-08	9.11E-08	1.41E-08	0.21	0.00	1.93E-04	2.82E-05	4.40E-05	2.96E-05	3.48E-05	3.30E-04
568312.29_4181186.94	568312.29	4181186.94	2.07E-04	2.80E-05	4.65E-05	3.13E-05	3.66E-05	3.49E-04	potential residence	4.03E-09	9.76E-08	9.11E-08	1.40E-08	0.21	0.00	1.93E-04	2.80E-05	4.42E-05	2.97E-05	3.49E-05	3.30E-04

568332.29_4181186.94	568332.29	4181186.94	2.05E-04	2.77E-05	4.65E-05	3.11E-05	3.62E-05	3.47E-04	potential residence	4.00E-09	9.68E-08	9.04E-08	1.39E-08	0.21	0.00	1.91E-04	2.77E-05	4.42E-05	2.96E-05	3.45E-05	3.27E-04
568352.29_4181186.94	568352.29	4181186.94	2.04E-04	2.73E-05	4.66E-05	3.10E-05	3.61E-05	3.45E-04	potential residence	3.98E-09	9.63E-08	8.99E-08	1.39E-08	0.20	0.00	1.90E-04	2.73E-05	4.44E-05	2.95E-05	3.44E-05	3.26E-04
568372.29_4181186.94	568372.29	4181186.94	2.03E-04	2.70E-05	4.68E-05	3.10E-05	3.60E-05	3.44E-04	potential residence	3.96E-09	9.59E-08	8.96E-08	1.38E-08	0.20	0.00	1.89E-04	2.70E-05	4.45E-05	2.95E-05	3.43E-05	3.24E-04
568392.29_4181186.94	568392.29	4181186.94	2.02E-04	2.69E-05	4.70E-05	3.09E-05	3.59E-05	3.42E-04	potential residence	3.95E-09	9.56E-08	8.92E-08	1.38E-08	0.20	0.00	1.88E-04	2.69E-05	4.47E-05	2.94E-05	3.42E-05	3.23E-04
568412.29_4181186.94	568412.29	4181186.94	2.00E-04	2.69E-05	4.72E-05	3.08E-05	3.58E-05	3.41E-04	potential residence	3.93E-09	9.52E-08	8.88E-08	1.37E-08	0.20	0.00	1.87E-04	2.69E-05	4.49E-05	2.93E-05	3.41E-05	3.22E-04
568432.29_4181186.94	568432.29	4181186.94	1.99E-04	2.70E-05	4.73E-05	3.07E-05	3.55E-05	3.39E-04	potential residence	3.91E-09	9.48E-08	8.85E-08	1.36E-08	0.20	0.00	1.85E-04	2.70E-05	4.50E-05	2.92E-05	3.38E-05	3.20E-04
568452.29_4181186.94	568452.29	4181186.94	1.98E-04	2.72E-05	4.75E-05	3.07E-05	3.57E-05	3.39E-04	potential residence	3.91E-09	9.47E-08	8.84E-08	1.36E-08	0.20	0.00	1.85E-04	2.72E-05	4.52E-05	2.92E-05	3.39E-05	3.20E-04
568472.29_4181186.94	568472.29	4181186.94	1.96E-04	2.75E-05	4.73E-05	3.02E-05	3.50E-05	3.36E-04	potential residence	3.87E-09	9.38E-08	8.76E-08	1.35E-08	0.20	0.00	1.83E-04	2.75E-05	4.50E-05	2.87E-05	3.33E-05	3.17E-04
568492.29_4181186.94	568492.29	4181186.94	1.94E-04	2.78E-05	4.72E-05	2.98E-05	3.46E-05	3.33E-04	potential residence	3.84E-09	9.30E-08	8.68E-08	1.34E-08	0.20	0.00	1.81E-04	2.78E-05	4.49E-05	2.83E-05	3.29E-05	3.15E-04
568512.29_4181186.94	568512.29	4181186.94	1.93E-04	2.80E-05	4.74E-05	2.97E-05	3.46E-05	3.33E-04	potential residence	3.84E-09	9.29E-08	8.67E-08	1.34E-08	0.20	0.00	1.80E-04	2.80E-05	4.51E-05	2.83E-05	3.29E-05	3.14E-04
568532.29_4181186.94	568532.29	4181186.94	1.91E-04	2.82E-05	4.72E-05	2.93E-05	3.42E-05	3.30E-04	potential residence	3.81E-09	9.22E-08	8.61E-08	1.33E-08	0.20	0.00	1.78E-04	2.82E-05	4.49E-05	2.79E-05	3.25E-05	3.12E-04
568612.29_4181186.94	568612.29	4181186.94	1.86E-04	2.81E-05	4.72E-05	2.83E-05	3.30E-05	3.23E-04	potential residence	3.72E-09	9.01E-08	8.41E-08	1.30E-08	0.19	0.00	1.73E-04	2.81E-05	4.49E-05	2.69E-05	3.14E-05	3.05E-04
568632.29_4181186.94	568632.29	4181186.94	1.85E-04	2.79E-05	4.73E-05	2.81E-05	3.27E-05	3.21E-04	potential residence	3.70E-09	8.95E-08	8.36E-08	1.29E-08	0.19	0.00	1.72E-04	2.79E-05	4.50E-05	2.67E-05	3.11E-05	3.03E-04
568652.29_4181186.94	568652.29	4181186.94	1.82E-04	2.78E-05	4.71E-05	2.77E-05	3.22E-05	3.17E-04	potential residence	3.66E-09	8.86E-08	8.27E-08	1.27E-08	0.19	0.00	1.70E-04	2.78E-05	4.48E-05	2.63E-05	3.06E-05	3.00E-04
568672.29_4181186.94	568672.29	4181186.94	1.81E-04	2.77E-05	4.72E-05	2.75E-05	3.19E-05	3.15E-04	potential residence	3.63E-09	8.80E-08	8.21E-08	1.27E-08	0.19	0.00	1.69E-04	2.77E-05	4.49E-05	2.61E-05	3.04E-05	2.98E-04
568692.29_4181186.94	568692.29	4181186.94	1.79E-04	2.76E-05	4.72E-05	2.72E-05	3.16E-05	3.13E-04	potential residence	3.60E-09	8.73E-08	8.15E-08	1.26E-08	0.18	0.00	1.67E-04	2.76E-05	4.49E-05	2.59E-05	3.00E-05	2.95E-04
568712.29_4181186.94	568712.29	4181186.94	1.77E-04	2.75E-05	4.73E-05	2.70E-05	3.13E-05	3.10E-04	potential residence	3.58E-09	8.67E-08	8.09E-08	1.25E-08	0.18	0.00	1.65E-04	2.75E-05	4.50E-05	2.57E-05	2.98E-05	2.93E-04
568732.29_4181186.94	568732.29	4181186.94	1.75E-04	2.74E-05	4.74E-05	2.68E-05	3.10E-05	3.08E-04	potential residence	3.55E-09	8.60E-08	8.03E-08	1.24E-08	0.18	0.00	1.64E-04	2.74E-05	4.51E-05	2.55E-05	2.95E-05	2.91E-04
568752.29_4181186.94	568752.29	4181186.94	1.73E-04	2.73E-05	4.74E-05	2.65E-05	3.07E-05	3.05E-04	potential residence	3.52E-09	8.52E-08	7.96E-08	1.23E-08	0.18	0.00	1.62E-04	2.73E-05	4.51E-05	2.52E-05	2.92E-05	2.88E-04
568772.29_4181186.94	568772.29	4181186.94	1.71E-04	2.72E-05	4.74E-05	2.62E-05	3.03E-05	3.02E-04	potential residence	3.49E-09	8.44E-08	7.88E-08	1.22E-08	0.18	0.00	1.60E-04	2.72E-05	4.51E-05	2.49E-05	2.89E-05	2.86E-04
568792.29_4181186.94	568792.29	4181186.94	1.69E-04	2.71E-05	4.72E-05	2.58E-05	2.98E-05	2.98E-04	potential residence	3.44E-09	8.33E-08	7.78E-08	1.20E-08	0.18	0.00	1.57E-04	2.71E-05	4.49E-05	2.46E-05	2.84E-05	2.82E-04
568812.29_4181186.94	568812.29	4181186.94	1.67E-04	2.70E-05	4.76E-05	2.58E-05	2.98E-05	2.97E-04	potential residence	3.43E-09	8.30E-08	7.75E-08	1.20E-08	0.18	0.00	1.56E-04	2.70E-05	4.53E-05	2.45E-05	2.83E-05	2.81E-04
567412.29_4181206.94	567412.29	4181206.94	1.57E-04	2.56E-05	4.45E-05	1.44E-05	1.46E-05	2.56E-04	potential residence	2.95E-09	7.16E-08	6.68E-08	1.03E-08	0.15	0.00	1.47E-04	2.56E-05	4.24E-05	1.37E-05	1.39E-05	2.42E-04
567432.29_4181206.94	567432.29	4181206.94	1.61E-04	2.59E-05	4.48E-05	1.49E-05	1.51E-05	2.61E-04	potential residence	3.01E-09	7.30E-08	6.82E-08	1.05E-08	0.15	0.00	1.50E-04	2.59E-05	4.27E-05	1.42E-05	1.44E-05	2.47E-04
567452.29_4181206.94	567452.29	4181206.94	1.64E-04	2.61E-05	4.51E-05	1.54E-05	1.56E-05	2.66E-04	potential residence	3.07E-09	7.44E-08	6.94E-08	1.07E-08	0.16	0.00	1.53E-04	2.61E-05	4.29E-05	1.47E-05	1.49E-05	2.52E-04
567472.29_4181206.94	567472.29	4181206.94	1.68E-04	2.67E-05	4.53E-05	1.60E-05	1.62E-05	2.72E-04	potential residence	3.14E-09	7.60E-08	7.09E-08	1.09E-08	0.16	0.00	1.57E-04	2.67E-05	4.31E-05	1.52E-05	1.54E-05	2.57E-04
567492.29_4181206.94	567492.29	4181206.94	1.71E-04	2.71E-05	4.55E-05	1.65E-05	1.68E-05	2.77E-04	potential residence	3.19E-09	7.74E-08	7.22E-08	1.11E-08	0.16	0.00	1.60E-04	2.71E-05	4.33E-05	1.57E-05	1.60E-05	2.62E-04
567512.29_4181206.94	567512.29	4181206.94	1.74E-04	2.73E-05	4.57E-05	1.71E-05	1.74E-05	2.81E-04	potential residence	3.24E-09	7.86E-08	7.33E-08	1.13E-08	0.17	0.00	1.62E-04	2.73E-05	4.34E-05	1.63E-05	1.66E-05	2.66E-04
567532.29_4181206.94	567532.29	4181206.94	1.77E-04	2.76E-05	4.58E-05	1.78E-05	1.81E-05	2.86E-04	potential residence	3.30E-09	7.98E-08	7.45E-08	1.15E-08	0.17	0.00	1.65E-04	2.76E-05	4.35E-05	1.69E-05	1.72E-05	2.70E-04
567552.29_4181206.94	567552.29	4181206.94	1.79E-04	2.81E-05	4.58E-05	1.84E-05	1.88E-05	2.90E-04	potential residence	3.35E-09	8.11E-08	7.57E-08	1.17E-08	0.17	0.00	1.67E-04	2.81E-05	4.36E-05	1.75E-05	1.79E-05	2.74E-04
568212.29_4181206.94	568212.29	4181206.94	1.98E-04	2.70E-05	4.40E-05	2.84E-05	3.36E-05	3.31E-04	potential residence	3.82E-09	9.24E-08	8.63E-08	1.33E-08	0.20	0.00	1.85E-04	2.70E-05	4.19E-05	2.70E-05	3.19E-05	3.12E-04
568232.29_4181206.94	568232.29	4181206.94	1.98E-04	2.69E-05	4.41E-05	2.83E-05	3.35E-05	3.31E-04	potential residence	3.81E-09	9.23E-08	8.62E-08	1.33E-08	0.20	0.00	1.84E-04	2.69E-05	4.19E-05	2.70E-05	3.19E-05	3.12E-04
568252.29_4181206.94	568252.29	4181206.94	1.98E-04	2.68E-05	4.41E-05	2.84E-05	3.34E-05	3.30E-04	potential residence	3.81E-09	9.22E-08	8.61E-08	1.33E-08	0.20	0.00	1.84E-04	2.68E-05	4.20E-05	2.70E-05	3.18E-05	3.12E-04
568272.29_4181206.94	568272.29	4181206.94	1.97E-04	2.68E-05	4.41E-05	2.83E-05	3.31E-05	3.29E-04	potential residence	3.79E-09	9.19E-08	8.58E-08	1.32E-08	0.19	0.00	1.83E-04	2.68E-05	4.20E-05	2.69E-05	3.15E-05	3.11E-04
568292.29_4181206.94	568292.29	4181206.94	1.95E-04	2.67E-05	4.41E-05	2.81E-05	3.27E-05	3.27E-04	potential residence	3.77E-09	9.12E-08	8.52E-08	1.31E-08	0.19	0.00	1.82E-04	2.67E-05	4.19E-05	2.67E-05	3.11E-05	3.08E-04
568312.29_4181206.94	568312.29	4181206.94	1.95E-04	2.65E-05	4.42E-05	2.82E-05	3.26E-05	3.26E-04	potential residence	3.76E-09	9.11E-08	8.50E-08	1.31E-08	0.19	0.00	1.81E-04	2.65E-05	4.21E-05	2.68E-05	3.10E-05	3.08E-04
568332.29_4181206.94	568332.29	4181206.94	1.94E-04	2.63E-05	4.44E-05	2.82E-05	3.25E-05	3.25E-04	potential residence	3.75E-09	9.07E-08	8.47E-08	1.31E-08	0.19	0.00	1.80E-04	2.63E-05	4.22E-05	2.68E-05	3.10E-05	3.07E-04
568352.29_4181206.94	568352.29	4181206.94	1.93E-04	2.60E-05	4.45E-05	2.83E-05	3.25E-05	3.24E-04	potential residence	3.73E-09	9.04E-08	8.44E-08	1.30E-08	0.19	0.00	1.80E-04	2.60E-05	4.24E-05	2.69E-05	3.09E-05	3.06E-04
568372.29_4181206.94	568372.29	4181206.94	1.91E-04	2.57E-05	4.47E-05	2.82E-05	3.24E-05	3.22E-04	potential residence	3.72E-09	9.00E-08	8.40E-08	1.30E-08	0.19	0.00	1.78E-04	2.57E-05	4.25E-05	2.68E-05	3.09E-05	3.04E-04
568392.29_4181206.94	568392.29	4181206.94	1.90E-04	2.56E-05	4.49E-05	2.83E-05	3.24E-05	3.21E-04	potential residence	3.71E-09	8.98E-08	8.38E-08	1.29E-08	0.19	0.00	1.77E-04	2.56E-05	4.27E-05	2.69E-05	3.09E-05	3.03E-04
568412.29_4181206.94	568412.29	4181206.94	1.90E-04	2.55E-05	4.52E-05	2.83E-05	3.26E-05	3.21E-04	potential residence	3.70E-09	8.97E-08	8.37E-08	1.29E-08	0.19	0.00	1.77E-04	2.55E-05	4.30E-05	2.70E-05	3.10E-05	3.03E-04
568432.29_4181206.94	568432.29	4181206.94	1.89E-04	2.55E-05	4.54E-05	2.83E-05	3.26E-05	3.20E-04	potential residence	3.69E-09	8.94E-08	8.35E-08	1.29E-08	0.19	0.00	1.76E-04	2.55E-05	4.31E-05	2.69E-05	3.10E-05	3.02E-04
568452.29_4181206.94	568452.29	4181206.94	1.86E-04	2.57E-05	4.52E-05	2.79E-05	3.21E-05	3.17E-04	potential residence	3.66E-09	8.86E-08	8.27E-08	1.28E-08	0.19	0.00	1.74E-04	2.57E-05	4.30E-05	2.65E-05	3.05E-05	3.00E-04
568472.29_4181206.94	568472.29	4181206.94	1.85E-04	2.60E-05	4.53E-05	2.78E-05	3.20E-05	3.16E-04	potential residence	3.65E-09	8.83E-08	8.24E-08	1.27E-08	0.19	0.00	1.73E-04	2.60E-05	4.30E-05	2.64E-05	3.05E-05	2.99E-04
568492.29_4181206.94	568492.29	4181206.94	1.84E-04	2.62E-05	4.52E-05	2.75E-05	3.18E-05	3.14E-04	potential residence	3.62E-09	8.78E-08	8.19E-08	1.26E-08	0.19	0.00	1.71E-04	2.62E-05	4.30E-05	2.61E-05	3.02E-05	2.97E-04
568512.29_4181206.94	568512.29	4181206.94	1.83E-04	2.65E-05	4.52E-05	2.73E-05	3.16E-05	3.13E-04	potential residence	3.61E-09	8.75E-08	8.17E-08	1.26E-08	0.19	0.00	1.70E-04	2.65E-05	4.30E-05	2.60E-05	3.01E-05	2.96E-04
568572.29_4181206.94	568572.29	4181206.94	1.79E-04	2.68E-05	4.51E-05	2.66E-05	3.09E-05	3.09E-04	potential residence	3.56E-09	8.62E-08	8.04E-08	1.24E-08	0.18	0.00	1.67E-04	2.68E-05	4.29E-05	2.53E-05	2.94E-05	2.91E-04
568592.29_4181206.94	568592.29	4181206.94	1.78E-04	2.68E-05	4.51E-05	2.64E-05	3.06E-05	3.06E-04	potential residence	3.53E-09	8.56E-08	7.99E-08	1.23E-08	0.18	0.00	1.66E-04	2.68E-05	4.29E-05	2.51E-05	2.91E-05	2.89E-04
568612.29_4181206.94	568612.29	4181206.94	1.76E-04	2.67E-05	4.50E-05	2.61E-05	3.03E-05	3.05E-04	potential residence	3.51E-09	8.51E-08	7.94E-08	1.22E-08	0.18	0.00	1.64E-04	2.67E-05	4.29E-05	2.49E-05	2.89E-05	2.88E-04
568632.29_4181206.94	568632.29	4181206.94	1.75E-04	2.66E-05	4.52E-05	2.60E-05	3.02E-05	3.03E-04	potential residence	3.50E-09	8.47E-08	7.91E-08	1.22E-08	0.18	0.00	1.64E-04	2.66E-05	4.30E-05	2.48E-05	2.87E-05	2.87E-04
568652.29_4181206.94	568652.29	4181206.94	1.74E-04	2.65E-05	4.52E-05	2.58E-05	2.99E-05	3.02E-04	potential residence	3.48E-09	8.42E-08	7.86E-08	1.21E-08	0.18	0.00	1.62E-04	2.65E-05	4.30E-05	2.45E-05	2.84E-05	2.85E-04
568672.29_4181206.94	568672.29	4181206.94	1.72E-04	2.65E-05	4.51E-05	2.55E-05	2.95E-05	2.99E-04	potential residence	3.45E-09	8.35E-08	7.79E-08	1.20E-08	0.18	0.00	1.61E-04	2.65E-05	4.29E-05	2.43E-05	2.81E-05	2.82E-04
568692.29_4181206.94	568692.29	4181206.94	1.71E-04	2.64E-05	4.52E-05	2.53E-05	2.92E-05	2.97E-04	potential residence	3.42E-09	8.29E-08	7.74E-08	1.19E-08	0.18	0.00	1.59E-04	2.64E-05	4.30E-05	2.41E-05	2.78E-05	2.81E-04
568712.29_4181206.94	568712.29	4181206.94	1.69E-04	2.63E-05	4.53E-05	2.51E-05	2.90E-05	2.95E-04	potential residence	3.40E-09	8.24E-08	7.69E-08	1.19E-08	0.17	0.00	1.58E-04	2.63E-05	4.31E-05	2.39E-05	2.76E-05	2.79E-04
568732.29_4181206.94	568732.29	4181206.94	1.68E-04	2.62E-05	4.53E-05	2.49E-05	2.87E-05	2.93E-04	potential residence	3.37E-09	8.17E-08	7.63E-08	1.18E-08	0.17	0.00	1.56E-04	2.62E-05	4.31E-05	2.37E-05	2.73E-05	2.76E-04
568752.29_4181206.94	568752.29	4181206.94	1.66E-04	2.62E-05	4.53E-05	2.46E-05	2.84E-05	2.90E-04	potential residence	3.35E-09	8.10E-08	7.56E-08	1.17E-08	0.17	0.00	1.54E-04	2.62E-05	4.31E-05	2.34E-05	2.70E-05	2.74E-04
568772.29_4181206.94	568772.29	4181206.94	1.64E-04	2.61E-05	4.54E-05	2.45E-05	2.82E-05	2.88E-04	potential residence	3.32E-09	8.05E-08	7.51E-08	1.16E-08	0.17	0.00	1.53E-04	2.61E-05	4.32E-05	2.33E-05	2.68E-05	2.72E-04
568792.29_4181206.94	568792.29	4181206.94	1.62E-04	2.60E-05	4.54E-05	2.42E-05	2.79E-05	2.86E-04	potential residence	3.29E-09	7.98E-08	7.45E-08	1.15E-08	0.17	0.00	1.51E-04	2.60E-05	4.32E-05	2.31E-05	2.66E-05	2.70E-04
568812.29_4181206.94	568812.29	4181206.94	1.60E-04	2.59E-05	4.54E-05	2.40E-05	2.76E-05	2.83E-04	potential residence	3.26E-09	7.91E-08	7.38E-08	1.14E-08	0.17	0.00	1.49E-04	2.59E-05	4.32E-05	2.29E-05	2.63E-05	2.68E-04
567412.29_4181226.94	567412.29	4181226.94	1.52E-04	2.51E-05	4.31E-05	1.42E-05	1.44E-05	2.49E-04	potential residence	2.87E-09	6.96E-08	6.49E-08	1.00E-08	0.15	0.00	1.42E-04	2.51E-05	4.10E-05	1.35E-05	1.37E-05	2.35E-04
567432.29_4181226.94	567432.29	4181226.94	1.55E-04	2.53E-05	4.34E-05	1.47E-05	1.49E-05	2.54E-04	potential residence	2.92E-09	7.08E-08	6.61E-08	1.02E-08	0.15	0.00	1.45E-04	2.53E-05	4.13E-05	1.39E-05	1.41E-05	2.40E-04
567452.29_4181226.94	567452.29	4181226.94	1.59E-04	2.56E-05	4.36E-05	1.52E-05	1.54E-05	2.58E-04	potential residence	2.98E-09	7.21E-08	6.73E-08	1.04E-08	0.15	0.00	1.48E-04	2.56E-05	4.15E-05	1.44E-05	1.46E-05	2.44E-04
567472.29_4181226.94	567472.29	4181226.94	1.62E-04	2.60E-05	4.38E-05	1.57E-05	1.59E-05	2.63E-04	potential residence	3.03E-09	7.35E-08	6.86E-08	1.06E-08	0.16	0.00	1.51E-04	2.60E-05	4.17E-05	1.49E-05	1.51E-05	2.48E-04
567492.29_4181226.94	567492.29	4181226.94	1.65E-04	2.64E-05	4.40E-05	1.62E-05	1.65E-05	2.68E-04	potential residence	3.09E-09	7.48E-08	6.98E-08	1.08E-08	0.16	0.00	1.54E-04	2.64E-05	4.18E-05	1.55E-05	1.57E-05	2.53E-04
567512.29_4181226.94	567512.29	4181226.94	1.67E-04	2.66E-05	4.40E-05	1.68E-05	1.71E-05	2.72E-04	potential residence	3.13E-09	7.59E-08	7.08E-08	1.09E-08	0.16	0.00	1.56E-04	2.66E-05	4.19E-05	1.60E-05	1.63E-05	2.57E-04
567532.29_4181226.94	567532.29	4181226.94	1.70E-04	2.71E-05	4.41E-05	1.74E-05	1.77E-05	2.76E-04	potential residence	3.18E-09	7.71E-08	7.19E-08	1.11E-08	0.16	0.00	1.58E-04	2.71E-05	4.20E-05	1.66E-05	1.69E-05	2.61E-04
567552.29_4181226.94	567552.29	4181226.94	1.72E-04	2.74E-05	4.41E-05	1.80E-05	1.84E-05	2.80E-04	potential residence	3.22E-09	7.81E-08	7.29E-08	1.12E-08	0.17	0.00	1.60E-04	2.74E-05	4.20E-05	1.72E-05	1.75E-05	2.64E-04
567572.29_4181226.94	567572.29	4181226.94	1.73E-04	2.74E-05	4.39E-05	1.87E-05	1.91E-05	2.82E-04	potential residence	3.25E-09	7.87E-08	7.34E-08	1.13E-08	0.17	0.00	1.61E-04	2.74E-05	4.18E-05	1.78E-05	1.82E-05	2.66E-04
568232.29_4181226.94	568232.29	4181226.94	1.87E-04	2.54E-05	4.22E-05	2.59E-05	3.04E-05	3.11E-04	potential residence	3.58E-09	8.68E-08	8.10E-08	1.25E-08	0.18	0.00	1.74E-04	2.54E-05	4.01E-05	2.46E-05	2.89E-05	2.93E-04
568252.29_4181226.94	568252.29	4181226.94	1.87E-04	2.53E-05	4.23E-05	2.59E-05	3.03E-05	3.10E-04	potential residence	3.58E-09	8.67E-08	8.09E-08	1.25E-08	0.18	0.00	1.74E-04	2.53E-05	4.02E-05	2.46E-05	2.88E-05	2.93E-04
568272.29_4181226.94	568272.29	4181226.94	1.86E-04	2.53E-05	4.23E-05	2.58E-05	3.02E-05	3.10E-04	potential residence	3.57E-09	8.65E-08	8.07E-08	1.24E-08	0.18	0.00	1.74E-04	2.53E-05	4.02E-05	2.46E-05	2.87E-05	2.92E-04
568292.29_4181226.94	568292.29	4181226.94	1.85E-04	2.53E-05	4.23E-05	2.58E-05	2.98E-05	3.08E-04	potential residence	3.56E-09	8.61E-08	8.04E-08	1.24E-08	0.18	0.00	1.73E-04	2.53E-05	4.02E-05	2.45E-05	2.84E-05	2.91E-04

568312.29_4181226.94	568312.29	4181226.94	1.84E-04	2.52E-05	4.24E-05	2.58E-05	2.98E-05	3.08E-04	Arise High School	3.55E-09	8.59E-08	8.02E-08	1.24E-08	0.18	0.00	1.72E-04	2.52E-05	4.04E-05	2.46E-05	2.83E-05	2.90E-04
568332.29_4181226.94	568332.29	4181226.94	1.84E-04	2.50E-05	4.26E-05	2.59E-05	2.97E-05	3.07E-04	Arise High School	3.54E-09	8.57E-08	8.00E-08	1.23E-08	0.18	0.00	1.71E-04	2.50E-05	4.05E-05	2.46E-05	2.83E-05	2.90E-04
568352.29_4181226.94	568352.29	4181226.94	1.82E-04	2.48E-05	4.27E-05	2.59E-05	2.97E-05	3.06E-04	potential residence	3.52E-09	8.53E-08	7.97E-08	1.23E-08	0.18	0.00	1.70E-04	2.48E-05	4.06E-05	2.47E-05	2.83E-05	2.88E-04
568372.29_4181226.94	568372.29	4181226.94	1.82E-04	2.46E-05	4.29E-05	2.60E-05	2.98E-05	3.05E-04	potential residence	3.52E-09	8.51E-08	7.95E-08	1.23E-08	0.18	0.00	1.69E-04	2.46E-05	4.08E-05	2.48E-05	2.83E-05	2.88E-04
568392.29_4181226.94	568392.29	4181226.94	1.81E-04	2.44E-05	4.31E-05	2.61E-05	2.98E-05	3.04E-04	potential residence	3.51E-09	8.49E-08	7.93E-08	1.22E-08	0.18	0.00	1.69E-04	2.44E-05	4.10E-05	2.48E-05	2.84E-05	2.87E-04
568412.29_4181226.94	568412.29	4181226.94	1.80E-04	2.43E-05	4.33E-05	2.61E-05	2.98E-05	3.03E-04	potential residence	3.49E-09	8.46E-08	7.90E-08	1.22E-08	0.18	0.00	1.67E-04	2.43E-05	4.12E-05	2.48E-05	2.83E-05	2.86E-04
568432.29_4181226.94	568432.29	4181226.94	1.78E-04	2.43E-05	4.33E-05	2.60E-05	2.97E-05	3.02E-04	potential residence	3.48E-09	8.42E-08	7.86E-08	1.21E-08	0.18	0.00	1.66E-04	2.43E-05	4.12E-05	2.47E-05	2.82E-05	2.85E-04
568452.29_4181226.94	568452.29	4181226.94	1.77E-04	2.44E-05	4.33E-05	2.58E-05	2.95E-05	3.00E-04	potential residence	3.45E-09	8.37E-08	7.81E-08	1.20E-08	0.18	0.00	1.65E-04	2.44E-05	4.12E-05	2.45E-05	2.81E-05	2.83E-04
568472.29_4181226.94	568472.29	4181226.94	1.76E-04	2.46E-05	4.33E-05	2.56E-05	2.94E-05	2.99E-04	potential residence	3.44E-09	8.34E-08	7.78E-08	1.20E-08	0.18	0.00	1.64E-04	2.46E-05	4.12E-05	2.44E-05	2.80E-05	2.82E-04
568532.29_4181226.94	568532.29	4181226.94	1.72E-04	2.52E-05	4.33E-05	2.51E-05	2.90E-05	2.95E-04	potential residence	3.40E-09	8.24E-08	7.69E-08	1.19E-08	0.17	0.00	1.61E-04	2.52E-05	4.12E-05	2.39E-05	2.76E-05	2.79E-04
568552.29_4181226.94	568552.29	4181226.94	1.71E-04	2.54E-05	4.32E-05	2.49E-05	2.88E-05	2.94E-04	potential residence	3.38E-09	8.20E-08	7.65E-08	1.18E-08	0.17	0.00	1.60E-04	2.54E-05	4.11E-05	2.37E-05	2.74E-05	2.77E-04
568572.29_4181226.94	568572.29	4181226.94	1.70E-04	2.55E-05	4.31E-05	2.46E-05	2.85E-05	2.92E-04	potential residence	3.36E-09	8.14E-08	7.60E-08	1.17E-08	0.17	0.00	1.58E-04	2.55E-05	4.10E-05	2.34E-05	2.71E-05	2.75E-04
568592.29_4181226.94	568592.29	4181226.94	1.69E-04	2.55E-05	4.31E-05	2.44E-05	2.82E-05	2.90E-04	potential residence	3.34E-09	8.10E-08	7.56E-08	1.17E-08	0.17	0.00	1.57E-04	2.55E-05	4.10E-05	2.32E-05	2.69E-05	2.74E-04
568612.29_4181226.94	568612.29	4181226.94	1.68E-04	2.55E-05	4.31E-05	2.42E-05	2.80E-05	2.89E-04	potential residence	3.33E-09	8.06E-08	7.52E-08	1.16E-08	0.17	0.00	1.56E-04	2.55E-05	4.10E-05	2.31E-05	2.67E-05	2.73E-04
568632.29_4181226.94	568632.29	4181226.94	1.67E-04	2.54E-05	4.32E-05	2.42E-05	2.79E-05	2.88E-04	potential residence	3.32E-09	8.03E-08	7.50E-08	1.16E-08	0.17	0.00	1.56E-04	2.54E-05	4.11E-05	2.30E-05	2.65E-05	2.72E-04
568652.29_4181226.94	568652.29	4181226.94	1.66E-04	2.54E-05	4.34E-05	2.41E-05	2.77E-05	2.87E-04	potential residence	3.30E-09	8.00E-08	7.47E-08	1.15E-08	0.17	0.00	1.55E-04	2.54E-05	4.13E-05	2.29E-05	2.64E-05	2.71E-04
568672.29_4181226.94	568672.29	4181226.94	1.65E-04	2.53E-05	4.33E-05	2.38E-05	2.74E-05	2.85E-04	potential residence	3.28E-09	7.95E-08	7.42E-08	1.14E-08	0.17	0.00	1.54E-04	2.53E-05	4.12E-05	2.27E-05	2.61E-05	2.69E-04
568692.29_4181226.94	568692.29	4181226.94	1.63E-04	2.52E-05	4.33E-05	2.36E-05	2.72E-05	2.82E-04	potential residence	3.26E-09	7.89E-08	7.36E-08	1.14E-08	0.17	0.00	1.52E-04	2.52E-05	4.12E-05	2.24E-05	2.58E-05	2.67E-04
568712.29_4181226.94	568712.29	4181226.94	1.62E-04	2.52E-05	4.34E-05	2.35E-05	2.70E-05	2.81E-04	potential residence	3.24E-09	7.84E-08	7.32E-08	1.13E-08	0.17	0.00	1.51E-04	2.52E-05	4.13E-05	2.23E-05	2.57E-05	2.65E-04
568732.29_4181226.94	568732.29	4181226.94	1.60E-04	2.51E-05	4.34E-05	2.32E-05	2.67E-05	2.79E-04	potential residence	3.21E-09	7.79E-08	7.27E-08	1.12E-08	0.16	0.00	1.49E-04	2.51E-05	4.13E-05	2.21E-05	2.54E-05	2.63E-04
568752.29_4181226.94	568752.29	4181226.94	1.59E-04	2.51E-05	4.34E-05	2.30E-05	2.64E-05	2.77E-04	potential residence	3.19E-09	7.72E-08	7.21E-08	1.11E-08	0.16	0.00	1.48E-04	2.51E-05	4.13E-05	2.19E-05	2.52E-05	2.61E-04
568772.29_4181226.94	568772.29	4181226.94	1.57E-04	2.50E-05	4.35E-05	2.29E-05	2.62E-05	2.75E-04	potential residence	3.17E-09	7.67E-08	7.16E-08	1.10E-08	0.16	0.00	1.47E-04	2.50E-05	4.14E-05	2.18E-05	2.50E-05	2.60E-04
568792.29_4181226.94	568792.29	4181226.94	1.56E-04	2.50E-05	4.36E-05	2.27E-05	2.60E-05	2.73E-04	potential residence	3.15E-09	7.62E-08	7.11E-08	1.10E-08	0.16	0.00	1.45E-04	2.50E-05	4.14E-05	2.16E-05	2.48E-05	2.58E-04
568812.29_4181226.94	568812.29	4181226.94	1.54E-04	2.49E-05	4.36E-05	2.25E-05	2.58E-05	2.71E-04	potential residence	3.12E-09	7.56E-08	7.05E-08	1.09E-08	0.16	0.00	1.43E-04	2.49E-05	4.15E-05	2.14E-05	2.45E-05	2.56E-04
567412.29_4181246.94	567412.29	4181246.94	1.48E-04	2.46E-05	4.18E-05	1.40E-05	1.41E-05	2.42E-04	potential residence	2.79E-09	6.76E-08	6.31E-08	9.73E-09	0.14	0.00	1.38E-04	2.46E-05	3.98E-05	1.33E-05	1.35E-05	2.29E-04
567432.29_4181246.94	567432.29	4181246.94	1.51E-04	2.49E-05	4.20E-05	1.44E-05	1.46E-05	2.46E-04	potential residence	2.84E-09	6.88E-08	6.42E-08	9.91E-09	0.15	0.00	1.40E-04	2.49E-05	4.00E-05	1.37E-05	1.39E-05	2.33E-04
567452.29_4181246.94	567452.29	4181246.94	1.53E-04	2.51E-05	4.22E-05	1.49E-05	1.51E-05	2.51E-04	potential residence	2.89E-09	7.00E-08	6.53E-08	1.01E-08	0.15	0.00	1.43E-04	2.51E-05	4.01E-05	1.42E-05	1.44E-05	2.37E-04
567472.29_4181246.94	567472.29	4181246.94	1.56E-04	2.54E-05	4.23E-05	1.54E-05	1.57E-05	2.55E-04	potential residence	2.94E-09	7.11E-08	6.64E-08	1.02E-08	0.15	0.00	1.45E-04	2.54E-05	4.03E-05	1.47E-05	1.49E-05	2.41E-04
567492.29_4181246.94	567492.29	4181246.94	1.59E-04	2.57E-05	4.24E-05	1.59E-05	1.62E-05	2.59E-04	potential residence	2.98E-09	7.23E-08	6.75E-08	1.04E-08	0.15	0.00	1.48E-04	2.57E-05	4.04E-05	1.52E-05	1.54E-05	2.44E-04
567512.29_4181246.94	567512.29	4181246.94	1.61E-04	2.61E-05	4.25E-05	1.65E-05	1.68E-05	2.63E-04	potential residence	3.03E-09	7.34E-08	6.85E-08	1.06E-08	0.16	0.00	1.50E-04	2.61E-05	4.04E-05	1.57E-05	1.60E-05	2.48E-04
567532.29_4181246.94	567532.29	4181246.94	1.63E-04	2.64E-05	4.25E-05	1.70E-05	1.74E-05	2.66E-04	potential residence	3.07E-09	7.44E-08	6.94E-08	1.07E-08	0.16	0.00	1.52E-04	2.64E-05	4.05E-05	1.62E-05	1.66E-05	2.52E-04
567552.29_4181246.94	567552.29	4181246.94	1.64E-04	2.66E-05	4.24E-05	1.76E-05	1.80E-05	2.69E-04	potential residence	3.10E-09	7.51E-08	7.01E-08	1.08E-08	0.16	0.00	1.53E-04	2.66E-05	4.03E-05	1.68E-05	1.72E-05	2.54E-04
567572.29_4181246.94	567572.29	4181246.94	1.66E-04	2.69E-05	4.23E-05	1.82E-05	1.87E-05	2.72E-04	potential residence	3.13E-09	7.59E-08	7.08E-08	1.09E-08	0.16	0.00	1.54E-04	2.69E-05	4.03E-05	1.73E-05	1.78E-05	2.57E-04
568232.29_4181246.94	568232.29	4181246.94	1.77E-04	2.40E-05	4.05E-05	2.38E-05	2.77E-05	2.93E-04	potential residence	3.38E-09	8.19E-08	7.65E-08	1.18E-08	0.17	0.00	1.65E-04	2.40E-05	3.86E-05	2.26E-05	2.64E-05	2.77E-04
568252.29_4181246.94	568252.29	4181246.94	1.77E-04	2.40E-05	4.05E-05	2.37E-05	2.77E-05	2.93E-04	potential residence	3.38E-09	8.18E-08	7.63E-08	1.18E-08	0.17	0.00	1.65E-04	2.40E-05	3.86E-05	2.26E-05	2.63E-05	2.76E-04
568272.29_4181246.94	568272.29	4181246.94	1.77E-04	2.40E-05	4.06E-05	2.38E-05	2.75E-05	2.92E-04	potential residence	3.37E-09	8.16E-08	7.62E-08	1.18E-08	0.17	0.00	1.65E-04	2.40E-05	3.86E-05	2.26E-05	2.61E-05	2.76E-04
568292.29_4181246.94	568292.29	4181246.94	1.76E-04	2.40E-05	4.07E-05	2.38E-05	2.74E-05	2.92E-04	potential residence	3.36E-09	8.15E-08	7.60E-08	1.17E-08	0.17	0.00	1.64E-04	2.40E-05	3.87E-05	2.27E-05	2.60E-05	2.75E-04
568312.29_4181246.94	568312.29	4181246.94	1.75E-04	2.39E-05	4.08E-05	2.39E-05	2.74E-05	2.91E-04	Arise High School	3.36E-09	8.14E-08	7.59E-08	1.17E-08	0.17	0.00	1.63E-04	2.39E-05	3.88E-05	2.28E-05	2.60E-05	2.75E-04
568332.29_4181246.94	568332.29	4181246.94	1.75E-04	2.38E-05	4.10E-05	2.40E-05	2.74E-05	2.91E-04	potential residence	3.35E-09	8.12E-08	7.58E-08	1.17E-08	0.17	0.00	1.63E-04	2.38E-05	3.90E-05	2.29E-05	2.61E-05	2.75E-04
568352.29_4181246.94	568352.29	4181246.94	1.74E-04	2.36E-05	4.12E-05	2.41E-05	2.74E-05	2.90E-04	potential residence	3.34E-09	8.10E-08	7.56E-08	1.17E-08	0.17	0.00	1.62E-04	2.36E-05	3.92E-05	2.29E-05	2.61E-05	2.74E-04
568372.29_4181246.94	568372.29	4181246.94	1.72E-04	2.35E-05	4.12E-05	2.40E-05	2.73E-05	2.88E-04	potential residence	3.32E-09	8.05E-08	7.52E-08	1.16E-08	0.17	0.00	1.61E-04	2.35E-05	3.92E-05	2.29E-05	2.60E-05	2.72E-04
568392.29_4181246.94	568392.29	4181246.94	1.71E-04	2.33E-05	4.12E-05	2.40E-05	2.72E-05	2.87E-04	potential residence	3.30E-09	8.00E-08	7.47E-08	1.15E-08	0.17	0.00	1.59E-04	2.33E-05	3.92E-05	2.28E-05	2.59E-05	2.71E-04
568412.29_4181246.94	568412.29	4181246.94	1.70E-04	2.32E-05	4.14E-05	2.40E-05	2.73E-05	2.86E-04	potential residence	3.30E-09	7.98E-08	7.45E-08	1.15E-08	0.17	0.00	1.59E-04	2.32E-05	3.93E-05	2.28E-05	2.59E-05	2.70E-04
568432.29_4181246.94	568432.29	4181246.94	1.69E-04	2.32E-05	4.15E-05	2.40E-05	2.73E-05	2.85E-04	potential residence	3.29E-09	7.96E-08	7.43E-08	1.15E-08	0.17	0.00	1.58E-04	2.32E-05	3.94E-05	2.28E-05	2.60E-05	2.69E-04
568512.29_4181246.94	568512.29	4181246.94	1.64E-04	2.38E-05	4.14E-05	2.34E-05	2.69E-05	2.80E-04	potential residence	3.23E-09	7.81E-08	7.29E-08	1.12E-08	0.17	0.00	1.53E-04	2.38E-05	3.94E-05	2.22E-05	2.56E-05	2.64E-04
568532.29_4181246.94	568532.29	4181246.94	1.63E-04	2.40E-05	4.14E-05	2.32E-05	2.68E-05	2.79E-04	potential residence	3.21E-09	7.78E-08	7.27E-08	1.12E-08	0.16	0.00	1.52E-04	2.40E-05	3.93E-05	2.21E-05	2.55E-05	2.63E-04
568552.29_4181246.94	568552.29	4181246.94	1.63E-04	2.41E-05	4.14E-05	2.31E-05	2.67E-05	2.78E-04	potential residence	3.21E-09	7.77E-08	7.25E-08	1.12E-08	0.16	0.00	1.52E-04	2.41E-05	3.94E-05	2.20E-05	2.54E-05	2.63E-04
568572.29_4181246.94	568572.29	4181246.94	1.62E-04	2.43E-05	4.13E-05	2.29E-05	2.64E-05	2.76E-04	potential residence	3.19E-09	7.72E-08	7.20E-08	1.11E-08	0.16	0.00	1.51E-04	2.43E-05	3.93E-05	2.18E-05	2.51E-05	2.61E-04
568592.29_4181246.94	568592.29	4181246.94	1.60E-04	2.43E-05	4.12E-05	2.27E-05	2.61E-05	2.75E-04	potential residence	3.17E-09	7.67E-08	7.16E-08	1.10E-08	0.16	0.00	1.49E-04	2.43E-05	3.92E-05	2.16E-05	2.49E-05	2.59E-04
568612.29_4181246.94	568612.29	4181246.94	1.60E-04	2.43E-05	4.13E-05	2.26E-05	2.60E-05	2.74E-04	potential residence	3.16E-09	7.64E-08	7.14E-08	1.10E-08	0.16	0.00	1.49E-04	2.43E-05	3.93E-05	2.15E-05	2.47E-05	2.59E-04
568632.29_4181246.94	568632.29	4181246.94	1.59E-04	2.43E-05	4.14E-05	2.25E-05	2.59E-05	2.73E-04	potential residence	3.15E-09	7.63E-08	7.12E-08	1.10E-08	0.16	0.00	1.48E-04	2.43E-05	3.94E-05	2.14E-05	2.46E-05	2.58E-04
568652.29_4181246.94	568652.29	4181246.94	1.58E-04	2.43E-05	4.16E-05	2.24E-05	2.58E-05	2.72E-04	potential residence	3.14E-09	7.61E-08	7.10E-08	1.10E-08	0.16	0.00	1.48E-04	2.43E-05	3.95E-05	2.13E-05	2.45E-05	2.57E-04
568672.29_4181246.94	568672.29	4181246.94	1.57E-04	2.43E-05	4.16E-05	2.23E-05	2.55E-05	2.71E-04	potential residence	3.12E-09	7.56E-08	7.06E-08	1.09E-08	0.16	0.00	1.47E-04	2.43E-05	3.96E-05	2.12E-05	2.43E-05	2.56E-04
568692.29_4181246.94	568692.29	4181246.94	1.56E-04	2.42E-05	4.16E-05	2.21E-05	2.53E-05	2.69E-04	potential residence	3.10E-09	7.52E-08	7.02E-08	1.08E-08	0.16	0.00	1.45E-04	2.42E-05	3.96E-05	2.10E-05	2.41E-05	2.54E-04
568712.29_4181246.94	568712.29	4181246.94	1.55E-04	2.42E-05	4.15E-05	2.19E-05	2.50E-05	2.67E-04	potential residence	3.08E-09	7.46E-08	6.96E-08	1.07E-08	0.16	0.00	1.44E-04	2.42E-05	3.95E-05	2.08E-05	2.38E-05	2.52E-04
568732.29_4181246.94	568732.29	4181246.94	1.53E-04	2.41E-05	4.16E-05	2.17E-05	2.49E-05	2.66E-04	potential residence	3.06E-09	7.42E-08	6.93E-08	1.07E-08	0.16	0.00	1.43E-04	2.41E-05	3.96E-05	2.07E-05	2.37E-05	2.51E-04
568752.29_4181246.94	568752.29	4181246.94	1.52E-04	2.41E-05	4.16E-05	2.16E-05	2.47E-05	2.64E-04	potential residence	3.04E-09	7.37E-08	6.88E-08	1.06E-08	0.16	0.00	1.42E-04	2.41E-05	3.96E-05	2.05E-05	2.35E-05	2.49E-04
568772.29_4181246.94	568772.29	4181246.94	1.51E-04	2.41E-05	4.17E-05	2.14E-05	2.45E-05	2.62E-04	potential residence	3.03E-09	7.33E-08	6.84E-08	1.05E-08	0.16	0.00	1.41E-04	2.41E-05	3.97E-05	2.04E-05	2.33E-05	2.48E-04
568792.29_4181246.94	568792.29	4181246.94	1.49E-04	2.40E-05	4.17E-05	2.12E-05	2.43E-05	2.60E-04	potential residence	3.00E-09	7.27E-08	6.78E-08	1.05E-08	0.15	0.00	1.39E-04	2.40E-05	3.97E-05	2.02E-05	2.31E-05	2.46E-04
568812.29_4181246.94	568812.29	4181246.94	1.48E-04	2.40E-05	4.18E-05	2.11E-05	2.41E-05	2.59E-04	potential residence	2.98E-09	7.22E-08	6.74E-08	1.04E-08	0.15	0.00	1.38E-04	2.40E-05	3.97E-05	2.01E-05	2.29E-05	2.44E-04
567412.29_4181266.94	567412.29	4181266.94	1.43E-04	2.41E-05	4.05E-05	1.38E-05	1.40E-05	2.35E-04	potential residence	2.71E-09	6.57E-08	6.14E-08	9.46E-09	0.14	0.00	1.33E-04	2.41E-05	3.85E-05	1.31E-05	1.33E-05	2.22E-04
567432.29_4181266.94	567432.29	4181266.94	1.46E-04	2.44E-05	4.07E-05	1.42E-05	1.44E-05	2.39E-04	potential residence	2.76E-09	6.68E-08	6.24E-08	9.62E-09	0.14	0.00	1.36E-04	2.44E-05	3.87E-05	1.35E-05	1.37E-05	2.26E-04
567452.29_4181266.94	567452.29	4181266.94	1.48E-04	2.46E-05	4.08E-05	1.47E-05	1.49E-05	2.43E-04	potential residence	2.80E-09	6.78E-08	6.33E-08	9.76E-09	0.14	0.00	1.38E-04	2.46E-05	3.88E-05	1.39E-05	1.42E-05	2.29E-04
567472.29_4181266.94	567472.29	4181266.94	1.50E-04	2.49E-05	4.09E-05	1.51E-05	1.54E-05	2.47E-04	potential residence	2.84E-09	6.89E-08	6.43E-08	9.92E-09	0.15	0.00	1.40E-04	2.49E-05	3.89E-05	1.44E-05	1.47E-05	2.33E-04
567492.29_4181266.94	567492.29	4181266.94	1.53E-04	2.52E-05	4.10E-05	1.56E-05	1.59E-05	2.51E-04	potential residence	2.89E-09	7.00E-08	6.53E-08	1.01E-08	0.15	0.00	1.42E-04	2.52E-05	3.90E-05	1.49E-05	1.52E-05	2.37E-04
567512.29_4181266.94	567512.29	4181266.94	1.55E-04	2.55E-05	4.10E-05	1.61E-05	1.65E-05	2.54E-04	potential residence	2.93E-09	7.09E-08	6.62E-08	1.02E-08	0.15	0.00	1.44E-04	2.55E-05	3.90E-05	1.54E-05	1.57E-05	2.40E-04
567532.29_4181266.94	567532.29	4181266.94	1.56E-04	2.56E-05	4.09E-05	1.67E-05	1.71E-05	2.56E-04	potential residence	2.95E-09	7.16E-08	6.68E-08	1.03E-08	0.15	0.00	1.46E-04	2.56E-05	3.89E-05	1.58E-05	1.62E-05	2.42E-04
567552.29_4181266.94	567552.29	4181266.94	1.57E-04	2.57E-05	4.08E-05	1.72E-05	1.77E-05	2.58E-04	potential residence	2.98E-09	7.22E-08	6.74E-08	1.04E-08	0.15	0.00	1.46E-04	2.57E-05	3.88E-05	1.64E-05	1.68E-05	2.44E-04
567572.29_4181266.94	567572.29	4181266.94	1.58E-04	2.61E-05	4.07E-05	1.77E-05	1.83E-05	2.61E-04	potential residence	3.01E-09	7.29E-08	6.80E-08	1.05E-08	0.15	0.00	1.48E-04	2.61E-05	3.87E-05	1.69E-05	1.74E-05	2.47E-04
567592.29_4181266.94	567592.29	4181266.94	1.59E-04	2.64E-05	4.06E-05	1.83E-05	1.89E-05	2.63E-04	potential residence	3.04E-09	7.35E-08	6.86E-08	1.06E-08	0.16	0.00	1.48E-04	2.64E-05	3.86E-05	1.74E-05	1.80E-05	2.49E-04
568312.29_4181266.94	568312.29	4181266.94	1.67E-04	2.28E-05	3.94E-05	2.22E-05	2.53E-05	2.77E-04	potential residence	3.19E-09	7.73E-08	7.21E-08	1.11E-08	0.16	0.00	1.56E-04	2.28E-05	3.74E-05	2.12E-05	2.40E-05	2.61E-04
568332.29_4181266.94	568332.29	4181266.94	1.66E-04	2.27E-05	3.94E-05	2.22E-05	2.52E-05	2.76E-04	potential residence	3.18E-09	7.70E-08	7.18E-08	1.11E-08	0.16	0.00	1.55E-04	2.27E-05	3.75E-05	2.11E-05	2.40E-05	2.60E-04

568352.29_4181266.94	568352.29	4181266.94	1.65E-04	2.26E-05	3.96E-05	2.23E-05	2.53E-05	2.75E-04	potential residence	3.17E-09	7.68E-08	7.17E-08	1.11E-08	0.16	0.00	1.54E-04	2.26E-05	3.76E-05	2.12E-05	2.41E-05	2.60E-04
568372.29_4181266.94	568372.29	4181266.94	1.64E-04	2.25E-05	3.95E-05	2.23E-05	2.52E-05	2.73E-04	potential residence	3.15E-09	7.63E-08	7.12E-08	1.10E-08	0.16	0.00	1.53E-04	2.25E-05	3.76E-05	2.12E-05	2.39E-05	2.58E-04
568392.29_4181266.94	568392.29	4181266.94	1.63E-04	2.23E-05	3.96E-05	2.23E-05	2.52E-05	2.72E-04	potential residence	3.14E-09	7.60E-08	7.09E-08	1.09E-08	0.16	0.00	1.52E-04	2.23E-05	3.77E-05	2.12E-05	2.39E-05	2.57E-04
568412.29_4181266.94	568412.29	4181266.94	1.62E-04	2.22E-05	3.97E-05	2.23E-05	2.52E-05	2.71E-04	potential residence	3.13E-09	7.57E-08	7.07E-08	1.09E-08	0.16	0.00	1.51E-04	2.22E-05	3.78E-05	2.12E-05	2.40E-05	2.56E-04
568472.29_4181266.94	568472.29	4181266.94	1.59E-04	2.23E-05	3.98E-05	2.21E-05	2.52E-05	2.68E-04	potential residence	3.09E-09	7.48E-08	6.98E-08	1.08E-08	0.16	0.00	1.48E-04	2.23E-05	3.79E-05	2.10E-05	2.39E-05	2.53E-04
568492.29_4181266.94	568492.29	4181266.94	1.58E-04	2.25E-05	3.98E-05	2.19E-05	2.51E-05	2.67E-04	potential residence	3.08E-09	7.45E-08	6.96E-08	1.07E-08	0.16	0.00	1.47E-04	2.25E-05	3.78E-05	2.09E-05	2.39E-05	2.52E-04
568512.29_4181266.94	568512.29	4181266.94	1.56E-04	2.27E-05	3.97E-05	2.17E-05	2.49E-05	2.65E-04	potential residence	3.06E-09	7.41E-08	6.92E-08	1.07E-08	0.16	0.00	1.46E-04	2.27E-05	3.77E-05	2.07E-05	2.37E-05	2.51E-04
568532.29_4181266.94	568532.29	4181266.94	1.56E-04	2.29E-05	3.97E-05	2.17E-05	2.49E-05	2.65E-04	potential residence	3.05E-09	7.39E-08	6.90E-08	1.06E-08	0.16	0.00	1.45E-04	2.29E-05	3.78E-05	2.06E-05	2.36E-05	2.50E-04
568552.29_4181266.94	568552.29	4181266.94	1.55E-04	2.30E-05	3.96E-05	2.15E-05	2.47E-05	2.63E-04	potential residence	3.04E-09	7.35E-08	6.86E-08	1.06E-08	0.16	0.00	1.44E-04	2.30E-05	3.77E-05	2.04E-05	2.35E-05	2.49E-04
568572.29_4181266.94	568572.29	4181266.94	1.54E-04	2.32E-05	3.95E-05	2.13E-05	2.45E-05	2.62E-04	potential residence	3.02E-09	7.32E-08	6.83E-08	1.05E-08	0.16	0.00	1.43E-04	2.32E-05	3.76E-05	2.03E-05	2.33E-05	2.48E-04
568592.29_4181266.94	568592.29	4181266.94	1.52E-04	2.32E-05	3.94E-05	2.11E-05	2.42E-05	2.60E-04	potential residence	3.00E-09	7.27E-08	6.79E-08	1.05E-08	0.15	0.00	1.42E-04	2.32E-05	3.75E-05	2.01E-05	2.30E-05	2.46E-04
568612.29_4181266.94	568612.29	4181266.94	1.52E-04	2.33E-05	3.95E-05	2.10E-05	2.41E-05	2.60E-04	potential residence	2.99E-09	7.25E-08	6.77E-08	1.04E-08	0.15	0.00	1.42E-04	2.33E-05	3.76E-05	2.00E-05	2.29E-05	2.45E-04
568632.29_4181266.94	568632.29	4181266.94	1.52E-04	2.33E-05	3.97E-05	2.10E-05	2.41E-05	2.60E-04	potential residence	2.99E-09	7.25E-08	6.77E-08	1.04E-08	0.15	0.00	1.41E-04	2.33E-05	3.78E-05	2.00E-05	2.29E-05	2.45E-04
568652.29_4181266.94	568652.29	4181266.94	1.51E-04	2.33E-05	3.98E-05	2.09E-05	2.39E-05	2.59E-04	potential residence	2.98E-09	7.22E-08	6.74E-08	1.04E-08	0.15	0.00	1.41E-04	2.33E-05	3.78E-05	1.99E-05	2.28E-05	2.44E-04
568672.29_4181266.94	568672.29	4181266.94	1.50E-04	2.33E-05	4.00E-05	2.09E-05	2.39E-05	2.58E-04	potential residence	2.98E-09	7.21E-08	6.73E-08	1.04E-08	0.15	0.00	1.40E-04	2.33E-05	3.80E-05	1.99E-05	2.27E-05	2.44E-04
568692.29_4181266.94	568692.29	4181266.94	1.49E-04	2.33E-05	3.99E-05	2.07E-05	2.36E-05	2.57E-04	potential residence	2.96E-09	7.16E-08	6.69E-08	1.03E-08	0.15	0.00	1.39E-04	2.33E-05	3.80E-05	1.97E-05	2.25E-05	2.42E-04
568712.29_4181266.94	568712.29	4181266.94	1.48E-04	2.32E-05	3.99E-05	2.05E-05	2.34E-05	2.55E-04	potential residence	2.94E-09	7.11E-08	6.64E-08	1.02E-08	0.15	0.00	1.38E-04	2.32E-05	3.79E-05	1.95E-05	2.22E-05	2.41E-04
568732.29_4181266.94	568732.29	4181266.94	1.47E-04	2.32E-05	3.99E-05	2.04E-05	2.32E-05	2.54E-04	potential residence	2.92E-09	7.08E-08	6.61E-08	1.02E-08	0.15	0.00	1.37E-04	2.32E-05	3.80E-05	1.94E-05	2.21E-05	2.40E-04
568752.29_4181266.94	568752.29	4181266.94	1.46E-04	2.32E-05	4.00E-05	2.02E-05	2.31E-05	2.52E-04	potential residence	2.91E-09	7.04E-08	6.57E-08	1.01E-08	0.15	0.00	1.36E-04	2.32E-05	3.81E-05	1.93E-05	2.20E-05	2.38E-04
568772.29_4181266.94	568772.29	4181266.94	1.44E-04	2.31E-05	4.00E-05	2.01E-05	2.29E-05	2.51E-04	potential residence	2.89E-09	7.00E-08	6.53E-08	1.01E-08	0.15	0.00	1.35E-04	2.31E-05	3.81E-05	1.91E-05	2.18E-05	2.37E-04
568792.29_4181266.94	568792.29	4181266.94	1.43E-04	2.31E-05	4.01E-05	2.00E-05	2.28E-05	2.49E-04	potential residence	2.87E-09	6.96E-08	6.50E-08	1.00E-08	0.15	0.00	1.34E-04	2.31E-05	3.81E-05	1.90E-05	2.17E-05	2.35E-04
568812.29_4181266.94	568812.29	4181266.94	1.42E-04	2.31E-05	4.01E-05	1.98E-05	2.26E-05	2.47E-04	potential residence	2.85E-09	6.91E-08	6.45E-08	9.95E-09	0.15	0.00	1.32E-04	2.31E-05	3.82E-05	1.89E-05	2.15E-05	2.34E-04
567412.29_4181286.94	567412.29	4181286.94	1.39E-04	2.38E-05	3.92E-05	1.35E-05	1.37E-05	2.29E-04	potential residence	2.64E-09	6.39E-08	5.97E-08	9.20E-09	0.14	0.00	1.29E-04	2.38E-05	3.73E-05	1.29E-05	1.31E-05	2.16E-04
567432.29_4181286.94	567432.29	4181286.94	1.41E-04	2.39E-05	3.93E-05	1.40E-05	1.42E-05	2.32E-04	potential residence	2.68E-09	6.49E-08	6.05E-08	9.34E-09	0.14	0.00	1.31E-04	2.39E-05	3.74E-05	1.33E-05	1.35E-05	2.19E-04
567452.29_4181286.94	567452.29	4181286.94	1.43E-04	2.41E-05	3.94E-05	1.44E-05	1.47E-05	2.36E-04	potential residence	2.72E-09	6.58E-08	6.14E-08	9.47E-09	0.14	0.00	1.33E-04	2.41E-05	3.75E-05	1.37E-05	1.39E-05	2.23E-04
567472.29_4181286.94	567472.29	4181286.94	1.45E-04	2.44E-05	3.95E-05	1.49E-05	1.51E-05	2.39E-04	potential residence	2.76E-09	6.68E-08	6.24E-08	9.62E-09	0.14	0.00	1.35E-04	2.44E-05	3.76E-05	1.41E-05	1.44E-05	2.26E-04
567492.29_4181286.94	567492.29	4181286.94	1.47E-04	2.46E-05	3.96E-05	1.53E-05	1.57E-05	2.42E-04	potential residence	2.79E-09	6.76E-08	6.31E-08	9.74E-09	0.14	0.00	1.37E-04	2.46E-05	3.76E-05	1.46E-05	1.49E-05	2.29E-04
567512.29_4181286.94	567512.29	4181286.94	1.49E-04	2.48E-05	3.95E-05	1.58E-05	1.62E-05	2.45E-04	potential residence	2.82E-09	6.84E-08	6.38E-08	9.84E-09	0.14	0.00	1.38E-04	2.48E-05	3.76E-05	1.50E-05	1.54E-05	2.31E-04
567532.29_4181286.94	567532.29	4181286.94	1.50E-04	2.49E-05	3.94E-05	1.63E-05	1.67E-05	2.47E-04	potential residence	2.85E-09	6.90E-08	6.44E-08	9.93E-09	0.15	0.00	1.40E-04	2.49E-05	3.75E-05	1.55E-05	1.59E-05	2.33E-04
567552.29_4181286.94	567552.29	4181286.94	1.51E-04	2.51E-05	3.93E-05	1.67E-05	1.73E-05	2.49E-04	potential residence	2.87E-09	6.95E-08	6.49E-08	1.00E-08	0.15	0.00	1.40E-04	2.51E-05	3.74E-05	1.59E-05	1.64E-05	2.35E-04
567572.29_4181286.94	567572.29	4181286.94	1.51E-04	2.52E-05	3.92E-05	1.72E-05	1.78E-05	2.51E-04	potential residence	2.89E-09	7.00E-08	6.54E-08	1.01E-08	0.15	0.00	1.41E-04	2.52E-05	3.72E-05	1.64E-05	1.70E-05	2.37E-04
567592.29_4181286.94	567592.29	4181286.94	1.52E-04	2.56E-05	3.91E-05	1.77E-05	1.84E-05	2.53E-04	potential residence	2.92E-09	7.06E-08	6.59E-08	1.02E-08	0.15	0.00	1.42E-04	2.56E-05	3.72E-05	1.69E-05	1.75E-05	2.39E-04
567612.29_4181286.94	567612.29	4181286.94	1.53E-04	2.58E-05	3.89E-05	1.82E-05	1.90E-05	2.54E-04	potential residence	2.93E-09	7.10E-08	6.63E-08	1.02E-08	0.15	0.00	1.42E-04	2.58E-05	3.70E-05	1.73E-05	1.81E-05	2.40E-04
568152.29_4181286.94	568152.29	4181286.94	1.58E-04	2.19E-05	3.72E-05	2.01E-05	2.34E-05	2.60E-04	potential residence	3.00E-09	7.27E-08	6.79E-08	1.05E-08	0.15	0.00	1.47E-04	2.19E-05	3.54E-05	1.91E-05	2.23E-05	2.46E-04
568172.29_4181286.94	568172.29	4181286.94	1.58E-04	2.18E-05	3.71E-05	2.00E-05	2.32E-05	2.60E-04	potential residence	2.99E-09	7.25E-08	6.77E-08	1.04E-08	0.15	0.00	1.47E-04	2.18E-05	3.53E-05	1.90E-05	2.21E-05	2.45E-04
568192.29_4181286.94	568192.29	4181286.94	1.58E-04	2.17E-05	3.71E-05	2.00E-05	2.31E-05	2.60E-04	potential residence	3.00E-09	7.26E-08	6.78E-08	1.05E-08	0.15	0.00	1.47E-04	2.17E-05	3.53E-05	1.90E-05	2.20E-05	2.46E-04
568212.29_4181286.94	568212.29	4181286.94	1.59E-04	2.17E-05	3.72E-05	2.01E-05	2.32E-05	2.61E-04	potential residence	3.01E-09	7.28E-08	6.80E-08	1.05E-08	0.15	0.00	1.48E-04	2.17E-05	3.54E-05	1.91E-05	2.20E-05	2.46E-04
568232.29_4181286.94	568232.29	4181286.94	1.60E-04	2.17E-05	3.74E-05	2.03E-05	2.33E-05	2.62E-04	potential residence	3.02E-09	7.32E-08	6.83E-08	1.05E-08	0.16	0.00	1.49E-04	2.17E-05	3.56E-05	1.93E-05	2.21E-05	2.47E-04
568252.29_4181286.94	568252.29	4181286.94	1.60E-04	2.17E-05	3.75E-05	2.04E-05	2.33E-05	2.63E-04	potential residence	3.03E-09	7.34E-08	6.85E-08	1.06E-08	0.16	0.00	1.49E-04	2.17E-05	3.57E-05	1.94E-05	2.22E-05	2.48E-04
568272.29_4181286.94	568272.29	4181286.94	1.60E-04	2.17E-05	3.76E-05	2.04E-05	2.33E-05	2.63E-04	potential residence	3.03E-09	7.33E-08	6.85E-08	1.06E-08	0.16	0.00	1.49E-04	2.17E-05	3.58E-05	1.94E-05	2.22E-05	2.48E-04
568292.29_4181286.94	568292.29	4181286.94	1.59E-04	2.17E-05	3.77E-05	2.05E-05	2.33E-05	2.62E-04	potential residence	3.03E-09	7.33E-08	6.84E-08	1.05E-08	0.16	0.00	1.49E-04	2.17E-05	3.59E-05	1.95E-05	2.22E-05	2.48E-04
568312.29_4181286.94	568312.29	4181286.94	1.59E-04	2.17E-05	3.78E-05	2.06E-05	2.33E-05	2.62E-04	potential residence	3.02E-09	7.32E-08	6.83E-08	1.05E-08	0.16	0.00	1.48E-04	2.17E-05	3.60E-05	1.96E-05	2.21E-05	2.47E-04
568332.29_4181286.94	568332.29	4181286.94	1.58E-04	2.17E-05	3.78E-05	2.06E-05	2.33E-05	2.61E-04	potential residence	3.01E-09	7.29E-08	6.81E-08	1.05E-08	0.15	0.00	1.47E-04	2.17E-05	3.60E-05	1.96E-05	2.21E-05	2.47E-04
568352.29_4181286.94	568352.29	4181286.94	1.57E-04	2.16E-05	3.80E-05	2.07E-05	2.33E-05	2.61E-04	potential residence	3.01E-09	7.28E-08	6.80E-08	1.05E-08	0.15	0.00	1.47E-04	2.16E-05	3.61E-05	1.97E-05	2.22E-05	2.46E-04
568372.29_4181286.94	568372.29	4181286.94	1.56E-04	2.15E-05	3.80E-05	2.07E-05	2.33E-05	2.60E-04	potential residence	2.99E-09	7.25E-08	6.77E-08	1.04E-08	0.15	0.00	1.46E-04	2.15E-05	3.62E-05	1.97E-05	2.22E-05	2.45E-04
568432.29_4181286.94	568432.29	4181286.94	1.53E-04	2.13E-05	3.82E-05	2.07E-05	2.34E-05	2.57E-04	potential residence	2.96E-09	7.17E-08	6.70E-08	1.03E-08	0.15	0.00	1.43E-04	2.13E-05	3.64E-05	1.97E-05	2.23E-05	2.43E-04
568452.29_4181286.94	568452.29	4181286.94	1.52E-04	2.13E-05	3.82E-05	2.06E-05	2.34E-05	2.56E-04	potential residence	2.95E-09	7.14E-08	6.66E-08	1.03E-08	0.15	0.00	1.42E-04	2.13E-05	3.64E-05	1.96E-05	2.23E-05	2.41E-04
568472.29_4181286.94	568472.29	4181286.94	1.51E-04	2.14E-05	3.83E-05	2.06E-05	2.34E-05	2.55E-04	potential residence	2.94E-09	7.12E-08	6.64E-08	1.02E-08	0.15	0.00	1.41E-04	2.14E-05	3.64E-05	1.96E-05	2.23E-05	2.41E-04
568492.29_4181286.94	568492.29	4181286.94	1.50E-04	2.15E-05	3.83E-05	2.05E-05	2.34E-05	2.54E-04	potential residence	2.93E-09	7.09E-08	6.62E-08	1.02E-08	0.15	0.00	1.40E-04	2.15E-05	3.64E-05	1.95E-05	2.22E-05	2.40E-04
568512.29_4181286.94	568512.29	4181286.94	1.49E-04	2.17E-05	3.81E-05	2.03E-05	2.32E-05	2.52E-04	potential residence	2.91E-09	7.05E-08	6.58E-08	1.01E-08	0.15	0.00	1.39E-04	2.17E-05	3.63E-05	1.93E-05	2.21E-05	2.38E-04
568532.29_4181286.94	568532.29	4181286.94	1.48E-04	2.18E-05	3.81E-05	2.02E-05	2.32E-05	2.52E-04	potential residence	2.90E-09	7.03E-08	6.56E-08	1.01E-08	0.15	0.00	1.38E-04	2.18E-05	3.63E-05	1.93E-05	2.20E-05	2.38E-04
568552.29_4181286.94	568552.29	4181286.94	1.48E-04	2.20E-05	3.81E-05	2.01E-05	2.30E-05	2.51E-04	potential residence	2.89E-09	7.01E-08	6.54E-08	1.01E-08	0.15	0.00	1.38E-04	2.20E-05	3.63E-05	1.92E-05	2.19E-05	2.37E-04
568572.29_4181286.94	568572.29	4181286.94	1.47E-04	2.21E-05	3.80E-05	1.99E-05	2.28E-05	2.49E-04	potential residence	2.88E-09	6.96E-08	6.50E-08	1.00E-08	0.15	0.00	1.37E-04	2.21E-05	3.61E-05	1.90E-05	2.17E-05	2.36E-04
568592.29_4181286.94	568592.29	4181286.94	1.46E-04	2.22E-05	3.79E-05	1.98E-05	2.26E-05	2.48E-04	potential residence	2.86E-09	6.93E-08	6.47E-08	9.97E-09	0.15	0.00	1.36E-04	2.22E-05	3.61E-05	1.88E-05	2.15E-05	2.34E-04
568612.29_4181286.94	568612.29	4181286.94	1.45E-04	2.23E-05	3.78E-05	1.96E-05	2.24E-05	2.47E-04	potential residence	2.84E-09	6.89E-08	6.43E-08	9.92E-09	0.15	0.00	1.35E-04	2.23E-05	3.60E-05	1.87E-05	2.13E-05	2.33E-04
568632.29_4181286.94	568632.29	4181286.94	1.44E-04	2.24E-05	3.81E-05	1.96E-05	2.24E-05	2.47E-04	potential residence	2.85E-09	6.89E-08	6.43E-08	9.92E-09	0.15	0.00	1.35E-04	2.24E-05	3.62E-05	1.87E-05	2.13E-05	2.33E-04
568652.29_4181286.94	568652.29	4181286.94	1.44E-04	2.24E-05	3.82E-05	1.96E-05	2.24E-05	2.47E-04	potential residence	2.84E-09	6.88E-08	6.43E-08	9.91E-09	0.15	0.00	1.34E-04	2.24E-05	3.63E-05	1.86E-05	2.13E-05	2.33E-04
568672.29_4181286.94	568672.29	4181286.94	1.43E-04	2.24E-05	3.83E-05	1.95E-05	2.23E-05	2.46E-04	potential residence	2.84E-09	6.87E-08	6.41E-08	9.89E-09	0.15	0.00	1.34E-04	2.24E-05	3.65E-05	1.86E-05	2.12E-05	2.32E-04
568692.29_4181286.94	568692.29	4181286.94	1.43E-04	2.24E-05	3.84E-05	1.95E-05	2.22E-05	2.45E-04	potential residence	2.83E-09	6.85E-08	6.39E-08	9.86E-09	0.15	0.00	1.33E-04	2.24E-05	3.66E-05	1.85E-05	2.11E-05	2.32E-04
568712.29_4181286.94	568712.29	4181286.94	1.42E-04	2.23E-05	3.83E-05	1.93E-05	2.19E-05	2.43E-04	potential residence	2.81E-09	6.80E-08	6.34E-08	9.78E-09	0.14	0.00	1.32E-04	2.23E-05	3.65E-05	1.83E-05	2.08E-05	2.30E-04
568732.29_4181286.94	568732.29	4181286.94	1.41E-04	2.23E-05	3.84E-05	1.92E-05	2.18E-05	2.42E-04	potential residence	2.79E-09	6.77E-08	6.32E-08	9.74E-09	0.14	0.00	1.31E-04	2.23E-05	3.65E-05	1.82E-05	2.07E-05	2.29E-04
568752.29_4181286.94	568752.29	4181286.94	1.40E-04	2.23E-05	3.85E-05	1.91E-05	2.17E-05	2.41E-04	potential residence	2.78E-09	6.74E-08	6.29E-08	9.70E-09	0.14	0.00	1.30E-04	2.23E-05	3.66E-05	1.81E-05	2.06E-05	2.28E-04
568772.29_4181286.94	568772.29	4181286.94	1.39E-04	2.23E-05	3.85E-05	1.89E-05	2.15E-05	2.40E-04	potential residence	2.76E-09	6.69E-08	6.25E-08	9.64E-09	0.14	0.00	1.29E-04	2.23E-05	3.66E-05	1.80E-05	2.04E-05	2.27E-04
568792.29_4181286.94	568792.29	4181286.94	1.38E-04	2.23E-05	3.86E-05	1.88E-05	2.14E-05	2.39E-04	potential residence	2.75E-09	6.67E-08	6.22E-08	9.60E-09	0.14	0.00	1.28E-04	2.23E-05	3.67E-05	1.79E-05	2.03E-05	2.26E-04
568812.29_4181286.94	568812.29	4181286.94	1.37E-04	2.23E-05	3.86E-05	1.87E-05	2.13E-05	2.37E-04	potential residence	2.74E-09	6.63E-08	6.19E-08	9.55E-09	0.14	0.00	1.27E-04	2.23E-05	3.68E-05	1.78E-05	2.02E-05	2.24E-04
567412.29_4181306.94	567412.29	4181306.94	1.34E-04	2.32E-05	3.80E-05	1.33E-05	1.35E-05	2.22E-04	potential residence	2.56E-09	6.21E-08	5.80E-08	8.94E-09	0.13	0.00	1.25E-04	2.32E-05	3.61E-05	1.27E-05	1.29E-05	2.10E-04
567432.29_4181306.94	567432.29	4181306.94	1.36E-04	2.35E-05	3.81E-05	1.37E-05	1.40E-05	2.26E-04	potential residence	2.60E-09	6.30E-08	5.88E-08	9.07E-09	0.13	0.00	1.27E-04	2.35E-05	3.62E-05	1.31E-05	1.33E-05	2.13E-04
567452.29_4181306.94	567452.29	4181306.94	1.38E-04	2.37E-05	3.81E-05	1.41E-05	1.44E-05	2.29E-04	potential residence	2.64E-09	6.38E-08	5.96E-08	9.19E-09	0.14	0.00	1.29E-04	2.37E-05	3.63E-05	1.34E-05	1.37E-05	2.16E-04
567472.29_4181306.94	567472.29	4181306.94	1.40E-04	2.38E-05	3.82E-05	1.46E-05	1.49E-05	2.31E-04	potential residence	2.67E-09	6.46E-08	6.03E-08	9.30E-09	0.14	0.00	1.31E-04	2.38E-05	3.63E-05	1.38E-05	1.42E-05	2.19E-04
567492.29_4181306.94	567492.29	4181306.94	1.41E-04	2.39E-05	3.81E-05	1.50E-05	1.54E-05	2.34E-04	potential residence	2.69E-09	6.53E-08	6.09E-08	9.39E-09	0.14	0.00	1.32E-04	2.39E-05	3.63E-05	1.42E-05	1.46E-05	2.21E-04
567512.29_4181306.94	567512.29	4181306.94	1.43E-04	2.41E-05	3.80E-05	1.54E-05	1.58E-05	2.36E-04	potential residence	2.72E-09	6.59E-08	6.15E-08	9.48E-09	0.14	0.00	1.33E-04	2.41E-05	3.62E-05	1.47E-05	1.51E-05	2.23E-04
567532.29_4181306.94	567532.29	4181306.94	1.43E-04	2.42E-05	3.79E-05	1.58E-05	1.63E-05	2.38E-04	potential residence	2.74E-09	6.64E-08	6.20E-08	9.56E-09	0.14	0.00	1.34E-04	2.42E-05	3.61E-05	1.51E-05	1.55E-05	2.25E-04

567552.29_4181306.94	567552.29	4181306.94	1.44E-04	2.44E-05	3.78E-05	1.63E-05	1.68E-05	2.40E-04	potential residence	2.76E-09	6.70E-08	6.25E-08	9.64E-09	0.14	0.00	1.35E-04	2.44E-05	3.60E-05	1.55E-05	1.60E-05	2.27E-04
567572.29_4181306.94	567572.29	4181306.94	1.45E-04	2.46E-05	3.77E-05	1.67E-05	1.74E-05	2.41E-04	potential residence	2.78E-09	6.74E-08	6.29E-08	9.70E-09	0.14	0.00	1.35E-04	2.46E-05	3.59E-05	1.59E-05	1.65E-05	2.28E-04
567592.29_4181306.94	567592.29	4181306.94	1.45E-04	2.47E-05	3.76E-05	1.71E-05	1.79E-05	2.43E-04	potential residence	2.80E-09	6.77E-08	6.32E-08	9.75E-09	0.14	0.00	1.35E-04	2.47E-05	3.57E-05	1.63E-05	1.70E-05	2.29E-04
567612.29_4181306.94	567612.29	4181306.94	1.45E-04	2.49E-05	3.74E-05	1.75E-05	1.84E-05	2.43E-04	potential residence	2.81E-09	6.80E-08	6.35E-08	9.79E-09	0.14	0.00	1.35E-04	2.49E-05	3.56E-05	1.67E-05	1.75E-05	2.30E-04
567632.29_4181306.94	567632.29	4181306.94	1.45E-04	2.49E-05	3.72E-05	1.79E-05	1.89E-05	2.44E-04	potential residence	2.81E-09	6.82E-08	6.36E-08	9.81E-09	0.14	0.00	1.35E-04	2.49E-05	3.54E-05	1.71E-05	1.80E-05	2.31E-04
568092.29_4181306.94	568092.29	4181306.94	1.49E-04	2.14E-05	3.58E-05	1.89E-05	2.19E-05	2.47E-04	potential residence	2.84E-09	6.89E-08	6.43E-08	9.92E-09	0.15	0.00	1.39E-04	2.14E-05	3.41E-05	1.79E-05	2.08E-05	2.33E-04
568112.29_4181306.94	568112.29	4181306.94	1.49E-04	2.12E-05	3.57E-05	1.88E-05	2.17E-05	2.46E-04	potential residence	2.84E-09	6.87E-08	6.42E-08	9.90E-09	0.15	0.00	1.39E-04	2.12E-05	3.40E-05	1.78E-05	2.06E-05	2.32E-04
568152.29_4181306.94	568152.29	4181306.94	1.49E-04	2.08E-05	3.57E-05	1.86E-05	2.15E-05	2.46E-04	potential residence	2.84E-09	6.87E-08	6.42E-08	9.89E-09	0.15	0.00	1.39E-04	2.08E-05	3.39E-05	1.77E-05	2.05E-05	2.32E-04
568172.29_4181306.94	568172.29	4181306.94	1.50E-04	2.07E-05	3.56E-05	1.85E-05	2.14E-05	2.46E-04	potential residence	2.84E-09	6.87E-08	6.41E-08	9.89E-09	0.15	0.00	1.40E-04	2.07E-05	3.39E-05	1.76E-05	2.04E-05	2.32E-04
568192.29_4181306.94	568192.29	4181306.94	1.49E-04	2.07E-05	3.55E-05	1.84E-05	2.12E-05	2.45E-04	potential residence	2.83E-09	6.85E-08	6.39E-08	9.86E-09	0.15	0.00	1.39E-04	2.07E-05	3.38E-05	1.75E-05	2.02E-05	2.31E-04
568212.29_4181306.94	568212.29	4181306.94	1.51E-04	2.07E-05	3.58E-05	1.87E-05	2.14E-05	2.48E-04	potential residence	2.85E-09	6.92E-08	6.46E-08	9.95E-09	0.15	0.00	1.41E-04	2.07E-05	3.41E-05	1.78E-05	2.04E-05	2.34E-04
568232.29_4181306.94	568232.29	4181306.94	1.52E-04	2.07E-05	3.60E-05	1.88E-05	2.15E-05	2.49E-04	potential residence	2.87E-09	6.95E-08	6.48E-08	1.00E-08	0.15	0.00	1.41E-04	2.07E-05	3.42E-05	1.79E-05	2.05E-05	2.35E-04
568252.29_4181306.94	568252.29	4181306.94	1.52E-04	2.07E-05	3.61E-05	1.89E-05	2.15E-05	2.49E-04	potential residence	2.87E-09	6.96E-08	6.49E-08	1.00E-08	0.15	0.00	1.42E-04	2.07E-05	3.43E-05	1.80E-05	2.05E-05	2.35E-04
568272.29_4181306.94	568272.29	4181306.94	1.52E-04	2.07E-05	3.62E-05	1.90E-05	2.15E-05	2.49E-04	potential residence	2.87E-09	6.96E-08	6.50E-08	1.00E-08	0.15	0.00	1.42E-04	2.07E-05	3.44E-05	1.80E-05	2.05E-05	2.35E-04
568292.29_4181306.94	568292.29	4181306.94	1.51E-04	2.07E-05	3.62E-05	1.90E-05	2.15E-05	2.49E-04	potential residence	2.87E-09	6.95E-08	6.48E-08	1.00E-08	0.15	0.00	1.41E-04	2.07E-05	3.44E-05	1.81E-05	2.04E-05	2.35E-04
568312.29_4181306.94	568312.29	4181306.94	1.51E-04	2.07E-05	3.63E-05	1.91E-05	2.15E-05	2.48E-04	potential residence	2.86E-09	6.93E-08	6.47E-08	9.98E-09	0.15	0.00	1.41E-04	2.07E-05	3.45E-05	1.82E-05	2.04E-05	2.34E-04
568332.29_4181306.94	568332.29	4181306.94	1.50E-04	2.07E-05	3.64E-05	1.92E-05	2.15E-05	2.48E-04	potential residence	2.86E-09	6.93E-08	6.47E-08	9.97E-09	0.15	0.00	1.40E-04	2.07E-05	3.46E-05	1.82E-05	2.05E-05	2.34E-04
568412.29_4181306.94	568412.29	4181306.94	1.47E-04	2.05E-05	3.67E-05	1.94E-05	2.18E-05	2.46E-04	potential residence	2.83E-09	6.86E-08	6.40E-08	9.87E-09	0.15	0.00	1.37E-04	2.05E-05	3.50E-05	1.84E-05	2.07E-05	2.32E-04
568432.29_4181306.94	568432.29	4181306.94	1.46E-04	2.05E-05	3.68E-05	1.93E-05	2.18E-05	2.45E-04	potential residence	2.82E-09	6.83E-08	6.37E-08	9.83E-09	0.14	0.00	1.36E-04	2.05E-05	3.50E-05	1.84E-05	2.07E-05	2.31E-04
568452.29_4181306.94	568452.29	4181306.94	1.45E-04	2.05E-05	3.68E-05	1.93E-05	2.18E-05	2.44E-04	potential residence	2.81E-09	6.80E-08	6.35E-08	9.79E-09	0.14	0.00	1.35E-04	2.05E-05	3.50E-05	1.84E-05	2.08E-05	2.30E-04
568472.29_4181306.94	568472.29	4181306.94	1.44E-04	2.05E-05	3.68E-05	1.92E-05	2.18E-05	2.43E-04	potential residence	2.80E-09	6.78E-08	6.33E-08	9.76E-09	0.14	0.00	1.35E-04	2.05E-05	3.50E-05	1.83E-05	2.08E-05	2.29E-04
568492.29_4181306.94	568492.29	4181306.94	1.44E-04	2.06E-05	3.68E-05	1.92E-05	2.18E-05	2.42E-04	potential residence	2.79E-09	6.76E-08	6.31E-08	9.73E-09	0.14	0.00	1.34E-04	2.06E-05	3.50E-05	1.83E-05	2.08E-05	2.29E-04
568512.29_4181306.94	568512.29	4181306.94	1.42E-04	2.07E-05	3.67E-05	1.90E-05	2.17E-05	2.41E-04	potential residence	2.77E-09	6.72E-08	6.27E-08	9.67E-09	0.14	0.00	1.33E-04	2.07E-05	3.49E-05	1.81E-05	2.06E-05	2.27E-04
568532.29_4181306.94	568532.29	4181306.94	1.41E-04	2.09E-05	3.66E-05	1.89E-05	2.16E-05	2.39E-04	potential residence	2.76E-09	6.69E-08	6.24E-08	9.63E-09	0.14	0.00	1.32E-04	2.09E-05	3.48E-05	1.80E-05	2.05E-05	2.26E-04
568552.29_4181306.94	568552.29	4181306.94	1.41E-04	2.11E-05	3.66E-05	1.89E-05	2.15E-05	2.39E-04	potential residence	2.75E-09	6.67E-08	6.23E-08	9.60E-09	0.14	0.00	1.31E-04	2.11E-05	3.49E-05	1.79E-05	2.05E-05	2.26E-04
568572.29_4181306.94	568572.29	4181306.94	1.40E-04	2.12E-05	3.66E-05	1.87E-05	2.14E-05	2.38E-04	potential residence	2.74E-09	6.64E-08	6.20E-08	9.56E-09	0.14	0.00	1.31E-04	2.12E-05	3.48E-05	1.78E-05	2.03E-05	2.25E-04
568592.29_4181306.94	568592.29	4181306.94	1.39E-04	2.13E-05	3.65E-05	1.86E-05	2.12E-05	2.37E-04	potential residence	2.73E-09	6.62E-08	6.18E-08	9.52E-09	0.14	0.00	1.30E-04	2.13E-05	3.48E-05	1.77E-05	2.02E-05	2.24E-04
568612.29_4181306.94	568612.29	4181306.94	1.39E-04	2.14E-05	3.66E-05	1.85E-05	2.11E-05	2.36E-04	potential residence	2.72E-09	6.60E-08	6.16E-08	9.50E-09	0.14	0.00	1.29E-04	2.14E-05	3.48E-05	1.76E-05	2.01E-05	2.23E-04
568632.29_4181306.94	568632.29	4181306.94	1.38E-04	2.15E-05	3.65E-05	1.84E-05	2.09E-05	2.35E-04	potential residence	2.71E-09	6.56E-08	6.13E-08	9.45E-09	0.14	0.00	1.28E-04	2.15E-05	3.47E-05	1.75E-05	1.99E-05	2.22E-04
568652.29_4181306.94	568652.29	4181306.94	1.38E-04	2.15E-05	3.67E-05	1.84E-05	2.09E-05	2.35E-04	potential residence	2.71E-09	6.57E-08	6.13E-08	9.45E-09	0.14	0.00	1.28E-04	2.15E-05	3.49E-05	1.75E-05	1.99E-05	2.22E-04
568672.29_4181306.94	568672.29	4181306.94	1.37E-04	2.15E-05	3.68E-05	1.83E-05	2.08E-05	2.35E-04	potential residence	2.70E-09	6.55E-08	6.11E-08	9.43E-09	0.14	0.00	1.28E-04	2.15E-05	3.50E-05	1.75E-05	1.98E-05	2.22E-04
568692.29_4181306.94	568692.29	4181306.94	1.37E-04	2.16E-05	3.70E-05	1.83E-05	2.08E-05	2.34E-04	potential residence	2.70E-09	6.55E-08	6.11E-08	9.42E-09	0.14	0.00	1.28E-04	2.16E-05	3.52E-05	1.75E-05	1.98E-05	2.22E-04
568712.29_4181306.94	568712.29	4181306.94	1.36E-04	2.15E-05	3.69E-05	1.82E-05	2.06E-05	2.33E-04	potential residence	2.69E-09	6.51E-08	6.07E-08	9.37E-09	0.14	0.00	1.27E-04	2.15E-05	3.51E-05	1.73E-05	1.96E-05	2.20E-04
568732.29_4181306.94	568732.29	4181306.94	1.35E-04	2.15E-05	3.69E-05	1.80E-05	2.05E-05	2.32E-04	potential residence	2.67E-09	6.47E-08	6.04E-08	9.32E-09	0.14	0.00	1.26E-04	2.15E-05	3.51E-05	1.72E-05	1.95E-05	2.19E-04
568752.29_4181306.94	568752.29	4181306.94	1.34E-04	2.15E-05	3.69E-05	1.79E-05	2.03E-05	2.30E-04	potential residence	2.66E-09	6.43E-08	6.01E-08	9.26E-09	0.14	0.00	1.25E-04	2.15E-05	3.51E-05	1.70E-05	1.93E-05	2.18E-04
568772.29_4181306.94	568772.29	4181306.94	1.33E-04	2.15E-05	3.71E-05	1.79E-05	2.02E-05	2.30E-04	potential residence	2.65E-09	6.42E-08	5.99E-08	9.24E-09	0.14	0.00	1.24E-04	2.15E-05	3.53E-05	1.70E-05	1.93E-05	2.17E-04
568792.29_4181306.94	568792.29	4181306.94	1.32E-04	2.15E-05	3.71E-05	1.78E-05	2.01E-05	2.29E-04	potential residence	2.64E-09	6.38E-08	5.96E-08	9.19E-09	0.14	0.00	1.23E-04	2.15E-05	3.53E-05	1.69E-05	1.91E-05	2.16E-04
568812.29_4181306.94	568812.29	4181306.94	1.31E-04	2.15E-05	3.72E-05	1.77E-05	2.00E-05	2.28E-04	potential residence	2.62E-09	6.36E-08	5.93E-08	9.15E-09	0.13	0.00	1.22E-04	2.15E-05	3.54E-05	1.68E-05	1.90E-05	2.15E-04
567412.29_4181326.94	567412.29	4181326.94	1.30E-04	2.27E-05	3.68E-05	1.31E-05	1.33E-05	2.16E-04	potential residence	2.49E-09	6.03E-08	5.63E-08	8.68E-09	0.13	0.00	1.21E-04	2.27E-05	3.50E-05	1.25E-05	1.27E-05	2.04E-04
567432.29_4181326.94	567432.29	4181326.94	1.32E-04	2.30E-05	3.68E-05	1.35E-05	1.38E-05	2.19E-04	potential residence	2.52E-09	6.11E-08	5.71E-08	8.80E-09	0.13	0.00	1.23E-04	2.30E-05	3.51E-05	1.28E-05	1.31E-05	2.07E-04
567452.29_4181326.94	567452.29	4181326.94	1.34E-04	2.32E-05	3.69E-05	1.39E-05	1.42E-05	2.22E-04	potential residence	2.55E-09	6.19E-08	5.78E-08	8.91E-09	0.13	0.00	1.24E-04	2.32E-05	3.51E-05	1.32E-05	1.35E-05	2.09E-04
567472.29_4181326.94	567472.29	4181326.94	1.35E-04	2.32E-05	3.68E-05	1.42E-05	1.46E-05	2.24E-04	potential residence	2.58E-09	6.24E-08	5.83E-08	8.99E-09	0.13	0.00	1.26E-04	2.32E-05	3.50E-05	1.35E-05	1.39E-05	2.11E-04
567492.29_4181326.94	567492.29	4181326.94	1.36E-04	2.33E-05	3.67E-05	1.46E-05	1.50E-05	2.26E-04	potential residence	2.60E-09	6.30E-08	5.88E-08	9.07E-09	0.13	0.00	1.27E-04	2.33E-05	3.49E-05	1.39E-05	1.43E-05	2.13E-04
567512.29_4181326.94	567512.29	4181326.94	1.37E-04	2.35E-05	3.67E-05	1.50E-05	1.55E-05	2.28E-04	potential residence	2.62E-09	6.36E-08	5.93E-08	9.15E-09	0.13	0.00	1.28E-04	2.35E-05	3.49E-05	1.43E-05	1.47E-05	2.15E-04
567532.29_4181326.94	567532.29	4181326.94	1.38E-04	2.36E-05	3.66E-05	1.54E-05	1.60E-05	2.29E-04	potential residence	2.64E-09	6.40E-08	5.98E-08	9.22E-09	0.14	0.00	1.28E-04	2.36E-05	3.48E-05	1.47E-05	1.52E-05	2.17E-04
567552.29_4181326.94	567552.29	4181326.94	1.38E-04	2.38E-05	3.65E-05	1.58E-05	1.64E-05	2.31E-04	potential residence	2.66E-09	6.44E-08	6.02E-08	9.28E-09	0.14	0.00	1.29E-04	2.38E-05	3.47E-05	1.50E-05	1.56E-05	2.18E-04
567572.29_4181326.94	567572.29	4181326.94	1.39E-04	2.39E-05	3.63E-05	1.62E-05	1.69E-05	2.32E-04	potential residence	2.67E-09	6.47E-08	6.04E-08	9.32E-09	0.14	0.00	1.29E-04	2.39E-05	3.45E-05	1.54E-05	1.61E-05	2.19E-04
567592.29_4181326.94	567592.29	4181326.94	1.39E-04	2.40E-05	3.61E-05	1.66E-05	1.73E-05	2.33E-04	potential residence	2.68E-09	6.50E-08	6.07E-08	9.36E-09	0.14	0.00	1.29E-04	2.40E-05	3.44E-05	1.57E-05	1.65E-05	2.20E-04
567612.29_4181326.94	567612.29	4181326.94	1.39E-04	2.40E-05	3.60E-05	1.69E-05	1.78E-05	2.33E-04	potential residence	2.69E-09	6.52E-08	6.08E-08	9.38E-09	0.14	0.00	1.29E-04	2.40E-05	3.42E-05	1.61E-05	1.69E-05	2.21E-04
567632.29_4181326.94	567632.29	4181326.94	1.39E-04	2.40E-05	3.58E-05	1.72E-05	1.82E-05	2.34E-04	potential residence	2.70E-09	6.53E-08	6.10E-08	9.40E-09	0.14	0.00	1.29E-04	2.40E-05	3.41E-05	1.64E-05	1.73E-05	2.21E-04
567652.29_4181326.94	567652.29	4181326.94	1.38E-04	2.40E-05	3.56E-05	1.75E-05	1.86E-05	2.34E-04	potential residence	2.70E-09	6.54E-08	6.10E-08	9.41E-09	0.14	0.00	1.29E-04	2.40E-05	3.39E-05	1.67E-05	1.77E-05	2.21E-04
568072.29_4181326.94	568072.29	4181326.94	1.41E-04	2.07E-05	3.44E-05	1.76E-05	2.03E-05	2.34E-04	potential residence	2.70E-09	6.54E-08	6.11E-08	9.42E-09	0.14	0.00	1.32E-04	2.07E-05	3.28E-05	1.68E-05	1.93E-05	2.21E-04
568092.29_4181326.94	568092.29	4181326.94	1.41E-04	2.05E-05	3.44E-05	1.75E-05	2.02E-05	2.34E-04	potential residence	2.69E-09	6.52E-08	6.09E-08	9.39E-09	0.14	0.00	1.32E-04	2.05E-05	3.27E-05	1.66E-05	1.92E-05	2.21E-04
568112.29_4181326.94	568112.29	4181326.94	1.41E-04	2.03E-05	3.44E-05	1.74E-05	2.01E-05	2.34E-04	potential residence	2.69E-09	6.52E-08	6.09E-08	9.39E-09	0.14	0.00	1.32E-04	2.03E-05	3.27E-05	1.66E-05	1.91E-05	2.21E-04
568152.29_4181326.94	568152.29	4181326.94	1.42E-04	1.99E-05	3.43E-05	1.73E-05	2.00E-05	2.34E-04	potential residence	2.69E-09	6.52E-08	6.09E-08	9.39E-09	0.14	0.00	1.32E-04	1.99E-05	3.26E-05	1.65E-05	1.90E-05	2.20E-04
568172.29_4181326.94	568172.29	4181326.94	1.42E-04	1.98E-05	3.43E-05	1.73E-05	1.99E-05	2.33E-04	potential residence	2.69E-09	6.52E-08	6.09E-08	9.38E-09	0.14	0.00	1.33E-04	1.98E-05	3.26E-05	1.64E-05	1.89E-05	2.20E-04
568192.29_4181326.94	568192.29	4181326.94	1.43E-04	1.97E-05	3.43E-05	1.72E-05	1.98E-05	2.34E-04	potential residence	2.69E-09	6.52E-08	6.09E-08	9.39E-09	0.14	0.00	1.33E-04	1.97E-05	3.26E-05	1.64E-05	1.88E-05	2.20E-04
568212.29_4181326.94	568212.29	4181326.94	1.43E-04	1.97E-05	3.43E-05	1.73E-05	1.98E-05	2.34E-04	potential residence	2.70E-09	6.53E-08	6.10E-08	9.40E-09	0.14	0.00	1.33E-04	1.97E-05	3.26E-05	1.64E-05	1.88E-05	2.21E-04
568232.29_4181326.94	568232.29	4181326.94	1.44E-04	1.98E-05	3.46E-05	1.75E-05	1.99E-05	2.36E-04	potential residence	2.72E-09	6.58E-08	6.15E-08	9.48E-09	0.14	0.00	1.34E-04	1.98E-05	3.29E-05	1.66E-05	1.89E-05	2.23E-04
568252.29_4181326.94	568252.29	4181326.94	1.44E-04	1.98E-05	3.47E-05	1.76E-05	1.99E-05	2.36E-04	potential residence	2.72E-09	6.59E-08	6.16E-08	9.49E-09	0.14	0.00	1.35E-04	1.98E-05	3.30E-05	1.67E-05	1.89E-05	2.23E-04
568272.29_4181326.94	568272.29	4181326.94	1.45E-04	1.98E-05	3.48E-05	1.77E-05	2.00E-05	2.37E-04	potential residence	2.73E-09	6.61E-08	6.17E-08	9.52E-09	0.14	0.00	1.35E-04	1.98E-05	3.31E-05	1.68E-05	1.90E-05	2.23E-04
568292.29_4181326.94	568292.29	4181326.94	1.44E-04	1.98E-05	3.49E-05	1.78E-05	2.00E-05	2.37E-04	potential residence	2.73E-09	6.61E-08	6.17E-08	9.51E-09	0.14	0.00	1.35E-04	1.98E-05	3.32E-05	1.69E-05	1.90E-05	2.23E-04
568312.29_4181326.94	568312.29	4181326.94	1.44E-04	1.98E-05	3.50E-05	1.78E-05	2.00E-05	2.37E-04	potential residence	2.73E-09	6.60E-08	6.17E-08	9.51E-09	0.14	0.00	1.34E-04	1.98E-05	3.33E-05	1.70E-05	1.90E-05	2.23E-04
568372.29_4181326.94	568372.29	4181326.94	1.42E-04	1.98E-05	3.52E-05	1.80E-05	2.01E-05	2.35E-04	potential residence	2.71E-09	6.56E-08	6.13E-08	9.45E-09	0.14	0.00	1.32E-04	1.98E-05	3.35E-05	1.71E-05	1.92E-05	2.22E-04
568392.29_4181326.94	568392.29	4181326.94	1.41E-04	1.98E-05	3.53E-05	1.81E-05	2.02E-05	2.35E-04	potential residence	2.70E-09	6.55E-08	6.11E-08	9.43E-09	0.14	0.00	1.32E-04	1.98E-05	3.36E-05	1.72E-05	1.92E-05	2.21E-04
568412.29_4181326.94	568412.29	4181326.94	1.41E-04	1.97E-05	3.54E-05	1.81E-05	2.03E-05	2.34E-04	potential residence	2.70E-09	6.54E-08	6.11E-08	9.42E-09	0.14	0.00	1.31E-04	1.97E-05	3.37E-05	1.73E-05	1.93E-05	2.21E-04
568432.29_4181326.94	568432.29	4181326.94	1.40E-04	1.97E-05	3.55E-05	1.82E-05	2.04E-05	2.34E-04	potential residence	2.70E-09	6.53E-08	6.09E-08	9.40E-09	0.14	0.00	1.31E-04	1.97E-05	3.38E-05	1.73E-05	1.94E-05	2.21E-04
568452.29_4181326.94	568452.29	4181326.94	1.39E-04	1.97E-05	3.55E-05	1.81E-05	2.04E-05	2.33E-04	potential residence	2.68E-09	6.50E-08	6.07E-08	9.35E-09	0.14	0.00	1.30E-04	1.97E-05	3.37E-05	1.72E-05	1.94E-05	2.20E-04
568472.29_4181326.94	568472.29	4181326.94	1.38E-04	1.97E-05	3.54E-05	1.80E-05	2.04E-05	2.32E-04	potential residence	2.67E-09	6.47E-08	6.04E-08	9.31E-09	0.14	0.00	1.29E-04	1.97E-05	3.37E-05	1.72E-05	1.94E-05	2.19E-04
568492.29_4181326.94	568492.29	4181326.94	1.37E-04	1.98E-05	3.54E-05	1.80E-05	2.04E-05	2.31E-04	potential residence	2.66E-09	6.44E-08	6.01E-08	9.27E-09	0.14	0.00	1.28E-04	1.98E-05	3.37E-05	1.71E-05	1.94E-05	2.18E-04
568512.29_4181326.94	568512.29	4181326.94	1.36E-04	1.99E-05	3.54E-05	1.79E-05	2.03E-05	2.30E-04	potential residence	2.65E-09	6.42E-08	5.99E-08	9.24E-09	0.14	0.00	1.27E-04	1.99E-05	3.36E-05	1.70E-05	1.93E-05	2.17E-04
568532.29_4181326.94	568532.29	4181326.94	1.35E-04	2.01E-05	3.53E-05	1.78E-05	2.02E-05	2.29E-04	potential residence	2.64E-09	6.39E-08	5.96E-08	9.19E-09	0.14	0.00	1.26E-04	2.01E-05	3.36E-05	1.69E-05	1.92E-05	2.16E-04

568552.29_4181326.94	568552.29	4181326.94	1.35E-04	2.02E-05	3.52E-05	1.77E-05	2.01E-05	2.28E-04	potential residence	2.63E-09	6.36E-08	5.94E-08	9.16E-09	0.13	0.00	1.25E-04	2.02E-05	3.35E-05	1.68E-05	1.92E-05	2.15E-04
568572.29_4181326.94	568572.29	4181326.94	1.34E-04	2.03E-05	3.53E-05	1.76E-05	2.01E-05	2.27E-04	potential residence	2.62E-09	6.35E-08	5.92E-08	9.14E-09	0.13	0.00	1.25E-04	2.03E-05	3.35E-05	1.68E-05	1.91E-05	2.15E-04
568592.29_4181326.94	568592.29	4181326.94	1.33E-04	2.05E-05	3.52E-05	1.75E-05	1.99E-05	2.26E-04	potential residence	2.61E-09	6.32E-08	5.90E-08	9.10E-09	0.13	0.00	1.24E-04	2.05E-05	3.35E-05	1.67E-05	1.90E-05	2.14E-04
568612.29_4181326.94	568612.29	4181326.94	1.32E-04	2.06E-05	3.51E-05	1.74E-05	1.98E-05	2.25E-04	potential residence	2.60E-09	6.29E-08	5.87E-08	9.05E-09	0.13	0.00	1.23E-04	2.06E-05	3.34E-05	1.65E-05	1.88E-05	2.13E-04
568632.29_4181326.94	568632.29	4181326.94	1.32E-04	2.07E-05	3.51E-05	1.73E-05	1.96E-05	2.24E-04	potential residence	2.58E-09	6.26E-08	5.84E-08	9.01E-09	0.13	0.00	1.23E-04	2.07E-05	3.34E-05	1.64E-05	1.87E-05	2.12E-04
568652.29_4181326.94	568652.29	4181326.94	1.31E-04	2.07E-05	3.52E-05	1.73E-05	1.96E-05	2.24E-04	potential residence	2.58E-09	6.25E-08	5.84E-08	9.00E-09	0.13	0.00	1.22E-04	2.07E-05	3.35E-05	1.64E-05	1.86E-05	2.12E-04
568672.29_4181326.94	568672.29	4181326.94	1.31E-04	2.07E-05	3.53E-05	1.72E-05	1.95E-05	2.24E-04	potential residence	2.58E-09	6.25E-08	5.83E-08	9.00E-09	0.13	0.00	1.22E-04	2.07E-05	3.36E-05	1.64E-05	1.86E-05	2.11E-04
568692.29_4181326.94	568692.29	4181326.94	1.31E-04	2.08E-05	3.55E-05	1.72E-05	1.95E-05	2.23E-04	potential residence	2.58E-09	6.24E-08	5.83E-08	8.98E-09	0.13	0.00	1.22E-04	2.08E-05	3.37E-05	1.64E-05	1.85E-05	2.11E-04
568712.29_4181326.94	568712.29	4181326.94	1.30E-04	2.08E-05	3.56E-05	1.72E-05	1.94E-05	2.23E-04	potential residence	2.58E-09	6.24E-08	5.82E-08	8.98E-09	0.13	0.00	1.21E-04	2.08E-05	3.39E-05	1.64E-05	1.85E-05	2.11E-04
568732.29_4181326.94	568732.29	4181326.94	1.29E-04	2.08E-05	3.56E-05	1.70E-05	1.93E-05	2.22E-04	potential residence	2.56E-09	6.20E-08	5.79E-08	8.92E-09	0.13	0.00	1.21E-04	2.08E-05	3.38E-05	1.62E-05	1.83E-05	2.10E-04
568752.29_4181326.94	568752.29	4181326.94	1.29E-04	2.08E-05	3.56E-05	1.70E-05	1.92E-05	2.21E-04	potential residence	2.55E-09	6.18E-08	5.77E-08	8.89E-09	0.13	0.00	1.20E-04	2.08E-05	3.39E-05	1.61E-05	1.82E-05	2.09E-04
568772.29_4181326.94	568772.29	4181326.94	1.28E-04	2.08E-05	3.57E-05	1.69E-05	1.91E-05	2.21E-04	potential residence	2.54E-09	6.16E-08	5.75E-08	8.86E-09	0.13	0.00	1.19E-04	2.08E-05	3.40E-05	1.61E-05	1.81E-05	2.08E-04
568792.29_4181326.94	568792.29	4181326.94	1.27E-04	2.08E-05	3.58E-05	1.68E-05	1.90E-05	2.20E-04	potential residence	2.53E-09	6.13E-08	5.72E-08	8.83E-09	0.13	0.00	1.19E-04	2.08E-05	3.40E-05	1.60E-05	1.81E-05	2.08E-04
568812.29_4181326.94	568812.29	4181326.94	1.26E-04	2.08E-05	3.58E-05	1.67E-05	1.89E-05	2.19E-04	potential residence	2.52E-09	6.10E-08	5.70E-08	8.78E-09	0.13	0.00	1.18E-04	2.08E-05	3.41E-05	1.59E-05	1.79E-05	2.07E-04
567412.29_4181346.94	567412.29	4181346.94	1.26E-04	2.24E-05	3.56E-05	1.29E-05	1.31E-05	2.10E-04	potential residence	2.42E-09	5.86E-08	5.47E-08	8.44E-09	0.12	0.00	1.17E-04	2.24E-05	3.39E-05	1.22E-05	1.25E-05	1.98E-04
567432.29_4181346.94	567432.29	4181346.94	1.27E-04	2.25E-05	3.57E-05	1.32E-05	1.35E-05	2.12E-04	potential residence	2.45E-09	5.93E-08	5.53E-08	8.53E-09	0.13	0.00	1.19E-04	2.25E-05	3.39E-05	1.26E-05	1.29E-05	2.01E-04
567452.29_4181346.94	567452.29	4181346.94	1.29E-04	2.26E-05	3.57E-05	1.36E-05	1.39E-05	2.15E-04	potential residence	2.47E-09	5.99E-08	5.60E-08	8.63E-09	0.13	0.00	1.20E-04	2.26E-05	3.39E-05	1.29E-05	1.32E-05	2.03E-04
567472.29_4181346.94	567472.29	4181346.94	1.30E-04	2.27E-05	3.56E-05	1.39E-05	1.43E-05	2.16E-04	potential residence	2.49E-09	6.04E-08	5.64E-08	8.70E-09	0.13	0.00	1.21E-04	2.27E-05	3.39E-05	1.32E-05	1.36E-05	2.05E-04
567492.29_4181346.94	567492.29	4181346.94	1.31E-04	2.27E-05	3.55E-05	1.43E-05	1.47E-05	2.18E-04	potential residence	2.51E-09	6.09E-08	5.68E-08	8.77E-09	0.13	0.00	1.22E-04	2.27E-05	3.37E-05	1.36E-05	1.40E-05	2.06E-04
567512.29_4181346.94	567512.29	4181346.94	1.32E-04	2.29E-05	3.54E-05	1.46E-05	1.51E-05	2.20E-04	potential residence	2.53E-09	6.14E-08	5.73E-08	8.84E-09	0.13	0.00	1.23E-04	2.29E-05	3.37E-05	1.39E-05	1.44E-05	2.08E-04
567532.29_4181346.94	567532.29	4181346.94	1.32E-04	2.31E-05	3.53E-05	1.50E-05	1.56E-05	2.21E-04	potential residence	2.55E-09	6.18E-08	5.77E-08	8.89E-09	0.13	0.00	1.23E-04	2.31E-05	3.36E-05	1.43E-05	1.48E-05	2.09E-04
567552.29_4181346.94	567552.29	4181346.94	1.33E-04	2.30E-05	3.51E-05	1.53E-05	1.60E-05	2.22E-04	potential residence	2.56E-09	6.20E-08	5.79E-08	8.92E-09	0.13	0.00	1.24E-04	2.30E-05	3.34E-05	1.46E-05	1.52E-05	2.10E-04
567572.29_4181346.94	567572.29	4181346.94	1.33E-04	2.32E-05	3.50E-05	1.56E-05	1.64E-05	2.23E-04	potential residence	2.57E-09	6.23E-08	5.81E-08	8.96E-09	0.13	0.00	1.24E-04	2.32E-05	3.33E-05	1.49E-05	1.56E-05	2.11E-04
567592.29_4181346.94	567592.29	4181346.94	1.33E-04	2.32E-05	3.48E-05	1.60E-05	1.68E-05	2.23E-04	potential residence	2.58E-09	6.24E-08	5.82E-08	8.98E-09	0.13	0.00	1.24E-04	2.32E-05	3.31E-05	1.52E-05	1.60E-05	2.11E-04
567612.29_4181346.94	567612.29	4181346.94	1.32E-04	2.31E-05	3.46E-05	1.62E-05	1.72E-05	2.23E-04	potential residence	2.58E-09	6.24E-08	5.83E-08	8.98E-09	0.13	0.00	1.23E-04	2.31E-05	3.29E-05	1.55E-05	1.63E-05	2.11E-04
567632.29_4181346.94	567632.29	4181346.94	1.33E-04	2.32E-05	3.45E-05	1.65E-05	1.75E-05	2.24E-04	potential residence	2.59E-09	6.26E-08	5.85E-08	9.02E-09	0.13	0.00	1.24E-04	2.32E-05	3.28E-05	1.57E-05	1.67E-05	2.12E-04
567652.29_4181346.94	567652.29	4181346.94	1.32E-04	2.30E-05	3.42E-05	1.68E-05	1.79E-05	2.24E-04	potential residence	2.58E-09	6.25E-08	5.83E-08	9.00E-09	0.13	0.00	1.23E-04	2.30E-05	3.26E-05	1.59E-05	1.70E-05	2.12E-04
568032.29_4181346.94	568032.29	4181346.94	1.35E-04	2.01E-05	3.33E-05	1.66E-05	1.91E-05	2.24E-04	potential residence	2.58E-09	6.25E-08	5.84E-08	9.00E-09	0.13	0.00	1.26E-04	2.01E-05	3.17E-05	1.58E-05	1.81E-05	2.11E-04
568052.29_4181346.94	568052.29	4181346.94	1.35E-04	2.00E-05	3.33E-05	1.66E-05	1.91E-05	2.24E-04	potential residence	2.58E-09	6.25E-08	5.84E-08	9.00E-09	0.13	0.00	1.26E-04	2.00E-05	3.17E-05	1.58E-05	1.82E-05	2.11E-04
568072.29_4181346.94	568072.29	4181346.94	1.34E-04	1.98E-05	3.31E-05	1.64E-05	1.89E-05	2.22E-04	potential residence	2.56E-09	6.21E-08	5.79E-08	8.93E-09	0.13	0.00	1.25E-04	1.98E-05	3.15E-05	1.56E-05	1.79E-05	2.10E-04
568092.29_4181346.94	568092.29	4181346.94	1.34E-04	1.96E-05	3.31E-05	1.64E-05	1.88E-05	2.22E-04	potential residence	2.56E-09	6.21E-08	5.80E-08	8.94E-09	0.13	0.00	1.25E-04	1.96E-05	3.15E-05	1.56E-05	1.79E-05	2.10E-04
568112.29_4181346.94	568112.29	4181346.94	1.35E-04	1.94E-05	3.31E-05	1.63E-05	1.88E-05	2.22E-04	potential residence	2.56E-09	6.21E-08	5.80E-08	8.94E-09	0.13	0.00	1.26E-04	1.94E-05	3.15E-05	1.55E-05	1.79E-05	2.10E-04
568132.29_4181346.94	568132.29	4181346.94	1.35E-04	1.92E-05	3.31E-05	1.63E-05	1.87E-05	2.22E-04	potential residence	2.56E-09	6.21E-08	5.79E-08	8.93E-09	0.13	0.00	1.26E-04	1.92E-05	3.15E-05	1.55E-05	1.78E-05	2.10E-04
568152.29_4181346.94	568152.29	4181346.94	1.35E-04	1.90E-05	3.31E-05	1.62E-05	1.86E-05	2.22E-04	potential residence	2.56E-09	6.21E-08	5.80E-08	8.94E-09	0.13	0.00	1.26E-04	1.90E-05	3.15E-05	1.54E-05	1.77E-05	2.10E-04
568172.29_4181346.94	568172.29	4181346.94	1.36E-04	1.90E-05	3.32E-05	1.62E-05	1.86E-05	2.23E-04	potential residence	2.57E-09	6.23E-08	5.82E-08	8.97E-09	0.13	0.00	1.27E-04	1.90E-05	3.15E-05	1.55E-05	1.77E-05	2.11E-04
568192.29_4181346.94	568192.29	4181346.94	1.36E-04	1.89E-05	3.31E-05	1.62E-05	1.85E-05	2.23E-04	potential residence	2.57E-09	6.22E-08	5.81E-08	8.96E-09	0.13	0.00	1.27E-04	1.89E-05	3.15E-05	1.54E-05	1.76E-05	2.10E-04
568212.29_4181346.94	568212.29	4181346.94	1.36E-04	1.89E-05	3.31E-05	1.62E-05	1.84E-05	2.23E-04	potential residence	2.57E-09	6.23E-08	5.81E-08	8.96E-09	0.13	0.00	1.27E-04	1.89E-05	3.15E-05	1.54E-05	1.75E-05	2.10E-04
568232.29_4181346.94	568232.29	4181346.94	1.37E-04	1.89E-05	3.32E-05	1.63E-05	1.85E-05	2.24E-04	potential residence	2.58E-09	6.25E-08	5.83E-08	9.00E-09	0.13	0.00	1.28E-04	1.89E-05	3.16E-05	1.55E-05	1.76E-05	2.11E-04
568252.29_4181346.94	568252.29	4181346.94	1.38E-04	1.89E-05	3.34E-05	1.64E-05	1.85E-05	2.25E-04	potential residence	2.59E-09	6.28E-08	5.86E-08	9.03E-09	0.13	0.00	1.28E-04	1.89E-05	3.18E-05	1.56E-05	1.76E-05	2.12E-04
568272.29_4181346.94	568272.29	4181346.94	1.38E-04	1.89E-05	3.36E-05	1.66E-05	1.86E-05	2.26E-04	potential residence	2.60E-09	6.30E-08	5.88E-08	9.06E-09	0.13	0.00	1.29E-04	1.89E-05	3.19E-05	1.57E-05	1.77E-05	2.13E-04
568332.29_4181346.94	568332.29	4181346.94	1.37E-04	1.90E-05	3.38E-05	1.68E-05	1.87E-05	2.26E-04	potential residence	2.60E-09	6.30E-08	5.88E-08	9.06E-09	0.13	0.00	1.28E-04	1.90E-05	3.22E-05	1.60E-05	1.78E-05	2.13E-04
568352.29_4181346.94	568352.29	4181346.94	1.37E-04	1.91E-05	3.39E-05	1.69E-05	1.88E-05	2.25E-04	potential residence	2.60E-09	6.29E-08	5.87E-08	9.05E-09	0.13	0.00	1.27E-04	1.91E-05	3.22E-05	1.61E-05	1.79E-05	2.12E-04
568372.29_4181346.94	568372.29	4181346.94	1.36E-04	1.91E-05	3.40E-05	1.70E-05	1.89E-05	2.25E-04	potential residence	2.59E-09	6.28E-08	5.86E-08	9.04E-09	0.13	0.00	1.27E-04	1.91E-05	3.23E-05	1.61E-05	1.80E-05	2.12E-04
568392.29_4181346.94	568392.29	4181346.94	1.35E-04	1.91E-05	3.40E-05	1.69E-05	1.89E-05	2.24E-04	potential residence	2.58E-09	6.25E-08	5.84E-08	9.00E-09	0.13	0.00	1.26E-04	1.91E-05	3.23E-05	1.61E-05	1.80E-05	2.11E-04
568412.29_4181346.94	568412.29	4181346.94	1.34E-04	1.90E-05	3.40E-05	1.70E-05	1.90E-05	2.23E-04	potential residence	2.57E-09	6.24E-08	5.82E-08	8.98E-09	0.13	0.00	1.25E-04	1.90E-05	3.24E-05	1.61E-05	1.80E-05	2.11E-04
568432.29_4181346.94	568432.29	4181346.94	1.33E-04	1.90E-05	3.40E-05	1.69E-05	1.90E-05	2.22E-04	potential residence	2.56E-09	6.21E-08	5.80E-08	8.94E-09	0.13	0.00	1.24E-04	1.90E-05	3.24E-05	1.61E-05	1.81E-05	2.10E-04
568452.29_4181346.94	568452.29	4181346.94	1.33E-04	1.90E-05	3.41E-05	1.69E-05	1.91E-05	2.22E-04	potential residence	2.56E-09	6.19E-08	5.78E-08	8.91E-09	0.13	0.00	1.24E-04	1.90E-05	3.24E-05	1.61E-05	1.81E-05	2.09E-04
568472.29_4181346.94	568472.29	4181346.94	1.32E-04	1.90E-05	3.40E-05	1.69E-05	1.91E-05	2.21E-04	potential residence	2.55E-09	6.17E-08	5.76E-08	8.88E-09	0.13	0.00	1.23E-04	1.90E-05	3.24E-05	1.61E-05	1.81E-05	2.09E-04
568492.29_4181346.94	568492.29	4181346.94	1.31E-04	1.91E-05	3.41E-05	1.69E-05	1.91E-05	2.20E-04	potential residence	2.54E-09	6.15E-08	5.74E-08	8.86E-09	0.13	0.00	1.22E-04	1.91E-05	3.24E-05	1.61E-05	1.82E-05	2.08E-04
568512.29_4181346.94	568512.29	4181346.94	1.30E-04	1.92E-05	3.40E-05	1.68E-05	1.91E-05	2.20E-04	potential residence	2.53E-09	6.13E-08	5.72E-08	8.82E-09	0.13	0.00	1.22E-04	1.92E-05	3.24E-05	1.60E-05	1.81E-05	2.07E-04
568532.29_4181346.94	568532.29	4181346.94	1.29E-04	1.93E-05	3.39E-05	1.67E-05	1.89E-05	2.18E-04	potential residence	2.52E-09	6.10E-08	5.69E-08	8.77E-09	0.13	0.00	1.21E-04	1.93E-05	3.23E-05	1.59E-05	1.80E-05	2.06E-04
568552.29_4181346.94	568552.29	4181346.94	1.28E-04	1.94E-05	3.38E-05	1.66E-05	1.88E-05	2.17E-04	potential residence	2.50E-09	6.06E-08	5.66E-08	8.72E-09	0.13	0.00	1.20E-04	1.94E-05	3.22E-05	1.58E-05	1.79E-05	2.05E-04
568572.29_4181346.94	568572.29	4181346.94	1.28E-04	1.96E-05	3.39E-05	1.66E-05	1.88E-05	2.17E-04	potential residence	2.50E-09	6.06E-08	5.66E-08	8.72E-09	0.13	0.00	1.19E-04	1.96E-05	3.23E-05	1.58E-05	1.79E-05	2.05E-04
568592.29_4181346.94	568592.29	4181346.94	1.28E-04	1.97E-05	3.39E-05	1.65E-05	1.87E-05	2.16E-04	potential residence	2.50E-09	6.04E-08	5.64E-08	8.70E-09	0.13	0.00	1.19E-04	1.97E-05	3.23E-05	1.57E-05	1.78E-05	2.04E-04
568612.29_4181346.94	568612.29	4181346.94	1.26E-04	1.98E-05	3.37E-05	1.63E-05	1.85E-05	2.15E-04	potential residence	2.48E-09	6.00E-08	5.60E-08	8.64E-09	0.13	0.00	1.18E-04	1.98E-05	3.21E-05	1.55E-05	1.76E-05	2.03E-04
568632.29_4181346.94	568632.29	4181346.94	1.26E-04	1.99E-05	3.38E-05	1.63E-05	1.85E-05	2.15E-04	potential residence	2.47E-09	5.99E-08	5.59E-08	8.63E-09	0.13	0.00	1.18E-04	1.99E-05	3.22E-05	1.55E-05	1.76E-05	2.03E-04
568652.29_4181346.94	568652.29	4181346.94	1.25E-04	2.00E-05	3.38E-05	1.62E-05	1.84E-05	2.14E-04	potential residence	2.46E-09	5.97E-08	5.57E-08	8.59E-09	0.13	0.00	1.17E-04	2.00E-05	3.22E-05	1.54E-05	1.75E-05	2.02E-04
568672.29_4181346.94	568672.29	4181346.94	1.25E-04	2.00E-05	3.39E-05	1.62E-05	1.83E-05	2.13E-04	potential residence	2.46E-09	5.95E-08	5.56E-08	8.57E-09	0.13	0.00	1.17E-04	2.00E-05	3.22E-05	1.54E-05	1.74E-05	2.01E-04
568692.29_4181346.94	568692.29	4181346.94	1.25E-04	2.01E-05	3.41E-05	1.62E-05	1.83E-05	2.14E-04	potential residence	2.47E-09	5.97E-08	5.57E-08	8.59E-09	0.13	0.00	1.17E-04	2.01E-05	3.25E-05	1.54E-05	1.74E-05	2.02E-04
568712.29_4181346.94	568712.29	4181346.94	1.25E-04	2.01E-05	3.42E-05	1.62E-05	1.83E-05	2.13E-04	potential residence	2.46E-09	5.96E-08	5.56E-08	8.58E-09	0.13	0.00	1.16E-04	2.01E-05	3.26E-05	1.54E-05	1.74E-05	2.02E-04
568732.29_4181346.94	568732.29	4181346.94	1.24E-04	2.01E-05	3.43E-05	1.61E-05	1.82E-05	2.13E-04	potential residence	2.46E-09	5.95E-08	5.55E-08	8.56E-09	0.13	0.00	1.16E-04	2.01E-05	3.27E-05	1.54E-05	1.73E-05	2.01E-04
568752.29_4181346.94	568752.29	4181346.94	1.24E-04	2.01E-05	3.44E-05	1.61E-05	1.81E-05	2.12E-04	potential residence	2.45E-09	5.92E-08	5.53E-08	8.53E-09	0.13	0.00	1.15E-04	2.01E-05	3.27E-05	1.53E-05	1.72E-05	2.00E-04
568772.29_4181346.94	568772.29	4181346.94	1.23E-04	2.01E-05	3.44E-05	1.60E-05	1.80E-05	2.12E-04	potential residence	2.44E-09	5.91E-08	5.52E-08	8.51E-09	0.13	0.00	1.15E-04	2.01E-05	3.28E-05	1.52E-05	1.71E-05	2.00E-04
568792.29_4181346.94	568792.29	4181346.94	1.22E-04	2.01E-05	3.45E-05	1.59E-05	1.79E-05	2.11E-04	potential residence	2.43E-09	5.89E-08	5.50E-08	8.47E-09	0.12	0.00	1.14E-04	2.01E-05	3.28E-05	1.52E-05	1.71E-05	1.99E-04
568812.29_4181346.94	568812.29	4181346.94	1.22E-04	2.02E-05	3.45E-05	1.59E-05	1.78E-05	2.10E-04	potential residence	2.42E-09	5.86E-08	5.47E-08	8.44E-09	0.12	0.00	1.13E-04	2.02E-05	3.29E-05	1.51E-05	1.70E-05	1.98E-04
567640.72_4181210.45	567640.72	4181210.45	1.84E-04	2.96E-05	4.52E-05	2.16E-05	2.23E-05	3.03E-04	Lazear Charter Academy	3.50E-09	8.47E-08	7.90E-08	1.22E-08	0.18	0.00	1.72E-04	2.96E-05	4.30E-05	2.06E-05	2.12E-05	2.86E-04
567660.72_4181210.45	567660.72	4181210.45	1.85E-04	2.99E-05	4.50E-05	2.24E-05	2.32E-05	3.05E-04	Lazear Charter Academy	3.52E-09	8.53E-08	7.96E-08	1.23E-08	0.18	0.00	1.72E-04	2.99E-05	4.28E-05	2.13E-05	2.21E-05	2.89E-04
567680.72_4181210.45	567680.72	4181210.45	1.85E-04	3.03E-05	4.49E-05	2.32E-05	2.41E-05	3.08E-04	Lazear Charter Academy	3.55E-09	8.60E-08	8.03E-08	1.24E-08	0.18	0.00	1.73E-04	3.03E-05	4.27E-05	2.21E-05	2.30E-05	2.91E-04
567700.72_4181210.45	567700.72	4181210.45	1.86E-04	3.06E-05	4.47E-05	2.40E-05	2.51E-05	3.10E-04	Lazear Charter Academy	3.57E-09	8.65E-08	8.08E-08	1.25E-08	0.18	0.00	1.73E-04	3.06E-05	4.26E-05	2.28E-05	2.39E-05	2.93E-04
567640.72_4181230.45	567640.72	4181230.45	1.75E-04	2.87E-05	4.34E-05	2.09E-05	2.17E-05	2.90E-04	Lazear Charter Academy	3.34E-09	8.10E-08	7.56E-08	1.17E-08	0.17	0.00	1.64E-04	2.87E-05	4.13E-05	1.99E-05	2.06E-05	2.74E-04
567660.72_4181230.45	567660.72	4181230.45	1.76E-04	2.90E-05	4.33E-05	2.16E-05	2.25E-05	2.92E-04	Lazear Charter Academy	3.37E-09	8.16E-08	7.62E-08	1.18E-08	0.17	0.00	1.64E-04	2.90E-05	4.12E-05	2.06E-05	2.14E-05	2.76E-04
567680.72_4181230.45	567680.72	4181230.45	1.76E-04	2.92E-05	4.31E-05	2.23E-05	2.33E-05	2.94E-04	Lazear Charter Academy	3.39E-09	8.20E-08	7.66E-08	1.18E-08	0.17	0.00	1.64E-04	2.92E-05	4.10E-05	2.12E-05	2.22E-05	2.78E-04

567700.72_4181230.45	567700.72	4181230.45	1.76E-04	2.93E-05	4.28E-05	2.29E-05	2.41E-05	2.95E-04	Lazear Charter Academy	3.40E-09	8.23E-08	7.68E-08	1.18E-08	0.17	0.00	1.64E-04	2.93E-05	4.07E-05	2.18E-05	2.29E-05	2.78E-04
567720.72_4181230.45	567720.72	4181230.45	1.74E-04	2.89E-05	4.25E-05	2.35E-05	2.49E-05	2.94E-04	Lazear Charter Academy	3.39E-09	8.22E-08	7.67E-08	1.18E-08	0.17	0.00	1.63E-04	2.89E-05	4.04E-05	2.24E-05	2.37E-05	2.78E-04
567640.72_4181250.45	567640.72	4181250.45	1.67E-04	2.78E-05	4.17E-05	2.02E-05	2.10E-05	2.78E-04	Lazear Charter Academy	3.20E-09	7.76E-08	7.24E-08	1.12E-08	0.16	0.00	1.56E-04	2.78E-05	3.97E-05	1.92E-05	2.00E-05	2.63E-04
567660.72_4181250.45	567660.72	4181250.45	1.67E-04	2.80E-05	4.15E-05	2.08E-05	2.18E-05	2.79E-04	Lazear Charter Academy	3.22E-09	7.80E-08	7.28E-08	1.12E-08	0.17	0.00	1.56E-04	2.80E-05	3.95E-05	1.98E-05	2.07E-05	2.64E-04
567680.72_4181250.45	567680.72	4181250.45	1.67E-04	2.80E-05	4.12E-05	2.14E-05	2.25E-05	2.80E-04	Lazear Charter Academy	3.22E-09	7.81E-08	7.29E-08	1.12E-08	0.17	0.00	1.55E-04	2.80E-05	3.92E-05	2.03E-05	2.14E-05	2.64E-04
567700.72_4181250.45	567700.72	4181250.45	1.66E-04	2.78E-05	4.10E-05	2.19E-05	2.31E-05	2.80E-04	Lazear Charter Academy	3.23E-09	7.82E-08	7.30E-08	1.13E-08	0.17	0.00	1.55E-04	2.78E-05	3.90E-05	2.08E-05	2.20E-05	2.65E-04
567720.72_4181250.45	567720.72	4181250.45	1.66E-04	2.77E-05	4.08E-05	2.24E-05	2.38E-05	2.81E-04	Lazear Charter Academy	3.24E-09	7.84E-08	7.32E-08	1.13E-08	0.17	0.00	1.55E-04	2.77E-05	3.89E-05	2.13E-05	2.26E-05	2.65E-04
567640.72_4181270.45	567640.72	4181270.45	1.59E-04	2.68E-05	4.00E-05	1.95E-05	2.04E-05	2.65E-04	Lazear Charter Academy	3.06E-09	7.41E-08	6.92E-08	1.07E-08	0.16	0.00	1.48E-04	2.68E-05	3.80E-05	1.85E-05	1.94E-05	2.51E-04
567660.72_4181270.45	567660.72	4181270.45	1.59E-04	2.68E-05	3.98E-05	2.00E-05	2.10E-05	2.66E-04	Lazear Charter Academy	3.07E-09	7.43E-08	6.93E-08	1.07E-08	0.16	0.00	1.48E-04	2.68E-05	3.78E-05	1.90E-05	2.00E-05	2.51E-04
567680.72_4181270.45	567680.72	4181270.45	1.58E-04	2.68E-05	3.95E-05	2.04E-05	2.16E-05	2.66E-04	Lazear Charter Academy	3.07E-09	7.44E-08	6.94E-08	1.07E-08	0.16	0.00	1.47E-04	2.68E-05	3.76E-05	1.94E-05	2.05E-05	2.52E-04
567700.72_4181270.45	567700.72	4181270.45	1.58E-04	2.66E-05	3.94E-05	2.09E-05	2.22E-05	2.67E-04	Lazear Charter Academy	3.08E-09	7.45E-08	6.95E-08	1.07E-08	0.16	0.00	1.47E-04	2.66E-05	3.74E-05	1.98E-05	2.11E-05	2.52E-04
567720.72_4181270.45	567720.72	4181270.45	1.58E-04	2.65E-05	3.92E-05	2.12E-05	2.27E-05	2.67E-04	Lazear Charter Academy	3.08E-09	7.47E-08	6.97E-08	1.07E-08	0.16	0.00	1.47E-04	2.65E-05	3.73E-05	2.02E-05	2.16E-05	2.53E-04
567660.72_4181290.45	567660.72	4181290.45	1.51E-04	2.58E-05	3.82E-05	1.91E-05	2.02E-05	2.54E-04	Lazear Charter Academy	2.93E-09	7.11E-08	6.63E-08	1.02E-08	0.15	0.00	1.41E-04	2.58E-05	3.64E-05	1.82E-05	1.92E-05	2.40E-04
567680.72_4181290.45	567680.72	4181290.45	1.50E-04	2.56E-05	3.80E-05	1.95E-05	2.07E-05	2.54E-04	Lazear Charter Academy	2.93E-09	7.10E-08	6.63E-08	1.02E-08	0.15	0.00	1.40E-04	2.56E-05	3.61E-05	1.86E-05	1.97E-05	2.40E-04
567700.72_4181290.45	567700.72	4181290.45	1.50E-04	2.54E-05	3.78E-05	1.99E-05	2.12E-05	2.54E-04	Lazear Charter Academy	2.93E-09	7.10E-08	6.63E-08	1.02E-08	0.15	0.00	1.40E-04	2.54E-05	3.59E-05	1.89E-05	2.02E-05	2.40E-04
567720.72_4181290.45	567720.72	4181290.45	1.50E-04	2.53E-05	3.76E-05	2.02E-05	2.17E-05	2.55E-04	Lazear Charter Academy	2.94E-09	7.12E-08	6.64E-08	1.02E-08	0.15	0.00	1.40E-04	2.53E-05	3.58E-05	1.92E-05	2.06E-05	2.41E-04
567700.58_4181192.03	567700.58	4181192.03	1.95E-04	3.16E-05	4.65E-05	2.49E-05	2.59E-05	3.24E-04	Lazear Charter Academy	3.73E-09	9.04E-08	8.44E-08	1.30E-08	0.19	0.00	1.82E-04	3.16E-05	4.42E-05	2.37E-05	2.47E-05	3.06E-04
567681.2_4181312.49	567681.2	4181312.49	1.43E-04	2.45E-05	3.64E-05	1.85E-05	1.98E-05	2.42E-04	Lazear Charter Academy	2.79E-09	6.76E-08	6.31E-08	9.73E-09	0.14	0.00	1.33E-04	2.45E-05	3.46E-05	1.76E-05	1.88E-05	2.29E-04

3600 Alameda Avenue - Operational Health Risk Assessment
Schools

Haul Truck Trip Lengths

	Trucks trips	
Trip Length	8.00	miles
	12873	meters

Haul Truck Adjustment Factor to Model

Source	Trucks trips
Truck Route 1	0.06
Truck Route 2	0.07
Truck Route 3	0.07

Land Use	Non-residential trip length (miles)			% of trips			% of trips			Annual VMT	VMT per day			Trip length
	C - C	C - W	C - NW	Primary	Diverted	Passby	C - C	C - W	C - NW		Wkdy	Sat	Sun	(miles)
Restaurant	7.3	9.5	7.3	37	20	43	72.5	8.5	19	646797.7666				
Warehouse	7.3	9.5	7.3	92	5	3	0	59	41	4668963.961	12791.682	12791.68209	12791.682	7.9986607

Modeled Truck Routes

	Truck Route 1	Truck Route 2	Truck Route 3	
Trip Length	708.6	888	905.7	meters

from AERMOD

Fraction of Project Truck Traffic on Routes

	Truck Route 1	Truck Route 2	Truck Route 3
Fraction of Traffic	1	0.175	0.175

from Fehr & Peers

Haul Truck Adjustment Factor to Model

Source	Trucks trips
Truck Route 1	0.06
Truck Route 2	0.07
Truck Route 3	0.07

			DPM (tons)	$PM_{2.5}$ (tons)	DPM (g/s)	$PM_{2.5}$ (g/s)
Operation Source	Start Date	End Date	Annual O&M	Annual O&M	Annual O&M	Annual O&M
Truck Idling + Equipment	Annual		2.11E-02	1.97E-02	1.22E-03	1.13E-03
Emergency Generator	Annual		2.11E-03	2.11E-03	6.07E-05	6.07E-05
Truck Route 1	Annual		2.83E-03	2.69E-03	8.14E-05	7.74E-05
Truck Route 2	Annual		6.21E-04	5.90E-04	1.78E-05	1.70E-05
Truck Route 3	Annual		6.33E-04	6.02E-04	1.82E-05	1.73E-05

Exposure Duration (days)	Lazear & Ascend (Gr TK - 8)				Arise (Gr 9 - 12)			
Operation Source	3rd Trimester	Age 0<2	Age 2<16	Age 16<30	3rd Trimester	Age 0<2	Age 2<16	Age 16<30
Truck Idling + Equipment	0	0	3650	0	0	0	730	730
Emergency Generator	0	0	3650	0	0	0	730	730
Truck Route 1	0	0	3650	0	0	0	730	730
Truck Route 2	0	0	3650	0	0	0	730	730
Truck Route 3	0	0	3650	0	0	0	730	730

Risk Factors

	Abbreviation	UOM	0<2	2<16	16<30	
8-hour Breathing Rate	BR	L/kg-8 hours	1200	520	240	Moderate intensity 95th percentile, OEHHA Table 5.8
Fraction Of Time At Home	FAH	unitless	1	1	1	
Exposure Frequency	EF	days/year	0.68	0.49	0.49	
Age Sensitivity Factor	ASF	unitless	10	3	1	
Inhalation Absorption Factor	A	unitless	1	1	1	
Conversion Factor	CF_1	m^3/L	0.001	0.001	0.001	
Conversion Factor	CF_2	$\mu g/m^3$	0.001	0.001	0.001	
Cancer Potency Factor (diesel exhaust)	CPF	$mg/kg\text{-}day^{-1}$	1.1	1.1	1.1	
Averaging Time (for residential exposure)	AT	years	70	70	70	

Intake Factor for Inhalation, IF (m^3/kg-day) = BR*FAH*EF*ED*ASF*A*CF/AT

Operational Source	Receptor	Year	0<2	2<16	16<30
All sources	Lazear & Ascend	Annual	0.000	0.109	0.000
All sources	Arise	Annual	0.000	0.022	0.003

Risk Calculation Part 1, R1 = IF*CPF*CF

Year	0<2	2<16	16<30
Annual	0.00E+00	1.20E-04	0.00E+00
Annual	0.00E+00	2.40E-05	3.70E-06

Hazard Index

Chronic Inhalation	REL	$\mu g/m^3$	5

	Lazear Charter Academy		
	Max Risk	UTM X	UTM Y
Cancer	0.08	567681.2	4181312.49
HI	0.000	567681.2	4181312.49
$PM_{2.5}$	0.00	567681.2	4181312.49

	Ascend Elementary		
	Max Risk	UTM X	UTM Y
Cancer	0.10	568632.29	4180946.94
HI	0.000	568632.29	4180946.94
$PM_{2.5}$	0.00	568632.29	4180946.94

	Arise High School		
	Max Risk	UTM X	UTM Y
Cancer	0.01	568312.29	4181246.94
HI	0.000	568312.29	4181246.94
$PM_{2.5}$	0.000	568312.29	4181246.94

Diesel Particulate Matter concentration, C_{DPM} ($\mu g/m^3$) — Lazear Charter Academy

Lookup	X (UTM)	Y (UTM	Annual O&M						Receptor Type	Risk Calculation Part 2 $\sum R1*C_{DPM}$				HI C_{DPM}/REL	$PM_{2.5}$ Annual O&M					
			Truck Idling + Equipment	Emergency Generator	Truck Route 1	Truck Route 2	Truck Route 3	Total		0<2	2<16	2<16	Total		Truck Idling + Equipment	Emergency Generator	Truck Route 1	Truck Route 2	Truck Route 3	Total
567640.72_4181210.45	567640.72	4181210.45	1.68E-04	3.71E-05	1.44E-04	1.97E-05	1.90E-05	3.87E-04	Lazear Charter Academy	0.00E+00	4.65E-08	0.00E+00	0.05	0.00	1.56E-04	3.71E-05	1.37E-04	1.87E-05	1.80E-05	3.67E-04
567660.72_4181210.45	567660.72	4181210.45	1.71E-04	3.74E-05	1.49E-04	2.00E-05	1.92E-05	3.97E-04	Lazear Charter Academy	0.00E+00	4.77E-08	0.00E+00	0.05	0.00	1.60E-04	3.74E-05	1.42E-04	1.90E-05	1.83E-05	3.76E-04
567680.72_4181210.45	567680.72	4181210.45	1.78E-04	3.79E-05	1.60E-04	2.06E-05	1.98E-05	4.16E-04	Lazear Charter Academy	0.00E+00	5.00E-08	0.00E+00	0.05	0.00	1.66E-04	3.79E-05	1.52E-04	1.96E-05	1.88E-05	3.94E-04
567700.72_4181210.45	567700.72	4181210.45	1.81E-04	3.82E-05	1.65E-04	2.10E-05	2.01E-05	4.26E-04	Lazear Charter Academy	0.00E+00	5.11E-08	0.00E+00	0.05	0.00	1.69E-04	3.82E-05	1.57E-04	2.00E-05	1.91E-05	4.03E-04
567640.72_4181230.45	567640.72	4181230.45	1.84E-04	3.84E-05	1.71E-04	2.13E-05	2.03E-05	4.35E-04	Lazear Charter Academy	0.00E+00	5.23E-08	0.00E+00	0.05	0.00	1.72E-04	3.84E-05	1.63E-04	2.03E-05	1.93E-05	4.12E-04
567660.72_4181230.45	567660.72	4181230.45	1.87E-04	3.87E-05	1.77E-04	2.16E-05	2.06E-05	4.45E-04	Lazear Charter Academy	0.00E+00	5.34E-08	0.00E+00	0.05	0.00	1.75E-04	3.87E-05	1.68E-04	2.06E-05	1.96E-05	4.22E-04
567680.72_4181230.45	567680.72	4181230.45	1.91E-04	3.92E-05	1.82E-04	2.20E-05	2.09E-05	4.55E-04	Lazear Charter Academy	0.00E+00	5.46E-08	0.00E+00	0.05	0.00	1.78E-04	3.92E-05	1.73E-04	2.09E-05	1.99E-05	4.31E-04
567700.72_4181230.45	567700.72	4181230.45	1.98E-04	3.95E-05	1.88E-04	2.23E-05	2.12E-05	4.69E-04	Lazear Charter Academy	0.00E+00	5.63E-08	0.00E+00	0.06	0.00	1.84E-04	3.95E-05	1.79E-04	2.12E-05	2.01E-05	4.44E-04
567720.72_4181230.45	567720.72	4181230.45	1.96E-04	3.96E-05	1.94E-04	2.27E-05	2.15E-05	4.73E-04	Lazear Charter Academy	0.00E+00	5.68E-08	0.00E+00	0.06	0.00	1.82E-04	3.96E-05	1.84E-04	2.16E-05	2.04E-05	4.48E-04
567640.72_4181250.45	567640.72	4181250.45	1.98E-04	3.99E-05	1.99E-04	2.30E-05	2.18E-05	4.82E-04	Lazear Charter Academy	0.00E+00	5.79E-08	0.00E+00	0.06	0.00	1.84E-04	3.99E-05	1.90E-04	2.19E-05	2.07E-05	4.57E-04
567660.72_4181250.45	567660.72	4181250.45	2.08E-04	4.10E-05	2.11E-04	2.37E-05	2.23E-05	5.06E-04	Lazear Charter Academy	0.00E+00	6.08E-08	0.00E+00	0.06	0.00	1.94E-04	4.10E-05	2.01E-04	2.26E-05	2.12E-05	4.79E-04
567680.72_4181250.45	567680.72	4181250.45	2.10E-04	4.14E-05	2.17E-04	2.41E-05	2.26E-05	5.15E-04	Lazear Charter Academy	0.00E+00	6.18E-08	0.00E+00	0.06	0.00	1.96E-04	4.14E-05	2.06E-04	2.29E-05	2.15E-05	4.88E-04
567700.72_4181250.45	567700.72	4181250.45	2.12E-04	4.18E-05	2.22E-04	2.45E-05	2.29E-05	5.24E-04	Lazear Charter Academy	0.00E+00	6.29E-08	0.00E+00	0.06	0.00	1.98E-04	4.18E-05	2.11E-04	2.33E-05	2.18E-05	4.96E-04
567720.72_4181250.45	567720.72	4181250.45	2.14E-04	4.21E-05	2.28E-04	2.48E-05	2.32E-05	5.32E-04	Lazear Charter Academy	0.00E+00	6.39E-08	0.00E+00	0.06	0.00	1.99E-04	4.21E-05	2.17E-04	2.36E-05	2.21E-05	5.04E-04
567640.72_4181270.45	567640.72	4181270.45	2.16E-04	4.22E-05	2.33E-04	2.52E-05	2.35E-05	5.40E-04	Lazear Charter Academy	0.00E+00	6.49E-08	0.00E+00	0.06	0.00	2.01E-04	4.22E-05	2.22E-04	2.40E-05	2.24E-05	5.12E-04
567660.72_4181270.45	567660.72	4181270.45	2.18E-04	4.24E-05	2.39E-04	2.56E-05	2.38E-05	5.48E-04	Lazear Charter Academy	0.00E+00	6.59E-08	0.00E+00	0.07	0.00	2.03E-04	4.24E-05	2.27E-04	2.44E-05	2.26E-05	5.19E-04
567680.72_4181270.45	567680.72	4181270.45	2.20E-04	4.23E-05	2.44E-04	2.60E-05	2.41E-05	5.56E-04	Lazear Charter Academy	0.00E+00	6.68E-08	0.00E+00	0.07	0.00	2.05E-04	4.23E-05	2.32E-04	2.47E-05	2.29E-05	5.27E-04
567700.72_4181270.45	567700.72	4181270.45	2.22E-04	4.23E-05	2.49E-04	2.64E-05	2.44E-05	5.64E-04	Lazear Charter Academy	0.00E+00	6.78E-08	0.00E+00	0.07	0.00	2.07E-04	4.23E-05	2.37E-04	2.51E-05	2.32E-05	5.34E-04
567720.72_4181270.45	567720.72	4181270.45	2.24E-04	4.22E-05	2.54E-04	2.68E-05	2.47E-05	5.72E-04	Lazear Charter Academy	0.00E+00	6.87E-08	0.00E+00	0.07	0.00	2.09E-04	4.22E-05	2.42E-04	2.55E-05	2.35E-05	5.42E-04
567660.72_4181290.45	567660.72	4181290.45	2.30E-04	4.22E-05	2.65E-04	2.75E-05	2.53E-05	5.90E-04	Lazear Charter Academy	0.00E+00	7.08E-08	0.00E+00	0.07	0.00	2.14E-04	4.22E-05	2.52E-04	2.62E-05	2.41E-05	5.59E-04
567680.72_4181290.45	567680.72	4181290.45	2.33E-04	4.22E-05	2.70E-04	2.79E-05	2.56E-05	5.99E-04	Lazear Charter Academy	0.00E+00	7.20E-08	0.00E+00	0.07	0.00	2.18E-04	4.22E-05	2.57E-04	2.66E-05	2.43E-05	5.68E-04
567700.72_4181290.45	567700.72	4181290.45	2.37E-04	4.21E-05	2.75E-04	2.83E-05	2.59E-05	6.09E-04	Lazear Charter Academy	0.00E+00	7.31E-08	0.00E+00	0.07	0.00	2.21E-04	4.21E-05	2.62E-04	2.69E-05	2.46E-05	5.77E-04
567720.72_4181290.45	567720.72	4181290.45	2.42E-04	4.20E-05	2.80E-04	2.87E-05	2.62E-05	6.19E-04	Lazear Charter Academy	0.00E+00	7.43E-08	0.00E+00	0.07	0.00	2.25E-04	4.20E-05	2.66E-04	2.73E-05	2.49E-05	5.86E-04
567700.58_4181192.03	567700.58	4181192.03	2.52E-04	4.17E-05	2.90E-04	2.94E-05	2.67E-05	6.40E-04	Lazear Charter Academy	0.00E+00	7.69E-08	0.00E+00	0.08	0.00	2.35E-04	4.17E-05	2.76E-04	2.80E-05	2.54E-05	6.06E-04
567681.2_4181312.49	567681.2	4181312.49	2.58E-04	4.17E-05	2.95E-04	2.98E-05	2.70E-05	6.51E-04	Lazear Charter Academy	0.00E+00	7.82E-08	0.00E+00	0.08	0.00	2.40E-04	4.17E-05	2.81E-04	2.84E-05	2.57E-05	6.17E-04

Diesel Particulate Matter concentration, C_{DPM} (µg/m^3) — Ascend Elementary School

Lookup	X (UTM)	Y (UTM	Annual O&M						Receptor Type
			Truck Idling + Equipment	Emergency Generator	Truck Route 1	Truck Route 2	Truck Route 3	Total	
568652.29_4180906.94	568652.29	4180906.94	2.64E-04	4.17E-05	3.00E-04	3.02E-05	2.73E-05	6.63E-04	Ascend Elementary
568672.29_4180906.94	568672.29	4180906.94	2.71E-04	4.18E-05	3.05E-04	3.05E-05	2.76E-05	6.75E-04	Ascend Elementary
568612.29_4180926.94	568612.29	4180926.94	2.85E-04	4.17E-05	3.15E-04	3.12E-05	2.81E-05	7.01E-04	Ascend Elementary
568632.29_4180926.94	568632.29	4180926.94	2.92E-04	4.18E-05	3.20E-04	3.16E-05	2.83E-05	7.14E-04	Ascend Elementary
568652.29_4180926.94	568652.29	4180926.94	2.99E-04	4.19E-05	3.25E-04	3.19E-05	2.86E-05	7.27E-04	Ascend Elementary
568672.29_4180926.94	568672.29	4180926.94	3.07E-04	4.21E-05	3.30E-04	3.22E-05	2.88E-05	7.40E-04	Ascend Elementary
568692.29_4180926.94	568692.29	4180926.94	3.15E-04	4.24E-05	3.35E-04	3.25E-05	2.90E-05	7.53E-04	Ascend Elementary
568592.29_4180946.94	568592.29	4180946.94	3.23E-04	4.26E-05	3.39E-04	3.28E-05	2.93E-05	7.67E-04	Ascend Elementary
568612.29_4180946.94	568612.29	4180946.94	3.32E-04	4.30E-05	3.44E-04	3.31E-05	2.95E-05	7.81E-04	Ascend Elementary
568632.29_4180946.94	568632.29	4180946.94	3.41E-04	4.35E-05	3.49E-04	3.34E-05	2.97E-05	7.96E-04	Ascend Elementary
568652.29_4180946.94	568652.29	4180946.94	1.74E-04	3.82E-05	1.45E-04	2.00E-05	1.93E-05	3.97E-04	Ascend Elementary
568672.29_4180946.94	568672.29	4180946.94	1.78E-04	3.86E-05	1.50E-04	2.04E-05	1.96E-05	4.07E-04	Ascend Elementary
568612.29_4180966.94	568612.29	4180966.94	1.82E-04	3.90E-05	1.56E-04	2.07E-05	1.99E-05	4.18E-04	Ascend Elementary
568632.29_4180966.94	568632.29	4180966.94	1.86E-04	3.94E-05	1.62E-04	2.10E-05	2.02E-05	4.28E-04	Ascend Elementary

Risk Calculation Part 2 — HI

$\sum R1*C_{DPM}$				C_{DPM}/REL
0<2	2<16	2<16	Total	
0.00E+00	7.97E-08	0.00E+00	0.08	0.00
0.00E+00	8.11E-08	0.00E+00	0.08	0.00
0.00E+00	8.42E-08	0.00E+00	0.08	0.00
0.00E+00	8.57E-08	0.00E+00	0.09	0.00
0.00E+00	8.73E-08	0.00E+00	0.09	0.00
0.00E+00	8.89E-08	0.00E+00	0.09	0.00
0.00E+00	9.05E-08	0.00E+00	0.09	0.00
0.00E+00	9.21E-08	0.00E+00	0.09	0.00
0.00E+00	9.39E-08	0.00E+00	0.09	0.00
0.00E+00	9.56E-08	0.00E+00	0.10	0.00
0.00E+00	4.77E-08	0.00E+00	0.05	0.00
0.00E+00	4.89E-08	0.00E+00	0.05	0.00
0.00E+00	5.02E-08	0.00E+00	0.05	0.00
0.00E+00	5.15E-08	0.00E+00	0.05	0.00

$PM_{2.5}$

Annual O&M					
Truck Idling + Equipment	Emergency Generator	Truck Route 1	Truck Route 2	Truck Route 3	Total
2.46E-04	4.17E-05	2.85E-04	2.87E-05	2.60E-05	6.28E-04
2.52E-04	4.18E-05	2.90E-04	2.91E-05	2.62E-05	6.39E-04
2.66E-04	4.17E-05	3.00E-04	2.97E-05	2.67E-05	6.63E-04
2.72E-04	4.18E-05	3.04E-04	3.00E-05	2.69E-05	6.75E-04
2.79E-04	4.19E-05	3.09E-04	3.03E-05	2.72E-05	6.88E-04
2.86E-04	4.21E-05	3.14E-04	3.06E-05	2.74E-05	7.00E-04
2.93E-04	4.24E-05	3.18E-04	3.09E-05	2.76E-05	7.13E-04
3.01E-04	4.26E-05	3.23E-04	3.12E-05	2.78E-05	7.26E-04
3.09E-04	4.30E-05	3.28E-04	3.15E-05	2.81E-05	7.39E-04
3.18E-04	4.35E-05	3.32E-04	3.18E-05	2.83E-05	7.53E-04
1.63E-04	3.82E-05	1.38E-04	1.91E-05	1.84E-05	3.76E-04
1.66E-04	3.86E-05	1.43E-04	1.94E-05	1.86E-05	3.86E-04
1.70E-04	3.90E-05	1.48E-04	1.97E-05	1.89E-05	3.96E-04
1.73E-04	3.94E-05	1.54E-04	2.00E-05	1.92E-05	4.06E-04

Diesel Particulate Matter concentration, C_{DPM} (µg/m^3) — Arise High School

Lookup	X (UTM)	Y (UTM	Annual O&M						Receptor Type
			Truck Idling + Equipment	Emergency Generator	Truck Route 1	Truck Route 2	Truck Route 3	Total	
568312.29_4181226.94	568312.29	4181226.94	1.89E-04	3.95E-05	1.68E-04	2.14E-05	2.05E-05	4.38E-04	Arise High School
568332.29_4181226.94	568332.29	4181226.94	1.93E-04	3.99E-05	1.74E-04	2.17E-05	2.08E-05	4.49E-04	Arise High School
568312.29_4181246.94	568312.29	4181246.94	1.97E-04	4.04E-05	1.80E-04	2.21E-05	2.11E-05	4.60E-04	Arise High School

Risk Calculation Part 2 — HI

$\sum R1*C_{DPM}$				C_{DPM}/REL
0<2	2<16	2<16	Total	
0.00E+00	1.05E-08	1.62E-09	0.01	0.00
0.00E+00	1.08E-08	1.66E-09	0.01	0.00
0.00E+00	1.11E-08	1.70E-09	0.01	0.00

$PM_{2.5}$

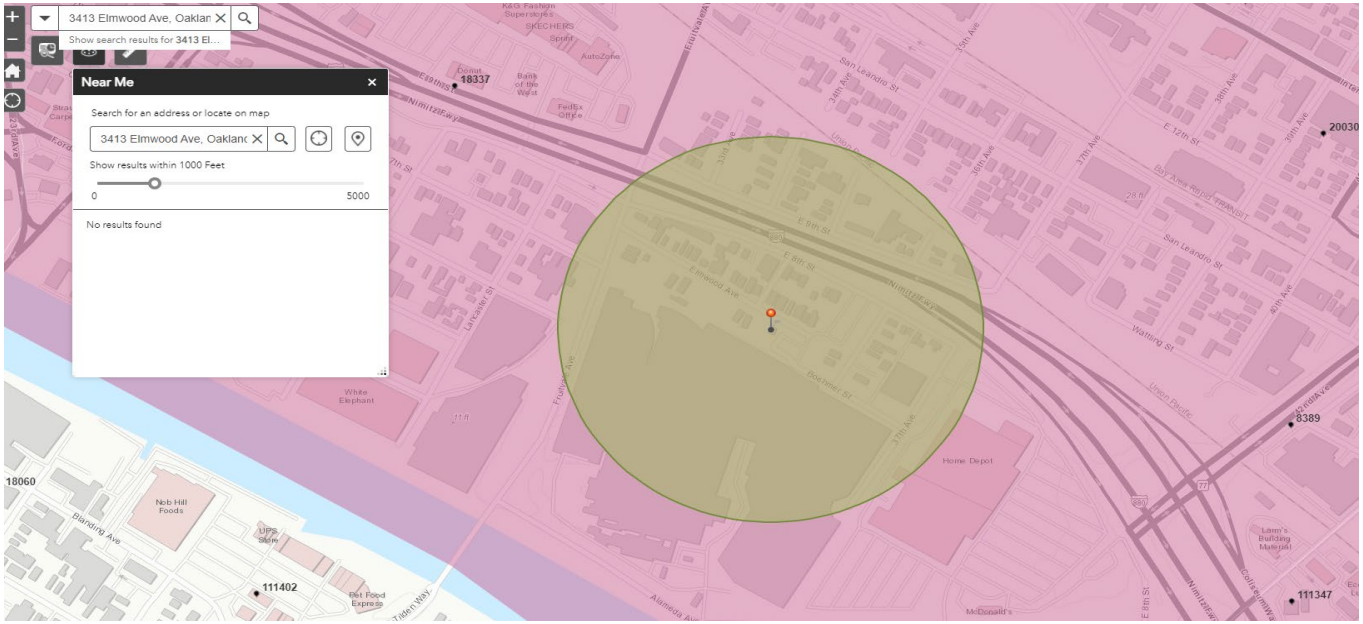
Annual O&M					
Truck Idling + Equipment	Emergency Generator	Truck Route 1	Truck Route 2	Truck Route 3	Total
1.76E-04	3.95E-05	1.60E-04	2.03E-05	1.95E-05	4.15E-04
1.80E-04	3.99E-05	1.65E-04	2.07E-05	1.98E-05	4.26E-04
1.83E-04	4.04E-05	1.71E-04	2.10E-05	2.00E-05	4.36E-04

CUMULATIVE SCREENING ANALYSIS - MEIR at 3413 Elmwood Avenue

				Screening Risk			Exposure to MEIR			
BAAQMD Plant #	**Name of Source**	**Address**	**Source Type**	**Cancer Risk**	**HI**	**$PM_{2.5}$**	**Distance to Project Receptor (feet)**	**Adjusted Cancer Risk**	**Adjusted HI**	**Adjusted $PM_{2.5}$**
BAAQMD Permitted Stationary Sources within 1,000 feet[1]										
15894	The Home Depot #1007	4000 Alameda Avenue Oakland	Generators	1.63	0	0	330	0.36	0.0E+00	0.0E+00
Proposed Projects within 1,000 feet[2]										
None										
Proposed Project										
	Construction							4.72	1.3E-02	1.1E-02
	Operation							2.60	8.8E-04	0.0E+00
Mobile Sources within 1,000 feet[3]										
	Highways							40.5	--	0.616
	Rail							11.0	--	0.015
	Major Roadways							3.3	--	0.041
						Cumulative Health Risks		**62.5**	**0.014**	**0.683**
						City of Oakland Significance Thresholds		100	10	0.8

NOTES:

1. Health risk screening values obtained from BAAQMD's Permitted Stationary Sources Risk and Hazards web tool at https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65.
2. Based on Oakland Planning Bureau/Major Projects List - Q1 2021 available at https://oakgis.maps.arcgis.com/apps/webappviewer/index.html?id=e1357dbaeffc473caa57b1227a7a7739.
3. Data from BAAQMD GIS database for health risks from mobile sources.



But analysis assumed it at the Home Depot location next door
Assumed Home Depot Generator to be within 1,000 feet of MEIR

3600 Alameda Avenue

Summary of AERMOD Source Outputs for All Offsite Receptors

X	Y	Lookup	PAREA1 Construction	PAREA2	STCK1	ARLN1 Operation	ARLN2	ARLN3
567412.29	4179946.94	567412.29_4179946.94	0.10986	0.13794	0.61142	1.76748	1.10247	1.04096
567432.29	4179946.94	567432.29_4179946.94	0.11217	0.14076	0.61626	1.83104	1.12032	1.05602
567472.29	4179946.94	567472.29_4179946.94	0.11677	0.14621	0.62412	1.96246	1.15653	1.08634
567492.29	4179946.94	567492.29_4179946.94	0.11907	0.14893	0.62878	2.03029	1.17495	1.1015
567512.29	4179946.94	567512.29_4179946.94	0.12133	0.15148	0.63233	2.09889	1.19322	1.11685
567532.29	4179946.94	567532.29_4179946.94	0.1236	0.1541	0.63796	2.16876	1.21207	1.13228
567552.29	4179946.94	567552.29_4179946.94	0.12584	0.15671	0.64502	2.23926	1.23115	1.1477
567572.29	4179946.94	567572.29_4179946.94	0.12801	0.16253	0.65115	2.31003	1.25045	1.16328
567592.29	4179946.94	567592.29_4179946.94	0.13005	0.16086	0.65306	2.37983	1.2699	1.1792
567612.29	4179946.94	567612.29_4179946.94	0.13206	0.16267	0.65742	2.45009	1.28962	1.1951
567652.29	4179946.94	567652.29_4179946.94	0.13597	0.17089	0.67612	2.59168	1.32993	1.2256
567672.29	4179946.94	567672.29_4179946.94	0.13776	0.17266	0.68241	2.66112	1.35043	1.24171
567692.29	4179946.94	567692.29_4179946.94	0.13947	0.17437	0.68918	2.73014	1.37111	1.25785
567712.29	4179946.94	567712.29_4179946.94	0.14109	0.17592	0.69288	2.798	1.39204	1.27416
567732.29	4179946.94	567732.29_4179946.94	0.14262	0.17745	0.69574	2.86517	1.41316	1.29054
567752.29	4179946.94	567752.29_4179946.94	0.14403	0.17905	0.69871	2.93179	1.43443	1.30686
567772.29	4179946.94	567772.29_4179946.94	0.14546	0.18061	0.69757	2.9972	1.45592	1.3234
567792.29	4179946.94	567792.29_4179946.94	0.1468	0.18233	0.69644	3.0621	1.47746	1.33987
567812.29	4179946.94	567812.29_4179946.94	0.14809	0.18426	0.6955	3.12645	1.49917	1.35634
567852.29	4179946.94	567852.29_4179946.94	0.15061	0.18897	0.69512	3.25374	1.54259	1.38904
567872.29	4179946.94	567872.29_4179946.94	0.15183	0.19189	0.69605	3.31717	1.56419	1.40508
567892.29	4179946.94	567892.29_4179946.94	0.15319	0.19515	0.69406	3.37945	1.58575	1.42116
567912.29	4179946.94	567912.29_4179946.94	0.1548	0.19865	0.69179	3.44108	1.60736	1.43736
567952.29	4179946.94	567952.29_4179946.94	0.15824	0.20718	0.68773	3.56394	1.64965	1.46864
567972.29	4179946.94	567972.29_4179946.94	0.1603	0.21198	0.68698	3.62478	1.67042	1.48393
567992.29	4179946.94	567992.29_4179946.94	0.16267	0.21705	0.68712	3.68539	1.69088	1.49912
568012.29	4179946.94	568012.29_4179946.94	0.16527	0.22245	0.68805	3.74598	1.71098	1.5139
568052.29	4179946.94	568052.29_4179946.94	0.17102	0.23417	0.68713	3.86874	1.74928	1.54166
568072.29	4179946.94	568072.29_4179946.94	0.17463	0.24003	0.6893	3.92933	1.76805	1.5557
568092.29	4179946.94	568092.29_4179946.94	0.17848	0.24611	0.69061	3.99028	1.78622	1.5692
568112.29	4179946.94	568112.29_4179946.94	0.18268	0.25233	0.69313	4.05081	1.80393	1.58243
568132.29	4179946.94	568132.29_4179946.94	0.18727	0.25873	0.69774	4.11108	1.8212	1.59547
568152.29	4179946.94	568152.29_4179946.94	0.19204	0.26553	0.70155	4.17087	1.8378	1.60794
568172.29	4179946.94	568172.29_4179946.94	0.19723	0.27263	0.70805	4.2297	1.85406	1.62036
568192.29	4179946.94	568192.29_4179946.94	0.20278	0.28013	0.71634	4.28686	1.86995	1.63269
567412.29	4179966.94	567412.29_4179966.94	0.11363	0.14332	0.62977	1.78066	1.12215	1.0605
567432.29	4179966.94	567432.29_4179966.94	0.11614	0.14642	0.63533	1.84791	1.14091	1.07641
567452.29	4179966.94	567452.29_4179966.94	0.1187	0.14967	0.6426	1.9175	1.1599	1.09227
567472.29	4179966.94	567472.29_4179966.94	0.12125	0.15281	0.64874	1.98873	1.17885	1.10832
567492.29	4179966.94	567492.29_4179966.94	0.12375	0.1556	0.65114	2.06101	1.19816	1.12453
567512.29	4179966.94	567512.29_4179966.94	0.12628	0.15863	0.65696	2.13552	1.21783	1.14078
567532.29	4179966.94	567532.29_4179966.94	0.12883	0.16179	0.66536	2.21174	1.23775	1.15704
567552.29	4179966.94	567552.29_4179966.94	0.1313	0.16799	0.67087	2.2884	1.25789	1.17353
567572.29	4179966.94	567572.29_4179966.94	0.13368	0.16698	0.67429	2.36537	1.2783	1.19028
567592.29	4179966.94	567592.29_4179966.94	0.13601	0.16925	0.67848	2.4429	1.29895	1.20716
567612.29	4179966.94	567612.29_4179966.94	0.13832	0.17159	0.68556	2.5212	1.31995	1.22404
567632.29	4179966.94	567632.29_4179966.94	0.1406	0.17832	0.69648	2.60037	1.34131	1.23973
567652.29	4179966.94	567652.29_4179966.94	0.14274	0.1807	0.70797	2.67937	1.36289	1.25671
567672.29	4179966.94	567672.29_4179966.94	0.14479	0.18265	0.71243	2.7568	1.3848	1.27412
567692.29	4179966.94	567692.29_4179966.94	0.14675	0.18466	0.72079	2.83456	1.40697	1.29148
567712.29	4179966.94	567712.29_4179966.94	0.14863	0.18645	0.72543	2.91122	1.42945	1.30907
567732.29	4179966.94	567732.29_4179966.94	0.15034	0.18835	0.73234	2.9879	1.4522	1.32662
567752.29	4179966.94	567752.29_4179966.94	0.15204	0.19006	0.73384	3.06319	1.4752	1.34442
567772.29	4179966.94	567772.29_4179966.94	0.1537	0.19175	0.73242	3.13757	1.49849	1.36241
567792.29	4179966.94	567792.29_4179966.94	0.15525	0.19362	0.73128	3.2116	1.52192	1.38036
567812.29	4179966.94	567812.29_4179966.94	0.15663	0.19584	0.73269	3.28599	1.54559	1.39818
567832.29	4179966.94	567832.29_4179966.94	0.15806	0.19818	0.7318	3.35913	1.56931	1.41611
567852.29	4179966.94	567852.29_4179966.94	0.15947	0.20084	0.73127	3.43212	1.59324	1.43406
567872.29	4179966.94	567872.29_4179966.94	0.16095	0.2038	0.72979	3.50427	1.61713	1.45198
567892.29	4179966.94	567892.29_4179966.94	0.16236	0.20733	0.72922	3.57679	1.64106	1.46965
567912.29	4179966.94	567912.29_4179966.94	0.164	0.21117	0.72652	3.64839	1.66495	1.48736

567932.29	4179966.94	567932.29_4179966.94	0.16588	0.21537	0.72368	3.71939	1.68886	1.50516
567952.29	4179966.94	567952.29_4179966.94	0.16777	0.22022	0.72127	3.79097	1.71247	1.5224
567972.29	4179966.94	567972.29_4179966.94	0.17015	0.22524	0.71984	3.86139	1.73604	1.53987
567992.29	4179966.94	567992.29_4179966.94	0.17251	0.23094	0.71958	3.93296	1.75914	1.5566
568032.29	4179966.94	568032.29_4179966.94	0.17833	0.24313	0.71943	4.07573	1.80422	1.58928
568052.29	4179966.94	568052.29_4179966.94	0.18186	0.24948	0.72031	4.14682	1.82632	1.60543
568072.29	4179966.94	568072.29_4179966.94	0.18584	0.25597	0.72226	4.2179	1.84807	1.62138
568092.29	4179966.94	568092.29_4179966.94	0.19025	0.26259	0.72345	4.28844	1.86933	1.63707
568112.29	4179966.94	568112.29_4179966.94	0.19475	0.2697	0.72548	4.35987	1.88969	1.65181
568132.29	4179966.94	568132.29_4179966.94	0.19943	0.27723	0.72435	4.43089	1.90912	1.66576
568172.29	4179966.94	568172.29_4179966.94	0.21098	0.29256	0.7401	4.56636	1.94782	1.69501
568192.29	4179966.94	568192.29_4179966.94	0.21655	0.30161	0.74109	4.6333	1.96519	1.70744
567412.29	4179986.94	567412.29_4179986.94	0.11748	0.14879	0.64761	1.79011	1.14182	1.08009
567432.29	4179986.94	567432.29_4179986.94	0.12022	0.15219	0.65401	1.8608	1.16149	1.09686
567452.29	4179986.94	567452.29_4179986.94	0.12301	0.15571	0.66158	1.93427	1.18144	1.11375
567492.29	4179986.94	567492.29_4179986.94	0.12863	0.16271	0.67625	2.0882	1.22185	1.14772
567512.29	4179986.94	567512.29_4179986.94	0.13145	0.16618	0.68374	2.16839	1.24257	1.16491
567532.29	4179986.94	567532.29_4179986.94	0.1342	0.16924	0.68748	2.24972	1.2635	1.18235
567552.29	4179986.94	567552.29_4179986.94	0.13697	0.17249	0.69456	2.33335	1.2848	1.19984
567572.29	4179986.94	567572.29_4179986.94	0.13975	0.17962	0.70607	2.419	1.30645	1.21628
567592.29	4179986.94	567592.29_4179986.94	0.14237	0.18255	0.70927	2.504	1.32833	1.23532
567612.29	4179986.94	567612.29_4179986.94	0.14498	0.18552	0.71746	2.59068	1.3506	1.25328
567632.29	4179986.94	567632.29_4179986.94	0.1475	0.1883	0.72558	2.67766	1.37323	1.27153
567652.29	4179986.94	567652.29_4179986.94	0.14997	0.19114	0.73905	2.76604	1.3962	1.28842
567672.29	4179986.94	567672.29_4179986.94	0.15232	0.19361	0.74841	2.85359	1.41957	1.30691
567692.29	4179986.94	567692.29_4179986.94	0.15457	0.19588	0.75611	2.94053	1.44327	1.32562
567712.29	4179986.94	567712.29_4179986.94	0.15673	0.19804	0.76348	3.02742	1.46734	1.34447
567732.29	4179986.94	567732.29_4179986.94	0.15877	0.2001	0.76904	3.11366	1.49179	1.36352
567752.29	4179986.94	567752.29_4179986.94	0.16061	0.20225	0.77539	3.2001	1.51652	1.38254
567772.29	4179986.94	567772.29_4179986.94	0.16249	0.20424	0.77609	3.28503	1.54166	1.40193
567792.29	4179986.94	567792.29_4179986.94	0.16417	0.20645	0.77782	3.37016	1.56703	1.42124
567812.29	4179986.94	567812.29_4179986.94	0.16587	0.20871	0.77611	3.45435	1.59274	1.44082
567832.29	4179986.94	567832.29_4179986.94	0.16748	0.21125	0.77504	3.53842	1.61864	1.46035
567852.29	4179986.94	567852.29_4179986.94	0.16913	0.21403	0.77258	3.62189	1.64482	1.4801
567872.29	4179986.94	567872.29_4179986.94	0.17084	0.21713	0.76966	3.70483	1.67116	1.49987
567892.29	4179986.94	567892.29_4179986.94	0.17255	0.22073	0.76774	3.78792	1.69764	1.51961
567912.29	4179986.94	567912.29_4179986.94	0.17436	0.2248	0.76515	3.87078	1.72414	1.53923
567932.29	4179986.94	567932.29_4179986.94	0.17629	0.2294	0.76173	3.95378	1.75071	1.55881
567952.29	4179986.94	567952.29_4179986.94	0.1785	0.23445	0.7586	4.03637	1.77722	1.57829
567972.29	4179986.94	567972.29_4179986.94	0.18077	0.24018	0.75642	4.11988	1.80351	1.59731
568012.29	4179986.94	568012.29_4179986.94	0.18645	0.25276	0.75513	4.28674	1.85557	1.63494
568032.29	4179986.94	568032.29_4179986.94	0.19006	0.25938	0.75595	4.36963	1.88148	1.65385
568052.29	4179986.94	568052.29_4179986.94	0.1939	0.26645	0.75649	4.45357	1.90682	1.67208
568072.29	4179986.94	568072.29_4179986.94	0.19804	0.27388	0.75552	4.5379	1.93153	1.68968
568092.29	4179986.94	568092.29_4179986.94	0.203	0.28122	0.75768	4.62085	1.95622	1.70774
568112.29	4179986.94	568112.29_4179986.94	0.20778	0.28939	0.75625	4.70521	1.97959	1.72419
568132.29	4179986.94	568132.29_4179986.94	0.21369	0.29732	0.76255	4.78636	2.00324	1.7417
568152.29	4179986.94	568152.29_4179986.94	0.21946	0.30618	0.76455	4.86776	2.02549	1.75756
568172.29	4179986.94	568172.29_4179986.94	0.22606	0.31524	0.77222	4.94559	2.04755	1.7738
568192.29	4179986.94	568192.29_4179986.94	0.23046	0.32667	0.75729	5.00957	2.06301	1.78352
567412.29	4180006.94	567412.29_4180006.94	0.12143	0.15449	0.66694	1.79612	1.16153	1.09977
567432.29	4180006.94	567432.29_4180006.94	0.12454	0.1589	0.68241	1.87142	1.18219	1.1173
567452.29	4180006.94	567452.29_4180006.94	0.12752	0.16239	0.68618	1.9479	1.20301	1.13517
567472.29	4180006.94	567472.29_4180006.94	0.1306	0.16628	0.69483	2.02813	1.2242	1.15307
567492.29	4180006.94	567492.29_4180006.94	0.13367	0.17	0.70129	2.1108	1.24564	1.17113
567512.29	4180006.94	567512.29_4180006.94	0.13675	0.17366	0.70746	2.19613	1.2674	1.1894
567532.29	4180006.94	567532.29_4180006.94	0.13985	0.17738	0.71478	2.28412	1.2895	1.20778
567552.29	4180006.94	567552.29_4180006.94	0.14294	0.18104	0.7224	2.37455	1.31194	1.22634
567572.29	4180006.94	567572.29_4180006.94	0.14605	0.18877	0.73357	2.4676	1.3348	1.24491
567592.29	4180006.94	567592.29_4180006.94	0.14907	0.19244	0.74299	2.56186	1.35796	1.26277
567612.29	4180006.94	567612.29_4180006.94	0.15199	0.19576	0.74873	2.6567	1.38152	1.28309
567632.29	4180006.94	567632.29_4180006.94	0.15489	0.19915	0.76045	2.75362	1.40553	1.3012
567652.29	4180006.94	567652.29_4180006.94	0.15767	0.20229	0.77131	2.85104	1.4299	1.32068
567692.29	4180006.94	567692.29_4180006.94	0.16297	0.20805	0.79426	3.04727	1.48002	1.36033
567712.29	4180006.94	567712.29_4180006.94	0.16544	0.21065	0.80413	3.14544	1.5057	1.3805
567732.29	4180006.94	567732.29_4180006.94	0.16775	0.21315	0.81283	3.24344	1.53188	1.4009
567752.29	4180006.94	567752.29_4180006.94	0.16994	0.21559	0.81981	3.34112	1.55843	1.42143

567772.29	4180006.94	567772.29_4180006.94	0.17209	0.2179	0.82231	3.43822	1.58547	1.44232
567792.29	4180006.94	567792.29_4180006.94	0.17417	0.22023	0.82186	3.53457	1.61292	1.46342
567812.29	4180006.94	567812.29_4180006.94	0.17593	0.22299	0.82506	3.63215	1.64059	1.48429
567832.29	4180006.94	567832.29_4180006.94	0.17783	0.2257	0.82224	3.72808	1.66881	1.50565
567852.29	4180006.94	567852.29_4180006.94	0.1796	0.22882	0.81874	3.82456	1.69719	1.52695
567872.29	4180006.94	567872.29_4180006.94	0.18178	0.23187	0.81283	3.91899	1.72629	1.54908
567892.29	4180006.94	567892.29_4180006.94	0.18367	0.23573	0.81076	4.01515	1.7553	1.57069
567912.29	4180006.94	567912.29_4180006.94	0.18577	0.23998	0.8064	4.11064	1.78468	1.5925
567932.29	4180006.94	567932.29_4180006.94	0.18792	0.24489	0.80331	4.20688	1.81409	1.61419
567952.29	4180006.94	567952.29_4180006.94	0.19008	0.25058	0.8001	4.3043	1.84347	1.63538
567992.29	4180006.94	567992.29_4180006.94	0.19562	0.26324	0.79529	4.49872	1.90248	1.67818
568012.29	4180006.94	568012.29_4180006.94	0.19903	0.27025	0.79478	4.59626	1.93198	1.69944
568032.29	4180006.94	568032.29_4180006.94	0.20282	0.27772	0.79479	4.69475	1.96121	1.72044
568052.29	4180006.94	568052.29_4180006.94	0.20723	0.28541	0.79489	4.79295	1.99032	1.74141
568072.29	4180006.94	568072.29_4180006.94	0.21194	0.29361	0.79499	4.89221	2.01891	1.76173
568092.29	4180006.94	568092.29_4180006.94	0.21702	0.30225	0.79447	4.99166	2.04696	1.78155
568112.29	4180006.94	568112.29_4180006.94	0.22307	0.31085	0.79682	5.08881	2.075	1.80179
568152.29	4180006.94	568152.29_4180006.94	0.23597	0.33016	0.80396	5.28079	2.1284	1.83957
568172.29	4180006.94	568172.29_4180006.94	0.24299	0.3409	0.80764	5.37305	2.15375	1.85734
567412.29	4180026.94	567412.29_4180026.94	0.12545	0.1603	0.68622	1.79852	1.18119	1.11949
567432.29	4180026.94	567432.29_4180026.94	0.1288	0.16493	0.70096	1.87646	1.20286	1.13802
567452.29	4180026.94	567452.29_4180026.94	0.13212	0.1691	0.70966	1.95695	1.22477	1.15677
567472.29	4180026.94	567472.29_4180026.94	0.13547	0.17328	0.71802	2.04094	1.24699	1.17569
567492.29	4180026.94	567492.29_4180026.94	0.13889	0.17765	0.72828	2.12882	1.26956	1.19472
567512.29	4180026.94	567512.29_4180026.94	0.14232	0.18185	0.73665	2.2198	1.29246	1.214
567532.29	4180026.94	567532.29_4180026.94	0.14577	0.18608	0.74551	2.31406	1.31571	1.23342
567552.29	4180026.94	567552.29_4180026.94	0.14923	0.19411	0.75517	2.41156	1.33936	1.25302
567572.29	4180026.94	567572.29_4180026.94	0.15268	0.19848	0.76512	2.51188	1.36342	1.27282
567592.29	4180026.94	567592.29_4180026.94	0.15609	0.20285	0.77813	2.61526	1.38786	1.29175
567612.29	4180026.94	567612.29_4180026.94	0.15943	0.20684	0.78638	2.71972	1.41278	1.31208
567632.29	4180026.94	567632.29_4180026.94	0.1627	0.21071	0.79708	2.82627	1.43816	1.3326
567652.29	4180026.94	567652.29_4180026.94	0.1659	0.2145	0.81059	2.93475	1.46398	1.35326
567672.29	4180026.94	567672.29_4180026.94	0.16899	0.21799	0.82295	3.04399	1.49036	1.37432
567692.29	4180026.94	567692.29_4180026.94	0.17188	0.22143	0.83848	3.15463	1.51719	1.39544
567712.29	4180026.94	567712.29_4180026.94	0.17476	0.22447	0.84937	3.26488	1.54456	1.41708
567732.29	4180026.94	567732.29_4180026.94	0.17745	0.22743	0.86028	3.37585	1.57251	1.43893
567752.29	4180026.94	567752.29_4180026.94	0.18006	0.23022	0.86793	3.48649	1.60093	1.46106
567772.29	4180026.94	567772.29_4180026.94	0.18251	0.23299	0.87356	3.59729	1.6299	1.48346
567792.29	4180026.94	567792.29_4180026.94	0.18494	0.23565	0.8741	3.70747	1.65945	1.50622
567812.29	4180026.94	567812.29_4180026.94	0.18714	0.23859	0.87494	3.81818	1.68938	1.529
567832.29	4180026.94	567832.29_4180026.94	0.18918	0.24178	0.87342	3.92927	1.71977	1.55189
567852.29	4180026.94	567852.29_4180026.94	0.19129	0.24512	0.86883	4.03967	1.75067	1.57513
567872.29	4180026.94	567872.29_4180026.94	0.19374	0.24845	0.86339	4.14904	1.78233	1.59926
567892.29	4180026.94	567892.29_4180026.94	0.19589	0.2526	0.86005	4.2598	1.81411	1.62288
567912.29	4180026.94	567912.29_4180026.94	0.19832	0.25706	0.85402	4.37027	1.84642	1.64703
567972.29	4180026.94	567972.29_4180026.94	0.20604	0.27494	0.84208	4.70841	1.94443	1.7185
567992.29	4180026.94	567992.29_4180026.94	0.20934	0.28206	0.83939	4.82226	1.97757	1.74239
568012.29	4180026.94	568012.29_4180026.94	0.21308	0.28976	0.83812	4.93724	2.01072	1.76629
568032.29	4180026.94	568032.29_4180026.94	0.21734	0.29795	0.83758	5.05288	2.0439	1.79003
568052.29	4180026.94	568052.29_4180026.94	0.22199	0.30675	0.83724	5.17005	2.07689	1.81334
568072.29	4180026.94	568072.29_4180026.94	0.22724	0.31595	0.83682	5.28745	2.10968	1.83649
568092.29	4180026.94	568092.29_4180026.94	0.23332	0.32535	0.83693	5.40395	2.1424	1.85974
568112.29	4180026.94	568112.29_4180026.94	0.23968	0.33553	0.83798	5.52085	2.17442	1.88204
568132.29	4180026.94	568132.29_4180026.94	0.24668	0.34623	0.84059	5.63582	2.20593	1.90405
568152.29	4180026.94	568152.29_4180026.94	0.25412	0.35775	0.8428	5.7483	2.23661	1.92527
568172.29	4180026.94	568172.29_4180026.94	0.261	0.37089	0.83795	5.85524	2.26421	1.94355
567412.29	4180046.94	567412.29_4180046.94	0.12965	0.1668	0.71302	1.79834	1.20089	1.13911
567432.29	4180046.94	567432.29_4180046.94	0.1332	0.1714	0.72372	1.87799	1.22357	1.15869
567452.29	4180046.94	567452.29_4180046.94	0.13678	0.17581	0.73139	1.96127	1.24652	1.17852
567472.29	4180046.94	567472.29_4180046.94	0.14045	0.18041	0.74104	2.049	1.26983	1.19848
567492.29	4180046.94	567492.29_4180046.94	0.14425	0.18541	0.75453	2.14158	1.29357	1.21854
567532.29	4180046.94	567532.29_4180046.94	0.1519	0.19509	0.77718	2.33844	1.34209	1.25935
567552.29	4180046.94	567552.29_4180046.94	0.15574	0.1998	0.78734	2.44265	1.36696	1.28013
567572.29	4180046.94	567572.29_4180046.94	0.15962	0.2087	0.7995	2.55097	1.39231	1.30023
567592.29	4180046.94	567592.29_4180046.94	0.16346	0.2136	0.81073	2.66237	1.41808	1.32138
567612.29	4180046.94	567612.29_4180046.94	0.16726	0.21857	0.82667	2.77793	1.44433	1.34262
567632.29	4180046.94	567632.29_4180046.94	0.17098	0.22301	0.83591	2.89462	1.47118	1.36451

567652.29	4180046.94	567652.29_4180046.94	0.17464	0.22752	0.85152	3.01474	1.49847	1.38641
567672.29	4180046.94	567672.29_4180046.94	0.17812	0.23179	0.86759	3.13681	1.52637	1.40869
567692.29	4180046.94	567692.29_4180046.94	0.18151	0.23577	0.88282	3.26006	1.55488	1.43133
567712.29	4180046.94	567712.29_4180046.94	0.18487	0.23939	0.89553	3.38405	1.58397	1.45444
567732.29	4180046.94	567732.29_4180046.94	0.18808	0.24286	0.90781	3.50902	1.61374	1.47789
567752.29	4180046.94	567752.29_4180046.94	0.19093	0.24644	0.92249	3.63578	1.644	1.50127
567772.29	4180046.94	567772.29_4180046.94	0.19399	0.24948	0.92665	3.76107	1.67506	1.52561
567792.29	4180046.94	567792.29_4180046.94	0.19675	0.25269	0.93065	3.88753	1.7067	1.54995
567812.29	4180046.94	567812.29_4180046.94	0.19934	0.25604	0.9322	4.01438	1.7389	1.57451
567832.29	4180046.94	567832.29_4180046.94	0.20178	0.25958	0.93008	4.14173	1.77166	1.59934
567852.29	4180046.94	567852.29_4180046.94	0.20433	0.26318	0.92466	4.26859	1.80523	1.6247
567872.29	4180046.94	567872.29_4180046.94	0.20705	0.26692	0.91816	4.39508	1.83943	1.65074
567892.29	4180046.94	567892.29_4180046.94	0.20974	0.27117	0.91112	4.52229	1.87426	1.67685
567932.29	4180046.94	567932.29_4180046.94	0.21489	0.28197	0.90276	4.78158	1.94506	1.72905
567952.29	4180046.94	567952.29_4180046.94	0.2179	0.28823	0.89688	4.9121	1.98121	1.75565
567972.29	4180046.94	567972.29_4180046.94	0.22114	0.29529	0.89184	5.04441	2.01778	1.78216
567992.29	4180046.94	567992.29_4180046.94	0.22463	0.30325	0.88801	5.17887	2.05454	1.80858
568012.29	4180046.94	568012.29_4180046.94	0.22885	0.31164	0.88569	5.31378	2.09178	1.83536
568032.29	4180046.94	568032.29_4180046.94	0.23347	0.32085	0.88425	5.45096	2.1291	1.86183
568052.29	4180046.94	568052.29_4180046.94	0.23859	0.33076	0.88337	5.59002	2.16639	1.88809
568072.29	4180046.94	568072.29_4180046.94	0.24464	0.34097	0.88242	5.72883	2.2039	1.91454
568092.29	4180046.94	568092.29_4180046.94	0.25147	0.35166	0.88194	5.86733	2.24139	1.9409
568132.29	4180046.94	568132.29_4180046.94	0.26689	0.37534	0.88503	6.1419	2.31526	1.99223
568152.29	4180046.94	568152.29_4180046.94	0.27483	0.38914	0.8862	6.27761	2.35069	2.01584
567412.29	4180066.94	567412.29_4180066.94	0.13377	0.1728	0.73244	1.79347	1.22045	1.15881
567432.29	4180066.94	567432.29_4180066.94	0.13759	0.17761	0.74185	1.87487	1.2442	1.17951
567452.29	4180066.94	567452.29_4180066.94	0.14156	0.1828	0.7551	1.96147	1.26833	1.20032
567472.29	4180066.94	567472.29_4180066.94	0.14563	0.18816	0.76941	2.05305	1.29283	1.2213
567492.29	4180066.94	567492.29_4180066.94	0.14976	0.19348	0.78234	2.14928	1.31769	1.24252
567512.29	4180066.94	567512.29_4180066.94	0.15397	0.19895	0.7964	2.25062	1.34297	1.26393
567552.29	4180066.94	567552.29_4180066.94	0.16255	0.21374	0.82404	2.46814	1.39482	1.30743
567572.29	4180066.94	567572.29_4180066.94	0.16688	0.21947	0.83739	2.58407	1.42147	1.32887
567592.29	4180066.94	567592.29_4180066.94	0.1712	0.2251	0.84998	2.70433	1.44861	1.35127
567612.29	4180066.94	567612.29_4180066.94	0.1755	0.23083	0.86678	2.82969	1.47627	1.37378
567632.29	4180066.94	567632.29_4180066.94	0.17973	0.23627	0.88132	2.95827	1.50455	1.39676
567652.29	4180066.94	567652.29_4180066.94	0.18394	0.24136	0.89392	3.08968	1.53342	1.42024
567672.29	4180066.94	567672.29_4180066.94	0.18797	0.24642	0.91128	3.22513	1.56291	1.44391
567692.29	4180066.94	567692.29_4180066.94	0.19196	0.25111	0.92727	3.36241	1.59314	1.46807
567732.29	4180066.94	567732.29_4180066.94	0.19934	0.26004	0.96378	3.6443	1.65547	1.51724
567752.29	4180066.94	567752.29_4180066.94	0.20292	0.26403	0.977	3.78679	1.68782	1.54259
567772.29	4180066.94	567772.29_4180066.94	0.20636	0.26787	0.98698	3.93036	1.72086	1.56836
567792.29	4180066.94	567792.29_4180066.94	0.20965	0.27162	0.99284	4.07484	1.75468	1.59455
567812.29	4180066.94	567812.29_4180066.94	0.21286	0.27533	0.99342	4.21969	1.78931	1.62119
567832.29	4180066.94	567832.29_4180066.94	0.21606	0.27902	0.98881	4.3647	1.82474	1.64844
567852.29	4180066.94	567852.29_4180066.94	0.21897	0.28319	0.98466	4.51163	1.86081	1.67571
567872.29	4180066.94	567872.29_4180066.94	0.22173	0.28779	0.98	4.65964	1.89761	1.70326
567912.29	4180066.94	567912.29_4180066.94	0.22769	0.29801	0.96667	4.95723	1.97359	1.76
567952.29	4180066.94	567952.29_4180066.94	0.23418	0.31089	0.95296	5.26079	2.05233	1.818
567972.29	4180066.94	567972.29_4180066.94	0.23818	0.31816	0.94453	5.41362	2.09281	1.8478
567992.29	4180066.94	567992.29_4180066.94	0.24208	0.32688	0.94056	5.57168	2.13363	1.87712
568012.29	4180066.94	568012.29_4180066.94	0.24641	0.33655	0.93755	5.73268	2.17486	1.90635
568032.29	4180066.94	568032.29_4180066.94	0.25162	0.34676	0.93527	5.89479	2.2167	1.9361
568052.29	4180066.94	568052.29_4180066.94	0.25761	0.35765	0.93344	6.05871	2.25895	1.96593
568072.29	4180066.94	568072.29_4180066.94	0.26433	0.36933	0.93208	6.22445	2.30142	1.99566
568092.29	4180066.94	568092.29_4180066.94	0.27154	0.38207	0.93104	6.39224	2.34383	2.02483
568112.29	4180066.94	568112.29_4180066.94	0.28015	0.39504	0.93119	6.55646	2.38666	2.05464
568132.29	4180066.94	568132.29_4180066.94	0.28944	0.40911	0.93331	6.71871	2.42919	2.08381
568152.29	4180066.94	568152.29_4180066.94	0.2955	0.42718	0.91568	6.86626	2.46466	2.10527
567412.29	4180086.94	567412.29_4180086.94	0.13795	0.18066	0.75321	1.78559	1.2399	1.17842
567432.29	4180086.94	567432.29_4180086.94	0.14213	0.18439	0.76622	1.86893	1.26483	1.2002
567452.29	4180086.94	567452.29_4180086.94	0.14642	0.18996	0.77971	1.95749	1.29011	1.22217
567472.29	4180086.94	567472.29_4180086.94	0.15084	0.19573	0.79432	2.05159	1.31579	1.24433
567492.29	4180086.94	567492.29_4180086.94	0.15541	0.20183	0.81164	2.15177	1.34189	1.26663
567512.29	4180086.94	567512.29_4180086.94	0.16004	0.2079	0.82755	2.25746	1.36843	1.28923
567532.29	4180086.94	567532.29_4180086.94	0.16481	0.21769	0.84646	2.36956	1.39541	1.31145
567552.29	4180086.94	567552.29_4180086.94	0.1696	0.22416	0.86157	2.48695	1.42289	1.33455
567572.29	4180086.94	567572.29_4180086.94	0.17442	0.23061	0.87579	2.61005	1.45091	1.35797

567592.29	4180086.94	567592.29_4180086.94	0.17929	0.23735	0.89548	2.73998	1.47943	1.3814
567612.29	4180086.94	567612.29_4180086.94	0.18414	0.24386	0.91193	2.87484	1.50855	1.40532
567632.29	4180086.94	567632.29_4180086.94	0.18894	0.25018	0.92752	3.0148	1.53836	1.42969
567652.29	4180086.94	567652.29_4180086.94	0.19378	0.25621	0.94173	3.15903	1.56883	1.45455
567672.29	4180086.94	567672.29_4180086.94	0.19841	0.26223	0.96052	3.30852	1.59993	1.47965
567692.29	4180086.94	567692.29_4180086.94	0.20296	0.26798	0.98012	3.46172	1.63185	1.50516
567712.29	4180086.94	567712.29_4180086.94	0.20747	0.27332	0.99861	3.618	1.66453	1.53126
567732.29	4180086.94	567732.29_4180086.94	0.21169	0.2786	1.01978	3.77789	1.69793	1.55765
567752.29	4180086.94	567752.29_4180086.94	0.21594	0.28338	1.03583	3.93933	1.73232	1.58473
567772.29	4180086.94	567772.29_4180086.94	0.21975	0.28829	1.05307	4.10393	1.76733	1.61186
567792.29	4180086.94	567792.29_4180086.94	0.22383	0.29258	1.05935	4.26853	1.80351	1.64019
567812.29	4180086.94	567812.29_4180086.94	0.22758	0.29703	1.06286	4.43525	1.84047	1.66867
567832.29	4180086.94	567832.29_4180086.94	0.23134	0.30138	1.05967	4.60272	1.87845	1.69791
567852.29	4180086.94	567852.29_4180086.94	0.23475	0.3062	1.05542	4.77258	1.91713	1.72724
567892.29	4180086.94	567892.29_4180086.94	0.2418	0.31639	1.03846	5.11484	1.99762	1.78801
567912.29	4180086.94	567912.29_4180086.94	0.24525	0.32238	1.03059	5.28915	2.03917	1.81888
567932.29	4180086.94	567932.29_4180086.94	0.24906	0.32877	1.02146	5.46406	2.08179	1.85069
567972.29	4180086.94	567972.29_4180086.94	0.25707	0.3445	1.00511	5.82388	2.16944	1.91486
567992.29	4180086.94	567992.29_4180086.94	0.26133	0.35424	0.99956	6.01075	2.21434	1.94698
568012.29	4180086.94	568012.29_4180086.94	0.26653	0.3646	0.99467	6.19921	2.26024	1.97992
568032.29	4180086.94	568032.29_4180086.94	0.27256	0.37584	0.99113	6.39049	2.30692	2.01318
568052.29	4180086.94	568052.29_4180086.94	0.27926	0.38823	0.9887	6.58605	2.3542	2.04649
568072.29	4180086.94	568072.29_4180086.94	0.28656	0.40189	0.98697	6.78568	2.40188	2.07951
568092.29	4180086.94	568092.29_4180086.94	0.29514	0.4162	0.9854	6.98467	2.4502	2.1129
568112.29	4180086.94	568112.29_4180086.94	0.30479	0.43147	0.98512	7.18232	2.49896	2.14637
568132.29	4180086.94	568132.29_4180086.94	0.3137	0.44944	0.97982	7.38287	2.54612	2.17701
567412.29	4180106.94	567412.29_4180106.94	0.14208	0.18483	0.7691	1.77401	1.25919	1.19809
567432.29	4180106.94	567432.29_4180106.94	0.14671	0.193	0.79186	1.85956	1.28528	1.22054
567452.29	4180106.94	567452.29_4180106.94	0.15136	0.19942	0.80585	1.94965	1.31183	1.24397
567472.29	4180106.94	567472.29_4180106.94	0.15618	0.20374	0.82312	2.0461	1.33878	1.26733
567492.29	4180106.94	567492.29_4180106.94	0.16116	0.21308	0.84149	2.14896	1.36616	1.29087
567512.29	4180106.94	567512.29_4180106.94	0.1663	0.22028	0.86215	2.25881	1.39399	1.31425
567532.29	4180106.94	567532.29_4180106.94	0.17153	0.22754	0.88127	2.37525	1.42233	1.3383
567552.29	4180106.94	567552.29_4180106.94	0.17685	0.23497	0.90152	2.49881	1.45118	1.36258
567572.29	4180106.94	567572.29_4180106.94	0.18225	0.24246	0.9212	2.62945	1.4806	1.38718
567592.29	4180106.94	567592.29_4180106.94	0.18772	0.24988	0.93859	2.76684	1.51064	1.41221
567612.29	4180106.94	567612.29_4180106.94	0.19322	0.25744	0.95838	2.91176	1.54126	1.43747
567632.29	4180106.94	567632.29_4180106.94	0.19873	0.26476	0.9752	3.06288	1.57265	1.46333
567652.29	4180106.94	567652.29_4180106.94	0.20407	0.27218	0.99636	3.22145	1.60466	1.48929
567672.29	4180106.94	567672.29_4180106.94	0.2095	0.2792	1.01474	3.3853	1.63749	1.516
567692.29	4180106.94	567692.29_4180106.94	0.21481	0.28601	1.035	3.55487	1.67119	1.54314
567712.29	4180106.94	567712.29_4180106.94	0.21997	0.2926	1.05744	3.72977	1.70572	1.57068
567732.29	4180106.94	567732.29_4180106.94	0.22496	0.29894	1.08084	3.9093	1.74104	1.59876
567752.29	4180106.94	567752.29_4180106.94	0.22997	0.30477	1.10033	4.0921	1.77749	1.62761
567772.29	4180106.94	567772.29_4180106.94	0.23452	0.31069	1.12095	4.27937	1.81468	1.65653
567792.29	4180106.94	567792.29_4180106.94	0.23938	0.31586	1.13075	4.46776	1.85322	1.68686
567812.29	4180106.94	567812.29_4180106.94	0.24374	0.32133	1.13844	4.66	1.89253	1.71716
567852.29	4180106.94	567852.29_4180106.94	0.25236	0.33205	1.13192	5.05028	1.97463	1.78008
567872.29	4180106.94	567872.29_4180106.94	0.25666	0.33757	1.12217	5.24812	2.01732	1.81265
567892.29	4180106.94	567892.29_4180106.94	0.261	0.34338	1.11097	5.44769	2.06131	1.84593
567912.29	4180106.94	567912.29_4180106.94	0.26516	0.34995	1.10084	5.65071	2.10619	1.87956
567932.29	4180106.94	567932.29_4180106.94	0.26959	0.35699	1.09051	5.85562	2.15237	1.91397
567952.29	4180106.94	567952.29_4180106.94	0.27408	0.36505	1.08076	6.06464	2.19955	1.94882
567992.29	4180106.94	567992.29_4180106.94	0.28364	0.38506	1.06449	6.49934	2.29721	2.01944
568012.29	4180106.94	568012.29_4180106.94	0.28974	0.39634	1.05794	6.72135	2.34781	2.05596
568032.29	4180106.94	568032.29_4180106.94	0.29657	0.40899	1.05349	6.94887	2.39947	2.09279
568052.29	4180106.94	568052.29_4180106.94	0.30383	0.42351	1.05098	7.18492	2.45201	2.12947
568092.29	4180106.94	568092.29_4180106.94	0.32186	0.45598	1.04654	7.66387	2.55982	2.20382
568112.29	4180106.94	568112.29_4180106.94	0.33196	0.4748	1.04348	7.90593	2.61427	2.24022
567412.29	4180126.94	567412.29_4180126.94	0.14622	0.19084	0.78611	1.76002	1.27826	1.21757
567432.29	4180126.94	567432.29_4180126.94	0.15119	0.19927	0.80926	1.84599	1.30563	1.24152
567452.29	4180126.94	567452.29_4180126.94	0.15632	0.20661	0.83359	1.93817	1.3334	1.26544
567472.29	4180126.94	567472.29_4180126.94	0.16157	0.21392	0.85146	2.03604	1.3617	1.29011
567492.29	4180126.94	567492.29_4180126.94	0.16702	0.22162	0.87349	2.14139	1.39043	1.31488
567512.29	4180126.94	567512.29_4180126.94	0.17263	0.22953	0.89556	2.25406	1.41964	1.33996
567532.29	4180126.94	567532.29_4180126.94	0.1784	0.23777	0.9202	2.37485	1.44936	1.36522
567552.29	4180126.94	567552.29_4180126.94	0.1843	0.24609	0.94283	2.50339	1.47965	1.39089

567572.29	4180126.94	567572.29_4180126.94	0.19033	0.25448	0.9642	2.64019	1.51059	1.41697
567592.29	4180126.94	567592.29_4180126.94	0.19647	0.26306	0.98667	2.78565	1.54213	1.44332
567612.29	4180126.94	567612.29_4180126.94	0.20269	0.27167	1.00822	2.93983	1.57435	1.47013
567632.29	4180126.94	567632.29_4180126.94	0.20886	0.28034	1.03049	3.10274	1.60731	1.49728
567652.29	4180126.94	567652.29_4180126.94	0.21505	0.28893	1.05246	3.27416	1.64107	1.52485
567672.29	4180126.94	567672.29_4180126.94	0.22128	0.29728	1.07318	3.45334	1.67565	1.55309
567692.29	4180126.94	567692.29_4180126.94	0.22744	0.30544	1.09546	3.64034	1.71113	1.58184
567712.29	4180126.94	567712.29_4180126.94	0.23355	0.31327	1.11826	3.8344	1.74766	1.61119
567732.29	4180126.94	567732.29_4180126.94	0.23949	0.32086	1.14309	4.03521	1.78508	1.64109
567772.29	4180126.94	567772.29_4180126.94	0.25086	0.33517	1.19063	4.45457	1.86308	1.7026
567832.29	4180126.94	567832.29_4180126.94	0.26705	0.35463	1.22009	5.11664	1.98887	1.80045
567852.29	4180126.94	567852.29_4180126.94	0.2727	0.36042	1.21322	5.3422	2.03357	1.8352
567872.29	4180126.94	567872.29_4180126.94	0.27737	0.36749	1.20515	5.57554	2.07913	1.86952
567892.29	4180126.94	567892.29_4180126.94	0.28257	0.37416	1.19261	5.80924	2.1262	1.90531
567912.29	4180126.94	567912.29_4180126.94	0.28761	0.38153	1.18035	6.04715	2.17466	1.94171
567932.29	4180126.94	567932.29_4180126.94	0.29261	0.3897	1.16885	6.28968	2.22435	1.97868
567952.29	4180126.94	567952.29_4180126.94	0.29735	0.39927	1.15854	6.53955	2.27531	2.01596
567972.29	4180126.94	567972.29_4180126.94	0.30343	0.40874	1.147	6.78867	2.32806	2.05502
568012.29	4180126.94	568012.29_4180126.94	0.31607	0.43328	1.13017	7.31441	2.43745	2.13393
568032.29	4180126.94	568032.29_4180126.94	0.32376	0.44774	1.12471	7.58731	2.49429	2.17444
568072.29	4180126.94	568072.29_4180126.94	0.34183	0.48243	1.1184	8.15727	2.61202	2.25638
568092.29	4180126.94	568092.29_4180126.94	0.3516	0.50338	1.11333	8.45265	2.67187	2.29637
568112.29	4180126.94	568112.29_4180126.94	0.35397	0.52839	1.0693	8.63472	2.71431	2.32079
567412.29	4180146.94	567412.29_4180146.94	0.15034	0.19796	0.80336	1.74382	1.29705	1.23679
567432.29	4180146.94	567432.29_4180146.94	0.15562	0.20396	0.82379	1.8293	1.32578	1.2622
567452.29	4180146.94	567452.29_4180146.94	0.16122	0.21358	0.85595	1.92266	1.35485	1.28724
567472.29	4180146.94	567472.29_4180146.94	0.16694	0.22159	0.87698	2.02157	1.38454	1.31326
567492.29	4180146.94	567492.29_4180146.94	0.17288	0.23004	0.90179	2.12845	1.41469	1.33942
567512.29	4180146.94	567512.29_4180146.94	0.17901	0.23869	0.92539	2.24305	1.44538	1.36622
567532.29	4180146.94	567532.29_4180146.94	0.18538	0.24798	0.95612	2.36742	1.47655	1.39251
567552.29	4180146.94	567552.29_4180146.94	0.19193	0.25742	0.98473	2.50059	1.50832	1.41948
567572.29	4180146.94	567572.29_4180146.94	0.1986	0.26704	1.01234	2.64327	1.54075	1.44687
567592.29	4180146.94	567592.29_4180146.94	0.20546	0.27676	1.0379	2.79567	1.57392	1.47478
567612.29	4180146.94	567612.29_4180146.94	0.21246	0.2866	1.06268	2.95845	1.60781	1.50316
567632.29	4180146.94	567632.29_4180146.94	0.21955	0.29654	1.08727	3.13187	1.64249	1.53196
567652.29	4180146.94	567652.29_4180146.94	0.22654	0.3067	1.11432	3.31658	1.67794	1.56098
567672.29	4180146.94	567672.29_4180146.94	0.2337	0.31658	1.13798	3.51122	1.71437	1.59083
567692.29	4180146.94	567692.29_4180146.94	0.24086	0.3263	1.16195	3.71601	1.75175	1.62129
567712.29	4180146.94	567712.29_4180146.94	0.24796	0.33577	1.18702	3.93083	1.79021	1.65233
567732.29	4180146.94	567732.29_4180146.94	0.25497	0.34494	1.21322	4.15475	1.82979	1.68409
567752.29	4180146.94	567752.29_4180146.94	0.26167	0.354	1.24207	4.3882	1.8703	1.71626
567792.29	4180146.94	567792.29_4180146.94	0.27508	0.37064	1.28847	4.8766	1.95541	1.78338
567812.29	4180146.94	567812.29_4180146.94	0.28203	0.37799	1.30142	5.12901	2.00022	1.8188
567832.29	4180146.94	567832.29_4180146.94	0.28834	0.38584	1.3086	5.38961	2.04612	1.85427
567852.29	4180146.94	567852.29_4180146.94	0.29469	0.39344	1.30659	5.65504	2.09343	1.89085
567872.29	4180146.94	567872.29_4180146.94	0.30097	0.40112	1.29739	5.92539	2.14233	1.92831
567892.29	4180146.94	567892.29_4180146.94	0.30693	0.4094	1.28463	6.20226	2.19265	1.96637
567912.29	4180146.94	567912.29_4180146.94	0.3128	0.41819	1.27076	6.48472	2.24446	2.00522
567932.29	4180146.94	567932.29_4180146.94	0.31862	0.42772	1.25741	6.77314	2.29793	2.045
567952.29	4180146.94	567952.29_4180146.94	0.32527	0.43734	1.24386	7.0636	2.35326	2.08627
567972.29	4180146.94	567972.29_4180146.94	0.33215	0.44818	1.23118	7.36111	2.41023	2.12844
567992.29	4180146.94	567992.29_4180146.94	0.3384	0.46203	1.22118	7.67627	2.46873	2.17034
568012.29	4180146.94	568012.29_4180146.94	0.34596	0.4769	1.21243	7.99652	2.52914	2.2137
568032.29	4180146.94	568032.29_4180146.94	0.35477	0.49347	1.20559	8.32527	2.59144	2.25813
568052.29	4180146.94	568052.29_4180146.94	0.36468	0.51233	1.20084	8.66443	2.65549	2.30315
568072.29	4180146.94	568072.29_4180146.94	0.37542	0.53399	1.19714	9.01453	2.7211	2.34828
568092.29	4180146.94	568092.29_4180146.94	0.37918	0.56317	1.15969	9.30195	2.77486	2.38103
567412.29	4180166.94	567412.29_4180166.94	0.15438	0.20352	0.81739	1.72541	1.3155	1.2558
567432.29	4180166.94	567432.29_4180166.94	0.16009	0.21163	0.84276	1.81097	1.34561	1.28246
567452.29	4180166.94	567452.29_4180166.94	0.16603	0.22008	0.86856	1.9031	1.37622	1.30946
567472.29	4180166.94	567472.29_4180166.94	0.17228	0.22947	0.90746	2.00412	1.4071	1.33598
567492.29	4180166.94	567492.29_4180166.94	0.17876	0.23857	0.93224	2.11141	1.43884	1.3638
567512.29	4180166.94	567512.29_4180166.94	0.18548	0.24819	0.96083	2.22775	1.47105	1.39178
567532.29	4180166.94	567532.29_4180166.94	0.19246	0.25821	0.99082	2.35362	1.50384	1.42006
567552.29	4180166.94	567552.29_4180166.94	0.19969	0.26885	1.02562	2.49034	1.53717	1.44841
567572.29	4180166.94	567572.29_4180166.94	0.20712	0.27962	1.05682	2.63729	1.57127	1.47741
567612.29	4180166.94	567612.29_4180166.94	0.22262	0.30199	1.11851	2.96654	1.64169	1.53676

567632.29	4180166.94	567632.29_4180166.94	0.23055	0.31363	1.15008	3.15029	1.67806	1.56701
567652.29	4180166.94	567652.29_4180166.94	0.23858	0.32539	1.18054	3.3471	1.71535	1.59775
567672.29	4180166.94	567672.29_4180166.94	0.24687	0.33694	1.20675	3.55654	1.75376	1.62942
567692.29	4180166.94	567692.29_4180166.94	0.25502	0.34867	1.2355	3.77985	1.793	1.66144
567712.29	4180166.94	567712.29_4180166.94	0.26337	0.35996	1.2615	4.01559	1.83355	1.69445
567792.29	4180166.94	567792.29_4180166.94	0.29619	0.40189	1.37181	5.07829	2.00851	1.83434
567812.29	4180166.94	567812.29_4180166.94	0.30439	0.41117	1.39187	5.36897	2.05579	1.87182
567832.29	4180166.94	567832.29_4180166.94	0.31186	0.42113	1.40571	5.67289	2.10445	1.90939
567852.29	4180166.94	567852.29_4180166.94	0.31952	0.43059	1.40843	5.98363	2.15485	1.9483
567872.29	4180166.94	567872.29_4180166.94	0.32693	0.4403	1.40209	6.30353	2.20674	1.98804
567892.29	4180166.94	567892.29_4180166.94	0.33408	0.45043	1.38932	6.63251	2.26039	2.02865
567912.29	4180166.94	567912.29_4180166.94	0.34174	0.46026	1.37273	6.96562	2.31608	2.07088
567932.29	4180166.94	567932.29_4180166.94	0.34924	0.4709	1.35638	7.30766	2.37352	2.11394
567952.29	4180166.94	567952.29_4180166.94	0.35708	0.4821	1.34075	7.65609	2.43298	2.1584
567972.29	4180166.94	567972.29_4180166.94	0.36495	0.4949	1.32664	8.01622	2.49437	2.20356
567992.29	4180166.94	567992.29_4180166.94	0.37293	0.50991	1.31441	8.39102	2.55784	2.24963
568012.29	4180166.94	568012.29_4180166.94	0.38152	0.52723	1.30418	8.7802	2.62339	2.29652
568032.29	4180166.94	568032.29_4180166.94	0.39164	0.54651	1.29604	9.17987	2.69129	2.34492
568052.29	4180166.94	568052.29_4180166.94	0.40254	0.56923	1.29029	9.59653	2.76119	2.39369
568072.29	4180166.94	568072.29_4180166.94	0.40894	0.59914	1.26415	10.00261	2.82583	2.43543
567412.29	4180186.94	567412.29_4180186.94	0.15833	0.20892	0.83029	1.70537	1.33352	1.27431
567432.29	4180186.94	567432.29_4180186.94	0.16447	0.21786	0.86329	1.79078	1.36498	1.30211
567452.29	4180186.94	567452.29_4180186.94	0.17087	0.2272	0.89658	1.883	1.39698	1.33029
567472.29	4180186.94	567472.29_4180186.94	0.17759	0.23672	0.92479	1.98217	1.4297	1.35922
567492.29	4180186.94	567492.29_4180186.94	0.18459	0.24704	0.96147	2.09049	1.4628	1.38807
567512.29	4180186.94	567512.29_4180186.94	0.19194	0.25746	0.99161	2.20715	1.4967	1.41778
567532.29	4180186.94	567532.29_4180186.94	0.19958	0.26861	1.02746	2.3345	1.53112	1.44755
567552.29	4180186.94	567552.29_4180186.94	0.20752	0.28036	1.06628	2.47322	1.56614	1.47755
567572.29	4180186.94	567572.29_4180186.94	0.2158	0.29236	1.10177	2.62326	1.60199	1.50826
567592.29	4180186.94	567592.29_4180186.94	0.22414	0.30516	1.14309	2.78731	1.63839	1.53898
567612.29	4180186.94	567612.29_4180186.94	0.23294	0.31806	1.17921	2.96451	1.67582	1.57056
567632.29	4180186.94	567632.29_4180186.94	0.2421	0.33113	1.21247	3.15613	1.7142	1.6029
567652.29	4180186.94	567652.29_4180186.94	0.25129	0.34472	1.2478	3.36398	1.75343	1.63548
567672.29	4180186.94	567672.29_4180186.94	0.26068	0.35842	1.28095	3.58797	1.79375	1.66876
567692.29	4180186.94	567692.29_4180186.94	0.26997	0.37246	1.31511	3.82932	1.83495	1.70239
567732.29	4180186.94	567732.29_4180186.94	0.28936	0.39946	1.37269	4.36062	1.9216	1.77296
567752.29	4180186.94	567752.29_4180186.94	0.29934	0.41224	1.40159	4.65001	1.96721	1.80991
567772.29	4180186.94	567772.29_4180186.94	0.30882	0.42526	1.43381	4.95715	2.01388	1.84716
567812.29	4180186.94	567812.29_4180186.94	0.32867	0.44883	1.49074	5.61163	2.11258	1.92578
567832.29	4180186.94	567832.29_4180186.94	0.33802	0.46088	1.511	5.96287	2.16414	1.96607
567852.29	4180186.94	567852.29_4180186.94	0.34704	0.47316	1.5208	6.32922	2.21749	2.00714
567872.29	4180186.94	567872.29_4180186.94	0.35631	0.485	1.51832	6.70658	2.27288	2.04972
567892.29	4180186.94	567892.29_4180186.94	0.36616	0.49613	1.50521	7.09187	2.33025	2.09401
567912.29	4180186.94	567912.29_4180186.94	0.37548	0.50823	1.4874	7.49207	2.38959	2.13908
567932.29	4180186.94	567932.29_4180186.94	0.38437	0.52146	1.4687	7.90704	2.451	2.18493
567952.29	4180186.94	567952.29_4180186.94	0.39383	0.53488	1.45036	8.3301	2.51474	2.23249
567972.29	4180186.94	567972.29_4180186.94	0.40314	0.55009	1.43418	8.76953	2.58075	2.28108
567992.29	4180186.94	567992.29_4180186.94	0.41265	0.56751	1.41989	9.22661	2.64915	2.33065
568012.29	4180186.94	568012.29_4180186.94	0.42323	0.5871	1.4075	9.69919	2.72014	2.38186
568032.29	4180186.94	568032.29_4180186.94	0.43441	0.61044	1.39789	10.19413	2.79359	2.4338
568052.29	4180186.94	568052.29_4180186.94	0.44222	0.64105	1.37609	10.70883	2.86493	2.48134
568072.29	4180186.94	568072.29_4180186.94	0.44347	0.67061	1.32445	10.99561	2.91975	2.51532
567412.29	4180206.94	567412.29_4180206.94	0.16215	0.21426	0.84518	1.68438	1.35091	1.29228
567432.29	4180206.94	567432.29_4180206.94	0.1687	0.22362	0.87584	1.76831	1.384	1.32183
567452.29	4180206.94	567452.29_4180206.94	0.17556	0.23327	0.90342	1.85863	1.41779	1.35205
567472.29	4180206.94	567472.29_4180206.94	0.1828	0.24383	0.94122	1.95767	1.45197	1.38218
567492.29	4180206.94	567492.29_4180206.94	0.19032	0.25523	0.98618	2.06593	1.48659	1.41235
567512.29	4180206.94	567512.29_4180206.94	0.19835	0.26675	1.02287	2.18267	1.52215	1.44356
567532.29	4180206.94	567532.29_4180206.94	0.20671	0.27894	1.06266	2.31018	1.55834	1.47507
567552.29	4180206.94	567552.29_4180206.94	0.21545	0.29176	1.10408	2.44948	1.59522	1.50699
567572.29	4180206.94	567572.29_4180206.94	0.22443	0.30543	1.14994	2.60223	1.63274	1.53906
567592.29	4180206.94	567592.29_4180206.94	0.23387	0.31954	1.19355	2.76888	1.67115	1.57186
567632.29	4180206.94	567632.29_4180206.94	0.25383	0.34941	1.27995	3.15028	1.75065	1.63905
567652.29	4180206.94	567652.29_4180206.94	0.26428	0.36507	1.32157	3.36767	1.79189	1.6735
567692.29	4180206.94	567692.29_4180206.94	0.28598	0.39731	1.39713	3.86145	1.87785	1.74465
567712.29	4180206.94	567712.29_4180206.94	0.29719	0.41357	1.43003	4.13952	1.92275	1.78154
567732.29	4180206.94	567732.29_4180206.94	0.30888	0.42936	1.46053	4.43811	1.9693	1.81973

567752.29	4180206.94	567752.29_4180206.94	0.32031	0.44541	1.49363	4.75973	2.0171	1.85838
567772.29	4180206.94	567772.29_4180206.94	0.33213	0.46072	1.52766	5.10156	2.06668	1.89854
567792.29	4180206.94	567792.29_4180206.94	0.34352	0.47635	1.56376	5.46684	2.11763	1.93909
567812.29	4180206.94	567812.29_4180206.94	0.35522	0.49126	1.59754	5.85169	2.17057	1.98108
567832.29	4180206.94	567832.29_4180206.94	0.36651	0.50651	1.62581	6.25944	2.22522	2.02379
567852.29	4180206.94	567852.29_4180206.94	0.3785	0.52068	1.64223	6.68331	2.282	2.06841
567872.29	4180206.94	567872.29_4180206.94	0.39026	0.53518	1.6456	7.12854	2.34076	2.11402
567892.29	4180206.94	567892.29_4180206.94	0.40205	0.54976	1.63599	7.59253	2.40179	2.16089
567912.29	4180206.94	567912.29_4180206.94	0.41379	0.56467	1.61747	8.07539	2.465	2.20903
567932.29	4180206.94	567932.29_4180206.94	0.42464	0.58145	1.59648	8.58445	2.53051	2.25792
567952.29	4180206.94	567952.29_4180206.94	0.43634	0.59782	1.57462	9.10434	2.5987	2.30878
567972.29	4180206.94	567972.29_4180206.94	0.44794	0.61588	1.55511	9.64521	2.66948	2.36095
567992.29	4180206.94	567992.29_4180206.94	0.45982	0.63613	1.5381	10.20808	2.74309	2.41457
568012.29	4180206.94	568012.29_4180206.94	0.47191	0.65994	1.52375	10.79839	2.81936	2.46922
568032.29	4180206.94	568032.29_4180206.94	0.48113	0.69085	1.50169	11.42334	2.89549	2.52124
567412.29	4180226.94	567412.29_4180226.94	0.16581	0.21909	0.85235	1.66166	1.36781	1.31006
567432.29	4180226.94	567432.29_4180226.94	0.17278	0.22907	0.8853	1.74433	1.40249	1.34115
567452.29	4180226.94	567452.29_4180226.94	0.18013	0.23953	0.91829	1.83371	1.43788	1.37283
567472.29	4180226.94	567472.29_4180226.94	0.18789	0.25086	0.95855	1.93136	1.47376	1.40464
567492.29	4180226.94	567492.29_4180226.94	0.19607	0.26283	1.00087	2.03774	1.51033	1.43693
567512.29	4180226.94	567512.29_4180226.94	0.20453	0.27583	1.05172	2.15462	1.54733	1.46914
567532.29	4180226.94	567532.29_4180226.94	0.21366	0.28914	1.09594	2.28147	1.58541	1.5025
567552.29	4180226.94	567552.29_4180226.94	0.22328	0.30317	1.14169	2.42051	1.62424	1.53635
567572.29	4180226.94	567572.29_4180226.94	0.2332	0.31827	1.19345	2.57381	1.6637	1.57031
567592.29	4180226.94	567592.29_4180226.94	0.24362	0.3341	1.24508	2.74227	1.70403	1.60487
567612.29	4180226.94	567612.29_4180226.94	0.25456	0.35063	1.29575	2.92757	1.74533	1.64011
567672.29	4180226.94	567672.29_4180226.94	0.28996	0.40457	1.44274	3.60419	1.87545	1.74948
567692.29	4180226.94	567692.29_4180226.94	0.30286	0.42328	1.4832	3.875	1.92159	1.78796
567712.29	4180226.94	567712.29_4180226.94	0.31596	0.44248	1.52168	4.17205	1.96895	1.82712
567732.29	4180226.94	567732.29_4180226.94	0.32953	0.46158	1.55802	4.49553	2.01787	1.86746
567752.29	4180226.94	567752.29_4180226.94	0.34328	0.48071	1.59444	4.84725	2.06834	1.9087
567772.29	4180226.94	567772.29_4180226.94	0.35677	0.50035	1.63312	5.22991	2.12032	1.95051
567792.29	4180226.94	567792.29_4180226.94	0.37046	0.51968	1.67337	5.64155	2.17419	1.99362
567832.29	4180226.94	567832.29_4180226.94	0.39929	0.55623	1.74796	6.54688	2.28812	2.08447
567852.29	4180226.94	567852.29_4180226.94	0.41362	0.57446	1.77375	7.04375	2.34824	2.1317
567872.29	4180226.94	567872.29_4180226.94	0.42802	0.59363	1.78606	7.57488	2.4105	2.17979
567892.29	4180226.94	567892.29_4180226.94	0.4426	0.61256	1.78209	8.13456	2.47519	2.22966
567912.29	4180226.94	567912.29_4180226.94	0.45728	0.63183	1.76491	8.72442	2.54247	2.28091
567932.29	4180226.94	567932.29_4180226.94	0.47181	0.65188	1.74065	9.34576	2.61239	2.33349
567952.29	4180226.94	567952.29_4180226.94	0.4863	0.67283	1.71496	9.99613	2.68513	2.38773
567972.29	4180226.94	567972.29_4180226.94	0.50109	0.69485	1.69113	10.67323	2.7609	2.44366
567992.29	4180226.94	567992.29_4180226.94	0.51523	0.72016	1.67105	11.38656	2.83949	2.5006
568012.29	4180226.94	568012.29_4180226.94	0.52675	0.75149	1.64649	12.14189	2.91915	2.55628
567412.29	4180246.94	567412.29_4180246.94	0.1693	0.22366	0.85906	1.63807	1.38392	1.32712
567432.29	4180246.94	567432.29_4180246.94	0.17669	0.23416	0.89219	1.71908	1.42034	1.35995
567452.29	4180246.94	567452.29_4180246.94	0.18451	0.24527	0.92676	1.80679	1.45748	1.39337
567472.29	4180246.94	567472.29_4180246.94	0.19281	0.25756	0.97364	1.90326	1.49503	1.42665
567492.29	4180246.94	567492.29_4180246.94	0.2016	0.27042	1.01923	2.00798	1.53345	1.46074
567512.29	4180246.94	567512.29_4180246.94	0.21071	0.2844	1.07323	2.12312	1.57236	1.49483
567532.29	4180246.94	567532.29_4180246.94	0.22049	0.29904	1.12553	2.24889	1.61225	1.52981
567552.29	4180246.94	567552.29_4180246.94	0.23092	0.31451	1.17856	2.38702	1.65304	1.56548
567572.29	4180246.94	567572.29_4180246.94	0.24185	0.33105	1.23559	2.53951	1.69458	1.60152
567592.29	4180246.94	567592.29_4180246.94	0.25328	0.34873	1.296	2.70821	1.73693	1.63794
567652.29	4180246.94	567652.29_4180246.94	0.29146	0.40743	1.47177	3.33164	1.8704	1.75158
567672.29	4180246.94	567672.29_4180246.94	0.30591	0.42822	1.52209	3.5856	1.91779	1.79184
567692.29	4180246.94	567692.29_4180246.94	0.3207	0.45005	1.57199	3.86813	1.96623	1.83251
567712.29	4180246.94	567712.29_4180246.94	0.33577	0.47285	1.61966	4.18218	2.016	1.87382
567732.29	4180246.94	567732.29_4180246.94	0.3515	0.49583	1.66388	4.52872	2.0675	1.91641
567752.29	4180246.94	567752.29_4180246.94	0.36715	0.51979	1.70741	4.91296	2.12038	1.95945
567772.29	4180246.94	567772.29_4180246.94	0.38299	0.54406	1.75091	5.33537	2.17506	2.00348
567792.29	4180246.94	567792.29_4180246.94	0.39999	0.56719	1.79437	5.79341	2.23216	2.04987
567812.29	4180246.94	567812.29_4180246.94	0.41746	0.58998	1.83866	6.28991	2.29138	2.09764
567852.29	4180246.94	567852.29_4180246.94	0.45251	0.63643	1.91693	7.40914	2.41611	2.19658
567872.29	4180246.94	567872.29_4180246.94	0.47054	0.66105	1.93949	8.03913	2.48214	2.24776
567892.29	4180246.94	567892.29_4180246.94	0.48879	0.68569	1.94354	8.71395	2.55081	2.30065
567912.29	4180246.94	567912.29_4180246.94	0.50726	0.71097	1.9302	9.43835	2.62222	2.35518
567952.29	4180246.94	567952.29_4180246.94	0.54536	0.76287	1.87367	11.02922	2.77427	2.46957

567972.29	4180246.94	567972.29_4180246.94	0.56418	0.79117	1.84464	11.89791	2.85504	2.52917
567992.29	4180246.94	567992.29_4180246.94	0.5766	0.8275	1.81027	12.83463	2.93568	2.5854
567412.29	4180266.94	567412.29_4180266.94	0.17259	0.22771	0.86015	1.6134	1.39931	1.34367
567432.29	4180266.94	567432.29_4180266.94	0.1804	0.23886	0.89663	1.69288	1.43741	1.3781
567452.29	4180266.94	567452.29_4180266.94	0.1887	0.25089	0.93868	1.77937	1.47621	1.41293
567472.29	4180266.94	567472.29_4180266.94	0.19753	0.26377	0.98418	1.87352	1.51574	1.44828
567492.29	4180266.94	567492.29_4180266.94	0.20686	0.2776	1.03442	1.97638	1.55603	1.48412
567512.29	4180266.94	567512.29_4180266.94	0.21676	0.29244	1.08897	2.08909	1.5971	1.52042
567532.29	4180266.94	567532.29_4180266.94	0.22721	0.30843	1.14906	2.21305	1.63887	1.55711
567552.29	4180266.94	567552.29_4180266.94	0.23846	0.32536	1.20939	2.34934	1.6817	1.59466
567672.29	4180266.94	567672.29_4180266.94	0.32171	0.45313	1.60471	3.55204	1.9602	1.83399
567692.29	4180266.94	567692.29_4180266.94	0.33909	0.47781	1.66359	3.84126	2.01161	1.87785
567712.29	4180266.94	567712.29_4180266.94	0.35632	0.50483	1.7228	4.16906	2.06389	1.92132
567732.29	4180266.94	567732.29_4180266.94	0.37372	0.53344	1.77915	4.53834	2.1175	1.96527
567752.29	4180266.94	567752.29_4180266.94	0.39259	0.56166	1.83055	4.94884	2.17358	2.01149
567772.29	4180266.94	567772.29_4180266.94	0.41274	0.58936	1.87878	5.40372	2.23188	2.05971
567792.29	4180266.94	567792.29_4180266.94	0.43246	0.61882	1.92828	5.91365	2.29179	2.10816
567812.29	4180266.94	567812.29_4180266.94	0.45327	0.64745	1.97755	6.47341	2.35421	2.15879
567832.29	4180266.94	567832.29_4180266.94	0.4743	0.67738	2.02768	7.093	2.41886	2.21021
567852.29	4180266.94	567852.29_4180266.94	0.49541	0.70874	2.07388	7.77628	2.4859	2.26273
567872.29	4180266.94	567872.29_4180266.94	0.5186	0.7383	2.10566	8.51183	2.55598	2.31818
567892.29	4180266.94	567892.29_4180266.94	0.54129	0.77118	2.12097	9.32852	2.62863	2.37412
567932.29	4180266.94	567932.29_4180266.94	0.59006	0.83732	2.0884	11.18173	2.78371	2.49251
567952.29	4180266.94	567952.29_4180266.94	0.61444	0.87306	2.05423	12.23845	2.86607	2.55399
567972.29	4180266.94	567972.29_4180266.94	0.63422	0.9147	2.01482	13.3966	2.94977	2.61395
568812.29	4180266.94	568812.29_4180266.94	0.7362	0.83084	1.52195	11.03773	8.51033	6.60225
567472.29	4180286.94	567472.29_4180286.94	0.20192	0.2696	0.99423	1.84278	1.53561	1.46909
567492.29	4180286.94	567492.29_4180286.94	0.2118	0.28435	1.04791	1.94343	1.57787	1.50682
567512.29	4180286.94	567512.29_4180286.94	0.22241	0.30016	1.1049	2.05356	1.62109	1.54523
567532.29	4180286.94	567532.29_4180286.94	0.23372	0.31725	1.1675	2.17472	1.66511	1.58417
567572.29	4180286.94	567572.29_4180286.94	0.25897	0.35514	1.30108	2.45588	1.75637	1.6645
567592.29	4180286.94	567592.29_4180286.94	0.27277	0.37648	1.37644	2.62052	1.80332	1.70534
567692.29	4180286.94	567692.29_4180286.94	0.35708	0.50755	1.75753	3.79785	2.05707	1.92265
567712.29	4180286.94	567712.29_4180286.94	0.37656	0.53943	1.83039	4.13479	2.1118	1.96834
567732.29	4180286.94	567732.29_4180286.94	0.39879	0.57059	1.8966	4.51278	2.16971	2.01753
567752.29	4180286.94	567752.29_4180286.94	0.42114	0.60401	1.95989	4.94463	2.2288	2.06672
567772.29	4180286.94	567772.29_4180286.94	0.44349	0.63993	2.02047	5.43923	2.2896	2.11624
567792.29	4180286.94	567792.29_4180286.94	0.46749	0.6755	2.07687	5.99541	2.35296	2.16804
567812.29	4180286.94	567812.29_4180286.94	0.49237	0.71075	2.13135	6.61833	2.41888	2.22193
567832.29	4180286.94	567832.29_4180286.94	0.51796	0.74746	2.18648	7.3191	2.4872	2.27704
567872.29	4180286.94	567872.29_4180286.94	0.57215	0.82885	2.28737	8.99389	2.63193	2.39027
567892.29	4180286.94	567892.29_4180286.94	0.60134	0.87066	2.3142	9.97038	2.70906	2.45031
567912.29	4180286.94	567912.29_4180286.94	0.63178	0.91442	2.31709	11.06155	2.78943	2.51211
567932.29	4180286.94	567932.29_4180286.94	0.66067	0.96313	2.29726	12.29878	2.87242	2.57396
567952.29	4180286.94	567952.29_4180286.94	0.6815	1.01965	2.23504	13.65166	2.95264	2.63108
568792.29	4180286.94	568792.29_4180286.94	0.78469	0.8779	1.59204	12.7636	9.96102	7.49646
568812.29	4180286.94	568812.29_4180286.94	0.75195	0.8365	1.55658	11.50047	9.30971	7.3981
567412.29	4180306.94	567412.29_4180306.94	0.17839	0.23504	0.86826	1.56268	1.42651	1.3732
567432.29	4180306.94	567432.29_4180306.94	0.18702	0.24725	0.90694	1.63853	1.46833	1.41129
567572.29	4180306.94	567572.29_4180306.94	0.26716	0.36625	1.32516	2.40868	1.78693	1.69585
567592.29	4180306.94	567592.29_4180306.94	0.28196	0.38974	1.41067	2.56999	1.83607	1.73868
567612.29	4180306.94	567612.29_4180306.94	0.29809	0.41493	1.49597	2.74995	1.8867	1.78276
567712.29	4180306.94	567712.29_4180306.94	0.39949	0.57226	1.93374	4.07177	2.16229	2.01917
567732.29	4180306.94	567732.29_4180306.94	0.42458	0.60951	2.01698	4.4584	2.22279	2.07055
567752.29	4180306.94	567752.29_4180306.94	0.45029	0.64995	2.09659	4.90733	2.2849	2.12234
567772.29	4180306.94	567772.29_4180306.94	0.47657	0.69375	2.17184	5.43027	2.3488	2.1746
567792.29	4180306.94	567792.29_4180306.94	0.50481	0.738	2.24007	6.03096	2.41558	2.22924
567812.29	4180306.94	567812.29_4180306.94	0.53526	0.78222	2.30309	6.71839	2.48525	2.28642
567832.29	4180306.94	567832.29_4180306.94	0.56603	0.83029	2.36696	7.51575	2.55721	2.34414
567872.29	4180306.94	567872.29_4180306.94	0.63396	0.93069	2.48311	9.45376	2.71064	2.46615
567892.29	4180306.94	567892.29_4180306.94	0.67058	0.98587	2.52368	10.62902	2.79223	2.52968
567912.29	4180306.94	567912.29_4180306.94	0.70329	1.05111	2.54203	11.99887	2.8752	2.59145
568772.29	4180306.94	568772.29_4180306.94	0.83833	0.92976	1.66435	15.05645	11.92153	8.63805
568792.29	4180306.94	568792.29_4180306.94	0.80115	0.88516	1.63421	13.37263	10.95588	8.54118
568812.29	4180306.94	568812.29_4180306.94	0.76657	0.84267	1.59247	11.96962	10.08852	8.36836
567412.29	4180326.94	567412.29_4180326.94	0.18084	0.238	0.86944	1.53557	1.43818	1.38624
567432.29	4180326.94	567432.29_4180326.94	0.18982	0.25072	0.90977	1.60952	1.48191	1.42618

567452.29	4180326.94	567452.29_4180326.94	0.19945	0.2645	0.95494	1.68978	1.52664	1.46687
567472.29	4180326.94	567472.29_4180326.94	0.20982	0.27944	1.00449	1.77705	1.57245	1.50836
567492.29	4180326.94	567492.29_4180326.94	0.22093	0.29571	1.06042	1.87236	1.61923	1.55052
567512.29	4180326.94	567512.29_4180326.94	0.23291	0.31342	1.12217	1.97672	1.66701	1.5934
567712.29	4180326.94	567712.29_4180326.94	0.42017	0.60868	2.03647	3.99279	2.21133	2.06729
567732.29	4180326.94	567732.29_4180326.94	0.45039	0.651	2.13772	4.37868	2.27646	2.12366
567752.29	4180326.94	567752.29_4180326.94	0.4805	0.69885	2.23644	4.83458	2.34204	2.17871
567772.29	4180326.94	567772.29_4180326.94	0.5114	0.75134	2.3301	5.37429	2.40941	2.2342
567792.29	4180326.94	567792.29_4180326.94	0.54472	0.80582	2.4149	6.00886	2.47967	2.292
567832.29	4180326.94	567832.29_4180326.94	0.61792	0.92212	2.56495	7.64142	2.62912	2.41361
567852.29	4180326.94	567852.29_4180326.94	0.6595	0.98287	2.6332	8.67333	2.70898	2.47833
567872.29	4180326.94	567872.29_4180326.94	0.70104	1.0517	2.70016	9.89531	2.79133	2.54307
567892.29	4180326.94	567892.29_4180326.94	0.73349	1.13627	2.73663	11.33414	2.87072	2.60158
568772.29	4180326.94	568772.29_4180326.94	0.85638	0.93792	1.70703	15.88009	13.17288	10.05889
568792.29	4180326.94	568792.29_4180326.94	0.81734	0.89188	1.66313	14.0083	11.90245	9.85316
568812.29	4180326.94	568812.29_4180326.94	0.78044	0.84901	1.6225	12.49844	10.83572	9.54877
567412.29	4180346.94	567412.29_4180346.94	0.18304	0.24038	0.86728	1.5081	1.44846	1.39809
567432.29	4180346.94	567432.29_4180346.94	0.19234	0.25355	0.90911	1.58018	1.49412	1.4399
567452.29	4180346.94	567452.29_4180346.94	0.20238	0.26785	0.95514	1.65828	1.54095	1.48268
567472.29	4180346.94	567472.29_4180346.94	0.21327	0.28332	1.00448	1.74302	1.5891	1.52652
567492.29	4180346.94	567492.29_4180346.94	0.22488	0.30038	1.0634	1.83568	1.63814	1.57081
567512.29	4180346.94	567512.29_4180346.94	0.23751	0.31893	1.1268	1.93695	1.6884	1.61609
567732.29	4180346.94	567732.29_4180346.94	0.47391	0.69591	2.25394	4.2787	2.32872	2.17441
567752.29	4180346.94	567752.29_4180346.94	0.51121	0.7499	2.37415	4.7283	2.40008	2.23589
567792.29	4180346.94	567792.29_4180346.94	0.58631	0.87963	2.59732	5.92428	2.54485	2.35554
567812.29	4180346.94	567812.29_4180346.94	0.63059	0.948	2.69226	6.70838	2.6231	2.42059
567832.29	4180346.94	567832.29_4180346.94	0.67682	1.0219	2.77913	7.66495	2.70385	2.48663
567852.29	4180346.94	567852.29_4180346.94	0.71973	1.10824	2.8628	8.8492	2.78495	2.55011
568752.29	4180346.94	568752.29_4180346.94	0.91736	0.99646	1.78757	19.41201	16.33587	12.18497
568772.29	4180346.94	568772.29_4180346.94	0.87318	0.94664	1.74601	16.78151	14.39408	11.95199
568792.29	4180346.94	568792.29_4180346.94	0.83173	0.89975	1.69501	14.71461	12.83757	11.51722
568812.29	4180346.94	568812.29_4180346.94	0.79273	0.85629	1.64599	13.06881	11.57174	10.958
567412.29	4180366.94	567412.29_4180366.94	0.18489	0.24226	0.86517	1.48048	1.45702	1.40829
567432.29	4180366.94	567432.29_4180366.94	0.19441	0.2559	0.90917	1.55064	1.50442	1.4518
567452.29	4180366.94	567452.29_4180366.94	0.20493	0.27052	0.95324	1.62625	1.5537	1.49707
567472.29	4180366.94	567472.29_4180366.94	0.2162	0.2866	1.00505	1.70852	1.60405	1.54299
567492.29	4180366.94	567492.29_4180366.94	0.2283	0.30431	1.06528	1.79829	1.65542	1.58962
567512.29	4180366.94	567512.29_4180366.94	0.24151	0.32366	1.13026	1.89633	1.70826	1.63738
567772.29	4180366.94	567772.29_4180366.94	0.58589	0.87485	2.64434	5.12173	2.53465	2.35762
567792.29	4180366.94	567792.29_4180366.94	0.63329	0.95463	2.77776	5.76916	2.61326	2.4233
567812.29	4180366.94	567812.29_4180366.94	0.68368	1.04202	2.89999	6.57152	2.6946	2.49036
567832.29	4180366.94	567832.29_4180366.94	0.72813	1.14461	2.98844	7.58011	2.77299	2.55198
568752.29	4180366.94	568752.29_4180366.94	0.93485	1.00791	1.83399	20.31077	17.89225	15.18379
568772.29	4180366.94	568772.29_4180366.94	0.88754	0.94667	1.77204	17.34471	15.48598	14.44047
568792.29	4180366.94	568792.29_4180366.94	0.84371	0.89878	1.72182	15.13106	13.67	13.5024
568812.29	4180366.94	568812.29_4180366.94	0.80283	0.85462	1.6685	13.39006	12.22775	12.49327
567412.29	4180386.94	567412.29_4180386.94	0.18659	0.24337	0.85642	1.45075	1.46419	1.41741
567432.29	4180386.94	567432.29_4180386.94	0.19628	0.25742	0.9019	1.51888	1.51329	1.46254
567452.29	4180386.94	567452.29_4180386.94	0.20696	0.27258	0.94915	1.59232	1.56434	1.50943
567472.29	4180386.94	567472.29_4180386.94	0.21874	0.28902	1.00166	1.67177	1.61734	1.55802
567492.29	4180386.94	567492.29_4180386.94	0.2313	0.30728	1.06023	1.75853	1.6712	1.60709
567512.29	4180386.94	567512.29_4180386.94	0.24469	0.32762	1.12441	1.85349	1.72586	1.65649
567772.29	4180386.94	567772.29_4180386.94	0.62654	0.93689	2.7859	4.93524	2.60039	2.42301
567792.29	4180386.94	567792.29_4180386.94	0.6763	1.03853	2.94066	5.56506	2.67901	2.48727
568732.29	4180386.94	568732.29_4180386.94	1.0032	1.07723	1.93657	23.2596	22.25097	20.95045
568752.29	4180386.94	568752.29_4180386.94	0.95	1.00889	1.87437	19.67183	18.78904	19.58284
568772.29	4180386.94	568772.29_4180386.94	0.90102	0.95648	1.81147	17.00648	16.26193	17.67763
568792.29	4180386.94	568792.29_4180386.94	0.85584	0.90895	1.75305	14.95073	14.32976	15.81323
568812.29	4180386.94	568812.29_4180386.94	0.81411	0.86575	1.70508	13.32206	12.80413	14.1908
567412.29	4180406.94	567412.29_4180406.94	0.18784	0.24399	0.85069	1.42157	1.46915	1.42438
567432.29	4180406.94	567432.29_4180406.94	0.19788	0.25819	0.89327	1.48729	1.52046	1.47177
567452.29	4180406.94	567452.29_4180406.94	0.20867	0.2738	0.94037	1.55836	1.57319	1.52025
567472.29	4180406.94	567472.29_4180406.94	0.22077	0.29063	0.99297	1.63505	1.62849	1.57115
567492.29	4180406.94	567492.29_4180406.94	0.23369	0.30938	1.05164	1.71864	1.68481	1.62257
568732.29	4180406.94	568732.29_4180406.94	1.01944	1.0915	1.98513	20.08505	22.0767	30.92792
568752.29	4180406.94	568752.29_4180406.94	0.9638	1.01974	1.90845	17.56606	18.86923	25.3635
568772.29	4180406.94	568772.29_4180406.94	0.91391	0.96878	1.85165	15.63365	16.52326	21.26472

568792.29	4180406.94	568792.29_4180406.94	0.86731	0.92072	1.79363	13.98831	14.62581	18.18617
568812.29	4180406.94	568812.29_4180406.94	0.82419	0.87645	1.73881	12.61275	13.08703	15.86122
567412.29	4180426.94	567412.29_4180426.94	0.18876	0.24398	0.84193	1.38997	1.47202	1.42941
567432.29	4180426.94	567432.29_4180426.94	0.19908	0.25827	0.88371	1.45327	1.52543	1.47902
567452.29	4180426.94	567452.29_4180426.94	0.21004	0.27415	0.92867	1.52181	1.58003	1.52932
567472.29	4180426.94	567472.29_4180426.94	0.22222	0.29142	0.97924	1.59577	1.63709	1.58187
568732.29	4180426.94	568732.29_4180426.94	1.03452	1.10656	2.03505	16.68555	21.35207	43.41516
568752.29	4180426.94	568752.29_4180426.94	0.97715	1.0334	1.95886	15.06977	18.5149	31.32237
568772.29	4180426.94	568772.29_4180426.94	0.92533	0.98045	1.89216	13.72156	16.33899	24.71615
568792.29	4180426.94	568792.29_4180426.94	0.87765	0.93204	1.82977	12.54153	14.57497	20.47291
568812.29	4180426.94	568812.29_4180426.94	0.83279	0.88533	1.75905	11.45873	13.07327	17.42689
567412.29	4180446.94	567412.29_4180446.94	0.18921	0.24342	0.83218	1.3596	1.47233	1.43192
567432.29	4180446.94	567432.29_4180446.94	0.19966	0.25783	0.87212	1.42057	1.52744	1.48323
568752.29	4180446.94	568752.29_4180446.94	0.98902	1.04581	2.00409	12.77456	17.9404	33.74445
568772.29	4180446.94	568772.29_4180446.94	0.93443	0.98832	1.9159	11.78001	15.87003	26.45803
568792.29	4180446.94	568792.29_4180446.94	0.88534	0.93822	1.8473	10.93435	14.2289	21.79119
568812.29	4180446.94	568812.29_4180446.94	0.84005	0.89194	1.77519	10.16352	12.85236	18.48015
567412.29	4180466.94	567412.29_4180466.94	0.1894	0.24215	0.8185	1.329	1.47057	1.43251
567672.29	4180466.94	567672.29_4180466.94	0.45352	0.64354	1.89351	2.65595	2.38421	2.26335
568772.29	4180466.94	568772.29_4180466.94	0.94286	0.99537	1.94284	10.13822	15.35666	26.28535
568792.29	4180466.94	568792.29_4180466.94	0.89298	0.94478	1.86361	9.53165	13.84733	22.01301
568652.29	4180626.94	568652.29_4180626.94	1.25923	1.08705	2.86054	4.10057	17.42995	31.94423
568672.29	4180626.94	568672.29_4180626.94	1.18095	1.03149	2.70497	4.02505	15.64691	27.03352
568632.29	4180646.94	568632.29_4180646.94	1.28994	1.06177	3.01693	3.71675	17.89727	33.57092
568652.29	4180646.94	568652.29_4180646.94	1.20995	1.01096	2.84859	3.65996	16.05881	28.22883
568672.29	4180646.94	568672.29_4180646.94	1.13721	0.96318	2.69371	3.57044	14.51919	24.22698
568692.29	4180646.94	568692.29_4180646.94	1.07116	0.91873	2.54202	3.50925	13.14213	21.14348
567572.29	4180666.94	567572.29_4180666.94	0.30024	0.34669	1.01795	1.45744	1.98749	1.95452
567592.29	4180666.94	567592.29_4180666.94	0.32542	0.37473	1.08471	1.52645	2.10159	2.06373
568612.29	4180666.94	568612.29_4180666.94	1.30702	1.02437	3.17259	3.37699	18.28729	35.89006
568632.29	4180666.94	568632.29_4180666.94	1.22775	0.98021	2.98106	3.33907	16.43886	29.84657
568652.29	4180666.94	568652.29_4180666.94	1.15527	0.93798	2.81623	3.29808	14.88046	25.45304
568672.29	4180666.94	568672.29_4180666.94	1.08894	0.89783	2.65632	3.25581	13.55614	22.10591
568692.29	4180666.94	568692.29_4180666.94	1.02808	0.85965	2.51779	3.20464	12.41603	19.46466
567532.29	4180686.94	567532.29_4180686.94	0.25639	0.29417	0.8874	1.30199	1.76194	1.74056
567552.29	4180686.94	567552.29_4180686.94	0.27573	0.31569	0.9359	1.35931	1.85834	1.83428
567572.29	4180686.94	567572.29_4180686.94	0.29739	0.34004	0.98982	1.42031	1.96286	1.93543
567592.29	4180686.94	567592.29_4180686.94	0.32191	0.36766	1.05052	1.48517	2.07664	2.04501
567712.29	4180686.94	567712.29_4180686.94	0.57277	0.64986	1.59929	1.94685	3.01042	2.9217
567732.29	4180686.94	567732.29_4180686.94	0.64458	0.72944	1.73271	2.02954	3.21719	3.11044
567752.29	4180686.94	567752.29_4180686.94	0.7315	0.82403	1.88193	2.10983	3.44085	3.31284
567772.29	4180686.94	567772.29_4180686.94	0.83673	0.93789	2.04941	2.187	3.68031	3.52724
568232.29	4180686.94	568232.29_4180686.94	7.69755	2.41498	24.06851	3.31473	19.36516	15.36091
568252.29	4180686.94	568252.29_4180686.94	6.64954	2.28023	21.52421	3.32057	21.33481	16.53568
568592.29	4180686.94	568592.29_4180686.94	1.30881	0.97809	3.29647	3.07808	18.60206	38.03748
568612.29	4180686.94	568612.29_4180686.94	1.23062	0.93867	3.09389	3.04961	16.70737	31.32274
568632.29	4180686.94	568632.29_4180686.94	1.15924	0.90118	2.91942	3.0184	15.12128	26.52289
568652.29	4180686.94	568652.29_4180686.94	1.09412	0.86581	2.75981	2.98695	13.78392	22.93779
567492.29	4180706.94	567492.29_4180706.94	0.22132	0.25364	0.77915	1.17202	1.56629	1.55129
567512.29	4180706.94	567512.29_4180706.94	0.23754	0.26983	0.82845	1.22022	1.64994	1.63402
567532.29	4180706.94	567532.29_4180706.94	0.25426	0.28888	0.86812	1.2715	1.73643	1.71886
567552.29	4180706.94	567552.29_4180706.94	0.27287	0.31032	0.90947	1.32603	1.83041	1.81065
567572.29	4180706.94	567572.29_4180706.94	0.29416	0.33418	0.95962	1.38362	1.93404	1.91162
567592.29	4180706.94	567592.29_4180706.94	0.31812	0.3613	1.01439	1.44414	2.0471	2.02132
567612.29	4180706.94	567612.29_4180706.94	0.34528	0.39225	1.07754	1.50777	2.17074	2.14068
567672.29	4180706.94	567672.29_4180706.94	0.45448	0.51475	1.31425	1.71301	2.62169	2.57054
567692.29	4180706.94	567692.29_4180706.94	0.50353	0.5689	1.41123	1.78389	2.80323	2.74105
567712.29	4180706.94	567712.29_4180706.94	0.5612	0.63209	1.51943	1.85463	3.00252	2.92643
567732.29	4180706.94	567732.29_4180706.94	0.62926	0.70629	1.64004	1.92394	3.22043	3.12699
567752.29	4180706.94	567752.29_4180706.94	0.71053	0.79315	1.77731	1.9903	3.45843	3.34372
567772.29	4180706.94	567772.29_4180706.94	0.80842	0.8946	1.93141	2.05248	3.71733	3.57676
568212.29	4180706.94	568212.29_4180706.94	6.66416	2.0709	21.8688	2.95442	20.29259	16.3015
568232.29	4180706.94	568232.29_4180706.94	5.9284	1.99585	21.33403	2.97641	22.36322	17.53571
568252.29	4180706.94	568252.29_4180706.94	5.21027	1.89779	19.19456	2.97847	24.85146	19.00355
568272.29	4180706.94	568272.29_4180706.94	4.62551	1.81249	18.07716	2.98362	27.8588	20.57498
568572.29	4180706.94	568572.29_4180706.94	1.29392	0.92537	3.38171	2.81308	18.80727	38.89156
568592.29	4180706.94	568592.29_4180706.94	1.2183	0.89028	3.17051	2.79172	16.87931	32.05779

568612.29	4180706.94	568612.29_4180706.94	1.14963	0.8575	2.99019	2.7689	15.28478	27.16649
568632.29	4180706.94	568632.29_4180706.94	1.08691	0.82661	2.82539	2.74529	13.9423	23.4978
568652.29	4180706.94	568652.29_4180706.94	1.02796	0.79548	2.67291	2.7159	12.75775	20.56971
567452.29	4180726.94	567452.29_4180726.94	0.19462	0.22047	0.70923	1.06278	1.40557	1.39492
567472.29	4180726.94	567472.29_4180726.94	0.2068	0.23402	0.74038	1.10367	1.47228	1.46098
567492.29	4180726.94	567492.29_4180726.94	0.22033	0.24895	0.77224	1.14699	1.54474	1.53268
567512.29	4180726.94	567512.29_4180726.94	0.23505	0.26578	0.80707	1.19308	1.62258	1.60942
567532.29	4180726.94	567532.29_4180726.94	0.25134	0.28464	0.84431	1.24178	1.70701	1.6925
567552.29	4180726.94	567552.29_4180726.94	0.26953	0.30577	0.88244	1.29304	1.79915	1.78302
567572.29	4180726.94	567572.29_4180726.94	0.29076	0.32882	0.92868	1.34647	1.90236	1.88445
567592.29	4180726.94	567592.29_4180726.94	0.3141	0.35541	0.98019	1.40277	2.01387	1.9934
567612.29	4180726.94	567612.29_4180726.94	0.3405	0.38564	1.03742	1.46094	2.1364	2.11258
567632.29	4180726.94	567632.29_4180726.94	0.37077	0.4199	1.10348	1.52078	2.27209	2.24398
567652.29	4180726.94	567652.29_4180726.94	0.4054	0.45914	1.17445	1.5822	2.42189	2.38825
567672.29	4180726.94	567672.29_4180726.94	0.44643	0.50306	1.25457	1.64313	2.5905	2.54992
567692.29	4180726.94	567692.29_4180726.94	0.49305	0.55453	1.34258	1.70445	2.77515	2.72504
567712.29	4180726.94	567712.29_4180726.94	0.54764	0.61355	1.44496	1.76459	2.98041	2.91795
567732.29	4180726.94	567732.29_4180726.94	0.61149	0.68171	1.55694	1.82239	3.20743	3.129
567752.29	4180726.94	567752.29_4180726.94	0.68703	0.75973	1.68453	1.87693	3.45869	3.35991
567772.29	4180726.94	567772.29_4180726.94	0.7772	0.8483	1.82202	1.92685	3.73603	3.61151
568132.29	4180726.94	568132.29_4180726.94	8.14539	1.94656	21.02647	2.5928	16.17225	13.62912
568192.29	4180726.94	568192.29_4180726.94	5.69927	1.77444	18.87008	2.64859	21.50153	17.37553
568212.29	4180726.94	568212.29_4180726.94	5.1048	1.71667	17.95811	2.6642	23.794	18.85095
568232.29	4180726.94	568232.29_4180726.94	4.60676	1.66373	17.21697	2.68113	26.48646	20.43804
568252.29	4180726.94	568252.29_4180726.94	4.15132	1.603	16.10737	2.68996	29.75596	22.23513
568272.29	4180726.94	568272.29_4180726.94	3.7352	1.53501	15.57534	2.68916	33.84137	24.3223
568292.29	4180726.94	568292.29_4180726.94	3.37829	1.47016	12.91369	2.68627	39.15333	26.66701
568312.29	4180726.94	568312.29_4180726.94	3.08719	1.41694	9.50407	2.69069	46.77204	29.28991
568332.29	4180726.94	568332.29_4180726.94	2.82957	1.3645	7.57428	2.69239	58.56812	32.34996
568532.29	4180726.94	568532.29_4180726.94	1.33698	0.89786	3.62868	2.55826	21.08943	47.1067
568552.29	4180726.94	568552.29_4180726.94	1.26158	0.86796	3.4006	2.56806	18.84513	38.21507
568572.29	4180726.94	568572.29_4180726.94	1.19024	0.83701	3.20279	2.55315	16.91771	31.79375
568592.29	4180726.94	568592.29_4180726.94	1.12642	0.80942	3.02235	2.5456	15.35977	27.17552
568612.29	4180726.94	568612.29_4180726.94	1.06652	0.78175	2.85601	2.52599	14.0036	23.57892
568632.29	4180726.94	568632.29_4180726.94	1.00996	0.7537	2.70191	2.50044	12.8071	20.68343
568652.29	4180726.94	568652.29_4180726.94	0.95846	0.72783	2.56069	2.47713	11.79467	18.38403
568672.29	4180726.94	568672.29_4180726.94	0.91107	0.70346	2.43094	2.4549	10.91988	16.50838
568752.29	4180726.94	568752.29_4180726.94	0.75104	0.61345	2.00047	2.32523	8.25475	11.46002
567412.29	4180746.94	567412.29_4180746.94	0.17185	0.19433	0.64077	0.96941	1.26607	1.25782
567432.29	4180746.94	567432.29_4180746.94	0.18175	0.20543	0.66631	1.00455	1.32184	1.31322
567452.29	4180746.94	567452.29_4180746.94	0.1929	0.21734	0.69453	1.04146	1.38289	1.374
567472.29	4180746.94	567472.29_4180746.94	0.20465	0.23094	0.7224	1.08102	1.44722	1.43777
567492.29	4180746.94	567492.29_4180746.94	0.21772	0.24587	0.75318	1.12255	1.51723	1.50712
567512.29	4180746.94	567512.29_4180746.94	0.23224	0.26239	0.78625	1.16621	1.59342	1.58258
567532.29	4180746.94	567532.29_4180746.94	0.24832	0.28084	0.82141	1.21222	1.67625	1.66443
567552.29	4180746.94	567552.29_4180746.94	0.26624	0.30147	0.85818	1.26005	1.7667	1.75381
567572.29	4180746.94	567572.29_4180746.94	0.2866	0.32435	0.90037	1.30948	1.86671	1.85253
567592.29	4180746.94	567592.29_4180746.94	0.30936	0.35022	0.949	1.36092	1.97632	1.96037
567612.29	4180746.94	567612.29_4180746.94	0.33553	0.37898	1.00129	1.41347	2.09857	2.08043
567632.29	4180746.94	567632.29_4180746.94	0.36478	0.41198	1.05943	1.46689	2.2327	2.21144
567652.29	4180746.94	567652.29_4180746.94	0.39816	0.44939	1.12509	1.52093	2.38181	2.35643
567672.29	4180746.94	567672.29_4180746.94	0.43778	0.4903	1.1976	1.57341	2.55137	2.52096
567692.29	4180746.94	567692.29_4180746.94	0.48116	0.53937	1.28191	1.62675	2.73548	2.69713
567712.29	4180746.94	567712.29_4180746.94	0.53253	0.59359	1.3762	1.67748	2.94434	2.89583
567732.29	4180746.94	567732.29_4180746.94	0.59186	0.65523	1.47826	1.72558	3.1775	3.11513
567752.29	4180746.94	567752.29_4180746.94	0.6609	0.72466	1.59746	1.77072	3.43796	3.35705
567772.29	4180746.94	567772.29_4180746.94	0.74345	0.80024	1.72496	1.81071	3.73168	3.62651
567792.29	4180746.94	567792.29_4180746.94	0.84165	0.88192	1.87565	1.84625	4.06009	3.92354
568112.29	4180746.94	568112.29_4180746.94	6.82397	1.63813	11.52943	2.34363	16.92996	14.24771
568152.29	4180746.94	568152.29_4180746.94	5.42078	1.57114	14.08636	2.37808	20.73891	16.99916
568192.29	4180746.94	568192.29_4180746.94	4.38269	1.48627	13.25593	2.40262	25.66716	20.33295
568212.29	4180746.94	568212.29_4180746.94	3.97146	1.44099	12.37665	2.41141	28.75331	22.26462
568232.29	4180746.94	568232.29_4180746.94	3.63368	1.4026	11.92235	2.42438	32.46383	24.41443
568252.29	4180746.94	568252.29_4180746.94	3.33616	1.36393	11.74083	2.43587	37.07712	26.77735
568272.29	4180746.94	568272.29_4180746.94	3.04864	1.31466	10.83624	2.43645	43.09457	29.61154
568292.29	4180746.94	568292.29_4180746.94	2.79656	1.26677	8.83218	2.43534	51.49616	32.89694
568312.29	4180746.94	568312.29_4180746.94	2.5879	1.22749	7.29794	2.44037	64.95682	36.58035

568512.29	4180746.94	568512.29_4180746.94	1.28406	0.83611	3.59239	2.34397	20.94305	44.91707
568532.29	4180746.94	568532.29_4180746.94	1.21404	0.80912	3.38742	2.34148	18.70996	36.78597
568552.29	4180746.94	568552.29_4180746.94	1.14882	0.78257	3.19708	2.33724	16.84013	30.93131
568572.29	4180746.94	568572.29_4180746.94	1.08991	0.75851	3.02181	2.34248	15.31035	26.63027
568592.29	4180746.94	568592.29_4180746.94	1.03577	0.73587	2.86	2.33221	14.01475	23.30967
568612.29	4180746.94	568612.29_4180746.94	0.98187	0.70997	2.70807	2.30865	12.80213	20.51332
568632.29	4180746.94	568632.29_4180746.94	0.933	0.68642	2.56787	2.27187	11.78196	18.27804
568652.29	4180746.94	568652.29_4180746.94	0.88824	0.6646	2.43887	2.2524	10.90813	16.45082
568672.29	4180746.94	568672.29_4180746.94	0.8465	0.64357	2.31868	2.23238	10.1382	14.91113
568692.29	4180746.94	568692.29_4180746.94	0.80811	0.62404	2.20805	2.21476	9.46831	13.62076
568752.29	4180746.94	568752.29_4180746.94	0.70554	0.56745	1.92113	2.13531	7.78202	10.65857
568792.29	4180746.94	568792.29_4180746.94	0.64887	0.53523	1.76441	2.09928	6.96548	9.28103
568812.29	4180746.94	568812.29_4180746.94	0.62387	0.52121	1.69948	2.09108	6.64151	8.72455
567412.29	4180766.94	567412.29_4180766.94	0.17028	0.19196	0.62982	0.95148	1.24541	1.23856
567432.29	4180766.94	567432.29_4180766.94	0.17981	0.20312	0.6499	0.98563	1.29903	1.29175
567452.29	4180766.94	567452.29_4180766.94	0.19051	0.21514	0.67639	1.02133	1.35767	1.35008
567472.29	4180766.94	567472.29_4180766.94	0.20224	0.2284	0.70366	1.05885	1.42091	1.41298
567492.29	4180766.94	567492.29_4180766.94	0.2153	0.24291	0.73317	1.09806	1.4898	1.48155
567512.29	4180766.94	567512.29_4180766.94	0.22955	0.25915	0.76525	1.13911	1.56404	1.55534
567532.29	4180766.94	567532.29_4180766.94	0.24522	0.2773	0.79712	1.18203	1.64456	1.63515
567552.29	4180766.94	567552.29_4180766.94	0.26276	0.29743	0.8323	1.22652	1.73284	1.72271
567572.29	4180766.94	567572.29_4180766.94	0.28265	0.31963	0.8704	1.27198	1.83062	1.81971
567592.29	4180766.94	567592.29_4180766.94	0.3052	0.34419	0.91269	1.31805	1.93899	1.92723
567612.29	4180766.94	567612.29_4180766.94	0.33039	0.37191	0.96307	1.36511	2.05826	2.04512
567632.29	4180766.94	567632.29_4180766.94	0.35861	0.40329	1.01811	1.41251	2.19011	2.17497
567652.29	4180766.94	567652.29_4180766.94	0.39071	0.43843	1.07948	1.45975	2.33738	2.31953
567672.29	4180766.94	567672.29_4180766.94	0.4267	0.47853	1.14929	1.50638	2.50094	2.479
567692.29	4180766.94	567692.29_4180766.94	0.46811	0.52306	1.22726	1.5515	2.68552	2.65807
567712.29	4180766.94	567712.29_4180766.94	0.51558	0.57269	1.30993	1.59436	2.89383	2.85845
567732.29	4180766.94	567732.29_4180766.94	0.57074	0.627	1.40755	1.63407	3.13065	3.08443
567752.29	4180766.94	567752.29_4180766.94	0.63508	0.68561	1.51167	1.66986	3.40064	3.33932
567772.29	4180766.94	567772.29_4180766.94	0.70924	0.74914	1.6296	1.70232	3.706	3.62333
567792.29	4180766.94	567792.29_4180766.94	0.79686	0.81534	1.75377	1.73075	4.05382	3.94207
567912.29	4180766.94	567912.29_4180766.94	2.07769	1.17188	3.9884	1.90075	7.21199	6.64497
568112.29	4180766.94	568112.29_4180766.94	4.97797	1.36643	7.4535	2.145	19.87996	16.43051
568132.29	4180766.94	568132.29_4180766.94	4.50803	1.34921	7.94801	2.16023	22.21741	18.10213
568152.29	4180766.94	568152.29_4180766.94	4.08323	1.32158	8.0819	2.17042	24.92082	19.98559
568172.29	4180766.94	568172.29_4180766.94	3.71691	1.29027	7.88082	2.1785	28.05896	22.06366
568192.29	4180766.94	568192.29_4180766.94	3.40881	1.26025	8.24332	2.18725	31.75044	24.38754
568212.29	4180766.94	568212.29_4180766.94	3.141	1.22976	7.83679	2.19566	36.24629	27.02318
568232.29	4180766.94	568232.29_4180766.94	2.90876	1.20051	8.21412	2.20479	41.90895	30.05267
568252.29	4180766.94	568252.29_4180766.94	2.69857	1.16964	8.53374	2.21209	49.25757	33.54151
568272.29	4180766.94	568272.29_4180766.94	2.50984	1.13862	7.39424	2.21837	59.44777	37.56487
568492.29	4180766.94	568492.29_4180766.94	1.2191	0.77637	3.47362	2.15232	20.61076	41.90337
568512.29	4180766.94	568512.29_4180766.94	1.15582	0.7526	3.28995	2.15206	18.45315	34.86364
568532.29	4180766.94	568532.29_4180766.94	1.09585	0.7284	3.11082	2.14535	16.61498	29.59574
568552.29	4180766.94	568552.29_4180766.94	1.04	0.70489	2.94871	2.12695	15.03266	25.57142
568572.29	4180766.94	568572.29_4180766.94	0.99037	0.68461	2.79871	2.1286	13.80004	22.51951
568592.29	4180766.94	568592.29_4180766.94	0.9446	0.66561	2.65895	2.13095	12.72059	20.07605
568612.29	4180766.94	568612.29_4180766.94	0.90035	0.64564	2.52771	2.11616	11.73951	18.00543
568632.29	4180766.94	568632.29_4180766.94	0.85763	0.62482	2.40388	2.08295	10.82324	16.22188
568652.29	4180766.94	568652.29_4180766.94	0.81844	0.60561	2.28427	2.05584	10.05213	14.73285
568672.29	4180766.94	568672.29_4180766.94	0.78212	0.58754	2.17676	2.03441	9.36953	13.46793
568692.29	4180766.94	568692.29_4180766.94	0.7492	0.57152	2.07881	2.02522	8.79823	12.41087
568772.29	4180766.94	568772.29_4180766.94	0.63409	0.51019	1.75069	1.95581	6.95457	9.27227
568792.29	4180766.94	568792.29_4180766.94	0.60833	0.49469	1.68075	1.92892	6.56723	8.66224
568812.29	4180766.94	568812.29_4180766.94	0.58508	0.4812	1.61829	1.90914	6.23246	8.13453
567412.29	4180786.94	567412.29_4180786.94	0.1685	0.19004	0.61444	0.93415	1.22365	1.21796
567432.29	4180786.94	567432.29_4180786.94	0.1782	0.2008	0.63765	0.96666	1.27692	1.2711
567452.29	4180786.94	567452.29_4180786.94	0.18854	0.21283	0.66012	1.00096	1.33338	1.32727
567472.29	4180786.94	567472.29_4180786.94	0.2002	0.22576	0.68652	1.03645	1.39536	1.38914
567492.29	4180786.94	567492.29_4180786.94	0.2128	0.2402	0.71395	1.07362	1.46176	1.45521
567512.29	4180786.94	567512.29_4180786.94	0.22659	0.25625	0.74268	1.11221	1.53347	1.52656
567532.29	4180786.94	567532.29_4180786.94	0.2422	0.27369	0.77248	1.1516	1.6127	1.60551
567552.29	4180786.94	567552.29_4180786.94	0.25978	0.29274	0.80327	1.19184	1.70001	1.69273
567572.29	4180786.94	567572.29_4180786.94	0.27878	0.3145	0.83799	1.23352	1.79418	1.78633
567592.29	4180786.94	567592.29_4180786.94	0.3003	0.33839	0.87808	1.27537	1.89876	1.89039

567612.29	4180786.94	567612.29_4180786.94	0.32458	0.36473	0.9229	1.31708	2.01497	2.00599
567632.29	4180786.94	567632.29_4180786.94	0.35144	0.39454	0.97352	1.35899	2.14313	2.13295
567652.29	4180786.94	567652.29_4180786.94	0.38145	0.42799	1.03062	1.40047	2.28556	2.27359
567672.29	4180786.94	567672.29_4180786.94	0.41569	0.46464	1.09483	1.44044	2.44648	2.43208
567692.29	4180786.94	567692.29_4180786.94	0.45454	0.50496	1.16304	1.47849	2.62824	2.61032
567712.29	4180786.94	567712.29_4180786.94	0.49923	0.54842	1.2405	1.5139	2.83583	2.81295
567732.29	4180786.94	567732.29_4180786.94	0.54974	0.59589	1.33672	1.5467	3.07148	3.04092
567752.29	4180786.94	567752.29_4180786.94	0.60748	0.64554	1.42766	1.57591	3.34341	3.30164
567772.29	4180786.94	567772.29_4180786.94	0.67433	0.69873	1.5275	1.60257	3.6536	3.59469
567792.29	4180786.94	567792.29_4180786.94	0.75252	0.75284	1.63831	1.62655	4.01223	3.92827
567812.29	4180786.94	567812.29_4180786.94	0.84524	0.80599	1.75303	1.6477	4.42878	4.30896
567872.29	4180786.94	567872.29_4180786.94	1.26938	0.9582	2.25765	1.71681	6.08832	5.7536
567892.29	4180786.94	567892.29_4180786.94	1.49263	0.97555	2.80941	1.74285	6.80824	6.35496
567912.29	4180786.94	567912.29_4180786.94	1.80884	1.01399	3.50565	1.77351	7.60084	7.0026
568112.29	4180786.94	568112.29_4180786.94	3.65557	1.1596	5.78182	1.97208	24.05392	19.35461
568132.29	4180786.94	568132.29_4180786.94	3.36988	1.14542	5.63732	1.9814	27.29489	21.60924
568152.29	4180786.94	568152.29_4180786.94	3.10765	1.12468	5.34904	1.98753	31.1276	24.14263
568172.29	4180786.94	568172.29_4180786.94	2.87772	1.10221	5.45487	1.99245	35.66044	26.98805
568192.29	4180786.94	568192.29_4180786.94	2.68252	1.08201	5.48462	1.99982	41.33986	30.27943
568212.29	4180786.94	568212.29_4180786.94	2.50713	1.06062	5.73843	2.00661	48.70602	34.1295
568232.29	4180786.94	568232.29_4180786.94	2.35092	1.03948	5.60953	2.01421	58.80184	38.72743
568472.29	4180786.94	568472.29_4180786.94	1.1446	0.71916	3.25531	1.97061	20.03043	38.00696
568492.29	4180786.94	568492.29_4180786.94	1.0889	0.6986	3.10224	1.97974	18.02461	32.27918
568512.29	4180786.94	568512.29_4180786.94	1.03792	0.67957	2.95651	1.98986	16.35708	27.93813
568532.29	4180786.94	568532.29_4180786.94	0.98418	0.65534	2.8136	1.95309	14.72074	24.24462
568552.29	4180786.94	568552.29_4180786.94	0.93749	0.63524	2.6752	1.9425	13.448	21.43348
568572.29	4180786.94	568572.29_4180786.94	0.89701	0.61908	2.55183	1.94388	12.44557	19.26649
568592.29	4180786.94	568592.29_4180786.94	0.85797	0.6024	2.43468	1.93703	11.53175	17.41291
568612.29	4180786.94	568612.29_4180786.94	0.82218	0.58724	2.32498	1.9398	10.76143	15.87081
568632.29	4180786.94	568632.29_4180786.94	0.78608	0.56988	2.21996	1.91395	9.98468	14.46796
568652.29	4180786.94	568652.29_4180786.94	0.75256	0.55357	2.12077	1.89441	9.31171	13.26501
568672.29	4180786.94	568672.29_4180786.94	0.72145	0.53835	2.02786	1.88006	8.72571	12.22886
568692.29	4180786.94	568692.29_4180786.94	0.69249	0.52405	1.94161	1.86739	8.20631	11.32945
568712.29	4180786.94	568712.29_4180786.94	0.66555	0.51071	1.86196	1.85654	7.74529	10.54682
568732.29	4180786.94	568732.29_4180786.94	0.63959	0.49716	1.78685	1.84183	7.31448	9.8376
568752.29	4180786.94	568752.29_4180786.94	0.61478	0.48368	1.71639	1.82448	6.91384	9.19653
568772.29	4180786.94	568772.29_4180786.94	0.591	0.4702	1.65016	1.804	6.53753	8.6041
568792.29	4180786.94	568792.29_4180786.94	0.56852	0.45716	1.58858	1.78256	6.16158	8.07101
568812.29	4180786.94	568812.29_4180786.94	0.54762	0.4451	1.53208	1.76324	5.85635	7.60297
567412.29	4180806.94	567412.29_4180806.94	0.16699	0.1881	0.60309	0.91681	1.20235	1.19799
567432.29	4180806.94	567432.29_4180806.94	0.17642	0.19881	0.62396	0.94784	1.25383	1.24935
567452.29	4180806.94	567452.29_4180806.94	0.1867	0.21053	0.64641	0.98016	1.30919	1.30457
567472.29	4180806.94	567472.29_4180806.94	0.19784	0.22351	0.66988	1.01393	1.3685	1.36365
567492.29	4180806.94	567492.29_4180806.94	0.21032	0.23752	0.69492	1.04854	1.43347	1.42858
567512.29	4180806.94	567512.29_4180806.94	0.22425	0.25269	0.72041	1.08392	1.50455	1.49974
567532.29	4180806.94	567532.29_4180806.94	0.23939	0.26966	0.7474	1.12036	1.58121	1.57631
567552.29	4180806.94	567552.29_4180806.94	0.2561	0.28842	0.77832	1.15744	1.66489	1.65987
567572.29	4180806.94	567572.29_4180806.94	0.27446	0.30934	0.81264	1.19498	1.75619	1.75087
567592.29	4180806.94	567592.29_4180806.94	0.29519	0.33206	0.84988	1.23232	1.85763	1.85221
567612.29	4180806.94	567612.29_4180806.94	0.31809	0.35736	0.89147	1.26968	1.96935	1.9636
567632.29	4180806.94	567632.29_4180806.94	0.34346	0.38547	0.93779	1.30651	2.09303	2.08665
567652.29	4180806.94	567652.29_4180806.94	0.372	0.41615	0.9885	1.34229	2.23166	2.22452
567672.29	4180806.94	567672.29_4180806.94	0.40433	0.44926	1.04922	1.37617	2.38846	2.38029
567692.29	4180806.94	567692.29_4180806.94	0.4409	0.48449	1.1127	1.40766	2.56697	2.5575
567712.29	4180806.94	567712.29_4180806.94	0.48152	0.52323	1.1857	1.43764	2.76827	2.75589
567732.29	4180806.94	567732.29_4180806.94	0.52747	0.56357	1.26089	1.46442	3.00036	2.98362
567752.29	4180806.94	567752.29_4180806.94	0.57955	0.60512	1.33962	1.48815	3.26899	3.24527
567772.29	4180806.94	567772.29_4180806.94	0.63961	0.64875	1.42339	1.51028	3.57872	3.54304
567792.29	4180806.94	567792.29_4180806.94	0.70893	0.69176	1.51709	1.52978	3.94238	3.88809
567812.29	4180806.94	567812.29_4180806.94	0.79017	0.73387	1.61877	1.54842	4.37016	4.28668
567832.29	4180806.94	567832.29_4180806.94	0.88643	0.77348	1.72134	1.56637	4.87844	4.75037
567852.29	4180806.94	567852.29_4180806.94	1.00145	0.79537	1.83699	1.58558	5.48246	5.28659
567872.29	4180806.94	567872.29_4180806.94	1.14516	0.82937	1.96929	1.60812	6.19007	5.89571
567892.29	4180806.94	567892.29_4180806.94	1.32261	0.85592	2.13668	1.63121	7.02819	6.59688
567912.29	4180806.94	567912.29_4180806.94	1.56023	0.88262	2.71698	1.65721	7.98618	7.37318
568032.29	4180806.94	568032.29_4180806.94	3.30541	0.98778	3.61604	1.77509	17.36321	14.44399
568072.29	4180806.94	568072.29_4180806.94	3.04524	1.00103	4.1833	1.79945	22.91671	18.36302

568092.29	4180806.94	568092.29_4180806.94	2.8693	0.9964	4.4171	1.80721	26.40792	20.79621
568112.29	4180806.94	568112.29_4180806.94	2.70788	0.99134	4.31209	1.8156	30.45863	23.54629
568132.29	4180806.94	568132.29_4180806.94	2.54563	0.9802	3.90831	1.82114	35.24665	26.68297
568152.29	4180806.94	568152.29_4180806.94	2.40645	0.97142	3.68489	1.82888	41.11273	30.32001
568172.29	4180806.94	568172.29_4180806.94	2.26038	0.95376	3.67129	1.83095	48.46117	34.51022
568192.29	4180806.94	568192.29_4180806.94	2.13736	0.94001	3.7529	1.83654	58.54622	39.58912
568212.29	4180806.94	568212.29_4180806.94	2.02893	0.92778	3.76941	1.8448	73.43047	45.88561
568372.29	4180806.94	568372.29_4180806.94	1.30775	0.75461	3.48184	1.84602	33.74289	73.64682
568392.29	4180806.94	568392.29_4180806.94	1.23768	0.72942	3.3549	1.82422	28.47383	58.32108
568452.29	4180806.94	568452.29_4180806.94	1.06383	0.66545	2.9753	1.80489	19.22683	33.79343
568472.29	4180806.94	568472.29_4180806.94	1.01531	0.64723	2.85996	1.8083	17.34108	29.26285
568492.29	4180806.94	568492.29_4180806.94	0.96826	0.62818	2.7407	1.80616	15.70569	25.5909
568512.29	4180806.94	568512.29_4180806.94	0.92912	0.61429	2.6288	1.82847	14.49531	22.85491
568532.29	4180806.94	568532.29_4180806.94	0.88538	0.59435	2.51637	1.80502	13.19778	20.3244
568552.29	4180806.94	568552.29_4180806.94	0.84529	0.57595	2.40941	1.79136	12.11355	18.24865
568572.29	4180806.94	568572.29_4180806.94	0.81114	0.56171	2.30926	1.78922	11.26278	16.62945
568592.29	4180806.94	568592.29_4180806.94	0.77935	0.54838	2.21394	1.78676	10.51795	15.25013
568612.29	4180806.94	568612.29_4180806.94	0.74787	0.53397	2.12227	1.77635	9.81496	14.0043
568632.29	4180806.94	568632.29_4180806.94	0.71902	0.52101	2.03623	1.77215	9.21316	12.93962
568652.29	4180806.94	568652.29_4180806.94	0.68976	0.50625	1.95158	1.75206	8.61276	11.9429
568672.29	4180806.94	568672.29_4180806.94	0.66389	0.49405	1.87407	1.744	8.12112	11.11079
568712.29	4180806.94	568712.29_4180806.94	0.61472	0.46908	1.73046	1.71851	7.23205	9.66935
568732.29	4180806.94	568732.29_4180806.94	0.59217	0.45735	1.66558	1.7057	6.84848	9.06281
568752.29	4180806.94	568752.29_4180806.94	0.56995	0.44492	1.60336	1.68665	6.45619	8.48138
568772.29	4180806.94	568772.29_4180806.94	0.54896	0.433	1.54545	1.66723	6.09757	7.95427
568792.29	4180806.94	568792.29_4180806.94	0.52979	0.42246	1.49267	1.65265	5.80409	7.50815
568812.29	4180806.94	568812.29_4180806.94	0.51252	0.41355	1.44522	1.64474	5.55776	7.14033
567412.29	4180826.94	567412.29_4180826.94	0.1654	0.18635	0.59209	0.8996	1.1804	1.17728
567432.29	4180826.94	567432.29_4180826.94	0.17449	0.19705	0.61065	0.92927	1.22989	1.22661
567452.29	4180826.94	567452.29_4180826.94	0.18456	0.20857	0.63175	0.95975	1.28366	1.28037
567472.29	4180826.94	567472.29_4180826.94	0.19565	0.22108	0.65233	0.99103	1.34185	1.33856
567492.29	4180826.94	567492.29_4180826.94	0.20812	0.23443	0.67313	1.02285	1.40575	1.40273
567512.29	4180826.94	567512.29_4180826.94	0.22144	0.24941	0.69842	1.05565	1.47395	1.47095
567532.29	4180826.94	567532.29_4180826.94	0.23601	0.26592	0.72677	1.08908	1.54794	1.54489
567552.29	4180826.94	567552.29_4180826.94	0.25203	0.28408	0.75681	1.12282	1.62858	1.62548
567572.29	4180826.94	567572.29_4180826.94	0.2697	0.30401	0.7883	1.15666	1.7169	1.7138
567592.29	4180826.94	567592.29_4180826.94	0.28937	0.3257	0.8225	1.18999	1.81446	1.81138
567612.29	4180826.94	567612.29_4180826.94	0.31121	0.34933	0.85649	1.22282	1.92246	1.91944
567632.29	4180826.94	567632.29_4180826.94	0.33543	0.37508	0.89893	1.25468	2.04241	2.03941
567652.29	4180826.94	567652.29_4180826.94	0.36284	0.40202	0.94671	1.2845	2.17831	2.17579
567672.29	4180826.94	567672.29_4180826.94	0.39273	0.43239	0.99963	1.31394	2.32824	2.32535
567692.29	4180826.94	567692.29_4180826.94	0.42605	0.46435	1.05749	1.34118	2.49861	2.49526
567712.29	4180826.94	567712.29_4180826.94	0.46328	0.49724	1.11822	1.36547	2.69441	2.69032
567732.29	4180826.94	567732.29_4180826.94	0.50504	0.53165	1.18146	1.38784	2.91848	2.91274
567752.29	4180826.94	567752.29_4180826.94	0.55201	0.56627	1.25367	1.40728	3.17905	3.17005
567772.29	4180826.94	567772.29_4180826.94	0.60552	0.60213	1.3278	1.42597	3.48063	3.46491
567792.29	4180826.94	567792.29_4180826.94	0.66654	0.63525	1.41154	1.44149	3.84232	3.81587
567812.29	4180826.94	567812.29_4180826.94	0.73614	0.66644	1.49201	1.45619	4.27579	4.22977
567832.29	4180826.94	567832.29_4180826.94	0.81844	0.69717	1.56954	1.47242	4.79563	4.71616
567852.29	4180826.94	567852.29_4180826.94	0.91628	0.72683	1.66824	1.49046	5.42649	5.29069
567872.29	4180826.94	567872.29_4180826.94	1.02877	0.7343	1.76218	1.50822	6.21334	5.98614
567892.29	4180826.94	567892.29_4180826.94	1.16941	0.75689	1.85633	1.52978	7.16363	6.79051
567912.29	4180826.94	567912.29_4180826.94	1.34542	0.77863	1.96672	1.5533	8.30941	7.71729
567992.29	4180826.94	567992.29_4180826.94	2.16457	0.8348	3.12701	1.62492	15.27067	12.91784
568052.29	4180826.94	568052.29_4180826.94	2.26874	0.8631	3.44566	1.65869	24.81238	19.42016
568072.29	4180826.94	568072.29_4180826.94	2.2108	0.86417	3.53396	1.66569	29.34031	22.39793
568092.29	4180826.94	568092.29_4180826.94	2.12639	0.85833	3.4047	1.66947	34.7121	25.84118
568112.29	4180826.94	568112.29_4180826.94	2.04794	0.85501	3.26118	1.67518	41.18594	29.86001
568132.29	4180826.94	568132.29_4180826.94	1.96103	0.84744	3.3845	1.67872	49.05528	34.55003
568152.29	4180826.94	568152.29_4180826.94	1.8895	0.84518	3.27745	1.68701	59.49615	40.32395
568172.29	4180826.94	568172.29_4180826.94	1.80641	0.83565	2.96607	1.69045	74.043	47.33257
568332.29	4180826.94	568332.29_4180826.94	1.24368	0.71391	3.08593	1.70273	36.0266	67.75866
568352.29	4180826.94	568352.29_4180826.94	1.1864	0.6951	3.0296	1.70191	30.6744	55.47012
568372.29	4180826.94	568372.29_4180826.94	1.12977	0.67455	2.95425	1.68471	26.41149	46.31942
568432.29	4180826.94	568432.29_4180826.94	0.98528	0.62018	2.6837	1.6756	18.38461	29.7471
568452.29	4180826.94	568452.29_4180826.94	0.94154	0.60217	2.58835	1.67034	16.57776	26.17122
568472.29	4180826.94	568472.29_4180826.94	0.90007	0.58448	2.49395	1.66686	15.05067	23.21631

568492.29	4180826.94	568492.29_4180826.94	0.8633	0.56943	2.4091	1.66996	13.82272	20.87113
568512.29	4180826.94	568512.29_4180826.94	0.82936	0.55558	2.32099	1.67442	12.78243	18.93142
568532.29	4180826.94	568532.29_4180826.94	0.79705	0.54198	2.23512	1.67777	11.86481	17.26996
568552.29	4180826.94	568552.29_4180826.94	0.76293	0.52535	2.15018	1.6619	10.94751	15.71642
568572.29	4180826.94	568572.29_4180826.94	0.7322	0.51071	2.06869	1.65081	10.17112	14.40802
568592.29	4180826.94	568592.29_4180826.94	0.70559	0.49912	1.99686	1.64869	9.54966	13.35755
568612.29	4180826.94	568612.29_4180826.94	0.68062	0.48822	1.92368	1.64666	8.9928	12.42554
568632.29	4180826.94	568632.29_4180826.94	0.65575	0.47644	1.85245	1.63857	8.46066	11.55919
568652.29	4180826.94	568652.29_4180826.94	0.63219	0.46512	1.7843	1.63051	7.97993	10.78482
568672.29	4180826.94	568672.29_4180826.94	0.6093	0.45361	1.71872	1.61963	7.53014	10.07597
568692.29	4180826.94	568692.29_4180826.94	0.58674	0.44151	1.65532	1.60389	7.09981	9.40838
568712.29	4180826.94	568712.29_4180826.94	0.56617	0.43085	1.5969	1.59275	6.71116	8.83545
568732.29	4180826.94	568732.29_4180826.94	0.54625	0.42011	1.54131	1.5788	6.34029	8.30202
568752.29	4180826.94	568752.29_4180826.94	0.52791	0.41048	1.49003	1.56829	6.03423	7.83844
568772.29	4180826.94	568772.29_4180826.94	0.51048	0.40122	1.44541	1.55751	5.75255	7.41667
568792.29	4180826.94	568792.29_4180826.94	0.49417	0.39264	1.40086	1.54834	5.49948	7.03859
568812.29	4180826.94	568812.29_4180826.94	0.47819	0.38379	1.35838	1.53549	5.25391	6.67113
567412.29	4180846.94	567412.29_4180846.94	0.16362	0.18484	0.57708	0.88227	1.15749	1.15541
567432.29	4180846.94	567432.29_4180846.94	0.17279	0.19509	0.59419	0.91015	1.20641	1.20444
567452.29	4180846.94	567452.29_4180846.94	0.18277	0.20623	0.61427	0.93868	1.25896	1.25714
567472.29	4180846.94	567472.29_4180846.94	0.19352	0.21848	0.63447	0.96795	1.31516	1.31337
567492.29	4180846.94	567492.29_4180846.94	0.20542	0.23166	0.65597	0.99746	1.37636	1.37477
567512.29	4180846.94	567512.29_4180846.94	0.21832	0.24614	0.67883	1.02753	1.44231	1.44088
567532.29	4180846.94	567532.29_4180846.94	0.23241	0.26198	0.70256	1.05777	1.51388	1.51259
567552.29	4180846.94	567552.29_4180846.94	0.24781	0.27931	0.73042	1.08821	1.59175	1.59055
567572.29	4180846.94	567572.29_4180846.94	0.26482	0.29804	0.75917	1.1182	1.67728	1.67628
567592.29	4180846.94	567592.29_4180846.94	0.28364	0.31826	0.7909	1.14769	1.77158	1.77088
567612.29	4180846.94	567612.29_4180846.94	0.30474	0.33926	0.82016	1.17541	1.87728	1.87747
567632.29	4180846.94	567632.29_4180846.94	0.32747	0.36312	0.86145	1.20342	1.99213	1.99251
567652.29	4180846.94	567652.29_4180846.94	0.35254	0.38781	0.90314	1.22931	2.12171	2.12278
567672.29	4180846.94	567672.29_4180846.94	0.38026	0.41486	0.952	1.25441	2.26555	2.26687
567692.29	4180846.94	567692.29_4180846.94	0.41091	0.44279	1.00459	1.2773	2.4288	2.43055
567712.29	4180846.94	567712.29_4180846.94	0.44487	0.47122	1.0565	1.29774	2.61557	2.61792
567732.29	4180846.94	567732.29_4180846.94	0.48264	0.50089	1.12019	1.31677	2.82804	2.83023
567752.29	4180846.94	567752.29_4180846.94	0.52478	0.52934	1.17472	1.3329	3.07749	3.07949
567772.29	4180846.94	567772.29_4180846.94	0.57167	0.55582	1.23425	1.34617	3.37338	3.37419
567792.29	4180846.94	567792.29_4180846.94	0.62477	0.58207	1.30483	1.35951	3.72224	3.71916
567812.29	4180846.94	567812.29_4180846.94	0.6855	0.60718	1.37635	1.37267	4.14202	4.13003
567832.29	4180846.94	567832.29_4180846.94	0.7536	0.61857	1.45108	1.38579	4.66159	4.63192
567852.29	4180846.94	567852.29_4180846.94	0.83471	0.64066	1.53438	1.40225	5.29964	5.23281
567872.29	4180846.94	567872.29_4180846.94	0.92524	0.65706	1.61837	1.41857	6.1199	5.9833
567892.29	4180846.94	567892.29_4180846.94	1.03361	0.67584	1.71324	1.43832	7.15835	6.88986
567932.29	4180846.94	567932.29_4180846.94	1.27938	0.69593	1.90096	1.47176	10.21402	9.33984
567952.29	4180846.94	567952.29_4180846.94	1.41012	0.70859	2.38646	1.4885	12.33829	10.89335
567972.29	4180846.94	567972.29_4180846.94	1.52704	0.72305	2.93371	1.50465	14.91084	12.69851
567992.29	4180846.94	567992.29_4180846.94	1.61591	0.73413	3.16292	1.51682	18.02584	14.81911
568032.29	4180846.94	568032.29_4180846.94	1.69295	0.74689	3.11372	1.53313	26.80437	20.45619
568052.29	4180846.94	568052.29_4180846.94	1.69366	0.75106	3.0222	1.53975	32.92363	24.1822
568072.29	4180846.94	568072.29_4180846.94	1.67283	0.75142	3.06462	1.54435	40.5033	28.64292
568092.29	4180846.94	568092.29_4180846.94	1.64075	0.75026	3.02658	1.54846	50.00913	33.98805
568112.29	4180846.94	568112.29_4180846.94	1.60136	0.74792	3.00671	1.55245	62.34975	40.45889
568132.29	4180846.94	568132.29_4180846.94	1.55708	0.74447	2.7294	1.55591	79.25599	48.49035
568272.29	4180846.94	568272.29_4180846.94	1.2064	0.68292	2.51518	1.57025	43.19619	76.3218
568292.29	4180846.94	568292.29_4180846.94	1.15887	0.66934	2.57467	1.57118	36.49785	61.47929
568312.29	4180846.94	568312.29_4180846.94	1.11342	0.65545	2.60017	1.5724	31.37227	51.31365
568332.29	4180846.94	568332.29_4180846.94	1.06739	0.63956	2.59556	1.57143	27.24127	43.63944
568352.29	4180846.94	568352.29_4180846.94	1.01971	0.62085	2.56869	1.54449	23.7665	37.44824
568392.29	4180846.94	568392.29_4180846.94	0.93814	0.58924	2.46995	1.53926	18.8819	28.86675
568412.29	4180846.94	568412.29_4180846.94	0.90428	0.57697	2.40801	1.55047	17.19834	25.88409
568432.29	4180846.94	568432.29_4180846.94	0.87219	0.56508	2.34063	1.56693	15.78297	23.36731
568452.29	4180846.94	568452.29_4180846.94	0.83487	0.54772	2.26625	1.55107	14.34458	20.95941
568472.29	4180846.94	568472.29_4180846.94	0.8008	0.53197	2.19307	1.54691	13.15309	18.95785
568492.29	4180846.94	568492.29_4180846.94	0.77098	0.51895	2.12262	1.55009	12.19012	17.34428
568512.29	4180846.94	568512.29_4180846.94	0.74243	0.50616	2.05344	1.55144	11.33585	15.94359
568532.29	4180846.94	568532.29_4180846.94	0.71625	0.49467	1.98637	1.55454	10.60256	14.75265
568552.29	4180846.94	568552.29_4180846.94	0.68912	0.48139	1.92004	1.54713	9.88635	13.63063
568572.29	4180846.94	568572.29_4180846.94	0.66288	0.46804	1.85494	1.53554	9.22669	12.61133

568592.29	4180846.94	568592.29_4180846.94	0.64058	0.45783	1.79363	1.53388	8.70355	11.79284
568612.29	4180846.94	568612.29_4180846.94	0.61915	0.4478	1.73438	1.53046	8.22017	11.04241
568632.29	4180846.94	568632.29_4180846.94	0.59779	0.43709	1.67601	1.52211	7.75841	10.33678
568652.29	4180846.94	568652.29_4180846.94	0.57791	0.42728	1.62066	1.51591	7.34797	9.70919
568672.29	4180846.94	568672.29_4180846.94	0.55743	0.41607	1.56557	1.50153	6.92131	9.09196
568692.29	4180846.94	568692.29_4180846.94	0.53845	0.40585	1.51401	1.48965	6.53399	8.54548
568712.29	4180846.94	568712.29_4180846.94	0.52033	0.39596	1.46513	1.47719	6.19697	8.04173
568732.29	4180846.94	568732.29_4180846.94	0.50423	0.38782	1.42428	1.47176	5.91696	7.62285
568752.29	4180846.94	568752.29_4180846.94	0.48947	0.38076	1.38328	1.4701	5.67376	7.26317
568772.29	4180846.94	568772.29_4180846.94	0.47431	0.37262	1.34298	1.46093	5.42136	6.89756
568792.29	4180846.94	568792.29_4180846.94	0.45936	0.36418	1.30417	1.44809	5.17564	6.54152
568812.29	4180846.94	568812.29_4180846.94	0.44565	0.35675	1.26872	1.4389	4.96092	6.23408
567412.29	4180866.94	567412.29_4180866.94	0.16218	0.18298	0.56276	0.86436	1.13548	1.1346
567432.29	4180866.94	567432.29_4180866.94	0.17104	0.1931	0.57933	0.89041	1.1825	1.18173
567452.29	4180866.94	567452.29_4180866.94	0.18074	0.20398	0.59833	0.91706	1.23327	1.23271
567472.29	4180866.94	567472.29_4180866.94	0.19118	0.21586	0.61657	0.94421	1.28763	1.28721
567492.29	4180866.94	567492.29_4180866.94	0.20271	0.22857	0.6359	0.97142	1.34677	1.34666
567512.29	4180866.94	567512.29_4180866.94	0.21511	0.24254	0.65911	0.99886	1.4103	1.41039
567532.29	4180866.94	567532.29_4180866.94	0.22857	0.25776	0.68027	1.0264	1.47906	1.47934
567552.29	4180866.94	567552.29_4180866.94	0.24348	0.27396	0.70468	1.05338	1.55462	1.55524
567572.29	4180866.94	567572.29_4180866.94	0.26009	0.29101	0.73006	1.07964	1.63805	1.63938
567592.29	4180866.94	567592.29_4180866.94	0.27796	0.30939	0.75935	1.10503	1.72935	1.73144
567612.29	4180866.94	567612.29_4180866.94	0.29737	0.32938	0.79486	1.13002	1.82936	1.83207
567632.29	4180866.94	567632.29_4180866.94	0.31863	0.3507	0.8318	1.15387	1.94004	1.94342
567652.29	4180866.94	567652.29_4180866.94	0.34195	0.37343	0.86765	1.17669	2.06284	2.06685
567672.29	4180866.94	567672.29_4180866.94	0.36751	0.39689	0.91192	1.19764	2.20086	2.20576
567692.29	4180866.94	567692.29_4180866.94	0.39556	0.42146	0.95263	1.2172	2.35545	2.36121
567712.29	4180866.94	567712.29_4180866.94	0.42637	0.44538	0.99994	1.234	2.53353	2.54084
567732.29	4180866.94	567732.29_4180866.94	0.46022	0.46855	1.04556	1.24826	2.7391	2.74859
567752.29	4180866.94	567752.29_4180866.94	0.49738	0.49138	1.10311	1.26126	2.97643	2.98764
567772.29	4180866.94	567772.29_4180866.94	0.53839	0.50721	1.15823	1.27249	3.25554	3.26909
567792.29	4180866.94	567792.29_4180866.94	0.58441	0.52663	1.21646	1.28364	3.58665	3.60199
567812.29	4180866.94	567812.29_4180866.94	0.63567	0.5441	1.28486	1.29461	3.98789	4.00385
567832.29	4180866.94	567832.29_4180866.94	0.69378	0.56121	1.35726	1.30715	4.48091	4.49302
567852.29	4180866.94	567852.29_4180866.94	0.75899	0.57732	1.43539	1.32138	5.10248	5.10147
567872.29	4180866.94	567872.29_4180866.94	0.83083	0.5913	1.51159	1.33638	5.91147	5.87549
567892.29	4180866.94	567892.29_4180866.94	0.9089	0.60317	1.58877	1.35222	6.99406	6.87371
567912.29	4180866.94	567912.29_4180866.94	0.99029	0.61209	1.67616	1.36708	8.46963	8.16417
567932.29	4180866.94	567932.29_4180866.94	1.07119	0.61944	1.75628	1.38092	10.52496	9.80929
567952.29	4180866.94	567952.29_4180866.94	1.14967	0.62855	1.82495	1.39428	13.39039	11.87354
567992.29	4180866.94	567992.29_4180866.94	1.27165	0.64786	2.45105	1.41675	22.11955	17.43658
568012.29	4180866.94	568012.29_4180866.94	1.30333	0.65182	2.69463	1.42248	28.55659	21.22846
568032.29	4180866.94	568032.29_4180866.94	1.32416	0.65695	2.76426	1.42835	37.21321	26.02916
568052.29	4180866.94	568052.29_4180866.94	1.3279	0.65883	2.77867	1.43193	48.59949	32.02044
568072.29	4180866.94	568072.29_4180866.94	1.32188	0.65998	2.59787	1.43551	63.77557	39.50107
568232.29	4180866.94	568232.29_4180866.94	1.09777	0.63062	1.92681	1.45214	41.9579	67.57112
568252.29	4180866.94	568252.29_4180866.94	1.05765	0.61885	1.98825	1.43589	35.54353	55.08604
568272.29	4180866.94	568272.29_4180866.94	1.02254	0.60912	2.0687	1.43711	30.77004	46.56504
568292.29	4180866.94	568292.29_4180866.94	0.98791	0.59845	2.13616	1.43838	26.96153	40.16773
568312.29	4180866.94	568312.29_4180866.94	0.95513	0.58795	2.17949	1.44148	23.91625	35.24157
568332.29	4180866.94	568332.29_4180866.94	0.91864	0.57359	2.19346	1.43075	21.22897	31.00625
568372.29	4180866.94	568372.29_4180866.94	0.85389	0.548	2.16715	1.42932	17.28206	24.81789
568392.29	4180866.94	568392.29_4180866.94	0.82408	0.53584	2.13501	1.43177	15.78131	22.46149
568412.29	4180866.94	568412.29_4180866.94	0.79638	0.52452	2.09153	1.43737	14.52892	20.47915
568432.29	4180866.94	568432.29_4180866.94	0.77064	0.51406	2.04289	1.44999	13.4735	18.79593
568452.29	4180866.94	568452.29_4180866.94	0.74235	0.50063	1.98644	1.44504	12.44373	17.20544
568472.29	4180866.94	568472.29_4180866.94	0.71635	0.48845	1.92936	1.447	11.56945	15.85536
568492.29	4180866.94	568492.29_4180866.94	0.68934	0.4746	1.87338	1.44115	10.7315	14.59692
568512.29	4180866.94	568512.29_4180866.94	0.66395	0.46148	1.81736	1.43498	9.97934	13.50029
568532.29	4180866.94	568532.29_4180866.94	0.64363	0.45255	1.76444	1.44225	9.4412	12.6672
568552.29	4180866.94	568552.29_4180866.94	0.62239	0.44214	1.71376	1.44086	8.88949	11.86068
568572.29	4180866.94	568572.29_4180866.94	0.6018	0.43177	1.66268	1.43678	8.38074	11.11693
568592.29	4180866.94	568592.29_4180866.94	0.58213	0.42173	1.61314	1.43144	7.91638	10.44037
568612.29	4180866.94	568612.29_4180866.94	0.56308	0.41175	1.56442	1.42417	7.48331	9.81059
568632.29	4180866.94	568632.29_4180866.94	0.54393	0.40109	1.51602	1.41181	7.0329	9.20834
568652.29	4180866.94	568652.29_4180866.94	0.52763	0.39299	1.47217	1.40948	6.71943	8.71599
568672.29	4180866.94	568672.29_4180866.94	0.51099	0.38401	1.42886	1.40154	6.38584	8.22997

568692.29	4180866.94	568692.29_4180866.94	0.49406	0.37418	1.38622	1.38749	6.03261	7.75184
568712.29	4180866.94	568712.29_4180866.94	0.47998	0.36716	1.3484	1.38581	5.77767	7.38312
568732.29	4180866.94	568732.29_4180866.94	0.46572	0.3595	1.31149	1.37909	5.52155	7.01074
568752.29	4180866.94	568752.29_4180866.94	0.4527	0.35289	1.27755	1.37611	5.29909	6.69524
568792.29	4180866.94	568792.29_4180866.94	0.42678	0.33853	1.21262	1.35892	4.8626	6.07851
567412.29	4180886.94	567412.29_4180886.94	0.16057	0.18118	0.55141	0.84661	1.11276	1.11289
567432.29	4180886.94	567432.29_4180886.94	0.16927	0.19095	0.56659	0.87071	1.15845	1.1588
567452.29	4180886.94	567452.29_4180886.94	0.17872	0.20147	0.58143	0.89514	1.20755	1.20819
567472.29	4180886.94	567472.29_4180886.94	0.18886	0.21292	0.60021	0.92	1.26007	1.26097
567492.29	4180886.94	567492.29_4180886.94	0.19983	0.2253	0.61876	0.9451	1.31662	1.31779
567512.29	4180886.94	567512.29_4180886.94	0.21178	0.23857	0.63996	0.97001	1.37796	1.37942
567532.29	4180886.94	567532.29_4180886.94	0.22509	0.25246	0.65922	0.99426	1.44533	1.44745
567552.29	4180886.94	567552.29_4180886.94	0.23935	0.26758	0.68013	1.0183	1.51806	1.52075
567572.29	4180886.94	567572.29_4180886.94	0.2548	0.28356	0.70804	1.04148	1.59775	1.60123
567592.29	4180886.94	567592.29_4180886.94	0.27153	0.30088	0.73669	1.06432	1.68453	1.68862
567612.29	4180886.94	567612.29_4180886.94	0.28973	0.31926	0.76751	1.08619	1.77989	1.78471
567632.29	4180886.94	567632.29_4180886.94	0.30953	0.33824	0.79326	1.1066	1.88591	1.89176
567652.29	4180886.94	567652.29_4180886.94	0.33109	0.35855	0.82753	1.12619	2.00255	2.00927
567672.29	4180886.94	567672.29_4180886.94	0.35453	0.37882	0.86196	1.14369	2.13412	2.14222
567692.29	4180886.94	567692.29_4180886.94	0.38001	0.39862	0.90655	1.15884	2.28365	2.29391
567712.29	4180886.94	567712.29_4180886.94	0.40782	0.41951	0.94589	1.17343	2.45032	2.46227
567732.29	4180886.94	567732.29_4180886.94	0.43807	0.43859	0.99332	1.18515	2.64418	2.6593
567752.29	4180886.94	567752.29_4180886.94	0.47067	0.45241	1.04361	1.19531	2.86842	2.88686
567772.29	4180886.94	567772.29_4180886.94	0.50655	0.46858	1.09694	1.20471	3.13003	3.15304
567792.29	4180886.94	567792.29_4180886.94	0.54611	0.48365	1.1564	1.21401	3.43988	3.4685
567812.29	4180886.94	567812.29_4180886.94	0.58945	0.49724	1.20924	1.22364	3.81404	3.84953
567832.29	4180886.94	567832.29_4180886.94	0.63705	0.51	1.27564	1.2343	4.27455	4.31791
567852.29	4180886.94	567852.29_4180886.94	0.68816	0.52104	1.3477	1.246	4.85903	4.91047
567872.29	4180886.94	567872.29_4180886.94	0.74406	0.533	1.41541	1.25976	5.61713	5.67034
567892.29	4180886.94	567892.29_4180886.94	0.80109	0.54222	1.48892	1.27336	6.65111	6.68983
567912.29	4180886.94	567912.29_4180886.94	0.85801	0.54989	1.55691	1.28644	8.12371	8.08421
567932.29	4180886.94	567932.29_4180886.94	0.91136	0.55516	1.60547	1.29763	10.35202	10.03135
567952.29	4180886.94	567952.29_4180886.94	0.96165	0.56147	1.64467	1.30807	13.95999	12.76986
567992.29	4180886.94	567992.29_4180886.94	1.03962	0.57571	1.72816	1.3253	28.83837	21.27847
568012.29	4180886.94	568012.29_4180886.94	1.06388	0.58082	1.93103	1.33071	41.84326	27.60977
568172.29	4180886.94	568172.29_4180886.94	1.00626	0.57837	1.68748	1.33331	44.77854	74.5172
568192.29	4180886.94	568192.29_4180886.94	0.98451	0.57568	1.65763	1.34143	38.44264	59.62715
568212.29	4180886.94	568212.29_4180886.94	0.96014	0.57126	1.63854	1.34515	33.42142	49.62376
568232.29	4180886.94	568232.29_4180886.94	0.93249	0.56413	1.63837	1.33512	29.2471	42.23307
568252.29	4180886.94	568252.29_4180886.94	0.90381	0.55547	1.67017	1.32729	25.78007	36.58759
568272.29	4180886.94	568272.29_4180886.94	0.87753	0.54764	1.73017	1.32762	23.00731	32.31548
568292.29	4180886.94	568292.29_4180886.94	0.852	0.53945	1.7946	1.32953	20.70751	28.88458
568312.29	4180886.94	568312.29_4180886.94	0.82186	0.52677	1.84255	1.321	18.56574	25.75998
568352.29	4180886.94	568352.29_4180886.94	0.77348	0.50845	1.87774	1.32698	15.54029	21.34619
568372.29	4180886.94	568372.29_4180886.94	0.75096	0.49969	1.87246	1.33305	14.36213	19.61133
568392.29	4180886.94	568392.29_4180886.94	0.72684	0.48891	1.85449	1.33439	13.26951	18.0056
568412.29	4180886.94	568412.29_4180886.94	0.70375	0.47834	1.82711	1.33688	12.32232	16.60734
568432.29	4180886.94	568432.29_4180886.94	0.68229	0.46856	1.79067	1.34219	11.5108	15.40632
568452.29	4180886.94	568452.29_4180886.94	0.66121	0.45855	1.74998	1.34673	10.78034	14.33169
568472.29	4180886.94	568472.29_4180886.94	0.6392	0.44711	1.70392	1.34561	10.07929	13.32535
568492.29	4180886.94	568492.29_4180886.94	0.618	0.43587	1.6589	1.34354	9.44519	12.42434
568512.29	4180886.94	568512.29_4180886.94	0.59815	0.42541	1.6131	1.3422	8.8742	11.63686
568532.29	4180886.94	568532.29_4180886.94	0.58061	0.41675	1.57081	1.34561	8.41781	10.9818
568552.29	4180886.94	568552.29_4180886.94	0.56299	0.40756	1.52778	1.34462	7.96954	10.35841
568572.29	4180886.94	568572.29_4180886.94	0.54557	0.39815	1.48585	1.34033	7.54666	9.77276
568592.29	4180886.94	568592.29_4180886.94	0.52792	0.38803	1.44537	1.33071	7.10671	9.20404
568612.29	4180886.94	568612.29_4180886.94	0.51149	0.37875	1.40521	1.32267	6.73845	8.69437
568632.29	4180886.94	568632.29_4180886.94	0.49605	0.37011	1.367	1.31588	6.40671	8.22457
568652.29	4180886.94	568652.29_4180886.94	0.48259	0.36326	1.33342	1.31628	6.13499	7.83831
568672.29	4180886.94	568672.29_4180886.94	0.46946	0.35647	1.30003	1.3156	5.89247	7.47114
568692.29	4180886.94	568692.29_4180886.94	0.45494	0.34771	1.26545	1.30395	5.59111	7.07115
568712.29	4180886.94	568712.29_4180886.94	0.44207	0.3405	1.23401	1.29823	5.35032	6.73539
568732.29	4180886.94	568732.29_4180886.94	0.42972	0.33357	1.20411	1.29227	5.12596	6.42443
568752.29	4180886.94	568752.29_4180886.94	0.41763	0.32661	1.17661	1.28441	4.90045	6.12919
568772.29	4180886.94	568772.29_4180886.94	0.40749	0.32173	1.15178	1.28615	4.74445	5.89688
568812.29	4180886.94	568812.29_4180886.94	0.38579	0.30931	1.1017	1.27055	4.3821	5.39992
567412.29	4180906.94	567412.29_4180906.94	0.15893	0.17923	0.5389	0.82839	1.09001	1.09099

567432.29	4180906.94	567432.29_4180906.94	0.16743	0.18864	0.55255	0.85082	1.13423	1.13555
567452.29	4180906.94	567452.29_4180906.94	0.17643	0.19895	0.56914	0.87354	1.1811	1.18264
567472.29	4180906.94	567472.29_4180906.94	0.18629	0.20985	0.58528	0.89613	1.23196	1.23387
567492.29	4180906.94	567492.29_4180906.94	0.19704	0.22141	0.60171	0.91852	1.28698	1.28939
567512.29	4180906.94	567512.29_4180906.94	0.2084	0.23409	0.62171	0.9411	1.34562	1.34839
567532.29	4180906.94	567532.29_4180906.94	0.22083	0.24745	0.6445	0.96311	1.40955	1.41284
567552.29	4180906.94	567552.29_4180906.94	0.23446	0.26142	0.66205	0.98431	1.47957	1.48364
567572.29	4180906.94	567572.29_4180906.94	0.24913	0.27592	0.68409	1.00446	1.5563	1.56141
567592.29	4180906.94	567592.29_4180906.94	0.26484	0.29185	0.7072	1.02455	1.639	1.64484
567612.29	4180906.94	567612.29_4180906.94	0.28182	0.30831	0.738	1.04337	1.73019	1.73704
567632.29	4180906.94	567632.29_4180906.94	0.30017	0.32534	0.76192	1.06099	1.8308	1.83883
567652.29	4180906.94	567652.29_4180906.94	0.31996	0.3423	0.79379	1.07674	1.94328	1.95302
567672.29	4180906.94	567672.29_4180906.94	0.341	0.35663	0.82721	1.09073	2.06899	2.0805
567692.29	4180906.94	567692.29_4180906.94	0.36402	0.37372	0.86522	1.10379	2.20919	2.22293
567712.29	4180906.94	567712.29_4180906.94	0.38914	0.39368	0.90833	1.11566	2.36692	2.38315
567732.29	4180906.94	567732.29_4180906.94	0.41603	0.40979	0.9506	1.12569	2.5475	2.56772
567752.29	4180906.94	567752.29_4180906.94	0.44457	0.42024	0.99225	1.13381	2.75729	2.78193
567772.29	4180906.94	567772.29_4180906.94	0.47557	0.43285	1.04079	1.1415	3.00087	3.03179
567792.29	4180906.94	567792.29_4180906.94	0.50904	0.44419	1.09483	1.1491	3.28842	3.32751
567812.29	4180906.94	567812.29_4180906.94	0.54506	0.45448	1.15293	1.15729	3.63338	3.68355
567832.29	4180906.94	567832.29_4180906.94	0.58296	0.4631	1.2086	1.16582	4.05521	4.12261
567852.29	4180906.94	567852.29_4180906.94	0.62328	0.47181	1.26762	1.17613	4.58378	4.67324
567872.29	4180906.94	567872.29_4180906.94	0.6653	0.48057	1.32957	1.18771	5.26833	5.38759
567892.29	4180906.94	567892.29_4180906.94	0.70851	0.48986	1.38893	1.20054	6.1935	6.35257
567912.29	4180906.94	567912.29_4180906.94	0.74944	0.49652	1.42697	1.21193	7.5163	7.72257
567932.29	4180906.94	567932.29_4180906.94	0.78806	0.50212	1.46617	1.22205	9.57452	9.79186
568132.29	4180906.94	568132.29_4180906.94	0.88406	0.52182	1.52125	1.23954	38.25951	63.71871
568152.29	4180906.94	568152.29_4180906.94	0.8725	0.52122	1.52064	1.24267	33.40981	51.95444
568172.29	4180906.94	568172.29_4180906.94	0.85497	0.51728	1.49818	1.23482	29.33823	43.46648
568192.29	4180906.94	568192.29_4180906.94	0.84008	0.51595	1.47437	1.23946	26.29742	37.65373
568212.29	4180906.94	568212.29_4180906.94	0.82309	0.51332	1.45076	1.24428	23.71136	33.15014
568232.29	4180906.94	568232.29_4180906.94	0.80524	0.50992	1.4307	1.24643	21.50161	29.58189
568252.29	4180906.94	568252.29_4180906.94	0.78229	0.50214	1.43508	1.23734	19.41225	26.43039
568272.29	4180906.94	568272.29_4180906.94	0.76025	0.49432	1.47069	1.23344	17.64216	23.85831
568332.29	4180906.94	568332.29_4180906.94	0.7008	0.47221	1.61075	1.23686	13.79346	18.40477
568352.29	4180906.94	568352.29_4180906.94	0.68486	0.467	1.62909	1.24845	12.91866	17.14828
568372.29	4180906.94	568372.29_4180906.94	0.66453	0.45753	1.63085	1.24717	12.01252	15.86754
568392.29	4180906.94	568392.29_4180906.94	0.64512	0.44834	1.62183	1.24872	11.22386	14.74438
568412.29	4180906.94	568412.29_4180906.94	0.62524	0.43815	1.60374	1.24773	10.49232	13.70678
568432.29	4180906.94	568432.29_4180906.94	0.60814	0.43	1.58063	1.25345	9.89419	12.85515
568452.29	4180906.94	568452.29_4180906.94	0.59071	0.42107	1.55114	1.25666	9.33139	12.06336
568472.29	4180906.94	568472.29_4180906.94	0.57341	0.41181	1.51699	1.25815	8.80668	11.33604
568492.29	4180906.94	568492.29_4180906.94	0.55652	0.40253	1.47917	1.25837	8.32508	10.68017
568512.29	4180906.94	568512.29_4180906.94	0.54103	0.39425	1.44251	1.26077	7.90392	10.1111
568532.29	4180906.94	568532.29_4180906.94	0.52524	0.38533	1.40451	1.25888	7.48773	9.56915
568552.29	4180906.94	568552.29_4180906.94	0.50917	0.37577	1.36837	1.2522	7.07639	9.04281
568572.29	4180906.94	568572.29_4180906.94	0.49508	0.36792	1.33301	1.25065	6.74538	8.59786
568592.29	4180906.94	568592.29_4180906.94	0.48057	0.35929	1.29946	1.24403	6.41461	8.15189
568612.29	4180906.94	568612.29_4180906.94	0.46652	0.35085	1.26615	1.23652	6.1056	7.7383
568632.29	4180906.94	568632.29_4180906.94	0.45351	0.34321	1.2349	1.23145	5.81665	7.3658
568652.29	4180906.94	568652.29_4180906.94	0.44075	0.33558	1.20641	1.2251	5.5561	7.01131
568672.29	4180906.94	568672.29_4180906.94	0.42981	0.3297	1.17936	1.22636	5.36106	6.71692
568692.29	4180906.94	568692.29_4180906.94	0.41922	0.32402	1.15385	1.22733	5.16351	6.44421
568712.29	4180906.94	568712.29_4180906.94	0.40712	0.31633	1.12706	1.21666	4.9214	6.13306
568732.29	4180906.94	568732.29_4180906.94	0.3973	0.31108	1.1053	1.21709	4.75929	5.89319
568772.29	4180906.94	568772.29_4180906.94	0.37749	0.2997	1.06148	1.20884	4.41401	5.42685
568812.29	4180906.94	568812.29_4180906.94	0.3584	0.28829	1.02075	1.19433	4.08474	4.99881
567412.29	4180926.94	567412.29_4180926.94	0.15716	0.17719	0.52758	0.80973	1.06699	1.06864
567432.29	4180926.94	567432.29_4180926.94	0.16531	0.18636	0.54259	0.83059	1.10936	1.11132
567452.29	4180926.94	567452.29_4180926.94	0.17434	0.19581	0.55085	0.85102	1.15554	1.1581
567472.29	4180926.94	567472.29_4180926.94	0.18375	0.20629	0.56689	0.87171	1.20422	1.2071
567492.29	4180926.94	567492.29_4180926.94	0.19397	0.21732	0.58183	0.89204	1.2568	1.26018
567512.29	4180926.94	567512.29_4180926.94	0.20492	0.22912	0.60291	0.91217	1.31338	1.31725
567532.29	4180926.94	567532.29_4180926.94	0.21669	0.24161	0.62242	0.93179	1.37457	1.37899
567552.29	4180926.94	567552.29_4180926.94	0.22957	0.25448	0.64271	0.9505	1.44153	1.44681
567572.29	4180926.94	567572.29_4180926.94	0.24324	0.26803	0.66139	0.96848	1.51423	1.52047
567592.29	4180926.94	567592.29_4180926.94	0.25791	0.28231	0.68526	0.98575	1.59326	1.6005

567612.29	4180926.94	567612.29_4180926.94	0.27366	0.29687	0.71298	1.0018	1.68023	1.68869
567632.29	4180926.94	567632.29_4180926.94	0.29048	0.31145	0.73998	1.01632	1.77647	1.78662
567652.29	4180926.94	567652.29_4180926.94	0.30839	0.32402	0.77017	1.02954	1.8828	1.89454
567672.29	4180926.94	567672.29_4180926.94	0.3277	0.33868	0.79969	1.04158	2.00074	2.01463
567692.29	4180926.94	567692.29_4180926.94	0.34836	0.35291	0.8333	1.05221	2.13277	2.14931
567712.29	4180926.94	567712.29_4180926.94	0.37043	0.36642	0.86846	1.06137	2.28159	2.30146
567732.29	4180926.94	567732.29_4180926.94	0.39401	0.37901	0.90712	1.06935	2.45062	2.47467
567752.29	4180926.94	567752.29_4180926.94	0.419	0.3901	0.9527	1.07613	2.64485	2.67454
567772.29	4180926.94	567772.29_4180926.94	0.44539	0.3996	0.99642	1.0822	2.87047	2.90768
567792.29	4180926.94	567792.29_4180926.94	0.47296	0.40726	1.04493	1.08783	3.13406	3.18285
567812.29	4180926.94	567812.29_4180926.94	0.5028	0.41554	1.09053	1.09511	3.44814	3.51041
567832.29	4180926.94	567832.29_4180926.94	0.53362	0.42278	1.14404	1.10293	3.82862	3.91002
567852.29	4180926.94	567852.29_4180926.94	0.56503	0.42941	1.19575	1.11175	4.29997	4.40889
567872.29	4180926.94	567872.29_4180926.94	0.59702	0.43642	1.24073	1.12176	4.9014	5.05174
567892.29	4180926.94	567892.29_4180926.94	0.62924	0.44401	1.2796	1.13277	5.69946	5.91496
567912.29	4180926.94	567912.29_4180926.94	0.65852	0.44861	1.31371	1.1418	6.8043	7.13512
568092.29	4180926.94	568092.29_4180926.94	0.77172	0.4719	1.37633	1.16024	30.01602	52.41612
568112.29	4180926.94	568112.29_4180926.94	0.76414	0.46918	1.36803	1.15274	26.80378	43.24406
568132.29	4180926.94	568132.29_4180926.94	0.75868	0.46966	1.36513	1.15432	24.41442	37.18632
568152.29	4180926.94	568152.29_4180926.94	0.7514	0.47	1.36015	1.15881	22.37304	32.66778
568172.29	4180926.94	568172.29_4180926.94	0.73905	0.46736	1.34527	1.15421	20.4366	28.903
568192.29	4180926.94	568192.29_4180926.94	0.72823	0.46666	1.328	1.15898	18.88258	26.09735
568212.29	4180926.94	568212.29_4180926.94	0.71449	0.46399	1.30363	1.15895	17.42658	23.68809
568232.29	4180926.94	568232.29_4180926.94	0.70052	0.46115	1.27545	1.16178	16.14544	21.69684
568252.29	4180926.94	568252.29_4180926.94	0.68181	0.4541	1.26158	1.15204	14.84741	19.79438
568312.29	4180926.94	568312.29_4180926.94	0.63498	0.43773	1.35468	1.15454	12.03389	15.79172
568332.29	4180926.94	568332.29_4180926.94	0.61917	0.43112	1.39408	1.15583	11.27742	14.72571
568352.29	4180926.94	568352.29_4180926.94	0.60575	0.42624	1.41933	1.16346	10.66289	13.85068
568372.29	4180926.94	568372.29_4180926.94	0.59079	0.41958	1.42967	1.16753	10.06423	13.00202
568392.29	4180926.94	568392.29_4180926.94	0.57484	0.4116	1.42854	1.16874	9.49224	12.19818
568412.29	4180926.94	568412.29_4180926.94	0.5591	0.40337	1.41928	1.16972	8.96975	11.46388
568432.29	4180926.94	568432.29_4180926.94	0.54352	0.39484	1.40373	1.1699	8.47354	10.79087
568452.29	4180926.94	568452.29_4180926.94	0.52929	0.38721	1.38279	1.17299	8.05113	10.20939
568472.29	4180926.94	568472.29_4180926.94	0.51632	0.38045	1.35697	1.17881	7.6923	9.70873
568492.29	4180926.94	568492.29_4180926.94	0.50226	0.37227	1.32834	1.17867	7.30591	9.20822
568512.29	4180926.94	568512.29_4180926.94	0.48889	0.36447	1.29631	1.17863	6.95004	8.75972
568532.29	4180926.94	568532.29_4180926.94	0.47369	0.3545	1.26338	1.1679	6.55571	8.27518
568552.29	4180926.94	568552.29_4180926.94	0.4612	0.34705	1.23086	1.1659	6.26225	7.89396
568572.29	4180926.94	568572.29_4180926.94	0.45059	0.34134	1.20243	1.17028	6.04298	7.58085
568592.29	4180926.94	568592.29_4180926.94	0.43849	0.33384	1.17262	1.16545	5.77721	7.23437
568612.29	4180926.94	568612.29_4180926.94	0.42639	0.32609	1.14554	1.15822	5.5048	6.89666
568632.29	4180926.94	568632.29_4180926.94	0.41482	0.31869	1.11893	1.15147	5.26553	6.5816
568652.29	4180926.94	568652.29_4180926.94	0.4043	0.31224	1.09559	1.14836	5.05895	6.30304
568672.29	4180926.94	568672.29_4180926.94	0.39418	0.30604	1.07249	1.14555	4.86615	6.04211
568692.29	4180926.94	568692.29_4180926.94	0.38584	0.30172	1.05226	1.15139	4.73186	5.83514
568732.29	4180926.94	568732.29_4180926.94	0.36698	0.29007	1.01315	1.14364	4.38107	5.38027
568752.29	4180926.94	568752.29_4180926.94	0.35828	0.28485	0.99506	1.14088	4.23041	5.17882
568772.29	4180926.94	568772.29_4180926.94	0.34975	0.27968	0.97777	1.13691	4.08457	4.98558
568792.29	4180926.94	568792.29_4180926.94	0.34134	0.27449	0.96233	1.13144	3.94244	4.79901
568812.29	4180926.94	568812.29_4180926.94	0.33344	0.26978	0.94702	1.12721	3.81304	4.62773
567412.29	4180946.94	567412.29_4180946.94	0.15544	0.1748	0.51267	0.79061	1.04451	1.04678
567432.29	4180946.94	567432.29_4180946.94	0.16342	0.18342	0.5242	0.80958	1.08565	1.08835
567452.29	4180946.94	567452.29_4180946.94	0.17196	0.19261	0.53616	0.82842	1.12957	1.13273
567472.29	4180946.94	567472.29_4180946.94	0.18105	0.20242	0.55088	0.84711	1.17651	1.1801
567492.29	4180946.94	567492.29_4180946.94	0.19083	0.21271	0.5662	0.86532	1.22711	1.23128
567512.29	4180946.94	567512.29_4180946.94	0.20124	0.22375	0.58397	0.88334	1.28126	1.28594
567532.29	4180946.94	567532.29_4180946.94	0.21232	0.23539	0.6034	0.90088	1.33959	1.34482
567552.29	4180946.94	567552.29_4180946.94	0.22433	0.24721	0.62374	0.91734	1.40344	1.40957
567572.29	4180946.94	567572.29_4180946.94	0.2371	0.25956	0.644	0.93309	1.47256	1.47965
567592.29	4180946.94	567592.29_4180946.94	0.25072	0.27211	0.66562	0.94772	1.54817	1.55645
567612.29	4180946.94	567612.29_4180946.94	0.26525	0.28502	0.69446	0.96147	1.63065	1.64026
567632.29	4180946.94	567632.29_4180946.94	0.2804	0.29557	0.71752	0.97341	1.72201	1.73317
567652.29	4180946.94	567652.29_4180946.94	0.29683	0.30838	0.74502	0.98471	1.82201	1.83498
567672.29	4180946.94	567672.29_4180946.94	0.31423	0.3208	0.77247	0.99462	1.933	1.94829
567692.29	4180946.94	567692.29_4180946.94	0.33272	0.33275	0.80264	1.00331	2.05673	2.07477
567712.29	4180946.94	567712.29_4180946.94	0.35223	0.3438	0.83943	1.01063	2.19576	2.21732
567732.29	4180946.94	567732.29_4180946.94	0.37267	0.35355	0.87748	1.01674	2.35344	2.37966

567752.29	4180946.94	567752.29_4180946.94	0.39399	0.36182	0.91626	1.02181	2.53375	2.56623
567772.29	4180946.94	567772.29_4180946.94	0.41593	0.36828	0.95352	1.02611	2.74015	2.78171
567792.29	4180946.94	567792.29_4180946.94	0.43901	0.37435	0.99419	1.03096	2.98054	3.03277
567812.29	4180946.94	567812.29_4180946.94	0.46319	0.38044	1.03894	1.03697	3.26497	3.33125
567832.29	4180946.94	567832.29_4180946.94	0.48815	0.38672	1.08312	1.04415	3.60682	3.69248
567852.29	4180946.94	567852.29_4180946.94	0.51275	0.39208	1.11573	1.05187	4.02382	4.13782
568052.29	4180946.94	568052.29_4180946.94	0.67025	0.4275	1.24576	1.09229	19.0702	36.00049
568072.29	4180946.94	568072.29_4180946.94	0.67062	0.42748	1.24557	1.08926	18.77521	32.2872
568092.29	4180946.94	568092.29_4180946.94	0.66756	0.42591	1.23937	1.08269	18.02536	28.84551
568112.29	4180946.94	568112.29_4180946.94	0.66379	0.42512	1.23418	1.08069	17.1824	26.04752
568132.29	4180946.94	568132.29_4180946.94	0.65965	0.42531	1.23474	1.08109	16.3551	23.80466
568152.29	4180946.94	568152.29_4180946.94	0.65408	0.42543	1.22731	1.08209	15.52532	21.91302
568172.29	4180946.94	568172.29_4180946.94	0.64588	0.4243	1.21592	1.0816	14.66631	20.22299
568192.29	4180946.94	568192.29_4180946.94	0.63629	0.42269	1.20253	1.08113	13.83793	18.75276
568212.29	4180946.94	568212.29_4180946.94	0.625	0.42001	1.18146	1.07967	13.02605	17.43018
568232.29	4180946.94	568232.29_4180946.94	0.61319	0.41699	1.1533	1.07885	12.26996	16.26612
568292.29	4180946.94	568292.29_4180946.94	0.57601	0.40496	1.14322	1.07931	10.32147	13.42784
568312.29	4180946.94	568312.29_4180946.94	0.5639	0.4005	1.17675	1.08181	9.78811	12.66394
568332.29	4180946.94	568332.29_4180946.94	0.55079	0.39476	1.21373	1.08244	9.2627	11.93087
568352.29	4180946.94	568352.29_4180946.94	0.53961	0.3905	1.24285	1.08871	8.85111	11.32314
568372.29	4180946.94	568372.29_4180946.94	0.52852	0.38601	1.25934	1.09582	8.46386	10.76198
568392.29	4180946.94	568392.29_4180946.94	0.51461	0.37848	1.26424	1.09488	8.03457	10.16285
568412.29	4180946.94	568412.29_4180946.94	0.5022	0.37203	1.26104	1.09786	7.66972	9.64895
568432.29	4180946.94	568432.29_4180946.94	0.49025	0.36568	1.25238	1.10153	7.33505	9.18298
568452.29	4180946.94	568452.29_4180946.94	0.47824	0.35894	1.23919	1.10389	7.00593	8.74524
568472.29	4180946.94	568472.29_4180946.94	0.4664	0.35201	1.22138	1.10518	6.68938	8.34055
568492.29	4180946.94	568492.29_4180946.94	0.455	0.34525	1.19936	1.10628	6.40624	7.97266
568512.29	4180946.94	568512.29_4180946.94	0.443	0.33757	1.17334	1.1027	6.11677	7.60271
568532.29	4180946.94	568532.29_4180946.94	0.43126	0.32992	1.14503	1.09768	5.82988	7.25816
568552.29	4180946.94	568552.29_4180946.94	0.42144	0.32407	1.11759	1.09921	5.61413	6.97973
568572.29	4180946.94	568572.29_4180946.94	0.41129	0.3177	1.09155	1.09747	5.39593	6.7
568592.29	4180946.94	568592.29_4180946.94	0.40033	0.31024	1.06484	1.08968	5.16136	6.40426
568612.29	4180946.94	568612.29_4180946.94	0.39071	0.30408	1.04198	1.08716	4.96819	6.15193
568632.29	4180946.94	568632.29_4180946.94	0.38123	0.2979	1.01938	1.08391	4.78267	5.9083
568652.29	4180946.94	568652.29_4180946.94	0.36708	0.2919	0.99943	1.0808	4.60809	5.67742
568672.29	4180946.94	568672.29_4180946.94	0.36417	0.28724	0.98075	1.0838	4.46944	5.48573
568712.29	4180946.94	568712.29_4180946.94	0.3478	0.27685	0.94716	1.08146	4.17958	5.09843
568732.29	4180946.94	568732.29_4180946.94	0.33968	0.27154	0.93108	1.07792	4.03762	4.91279
568752.29	4180946.94	568752.29_4180946.94	0.33197	0.2666	0.91615	1.07498	3.90596	4.74039
568772.29	4180946.94	568772.29_4180946.94	0.32439	0.26169	0.90304	1.07091	3.77788	4.57408
568792.29	4180946.94	568792.29_4180946.94	0.31712	0.25705	0.88984	1.067	3.65745	4.41761
568812.29	4180946.94	568812.29_4180946.94	0.31046	0.25305	0.8781	1.0654	3.5514	4.27736
567412.29	4180966.94	567412.29_4180966.94	0.1535	0.17232	0.50071	0.77156	1.02189	1.02451
567432.29	4180966.94	567432.29_4180966.94	0.16123	0.18048	0.5106	0.78876	1.06158	1.06464
567452.29	4180966.94	567452.29_4180966.94	0.16943	0.18913	0.52194	0.8058	1.10384	1.10737
567472.29	4180966.94	567472.29_4180966.94	0.17806	0.19844	0.54039	0.82277	1.14875	1.15264
567492.29	4180966.94	567492.29_4180966.94	0.18734	0.20809	0.55447	0.83914	1.19713	1.20158
567512.29	4180966.94	567512.29_4180966.94	0.19719	0.21823	0.56995	0.85509	1.24909	1.25409
567532.29	4180966.94	567532.29_4180966.94	0.20769	0.22875	0.58949	0.87037	1.30519	1.31085
567552.29	4180966.94	567552.29_4180966.94	0.21886	0.23958	0.60802	0.88485	1.36589	1.37235
567572.29	4180966.94	567572.29_4180966.94	0.23045	0.24848	0.6231	0.89767	1.43255	1.44007
567592.29	4180966.94	567592.29_4180966.94	0.24318	0.26165	0.64914	0.9108	1.5038	1.51215
567612.29	4180966.94	567612.29_4180966.94	0.25653	0.27306	0.67522	0.92256	1.58186	1.59144
567632.29	4180966.94	567632.29_4180966.94	0.27048	0.28241	0.69781	0.93284	1.6678	1.67895
567652.29	4180966.94	567652.29_4180966.94	0.28521	0.29309	0.72246	0.94195	1.76234	1.7754
567672.29	4180966.94	567672.29_4180966.94	0.30081	0.30356	0.7527	0.95002	1.8667	1.88194
567692.29	4180966.94	567692.29_4180966.94	0.3171	0.31319	0.78153	0.95679	1.98296	2.00092
567712.29	4180966.94	567712.29_4180966.94	0.33407	0.32184	0.8127	0.96232	2.11314	2.13466
567732.29	4180966.94	567732.29_4180966.94	0.35167	0.32935	0.84571	0.96691	2.25963	2.28597
567752.29	4180966.94	567752.29_4180966.94	0.37006	0.33613	0.87976	0.97117	2.42598	2.45808
567772.29	4180966.94	567772.29_4180966.94	0.38869	0.34136	0.91368	0.9748	2.61642	2.65597
567792.29	4180966.94	567792.29_4180966.94	0.40708	0.34466	0.95034	0.97781	2.8346	2.88439
567812.29	4180966.94	567812.29_4180966.94	0.42714	0.35014	0.98311	0.98348	3.09375	3.15619
568012.29	4180966.94	568012.29_4180966.94	0.58086	0.38727	1.12204	1.03165	10.82473	16.11354
568032.29	4180966.94	568032.29_4180966.94	0.58479	0.38784	1.12668	1.02743	11.4587	17.54167
568052.29	4180966.94	568052.29_4180966.94	0.58645	0.38775	1.12957	1.02122	11.8458	18.0597
568072.29	4180966.94	568072.29_4180966.94	0.58583	0.38685	1.12779	1.01744	11.95897	17.8615

568092.29	4180966.94	568092.29_4180966.94	0.5869	0.38874	1.12468	1.0192	12.00551	17.5018
568112.29	4180966.94	568112.29_4180966.94	0.58193	0.38613	1.12195	1.01347	11.72683	16.66205
568132.29	4180966.94	568132.29_4180966.94	0.57896	0.38646	1.11984	1.01354	11.48166	15.97034
568152.29	4180966.94	568152.29_4180966.94	0.57456	0.38647	1.11269	1.01371	11.16592	15.25563
568172.29	4180966.94	568172.29_4180966.94	0.57	0.38719	1.10461	1.01616	10.84166	14.59873
568192.29	4180966.94	568192.29_4180966.94	0.56179	0.38525	1.09424	1.01415	10.40831	13.85412
568212.29	4180966.94	568212.29_4180966.94	0.55001	0.38039	1.07652	1.00657	9.86854	13.03097
568272.29	4180966.94	568272.29_4180966.94	0.52511	0.37572	1.01215	1.01482	8.76915	11.34432
568292.29	4180966.94	568292.29_4180966.94	0.51452	0.37164	1.01464	1.0146	8.38003	10.77851
568312.29	4180966.94	568312.29_4180966.94	0.50347	0.36684	1.03497	1.01392	7.99646	10.23572
568332.29	4180966.94	568332.29_4180966.94	0.49334	0.36269	1.06489	1.01639	7.66885	9.75991
568352.29	4180966.94	568352.29_4180966.94	0.48385	0.35891	1.09373	1.02146	7.38065	9.33684
568372.29	4180966.94	568372.29_4180966.94	0.47431	0.35482	1.11462	1.02694	7.1161	8.9383
568392.29	4180966.94	568392.29_4180966.94	0.46443	0.35013	1.12493	1.0317	6.85461	8.55611
568412.29	4180966.94	568412.29_4180966.94	0.4541	0.34469	1.12647	1.0348	6.59154	8.18567
568432.29	4180966.94	568432.29_4180966.94	0.44373	0.33891	1.1221	1.03713	6.33291	7.83673
568452.29	4180966.94	568452.29_4180966.94	0.43279	0.33221	1.11362	1.03612	6.06262	7.48985
568472.29	4180966.94	568472.29_4180966.94	0.42236	0.32573	1.10128	1.03527	5.81991	7.17086
568492.29	4180966.94	568492.29_4180966.94	0.41403	0.32121	1.08588	1.04129	5.63455	6.93138
568512.29	4180966.94	568512.29_4180966.94	0.40413	0.31477	1.06663	1.03912	5.41463	6.654
568532.29	4180966.94	568532.29_4180966.94	0.39429	0.30816	1.04449	1.03513	5.19071	6.38928
568552.29	4180966.94	568552.29_4180966.94	0.38459	0.30149	1.02079	1.02971	4.98334	6.13381
568572.29	4180966.94	568572.29_4180966.94	0.37117	0.29579	0.99756	1.02783	4.80822	5.91282
568592.29	4180966.94	568592.29_4180966.94	0.36806	0.29083	0.97544	1.02892	4.65788	5.71735
568612.29	4180966.94	568612.29_4180966.94	0.35938	0.2848	0.95374	1.02455	4.48951	5.50284
568632.29	4180966.94	568632.29_4180966.94	0.35142	0.27947	0.93389	1.02312	4.34307	5.31104
568672.29	4180966.94	568672.29_4180966.94	0.33618	0.2692	0.89985	1.02089	4.07306	4.95412
568692.29	4180966.94	568692.29_4180966.94	0.32429	0.26384	0.88516	1.01752	3.93864	4.77936
568712.29	4180966.94	568712.29_4180966.94	0.3219	0.25963	0.87149	1.01935	3.83093	4.63412
568732.29	4180966.94	568732.29_4180966.94	0.31521	0.25524	0.85864	1.01918	3.72096	4.48903
568752.29	4180966.94	568752.29_4180966.94	0.30793	0.25004	0.84659	1.01345	3.59702	4.3323
568772.29	4180966.94	568772.29_4180966.94	0.3013	0.24553	0.83503	1.01023	3.48816	4.19253
568792.29	4180966.94	568792.29_4180966.94	0.29517	0.24157	0.82472	1.0089	3.39128	4.06637
568812.29	4180966.94	568812.29_4180966.94	0.28889	0.23733	0.81552	1.00475	3.29026	3.93743
567412.29	4180986.94	567412.29_4180986.94	0.15159	0.16943	0.48941	0.75213	1.00003	1.00292
567432.29	4180986.94	567432.29_4180986.94	0.15884	0.17737	0.50204	0.76804	1.03771	1.04085
567452.29	4180986.94	567452.29_4180986.94	0.16668	0.1855	0.51542	0.78339	1.07834	1.08188
567472.29	4180986.94	567472.29_4180986.94	0.17487	0.19423	0.5301	0.79866	1.12136	1.12525
567492.29	4180986.94	567492.29_4180986.94	0.18366	0.20317	0.54354	0.81325	1.16775	1.17211
567512.29	4180986.94	567512.29_4180986.94	0.19294	0.21229	0.55836	0.82707	1.21786	1.22284
567532.29	4180986.94	567532.29_4180986.94	0.20277	0.22179	0.57393	0.84034	1.27154	1.27726
567552.29	4180986.94	567552.29_4180986.94	0.21318	0.23172	0.5933	0.85315	1.3292	1.33546
567572.29	4180986.94	567572.29_4180986.94	0.224	0.23997	0.61267	0.86453	1.39229	1.39932
567592.29	4180986.94	567592.29_4180986.94	0.23554	0.24984	0.63303	0.87533	1.46037	1.46826
567612.29	4180986.94	567612.29_4180986.94	0.24769	0.25973	0.65413	0.88519	1.5345	1.54343
567632.29	4180986.94	567632.29_4180986.94	0.26039	0.26926	0.67975	0.89382	1.61571	1.62592
567652.29	4180986.94	567652.29_4180986.94	0.27366	0.27843	0.70621	0.90134	1.70488	1.71668
567672.29	4180986.94	567672.29_4180986.94	0.28735	0.28671	0.73291	0.9074	1.8036	1.81748
567692.29	4180986.94	567692.29_4180986.94	0.30155	0.29426	0.75995	0.91242	1.91263	1.92936
567712.29	4180986.94	567712.29_4180986.94	0.31634	0.30125	0.78542	0.91672	2.03442	2.05427
567732.29	4180986.94	567732.29_4180986.94	0.33126	0.3067	0.81302	0.91983	2.17093	2.19456
567752.29	4180986.94	567752.29_4180986.94	0.34676	0.31176	0.84497	0.923	2.32541	2.35386
568032.29	4180986.94	568032.29_4180986.94	0.51856	0.35488	1.03087	0.96713	8.20843	10.98811
568052.29	4180986.94	568052.29_4180986.94	0.51918	0.35404	1.02813	0.96082	8.43561	11.38744
568072.29	4180986.94	568072.29_4180986.94	0.51842	0.35302	1.02605	0.95695	8.55934	11.55195
568092.29	4180986.94	568092.29_4180986.94	0.51945	0.35485	1.02562	0.95852	8.6705	11.66605
568112.29	4180986.94	568112.29_4180986.94	0.51575	0.35297	1.02423	0.95365	8.59327	11.48839
568132.29	4180986.94	568132.29_4180986.94	0.5122	0.35215	1.01986	0.95101	8.48502	11.2704
568152.29	4180986.94	568152.29_4180986.94	0.50945	0.35295	1.0136	0.95227	8.38736	11.06703
568172.29	4180986.94	568172.29_4180986.94	0.50549	0.35328	1.0065	0.9534	8.24117	10.8068
568192.29	4180986.94	568192.29_4180986.94	0.49725	0.35003	0.99844	0.94753	7.96074	10.39058
568252.29	4180986.94	568252.29_4180986.94	0.47726	0.34621	0.9431	0.9503	7.30835	9.39686
568272.29	4180986.94	568272.29_4180986.94	0.47003	0.34437	0.92277	0.95279	7.08847	9.06831
568292.29	4180986.94	568292.29_4180986.94	0.46184	0.34145	0.91451	0.95394	6.85421	8.72144
568312.29	4180986.94	568312.29_4180986.94	0.45298	0.33767	0.92279	0.95415	6.60479	8.37146
568332.29	4180986.94	568332.29_4180986.94	0.44493	0.33456	0.94336	0.95763	6.39931	8.06307
568352.29	4180986.94	568352.29_4180986.94	0.43706	0.33148	0.96866	0.96254	6.21843	7.77612

568392.29	4180986.94	568392.29_4180986.94	0.42027	0.32358	1.00564	0.97055	5.84229	7.21862
568412.29	4180986.94	568412.29_4180986.94	0.4115	0.3189	1.01171	0.9733	5.6461	6.9519
568432.29	4180986.94	568432.29_4180986.94	0.40216	0.31334	1.01088	0.97324	5.44846	6.67938
568452.29	4180986.94	568452.29_4180986.94	0.39333	0.30805	1.00512	0.97393	5.25663	6.43504
568472.29	4180986.94	568472.29_4180986.94	0.3848	0.30282	0.99605	0.97444	5.08098	6.20887
568492.29	4180986.94	568492.29_4180986.94	0.37733	0.2985	0.98505	0.97802	4.93315	6.01927
568512.29	4180986.94	568512.29_4180986.94	0.36956	0.29362	0.9713	0.9788	4.77825	5.82678
568532.29	4180986.94	568532.29_4180986.94	0.3613	0.28799	0.95468	0.97578	4.61267	5.62537
568552.29	4180986.94	568552.29_4180986.94	0.34872	0.28225	0.93601	0.97148	4.45097	5.42837
568572.29	4180986.94	568572.29_4180986.94	0.34643	0.27803	0.91767	0.97363	4.3298	5.27315
568592.29	4180986.94	568592.29_4180986.94	0.33904	0.27288	0.89828	0.97132	4.19348	5.10141
568632.29	4180986.94	568632.29_4180986.94	0.32485	0.26289	0.86227	0.96757	3.94256	4.77873
568652.29	4180986.94	568652.29_4180986.94	0.31347	0.2573	0.84553	0.96231	3.81074	4.61122
568672.29	4180986.94	568672.29_4180986.94	0.30636	0.25208	0.83039	0.95845	3.69039	4.45654
568692.29	4180986.94	568692.29_4180986.94	0.30042	0.24791	0.81703	0.9596	3.5944	4.32845
568712.29	4180986.94	568712.29_4180986.94	0.29486	0.24407	0.80513	0.96184	3.50637	4.21021
568732.29	4180986.94	568732.29_4180986.94	0.2928	0.24021	0.79531	0.96314	3.41871	4.09417
568752.29	4180986.94	568752.29_4180986.94	0.28666	0.23576	0.78476	0.96022	3.32038	3.96925
568772.29	4180986.94	568772.29_4180986.94	0.27699	0.23136	0.77586	0.95645	3.22403	3.84788
568792.29	4180986.94	568792.29_4180986.94	0.27106	0.22711	0.7668	0.95236	3.13115	3.73116
568812.29	4180986.94	568812.29_4180986.94	0.26567	0.22337	0.75879	0.95006	3.04838	3.6256
567412.29	4181006.94	567412.29_4181006.94	0.14943	0.1663	0.47798	0.73253	0.97849	0.98148
567432.29	4181006.94	567432.29_4181006.94	0.15639	0.17383	0.49315	0.747	1.01473	1.01785
567452.29	4181006.94	567452.29_4181006.94	0.16366	0.1818	0.50965	0.76129	1.05312	1.05629
567472.29	4181006.94	567472.29_4181006.94	0.17156	0.18956	0.51924	0.77447	1.09503	1.09879
567492.29	4181006.94	567492.29_4181006.94	0.1797	0.19749	0.52925	0.78697	1.13992	1.14399
567512.29	4181006.94	567512.29_4181006.94	0.18837	0.20487	0.5434	0.7993	1.1876	1.19213
567532.29	4181006.94	567532.29_4181006.94	0.19756	0.21472	0.56259	0.8111	1.23876	1.24366
567552.29	4181006.94	567552.29_4181006.94	0.20724	0.2236	0.58038	0.82219	1.29395	1.29926
567572.29	4181006.94	567572.29_4181006.94	0.21734	0.23243	0.59854	0.8323	1.35366	1.35958
567592.29	4181006.94	567592.29_4181006.94	0.22779	0.23965	0.61809	0.84117	1.41876	1.42535
567612.29	4181006.94	567612.29_4181006.94	0.23883	0.24826	0.64083	0.8494	1.48921	1.49677
567632.29	4181006.94	567632.29_4181006.94	0.25011	0.25604	0.66246	0.85614	1.56655	1.57519
567652.29	4181006.94	567652.29_4181006.94	0.26183	0.26348	0.6854	0.86191	1.65096	1.66127
567672.29	4181006.94	567672.29_4181006.94	0.27405	0.27061	0.71071	0.86687	1.74409	1.75576
567692.29	4181006.94	567692.29_4181006.94	0.2864	0.27658	0.73465	0.87055	1.84702	1.86086
567712.29	4181006.94	567712.29_4181006.94	0.29875	0.28117	0.75767	0.87294	1.9609	1.97732
568032.29	4181006.94	568032.29_4181006.94	0.46249	0.3247	0.94047	0.9083	6.33082	7.93026
568052.29	4181006.94	568052.29_4181006.94	0.46391	0.32496	0.9401	0.90646	6.48293	8.20666
568072.29	4181006.94	568072.29_4181006.94	0.46271	0.32347	0.93821	0.90164	6.55898	8.35302
568092.29	4181006.94	568092.29_4181006.94	0.46243	0.32396	0.93816	0.90063	6.62878	8.4701
568112.29	4181006.94	568112.29_4181006.94	0.46152	0.32466	0.93871	0.90042	6.6596	8.52183
568132.29	4181006.94	568132.29_4181006.94	0.45844	0.32389	0.9324	0.89763	6.61518	8.46892
568152.29	4181006.94	568152.29_4181006.94	0.45535	0.32383	0.92708	0.89675	6.55877	8.39411
568172.29	4181006.94	568172.29_4181006.94	0.45015	0.32219	0.92078	0.89298	6.43679	8.23626
568232.29	4181006.94	568232.29_4181006.94	0.43583	0.32053	0.89066	0.89521	6.09944	7.76655
568252.29	4181006.94	568252.29_4181006.94	0.42992	0.31902	0.87067	0.89619	5.96135	7.56754
568272.29	4181006.94	568272.29_4181006.94	0.42341	0.31687	0.84989	0.89682	5.81349	7.35178
568292.29	4181006.94	568292.29_4181006.94	0.41706	0.31481	0.83543	0.89906	5.67524	7.14338
568312.29	4181006.94	568312.29_4181006.94	0.40959	0.31149	0.83421	0.89903	5.51705	6.90922
568332.29	4181006.94	568332.29_4181006.94	0.40301	0.30903	0.84536	0.90277	5.38742	6.71028
568372.29	4181006.94	568372.29_4181006.94	0.38934	0.30322	0.88615	0.91109	5.13373	6.3207
568392.29	4181006.94	568392.29_4181006.94	0.38169	0.2992	0.90321	0.913	4.99432	6.11455
568412.29	4181006.94	568412.29_4181006.94	0.37496	0.29602	0.91261	0.91828	4.87856	5.94534
568432.29	4181006.94	568432.29_4181006.94	0.36685	0.29109	0.91497	0.91773	4.72344	5.74288
568452.29	4181006.94	568452.29_4181006.94	0.35937	0.28664	0.91167	0.91866	4.5891	5.56575
568472.29	4181006.94	568472.29_4181006.94	0.35299	0.28319	0.90554	0.92316	4.48019	5.42251
568492.29	4181006.94	568492.29_4181006.94	0.34552	0.27826	0.89665	0.92149	4.34246	5.25462
568512.29	4181006.94	568512.29_4181006.94	0.33894	0.27414	0.88663	0.92245	4.2257	5.11174
568532.29	4181006.94	568532.29_4181006.94	0.33233	0.26977	0.87457	0.92197	4.10776	4.96854
568552.29	4181006.94	568552.29_4181006.94	0.32158	0.26501	0.86086	0.91928	3.98546	4.82048
568572.29	4181006.94	568572.29_4181006.94	0.31541	0.26066	0.84606	0.91826	3.8766	4.68539
568592.29	4181006.94	568592.29_4181006.94	0.30888	0.25588	0.82998	0.91512	3.76296	4.54432
568612.29	4181006.94	568612.29_4181006.94	0.30306	0.25166	0.81442	0.91471	3.66525	4.41867
568632.29	4181006.94	568632.29_4181006.94	0.29714	0.24729	0.79931	0.91369	3.568	4.29295
568652.29	4181006.94	568652.29_4181006.94	0.29059	0.24228	0.78451	0.90934	3.4609	4.1573
568672.29	4181006.94	568672.29_4181006.94	0.28398	0.23718	0.77115	0.90409	3.35422	4.02285

568692.29	4181006.94	568692.29_4181006.94	0.27888	0.23344	0.75929	0.90587	3.27768	3.92041
568712.29	4181006.94	568712.29_4181006.94	0.27413	0.23003	0.74891	0.90893	3.20826	3.82658
568732.29	4181006.94	568732.29_4181006.94	0.26908	0.22632	0.73947	0.90971	3.13333	3.72862
568752.29	4181006.94	568752.29_4181006.94	0.26398	0.22256	0.73087	0.90932	3.05752	3.63119
568772.29	4181006.94	568772.29_4181006.94	0.25873	0.21864	0.72277	0.90715	2.97904	3.5323
568792.29	4181006.94	568792.29_4181006.94	0.25338	0.21462	0.71507	0.9034	2.89903	3.43292
568812.29	4181006.94	568812.29_4181006.94	0.24845	0.21101	0.70908	0.90092	2.82632	3.34151
567412.29	4181026.94	567412.29_4181026.94	0.14702	0.16352	0.47796	0.71364	0.95671	0.95914
567432.29	4181026.94	567432.29_4181026.94	0.15328	0.16826	0.47082	0.72475	0.99231	0.99565
567452.29	4181026.94	567452.29_4181026.94	0.16068	0.17759	0.50117	0.73897	1.0292	1.03204
567472.29	4181026.94	567472.29_4181026.94	0.16804	0.18472	0.50852	0.7506	1.06948	1.07276
567492.29	4181026.94	567492.29_4181026.94	0.17566	0.19109	0.51882	0.76173	1.11245	1.11576
567512.29	4181026.94	567512.29_4181026.94	0.18368	0.1985	0.53247	0.77234	1.15827	1.16202
567532.29	4181026.94	567532.29_4181026.94	0.19222	0.20642	0.54858	0.78266	1.20739	1.21117
567552.29	4181026.94	567552.29_4181026.94	0.20117	0.2144	0.56826	0.79224	1.26014	1.26432
567572.29	4181026.94	567572.29_4181026.94	0.21036	0.222	0.5862	0.80065	1.31746	1.32193
567592.29	4181026.94	567592.29_4181026.94	0.21989	0.22944	0.60639	0.80812	1.37954	1.38459
567612.29	4181026.94	567612.29_4181026.94	0.22962	0.23628	0.62464	0.81438	1.44678	1.45286
567632.29	4181026.94	567632.29_4181026.94	0.23977	0.24303	0.64457	0.81989	1.52013	1.52698
567652.29	4181026.94	567652.29_4181026.94	0.25031	0.24958	0.66525	0.82468	1.60066	1.60827
567672.29	4181026.94	567672.29_4181026.94	0.26061	0.25447	0.68359	0.82759	1.68861	1.69762
568032.29	4181026.94	568032.29_4181026.94	0.41549	0.29817	0.86515	0.85663	5.11452	6.17783
568052.29	4181026.94	568052.29_4181026.94	0.41641	0.29809	0.86443	0.85422	5.20058	6.3438
568072.29	4181026.94	568072.29_4181026.94	0.41668	0.29825	0.86323	0.85239	5.26987	6.48302
568092.29	4181026.94	568092.29_4181026.94	0.41597	0.29823	0.86378	0.85039	5.31348	6.57742
568112.29	4181026.94	568112.29_4181026.94	0.41499	0.29873	0.86085	0.84966	5.34073	6.64121
568132.29	4181026.94	568132.29_4181026.94	0.41219	0.29797	0.85594	0.84659	5.31676	6.6364
568192.29	4181026.94	568192.29_4181026.94	0.40181	0.29666	0.84107	0.84245	5.1673	6.48297
568212.29	4181026.94	568212.29_4181026.94	0.39956	0.29804	0.83406	0.84753	5.14271	6.44482
568232.29	4181026.94	568232.29_4181026.94	0.39406	0.29607	0.82318	0.84547	5.0372	6.31469
568252.29	4181026.94	568252.29_4181026.94	0.38984	0.29546	0.80707	0.84819	4.96557	6.21107
568272.29	4181026.94	568272.29_4181026.94	0.38432	0.29345	0.78793	0.84843	4.8689	6.07258
568292.29	4181026.94	568292.29_4181026.94	0.37886	0.29147	0.77105	0.85001	4.77752	5.93502
568332.29	4181026.94	568332.29_4181026.94	0.36705	0.28647	0.76664	0.85351	4.58826	5.64488
568352.29	4181026.94	568352.29_4181026.94	0.36108	0.28382	0.77966	0.8564	4.4983	5.50506
568372.29	4181026.94	568372.29_4181026.94	0.35501	0.281	0.79738	0.8596	4.40915	5.36772
568392.29	4181026.94	568392.29_4181026.94	0.34846	0.27754	0.81427	0.86131	4.30387	5.22359
568412.29	4181026.94	568412.29_4181026.94	0.34179	0.2738	0.82589	0.86237	4.20246	5.08072
568432.29	4181026.94	568432.29_4181026.94	0.33672	0.27173	0.83132	0.86972	4.1379	4.98155
568452.29	4181026.94	568452.29_4181026.94	0.32997	0.26755	0.83063	0.8693	4.03117	4.84528
568472.29	4181026.94	568472.29_4181026.94	0.32376	0.2638	0.82633	0.87008	3.93425	4.72458
568492.29	4181026.94	568492.29_4181026.94	0.31411	0.26032	0.82	0.87156	3.84447	4.61512
568512.29	4181026.94	568512.29_4181026.94	0.30849	0.25673	0.8122	0.87222	3.75432	4.50715
568532.29	4181026.94	568532.29_4181026.94	0.30275	0.25286	0.80337	0.8713	3.66078	4.39583
568572.29	4181026.94	568572.29_4181026.94	0.29126	0.24464	0.78197	0.86665	3.47309	4.16951
568592.29	4181026.94	568592.29_4181026.94	0.28606	0.24084	0.76981	0.86585	3.39066	4.06612
568612.29	4181026.94	568612.29_4181026.94	0.2808	0.2369	0.75679	0.86459	3.3086	3.96201
568632.29	4181026.94	568632.29_4181026.94	0.27574	0.23307	0.74401	0.86415	3.23183	3.86261
568652.29	4181026.94	568652.29_4181026.94	0.27049	0.22901	0.7313	0.86273	3.15313	3.76111
568672.29	4181026.94	568672.29_4181026.94	0.26479	0.22449	0.71941	0.85876	3.06728	3.6529
568692.29	4181026.94	568692.29_4181026.94	0.25993	0.22071	0.7086	0.85863	2.99775	3.56215
568712.29	4181026.94	568712.29_4181026.94	0.25567	0.2175	0.69949	0.86128	2.93988	3.48437
568732.29	4181026.94	568732.29_4181026.94	0.25092	0.21381	0.69086	0.86074	2.87304	3.39878
568772.29	4181026.94	568772.29_4181026.94	0.24193	0.20689	0.67685	0.86021	2.74819	3.23964
568792.29	4181026.94	568792.29_4181026.94	0.23729	0.20328	0.67055	0.85785	2.68273	3.15832
568812.29	4181026.94	568812.29_4181026.94	0.23295	0.19997	0.66508	0.85634	2.62237	3.08265
567412.29	4181046.94	567412.29_4181046.94	0.14457	0.16023	0.4716	0.69435	0.93611	0.93805
567432.29	4181046.94	567432.29_4181046.94	0.15075	0.16537	0.472	0.7051	0.9707	0.97287
567452.29	4181046.94	567452.29_4181046.94	0.15668	0.17005	0.47013	0.7144	1.00576	1.00868
567472.29	4181046.94	567472.29_4181046.94	0.16438	0.17989	0.50197	0.72734	1.04479	1.04705
567492.29	4181046.94	567492.29_4181046.94	0.17143	0.18543	0.50883	0.73688	1.08625	1.08862
567512.29	4181046.94	567512.29_4181046.94	0.179	0.19247	0.52622	0.74644	1.13025	1.13258
567532.29	4181046.94	567532.29_4181046.94	0.18688	0.19954	0.5434	0.75528	1.17732	1.17976
567552.29	4181046.94	567552.29_4181046.94	0.19493	0.20624	0.55855	0.76306	1.22842	1.23104
567572.29	4181046.94	567572.29_4181046.94	0.20325	0.21278	0.57415	0.76998	1.28352	1.28633
567592.29	4181046.94	567592.29_4181046.94	0.21194	0.21941	0.59196	0.7763	1.34305	1.34606
567612.29	4181046.94	567612.29_4181046.94	0.22077	0.22548	0.60963	0.78153	1.40729	1.41101

567632.29	4181046.94	567632.29_4181046.94	0.2296	0.23072	0.6255	0.78539	1.4774	1.4816
568052.29	4181046.94	568052.29_4181046.94	0.376	0.27421	0.79627	0.80582	4.30217	5.13587
568072.29	4181046.94	568072.29_4181046.94	0.37538	0.27341	0.79642	0.80201	4.3267	5.21204
568092.29	4181046.94	568092.29_4181046.94	0.37533	0.27411	0.79732	0.80138	4.36501	5.29583
568112.29	4181046.94	568112.29_4181046.94	0.37394	0.27405	0.79266	0.7993	4.37238	5.34105
568132.29	4181046.94	568132.29_4181046.94	0.37204	0.27411	0.78824	0.79766	4.3702	5.36401
568172.29	4181046.94	568172.29_4181046.94	0.36773	0.27502	0.78073	0.79773	4.34563	5.3667
568192.29	4181046.94	568192.29_4181046.94	0.36532	0.27559	0.77622	0.79936	4.32979	5.34853
568212.29	4181046.94	568212.29_4181046.94	0.36272	0.27606	0.77054	0.80188	4.30288	5.31814
568232.29	4181046.94	568232.29_4181046.94	0.35832	0.27458	0.76255	0.80059	4.24094	5.23954
568252.29	4181046.94	568252.29_4181046.94	0.35438	0.27359	0.75045	0.80176	4.1888	5.16803
568292.29	4181046.94	568292.29_4181046.94	0.34545	0.27035	0.71763	0.8042	4.07088	4.99141
568312.29	4181046.94	568312.29_4181046.94	0.34019	0.26782	0.7064	0.80435	3.99418	4.88587
568332.29	4181046.94	568332.29_4181046.94	0.33528	0.26572	0.70361	0.80672	3.93391	4.79085
568352.29	4181046.94	568352.29_4181046.94	0.33016	0.26336	0.70995	0.80919	3.87213	4.69351
568372.29	4181046.94	568372.29_4181046.94	0.32485	0.26078	0.72261	0.81161	3.80848	4.59512
568392.29	4181046.94	568392.29_4181046.94	0.32006	0.25875	0.73707	0.81657	3.75746	4.51172
568412.29	4181046.94	568412.29_4181046.94	0.31461	0.25586	0.74952	0.81884	3.69059	4.41596
568432.29	4181046.94	568432.29_4181046.94	0.30963	0.25342	0.75736	0.82294	3.63287	4.33423
568452.29	4181046.94	568452.29_4181046.94	0.30409	0.25018	0.75983	0.82392	3.55952	4.24157
568472.29	4181046.94	568472.29_4181046.94	0.29504	0.24691	0.75796	0.82442	3.48553	4.1522
568492.29	4181046.94	568492.29_4181046.94	0.28988	0.24377	0.75335	0.82502	3.41422	4.06831
568512.29	4181046.94	568512.29_4181046.94	0.28483	0.24055	0.74719	0.82495	3.34238	3.98477
568532.29	4181046.94	568532.29_4181046.94	0.2798	0.23718	0.74037	0.82386	3.26871	3.89897
568552.29	4181046.94	568552.29_4181046.94	0.27489	0.23377	0.73287	0.82246	3.19632	3.81322
568572.29	4181046.94	568572.29_4181046.94	0.26919	0.22947	0.72433	0.81683	3.10306	3.71066
568592.29	4181046.94	568592.29_4181046.94	0.26484	0.2263	0.71517	0.81679	3.04658	3.63226
568612.29	4181046.94	568612.29_4181046.94	0.26027	0.22282	0.70501	0.81565	2.97541	3.54942
568632.29	4181046.94	568632.29_4181046.94	0.25626	0.21979	0.69475	0.81723	2.92671	3.47723
568652.29	4181046.94	568652.29_4181046.94	0.25199	0.21646	0.6844	0.8176	2.86856	3.40085
568672.29	4181046.94	568672.29_4181046.94	0.24742	0.2128	0.67406	0.81647	2.80613	3.32036
568692.29	4181046.94	568692.29_4181046.94	0.24301	0.20926	0.66465	0.81596	2.74723	3.24418
568712.29	4181046.94	568712.29_4181046.94	0.23886	0.20594	0.65598	0.81652	2.6933	3.17392
568732.29	4181046.94	568732.29_4181046.94	0.23474	0.20264	0.64845	0.81676	2.63975	3.10507
568752.29	4181046.94	568752.29_4181046.94	0.23079	0.19949	0.64175	0.81747	2.5892	3.04009
568772.29	4181046.94	568772.29_4181046.94	0.22685	0.19635	0.63611	0.81757	2.53831	2.97554
567412.29	4181066.94	567412.29_4181066.94	0.142	0.1565	0.45862	0.67475	0.91683	0.91827
567432.29	4181066.94	567432.29_4181066.94	0.14793	0.16263	0.47277	0.68529	0.94936	0.95066
567452.29	4181066.94	567452.29_4181066.94	0.15383	0.16711	0.47287	0.69418	0.98467	0.9861
567472.29	4181066.94	567472.29_4181066.94	0.16043	0.17367	0.49043	0.70396	1.02172	1.02277
567492.29	4181066.94	567492.29_4181066.94	0.16721	0.18095	0.50593	0.71293	1.0613	1.06235
567512.29	4181066.94	567512.29_4181066.94	0.17412	0.18619	0.51928	0.72097	1.10385	1.10474
567532.29	4181066.94	567532.29_4181066.94	0.18119	0.19204	0.5311	0.72808	1.14961	1.15066
567552.29	4181066.94	567552.29_4181066.94	0.18854	0.19797	0.5448	0.73461	1.19853	1.1997
567572.29	4181066.94	567572.29_4181066.94	0.19607	0.20365	0.56058	0.7403	1.25144	1.25284
567592.29	4181066.94	567592.29_4181066.94	0.20386	0.20932	0.57709	0.74539	1.30872	1.30998
568052.29	4181066.94	568052.29_4181066.94	0.3422	0.25399	0.73852	0.76317	3.65273	4.30298
568072.29	4181066.94	568072.29_4181066.94	0.34194	0.25364	0.73971	0.76037	3.66739	4.35906
568092.29	4181066.94	568092.29_4181066.94	0.34163	0.254	0.73817	0.75909	3.68533	4.41403
568112.29	4181066.94	568112.29_4181066.94	0.34033	0.25393	0.73345	0.75695	3.68967	4.44842
568192.29	4181066.94	568192.29_4181066.94	0.33319	0.25612	0.7183	0.75805	3.6807	4.48983
568212.29	4181066.94	568212.29_4181066.94	0.33034	0.25589	0.71367	0.75847	3.65559	4.46199
568232.29	4181066.94	568232.29_4181066.94	0.32792	0.25609	0.70761	0.76126	3.63749	4.43747
568272.29	4181066.94	568272.29_4181066.94	0.32042	0.25332	0.68621	0.76177	3.55733	4.32242
568292.29	4181066.94	568292.29_4181066.94	0.31613	0.25126	0.67144	0.76162	3.50491	4.25191
568312.29	4181066.94	568312.29_4181066.94	0.31173	0.24907	0.65864	0.76196	3.45685	4.17921
568332.29	4181066.94	568332.29_4181066.94	0.30771	0.24738	0.65148	0.76472	3.41942	4.11631
568352.29	4181066.94	568352.29_4181066.94	0.29946	0.245	0.65223	0.76599	3.37173	4.0426
568372.29	4181066.94	568372.29_4181066.94	0.29908	0.24338	0.65958	0.77047	3.33898	3.98461
568392.29	4181066.94	568392.29_4181066.94	0.29064	0.24069	0.67113	0.77164	3.28747	3.90973
568412.29	4181066.94	568412.29_4181066.94	0.2864	0.23866	0.68284	0.77542	3.24768	3.84998
568432.29	4181066.94	568432.29_4181066.94	0.28246	0.23684	0.69207	0.7801	3.21095	3.79743
568452.29	4181066.94	568452.29_4181066.94	0.27794	0.23439	0.69709	0.78229	3.16193	3.73633
568472.29	4181066.94	568472.29_4181066.94	0.27278	0.23123	0.69774	0.78131	3.09913	3.66439
568492.29	4181066.94	568492.29_4181066.94	0.26839	0.22864	0.69534	0.78224	3.04644	3.60434
568512.29	4181066.94	568512.29_4181066.94	0.26388	0.2258	0.69087	0.78174	2.98912	3.53987
568532.29	4181066.94	568532.29_4181066.94	0.26005	0.22343	0.68551	0.7831	2.9412	3.48412

568552.29	4181066.94	568552.29_4181066.94	0.2551	0.21986	0.67927	0.779	2.87263	3.40596
568572.29	4181066.94	568572.29_4181066.94	0.25062	0.2166	0.67291	0.77625	2.80622	3.33352
568592.29	4181066.94	568592.29_4181066.94	0.24626	0.21331	0.66605	0.7736	2.74261	3.25673
568612.29	4181066.94	568612.29_4181066.94	0.24287	0.21083	0.65863	0.77553	2.70517	3.2062
568632.29	4181066.94	568632.29_4181066.94	0.23889	0.20771	0.65042	0.77472	2.65354	3.14018
568652.29	4181066.94	568652.29_4181066.94	0.23516	0.20476	0.6421	0.77522	2.61166	3.07894
568672.29	4181066.94	568672.29_4181066.94	0.23134	0.20167	0.63374	0.77534	2.56423	3.01694
568692.29	4181066.94	568692.29_4181066.94	0.22712	0.19816	0.62532	0.77328	2.50566	2.94896
568712.29	4181066.94	568712.29_4181066.94	0.22368	0.19537	0.61794	0.77522	2.47041	2.89568
568732.29	4181066.94	568732.29_4181066.94	0.22013	0.19246	0.61106	0.77633	2.42856	2.84129
568812.29	4181066.94	568812.29_4181066.94	0.20559	0.18039	0.59079	0.77388	2.25145	2.62029
567412.29	4181086.94	567412.29_4181086.94	0.13923	0.15286	0.45193	0.65563	0.8982	0.89836
567432.29	4181086.94	567432.29_4181086.94	0.14484	0.15851	0.46562	0.66501	0.92957	0.9301
567452.29	4181086.94	567452.29_4181086.94	0.15059	0.16399	0.47491	0.67354	0.96354	0.96339
567472.29	4181086.94	567472.29_4181086.94	0.15637	0.16823	0.48124	0.68112	0.99984	0.9998
567492.29	4181086.94	567492.29_4181086.94	0.16264	0.17403	0.49694	0.68892	1.03821	1.03795
567512.29	4181086.94	567512.29_4181086.94	0.16899	0.17949	0.50897	0.69576	1.07942	1.07895
567532.29	4181086.94	567532.29_4181086.94	0.17557	0.18498	0.52226	0.70204	1.12364	1.1229
567552.29	4181086.94	567552.29_4181086.94	0.18216	0.18996	0.53342	0.70722	1.17069	1.17034
568052.29	4181086.94	568052.29_4181086.94	0.31371	0.2369	0.68771	0.72583	3.16316	3.69434
568072.29	4181086.94	568072.29_4181086.94	0.31293	0.23592	0.68873	0.7218	3.16119	3.7241
568092.29	4181086.94	568092.29_4181086.94	0.31241	0.23599	0.68556	0.72	3.16727	3.75835
568192.29	4181086.94	568192.29_4181086.94	0.30525	0.23864	0.66697	0.71992	3.17381	3.83138
568232.29	4181086.94	568232.29_4181086.94	0.30059	0.2386	0.65854	0.72257	3.14819	3.79862
568252.29	4181086.94	568252.29_4181086.94	0.29757	0.23763	0.65256	0.72302	3.1245	3.76386
568272.29	4181086.94	568272.29_4181086.94	0.29355	0.2354	0.64264	0.72079	3.07962	3.70784
568292.29	4181086.94	568292.29_4181086.94	0.29021	0.23392	0.62978	0.72174	3.05239	3.66346
568312.29	4181086.94	568312.29_4181086.94	0.28293	0.23209	0.61685	0.72249	3.02126	3.61356
568332.29	4181086.94	568332.29_4181086.94	0.27984	0.23075	0.60751	0.72567	2.9997	3.57251
568352.29	4181086.94	568352.29_4181086.94	0.27632	0.22906	0.6042	0.72834	2.97341	3.52656
568372.29	4181086.94	568372.29_4181086.94	0.27241	0.22704	0.60729	0.7304	2.94212	3.47637
568392.29	4181086.94	568392.29_4181086.94	0.26914	0.22564	0.61518	0.73504	2.92103	3.43849
568412.29	4181086.94	568412.29_4181086.94	0.26523	0.22365	0.62531	0.73768	2.88891	3.39261
568432.29	4181086.94	568432.29_4181086.94	0.26136	0.22166	0.63472	0.74029	2.85545	3.34902
568452.29	4181086.94	568452.29_4181086.94	0.25727	0.21941	0.64133	0.74165	2.81602	3.30262
568472.29	4181086.94	568472.29_4181086.94	0.25309	0.21699	0.64431	0.742	2.77259	3.25453
568492.29	4181086.94	568492.29_4181086.94	0.24911	0.21465	0.64402	0.74225	2.72961	3.20793
568532.29	4181086.94	568532.29_4181086.94	0.24017	0.20867	0.63723	0.73591	2.5968	3.07245
568552.29	4181086.94	568552.29_4181086.94	0.23616	0.20591	0.63253	0.73345	2.54646	3.00059
568572.29	4181086.94	568572.29_4181086.94	0.23386	0.20463	0.62728	0.73839	2.54466	2.99988
568592.29	4181086.94	568592.29_4181086.94	0.23029	0.20201	0.62187	0.73731	2.50109	2.94677
568612.29	4181086.94	568612.29_4181086.94	0.22647	0.19906	0.61626	0.735	2.44426	2.87888
568632.29	4181086.94	568632.29_4181086.94	0.22293	0.19628	0.61024	0.73404	2.39746	2.82525
568652.29	4181086.94	568652.29_4181086.94	0.21983	0.19384	0.6037	0.73546	2.37369	2.78855
568672.29	4181086.94	568672.29_4181086.94	0.21685	0.19146	0.59718	0.73766	2.34499	2.7484
568692.29	4181086.94	568692.29_4181086.94	0.21333	0.18851	0.59047	0.7371	2.30423	2.69627
568712.29	4181086.94	568712.29_4181086.94	0.21012	0.18583	0.58399	0.73819	2.26932	2.65026
568772.29	4181086.94	568772.29_4181086.94	0.20025	0.17744	0.56774	0.73857	2.16284	2.51091
568792.29	4181086.94	568792.29_4181086.94	0.19697	0.17463	0.56338	0.73793	2.12552	2.46483
568812.29	4181086.94	568812.29_4181086.94	0.19378	0.17191	0.55982	0.73733	2.08919	2.42006
567412.29	4181106.94	567412.29_4181106.94	0.13643	0.14935	0.45107	0.6371	0.88	0.87951
567432.29	4181106.94	567432.29_4181106.94	0.14163	0.1543	0.45989	0.64504	0.91114	0.91053
567452.29	4181106.94	567452.29_4181106.94	0.14693	0.15845	0.4683	0.65243	0.94407	0.94267
567472.29	4181106.94	567472.29_4181106.94	0.15228	0.16297	0.47459	0.65897	0.97897	0.97813
567492.29	4181106.94	567492.29_4181106.94	0.15796	0.16793	0.48524	0.66539	1.01637	1.01471
567512.29	4181106.94	567512.29_4181106.94	0.16382	0.17291	0.49841	0.6713	1.05625	1.05483
568072.29	4181106.94	568072.29_4181106.94	0.2877	0.22012	0.64195	0.68639	2.76287	3.2343
568192.29	4181106.94	568192.29_4181106.94	0.28096	0.22306	0.62074	0.68516	2.7678	3.31654
568212.29	4181106.94	568212.29_4181106.94	0.27848	0.22265	0.61712	0.68461	2.75422	3.30169
568232.29	4181106.94	568232.29_4181106.94	0.27613	0.22225	0.61378	0.68514	2.74308	3.2851
568252.29	4181106.94	568252.29_4181106.94	0.27368	0.22161	0.60944	0.68611	2.73106	3.26393
568272.29	4181106.94	568272.29_4181106.94	0.27064	0.22014	0.60178	0.68566	2.70971	3.23043
568292.29	4181106.94	568292.29_4181106.94	0.26441	0.21891	0.59141	0.68692	2.69367	3.20041
568312.29	4181106.94	568312.29_4181106.94	0.26172	0.21764	0.57971	0.68895	2.67851	3.17015
568332.29	4181106.94	568332.29_4181106.94	0.25768	0.21512	0.56981	0.68738	2.64483	3.12103
568352.29	4181106.94	568352.29_4181106.94	0.25544	0.21432	0.56402	0.69247	2.63913	3.09976
568372.29	4181106.94	568372.29_4181106.94	0.25275	0.21317	0.56361	0.69676	2.62753	3.07366

568392.29	4181106.94	568392.29_4181106.94	0.24953	0.21156	0.56819	0.69965	2.60786	3.04173
568412.29	4181106.94	568412.29_4181106.94	0.24604	0.2097	0.576	0.70169	2.58285	3.00746
568432.29	4181106.94	568432.29_4181106.94	0.24271	0.20801	0.58468	0.70421	2.5586	2.97704
568452.29	4181106.94	568452.29_4181106.94	0.23894	0.20585	0.59201	0.70462	2.52509	2.94016
568472.29	4181106.94	568472.29_4181106.94	0.23513	0.20361	0.5967	0.70423	2.48487	2.90196
568492.29	4181106.94	568492.29_4181106.94	0.2317	0.20167	0.59834	0.7047	2.45216	2.8683
568512.29	4181106.94	568512.29_4181106.94	0.22857	0.19992	0.59744	0.70571	2.42222	2.83681
568532.29	4181106.94	568532.29_4181106.94	0.22423	0.19689	0.59481	0.7007	2.35337	2.76743
568552.29	4181106.94	568552.29_4181106.94	0.21982	0.19368	0.59147	0.69443	2.28996	2.67698
568572.29	4181106.94	568572.29_4181106.94	0.2185	0.19329	0.58691	0.70217	2.30265	2.70038
568592.29	4181106.94	568592.29_4181106.94	0.21519	0.19089	0.58267	0.70048	2.25976	2.65506
568612.29	4181106.94	568612.29_4181106.94	0.21167	0.18817	0.57828	0.6976	2.21745	2.58586
568632.29	4181106.94	568632.29_4181106.94	0.20881	0.18598	0.5736	0.69806	2.18841	2.55454
568652.29	4181106.94	568652.29_4181106.94	0.2063	0.18406	0.56882	0.70054	2.16663	2.5338
568672.29	4181106.94	568672.29_4181106.94	0.20347	0.18177	0.56367	0.7016	2.14675	2.50331
568752.29	4181106.94	568752.29_4181106.94	0.19172	0.17174	0.54355	0.70358	2.0284	2.35064
568772.29	4181106.94	568772.29_4181106.94	0.18868	0.16906	0.53907	0.703	1.99606	2.30857
568792.29	4181106.94	568792.29_4181106.94	0.18587	0.16662	0.53544	0.70351	1.96744	2.2749
567412.29	4181126.94	567412.29_4181126.94	0.13347	0.14548	0.44502	0.61841	0.86368	0.86202
567432.29	4181126.94	567432.29_4181126.94	0.13823	0.14917	0.45154	0.62525	0.89366	0.89169
567452.29	4181126.94	567452.29_4181126.94	0.14318	0.15366	0.46161	0.63177	0.926	0.92338
567472.29	4181126.94	567472.29_4181126.94	0.14814	0.15778	0.46741	0.6374	0.95975	0.95732
567492.29	4181126.94	567492.29_4181126.94	0.15344	0.16247	0.4796	0.64309	0.99614	0.99355
568132.29	4181126.94	568132.29_4181126.94	0.26384	0.20738	0.58689	0.65193	2.44482	2.88897
568172.29	4181126.94	568172.29_4181126.94	0.26087	0.20815	0.58122	0.65124	2.4395	2.89794
568192.29	4181126.94	568192.29_4181126.94	0.2591	0.2084	0.57854	0.6514	2.43564	2.89655
568212.29	4181126.94	568212.29_4181126.94	0.25723	0.20848	0.57553	0.65202	2.43175	2.89148
568232.29	4181126.94	568232.29_4181126.94	0.25106	0.20759	0.57231	0.65078	2.41793	2.87277
568252.29	4181126.94	568252.29_4181126.94	0.25314	0.20781	0.56973	0.65403	2.42146	2.86858
568272.29	4181126.94	568272.29_4181126.94	0.25089	0.207	0.56438	0.65525	2.41419	2.85106
568292.29	4181126.94	568292.29_4181126.94	0.24461	0.20515	0.55602	0.65407	2.39459	2.81981
568312.29	4181126.94	568312.29_4181126.94	0.24165	0.2034	0.54607	0.65393	2.37722	2.79009
568332.29	4181126.94	568332.29_4181126.94	0.23944	0.20236	0.53662	0.65691	2.3709	2.77087
568352.29	4181126.94	568352.29_4181126.94	0.23723	0.20136	0.52978	0.66067	2.36571	2.75307
568372.29	4181126.94	568372.29_4181126.94	0.23477	0.20018	0.52698	0.66416	2.35735	2.73345
568392.29	4181126.94	568392.29_4181126.94	0.23218	0.19892	0.5287	0.66755	2.34667	2.71369
568412.29	4181126.94	568412.29_4181126.94	0.22888	0.19702	0.5341	0.66844	2.32441	2.68536
568432.29	4181126.94	568432.29_4181126.94	0.22595	0.19549	0.54131	0.67059	2.30585	2.66343
568452.29	4181126.94	568452.29_4181126.94	0.22268	0.19364	0.54857	0.67109	2.28011	2.63678
568472.29	4181126.94	568472.29_4181126.94	0.2193	0.19165	0.55419	0.67057	2.24713	2.60406
568492.29	4181126.94	568492.29_4181126.94	0.21676	0.19044	0.55735	0.67299	2.22888	2.58973
568512.29	4181126.94	568512.29_4181126.94	0.21316	0.18811	0.55813	0.67022	2.1774	2.54055
568532.29	4181126.94	568532.29_4181126.94	0.21014	0.18628	0.55692	0.66936	2.14776	2.5096
568552.29	4181126.94	568552.29_4181126.94	0.20591	0.18316	0.55482	0.66225	2.08862	2.42733
568572.29	4181126.94	568572.29_4181126.94	0.20411	0.1823	0.55126	0.66624	2.08461	2.42135
568592.29	4181126.94	568592.29_4181126.94	0.2018	0.18082	0.54769	0.66769	2.0655	2.40656
568612.29	4181126.94	568612.29_4181126.94	0.19879	0.17856	0.54423	0.66571	2.03267	2.35752
568632.29	4181126.94	568632.29_4181126.94	0.19635	0.17676	0.54066	0.66666	2.01085	2.33432
568712.29	4181126.94	568712.29_4181126.94	0.18604	0.16828	0.52506	0.66909	1.91503	2.21748
568732.29	4181126.94	568732.29_4181126.94	0.18289	0.16547	0.52086	0.66651	1.88042	2.16284
568752.29	4181126.94	568752.29_4181126.94	0.18011	0.16299	0.51676	0.66592	1.84963	2.12898
568772.29	4181126.94	568772.29_4181126.94	0.17806	0.16125	0.51337	0.66967	1.83962	2.12233
568792.29	4181126.94	568792.29_4181126.94	0.17562	0.1591	0.51024	0.67085	1.82061	2.09471
568812.29	4181126.94	568812.29_4181126.94	0.17311	0.15687	0.50735	0.67136	1.79974	2.0697
567412.29	4181146.94	567412.29_4181146.94	0.13032	0.14072	0.43674	0.59984	0.84807	0.84561
567432.29	4181146.94	567432.29_4181146.94	0.13465	0.14442	0.44073	0.60553	0.87749	0.87421
567452.29	4181146.94	567452.29_4181146.94	0.13927	0.1486	0.45032	0.61125	0.90849	0.9056
567472.29	4181146.94	567472.29_4181146.94	0.14405	0.15291	0.46273	0.61665	0.94209	0.93832
567492.29	4181146.94	567492.29_4181146.94	0.14889	0.15707	0.47364	0.62142	0.97762	0.97361
567512.29	4181146.94	567512.29_4181146.94	0.15379	0.16108	0.4843	0.62562	1.01527	1.01126
568132.29	4181146.94	568132.29_4181146.94	0.23989	0.19399	0.54745	0.62051	2.17051	2.55033
568152.29	4181146.94	568152.29_4181146.94	0.23883	0.1944	0.54488	0.62003	2.16778	2.55396
568172.29	4181146.94	568172.29_4181146.94	0.24181	0.19538	0.54293	0.62147	2.17149	2.56205
568192.29	4181146.94	568192.29_4181146.94	0.23624	0.19516	0.53989	0.62025	2.16365	2.55558
568212.29	4181146.94	568212.29_4181146.94	0.23477	0.19534	0.53757	0.62093	2.16235	2.55286
568232.29	4181146.94	568232.29_4181146.94	0.23677	0.19567	0.53541	0.62314	2.16599	2.5521
568252.29	4181146.94	568252.29_4181146.94	0.23485	0.1952	0.53336	0.62401	2.16317	2.5423

568272.29	4181146.94	568272.29_4181146.94	0.2292	0.1938	0.52918	0.62294	2.15133	2.52178
568292.29	4181146.94	568292.29_4181146.94	0.22683	0.19252	0.52329	0.62309	2.14253	2.50308
568312.29	4181146.94	568312.29_4181146.94	0.22497	0.19164	0.51559	0.6255	2.14064	2.49049
568332.29	4181146.94	568332.29_4181146.94	0.22303	0.19067	0.5071	0.62831	2.13841	2.47743
568352.29	4181146.94	568352.29_4181146.94	0.22058	0.18925	0.50004	0.62992	2.12982	2.4588
568372.29	4181146.94	568372.29_4181146.94	0.21832	0.18804	0.49589	0.63267	2.12371	2.44389
568392.29	4181146.94	568392.29_4181146.94	0.21611	0.18694	0.49541	0.63594	2.11773	2.43123
568412.29	4181146.94	568412.29_4181146.94	0.2132	0.18521	0.49858	0.63662	2.10051	2.41014
568432.29	4181146.94	568432.29_4181146.94	0.21065	0.18386	0.50407	0.63858	2.08347	2.39494
568452.29	4181146.94	568452.29_4181146.94	0.20782	0.18225	0.51053	0.63912	2.0637	2.37285
568492.29	4181146.94	568492.29_4181146.94	0.2028	0.17964	0.52051	0.64154	2.02634	2.34031
568512.29	4181146.94	568512.29_4181146.94	0.19946	0.17745	0.52274	0.6383	1.9819	2.28841
568532.29	4181146.94	568532.29_4181146.94	0.19623	0.17532	0.52313	0.63489	1.94352	2.2438
568552.29	4181146.94	568552.29_4181146.94	0.19338	0.17349	0.52192	0.63275	1.91441	2.2124
568572.29	4181146.94	568572.29_4181146.94	0.19119	0.17221	0.51954	0.63348	1.89741	2.19317
568592.29	4181146.94	568592.29_4181146.94	0.18922	0.17105	0.51669	0.63524	1.88411	2.17944
568612.29	4181146.94	568612.29_4181146.94	0.18702	0.16956	0.51381	0.63584	1.86579	2.15606
568672.29	4181146.94	568672.29_4181146.94	0.18024	0.16437	0.5053	0.63749	1.81011	2.08434
568692.29	4181146.94	568692.29_4181146.94	0.17772	0.16224	0.50227	0.6369	1.78615	2.04969
568712.29	4181146.94	568712.29_4181146.94	0.17544	0.1603	0.49917	0.63775	1.76696	2.02514
568732.29	4181146.94	568732.29_4181146.94	0.17288	0.15803	0.49601	0.63693	1.73951	1.99497
568752.29	4181146.94	568752.29_4181146.94	0.17022	0.15563	0.4927	0.63549	1.7131	1.96088
568772.29	4181146.94	568772.29_4181146.94	0.16844	0.1541	0.48999	0.63931	1.70674	1.95442
568792.29	4181146.94	568792.29_4181146.94	0.16613	0.15201	0.48716	0.6398	1.68689	1.92993
568812.29	4181146.94	568812.29_4181146.94	0.1638	0.1499	0.48467	0.64001	1.6665	1.91083
567412.29	4181166.94	567412.29_4181166.94	0.12703	0.13638	0.42629	0.58136	0.83318	0.82992
567432.29	4181166.94	567432.29_4181166.94	0.1313	0.14046	0.43789	0.58701	0.86253	0.85837
567452.29	4181166.94	567452.29_4181166.94	0.13553	0.14418	0.44595	0.59185	0.89281	0.88847
567472.29	4181166.94	567472.29_4181166.94	0.13989	0.14801	0.45704	0.59637	0.92522	0.92094
567492.29	4181166.94	567492.29_4181166.94	0.14423	0.15152	0.46485	0.60015	0.95987	0.95501
567512.29	4181166.94	567512.29_4181166.94	0.14861	0.15493	0.47428	0.60341	0.99636	0.9922
568112.29	4181166.94	568112.29_4181166.94	0.22294	0.18132	0.51637	0.59167	1.94516	2.26766
568132.29	4181166.94	568132.29_4181166.94	0.22246	0.18191	0.51226	0.59152	1.94368	2.27235
568152.29	4181166.94	568152.29_4181166.94	0.22132	0.18214	0.50941	0.59057	1.93876	2.27201
568192.29	4181166.94	568192.29_4181166.94	0.22359	0.18428	0.50631	0.59466	1.94956	2.28629
568212.29	4181166.94	568212.29_4181166.94	0.22196	0.18429	0.50411	0.59481	1.9477	2.28262
568232.29	4181166.94	568232.29_4181166.94	0.21694	0.18372	0.50143	0.59409	1.94229	2.27313
568252.29	4181166.94	568252.29_4181166.94	0.2148	0.18284	0.4996	0.59328	1.93595	2.26067
568272.29	4181166.94	568272.29_4181166.94	0.21322	0.18231	0.49721	0.59464	1.9365	2.25343
568292.29	4181166.94	568292.29_4181166.94	0.21147	0.1815	0.49325	0.59601	1.93574	2.24397
568312.29	4181166.94	568312.29_4181166.94	0.20971	0.18061	0.48741	0.59792	1.93543	2.23448
568332.29	4181166.94	568332.29_4181166.94	0.20758	0.17932	0.48025	0.59905	1.93077	2.22093
568352.29	4181166.94	568352.29_4181166.94	0.20545	0.17804	0.47371	0.60064	1.92267	2.2081
568372.29	4181166.94	568372.29_4181166.94	0.20344	0.17691	0.46896	0.60306	1.91939	2.1979
568392.29	4181166.94	568392.29_4181166.94	0.20159	0.17597	0.46701	0.60635	1.91757	2.19101
568412.29	4181166.94	568412.29_4181166.94	0.19901	0.17438	0.46834	0.60681	1.90192	2.17282
568432.29	4181166.94	568432.29_4181166.94	0.19671	0.17309	0.47213	0.60827	1.88165	2.15519
568452.29	4181166.94	568452.29_4181166.94	0.19448	0.17191	0.47742	0.60979	1.86987	2.14462
568472.29	4181166.94	568472.29_4181166.94	0.19231	0.1708	0.48291	0.61123	1.85758	2.13424
568492.29	4181166.94	568492.29_4181166.94	0.18952	0.16907	0.48767	0.6095	1.83278	2.09631
568512.29	4181166.94	568512.29_4181166.94	0.18739	0.16798	0.49073	0.6103	1.81834	2.08811
568532.29	4181166.94	568532.29_4181166.94	0.18414	0.16573	0.49243	0.60545	1.77902	2.04314
568552.29	4181166.94	568552.29_4181166.94	0.18196	0.16449	0.49225	0.60521	1.76141	2.02484
568572.29	4181166.94	568572.29_4181166.94	0.18025	0.16364	0.49079	0.60711	1.75205	2.01436
568652.29	4181166.94	568652.29_4181166.94	0.17179	0.15778	0.48207	0.60655	1.68019	1.92535
568672.29	4181166.94	568672.29_4181166.94	0.16976	0.15618	0.47983	0.60702	1.66355	1.90385
568692.29	4181166.94	568692.29_4181166.94	0.16754	0.15434	0.47762	0.60662	1.64368	1.87892
568712.29	4181166.94	568712.29_4181166.94	0.16568	0.1528	0.47538	0.60838	1.63102	1.8622
568732.29	4181166.94	568732.29_4181166.94	0.16367	0.15105	0.47305	0.60932	1.61551	1.84439
568752.29	4181166.94	568752.29_4181166.94	0.16161	0.14923	0.47066	0.61005	1.59933	1.82428
568772.29	4181166.94	568772.29_4181166.94	0.15953	0.14735	0.46827	0.61061	1.58274	1.8039
568792.29	4181166.94	568792.29_4181166.94	0.15722	0.14521	0.46591	0.60968	1.56167	1.77682
568812.29	4181166.94	568812.29_4181166.94	0.15537	0.14353	0.46405	0.61157	1.55188	1.76322
567412.29	4181186.94	567412.29_4181186.94	0.12399	0.1329	0.42526	0.56415	0.82019	0.81548
567432.29	4181186.94	567432.29_4181186.94	0.12784	0.13636	0.43316	0.56875	0.84782	0.84318
567452.29	4181186.94	567452.29_4181186.94	0.13175	0.13978	0.44114	0.57291	0.87799	0.87323
567472.29	4181186.94	567472.29_4181186.94	0.13566	0.143	0.44899	0.57647	0.90942	0.90426

567492.29	4181186.94	567492.29_4181186.94	0.13958	0.14608	0.45662	0.57952	0.94261	0.93856
567512.29	4181186.94	567512.29_4181186.94	0.14344	0.14884	0.46266	0.58182	0.97824	0.9734
567532.29	4181186.94	567532.29_4181186.94	0.14728	0.1514	0.46802	0.58357	1.01509	1.01208
568112.29	4181186.94	568112.29_4181186.94	0.20715	0.1702	0.48407	0.56424	1.75388	2.03653
568132.29	4181186.94	568132.29_4181186.94	0.20678	0.17083	0.48047	0.5643	1.75222	2.03941
568192.29	4181186.94	568192.29_4181186.94	0.20537	0.17343	0.47511	0.5682	1.75983	2.05171
568212.29	4181186.94	568212.29_4181186.94	0.20328	0.17277	0.47234	0.56614	1.75154	2.0415
568232.29	4181186.94	568232.29_4181186.94	0.2015	0.1723	0.47041	0.56539	1.74762	2.03366
568252.29	4181186.94	568252.29_4181186.94	0.20036	0.17229	0.46947	0.56708	1.75185	2.03205
568272.29	4181186.94	568272.29_4181186.94	0.1989	0.17181	0.46796	0.56825	1.75367	2.0269
568292.29	4181186.94	568292.29_4181186.94	0.19679	0.17057	0.46521	0.56765	1.74479	2.01141
568312.29	4181186.94	568312.29_4181186.94	0.19563	0.17017	0.46122	0.57089	1.75184	2.01296
568332.29	4181186.94	568332.29_4181186.94	0.19345	0.16871	0.45569	0.57087	1.74034	1.99088
568352.29	4181186.94	568352.29_4181186.94	0.19172	0.1677	0.44999	0.57293	1.73588	1.98426
568372.29	4181186.94	568372.29_4181186.94	0.18997	0.16669	0.44527	0.57525	1.73529	1.97864
568392.29	4181186.94	568392.29_4181186.94	0.18819	0.16568	0.44252	0.57764	1.73341	1.97362
568412.29	4181186.94	568412.29_4181186.94	0.18627	0.16457	0.4424	0.57947	1.72788	1.96713
568432.29	4181186.94	568432.29_4181186.94	0.18433	0.16348	0.44466	0.58112	1.72071	1.95073
568452.29	4181186.94	568452.29_4181186.94	0.18269	0.16274	0.44855	0.58389	1.71716	1.95865
568472.29	4181186.94	568472.29_4181186.94	0.18	0.16097	0.45367	0.58171	1.69187	1.92435
568492.29	4181186.94	568492.29_4181186.94	0.17741	0.15931	0.45859	0.57948	1.66861	1.89996
568512.29	4181186.94	568512.29_4181186.94	0.17594	0.15877	0.46195	0.58209	1.66445	1.8989
568532.29	4181186.94	568532.29_4181186.94	0.17357	0.1573	0.46434	0.58013	1.64289	1.87746
568612.29	4181186.94	568612.29_4181186.94	0.16605	0.15289	0.46215	0.58013	1.58621	1.81299
568632.29	4181186.94	568632.29_4181186.94	0.16432	0.15175	0.46035	0.58087	1.57387	1.79698
568652.29	4181186.94	568652.29_4181186.94	0.16199	0.14993	0.45855	0.57846	1.55028	1.76834
568672.29	4181186.94	568672.29_4181186.94	0.1603	0.14867	0.4568	0.57962	1.5387	1.75298
568692.29	4181186.94	568692.29_4181186.94	0.15847	0.1472	0.45511	0.58007	1.52447	1.73482
568712.29	4181186.94	568712.29_4181186.94	0.15672	0.14576	0.45343	0.58114	1.51215	1.71897
568732.29	4181186.94	568732.29_4181186.94	0.15494	0.14424	0.45177	0.58212	1.49938	1.70288
568752.29	4181186.94	568752.29_4181186.94	0.15305	0.14255	0.45003	0.58246	1.4846	1.68477
568772.29	4181186.94	568772.29_4181186.94	0.15109	0.14077	0.4482	0.58243	1.4688	1.66572
568792.29	4181186.94	568792.29_4181186.94	0.14877	0.13858	0.44619	0.57996	1.44583	1.63895
568812.29	4181186.94	568812.29_4181186.94	0.14751	0.13749	0.44484	0.58448	1.44384	1.63512
567412.29	4181206.94	567412.29_4181206.94	0.12084	0.12922	0.42162	0.54708	0.80685	0.80218
567432.29	4181206.94	567432.29_4181206.94	0.12432	0.13218	0.42651	0.55081	0.83477	0.82886
567452.29	4181206.94	567452.29_4181206.94	0.12775	0.1349	0.43054	0.5539	0.8629	0.85864
567472.29	4181206.94	567472.29_4181206.94	0.1314	0.13801	0.44032	0.55708	0.89422	0.88869
567492.29	4181206.94	567492.29_4181206.94	0.13495	0.14073	0.446	0.55948	0.926	0.92203
567512.29	4181206.94	567512.29_4181206.94	0.13834	0.14292	0.44981	0.56093	0.9597	0.95601
567532.29	4181206.94	567532.29_4181206.94	0.1418	0.14519	0.45546	0.5622	0.99564	0.99293
567552.29	4181206.94	567552.29_4181206.94	0.14525	0.14733	0.46248	0.56311	1.03263	1.03191
568212.29	4181206.94	568212.29_4181206.94	0.18978	0.16279	0.44447	0.54112	1.59013	1.84305
568232.29	4181206.94	568232.29_4181206.94	0.18848	0.16268	0.44304	0.54134	1.58783	1.8394
568252.29	4181206.94	568252.29_4181206.94	0.18719	0.16244	0.44217	0.54202	1.58937	1.83592
568272.29	4181206.94	568272.29_4181206.94	0.18558	0.16175	0.4411	0.54208	1.5829	1.82084
568292.29	4181206.94	568292.29_4181206.94	0.18361	0.16057	0.43951	0.54121	1.57322	1.79408
568312.29	4181206.94	568312.29_4181206.94	0.18233	0.15998	0.43689	0.54329	1.57815	1.79188
568332.29	4181206.94	568332.29_4181206.94	0.18083	0.15913	0.43293	0.54501	1.58051	1.78745
568352.29	4181206.94	568352.29_4181206.94	0.17938	0.1583	0.42832	0.54728	1.58362	1.78523
568372.29	4181206.94	568372.29_4181206.94	0.17776	0.1573	0.42403	0.54914	1.58089	1.78155
568392.29	4181206.94	568392.29_4181206.94	0.17629	0.15648	0.42097	0.55177	1.58269	1.78174
568412.29	4181206.94	568412.29_4181206.94	0.17498	0.15586	0.41976	0.55511	1.58809	1.78949
568432.29	4181206.94	568432.29_4181206.94	0.17341	0.15501	0.42075	0.55722	1.58531	1.78834
568452.29	4181206.94	568452.29_4181206.94	0.1709	0.15324	0.42394	0.55495	1.56335	1.76358
568472.29	4181206.94	568472.29_4181206.94	0.16919	0.15232	0.4279	0.55595	1.55556	1.75896
568492.29	4181206.94	568492.29_4181206.94	0.16707	0.15101	0.43238	0.55472	1.53929	1.74491
568512.29	4181206.94	568512.29_4181206.94	0.1654	0.15016	0.43614	0.55532	1.52991	1.73785
568572.29	4181206.94	568572.29_4181206.94	0.16011	0.14725	0.44121	0.55457	1.49233	1.69979
568592.29	4181206.94	568592.29_4181206.94	0.15823	0.14608	0.4409	0.55351	1.47668	1.68157
568612.29	4181206.94	568612.29_4181206.94	0.15653	0.14503	0.43997	0.55338	1.46397	1.66589
568632.29	4181206.94	568632.29_4181206.94	0.15519	0.14428	0.43866	0.55521	1.45748	1.65668
568652.29	4181206.94	568652.29_4181206.94	0.15354	0.14313	0.43728	0.55538	1.44501	1.64069
568672.29	4181206.94	568672.29_4181206.94	0.1517	0.14173	0.43591	0.55466	1.42929	1.62116
568692.29	4181206.94	568692.29_4181206.94	0.15009	0.14048	0.43457	0.55524	1.41761	1.60625
568712.29	4181206.94	568712.29_4181206.94	0.14856	0.13926	0.43335	0.55641	1.40767	1.59343
568732.29	4181206.94	568732.29_4181206.94	0.14678	0.13772	0.4321	0.55613	1.39311	1.57577

568752.29	4181206.94	568752.29_4181206.94	0.1451	0.13624	0.43083	0.55653	1.3807	1.56068
568772.29	4181206.94	568772.29_4181206.94	0.14355	0.13486	0.42963	0.55778	1.37088	1.54852
568792.29	4181206.94	568792.29_4181206.94	0.14183	0.13328	0.42834	0.55803	1.35817	1.53335
568812.29	4181206.94	568812.29_4181206.94	0.14012	0.13168	0.42704	0.55836	1.34574	1.51847
567412.29	4181226.94	567412.29_4181226.94	0.11754	0.12524	0.41313	0.53005	0.79446	0.78921
567432.29	4181226.94	567432.29_4181226.94	0.12067	0.12777	0.41662	0.533	0.82124	0.81659
567452.29	4181226.94	567452.29_4181226.94	0.12386	0.13036	0.4223	0.53568	0.84922	0.84413
567472.29	4181226.94	567472.29_4181226.94	0.1271	0.13294	0.42807	0.53804	0.87835	0.87469
567492.29	4181226.94	567492.29_4181226.94	0.13038	0.13552	0.43548	0.54009	0.91011	0.90596
567512.29	4181226.94	567512.29_4181226.94	0.13343	0.13746	0.43837	0.5411	0.94136	0.93958
567532.29	4181226.94	567532.29_4181226.94	0.13656	0.13948	0.44578	0.54199	0.97559	0.97461
567552.29	4181226.94	567552.29_4181226.94	0.13957	0.14114	0.45107	0.54226	1.01073	1.01191
567572.29	4181226.94	567572.29_4181226.94	0.14222	0.14197	0.45188	0.53931	1.04603	1.0496
568232.29	4181226.94	568232.29_4181226.94	0.17657	0.15369	0.41823	0.51834	1.44908	1.66978
568252.29	4181226.94	568252.29_4181226.94	0.17545	0.15354	0.41758	0.51913	1.4482	1.66173
568272.29	4181226.94	568272.29_4181226.94	0.17409	0.15303	0.41692	0.51949	1.44578	1.65688
568292.29	4181226.94	568292.29_4181226.94	0.17258	0.15226	0.41609	0.51974	1.44565	1.63782
568312.29	4181226.94	568312.29_4181226.94	0.17126	0.15158	0.41451	0.5211	1.44623	1.63468
568332.29	4181226.94	568332.29_4181226.94	0.17001	0.15091	0.41177	0.52314	1.45122	1.63405
568352.29	4181226.94	568352.29_4181226.94	0.16857	0.15002	0.40824	0.52473	1.45334	1.63177
568372.29	4181226.94	568372.29_4181226.94	0.16735	0.14935	0.4045	0.52746	1.45856	1.63451
568392.29	4181226.94	568392.29_4181226.94	0.16605	0.1486	0.40147	0.52994	1.46157	1.63685
568412.29	4181226.94	568412.29_4181226.94	0.16454	0.14767	0.39991	0.53154	1.46013	1.63629
568432.29	4181226.94	568432.29_4181226.94	0.16283	0.14657	0.40019	0.53208	1.45393	1.6296
568452.29	4181226.94	568452.29_4181226.94	0.16094	0.14531	0.40219	0.53151	1.44303	1.6211
568472.29	4181226.94	568472.29_4181226.94	0.15936	0.14441	0.40528	0.53209	1.436	1.61726
568532.29	4181226.94	568532.29_4181226.94	0.15452	0.14172	0.41596	0.53193	1.40711	1.59434
568552.29	4181226.94	568552.29_4181226.94	0.15287	0.14079	0.41824	0.5313	1.3953	1.58235
568572.29	4181226.94	568572.29_4181226.94	0.15107	0.13969	0.41956	0.52987	1.38061	1.56612
568592.29	4181226.94	568592.29_4181226.94	0.14941	0.1387	0.41998	0.52905	1.36782	1.55114
568612.29	4181226.94	568612.29_4181226.94	0.14796	0.13788	0.41967	0.52936	1.3584	1.53928
568632.29	4181226.94	568632.29_4181226.94	0.14681	0.1373	0.4189	0.53132	1.354	1.5326
568652.29	4181226.94	568652.29_4181226.94	0.14557	0.13657	0.41796	0.53288	1.34775	1.52374
568672.29	4181226.94	568672.29_4181226.94	0.14395	0.13538	0.4169	0.53241	1.33467	1.50743
568692.29	4181226.94	568692.29_4181226.94	0.14234	0.13413	0.41589	0.53199	1.32162	1.49132
568712.29	4181226.94	568712.29_4181226.94	0.14102	0.13312	0.41497	0.53332	1.31383	1.48117
568732.29	4181226.94	568732.29_4181226.94	0.13946	0.13181	0.41407	0.53332	1.30193	1.46675
568752.29	4181226.94	568752.29_4181226.94	0.13788	0.13043	0.41315	0.53323	1.28976	1.45221
568772.29	4181226.94	568772.29_4181226.94	0.13649	0.12921	0.41234	0.53434	1.28125	1.44179
568792.29	4181226.94	568792.29_4181226.94	0.13504	0.12789	0.41148	0.53519	1.27193	1.4306
568812.29	4181226.94	568812.29_4181226.94	0.13348	0.12643	0.41057	0.53536	1.26075	1.41737
567412.29	4181246.94	567412.29_4181246.94	0.11423	0.12132	0.40489	0.51344	0.78294	0.77716
567432.29	4181246.94	567432.29_4181246.94	0.11715	0.12375	0.41006	0.51601	0.80804	0.80401
567452.29	4181246.94	567452.29_4181246.94	0.12003	0.126	0.41358	0.51809	0.83557	0.83099
567472.29	4181246.94	567472.29_4181246.94	0.12294	0.12822	0.41817	0.51982	0.86298	0.86024
567492.29	4181246.94	567492.29_4181246.94	0.12583	0.13034	0.4239	0.52118	0.89288	0.89062
567512.29	4181246.94	567512.29_4181246.94	0.1287	0.13231	0.42998	0.52215	0.92346	0.92296
567532.29	4181246.94	567532.29_4181246.94	0.13146	0.13397	0.43473	0.52254	0.95487	0.95643
567552.29	4181246.94	567552.29_4181246.94	0.134	0.13509	0.43832	0.52085	0.98747	0.9913
567572.29	4181246.94	567572.29_4181246.94	0.13656	0.13619	0.44297	0.52001	1.02071	1.0275
568232.29	4181246.94	568232.29_4181246.94	0.16611	0.14574	0.396	0.49798	1.33073	1.52312
568252.29	4181246.94	568252.29_4181246.94	0.16493	0.14546	0.39539	0.49813	1.3287	1.51922
568272.29	4181246.94	568272.29_4181246.94	0.16381	0.14514	0.395	0.49889	1.3316	1.50974
568292.29	4181246.94	568292.29_4181246.94	0.16262	0.14463	0.39467	0.4998	1.33471	1.50274
568312.29	4181246.94	568312.29_4181246.94	0.16155	0.14416	0.39388	0.50162	1.34054	1.50304
568332.29	4181246.94	568332.29_4181246.94	0.16048	0.14363	0.39214	0.50382	1.34695	1.50482
568352.29	4181246.94	568352.29_4181246.94	0.15927	0.14293	0.38957	0.50576	1.34911	1.50601
568372.29	4181246.94	568372.29_4181246.94	0.1576	0.14174	0.38663	0.50593	1.34625	1.49928
568392.29	4181246.94	568392.29_4181246.94	0.15593	0.14055	0.3841	0.50606	1.3422	1.49456
568412.29	4181246.94	568412.29_4181246.94	0.15472	0.13985	0.38233	0.50812	1.34416	1.49798
568432.29	4181246.94	568432.29_4181246.94	0.15339	0.13902	0.38195	0.50943	1.34262	1.49895
568512.29	4181246.94	568512.29_4181246.94	0.1472	0.13516	0.39213	0.50835	1.31006	1.47696
568532.29	4181246.94	568532.29_4181246.94	0.14576	0.13437	0.39533	0.50811	1.30153	1.4695
568552.29	4181246.94	568552.29_4181246.94	0.14455	0.13382	0.39783	0.50896	1.2964	1.46471
568572.29	4181246.94	568572.29_4181246.94	0.14288	0.13278	0.3997	0.50736	1.28292	1.44979
568592.29	4181246.94	568592.29_4181246.94	0.14128	0.1318	0.40074	0.50608	1.27025	1.43504
568612.29	4181246.94	568612.29_4181246.94	0.1401	0.13122	0.40097	0.50705	1.26452	1.42733

568632.29	4181246.94	568632.29_4181246.94	0.13911	0.13079	0.40072	0.50914	1.26183	1.42267
568652.29	4181246.94	568652.29_4181246.94	0.13801	0.1302	0.40021	0.51071	1.25698	1.41554
568672.29	4181246.94	568672.29_4181246.94	0.13664	0.12926	0.39953	0.51078	1.24716	1.40304
568692.29	4181246.94	568692.29_4181246.94	0.13526	0.12825	0.39881	0.51084	1.23711	1.39046
568712.29	4181246.94	568712.29_4181246.94	0.13376	0.12706	0.39807	0.51021	1.22484	1.37566
568732.29	4181246.94	568732.29_4181246.94	0.13256	0.12612	0.39743	0.51133	1.21776	1.36675
568752.29	4181246.94	568752.29_4181246.94	0.13116	0.12493	0.39681	0.51137	1.20746	1.35447
568772.29	4181246.94	568772.29_4181246.94	0.12997	0.1239	0.3963	0.51268	1.20093	1.34642
568792.29	4181246.94	568792.29_4181246.94	0.12849	0.12254	0.39563	0.51228	1.18947	1.33312
568812.29	4181246.94	568812.29_4181246.94	0.12719	0.12135	0.39509	0.51314	1.18167	1.32382
567412.29	4181266.94	567412.29_4181266.94	0.11098	0.11761	0.39763	0.49742	0.77099	0.76628
567432.29	4181266.94	567432.29_4181266.94	0.11363	0.11974	0.40182	0.49944	0.79515	0.79165
567452.29	4181266.94	567452.29_4181266.94	0.11623	0.12171	0.40464	0.50098	0.8212	0.8181
567472.29	4181266.94	567472.29_4181266.94	0.11887	0.12369	0.40957	0.50229	0.84774	0.84617
567492.29	4181266.94	567492.29_4181266.94	0.1215	0.1256	0.41568	0.5033	0.87562	0.87542
567512.29	4181266.94	567512.29_4181266.94	0.12403	0.12724	0.42033	0.50378	0.90461	0.90612
567532.29	4181266.94	567532.29_4181266.94	0.12634	0.12831	0.42159	0.50222	0.93305	0.93729
567552.29	4181266.94	567552.29_4181266.94	0.12857	0.12918	0.42372	0.50082	0.96317	0.96982
567572.29	4181266.94	567572.29_4181266.94	0.13083	0.13007	0.42935	0.49979	0.99372	1.00349
567592.29	4181266.94	567592.29_4181266.94	0.13306	0.13087	0.43473	0.49876	1.02439	1.03871
568312.29	4181266.94	568312.29_4181266.94	0.15276	0.13737	0.37493	0.48357	1.24565	1.38853
568332.29	4181266.94	568332.29_4181266.94	0.15142	0.13652	0.37391	0.48412	1.24492	1.38584
568352.29	4181266.94	568352.29_4181266.94	0.15037	0.13595	0.37225	0.48617	1.25059	1.38902
568372.29	4181266.94	568372.29_4181266.94	0.14873	0.13474	0.37008	0.48578	1.24701	1.38233
568392.29	4181266.94	568392.29_4181266.94	0.14736	0.1338	0.36792	0.48655	1.24655	1.38208
568412.29	4181266.94	568412.29_4181266.94	0.14617	0.13304	0.36625	0.48797	1.24746	1.38479
568472.29	4181266.94	568472.29_4181266.94	0.14215	0.13041	0.36784	0.48897	1.23552	1.38191
568492.29	4181266.94	568492.29_4181266.94	0.14078	0.12955	0.3704	0.48867	1.22869	1.37779
568512.29	4181266.94	568512.29_4181266.94	0.13922	0.12852	0.37354	0.48718	1.21779	1.36847
568532.29	4181266.94	568532.29_4181266.94	0.13807	0.12795	0.37653	0.48772	1.21327	1.36525
568552.29	4181266.94	568552.29_4181266.94	0.13664	0.12709	0.37932	0.4867	1.2035	1.35527
568572.29	4181266.94	568572.29_4181266.94	0.13525	0.12627	0.38149	0.48584	1.19395	1.34464
568592.29	4181266.94	568592.29_4181266.94	0.13371	0.12531	0.38302	0.48419	1.18163	1.33024
568612.29	4181266.94	568612.29_4181266.94	0.13266	0.12482	0.38372	0.48519	1.17722	1.32408
568632.29	4181266.94	568632.29_4181266.94	0.13193	0.12463	0.38389	0.48805	1.17805	1.3234
568652.29	4181266.94	568652.29_4181266.94	0.1308	0.12399	0.38381	0.48874	1.17172	1.31482
568672.29	4181266.94	568672.29_4181266.94	0.12993	0.12357	0.38356	0.49095	1.16958	1.31088
568692.29	4181266.94	568692.29_4181266.94	0.12857	0.12257	0.38308	0.49033	1.15878	1.29766
568712.29	4181266.94	568712.29_4181266.94	0.12721	0.12152	0.38254	0.48967	1.14775	1.2844
568732.29	4181266.94	568732.29_4181266.94	0.12613	0.12071	0.38212	0.49067	1.14153	1.27659
568752.29	4181266.94	568752.29_4181266.94	0.12499	0.11979	0.38174	0.49139	1.1344	1.26795
568772.29	4181266.94	568772.29_4181266.94	0.1238	0.11878	0.38135	0.49185	1.12658	1.25867
568792.29	4181266.94	568792.29_4181266.94	0.12265	0.11776	0.38105	0.49262	1.11961	1.2504
568812.29	4181266.94	568812.29_4181266.94	0.1214	0.11661	0.38068	0.49283	1.11114	1.24057
567412.29	4181286.94	567412.29_4181286.94	0.10779	0.11404	0.39134	0.48192	0.75893	0.75519
567432.29	4181286.94	567432.29_4181286.94	0.11015	0.11584	0.3937	0.48336	0.78212	0.77974
567452.29	4181286.94	567452.29_4181286.94	0.11253	0.11763	0.39715	0.48454	0.80666	0.80521
567472.29	4181286.94	567472.29_4181286.94	0.11494	0.11943	0.40261	0.48553	0.83211	0.83214
567492.29	4181286.94	567492.29_4181286.94	0.11722	0.12091	0.40578	0.48592	0.85771	0.85978
567512.29	4181286.94	567512.29_4181286.94	0.11939	0.1221	0.40815	0.48577	0.88434	0.88841
567532.29	4181286.94	567532.29_4181286.94	0.12148	0.12307	0.41052	0.48378	0.91096	0.91775
567552.29	4181286.94	567552.29_4181286.94	0.1235	0.12387	0.4135	0.48259	0.93827	0.94819
567572.29	4181286.94	567572.29_4181286.94	0.12542	0.12442	0.41594	0.48104	0.9656	0.9789
567592.29	4181286.94	567592.29_4181286.94	0.1274	0.12509	0.42117	0.47998	0.993	1.01096
567612.29	4181286.94	567612.29_4181286.94	0.12921	0.12539	0.42537	0.47827	1.01976	1.04261
568152.29	4181286.94	568152.29_4181286.94	0.14958	0.12969	0.36063	0.45695	1.12754	1.28645
568172.29	4181286.94	568172.29_4181286.94	0.14863	0.12966	0.35863	0.45568	1.11995	1.27407
568192.29	4181286.94	568192.29_4181286.94	0.14806	0.13002	0.35773	0.45593	1.11992	1.27143
568212.29	4181286.94	568212.29_4181286.94	0.14763	0.1305	0.35732	0.45704	1.12357	1.27182
568232.29	4181286.94	568232.29_4181286.94	0.14746	0.13118	0.35737	0.45947	1.13464	1.27883
568252.29	4181286.94	568252.29_4181286.94	0.14691	0.1314	0.35724	0.46107	1.14076	1.28049
568272.29	4181286.94	568272.29_4181286.94	0.14611	0.13128	0.35712	0.46216	1.14333	1.28028
568292.29	4181286.94	568292.29_4181286.94	0.14518	0.13096	0.35724	0.46319	1.14772	1.27983
568312.29	4181286.94	568312.29_4181286.94	0.1442	0.13051	0.35735	0.46437	1.15232	1.27857
568332.29	4181286.94	568332.29_4181286.94	0.14299	0.12977	0.35703	0.46491	1.15426	1.2772
568352.29	4181286.94	568352.29_4181286.94	0.14204	0.12926	0.35609	0.46681	1.15999	1.28109
568372.29	4181286.94	568372.29_4181286.94	0.14075	0.12838	0.35463	0.46734	1.16046	1.28085

568432.29	4181286.94	568432.29_4181286.94	0.13719	0.12599	0.35081	0.46986	1.16043	1.28661
568452.29	4181286.94	568452.29_4181286.94	0.13587	0.12507	0.35104	0.46964	1.15585	1.2852
568472.29	4181286.94	568472.29_4181286.94	0.13472	0.12434	0.35215	0.47001	1.15276	1.28541
568492.29	4181286.94	568492.29_4181286.94	0.13355	0.12361	0.35414	0.47009	1.14841	1.28384
568512.29	4181286.94	568512.29_4181286.94	0.13206	0.12257	0.35684	0.46832	1.13804	1.27496
568532.29	4181286.94	568532.29_4181286.94	0.13099	0.122	0.35958	0.46862	1.13394	1.27203
568552.29	4181286.94	568552.29_4181286.94	0.12983	0.12135	0.36229	0.46841	1.12792	1.26606
568572.29	4181286.94	568572.29_4181286.94	0.12841	0.12044	0.36469	0.46679	1.11729	1.25424
568592.29	4181286.94	568592.29_4181286.94	0.12711	0.11966	0.36652	0.46582	1.10833	1.2436
568612.29	4181286.94	568612.29_4181286.94	0.12581	0.11887	0.36776	0.46484	1.09898	1.23207
568632.29	4181286.94	568632.29_4181286.94	0.12514	0.11872	0.36833	0.46749	1.10004	1.23175
568652.29	4181286.94	568652.29_4181286.94	0.12431	0.11837	0.36861	0.46926	1.09801	1.22795
568672.29	4181286.94	568672.29_4181286.94	0.12345	0.11794	0.36867	0.47084	1.09502	1.22321
568692.29	4181286.94	568692.29_4181286.94	0.12258	0.11745	0.36859	0.4724	1.09162	1.21817
568712.29	4181286.94	568712.29_4181286.94	0.12119	0.11637	0.36822	0.47088	1.07929	1.20364
568732.29	4181286.94	568732.29_4181286.94	0.12021	0.11568	0.36799	0.47179	1.07378	1.19671
568752.29	4181286.94	568752.29_4181286.94	0.11921	0.11491	0.36778	0.47259	1.06789	1.18955
568772.29	4181286.94	568772.29_4181286.94	0.11807	0.11394	0.36751	0.4725	1.05956	1.17985
568792.29	4181286.94	568792.29_4181286.94	0.11713	0.11316	0.36743	0.47382	1.05506	1.17438
568812.29	4181286.94	568812.29_4181286.94	0.11612	0.11226	0.36735	0.47471	1.0494	1.1677
567412.29	4181306.94	567412.29_4181306.94	0.10456	0.11039	0.38284	0.46667	0.74647	0.74414
567432.29	4181306.94	567432.29_4181306.94	0.10675	0.11209	0.38656	0.46783	0.76879	0.76774
567452.29	4181306.94	567452.29_4181306.94	0.10891	0.11369	0.39015	0.46867	0.79172	0.79217
567472.29	4181306.94	567472.29_4181306.94	0.111	0.11508	0.39261	0.46906	0.81537	0.81745
567492.29	4181306.94	567492.29_4181306.94	0.11297	0.1162	0.3941	0.46821	0.83893	0.84336
567512.29	4181306.94	567512.29_4181306.94	0.11492	0.11722	0.39671	0.46717	0.86339	0.87018
567532.29	4181306.94	567532.29_4181306.94	0.11675	0.11797	0.3987	0.46597	0.88776	0.89734
567552.29	4181306.94	567552.29_4181306.94	0.11859	0.11872	0.40237	0.46497	0.91231	0.92552
567572.29	4181306.94	567572.29_4181306.94	0.1203	0.11917	0.40591	0.46341	0.93673	0.95352
567592.29	4181306.94	567592.29_4181306.94	0.1219	0.11937	0.40776	0.46145	0.96027	0.98174
567612.29	4181306.94	567612.29_4181306.94	0.12341	0.11941	0.41	0.45932	0.98311	1.00974
567632.29	4181306.94	567632.29_4181306.94	0.12487	0.11938	0.41045	0.45719	1.00511	1.03714
568092.29	4181306.94	568092.29_4181306.94	0.14225	0.12228	0.35327	0.43988	1.05695	1.20311
568112.29	4181306.94	568112.29_4181306.94	0.14174	0.12231	0.34961	0.43894	1.05103	1.19224
568152.29	4181306.94	568152.29_4181306.94	0.14083	0.12289	0.34339	0.43838	1.04261	1.18277
568172.29	4181306.94	568172.29_4181306.94	0.14013	0.12306	0.3416	0.43776	1.03901	1.177
568192.29	4181306.94	568192.29_4181306.94	0.13903	0.12281	0.34053	0.43593	1.03218	1.16701
568212.29	4181306.94	568212.29_4181306.94	0.13957	0.12418	0.34062	0.44013	1.04584	1.17797
568232.29	4181306.94	568232.29_4181306.94	0.13937	0.12476	0.34073	0.44219	1.05313	1.18145
568252.29	4181306.94	568252.29_4181306.94	0.13885	0.12495	0.34068	0.44353	1.05854	1.18253
568272.29	4181306.94	568272.29_4181306.94	0.13812	0.12485	0.34063	0.44446	1.06286	1.18238
568292.29	4181306.94	568292.29_4181306.94	0.13715	0.12443	0.34081	0.44481	1.06531	1.18054
568312.29	4181306.94	568312.29_4181306.94	0.1362	0.12397	0.34117	0.44559	1.0689	1.18051
568332.29	4181306.94	568332.29_4181306.94	0.1353	0.12353	0.34136	0.44694	1.07389	1.18287
568412.29	4181306.94	568412.29_4181306.94	0.13121	0.12098	0.33798	0.45145	1.08456	1.19568
568432.29	4181306.94	568432.29_4181306.94	0.13006	0.12017	0.3373	0.45171	1.0829	1.19703
568452.29	4181306.94	568452.29_4181306.94	0.12897	0.11944	0.33729	0.45204	1.08103	1.1985
568472.29	4181306.94	568472.29_4181306.94	0.12789	0.11872	0.33809	0.45219	1.07823	1.19889
568492.29	4181306.94	568492.29_4181306.94	0.12683	0.11804	0.33964	0.45225	1.07484	1.19822
568512.29	4181306.94	568512.29_4181306.94	0.12547	0.11707	0.34186	0.45063	1.06614	1.19103
568532.29	4181306.94	568532.29_4181306.94	0.1243	0.11631	0.34438	0.44982	1.05966	1.1854
568552.29	4181306.94	568552.29_4181306.94	0.12334	0.1158	0.3469	0.45014	1.05628	1.18224
568572.29	4181306.94	568572.29_4181306.94	0.12219	0.11512	0.34929	0.44946	1.04953	1.17466
568592.29	4181306.94	568592.29_4181306.94	0.12107	0.11447	0.3513	0.44899	1.04308	1.16679
568612.29	4181306.94	568612.29_4181306.94	0.12011	0.11399	0.35278	0.44943	1.0389	1.16097
568632.29	4181306.94	568632.29_4181306.94	0.11892	0.11326	0.35382	0.44856	1.03052	1.1504
568652.29	4181306.94	568652.29_4181306.94	0.11833	0.11314	0.35447	0.45121	1.03185	1.15036
568672.29	4181306.94	568672.29_4181306.94	0.11744	0.11267	0.35481	0.45209	1.02773	1.1445
568692.29	4181306.94	568692.29_4181306.94	0.11682	0.11244	0.35507	0.45455	1.02775	1.14325
568712.29	4181306.94	568712.29_4181306.94	0.11569	0.11162	0.35497	0.4539	1.0189	1.13261
568732.29	4181306.94	568732.29_4181306.94	0.11463	0.11085	0.35484	0.45369	1.01117	1.12337
568752.29	4181306.94	568752.29_4181306.94	0.11356	0.11	0.35467	0.45332	1.00298	1.11379
568772.29	4181306.94	568772.29_4181306.94	0.11288	0.10953	0.35476	0.45545	1.00154	1.11164
568792.29	4181306.94	568792.29_4181306.94	0.11188	0.10868	0.35466	0.45554	0.99455	1.10359
568812.29	4181306.94	568812.29_4181306.94	0.11102	0.10794	0.35474	0.45666	0.99035	1.09857
567412.29	4181326.94	567412.29_4181326.94	0.10139	0.10686	0.37466	0.4519	0.73372	0.73291
567432.29	4181326.94	567432.29_4181326.94	0.10339	0.10839	0.37862	0.45274	0.7548	0.7554

567452.29	4181326.94	567452.29_4181326.94	0.10533	0.10976	0.38146	0.45321	0.77612	0.77859
567472.29	4181326.94	567472.29_4181326.94	0.10712	0.11079	0.38178	0.45261	0.79768	0.80217
567492.29	4181326.94	567492.29_4181326.94	0.10888	0.11172	0.38337	0.45116	0.81954	0.82643
567512.29	4181326.94	567512.29_4181326.94	0.11064	0.11264	0.38661	0.4505	0.84173	0.85133
567532.29	4181326.94	567532.29_4181326.94	0.11228	0.11325	0.38839	0.44933	0.86378	0.87636
567552.29	4181326.94	567552.29_4181326.94	0.11385	0.11373	0.39152	0.4479	0.88544	0.90177
567572.29	4181326.94	567572.29_4181326.94	0.11531	0.11396	0.39301	0.44602	0.90663	0.92696
567592.29	4181326.94	567592.29_4181326.94	0.11673	0.11409	0.39533	0.4441	0.92727	0.95214
567612.29	4181326.94	567612.29_4181326.94	0.11806	0.11407	0.39567	0.44201	0.9467	0.97665
567632.29	4181326.94	567632.29_4181326.94	0.11936	0.11402	0.39585	0.44	0.96541	1.00042
567652.29	4181326.94	567652.29_4181326.94	0.12056	0.11384	0.39464	0.4378	0.9824	1.02332
568072.29	4181326.94	568072.29_4181326.94	0.13456	0.11608	0.34109	0.42324	0.98797	1.11551
568092.29	4181326.94	568092.29_4181326.94	0.13411	0.11597	0.33717	0.42219	0.98009	1.10908
568112.29	4181326.94	568112.29_4181326.94	0.13386	0.11624	0.33385	0.42204	0.97686	1.10564
568152.29	4181326.94	568152.29_4181326.94	0.13301	0.1168	0.32773	0.42156	0.97072	1.09703
568172.29	4181326.94	568172.29_4181326.94	0.13237	0.11697	0.32598	0.42099	0.9674	1.09139
568192.29	4181326.94	568192.29_4181326.94	0.13182	0.11721	0.32537	0.42088	0.96626	1.08734
568212.29	4181326.94	568212.29_4181326.94	0.13135	0.11749	0.32507	0.42126	0.96741	1.08507
568232.29	4181326.94	568232.29_4181326.94	0.13162	0.11848	0.32542	0.42474	0.97898	1.09321
568252.29	4181326.94	568252.29_4181326.94	0.13113	0.11863	0.32545	0.42577	0.98335	1.09349
568272.29	4181326.94	568272.29_4181326.94	0.13076	0.11885	0.32561	0.42773	0.99095	1.09708
568292.29	4181326.94	568292.29_4181326.94	0.13003	0.11863	0.32591	0.42859	0.99516	1.09749
568312.29	4181326.94	568312.29_4181326.94	0.12923	0.11831	0.32643	0.42959	0.99966	1.09891
568372.29	4181326.94	568372.29_4181326.94	0.12642	0.11669	0.32673	0.43224	1.00944	1.10588
568392.29	4181326.94	568392.29_4181326.94	0.12549	0.11611	0.32611	0.43335	1.01217	1.11017
568412.29	4181326.94	568412.29_4181326.94	0.12469	0.11565	0.32536	0.43499	1.01594	1.11664
568432.29	4181326.94	568432.29_4181326.94	0.12381	0.1151	0.3248	0.43612	1.01759	1.12156
568452.29	4181326.94	568452.29_4181326.94	0.12267	0.11427	0.32476	0.43575	1.01434	1.12148
568472.29	4181326.94	568472.29_4181326.94	0.12158	0.11349	0.32533	0.43536	1.01072	1.12088
568492.29	4181326.94	568492.29_4181326.94	0.12046	0.1127	0.32659	0.43462	1.00581	1.11838
568512.29	4181326.94	568512.29_4181326.94	0.11945	0.11203	0.32838	0.43432	1.00195	1.11631
568532.29	4181326.94	568532.29_4181326.94	0.11833	0.11127	0.33057	0.43335	0.99588	1.11102
568552.29	4181326.94	568552.29_4181326.94	0.11731	0.11063	0.33293	0.43285	0.9909	1.10609
568572.29	4181326.94	568572.29_4181326.94	0.11642	0.11016	0.33522	0.43317	0.98794	1.10261
568592.29	4181326.94	568592.29_4181326.94	0.11535	0.10951	0.33731	0.43245	0.98168	1.09498
568612.29	4181326.94	568612.29_4181326.94	0.1142	0.10877	0.33904	0.43129	0.97379	1.08521
568632.29	4181326.94	568632.29_4181326.94	0.11319	0.10819	0.34032	0.43102	0.96801	1.07757
568652.29	4181326.94	568652.29_4181326.94	0.11246	0.1079	0.34121	0.43237	0.96642	1.07443
568672.29	4181326.94	568672.29_4181326.94	0.1118	0.10766	0.34184	0.43413	0.96557	1.0722
568692.29	4181326.94	568692.29_4181326.94	0.11112	0.10735	0.34227	0.43569	0.96386	1.06919
568712.29	4181326.94	568712.29_4181326.94	0.11054	0.10713	0.34264	0.4379	0.96362	1.06795
568732.29	4181326.94	568732.29_4181326.94	0.10948	0.10633	0.3426	0.43705	0.95505	1.05786
568752.29	4181326.94	568752.29_4181326.94	0.1087	0.1058	0.34268	0.43791	0.95092	1.05274
568772.29	4181326.94	568772.29_4181326.94	0.10792	0.10524	0.3428	0.43881	0.94686	1.04781
568792.29	4181326.94	568792.29_4181326.94	0.10713	0.10461	0.34291	0.43958	0.94243	1.04258
568812.29	4181326.94	568812.29_4181326.94	0.10626	0.10386	0.34297	0.43991	0.93687	1.03617
567412.29	4181346.94	567412.29_4181346.94	0.09833	0.10353	0.36901	0.43774	0.72053	0.72149
567432.29	4181346.94	567432.29_4181346.94	0.10008	0.10476	0.37017	0.43809	0.74002	0.7427
567452.29	4181346.94	567452.29_4181346.94	0.10183	0.10596	0.37301	0.43828	0.75985	0.76456
567472.29	4181346.94	567472.29_4181346.94	0.10344	0.10683	0.3734	0.43717	0.77958	0.78655
567492.29	4181346.94	567492.29_4181346.94	0.10501	0.1076	0.37471	0.43574	0.79951	0.80902
567512.29	4181346.94	567512.29_4181346.94	0.10657	0.10833	0.37721	0.43485	0.81952	0.83182
567532.29	4181346.94	567532.29_4181346.94	0.10803	0.10883	0.37992	0.43362	0.8392	0.85474
567552.29	4181346.94	567552.29_4181346.94	0.10931	0.10896	0.37973	0.43152	0.8578	0.87732
567572.29	4181346.94	567572.29_4181346.94	0.11062	0.10915	0.38189	0.42975	0.87642	0.89977
567592.29	4181346.94	567592.29_4181346.94	0.11182	0.10909	0.38166	0.42756	0.89405	0.92174
567612.29	4181346.94	567612.29_4181346.94	0.1129	0.10885	0.38041	0.42504	0.91014	0.94279
567632.29	4181346.94	567632.29_4181346.94	0.11418	0.10903	0.38194	0.42377	0.92579	0.96361
567652.29	4181346.94	567652.29_4181346.94	0.11508	0.10849	0.37842	0.42077	0.93889	0.98219
568032.29	4181346.94	568032.29_4181346.94	0.12779	0.11083	0.33139	0.40884	0.93166	1.04658
568052.29	4181346.94	568052.29_4181346.94	0.12794	0.11094	0.32979	0.40902	0.92992	1.04893
568072.29	4181346.94	568072.29_4181346.94	0.1271	0.11025	0.32596	0.40658	0.91871	1.03627
568092.29	4181346.94	568092.29_4181346.94	0.12706	0.11055	0.32289	0.40682	0.91675	1.03443
568112.29	4181346.94	568112.29_4181346.94	0.12687	0.11086	0.3196	0.40692	0.91441	1.03164
568132.29	4181346.94	568132.29_4181346.94	0.12639	0.111	0.31636	0.40635	0.91038	1.0264
568152.29	4181346.94	568152.29_4181346.94	0.12606	0.11138	0.31385	0.4065	0.90883	1.02314
568172.29	4181346.94	568172.29_4181346.94	0.12587	0.11194	0.31239	0.40735	0.90995	1.02205

568192.29	4181346.94	568192.29_4181346.94	0.12515	0.11196	0.31159	0.40655	0.90684	1.01584
568212.29	4181346.94	568212.29_4181346.94	0.12462	0.11213	0.31127	0.40653	0.90677	1.01235
568232.29	4181346.94	568232.29_4181346.94	0.12445	0.11261	0.31148	0.40814	0.91228	1.01425
568252.29	4181346.94	568252.29_4181346.94	0.1243	0.11305	0.31172	0.41017	0.91964	1.01786
568272.29	4181346.94	568272.29_4181346.94	0.12405	0.11335	0.31196	0.41224	0.92741	1.02198
568332.29	4181346.94	568332.29_4181346.94	0.12209	0.1127	0.31359	0.41562	0.94218	1.02915
568352.29	4181346.94	568352.29_4181346.94	0.12123	0.11222	0.31401	0.41646	0.94556	1.03199
568372.29	4181346.94	568372.29_4181346.94	0.12045	0.1118	0.31417	0.41776	0.94981	1.03699
568392.29	4181346.94	568392.29_4181346.94	0.11936	0.11103	0.31395	0.41764	0.9493	1.03808
568412.29	4181346.94	568412.29_4181346.94	0.11843	0.11042	0.31356	0.41822	0.95034	1.04172
568432.29	4181346.94	568432.29_4181346.94	0.1174	0.10968	0.31327	0.41809	0.94883	1.04323
568452.29	4181346.94	568452.29_4181346.94	0.11653	0.10911	0.31324	0.41862	0.9489	1.0466
568472.29	4181346.94	568472.29_4181346.94	0.11554	0.10841	0.31372	0.41832	0.94621	1.04684
568492.29	4181346.94	568492.29_4181346.94	0.11473	0.10789	0.31469	0.41878	0.94544	1.04866
568512.29	4181346.94	568512.29_4181346.94	0.11376	0.10722	0.31619	0.41828	0.94169	1.04658
568532.29	4181346.94	568532.29_4181346.94	0.11264	0.1064	0.31811	0.41683	0.93503	1.04055
568552.29	4181346.94	568552.29_4181346.94	0.1115	0.10558	0.32026	0.41528	0.92785	1.03317
568572.29	4181346.94	568572.29_4181346.94	0.11089	0.10535	0.32238	0.41675	0.92879	1.03393
568592.29	4181346.94	568592.29_4181346.94	0.11004	0.10489	0.32445	0.4169	0.92567	1.02978
568612.29	4181346.94	568612.29_4181346.94	0.10877	0.10398	0.32627	0.41465	0.9156	1.01773
568632.29	4181346.94	568632.29_4181346.94	0.10806	0.10368	0.32773	0.4157	0.91422	1.01494
568652.29	4181346.94	568652.29_4181346.94	0.10714	0.10314	0.32883	0.41547	0.90903	1.00798
568672.29	4181346.94	568672.29_4181346.94	0.10635	0.10274	0.32964	0.41602	0.90558	1.00299
568692.29	4181346.94	568692.29_4181346.94	0.10605	0.10283	0.33038	0.41949	0.90963	1.00631
568712.29	4181346.94	568712.29_4181346.94	0.10536	0.10247	0.33083	0.42052	0.90692	1.00246
568732.29	4181346.94	568732.29_4181346.94	0.10472	0.10213	0.33119	0.42179	0.90468	0.99927
568752.29	4181346.94	568752.29_4181346.94	0.10393	0.10158	0.33135	0.42204	0.89966	0.99324
568772.29	4181346.94	568772.29_4181346.94	0.10326	0.10114	0.3316	0.42307	0.89655	0.9894
568792.29	4181346.94	568792.29_4181346.94	0.10254	0.10059	0.33179	0.4237	0.89246	0.98455
568812.29	4181346.94	568812.29_4181346.94	0.10181	0.1	0.33198	0.42433	0.88827	0.97968
567640.72	4181210.45	567640.72_4181210.45	0.15796	0.15163	0.48822	0.55536	1.21085	1.22488
567660.72	4181210.45	567660.72_4181210.45	0.16072	0.15204	0.49332	0.55297	1.25438	1.27483
567680.72	4181210.45	567680.72_4181210.45	0.16346	0.15249	0.49927	0.55154	1.29872	1.32567
567700.72	4181210.45	567700.72_4181210.45	0.16598	0.15255	0.50379	0.54957	1.34208	1.37708
567640.72	4181230.45	567640.72_4181230.45	0.15054	0.14424	0.47248	0.53325	1.17209	1.1906
567660.72	4181230.45	567660.72_4181230.45	0.153	0.14465	0.47771	0.53189	1.21062	1.23563
567680.72	4181230.45	567680.72_4181230.45	0.15524	0.14467	0.48154	0.52899	1.24818	1.2806
567700.72	4181230.45	567700.72_4181230.45	0.15724	0.14433	0.48259	0.52619	1.28394	1.32441
567720.72	4181230.45	567720.72_4181230.45	0.1589	0.14342	0.47682	0.52227	1.31621	1.3662
567640.72	4181250.45	567640.72_4181250.45	0.14357	0.1374	0.45794	0.5129	1.13187	1.15539
567660.72	4181250.45	567660.72_4181250.45	0.14558	0.13742	0.46116	0.50966	1.16501	1.19469
567680.72	4181250.45	567680.72_4181250.45	0.14735	0.13701	0.46148	0.50667	1.1962	1.23355
567700.72	4181250.45	567700.72_4181250.45	0.14911	0.1367	0.45832	0.50407	1.22588	1.27106
567720.72	4181250.45	567720.72_4181250.45	0.15084	0.13648	0.45631	0.50179	1.25304	1.30724
567640.72	4181270.45	567640.72_4181270.45	0.13678	0.13054	0.44117	0.49111	1.09059	1.1182
567660.72	4181270.45	567660.72_4181270.45	0.13844	0.13031	0.4423	0.48847	1.1182	1.15224
567680.72	4181270.45	567680.72_4181270.45	0.14002	0.12999	0.44104	0.48579	1.14456	1.18579
567700.72	4181270.45	567700.72_4181270.45	0.1416	0.12978	0.43766	0.48352	1.16854	1.21785
567720.72	4181270.45	567720.72_4181270.45	0.14317	0.12969	0.4359	0.48159	1.19027	1.24775
567660.72	4181290.45	567660.72_4181290.45	0.13198	0.12419	0.42557	0.46957	1.07222	1.11012
567680.72	4181290.45	567680.72_4181290.45	0.13324	0.12362	0.42238	0.4664	1.09318	1.13807
567700.72	4181290.45	567700.72_4181290.45	0.13458	0.12331	0.41825	0.46396	1.1121	1.16457
567720.72	4181290.45	567720.72_4181290.45	0.13605	0.1234	0.41655	0.46251	1.12915	1.18926
567700.58	4181192.03	567700.58_4181192.03	0.17433	0.16025	0.52113	0.57135	1.39372	1.42347
567681.2	4181312.49	567681.2_4181312.49	0.12648	0.11747	0.40327	0.44708	1.03895	1.08693
CONCUNIT ug	/m^3	CONCUNIT ug_/m^3						
DEPUNIT g/m	^2	DEPUNIT g/m_^2						

Appendix D
3600 Alameda Tree Survey

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Huffman-Broadway Group, Inc.
ENVIRONMENTAL REGULATORY CONSULTANTS
828 MISSION AVENUE, SAN RAFAEL, CA 94901 • 415.925.2000 • WWW.H-BGROUP.COM

June 28, 2022 ***Sent via Email***

Jason Bernstein
Director, Development
Duke Realty
409 13th Street, 16th Floor
Oakland, CA 94612

SUBJECT: Tree Survey, 3600 Alameda Avenue, Oakland, CA

Dear Mr. Bernstein:

As requested, a tree inventory was conducted at the subject site June 18, 2022. Attachment 1 shows the location of the trees inventoried. Tree diameters were measured at 4.5 feet above ground with a forester's steel tree diameter tape. This method is standard among professional arborist, foresters, botanists, and plant ecologists to document tree size in terms of cross-sectional area. I am a botanist / plant ecologist with 40 plus years' experience in identifying plant species (attachment 2). The following summarizes my findings:

Tree Survey Results			
Number*	**Common Name**	**Scientific Name**	**DBH****
1	Monterey pine	*Pinus radiata*	25
2	Chinese elm	*Ulmus parvifolia*	11
3	Chinese elm	*Ulmus parvifolia*	14.1
4	Chinese elm	*Ulmus parvifolia*	12.6
5	Chinese elm	*Ulmus parvifolia*	14
6	Chinese elm	*Ulmus parvifolia*	20
7a	Blackwood Acacia	*Acacia melanoxylon*	7.5
7b	Blackwood Acacia	*Acacia melanoxylon*	7
8	Monterey pine	*Pinus radiata*	22
9	California sycamore	*Platanus racemosa*	20
* Plan Sheet Nos. July 2021 Kier & Wright Sheets C3.2 & C3.3. ** DBH = Trunk diameter 4.5 feet above ground.			

We appreciate this opportunity to provide our services. If you have any questions, please feel free to contact me at (415) 385-1045 or thuffman@h-bgroup.com.

Sincerely,

Attachment 1. Tree Survey, Kier + Wright Sheets C3.2 & 3.3, July 2021 (Annotated by Terry Huffman, PhD)
Attachment 2. Resume of Terry Huffman, PhD

ATTACHMENT 1. TREE SURVEY, KEIR + WRIGHT SHEETS C3.2 & 3.3, JULY 2021

NORTH

0 20 40 80 120

Scale 1" = 40'

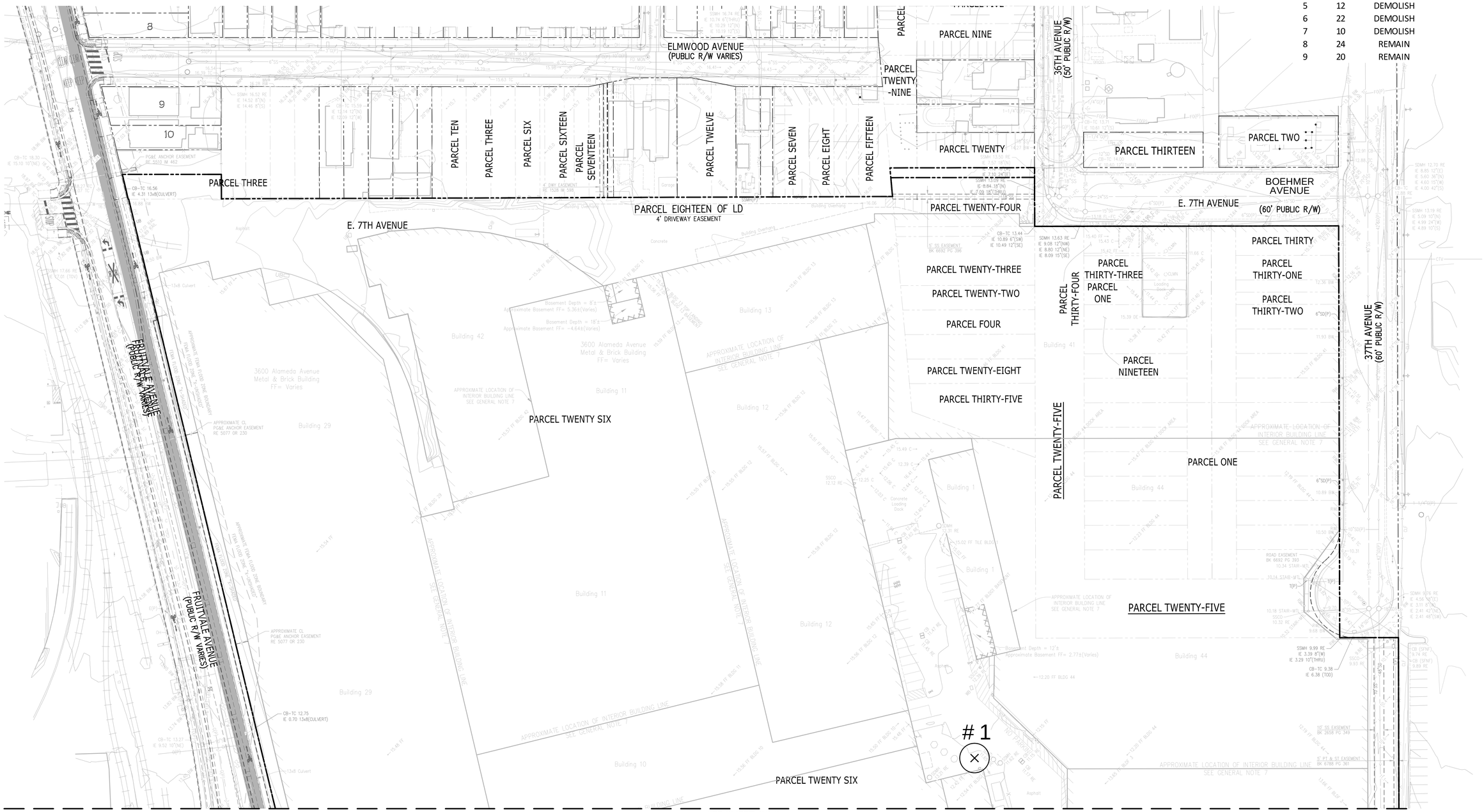
LEGEND

#XX (×) EXISTING TREE TO BE REMOVED

#XX (·) EXISTING TREE TO BE PROTECTED IN PLACE

Note tree sizes to be modified based on measurements taken at diameter breast height using a foresters tree diameter tape on June 18, 2022.

TREE NO.	TRUNK DIAMETER (in.)	DEMOLISH OR REMAIN
1	15	DEMOLISH
2	12	DEMOLISH
3	12	DEMOLISH
4	12	DEMOLISH
5	12	DEMOLISH
6	22	DEMOLISH
7	10	DEMOLISH
8	24	REMAIN
9	20	REMAIN



DATE	JULY, 2021
SCALE	AS SHOWN
DESIGNER	DGR
DRAWN BY	REE
JOB NO.	A15642-6
SHEET	C3.2
OF	20 SHEETS

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

TREE SURVEY PLAN
OF
3600 ALAMEDA AVENUE
FOR
DUKE REALTY
OAKLAND, CALIFORNIA

REVISION NO. BY

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NORTH

0 20 40 80 120

Scale 1" = 40'

LEGEND

#XX ⊗ EXISTING TREE TO BE REMOVED

#XX · EXISTING TREE TO BE PROTECTED IN PLACE

Note tree sizes to be modified based on measurements taken at diameter breast height using a foresters tree diameter tape on June 18, 2022.

TREE NO.	TRUNK DIAMETER (in.)	DEMOLISH OR REMAIN
1	15	DEMOLISH
2	12	DEMOLISH
3	12	DEMOLISH
4	12	DEMOLISH
5	12	DEMOLISH
6	22	DEMOLISH
7	10	DEMOLISH
8	24	REMAIN
9	20	REMAIN

SEE SHEET C3.2

PARCEL TWENTY SIX OF LD

ERURIA AVENUE (PUBLIC R/W VARIES)

APPROXIMATE LOCATION OF INTERIOR BUILDING LINE SEE GENERAL NOTE 7

3600 Alameda Avenue Metal & Brick Building FF= Varies Building 9

Basement Depth = 15'± Approximate Basement FF= -2.15±(Varies) Building 8

Metal Building FF= 14.00± Basement Depth = 12'± Approximate Basement FF= -0.25±(Varies)

3600 Alameda Avenue Metal & Brick Building FF= Varies Building 6

Building 43

COVERED EQUIPMENT AREA

37TH AVENUE

ALAMEDA AVENUE (80' PUBLIC R/W)

ALAMEDA AVENUE

PARCEL TWENTY SEVEN OF LD
ROADWAY ESMT 6804 OR 17

#1 #2 #3 #4 #5 #6 #7 #8 #9

FEMA FLOOD ZONE "X-SHADED"
FEMA FLOOD ZONE "X-UNSHADED"
FEMA FLOOD ZONE "AE (EL=10)"

REVISION BY
NO.

REVISION BY
NO.

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

TREE SURVEY PLAN
OF
3600 ALAMEDA AVENUE
FOR
DUKE REALTY

OAKLAND, CALIFORNIA

DATE	JULY, 2021
SCALE	AS SHOWN
DESIGNER	DGR
DRAWN BY	REE
JOB NO.	A15642-6
SHEET	C3.3
OF	20 SHEETS

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Huffman-Broadway Group, Inc.

ENVIRONMENTAL REGULATORY CONSULTANTS

TERRY HUFFMAN, PhD

Wetland Regulatory Scientist / Lead Scientist / Project Manager

EDUCATION

- PhD, 1976. Botany/Wetland Community Ecology, University of Arkansas, Fayetteville
- First Lieutenant. 1976. US Army Engineer's Officer Basic Combat Engineering Course, Ft. Belvoir, VA
- MS, 1974. Botany/Plant Ecology, University of Arkansas, Fayetteville
- BSE, 1971. Dual Major: General Biology & Education, Henderson State University, Arkadelphia, AR

PROFESSIONAL AFFILIATIONS

- Association of State Wetland Managers
- Ecological Society of America
- Environmental Law Institute
- Director, Solano Land Trust
- Jepson Herbarium (Lifetime Member)
- Society of American Military Engineers
- Society of Wetland Scientists (Lifetime Member)

Terry has a unique combination of in-depth experience with both ecological research and with the environmental regulatory process. Prior to starting Huffman-Broadway Group, Inc., he was the US Army Corps of Engineers' (Corps) Chief Wetlands Scientist at the Corps' Environmental Laboratory in Vicksburg Mississippi, where he developed the wetlands definition used by the Corps and the US Environmental Protection Agency (US EPA). He pioneered the combined use of multiple environmental factors of wetland vegetation, soil and hydrology conditions and their identification using field indicators to determine the presence or absence of wetlands subject to regulation under the Clean Water Act. This seminal work led to the development of the wetland delineation methodology in use by the Corps and EPA today. As noted in the preface to the Corps' 1987 Wetlands Delineation Manual, Part II of the Manual is based on Terry's 1980 paper entitled "Multiple Parameter Approach to the Field Identification and Delineation of Wetlands." The Corps 1987 Manual was adopted for official use by the Corps within all divisions and districts in 1987. In September 1992, Congress authorized the National Academy of Science to conduct a study of the methods used to identify and delineate wetlands. The National Academy of Sciences study confirmed the validity of the multiple parameter approach. As a lead technical representative for the Corps, Terry also played a major role in developing the language pertaining to wetlands in the EPA 404(b)(1) Guidelines for the discharge of dredged or fill material into waters of the US, including wetlands.

His work as a Corps employee (6 years) and as a private consultant (30 +years) has provided Terry with extensive onsite experience with virtually all types of aquatic and wetland environments and a unique understanding of the environmental permitting and compliance process throughout the US. In California, he participated as a contributing member of the California State Water Resources Control Board (SWRCB) Technical Advisory Team on wetland, stream, and riparian definitions. He provides government, NGO, and private sector training in the identification and delineation of wetland and other aquatic resource jurisdictional boundaries as defined by the environmental regulatory programs of the Corps / EPA, SWRCB / RWQCBs, California Department of Fish and Wildlife (CDFW), San Francisco Bay Conservation and Development Commission (BCDC), California Coastal Commission (CCC), California Department of Water Resources (DWR), and California State Lands Commission (SLC) through the UC Berkeley Jepson Herbarium Workshop Program and the RWQCB's Training Academy.

Terry has obtained numerous authorizations over his career with the above-mentioned agencies involving both surface and groundwater projects to include:

Agency	Type of Authorization
Corps	CWA Individual and Nationwide permits and Letters of permission / RHA Section 10
USEPA	401 Water Quality Certification
USFWS	Facilitates ESA Section 7 Biological Opinions / Section 10 Take Permits
RWQCBs	401 Water Quality Certification, Waste Discharge Requirements, and Ground Water Recharge Permitting
CDFW	1600 Lake and Streambed Alteration Agreements and CESA Incidental Take Permits / CDs
BCDC	San Francisco Bay Development Permit
CCC	Coastal Development Permit
DWR	Encroachment Permits
SLC	Encroachment Permits

Based on Dr. Huffman's broad experience he is often called on during pre-project planning / due diligence to perform gap and fatal flaw analysis regarding project feasibility. As part various agency Environmental Permitting Process, he routinely performs aquatic resource delineations and surveys for special status plant species and sensitive natural habitats following Federal and State methodologies; performs Clean Water Act alternatives analysis following USEPA 404 (b)(1) Guidelines and prepares aquatic resource and sensitive species mitigation plans following agency guidelines. He also constructs aquatic resource habitats and conducts agency required monitoring and reporting.

Appendix E

Plant and Wildlife Species Lists for the Project Area; CNDDB Database Report

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Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Oakland East (3712272))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Acipenser medirostris pop. 1 green sturgeon - southern DPS	AFCAA01031	Threatened	None	G2T1	S1	
Ambystoma californiense pop. 1 California tiger salamander - central California DPS	AAAAA01181	Threatened	Threatened	G2G3T3	S3	WL
Amsinckia lunaris bent-flowered fiddleneck	PDBOR01070	None	None	G3	S3	1B.2
Antrozous pallidus pallid bat	AMACC10010	None	None	G4	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arctostaphylos pallida pallid manzanita	PDERI04110	Threatened	Endangered	G1	S1	1B.1
Astragalus tener var. tener alkali milk-vetch	PDFAB0F8R1	None	None	G2T1	S1	1B.2
Bombus caliginosus obscure bumble bee	IIHYM24380	None	None	G2G3	S1S2	
Bombus occidentalis western bumble bee	IIHYM24250	None	None	G2G3	S1	
Chloropyron maritimum ssp. palustre Point Reyes salty bird's-beak	PDSCR0J0C3	None	None	G4?T2	S2	1B.2
Chorizanthe robusta var. robusta robust spineflower	PDPGN040Q2	Endangered	None	G2T1	S1	1B.1
Clarkia concinna ssp. automixa Santa Clara red ribbons	PDONA050A1	None	None	G5?T3	S3	4.3
Clarkia franciscana Presidio clarkia	PDONA050H0	Endangered	Endangered	G1	S1	1B.1
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Coturnicops noveboracensis yellow rail	ABNME01010	None	None	G4	S1S2	SSC
Dipodomys heermanni berkeleyensis Berkeley kangaroo rat	AMAFD03061	None	None	G4T1	S1	
Dirca occidentalis western leatherwood	PDTHY03010	None	None	G2	S2	1B.2
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eriogonum luteolum var. caninum Tiburon buckwheat	PDPGN083S1	None	None	G5T2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Eryngium jepsonii Jepson's coyote-thistle	PDAPI0Z130	None	None	G2	S2	1B.2
Eucyclogobius newberryi tidewater goby	AFCQN04010	Endangered	None	G3	S3	
Euphydryas editha bayensis Bay checkerspot butterfly	IILEPK4055	Threatened	None	G5T1	S1	
Falco peregrinus anatum American peregrine falcon	ABNKD06071	Delisted	Delisted	G4T4	S3S4	FP
Fissidens pauperculus minute pocket moss	NBMUS2W0U0	None	None	G3?	S2	1B.2
Fritillaria liliacea fragrant fritillary	PMLIL0V0C0	None	None	G2	S2	1B.2
Gilia millefoliata dark-eyed gilia	PDPLM04130	None	None	G2	S2	1B.2
Helianthella castanea Diablo helianthella	PDAST4M020	None	None	G2	S2	1B.2
Helminthoglypta nickliniana bridgesi Bridges' coast range shoulderband	IMGASC2362	None	None	G3T1	S1S2	
Hoita strobilina Loma Prieta hoita	PDFAB5Z030	None	None	G2?	S2?	1B.1
Horkelia cuneata var. sericea Kellogg's horkelia	PDROS0W043	None	None	G4T1?	S1?	1B.1
Lasionycteris noctivagans silver-haired bat	AMACC02010	None	None	G3G4	S3S4	
Lasiurus cinereus hoary bat	AMACC05030	None	None	G3G4	S4	
Laterallus jamaicensis coturniculus California black rail	ABNME03041	None	Threatened	G3T1	S1	FP
Masticophis lateralis euryxanthus Alameda whipsnake	ARADB21031	Threatened	Threatened	G4T2	S2	
Meconella oregana Oregon meconella	PDPAP0G030	None	None	G2G3	S2	1B.1
Melospiza melodia pusillula Alameda song sparrow	ABPBXA301S	None	None	G5T2T3	S2S3	SSC
Microcina leei Lee's micro-blind harvestman	ILARA47040	None	None	G1	S1	
Monolopia gracilens woodland woollythreads	PDAST6G010	None	None	G3	S3	1B.2
Neotoma fuscipes annectens San Francisco dusky-footed woodrat	AMAFF08082	None	None	G5T2T3	S2S3	SSC
Northern Maritime Chaparral Northern Maritime Chaparral	CTT37C10CA	None	None	G1	S1.2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Plagiobothrys diffusus San Francisco popcornflower	PDBOR0V080	None	Endangered	G1Q	S1	1B.1
Polygonum marinense Marin knotweed	PDPGN0L1C0	None	None	G2Q	S2	3.1
Pomatiopsis californica Pacific walker	IMGASJ9020	None	None	G1	S1	
Rallus obsoletus obsoletus California Ridgway's rail	ABNME05011	Endangered	Endangered	G3T1	S1	FP
Rana boylii foothill yellow-legged frog	AAABH01050	None	Endangered	G3	S3	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Sanicula maritima adobe sanicle	PDAPI1Z0D0	None	Rare	G2	S2	1B.1
Scapanus latimanus parvus Alameda Island mole	AMABB02031	None	None	G5T1Q	SH	SSC
Serpentine Bunchgrass Serpentine Bunchgrass	CTT42130CA	None	None	G2	S2.2	
Spirinchus thaleichthys longfin smelt	AFCHB03010	Candidate	Threatened	G5	S1	
Streptanthus albidus ssp. peramoenus most beautiful jewelflower	PDBRA2G012	None	None	G2T2	S2	1B.2
Stuckenia filiformis ssp. alpina northern slender pondweed	PMPOT03091	None	None	G5T5	S2S3	2B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Trifolium hydrophilum saline clover	PDFAB400R5	None	None	G2	S2	1B.2
Tryonia imitator mimic tryonia (=California brackishwater snail)	IMGASJ7040	None	None	G2	S2	

Record Count: 56

CNPS Rare Plant Inventory

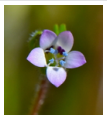
California Native Plant Society

Search Results

29 matches found. Click on scientific name for details

Search Criteria: Quad is one of [**3712272**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	PHOTO
Amsinckia lunaris	bent-flowered fiddleneck	Boraginaceae	annual herb	Mar-Jun	None	None	G3	S3	1B.2	 © 2011 Neal Kramer
Arctostaphylos pallida	pallid manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	FT	CE	G1	S1	1B.1	No Photo Available
Astragalus tener var. *tener*	alkali milk-vetch	Fabaceae	annual herb	Mar-Jun	None	None	G2T1	S1	1B.2	No Photo Available
Calochortus umbellatus	Oakland star-tulip	Liliaceae	perennial bulbiferous herb	Mar-May	None	None	G3?	S3?	4.2	No Photo Available
Castilleja ambigua var. *ambigua*	johnny-nip	Orobanchaceae	annual herb (hemiparasitic)	Mar-Aug	None	None	G4T4	S3S4	4.2	 ©2011 Dylan Neubauer
Chloropyron maritimum ssp. *palustre*	Point Reyes salty bird's-beak	Orobanchaceae	annual herb (hemiparasitic)	Jun-Oct	None	None	G4?T2	S2	1B.2	 ©2017 John Doyen
Chorizanthe robusta var. *robusta*	robust spineflower	Polygonaceae	annual herb	Apr-Sep	FE	None	G2T1	S1	1B.1	No Photo Available
Clarkia concinna ssp. *automixa*	Santa Clara red ribbons	Onagraceae	annual herb	(Apr)May-Jun(Jul)	None	None	G5?T3	S3	4.3	No Photo Available
Clarkia franciscana	Presidio clarkia	Onagraceae	annual herb	May-Jul	FE	CE	G1	S1	1B.1	No Photo Available
Dirca occidentalis	western leatherwood	Thymelaeaceae	perennial deciduous shrub	Jan-Mar(Apr)	None	None	G2	S2	1B.2	 © 2017 Steve Matson
Eriogonum	Tiburon	Polygonaceae	annual herb	May-Sep	None	None	G5T2	S2	1B.2	

Eriogonum luteolum var. *caninum*	buckwheat	Polygonaceae	annual herb	May-Sep	None	None	G3T2	S2	1B.2	No Photo Available
Eryngium jepsonii	Jepson's coyote-thistle	Apiaceae	perennial herb	Apr-Aug	None	None	G2	S2	1B.2	No Photo Available
Erythranthe laciniata	cut-leaved monkeyflower	Phrymaceae	annual herb	Apr-Jul	None	None	G4	S4	4.3	 © 2017 Steven Perry
Fissidens pauperculus	minute pocket moss	Fissidentaceae	moss		None	None	G3?	S2	1B.2	 ©2021 Scot Loring
Fritillaria liliacea	fragrant fritillary	Liliaceae	perennial bulbiferous herb	Feb-Apr	None	None	G2	S2	1B.2	 © 2004 Carol W. Witham
Gilia millefoliata	dark-eyed gilia	Polemoniaceae	annual herb	Apr-Jul	None	None	G2	S2	1B.2	 © 2017 John Doyen
Helianthella castanea	Diablo helianthella	Asteraceae	perennial herb	Mar-Jun	None	None	G2	S2	1B.2	 © 2013 Christopher Bronny
Hoita strobilina	Loma Prieta hoita	Fabaceae	perennial herb	May-Jul(Aug-Oct)	None	None	G2?	S2?	1B.1	 © 2004 Janell Hillman
Horkelia cuneata var. *sericea*	Kellogg's horkelia	Rosaceae	perennial herb	Apr-Sep	None	None	G4T1?	S1?	1B.1	 © 2018 Neal Kramer
Leptosiphon acicularis	bristly leptosiphon	Polemoniaceae	annual herb	Apr-Jul	None	None	G4?	S4?	4.2	 © 2007 Len Blumin
Leptosiphon grandiflorus	large-flowered leptosiphon	Polemoniaceae	annual herb	Apr-Aug	None	None	G3G4	S3S4	4.2	 © 2003 Doreen L. Smith
Meconella oregana	Oregon meconella	Papaveraceae	annual herb	Mar-Apr	None	None	G2G3	S2	1B.1	

										 © 2021 Scot Loring
Monolopia gracilens	woodland woollythreads	Asteraceae	annual herb	(Feb)Mar-Jul	None	None	G3	S3	1B.2	© 2016 Richard Spellenberg
Plagiobothrys diffusus	San Francisco popcornflower	Boraginaceae	annual herb	Mar-Jun	None	CE	G1Q	S1	1B.1	No Photo Available
Polygonum marinense	Marin knotweed	Polygonaceae	annual herb	(Apr)May-Aug(Oct)	None	None	G2Q	S2	3.1	No Photo Available
Sanicula maritima	adobe sanicle	Apiaceae	perennial herb	Feb-May	None	CR	G2	S2	1B.1	No Photo Available
Streptanthus albidus ssp. *peramoenus*	most beautiful jewelflower	Brassicaceae	annual herb	(Mar)Apr-Sep(Oct)	None	None	G2T2	S2	1B.2	 © 1994 Robert E. Preston, Ph.D.
Stuckenia filiformis ssp. *alpina*	northern slender pondweed	Potamogetonaceae	perennial rhizomatous herb (aquatic)	May-Jul	None	None	G5T5	S2S3	2B.2	 Dana York (2016)
Trifolium hydrophilum	saline clover	Fabaceae	annual herb	Apr-Jun	None	None	G2	S2	1B.2	No Photo Available

Showing 1 to 29 of 29 entries

Suggested Citation:

California Native Plant Society, Rare Plant Program. 2022. Rare Plant Inventory (online edition, v9-01 1.5). Website https://www.rareplants.cnps.org [accessed 23 June 2022].

Appendix F

Equitable Climate Action Plan Consistency Checklist

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CITY OF OAKLAND

CITY OF OAKLAND
Equitable Climate Action Plan Consistency Checklist

250 Frank H. Ogawa Plaza, Suite 2114, Oakland, CA 94612-2031
Zoning Information: 510-238-3911
https://www.oaklandca.gov/topics/planning

The purpose of this Equitable Climate Action Plan Consistency Review Checklist is to determine, for purposes of compliance with the California Environmental Quality Act (CEQA), whether a development project complies with the City of Oakland Equitable Climate Action Plan (ECAP) and the City of Oakland's greenhouse gas (GHG) emissions reduction targets. CEQA Guidelines require the analysis of GHG emissions and potential climate change impacts from new development.

- If a development project completes this Checklist and can qualitatively demonstrate compliance with the Checklist items as part of the project's design, or alternatively, demonstrate to the City's satisfaction why the item is not applicable, then the project will be considered in compliance with the City's CEQA GHG Threshold of Significance.
- If a development project cannot meet all of the Checklist items, the project will alternatively need to demonstrate consistency with the ECAP by complying with the City of Oakland GHG Reduction Plan Condition of Approval.
- If the project cannot demonstrate consistency with the ECAP in either of those two ways, the City will consider the project to have a significant effect on the environment related to GHG emissions.

Application Submittal Requirements

1.The ECAP Consistency Checklist applies to all development projects needing a CEQA GHG emissions analysis, including a specific plan consistency analysis.
2.If required, the ECAP Consistency Review Checklist must be submitted concurrently with the City of Oakland Basic Application.

Application Information

Applicant's Name/Company: Jason Bernstein / Duke Realty

Property Address: 3600 Alameda Avenue, Oakland

Assessor's Parcel Number: 33-2202-001 & 33-2250-011-4

Phone Number: 415-298-3325

E-mail: jason.bernstein@dukerealty.com

Checklist Item (Check the appropriate box and provide explanation for your answer).			
Transportation & Land Use			
1. Is the proposed project substantially consistent with the City's over-all goals for land use and urban form, and/or taking advantage of allowable density and/or floor area ratio (FAR) standards in the City's General Plan? (TLU1)	**Yes**	**No**	**N/A**
	x		
Please explain how the proposed project is substantially consistent with the City's General Plan with respect to density and FAR standards, land use, and urban form. See attached supplement.			
2. For developments in "Transit Accessible Areas" as defined in the Planning Code, would the project provide: i) less than half the maximum allowable parking, ii) the minimum allowable parking, or iii) take advantage of available parking reductions? (TLU1)	**Yes**	**No**	**N/A**
		x	
Please explain how the proposed project meets this action item. See attached supplement.			
3. For projects including structured parking, would the structured parking be designed for future adaptation to other uses? (Examples include, but are not limited to: the use of speed ramps instead of sloped floors.). (TLU1)	**Yes**	**No**	**N/A**
			x
Please explain how the proposed project meets this action item. No structured parking is proposed for this project.			
4. For projects that ***are*** subject to a Transportation Demand Management Program, would the project include transit passes for employees and/or residents? (TLU1)	**Yes**	**No**	**N/A**
	x		
Please explain how the proposed project meets this action item. See attachd supllement.			

	Yes	No	N/A
5. For projects that are ***not*** subject to a Transportation Demand Management Program, would the project incorporate one or more of the optional Transportation Demand Management measures that reduce dependency on single-occupancy vehicles? (Examples include but are not limited to transit passes or subsidies to employees and/or residents; carpooling; vanpooling; or shuttle programs; on-site carshare program; guaranteed ride home programs) (TLU1 & TLU8)			x
Please explain how the proposed project meets this action item. This project will be subject to a Transportation Demand Management Program, and will incorporate programs like carpooling, vanpooling and similar programs.			
6. Does the project comply with the Plug-In Electric Vehicle (PEV) Charging Infrastructure requirements (Chapter 15.04 of the Oakland Municipal Code), if applicable? (TLU2 & TLU-5)	x		
Please explain how the proposed project meets this action item. Yes, infrastructure will be included per the requirements of 15.04.			
7. Would the project reduce or prevent the direct displacement of residents and essential businesses? (For residential projects, would the project comply with SB 330, if applicable? For projects that demolish an existing commercial space, would the project include comparable square footage of neighborhood serving commercial floor space.) (TLU3)			x
Please explain how the proposed project meets this action item. No active businesses, essential businesses or homes are onsite.			

	Yes	No	N/A
8. Would the project prioritize sidewalk and curb space consistent with the City's adopted Bike and Pedestrian Plans? (The project should not prevent the City's Bike and Pedestrian Plans from being implemented. For example, do not install a garage entrance where a planned bike path would be unless otherwise infeasible due to Planning Code requirements, limited frontage or other constraints.) (TLU7)	x		

Please explain how the proposed project meets this action item.

Yes, the project will design around and incorporate Fruitvale Alive! improvements as well as facilitiating pedestrian and bike connections to Fruitvale BART. The project will also be incorporating bike lanes where appropriate.

Buildings

	Yes	No	N/A
9. Does the project not create any new natural gas connections/hook-ups? (B1 & B2)	x		

Please explain how the proposed project meets this action item.

The project does not intend to incorporate natural gas.

	Yes	No	N/A
10. Does the project comply with the City of Oakland Green Building Ordinance (Chapter 18.02 of the Oakland Municipal Code), if applicable? (B4)	x		

Please explain how the proposed project meets this action item.

Applying for a LEED designation at the minimum

	Yes	No	N/A
11. For retrofits of City-owned or City-controlled buildings: Would the project be all-electric, eliminate gas infrastructure from the building, and integrate energy storage wherever technically feasible and appropriate? (B5)			x

Please explain how the proposed project meets this action item.

The property is not City-owned or City-controlled.

Material Consumption & Waste			
12. Would the project reduce demolition waste from construction and renovation and facilitate material reuse in compliance with the Construction Demolition Ordinance (Chapter 15.34 of the Oakland Municipal Code)? (MCW6)	**Yes**	**No**	**N/A**
	x		
Please explain how the proposed project meets this action item. The project will comply with the requirements of Chapter 15.34 for Construction and Demolition.			

City Leadership			
13. For City projects: Have opportunities to eliminate/minimize fossil fuel dependency been analyzed in project design and construction? (CL2)	**Yes**	**No**	**N/A**
			x
Please explain how the proposed project meets this action item. This is not a City project.			

Adaptation			
14. For new projects in the Designated Very High Wildfire Severity Zone: Would the project incorporate wildfire safety requirements such creation of defensible space around the house, pruning, clearing and removal of vegetation, replacement of fire resistant plants, as required in the Vegetation Management Plan? (A4)	**Yes**	**No**	**N/A**
			x
Please explain how the proposed project meets this action item. The project is not located in a "Designated Very High Wildfire Severity Zone".			

Carbon Removal			
15. Would the project replace a greater number of trees than will be removed in compliance with the Tree Preservation Ordinance (Chapter 12.36 of the Oakland Municipal Code) and Planning Code if applicable and feasible given competing site constraints? (CR-2)	**Yes**	**No**	**N/A**
	X		
Please explain how the proposed project meets this action item. Yes, the project will replace a greater number of trees than will be removed in compliance with the Tree Preservation Ordinance.			
16. Does the project comply with the Creek Protection, Stormwater Management and Discharge Control Ordinance (Chapter 13.16 of the Oakland Municipal Code), as applicable? (CR-3)	**Yes**	**No**	**N/A**
	X		
Please explain how the proposed project meets this action item. The project will comply with Chapter 13.16 of the Municipal Code.			

I understand that answering ***yes*** to all of these questions, means that the project ***is in compliance with*** the City's Energy and Climate Action Plan as adopted on to July 28, 2020 and requires that staff apply the Project Compliance with the Equitable Climate Action Plan (ECAP) Consistency Checklist Condition of Approval as adopted by the Planning Commission on December 16, 2020 and all Checklist items must be incorporated into the project

I understand that answering ***no*** to any of these questions, means that the project ***is not in compliance*** with the City's Energy and Climate Action Plan as adopted on to July 28, 2020 and requires that staff apply the Greenhouse Gas (GHG) Reduction Plan Condition of Approval as adopted by the Planning Commission on December 16, 2020 which will require that the applicant prepare a quantitative GHG analysis and GHG Reduction Plan for staff's review and approval. The GHG Reduction Plan and all GHG Reduction measures shall be incorporated into the project and implemented during construction and after construction for the life of the project.

Andrew Hess — DocuSigned by: 2750E8C7E04842D... — 9/20/2021

Name and Signature of Preparer — Date

CITY OF OAKLAND
STORMWATER SUPPLEMENTAL FORM

This form must be submitted with all Planning and Zoning applications for projects defined as Regulated Projects by Provision C.3 of the Municipal Regional Stormwater Permit issued under the National Pollutant Discharge Elimination System (NPDES). Regulated Projects are:

- *Projects that create or replace 10,000 square feet or more of new or existing impervious surface area; and*
- *Since December 1, 2011, the following projects that create or replace 5,000 square feet or more of new or impervious surface area:*
  - *Auto servicing, auto repair, and gas stations;*
  - *Restaurants (full service, limited service, and fast-food); and*
  - *Uncovered parking lots (including stand-alone parking lots, parking lots serving an activity, and uncovered portions of parking structures unless drainage from the uncovered portion of the parking structure is connected to the sanitary sewer system).*

Regulated Projects do not include individual single-family dwellings (that are not part of a larger multi-unit development) or routine maintenance activities. For more information about the C.3 stormwater requirements, please refer to the City of Oakland's Overview of Provision C.3 and the website of the Alameda Countywide Clean Water Program: http://www.cleanwaterprogram.org/

GENERAL INFORMATION

1. Project Name (if applicable): 3600 Alameda Avenue

2. Project Address (including cross street): 3600 Alameda Avenue (Fruitvale Avenue and Alameda Avenue)

3. Assessor's Parcel Number(s): 33-2202-001 & 33-2250-011-4

4. Applicant's Name: Duke Realty Limited Partnership - Jason Bernstein

5. Applicant's Address: 1904 Franklin Street, 8th Floor

6. Applicant's Phone: 415-298-3325 **Email:** Jason.Bernstein@dukerealty.com

7. Project Type (check all that apply)**:** ☐ Residential ☐ Commercial ■ Industrial ☐ Mixed Use ☐ Streets/Roads[1]

8. Project Description (Also note any past or future phases of project)**:** The project will consist of an industrial warehouse with associated parking, utilities and stormwater treatment. The project will also consist of an extension of E. 7th Avenue to Boehmer Avenue, extension of 37th Avenue to Alameda Avenue and a realignment of Alameda Avenue.

9. Slope on Site: 2 %

10: Project Watershed:[2] San Leandro Bay Watershed

11. Total Site Area (acres): 26.5

12: Total Land Area Disturbed[3] **(acres)** 26.5

Special Projects Worksheet Completed by:

Kristina Flores Digitally signed by Kristina Flores DN: C=US, E=kflores@klerwright.com, O=Kler & Wright, CN=Kristina Flores Date: 2021.08.19 18:06:17 -07'00' 2021-08-19

Signature **Date**

Print or Type Name

To Be Completed By City Staff:

Date Application Submitted: _____

Case Number(s): _____

➢ Note to Staff: Please route a copy of this form to the stormwater coordinator in the Planning and Zoning Division.

1 Roadway projects that replace existing impervious surface are subject to C.3 requirements only if one or more lanes of travel are added.

[2] Project Watershed information is available via the following link. http://acfloodcontrol.org/resources/explore-watersheds

[3] Includes clearing, grading, excavating and stockpiling.

3600 Alameda Avenue ECAP Checklist Responses:

1. The project's land use, density, FAR and urban form are consistent with the City's General Plan and the Central Area Estuary Plan. Specifically, the project is consistent with Policies CE-5 and CE-6, as it continues the industrial uses historically associated with the site while improving the compatibility between industrial uses and residential uses, as well as enhancing the relationship of the site with the waterfront. The project's FAR of 0.4 is below the allowed 2.0 ratio, but the scale of the proposed building is compatible with the large scale of the site (~24 acres), while providing adequate space for truck, trailer and vehicle parking and reserving space for a retail pad as well as a landscaped buffer along Alameda Avenue and the waterfront. The project is designed to ensure maximum functionality for industrial users. The truck court, parking areas and amenity areas are needed to ensure this space is considered Class A and attracts the best possible tenants.

2. The proposed parking associated with the project exceeds the minimum required under the Planning Code, as flexibility is required to accommodate a range of potential users given the unique size and scale of the site and proposed facility. The minimum required number of spaces is 164, while the project provides 252, which is much less (approximately half) than the large site could accommodate. This level of parking is consistent with the anticipated demand of suitable uses and will ensure that the project meet's the Planning Code's purpose of providing "adequate off-street parking and loading, thereby reducing traffic congestion, allowing more efficient utilization of on-street parking, promoting more efficient loading operations, and reducing the use of public streets for loading purposes." 17.116.010. As discussed below in response to question 4, the project will implement a TDM program to reduce automobile usage.

4. The project will implement a TDM program, which will include transit passes for employees, as well as other measures that may include BART shuttles, a carpool/vanpool program, car-share spaces, and bicycle parking and amenities.

Appendix G

Greenhouse Gas Reduction Plan

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APPENDIX G
Greenhouse Gas Reduction Plan

Introduction

This Greenhouse Gas Reduction Plan ("GHGRP") has been prepared pursuant to the City's Standard Condition of Approval (SCA) GHG-1. Since the Project does not commit to implementing all the GHG emission reduction strategies detailed in the City's 2030 Equitable Climate Action Plan (ECAP) Consistency Checklist (ECAP Checklist) as adopted by the Planning Commissions on December 16, 2020, the Project is required to comply with SCA GHG-1, which includes a project-level GHGRP quantifying how alternative reduction measures will achieve the same or greater emissions than would be achieved by meeting the ECAP Checklist.

Project Overview

The Project would demolish all existing structures on the Project site and construct approximately 430,000 square feet of industrial building space with a floor area ratio of 0.42.

City of Oakland 2030 Equitable Climate Action Plan

In July 2020, via Resolution 88267, the Oakland City Council adopted the 2030 Equitable Climate Action Plan, a comprehensive plan to achieve the 2030 greenhouse gas (GHG) reduction target and increase Oakland's resilience to the impacts of the climate crisis, both through a deep equity lens.[1] Alongside the 2030 ECAP, the Council also adopted a goal to achieve community-wide carbon neutrality no later than 2045.

The ECAP calls for ambitious reductions in GHG emissions intended to achieve a 36 percent reduction in total GHG emissions as compared to the 2005 baseline by the year by 2020, a 56 percent reduction by the year 2030, and a 83 percent reduction by the year 2050. To achieve these ambitious targets, GHG emission reductions are needed throughout all sectors, but with a particular emphasis on new development and the transportation sectors. As stated in the ECAP, "by implementing all Actions in the ECAP, Oakland can reduce GHG emissions by at least 60 percent by 2030, and 84 percent by 2050."

The 2030 ECAP includes a set of 40 Actions that lay the foundation for the City to meet these emission reductions. Actions are split into seven sectors:

- Transportation and Land Use

[1] City of Oakland, 2020. *Oakland 2030 Equitable Climate Action Plan.* July 2020. Available at https://cao-94612.s3.amazonaws.com/documents/Oakland-ECAP-07-24.pdf. Accessed April 2022.

- Buildings
- Material Consumption and Waste
- Adaptation
- Carbon Renewal
- City Leadership
- Port of Oakland

The Transportation and Land Use Action-2, calls for better aligning the City's permit and project approval process with ECAP priorities:

> **ECAP Action Transportation + Land Use (TLU)-2:** "Amend Standard Conditions of Approval (SCAs), as well as mitigation measures and other permit conditions to align with the City's GHG reduction priorities stated in this ECAP. Explore, through the Planning Commission, adoption of a threshold of significance for GHG impacts to align with this ECAP. In applying conditions on permits and project approvals, ensure that all cost-effective strategies to reduce GHG emissions from buildings and transportation are required or otherwise included in project designs, including infrastructure improvements like bicycle corridor enhancements, wider sidewalks, crossing improvements, public transit improvements, street trees and urban greening, and green stormwater infrastructure. Where onsite project GHG reductions are not cost-effective, prioritize local projects benefiting frontline communities."[2]

The City has recently updated the Standard Conditions of Approval for GHGs consistent with Action TLU-2 of the ECAP, effective as of December, 2020.

ECAP Checklist

The City has developed the ECAP Checklist to determine, for purposes of compliance with the California Environmental Quality Act (CEQA), whether a development project complies with the ECAP and the City of Oakland's GHG emissions reduction targets. The ECAP Checklist includes a series of design measures and infrastructure systems that, if implemented, would systematically achieve cost-effective GHG emission reductions intended to meet ECAP emission reduction targets. As part of a new development's analysis of GHG emissions and potential climate change impacts required under CEQA, if the project completes this Checklist and can qualitatively demonstrate compliance with the Checklist items as part of the project's design, or alternatively, demonstrate to the City's satisfaction why the item is not applicable, then the project will be considered to be in compliance with the City's ECAP and by extension the City's GHG reduction targets.

If a development project cannot meet all of the Checklist items, the project will alternatively need to demonstrate consistency with the ECAP by complying with the City of Oakland GHG Reduction Plan Standard Condition of Approval (SCA GHG-1).

2 City of Oakland, 2020. *Oakland 2030 Equitable Climate Action Plan.* July 2020. Available at https://cao-94612.s3.amazonaws.com/documents/Oakland-ECAP-07-24.pdf. Accessed June 2022.

If the project cannot demonstrate consistency with the ECAP in either of those two ways, the City will consider the project to have a significant effect on the environment related to GHG emissions.

Standard Condition of Approval GHG-1

SCA GHG-1, as described in Chapter 4.3 of the EIR, applies to projects under two scenarios:

> **Scenario A:** Projects which involve land use development (i.e., a project that does not require a permit from the Bay Area Air Quality Management District [BAAQMD] to operate), and do not commit to all of the GHG emissions reductions strategies described on the ECAP Consistency Checklist, as originally adopted by the Planning Commission on December 16, 2020.
>
> **Scenario B:** Projects which involve a stationary source of GHG (i.e., a project that requires a permit from BAAQMD to operate) and after a GHG analysis is prepared would produce total GHG emissions of more than 10,000 metric tons of CO_2e annually [MT CO_2e per year]).

For projects that do not comply with all emission reduction strategies in the ECAP Checklist, SCA GHG-1 requires that the project applicant shall retain a qualified air quality consultant to develop a GHGRP for City review and approval and shall implement the approved GHG Reduction Plan.

The goal of the GHGRP shall be to reduce GHG emissions by at least the amount that would be achieved by committing to all of the emissions reductions strategies identified on the ECAP Consistency Checklist as the City's project-level implementation of its ECAP.

As specified by SCA GHG-1, the GHG Reduction Plan shall include:

- A detailed GHG emissions inventory for the project taking into consideration energy efficiencies included as part of the project (including proposed mitigation measures, project design features, those strategies being implemented and other City requirements);
- For each ECAP Checklist strategy that the project will not meet, a quantified calculation of the additional GHG emission reductions that would have occurred had it implemented the GHG emissions reduction measure consistent with the ECAP Checklist;
- A quantified strategy for achieving a GHG emission reduction equivalent to the reduction that would have resulted from complying with the ECAP Checklist strategy; and
- Requirements for ongoing monitoring and reporting to demonstrate that the additional GHG reduction measures are being implemented.

Project GHG Emissions Inventory

The Project would generate GHG emissions during both construction and operation. Although the Project site is currently occupied by the former Owens-Brockway Glass manufacturing facility, the facility is not operational; thus, there are no existing emissions that can be subtracted from the Project-related emissions presented below.

Construction

GHG emissions would be generated during construction from use of heavy-duty construction equipment onsite, as well as vehicles transporting workers, equipment, and materials to and from the site. Consistent with City methodology, construction emissions are amortized over a project life of 40 years for consideration with operational emissions which are discussed further below. Amortized GHG emissions that would be generated from construction are presented in **Table G-1**, below.

TABLE G-1
PROJECT GHG EMISSIONS FROM CONSTRUCTION

Year	MT CO_2e
2023	606.2
2024	393.2
Project Total	999.4
Project Life	40
Annual Emissions Amortized Over Project Life	25.0

SOURCE: Appendix C.

Operation

Operation of the Project would generate direct GHG emissions from vehicle trips generated to and from the Project, testing and maintenance of the proposed emergency generator and to a smaller extent from area sources such as landscaping activities. Additionally, GHGs would be generated indirectly by electrical and water demand, and wastewater and solid waste generation.

Operational emission as estimated using the California Emissions Estimator Model (CalEEMod) version 2020.4.0 are presented in **Table G-2**.

TABLE G-2
TOTAL PROJECT GHG EMISSIONS

Year	MT CO_2e
Area Sources	<0.1
Electricity Use	121.8
Mobile Emissions	3,574.4
Offroad Equipment + Truck Idling	492.7
Emergency Generator	6.7
Solid Waste	263.1
Water and Wastewater	88.0
Total Operational Emissions	4,546.7
Amortized Construction Emissions (Over 40 Years)	25.0
Total Project GHG Emissions	**4,571.7**

SOURCE: Appendix C.

Emissions from the proposed diesel emergency generator were estimated assuming a maximum of 50 hours per year of operation for non-emergency purposes of testing and maintenance consistent with BAAQMD permitting requirements for emergency generators. **Table G-3** compares the estimated GHG emissions from the generator to the City's threshold of 10,000 metric tons of CO_2e for stationary sources.

TABLE G-3
STATIONARY SOURCE GHG EMISSIONS

Year	MT CO_2e
Emergency Generator	6.7
City of Oakland Stationary Source Threshold	10,000
Exceeds Threshold?	No

SOURCE: Appendix C.

Quantification of GHG Reductions from ECAP Measures with which the Project would not Comply

Based on the ECAP Checklist completed by the Project Applicant, the Project would not comply with the following transportation and land use strategies in the ECAP Checklist hence necessitating the preparation of this GHGRP:

2. For developments in "Transit Accessible Areas" as defined in the Planning Code, would the project provide: i) less than half the maximum allowable parking, ii) the minimum allowable parking, or iii) take advantage of available parking reductions?

The *City of Oakland Planning Code* Section 17.116.090 establishes minimum parking requirements for the Project. No maximum parking requirement is applicable to the site. The Project has minimum required off-street parking of 1.0 spaces per 3,500 square feet of floor area for industrial activities. Since the office component of the Project is an accessory part of the warehouse, the parking requirement for industrial use applies to the whole Project. The Project has minimum required off-street parking of 1.0 spaces per 600 square feet of floor area for retail activities. Therefore, the Project is required to provide a minimum of 138 parking spaces.[3]

While parking provided by the Project is consistent with the amount of parking allowed under the Planning Code, the Project's proposed 295 off-street parking spaces exceeds the minimum parking requirements by 157 spaces. For a conservative analysis of the GHG impacts of this measure for the purposes of this GHGRP, it is assumed that each parking space eliminated onsite would result in two fewer daily employee one-way trips, for a total of 314 fewer one-way trips per day associated with 157 parking spaces.[4]

[3] The required parking for industrial use is 121 space (424,320 / 3500 = 121) and for the retail space is 17 (10,000 / 600 = 17) for a total of 138 required spaces.

[4] This is a conservative assumption because it assumes that all the Project's parking spaces are fully occupied every day, and each parking space accommodates one worker's daily commute (two one-way trips).

Based on the Transportation Memorandum prepared by Fehr & Peers, the Project would generate approximately 2,130 trips per day, 1,600 of which would be from the industrial component, and 530 of which would be generated from the retail component of the Project. Of the daily trips associated with the industrial component of the project, 1,100 trips would be associated with passenger automobiles, and the remainder would be associated with trucks. If parking were reduced by 157 spaces, the number of passenger vehicle trips would be reduced by 314 one-way trips, and the overall number of passenger automobile trips associated with the industrial component of the Project would be reduced from 1,100 one-way trips per day to 786 one-way trips per day.[5]

To determine the GHG reductions that would result from minimizing the allowable parking on the Project site, mobile source emissions were calculated using CalEEMod for the reduced parking scenario, based on the assumption that reduced parking would reduce the number of daily automobile trips associated with the industrial component of the Project by 314 daily trips. Mobile-source emissions under the reduced parking scenario were then compared to mobile-source emissions that would result from the Project, as proposed. Overall, it was determined that reducing parking to the minimum required by Code would result in an annual reduction of 257.2 MT CO_2e. See Attachment A for GHGRP emission reduction measure calculations **[Reviewer, we will provide separately for this screencheck]**.

Equivalent GHG Reduction from Other Measures

Had the Project implemented all measures in the ECAP Checklist, the Project would have achieved an additional reduction of approximately 257.2 MT CO_2e per year from mobile sources. This section identifies equivalent reduction in GHG emissions that the Project could achieve through other offsets.

The greatest source of Project-generated GHG emissions is attributed to mobile sources. As shown in Table G-2, above, mobile sources account for 3,574.4 MT CO_2e per year, or approximately 80 percent of the total annual operational GHG emissions for the Project. Of this total, approximately 902 MT CO_2e per year is associated with light-duty vehicles for the warehouse land use. Therefore, this GHGRP includes the following specific reduction measures as the best opportunity to reduce GHG emissions by 257.2 MT CO_2e and satisfy SCA GHG-1's requirements for consistency with the ECAP Checklist:

> **Mandatory Commute Trip Reduction Program:** This mandatory Commute Trip Reduction (CTR) program will be implemented by the applicant. CTR programs discourage single-occupancy vehicle trips and encourage alternative modes of transportation such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions. Based on the CAPCOA methods, a mandatory CTR program using the full suite of reduction measures (see bullet list below) is estimated to result in a 26 percent reduction in employee VMT. The CTR program must include the following elements:

[5] The emissions reductions that would be achieved by reducing onsite parking to the minimum amount required by code was calculated by assuming that the 157 excess parking spaces and associated 314 trips per day would be removed from the industrial component of the Project.

- ***Commute Trip Reduction Marketing:*** a marketing strategy to promote the project site employer's CTR program. Information sharing and marketing promote and educate employees about their travel choices to the employment location beyond driving such as carpooling, taking transit, walking, and biking, thereby reducing VMT and GHG emissions. The following features (or similar alternatives) of the marketing strategy are essential for effectiveness.
  - Onsite or online commuter information services.
  - Employee transportation coordinators.
  - Onsite or online transit pass sales.
  - Guaranteed ride home service.
- ***Ridesharing Program:*** a ridesharing program and a permanent transportation management association with funding requirements for employers. Ridesharing encourages carpooled vehicle trips in place of single-occupied vehicle trips, thereby reducing the number of trips, VMT, and GHG emissions. Ridesharing must be promoted through a multifaceted approach. Examples include the following.
  - Designating a certain percentage of desirable parking spaces for ridesharing vehicles.
  - Designating adequate passenger loading and unloading and waiting areas for ridesharing vehicles.
  - Providing an app or website for coordinating rides.
- ***Subsidized or Discounted Transit Program:*** provide subsidized or discounted, or free transit passes for employees and/or residents. Reducing the out-of-pocket cost for choosing transit improves the competitiveness of transit against driving, increasing the total number of transit trips and decreasing vehicle trips. This decrease in vehicle trips results in reduced VMT and thus a reduction in GHG emissions. This measure is also required separately by the ECAP Checklist.
- ***End-of-Trip Bicycle Facilities:*** The provision of end-of-trip bicycle facilities within the warehouse building would encourage bicycling by warehouse employees, thereby reducing vehicle trips and achieving additional GHG emissions reductions.
- ***Employer-Sponsored Vanpool:*** The Project could further reduce GHG emissions associated with mobile-sources through the implementation of an employer-sponsored hybrid or electric zero emission vehicle (ZEV) vanpool. The mode shift from single-occupancy vehicles to shared hybrid or ZEV vanpool vehicles would reduce the overall employee commute VMT associated with the Project, and the shift from traditional gasoline passenger vehicles to a ZEV vanpool would further reduce mobile emissions.

The ECAP Checklist separately requires the provision of subsidized or discounted transit passes as component of the Project. Therefore, this GHGRP assumes a 20 percent reduction in warehouse employee VMT rather than the 26 percent specified by CAPCOA.[6]

This GHGRP measure would be consistent with Project Transportation Demand Management Plan (TDM) required Strategy I, 4Ie Amenities and Monitoring (see Appendix K, Table 4).

6 According to CAPCOA, providing subsidized or discounted transit passes could reduce VMT up to 5.5 percent.

- **Provide Rooftop Solar:** The Project could further reduce GHG emissions by installing rooftop solar on approximately 25 percent of the roof area, or 106,080 square feet of solar. Based on the CAPCOA methods, and assuming a panel efficiency of 17 percent, installing rooftop solar on 25 percent of the roof area would result in an additional reduction of 120.1 MT CO_2e per year

By implementing the Project's proposed GHGRP, the Project would achieve a reduction of up to 300.5 MT CO_2e per year, greater than what would be achieved by meeting all the criteria of the ECAP Checklist (257.2 MT CO_2e per year).

Attachment A
GHGRP Emission Reduction Measure Calculations

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Appendix H

3600 Alameda Project Noise Measurements

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2021\D202100922.00 - 3600 Alameda Avenue Light Industrial\05 Graphics-GIS-Modeling

SOURCE: ESA, 2022; Google Earth, 2022

3600 Alameda Industrial Project

Figure 4.5-2
Noise Monitoring Locations

ESA

Summary

File Name on Meter	LxT_Data.122.s
File Name on PC	LxT_0004437-20220405 100000-LxT_Data.122.ldbin
Serial Number	0004437
Model	SoundTrack LxT®
Firmware Version	2.404
User	
Location	
Job Description	
Note	

Measurement

Description	
Start	2022-04-05 10:00:00
Stop	2022-04-06 10:00:00
Duration	24:00:00.0
Run Time	24:00:00.0
Pause	00:00:00.0
Pre-Calibration	2022-04-05 09:37:25
Post-Calibration	None
Calibration Deviation	---

Overall Settings

RMS Weight	A Weighting			
Peak Weight	Z Weighting			
Detector	Slow			
Preamplifier	PRMLxT2B			
Microphone Correction	Off			
Integration Method	Linear			
Overload	142.7 dB			
	A	**C**	**Z**	
Under Range Peak	99.0	96.0	**101.0**	dB
Under Range Limit	**37.4**	36.9	43.7	dB
Noise Floor	28.2	27.8	34.6	dB
	First	**Second**	**Third**	
Instrument Identification				

Results

L_{Aeq}		66.2		
LAE		115.5		
EA		39.801	mPa^2h	
EA8		13.267	mPa^2h	
EA40		66.336	mPa^2h	
$L_{Zpeak\ (max)}$	2022-04-05 16:10:59		116.1	dB
L_{ASmax}	2022-04-06 07:05:23		89.6	dB
L_{ASmin}	2022-04-06 02:08:20		51.1	dB
SEA		-99.9	dB	

	Exceedance Counts	Duration	
LAS > 85.0 dB	1	4.0	s
LAS > 115.0 dB	0	0.0	s
L_{Zpeak} > 135.0 dB	0	0.0	s
L_{Zpeak} > 137.0 dB	0	0.0	s
L_{Zpeak} > 140.0 dB	0	0.0	s

L_{Ceq}	74.3	dB
L_{Aeq}	66.2	dB
L_{Ceq} - L_{Aeq}	8.1	dB
L_{AIeq}	67.3	dB
L_{Aeq}	66.2	dB
L_{AIeq} - L_{Aeq}	1.1	dB

	A		C		Z	
	dB	**Time Stamp**	**dB**	**Time Stamp**	**dB**	**Time Stamp**
L_{eq}	66.2		74.3			
$L_{S(max)}$	89.6	2022/04/06 7:05:23				
$L_{S(min)}$	51.1	2022/04/06 2:08:20				
$L_{Peak(max)}$					116.1	2022/04/05 16:10:59

Overload Count	0	
Overload Duration	0.0	s

Dose Settings			
Dose Name	OSHA-1	OSHA-2	
Exchange Rate	5	5	dB
Threshold	90	80	dB
Criterion Level	90	90	dB
Criterion Duration	8	8	h

Results			
Dose	10.54	10.54	%
Projected Dose	3.51	3.51	%
TWA (Projected)	65.8	65.8	dB
TWA (t)	73.8	73.8	dB
Lep (t)	70.9	70.9	dB

Statistics		
LA 2.00	69.7	dB
LA 8.00	68.4	dB
LA 25.00	67.1	dB
LA 50.00	65.8	dB
LA 66.60	64.7	dB
LA 90.00	61.8	dB

Calibration History

Preamp	Date	dB re. 1V/Pa	6.3	8.0	10.0	12.5	16.0	20.0	25.0	31.5	40.0	50.0
PRMLxT2B	2022-04-05 09:37:25	-48.99	62.38	63.50	60.04	65.87	71.78	75.23	66.82	70.01	71.70	68.75
PRMLxT2B	2022-03-24 11:28:43	-48.93	65.13	64.37	63.25	59.11	49.99	55.66	59.78	61.69	66.74	67.13
PRMLxT2B	2022-03-15 10:11:38	-48.97	72.56	58.50	48.10	60.63	62.23	46.53	52.41	60.49	64.40	60.20
PRMLxT2B	2022-03-08 10:22:45	-48.72	52.90	46.69	55.78	56.50	56.90	45.88	53.86	58.20	49.17	67.07
PRMLxT2B	2022-02-23 10:01:00	-48.69	88.23	91.11	88.57	85.71	82.69	77.00	85.08	80.75	79.80	76.99
PRMLxT2B	2022-02-03 14:06:49	-48.94	62.08	44.65	60.49	55.76	56.73	54.69	57.45	60.83	63.59	61.47
PRMLxT2B	2022-01-28 08:51:49	-48.79	43.62	46.68	50.31	52.08	53.22	42.27	36.35	38.53	40.52	33.59
PRMLxT2B	2022-01-25 13:48:46	-48.95	57.94	68.70	68.60	63.14	53.69	51.19	46.81	50.57	44.01	40.86
PRMLxT2B	2022-01-11 10:07:00	-48.76	49.35	44.33	48.02	49.11	55.25	56.68	45.20	44.18	46.40	37.88
PRMLxT2B	2021-12-17 09:13:41	-48.72	53.45	47.69	49.79	62.82	67.61	64.51	50.98	58.11	67.28	63.27
PRMLxT2B	2021-08-19 10:25:55	-48.79	47.91	53.10	52.90	49.86	61.90	54.72	48.91	48.35	44.31	49.57

Calibration History

63.0	80.0	100	125	160	200	250	315	400	500	630	800	1000	1250	1600
72.47	68.25	69.91	64.39	62.90	64.72	65.22	69.39	65.35	59.34	54.11	41.03	113.92	48.91	29.28
65.54	65.79	58.11	57.07	56.67	57.20	58.32	57.93	55.03	53.67	41.94	39.45	114.02	49.11	30.29
52.08	58.45	48.84	46.14	49.60	51.06	51.61	46.18	55.02	41.17	31.01	31.03	113.73	48.73	27.47
52.97	54.99	58.86	49.13	43.02	54.18	56.92	56.15	57.50	61.08	49.35	31.66	113.96	48.95	28.33
76.69	71.62	66.73	69.99	69.35	72.69	71.86	69.60	69.33	61.96	51.29	37.14	114.21	49.04	29.29
63.14	55.63	53.03	53.02	50.24	51.86	43.27	43.54	43.93	47.00	41.39	32.76	113.83	48.92	27.73
32.21	38.00	46.48	40.25	35.43	33.32	30.17	29.54	32.70	28.01	25.51	30.80	114.14	48.96	27.42
45.25	42.16	49.82	48.01	47.52	46.15	42.72	44.63	47.34	43.88	30.88	30.00	113.79	48.93	27.75
44.15	44.39	35.32	39.62	37.38	32.43	33.94	33.19	31.84	29.26	25.33	29.48	113.95	48.75	27.72
64.14	61.43	53.44	60.59	56.50	56.67	55.19	56.82	47.75	47.72	44.93	37.06	114.05	48.98	27.60
42.43	46.76	47.79	47.28	49.04	40.58	33.33	31.99	35.75	32.99	28.72	30.20	113.94	48.86	27.17

Calibration History

2000	2500	3150	4000	5000	6300	8000	10000	12500	16000	20000
64.42	29.37	61.65	32.88	33.79	33.68	34.51	35.83	36.85	37.87	39.79
64.86	29.26	61.68	32.46	33.91	33.65	34.44	35.73	36.81	37.82	39.82
64.25	28.67	61.30	32.00	33.50	33.37	34.24	35.48	36.39	37.72	39.33
63.59	29.61	61.50	31.54	33.55	33.26	34.04	35.08	36.16	37.58	39.34
64.18	29.60	61.77	32.58	34.44	33.04	34.60	35.58	36.79	37.40	39.59
64.43	29.54	61.66	32.27	33.76	33.54	34.05	35.66	36.45	37.90	39.48
64.49	29.34	61.83	32.49	34.20	33.61	34.59	35.84	37.01	38.05	39.55
64.27	29.40	61.27	30.93	34.80	33.38	33.95	35.71	36.33	37.68	39.66
64.37	29.43	61.68	32.38	34.01	32.98	34.20	35.39	36.37	37.50	39.35
64.50	29.60	61.79	32.05	34.03	33.24	34.26	35.40	36.49	37.54	39.32
63.56	29.40	56.29	32.14	32.29	33.10	34.25	35.59	36.49	37.71	39.42

Record #	Date	Time	Record Type	Cause	#	TH Record	Sound Record
1	2022-04-05	10:00:00	Run	Timer	1	1	
2	2022-04-06	10:00:00	Stop	Timer	1	26	

Statistics		
Level (dB)	**Count**	**Percent**
66.0	164820	1.91
66.1	163441	1.89
66.2	163129	1.89
66.3	164044	1.90
66.4	163500	1.89
66.5	164206	1.90
66.6	160790	1.86
66.7	160823	1.86
66.8	158508	1.83
66.9	156821	1.82
67.0	154832	1.79
67.1	149867	1.73
67.2	144272	1.67
67.3	142154	1.65
67.4	137028	1.59
67.5	130902	1.52
67.6	123386	1.43
67.7	113260	1.31
67.8	111470	1.29
67.9	102770	1.19
68.0	97664	1.13
68.1	88616	1.03
68.2	84568	0.98
68.3	80404	0.93
68.4	75604	0.88
68.5	70002	0.81
68.6	64674	0.75
68.7	57136	0.66
68.8	52611	0.61
68.9	48297	0.56
69.0	41437	0.48
69.1	38809	0.45
69.2	34551	0.40
69.3	30569	0.35
69.4	26261	0.30
69.5	22518	0.26
69.6	19888	0.23
69.7	17799	0.21
69.8	15910	0.18
69.9	14024	0.16
70.0	12467	0.14
70.1	10492	0.12
70.2	9151	0.11
70.3	7182	0.08
70.4	7112	0.08
70.5	6133	0.07
70.6	5219	0.06
70.7	4706	0.05
70.8	4447	0.05
70.9	3919	0.05

Statistics

Level (dB)	Count	Percent
71.0	3109	0.04
71.1	2629	0.03
71.2	2277	0.03
71.3	2103	0.02
71.4	1985	0.02
71.5	1906	0.02
71.6	1680	0.02
71.7	1686	0.02
71.8	1503	0.02
71.9	1401	0.02
72.0	1360	0.02
72.1	1572	0.02
72.2	1375	0.02
72.3	1229	0.01
72.4	1228	0.01
72.5	1167	0.01
72.6	1062	0.01
72.7	1044	0.01
72.8	986	0.01
72.9	880	0.01
73.0	805	0.01
73.1	739	0.01
73.2	832	0.01
73.3	854	0.01
73.4	766	0.01
73.5	785	0.01
73.6	651	0.01
73.7	599	0.01
73.8	616	0.01
73.9	651	0.01
74.0	624	0.01
74.1	577	0.01
74.2	592	0.01
74.3	543	0.01
74.4	533	0.01
74.5	643	0.01
74.6	615	0.01
74.7	534	0.01
74.8	534	0.01
74.9	535	0.01
75.0	462	0.01
75.1	438	0.01
75.2	458	0.01
75.3	485	0.01
75.4	430	0.00
75.5	370	0.00
75.6	397	0.00
75.7	407	0.00
75.8	335	0.00
75.9	341	0.00

Statistics		
Level (dB)	**Count**	**Percent**
76.0	391	0.00
76.1	294	0.00
76.2	228	0.00
76.3	241	0.00
76.4	270	0.00
76.5	318	0.00
76.6	275	0.00
76.7	230	0.00
76.8	242	0.00
76.9	240	0.00
77.0	196	0.00
77.1	212	0.00
77.2	192	0.00
77.3	196	0.00
77.4	214	0.00
77.5	222	0.00
77.6	213	0.00
77.7	258	0.00
77.8	244	0.00
77.9	198	0.00
78.0	224	0.00
78.1	156	0.00
78.2	181	0.00
78.3	197	0.00
78.4	196	0.00
78.5	169	0.00
78.6	156	0.00
78.7	169	0.00
78.8	187	0.00
78.9	180	0.00
79.0	195	0.00
79.1	169	0.00
79.2	158	0.00
79.3	183	0.00
79.4	198	0.00
79.5	152	0.00
79.6	163	0.00
79.7	127	0.00
79.8	110	0.00
79.9	117	0.00
80.0	109	0.00
80.1	98	0.00
80.2	85	0.00
80.3	87	0.00
80.4	80	0.00
80.5	103	0.00
80.6	66	0.00
80.7	48	0.00
80.8	58	0.00
80.9	64	0.00

Statistics		
Level (dB)	**Count**	**Percent**
81.0	64	0.00
81.1	61	0.00
81.2	52	0.00
81.3	48	0.00
81.4	47	0.00
81.5	37	0.00
81.6	37	0.00
81.7	42	0.00
81.8	63	0.00
81.9	66	0.00
82.0	29	0.00
82.1	22	0.00
82.2	25	0.00
82.3	23	0.00
82.4	25	0.00
82.5	27	0.00
82.6	55	0.00
82.7	44	0.00
82.8	39	0.00
82.9	41	0.00
83.0	46	0.00
83.1	46	0.00
83.2	56	0.00
83.3	37	0.00
83.4	38	0.00
83.5	32	0.00
83.6	47	0.00
83.7	36	0.00
83.8	44	0.00
83.9	36	0.00
84.0	25	0.00
84.1	14	0.00
84.2	13	0.00
84.3	12	0.00
84.4	13	0.00
84.5	11	0.00
84.6	11	0.00
84.7	13	0.00
84.8	10	0.00
84.9	6	0.00
85.0	5	0.00
85.1	5	0.00
85.2	4	0.00
85.3	5	0.00
85.4	5	0.00
85.5	6	0.00
85.6	4	0.00
85.7	4	0.00
85.8	5	0.00
85.9	6	0.00

Statistics		
Level (dB)	**Count**	**Percent**
86.0	5	0.00
86.1	5	0.00
86.2	6	0.00
86.3	6	0.00
86.4	11	0.00
86.5	16	0.00
86.6	5	0.00
86.7	4	0.00
86.8	4	0.00
86.9	6	0.00
87.0	5	0.00
87.1	3	0.00
87.2	5	0.00
87.3	6	0.00
87.4	6	0.00
87.5	5	0.00
87.6	5	0.00
87.7	6	0.00
87.8	6	0.00
87.9	8	0.00
88.0	5	0.00
88.1	12	0.00
88.2	22	0.00
88.3	5	0.00
88.4	10	0.00
88.5	9	0.00
88.6	6	0.00
88.7	5	0.00
88.8	6	0.00
88.9	5	0.00
89.0	7	0.00
89.1	7	0.00
89.2	6	0.00
89.3	6	0.00
89.4	9	0.00
89.5	6	0.00
89.6	5	0.00
Over	0	0.00
Total Count	8640000	

Record #	Record Type	Date	Time	LAeq	LASmax	LASmin	TWA1	TWA2	OVLD	Marker	Comments
1	Run	2022-04-05	10:00:00								
2		2022-04-05	10:00:00	67.6	82.8	62.4	67.3	67.3	No		
3		2022-04-05	11:00:00	67.2	80.5	62.4	67.0	67.0	No		
4		2022-04-05	12:00:00	66.9	78.0	61.7	66.8	66.8	No		
5		2022-04-05	13:00:00	67.5	79.6	62.6	67.3	67.3	No		
6		2022-04-05	14:00:00	67.1	74.4	62.9	67.0	67.0	No		
7		2022-04-05	15:00:00	66.4	79.7	59.9	66.3	66.3	No		
8		2022-04-05	16:00:00	65.1	75.9	59.6	65.0	65.0	No		
9		2022-04-05	17:00:00	65.2	81.4	59.3	64.9	64.9	No		
10		2022-04-05	18:00:00	66.0	81.9	61.4	65.9	65.9	No		
11		2022-04-05	19:00:00	66.5	78.6	61.1	66.4	66.4	No		
12		2022-04-05	20:00:00	65.5	79.8	58.2	65.3	65.3	No		
13		2022-04-05	21:00:00	64.8	75.2	57.2	64.6	64.6	No		
14		2022-04-05	22:00:00	64.6	75.6	57.8	64.4	64.4	No		
15		2022-04-05	23:00:00	64.2	71.6	56.8	64.0	64.0	No		
16		2022-04-06	0:00:00	63.8	82.0	53.1	63.3	63.3	No		
17		2022-04-06	1:00:00	62.2	72.8	51.9	61.7	61.7	No		
18		2022-04-06	2:00:00	62.0	70.2	51.1	61.6	61.6	No		
19		2022-04-06	3:00:00	63.6	77.1	53.5	63.3	63.3	No		
20		2022-04-06	4:00:00	66.1	74.1	57.6	65.9	65.9	No		
21		2022-04-06	5:00:00	68.1	83.9	62.0	67.9	67.9	No		
22		2022-04-06	6:00:00	68.6	84.8	63.6	68.4	68.4	No		
23		2022-04-06	7:00:00	67.9	89.6	61.3	67.4	67.4	No		
24		2022-04-06	8:00:00	67.0	81.9	62.1	66.8	66.8	No		
25		2022-04-06	9:00:00	66.5	78.9	61.9	66.4	66.4	No		
26	Stop	2022-04-06	10:00:00								

SOUND LEVEL MEASUREMENTS

DATE: 4/5/22

PAGE ___ OF ___

ST-1

Chris Sanchez

Investigator(s): Nick Reynoso

Project Name: 3600 Alameda

Project Number:

LOCATION OF MEASUREMENT

37th Avenue and E 8th Street

-40 ft from E 8th Street

INSTRUMENTATION	TYPE	SERIAL NO
SLM Larson Davis	LxT2	
MICROPHONE	Larson Davis	
FILTER	Wind screen	
CALIBRATOR		
RECORDER		

AUDIBLE SOURCES

- 150 ft from 880 freeway
  - Cars and trucks

CONDITIONS

TIME	TEMP	R. HUMID	W. SPEED	W. DIR
	59 °F			

WEIGHTING ☐ A ☐ B ☐ C ☐ FLAT

OPER MODE ☐ SLOW ☐ FAST ☐ PEAK ☐ IMPULSE

RECORDER CHART ATTACHED ☐ YES ☐ NO

TIME PERIOD 10:13 – 10:29

DESCRIPTION OF CONDITIONS

Clear and sunny

STATISTICAL RESULTS

SOUND LEVEL MEASUREMENTS

DATE: 4/5/22

PAGE ___ OF ___

ST-2

Chris Sanchez

Investigator(s): Nick Reynoso | Project Name: 3600 Alameda | Project Number:

LOCATION OF MEASUREMENT

Next to Fruitvale Railroad Bridge

~~1~~00 ft from Marina Dr.

INSTRUMENTATION	TYPE	SERIAL NO
SLM Larson Davis		
MICROPHONE		
FILTER	Wind screen	
CALIBRATOR		
RECORDER		

AUDIBLE SOURCES

cars and trucks

CONDITIONS

TIME	TEMP	R. HUMID	W. SPEED	W. DIR
	61 °F			

IGHTING ☐ A ☐ B ☐ C ☐ FLAT

OPER. MODE ☐ SLOW ☐ FAST ☐ PEAK ☐ IMPULSE

RECORDER CHART ATTACHED ☐ YES ☐ NO

TIME PERIOD 10:48 am - ~~10~~ 11:05 am

DESCRIPTION OF CONDITIONS

STATISTICAL RESULTS

Appendix I

Construction Noise Management Plan

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3600 ALAMEDA INDUSTRIAL PROJECT CONSTRUCTION NOISE CONTROL PLAN

Oakland, California

November 22, 2022

Prepared for:

Mr. Jason Bernstein
Vice President, Development
Duke Realty
1904 Franklin Street, 8th Floor
Oakland, CA 94612

Prepared by:

Michael S. Thill
Principal Consultant

ILLINGWORTH & RODKIN, INC.
Acoustics • Air Quality
429 E. Cotati Avenue
Cotati, CA 94931
(707) 794-0400

Project: 22-138

TABLE OF CONTENTS

INTRODUCTION

The following Construction Noise Control Plan has been prepared for the 3600 Alameda Industrial Project in Oakland, California. Included in this plan is a brief project description, a summary of existing ambient noise levels measured by others at sensitive land uses in the project vicinity, applicable regulatory criteria, and a summary of expected construction noise levels by phase. The plan then recommends noise control methods to reduce construction noise levels to comply with the City's noise standards.

PROJECT DESCRIPTION

The Project Applicant is proposing to demolish all existing structures on the project site and construct an approximately 426,022 square foot, 56-foot-tall industrial building with a floor area ratio (FAR) of 0.42. The applicant proposes the Project on a speculative basis as the end-user and nature of the use are unknown at this time. However, for the purposes of the conservative analyses, the end use is assumed to be a distribution warehouse. The main building entrance and employee amenity space would be located at the corner of Fruitvale Avenue and E. 7th Street. The new facility would include up to 30,000 square feet of accessory office space likely distributed in three spaces along E. 7th and Boehmer Streets at the northwest and northeast corners of the building and in the central-northern portion of the building. The Project would include an employee parking lot to the north of the building as well as loading docks and truck parking areas in the southern part of the project site. A portion of the southeast corner of the site (intersection of Alameda Avenue and the proposed extension of 37th Avenue) would be left open for future development as retail use or a restaurant. For the purposes of the analyses, an approximately 4,000 square-foot café/restaurant is assumed to be located at that location as a part of project operations.

EXISTING NOISE ENVIRONMENT

The 3600 Alameda Industrial Project is proposed south of Interstate 880 and east of Fruitvale Avenue in Oakland, California. Residential and commercial land uses exist to the north along Elmwood Avenue and East 8th Street, and to the west of Fruitvale Avenue along Lancaster Street, East 8th Street, and East 7th Street. A Home Depot store borders the site to the east, and other commercial/industrial businesses exist to the southeast, opposite Alameda Avenue. Residences located in in Alameda, California, are located south of the Tidal Canal along Marina Drive.

Figure 1 shows the project site and the three noise monitoring locations selected by ESA to document existing noise levels in the project vicinity. ESA conducted the ambient noise survey in April 2022. The measurements made during the survey quantified the daily trend in noise levels at residential receptors north of the project site (LT-1) and typical daytime noise levels at residential receptors near Interstate 880 (ST-1) and south of the Tidal Canal in the City of Alameda (ST-2).

Long-term noise measurement LT-1 documented ambient noise levels at the Elmwood Avenue residential and commercial area north of the site. Daytime hourly average noise levels typically ranged from 65 to 68 dBA L_{eq}, and daytime maximum instantaneous noise levels typically ranged from 74 to 90 dBA L_{max}. The day-night average noise level was 72 dBA L_{dn}. The daily trend in noise levels at LT-1 is shown in Figure 2.

Short-term noise measurement ST-1 was made near intersection of East 8th Street and 37th Avenue. The 15-minute noise measurement was made between 10:13 a.m. and 10:28 am. The average noise level measured at this location was 68 dBA L_{eq}, and the maximum instantaneous noise level reached 85 dBA L_{max}. The minimum noise level during the measurement period was 63 dBA L_{min}.

Short-term noise measurement ST-2 was along the Fruitvale Avenue Railroad Bridge to represent residential receptors in the City of Alameda. The 15-minute noise measurement was made between 10:48 a.m. and 11:03 am. The average noise level measured at this location was 59 dBA L_{eq}, and the maximum instantaneous noise level reached 72 dBA L_{max}. The minimum noise level during the measurement period was 49 dBA L_{min}.

Figure 1 Aerial Image Showing the Project Site and Noise Monitoring Locations

SOURCE: ESA, 2022; Google Earth, 2022

3600 Alameda Industrial Project

Figure 4.5-2
Noise Monitoring Locations

ESA

Source: ESA, September 2022

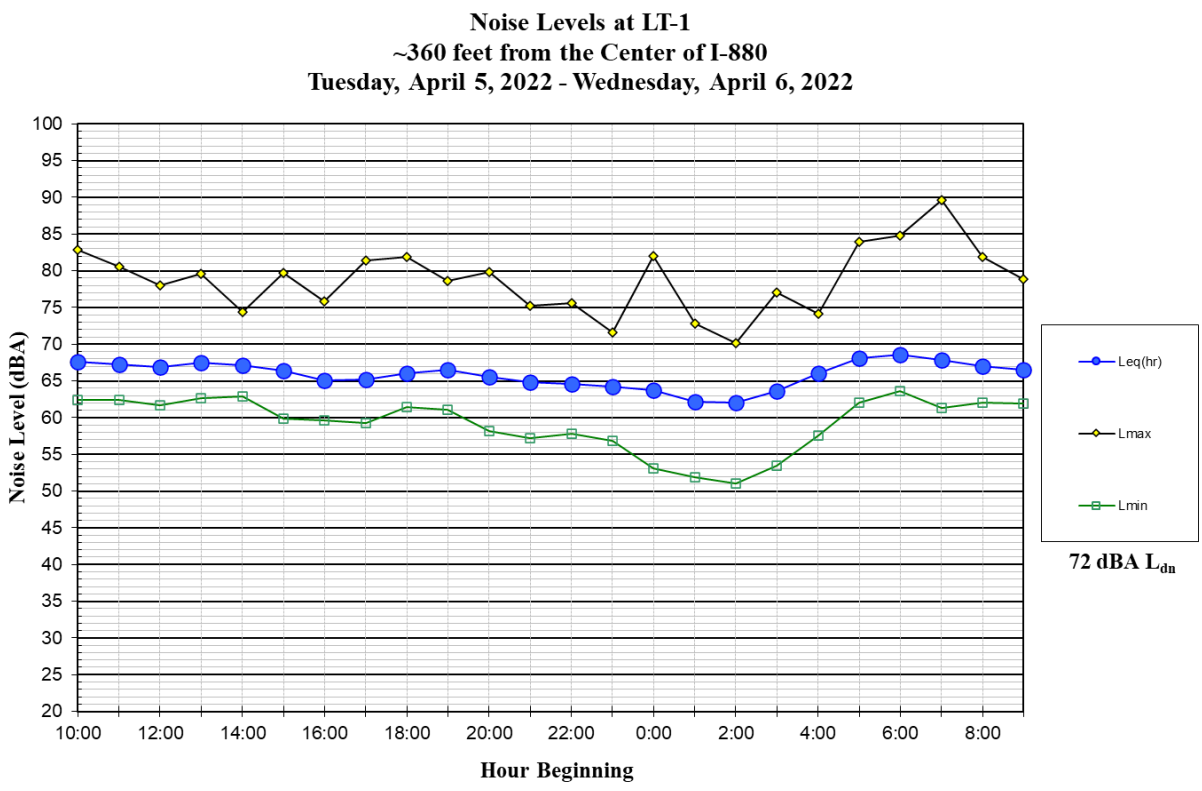

Figure 2

REGULATORY CRITERIA

City of Oakland Construction Noise Standards

Local noise standards relevant to noise control for demolition and construction activities at the project site can be found in Section 17.120.050 of the City of Oakland Planning Code.

Section 17.120, Performance Standards

1. Temporary Construction or Demolition Which Exceed the Following Noise Level Standards. The daytime noise level received by any residential, commercial, or industrial land use which is produced by any nonscheduled, intermittent, short-term construction or demolition operation (less than ten days) or by any repetitively scheduled and relatively long-term construction or demolition operation (ten days or more) shall not exceed the maximum allowable receiving noise levels described in Table 17.120.04 (Table 1, below):

TABLE 1 Table 17.120.04, Maximum Allowable Receiving Noise level standards, dBA

Receiving Property	Short-Term (less than 10 days).		Long-Term (10 days or more)	
	Weekdays	Weekends	Weekdays	Weekends
Residential use	80	65	65	55
Commercial use	85	70	70	60

2. The nighttime noise level received by any land use and produced by any construction or demolition activity between weekday hours of seven (7) p.m. and seven (7) a.m. or between eight (8) p.m. and nine (9) a.m. on weekends and federal holidays shall not exceed the applicable nighttime noise level standards outlined in this section.

All work at the site is considered to be long-term construction since it involves repetitively scheduled (i.e. continuous) construction activity lasting more than 10 days.

City of Oakland Standard Conditions of Approval

The City of Oakland has adopted Standard Conditions of Approval (SCA), which are uniformly applied to projects under City of Oakland jurisdiction. The following construction noise-related SCAs would be applicable to the proposed project:

62. Construction Days/Hours (SCA NOI-1)
Requirement: The project applicant shall comply with the following restrictions concerning construction days and hours:

a. Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, except that pier drilling and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m.

b. Construction activities are limited to between 9:00 a.m. and 5:00 p.m. on Saturday. In residential zones and within 300 feet of a residential zone, construction activities are allowed from 9:00 a.m. to 5:00 p.m. only within the interior of the building with the doors and windows closed. No pier drilling or other extreme noise generating activities greater than 90 dBA are allowed on Saturday.

c. No construction is allowed on Sunday or federal holidays.

Construction activities include, but are not limited to, truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

Any construction activity proposed outside of the above days and hours for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case-by-case basis by the City, with criteria including the urgency/emergency nature of the work, the proximity of residential or other sensitive uses, and a consideration of nearby residents'/occupants' preferences. The project applicant shall notify property owners and occupants located within 300 feet at least 14 calendar days prior to construction activity proposed outside of the above days/hours. When submitting a request to the City to allow construction activity outside of the above days/hours, the project applicant shall submit information concerning the type and duration of proposed construction activity and the draft public notice for City review and approval prior to distribution of the public notice.

When Required: During construction
Initial Approval: N/A

Monitoring/Inspection: Bureau of Building

63. Construction Noise (SCA NOI-2)

Requirement: The project applicant shall implement noise reduction measures to reduce noise impacts due to construction. Noise reduction measures include, but are not limited to, the following:

a. Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds) wherever feasible.

b. Except as provided herein, impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used, if such jackets are commercially available, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.

c. Applicant shall use temporary power poles instead of generators where feasible.

d. Stationary noise sources shall be located as far from adjacent properties as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or use other measures as determined by the City to provide equivalent noise reduction.

e. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

When Required: During construction
Initial Approval: N/A
Monitoring/Inspection: Bureau of Building

64. Extreme Construction Noise (SCA NOI-3)

a. Construction Noise Management Plan Required

Requirement: Prior to any extreme noise generating construction activities (e.g., pier drilling, pile driving and other activities generating greater than 90 dBA), the project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site-specific noise attenuation measures to further reduce construction impacts associated with extreme noise generating activities. The project applicant shall implement the approved Plan during construction. Potential attenuation measures include, but are not limited to, the following:

i. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;

ii. Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;

iii. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;

iv. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and

v. Monitor the effectiveness of noise attenuation measures by taking noise measurements.

When Required: Prior to approval of construction-related permit
Initial Approval: Bureau of Building
Monitoring/Inspection: Bureau of Building

b. Public Notification Required

Requirement: The project applicant shall notify property owners and occupants located within 300 feet of the construction activities at least 14 calendar days prior to commencing extreme noise generating activities. Prior to providing the notice, the project applicant shall submit to the City for review and approval the proposed type and duration of extreme noise generating activities and the proposed public notice. The public notice shall provide the estimated start and end dates of the extreme noise generating activities and describe noise attenuation measures to be implemented.

When Required: During construction
Initial Approval: Bureau of Building
Monitoring/Inspection: Bureau of Building

65. Project-Specific Construction Noise Reduction Measures (SCA NOI-4)

Requirement: The project applicant shall submit a Construction Noise Management Plan prepared by a qualified acoustical consultant for City review and approval that contains a set of site specific noise attenuation measures to further reduce construction noise impacts on [ENTER ADJACENT SENSITIVE RECPTOR OR BUSINESS]. The project applicant shall implement the approved Plan during construction.

When Required: Prior to approval of construction-related permit
Initial Approval: Bureau of Building

Monitoring/Inspection: Bureau of Building

66. Construction Noise Complaints (SCA NOI-5)
Requirement: The project applicant shall submit to the City of Oakland for review and approval a set of procedures for responding to and tracking complaints received pertaining to construction noise, and shall implement the procedures during construction. At a minimum, the procedures shall include:

a. Designation of an on-site construction complaint and enforcement manager for the project;

b. A large on-site sign near the public right-of-way containing permitted construction days/hours, complaint procedures, and phone numbers for the project complaint manager and City Code Enforcement unit;

c. Protocols for receiving, responding to, and tracking received complaints; and

d. Maintenance of a complaint log that records received complaints and how complaints were addressed, which shall be submitted to the City for review upon the City's request.

When Required: Prior to approval of construction-related permit
Initial Approval: Bureau of Building
Monitoring/Inspection: Bureau of Building

CONSTRUCTION NOISE LEVELS AT NEARBY NOISE SENSITIVE USES

Construction of the proposed project would occur in four phases over approximately 24 months. Construction is planned to occur between 7:00 a.m. and 7:00 p.m. on weekdays as allowed by the City of Oakland conditions of approval.

Construction noise levels would be greatest during the early phases of the project (i.e., demolition, off-site improvements, and on-site horizontal) when the greatest amount of noise-generating heavy equipment would be used at the project site. Later phases of construction (tilt-up) are anticipated to require less heavy equipment and noise levels would be slightly less.

The Project Applicant provided a list of construction equipment planned for the project. Proposed equipment include excavators, dump trucks, dozers, concrete saws, concrete crushers, motor graders, vibrating compactors, concrete trucks, pavers, concrete pumps, and a crane. The range of maximum instantaneous noise levels for project equipment (identified in Table 2 with **bold** font) would be 80 to 90 dBA L_{max} at a distance of 50 feet from the equipment.

TABLE 2 Construction Equipment 50-Foot Noise Emission Limits

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor[3]	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	**85**	Continuous
Concrete Pump	**82**	Continuous
Concrete Saw	**90**	Continuous
Concrete Vibrator	80	Continuous
Crane	**85**	Continuous
Dozer	**85**	Continuous
Excavator	**85**	Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	**85**	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	**85**	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	**84**	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	**80**	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	**85**	Continuous

Notes:

[1] Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.

[2] Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.

[3] Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

Source: Mitigation of Nighttime Construction Noise, Vibrations and Other Nuisances, National Cooperative Highway Research Program, 1999.

Table 3 shows the hourly average noise level ranges, by construction phase, typical for various types of projects. Hourly average noise levels generated by construction are about 71 to 89 dBA L_{eq} for industrial projects, measured at a distance of 50 feet from the center of a busy construction site. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain often result in lower construction noise levels at distant receptors.

TABLE 3 Typical Ranges of Construction Noise Levels at 50 Feet, L_{eq} (dBA)

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I - All pertinent equipment present at site.
II - Minimum required equipment present at site.

Source: U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

The Federal Highway Administration's (FHWA's) Roadway Construction Noise Model (RCNM) was also used to calculate the hourly average noise levels for each phase of construction, assuming the two loudest pieces of equipment would operate simultaneously, as recommend by the FTA for construction noise evaluations. This construction noise model includes representative sound levels for the most common types of construction equipment and the approximate usage factors of such equipment that were developed based on an extensive database of information gathered during the construction of the Central Artery/Tunnel Project in Boston, Massachusetts (CA/T Project or "Big Dig"). The usage factors represent the percentage of time that the equipment would be operating at full power.

Equipment expected to be used in each construction phase are summarized in Table 4, along with the reference noise level at 50 feet assuming the operation of the two loudest pieces of construction equipment, and the estimated noise levels at distances of 100, 200, 400, and 800 feet as projected from the center of the construction activity by phase. The noise levels calculated with the RCNM model generally agreed with EPA's construction noise data, as summarized in Table 3.

Based on these data, demolition activities associated with the proposed project would produce noise levels exceeding 65 dBA within 500 feet of residences, offsite improvements and onsite horizontal activities would produce noise levels exceeding 65 dBA within 350 feet of residences, and tilt up activities would produce noise levels exceeding 65 dBA within 225 feet of residences.

Demolition activities would produce noise levels exceeding 70 dBA within 280 feet of commercial land uses, offsite improvements and onsite horizontal activities would produce noise levels exceeding 70 dBA within 200 feet of commercial land uses, and tilt up activities would produce noise levels exceeding 70 dBA within 125 feet of commercial land uses.

If demolition and construction activities are shielded by intervening structures or temporary noise barriers, demolition activities associated with the proposed project would produce noise levels exceeding 65 dBA within 280 feet of residences, offsite improvements and onsite horizontal activities would produce noise levels exceeding 65 dBA within 200 feet of residences, and tilt up activities would produce noise levels exceeding 65 dBA within 125 feet of residences.

Shielded demolition activities would produce noise levels exceeding 70 dBA within 160 feet of commercial land uses, offsite improvements and onsite horizontal activities would produce noise levels exceeding 70 dBA within 110 feet of commercial land uses, and tilt up activities would produce noise levels exceeding 70 dBA within 70 feet of commercial land uses.

Table 5 summarizes the distances to the 65 dBA and 70 dBA noise contours assuming unshielded and shielded conditions. The noise contour distances presented in Table 5 for shielded conditions assumes a minimum 8-foot noise barrier. Additional attenuation could be provided by taller noise barriers. Table 6 summarizes the noise levels expected at worst-case receptor locations assuming barrier heights ranging from 8 to 20 feet.

The anticipated noise sources for the site are not "extreme" noise generators under typical construction conditions (i.e., equipment that would generate noise levels of 90 dBA or greater at nominal distances of 50 feet or greater from the equipment), however because perimeter construction would occur within 50 feet of the adjacent land uses, exterior noise levels of 90 dBA or greater may occur at times.

TABLE 4 Construction Noise Levels

Phase (Duration)	Construction Equipment (Quantity)	Calculated Hourly Average L_{eq} (dBA) From Operation of Two Loudest Pieces of Construction Equipment				
		Noise Level at 50 feet	Noise Level at 100 feet	Noise Level at 200 feet	Noise Level at 400 feet	Noise Level at 800 feet
Demolition (12 months)	Excavator Dump Trucks Bulldozer Concrete Saw* Concrete Crusher*	85	79	73	67	61
Offsite Improvements (2 months)	Motor Grader* Vibrating compactor* Concrete Truck Dump Truck Paver	82	76	70	64	58
Onsite Horizontal (2 months)	Motor Grader* Vibrating compactor* Concrete Truck Dump Truck Paver Concrete Pump	82	76	70	64	58
Onsite Horizontal/ Tilt Up (8 months)	Crane Concrete Truck* Dump Truck Concrete Pump*	78	72	66	61	55

*Denotes two loudest pieces of construction equipment per phase

TABLE 5 Construction Noise Contour Distances (Assumes Minimum 8-foot Noise Barrier)

Phase (Duration)	Noise Level at 50 feet (dBA)	Distance to Noise Contour (feet)			
		Residential 65 dBA (unshielded)	Residential 65 dBA (shielded)	Commercial 70 dBA (unshielded)	Commercial 70 dBA (shielded)
Demolition	85	500	180	280	100
Offsite Improvements	82	350	125	200	70
Onsite Horizontal	82	350	125	200	70
Onsite Horizontal/ Tilt Up	78	225	80	125	45

TABLE 6 Construction Noise Levels at Nearest Receptors Assuming Shielding Provided by a Noise Barrier

Phase (Duration)	Unshielded Noise Level at 50 feet (dBA)	Noise Barrier Height			
		8-foot	12-foot	16-foot	20-foot
Demolition	85	76	72	69	67
Offsite Improvements	82	73	69	66	64
Onsite Horizontal	82	73	69	66	64
Onsite Horizontal/ Tilt Up	78	69	65	62	60

RECOMMENDED NOISE CONTROLS

Considering the above findings, and to reduce the impact of construction noise to the adjacent land uses, the contractors shall implement the following site-specific noise attenuation measures to further reduce construction impacts associated with extreme noise generating activities. Controls identified in **bold** font are required by applicable SCAs listed above:

1. Construction hours shall be limited as follows:

   a) Construction activities are limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday.

   b) Construction activities are limited to between 9:00 a.m. and 5:00 p.m. on Saturday. In residential zones and within 300 feet of a residential zone, construction activities are allowed from 9:00 a.m. and 5:00 p.m. only within the interior of the building with windows and doors closed. No extreme noise generating activities greater than 90 dBA are allowed on Saturday.

   c) No construction is allowed on Sundays or Federal holidays.

   d) Any construction activity proposed outside of the above days and hours for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case-by-case basis by the City of Oakland, with criteria including the urgency/emergency nature of the work, the proximity of residential or other sensitive uses, and a consideration of nearby residents'/occupants' preferences. The project applicant shall notify property owners and occupants located within 300 feet at least 14 calendar days prior to construction activity proposed outside of the above days/hours. When submitting a request to the City to allow construction activity outside of the above days/hours, the project applicant shall submit information concerning the type and duration of proposed construction activity and the draft public notice for City review and approval prior to distribution of the public notice.

2. Implement noise control measures to reduce noise impacts due to construction including:

   a) Delivery and removal of equipment or materials shall observe the allowable hours of construction.

   b) Route construction-related traffic away from roadways with noise sensitive residential frontages to the greatest degree feasible.

   c) Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically attenuating shields or shrouds), wherever feasible.

   d) Except as provided herein, impact tools (e.g., jackhammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered

to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used if such jackets are commercially available and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.

e) Unnecessary idling of internal combustion engines should be strictly prohibited.

f) Use temporary power poles instead of generators where feasible.

g) Select quiet construction equipment whenever possible. Fit motorized equipment with proper mufflers in good working order.

h) To the extent feasible, use the smallest size equipment capable of safely completing work activities.

i) Minimize the use of impact devices, such as jackhammers, pavement breakers, and hoe rams.

j) Select hydraulically or electrically powered tools to avoid noise associated with compressed air exhaust from pneumatically powered tools.

k) Maintain equipment such that parts of vehicles and loads are secure against rattling and banging.

l) Operate equipment so as to minimize banging, clattering, buzzing, and other annoying types of noises, especially near residential areas.

m)Grade surface irregularities on construction sites to prevent the generation of impact noise and ground vibrations by passing vehicles.

n) Locate stationary noise-generating equipment, such as air compressors or portable power generators, as far as possible from sensitive receptors as feasible. If they must be located near receptors, adequate muffling (with enclosures where feasible and appropriate) shall be used reduce noise levels at the adjacent sensitive receptors. Any enclosure openings or venting shall face away from sensitive receptors.

o) Stage large equipment, compressors, or generators at least 25 feet from the site perimeters when work is not being done near these areas. Generators and compressors should be located at ground level to the greatest extent feasible. If compressors for pneumatic equipment are required above ground level, they should be located near the center of the structure.

p) Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.

q) Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction.

r) Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.

s) The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

3. Implement the following noise control measures to reduce noise impacts due to construction:

a) Phase demolition activities to take advantage of the acoustical shielding provided by existing perimeter buildings, as feasible. For example, demolition could be phased to begin at the south end of the site, with demolition proceeding toward the west, north, and east boundaries of the site while maintaining perimeter structures for acoustical shielding.

b) Erect construction noise barriers at the site perimeter shared with the residential uses to the north and west in such a way to block the direct line of sight to the primary work areas. These barriers should remain in place during all ground level work.

c) The barriers shall be as tall as is feasible (up to 20 feet and at least 8 feet) and installed without cracks or gaps in the face or large or continuous gaps at the base. Construction barriers shall be built of the materials that provide the maximum noise attenuation and may include 3/4" (nominal thickness) plywood panels or other solid sheet materials with a minimum surface weight of 3 lb./sq. ft. or using mass loaded construction noise barrier blankets on temporary fencing, hung off of guy wires, or laid over existing structures, with a minimum STC rating of 25. Acceptable construction barrier blankets can be rented or purchased from the Acoustical Solutions[1], Environmental Noise Control[2], or other suppliers with acoustically equivalent construction barrier blankets. **[Reviewer, let's discuss if this is adequate.]**

The use of the construction noise barriers outlined in the mitigation plan (above) are expected to reduce noise levels at area uses on the order of 8 to 10 dBA when work is being done at the site perimeter and on the order of 5 to 7 dBA when work is being done in the central portions of the site.

4. Identify, track, and respond to any complaints that may arise pertaining to construction noise, the following measures should be implemented:

a) Notify property owners and occupants located within 300 feet of construction activities at least 14 calendar days prior to commencement of construction.

[1] Go to https://acousticalsolutions.com/ for more information.

[2] Go to http://www.environmental-noise-control.com/ for more information.

b) Designate an on-site construction complaint and enforcement manager for the project.

c) Post a large on-site sign near the public right-of-way containing permitted construction days/hours, complaint procedures and phone numbers for the complaint manager and City Code Enforcement unit.

d) Maintain a complaint log that records received complaints and how complaints were addressed, which shall be submitted to the City for review upon the City's request.

e) Construction noise monitoring should be undertaken if reliable noise complaints are received during demolition, excavation, and/or construction activities. Noise levels should be monitored at the location from which the noise complaints originated and/or the worst-case façade window exposure at the complaint location by a qualified acoustical professional. Integrated average (L_{eq}) noise level measurements on an hourly basis should be made of activities representative of those that generated the complaint. If the measured noise levels during this test are found to exceed the City's construction noise performance standards, an acoustical professional should be retained to specify additional noise attenuation measures to reduce noise levels to City Standards. These measures may include operational considerations, the use of additional ground level noise barriers or noise control blanketing of the building structure.

REFERENCES

City of Oakland, Department of Planning and Building Bureau of Planning, Standard Conditions of Approval, November 2008, as amended December 2020.

Los Angeles Metro Rail, Sample Construction Noise and Vibration Specification, September 2012.

National Cooperative Highway Research Program, Mitigation of Nighttime Construction Noise, Vibrations and Other Nuisances, 1999.

National Cooperative Highway Research Program, Project 25-49 Data, https://apps.trb.org/cmsfeed/trbnetprojectdisplay.asp?projectid=3889, October 2018.

Appendix J

Transportation Impact Review Memorandum

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FEHR PEERS

Memorandum

Date: June 22, 2023

To: Elizabeth Kanner, ESA

From: Sam Tabibnia, Fehr & Peers

Subject: 3600 Alameda Avenue - Transportation Impact Review (non-CEQA)

OK21-0441

This memorandum summarizes the non-CEQA transportation assessment that Fehr & Peers completed for the Project located at 3600 Alameda Avenue. The information provided in this memorandum is based on the City of Oakland's *Transportation Impact Review Guidelines* (TIRG) published in April 2017. Sections in this memorandum include:

1. Project Description

The Project is located at the northeast corner of the Alameda Avenue/Fruitvale Avenue intersection in Oakland. The 23.9-acre site is currently occupied by several vacant buildings totaling 1.24 million square feet, which the Project would demolish. The Project would construct a

single building providing approximately 429,900 square feet of space. The end user and nature of the use is unknown at this time but, for the purposes of this analysis, is assumed to be a distribution warehouse facility. **Appendix A** provides the Project site plan dated February 2023.

The Project would make several changes to the adjacent roadway network that include the following:

- Open Boehmer Street, which extends between 36th and 37th Avenues and is currently closed and gated, as a public street. Boehmer Street would be a 26-foot curb-to-curb street with a 5.5-foot sidewalk on the north side and a 7.5-foot sidewalk on the south side of the street. The street would accommodate one travel lane in each direction and no on-street parking.
- Extend 37th Avenue from Boehmer Street to Alameda Avenue along the east side of the project site. The 37th Avenue extension would be a 33-foot curb-to-curb street with a minimum 5.5-foot sidewalk on the east and a six-foot sidewalk on the westside of the street, generally matching the existing segment of 37th Avenue. The street would accommodate one travel lane in each direction, and parking on one side of the street.
- Relocate Alameda Avenue approximately 100-feet to the north, reducing the existing curvature of the roadway, and creating space for expanded public access to the Oakland Estuary. The street would generally provide 54 feet curb-to-curb with a 6.5-foot landscape buffer and 5.5-foot sidewalk on the north side of the street and a 7.5-foot landscape buffer, eight-foot sidewalk, up to 28-foot landscape area, and a 12-foot shared-use path adjacent to the Estuary, which would be part of the San Francisco Bay Trail. Along the Project frontage, the roadway would accommodate two westbound travel lanes and one eastbound travel lane with parallel on-street parking on the north side of the street between the Project driveway and 37th Avenue. The roadway would also provide Class 2B buffered bicycle lanes in both directions.

Automobile access to the Project site would be provided via five driveways: one driveway on Fruitvale Avenue opposite East 7th Street which would be limited to right-in and right-out only on Fruitvale Avenue, one driveway on Boehmer Street opposite 34th Avenue, two driveways on 37th Avenue with one about 160 feet south of Boehmer Street and one about 240 feet north of Alameda Avenue, and one driveway on Alameda Avenue about midblock between Fruitvale and 37th Avenues.

The driveways on Fruitvale Avenue and Boehmer Street and the north driveway on 37th Avenue would provide access to the employee parking lot on the north and east sides of the Project building, which would provide 295 parking spaces and would be primarily limited to passenger vehicles. The south driveway on 37th Avenue and the driveway on Alameda Avenue would

provide access to the 48 loading docks and the 228 trailer parking spaces on the south side of the Project building, and would be primarily used by trucks.

An approximately 22,000 square-foot parcel on the southeast corner of the site, at the intersection of Alameda Avenue/37th Avenue, may be developed as retail and/or restaurant in the future. The traffic operations evaluation included in this analysis conservatively assumes that the parcel would be developed as approximately 10,000 square-feet of restaurant. This use is accounted for in the trip generation and traffic operations analysis conducted for the Project. Since the potential retail/restaurant use is not included in the Project site plan, the Site Access and Circulation Analysis part of this memorandum addresses the retail/restaurant use to the extent possible based on the available information.

Project Variant

As introduced in Chapter 3, *Project Description,* of the Draft EIR, the Project Applicant is proposing to dedicate rights-of-way for East 7th Street to the City for a potential future east-west street network connection. The Draft EIR analyzes the potential future east-west network connection as a variant to the Project that may or may not be included as part of the Project because the implementation is beyond the control of the Project Applicant at this time. Under the Project Variant, the City would accept the dedication and implement the extension of East 7th Street. Instead of a driveway-only connection from the Project site to Fruitvale Avenue, the Project Variant would extend East 7th Street by creating a new public right-of-way from its current terminus at Fruitvale Avenue east to 36th Avenue where it would connect with Boehmer Street. This would complete the east-west street network connection from Fruitvale Avenue through to 37th Avenue along the north side of the Project site. The Project Variant would require a non-CEQA transportation assessment to analyze traffic conditions if/when the extension moves forward.

2. Trip Generation

Trip generation is the process of estimating the number of vehicles that would likely access the Project on any given day. Trip generation data published by the Institute of Transportation Engineers (ITE) in the *Trip Generation Manual (11th Edition)* was used as a starting point to estimate the vehicle trip generation. The trip generation for the industrial and commercial components of the Project are described below.

Industrial Use

The specific Project tenants have not been selected. However, this analysis assumes the end use would be a distribution warehouse. The ITE *Trip Generation Manual* provides several different land use types that may be applicable to the Project. **Table 1** summarizes the trip generation rates for these potential uses.

Table 2 summarizes the trip generation for the Project based on development of a High-Cube Parcel Hub Warehouse, which is the highest trip generating use under consideration. Since the office component of the Project is not a standalone use and is part of the normal operation of the warehouse, it is considered an accessory part of the warehouse and the trip generation rate for the warehouse use applies to the whole project.

Table 1: Automobile Trip Generation Rate Comparison for Industrial Uses

Land Use Type	ITE Land Use Code	Daily	Weekday AM Peak Hour[1]	Weekday PM Peak Hour[2]
Warehousing	150	1.71	0.17	0.18
High-Cube Transload and Short-Term Storage Warehouse	154	1.40	0.08	0.10
High-Cube Fulfillment Center Warehouse (Non-Sort)	155	1.81	0.15	0.16
High-Cube Parcel Hub Warehouse	156	4.63	0.70	0.64

Notes:
1. Peak hour of adjacent street traffic one hour between 7:00 and 9:00 AM.
2. Peak hour of adjacent street traffic one hour between 4:00 and 6:00 PM.

Source: ITE Trip Generation (11th Edition), 2021.

The ITE data is primarily based on data collected at single-use suburban sites where the automobile is often the only travel mode. However, the Project site is in a medium density mixed-use environment adjacent to frequent bus service where many trips are walk, bike, or transit trips. Since the Project site is about 0.6 mile walking distance from the Fruitvale BART Station, this analysis reduces the ITE based trip generation by about 37 percent to account for non-automobile trips. This reduction is consistent with the City of Oakland's TIRG and is based on US Census commute data for Alameda County from the 2014 5-Year Estimates of the American Community Survey (ACS), which shows that the non-automobile mode share for urban areas between 0.5 and 1.0 mile of a BART Station is approximately 37 percent. The reduction is applied to the passenger cars only.

Table 2: 3600 Alameda Avenue Project Industrial Component Automobile Trip Generation Summary

Land Use	ITE Code	Size[1]	Mode	Daily Trips	Weekly AM Peak Hour			Weekly PM Peak Hour		
					In	Out	Total	In	Out	Total
High-Cube Parcel Hub Warehouse	156	429.9 KSF	Vehicles[2]	1,990	151	150	301	187	88	275
			Trucks[3]	250	20	19	39	18	8	26
Unadjusted Passenger Vehicle Trips[4]				1,740	131	131	262	169	80	249
Non-Automobile Adjustment[5]				-640	-48	-48	-96	-62	-29	-91
Adjusted Passenger Vehicle Trips				1,100	83	83	166	107	51	158
Adjusted Truck Trips[6]				500	40	38	78	36	16	52
Adjusted Total Project Trips[7]				**1,600**	**123**	**121**	**244**	**143**	**67**	**210**

Notes:
1. KSF = 1,000 square feet.
2. *ITE Trip Generation Manual (11th Edition)* land use category 156 (High-Cube Parcel Hub in Urban/Suburban Setting by KSF), vehicle trips:
   Daily: T = 4.63(X)
   AM Peak Hour: T = 0.7(X) (50% in, 50% out)
   PM Peak Hour: T = 0.64(X) (68% in, 32% out)
3. *ITE Trip Generation Manual (11th Edition)* land use category 156 (High-Cube Parcel Hub in Urban/Suburban Setting by KSF), truck trips:
   Daily: T = 0.58(X)
   AM Peak Hour: T = 0.09(X) (50% in, 50% out)
   PM Peak Hour: T = 0.06(X) (68% in, 32% out)
4. Unadjusted passenger vehicle trips: T = Vehicles – Trucks
5. Reduction of 36.7% assumed, based on City of Oakland *Transportation Impact Review Guidelines* using census data for urban environments within 0.5 and 1.0 miles of a BART Station. Applied to passenger vehicle trips only.
6. To account for PCE of 2.0 for trucks, truck trips are doubled.
   Adjusted Truck Trips: T= Trucks x 2
7. Net New Vehicle Trips = Adjusted Passenger Vehicle Trips + Adjusted Truck Trips

Source: Fehr & Peers, 2022.

To present a conservative estimate, the trip generation estimate for the Project accounts for the truck trip generation rates for the use as published in the ITE Trip Generation Manual. Since trucks are larger and operate slower than passenger vehicles, a passenger car equivalent (PCE) ratio of 2.0 is used to convert the truck trips to passenger vehicle trips (each truck is counted as two passenger vehicles).

As shown in Table 2, the industrial component of the Project is estimated to generate 1,600 daily trips, 244 AM peak hour and 210 PM peak hour trips.

Commercial Use

As previously described, this analysis assumes that the parcel at the southeast corner of the Project site would develop as 10,000 square feet of restaurant space. **Table 3** presents the trip generation for the commercial component of the Project. Similar to the trip generation for the industrial component of the Project described above, the trip generation for the commercial component of the Project is based on the trip generation data published in the ITE *Trip Generation Manual* and reduced by about 37 percent to account for non-automobile trips, consistent with the City of Oakland's TIRG.

Table 3: 3600 Alameda Avenue Project Commercial Component Automobile Trip Generation Summary

Land Use	ITE Code	Size[1]	Daily Trips	Weekly AM Peak Hour			Weekly PM Peak Hour		
				In	Out	Total	In	Out	Total
Restaurant[2]	932	10.0 KSF	1,070	53	43	96	56	35	91
Non-Automobile Adjustment[3]			-390	-19	-16	-35	-21	-13	-34
Adjusted Passenger Vehicle Trips			680	34	27	61	35	22	57
Pass-by Trips[4]			-150	0	0	0	-15	-9	-24
Net New Automobile Trips			**530**	**34**	**27**	**61**	**20**	**13**	**33**

Notes:
1. KSF = 1,000 square feet.
2. *ITE Trip Generation Manual (11th Edition)* land use category 932 (High-Turnover Sit-Down Restaurant in General Urban/Suburban setting by KSF):
   Daily: T = 107.2 * X
   AM Peak Hour: T = 9.57 * X (55% in, 45% out)
   PM Peak Hour: T = 9.05 * X (61% in, 39% out)
3. Reduction of 36.7% assumed, based on City of Oakland *Transportation Impact Review Guidelines* using census data for urban environments within 0.5 and 1.0 miles of a BART Station. Applied to passenger vehicle trips only.
4. Based on *ITE Trip Generation Manual (11th Edition)*, the average PM peak hour pass-by rates for land use category 932 is 43%, which is applied to the PM peak hour trip generation. Since ITE does not provide daily or AM peak hour pass-by rates for this use, no reduction is applied to the AM peak hour, and a 21% reduction is applied to the daily trips.

Source: Fehr & Peers, 2023.

In addition, pass-by adjustments were applied to the trip generation. Pass-by trips are trips attracted to the site from adjacent roadways as an interim stop on the way to their ultimate destination. These vehicles would be on the roadway network regardless of the Project, so pass-by trips therefore result in changed travel patterns but do not add new vehicle trips to the roadway network. According to the ITE *Trip Generation Manual (11th Edition)*, the average

weekday PM peak hour pass-by reduction for restaurants (ITE land use category 932) is 43 percent. Since the ITE *Trip Generation Manual* does not include daily or AM peak hour pass-by reduction rates for this land use, a pass-by reduction was not applied for the AM peak hour, and a 21-percent reduction (half the PM peak hour pass-by reduction) was applied to the daily trips.

As summarized in Table 3, the net new automobile trip generation for the commercial component of the Project is about 530 daily, 61 AM peak hour, and 33 PM peak hour automobile trips.

Total Project Trip Generation

Table 4 summarizes the total automobile trip generation for the Project. Both the industrial and commercial components of the Project combined would generate about 2,130 daily, 305 AM peak hour, and 243 PM peak hour trips. Since the Project would generate more than 100 net new peak hour trips the City of Oakland TIRG requires additional tasks, which are described at the end of this memorandum.

Table 4: 3600 Alameda Avenue Project Total Automobile Trip Generation

Project Component	Daily Trips	Weekly AM Peak Hour			Weekly PM Peak Hour		
		In	Out	Total	In	Out	Total
Industrial (High-Cube Parcel Hub)[1]	1,600	123	121	244	143	67	210
Commercial (Restaurant)[2]	530	34	27	61	20	13	33
Total	**2,130**	**157**	**148**	**305**	**163**	**80**	**243**

Notes:
1. See Table 2 for details.
2. See Table 3 for details.

Source: Fehr & Peers, 2023.

Non-Automobile Trip Generation

Consistent with the City of Oakland's TIRG, **Table 5** presents the trip generation estimates for all travel modes for both the industrial and commercial components of the Project combined.

Table 5: Project Trip Generation by Travel Mode

Mode	Mode Share Adjustment Factors[1]	Daily	AM Peak Hour	PM Peak Hour
Passenger Vehicle	0.633	1,630	227	191
Transit	0.236	610	85	71
Bike	0.049	130	18	15
Walk	0.062	160	22	19
Truck	N/A[3]	500	78	52
	Total Trips	**3,030**	**430**	**348**

Notes:

1. Based on the City of Oakland's TIRG for an urban environment within 0.5 and 1.0 miles of a BART station.
2. Truck trips in PCE. See Table 2 for details.

Source: Fehr & Peers, 2023.

3. Trip Distribution, Trip Assignment, and Study Intersection Selection

Trip Distribution and Assignment

The trip distribution and assignment process is used to estimate how the trips generated by the Project would be distributed across the roadway network. Directions of approach to and departure from the Project site were determined based on existing travel patterns, locations of complementary land uses, results of the Alameda County Transportation Commission's (Alameda CTC) Travel Demand Model, designated truck routes, and the one-way street network and turn restrictions in the Project area. **Figure 1** shows the resulting trip distribution for both passenger vehicles and trucks (all figures are attached at the end of this memorandum).

Study Intersection Selection

According to the City of Oakland's TIRG, the criteria for selecting study intersections include:

- All intersections adjacent to the project site.
- All signalized intersections, all-way stop-controlled intersections, or roundabouts where 100 or more peak hour trips are added by the Project.
- All signalized intersections with 50 or more Project-related peak hour trips and with existing Level of Service (LOS) D-E-F.

- Side-street stop-controlled intersections with 50 or more peak hour trips added by the Project to any individual movement other than the major-street through movement.

Following these criteria, the following eleven intersections, as shown on **Figure 2,** are evaluated:

1. Fruitvale Avenue/East 9th Street
2. Fruitvale Avenue/East 8th Street
3. Fruitvale Avenue/East 7th Street
4. Fruitvale Avenue/Alameda Avenue
5. 36th Avenue/Boehmer Street
6. 37th Avenue/Boehmer Street
7. 37th Avenue/Alameda Avenue
8. Alameda Avenue/Howard Street
9. High Street/Oakport Street
10. High Street/Coliseum Way
11. High Street/Howard Street

These intersections are evaluated because:

- Intersections #3 through #7 are adjacent to the Project site.
- Intersections #2, #3, #7, and #10 are signalized intersections where the Project would add 100 or more peak hour trips.
- Intersections #3 and #8 are currently side-street stop-controlled intersection where the Project would add 50 or more peak hour trips to a movement other than the major-street through movement
- Intersections #1, #9, and #11 are signalized intersections where the Project would add 50 or more peak hour trips and currently may be operating at LOS D or worse, although no recent intersection operations analysis are available at these intersections.

Due to the ongoing COVID-19 pandemic and the mandatory shelter-in-place orders for the Bay Area region that started on March 16, 2020, turning movement counts at the time when this analysis started could not be collected at the existing study intersections because counts would not accurately reflect typical conditions due to changes in travel patterns during this time. Instead, data purchased from StreetLight Data (a big data vendor of anonymous location records from GPS devices) is used. The Streetlight Data volume estimates were downloaded for midweek days (Tuesdays through Thursdays) for the period of February 1 through June 1 and September 1 through November 15 of 2019 and aggregated to averages for the existing study intersections. **Appendix B** presents the detailed StreetLight volume data.

4. Intersection Operations

The following scenarios are evaluated:

- **Existing Conditions**: Represents existing (i.e., 2019, pre-COVID-19) traffic volumes.

- **Existing Plus Project Conditions**: Represents the existing conditions plus traffic generated after completion of the Project and accounts for the changes to the street network proposed by the Project. This scenario also accounts for the proposed changes to Fruitvale Avenue as part of the *Fruitvale Alive!* Project which would generally narrow Fruitvale Avenue to one through lane in each direction to provide pedestrian and bicycle improvements between East 12th Street and Alameda Avenue; Construction started in fall of 2022 (See page 20 for more details).

Figure 3 presents the Existing and **Figure 4** presents the Existing plus Project intersection lane configuration, traffic control, and peak hour traffic volumes at the study intersections. Based on the volumes and roadway configuration presented in Figures 3 and 4, Fehr & Peers calculated the LOS at the study intersection using the *Highway Capacity Manual* 6th Edition (HCM) methodologies. **Appendix C** provides the detailed LOS calculation sheets. **Table 6** summarizes the Existing and Existing Plus Project intersection analysis results.

Under Existing Conditions, most intersections operate at LOS D or better, except the following:

- The signalized Fruitvale Avenue/East 9th Street intersection operates at LOS F during the AM peak hour
- The stop-controlled eastbound East 7th Street approach at the side-street stop-controlled Fruitvale Avenue/East 7th Street operates at LOS E during the PM peak hour
- The stop-controlled northbound Howard Street approach at the side-street stop-controlled Alameda Avenue/ Howard Street intersection operates at LOS E during the AM peak hour
- The signalized High Street/Coliseum Way intersection operates at LOS F during both the AM and PM peak hours
- The signalized High Street/Oakport Street intersection operates at LOS F during both the AM and PM peak hours

Table 6: Intersection Level of Service Summary

Intersection	Traffic Control[1]	Peak Hour	Existing Conditions		Existing Plus Project	
			Delay[2] (seconds)	LOS	Delay[2] (seconds)	LOS
1. Fruitvale Avenue/ East 9th Street	Signal	AM PM	98 19	F B	100 34	F C
2. Fruitvale Avenue/ East 8th Street[3]	Signal	AM PM	29 22	C C	33 24	C C
3. Fruitvale Avenue/ East 7th Street	SSSC	AM PM	5 (15) 3 (48)	A (B) A (E)	19 (>150) 7 (134)	C (F) A (F)
4. Fruitvale Avenue/ Alameda Avenue[3]	Signal	AM PM	22 46	C D	23 25	C C
5. Boehmer Street/ 36th Avenue	AWS	AM PM	N/A	N/A	7 7	A A
6. Boehmer Street/ 37th Avenue	SSSC	AM PM	N/A	N/A	3 (9) 4 (9)	A (A) A (A)
7. Alameda Avenue/ 37th Avenue	SSSC	AM PM	N/A	N/A	2 (22) 2 (20)	A (C) A (C)
8. Alameda Avenue/ Howard Street	SSSC	AM PM	4 (42) 3 (29)	A (E) A (D)	4 (60) 3 (38)	A (F) A (E)
9. High Street/ Coliseum Way[3]	Signal	AM PM	>150 (V/C = 1.33) 122	F F	>150 (V/C = 1.37) 139	F F
10. High Street/ Oakport Street[3]	Signal	AM PM	99 128	F F	99 132	F F
11. High Street/ Howard Street	Signal	AM PM	16 16	B B	17 18	B B

Notes:
1. Signal = intersection controlled by traffic signal, SSSC = Side Street Stop-Controlled, AWS = All-Way Stop-Controlled.
2. Delay: Calculated using HCM 6th Edition unless noted. Average intersection delay presented for signalized intersections; volume-to-capacity ratio reported for signalized intersections operating with more than 150 seconds of delay. Average intersection and worst-approach delays are reported for side street stop-controlled intersections.
3. Delay calculated using HCM 2000.
Source: Fehr & Peers, 2023.

Under Existing Plus Project Conditions, delay at most of the study intersections, including the intersections operating at LOS E or LOS F and listed above, would increase because of the additional traffic generated by the Project. The proposed I-880/42nd Avenue/High Street Freeway Access Project would extend 42nd Avenue from its current terminus at I-880 southbound off-ramp/Oakport Street south to Alameda Avenue and provide a shorter travel route between the Project site and the freeway ramps. The proposed improvements would reduce traffic congestion at the Alameda Street/Howard Street, High Street/Coliseum Way, and High Street/Oakport Street intersections. No other improvements are recommended at these intersections because they would require additional right-of-way which is not available, may adversely affect pedestrian and bicycle conditions, and building additional motor vehicle capacity would conflict with CEQA and City of Oakland policies.

Peak Hour Signal Warrant Analysis

To assess the need for signalization of stop-controlled intersections, the California Manual on Uniform Traffic Control Devices (CA MUTCD) includes nine signal warrants. Generally, meeting one or more of the signal warrants could justify signalization of an intersection. This analysis evaluates the California MUTCD peak hour vehicular volume warrant (Warrant 3) for urban conditions to determine if the Project added traffic would result in the stop-controlled intersections needing to be signalized.

The peak hour traffic signal warrant is evaluated for the existing Alameda Avenue/Howard Street intersection and the new Alameda Avenue/37th Avenue intersection, based on the volumes, intersection controls, and roadway configurations under the Existing plus Project conditions as presented on Figure 4. Neither intersection would meet the peak hour signal warrant under the Existing Plus Project conditions. **Appendix D** provides the signal warrant worksheets.

> **Recommendation 1:** While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:
>
> - Install a stop-sign on the southbound 37th Avenue approach at Alameda Avenue

5. Site Access and Circulation Analysis

An evaluation of access and circulation for all travel modes, based on the site plan dated February 2023, which is provided in Appendix A, is summarized below.

Automobile Access and Circulation

The Project would open Boehmer Street, which is currently gated and closed to the public, and extend 37th Avenue to Alameda Avenue. The Project would also relocate Alameda Avenue approximately 100-feet to the north.

Automobile access would be provided via five driveways: one driveway on Fruitvale Avenue opposite East 7th Street which would be limited to rights-in and rights-out only on Fruitvale Avenue, one driveway on Boehmer Street opposite 36th Avenue, each limited to passenger vehicles, two driveways on 37th Avenue, the northmost of which would be limited to passenger vehicles, and one driveway on Alameda Avenue. Trucks would access the site via the south driveway on 37th Avenue and the driveway on Alameda Avenue.

The Project driveway on Fruitvale Avenue opposite East 7th Street would consist of separate curb-cuts for the inbound and outbound traffic. The inbound curb-cut would be just south of the intersection, be about 20-feet wide, and only allow right-turns from northbound Fruitvale Avenue. The outbound curb-cut would be just north of the intersection, be about 15-feet wide, and only allow right-turn onto northbound Fruitvale Avenue. A triangular island would separate the inbound and outbound traffic and prevent Project traffic from driving to and from northbound Fruitvale Avenue and East 7th Street on the west side of Fruitvale Avenue.

The Project driveways on Boehmer Street and the north end of 37th Avenue would each be 26-feet wide and provide one inbound and one outbound lane. These driveways would provide access to the surface parking lot, which will primarily be used for employee parking.

The Project driveway on Alameda Avenue is proposed to be 40-feet wide and the south driveway on 37th Avenue would be 35-feet wide and provide one inbound and one outbound lane. These driveways would provide access to the truck parking lot and loading berths and be used primarily by trucks. The City of Oakland Municipal Code Section 12.04.270 limits driveway widths to no more than 35 feet. The driveway on Alameda Avenue would exceed this maximum width. If the width of this driveway is reduced to 35 feet, two large trucks, such as WB-67s, may not be able to use the driveway simultaneously, because the truck turning into the driveway may need to stop on Alameda Avenue and wait for the other truck to complete the turn exiting the driveway. City of Oakland Municipal Code Section 12.04.290 allows for an appeal to the Driveway Appeals Board to implement driveway widths not consistent with City Code requirements.

Recommendation 2: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Reduce the width of the Project driveways on Boehmer Street and the north end of 37th Avenue from 26-feet to 24-feet
- To be consistent with the City of Oakland Municipal Code Section 12.04.270, complete one of the following regarding the Project driveway on Alameda Avenue:
    - Reduce the width of the driveway opening to 35 feet
    - If a high volume of large trucks, such as WB-67, is expected, then coordinate with the City of Oakland Driveway Appeals Board to provide a 40-foot driveway

Based on the project site plan, all five Project driveways would provide adequate sight distance[1] between vehicles exiting the driveways and pedestrians on either side on the adjacent sidewalk. The Project driveways would also have adequate sight distance between exiting vehicles and vehicles or bicyclists on the adjacent street because the driveway on Boehmer Street would be on an all-way stop intersection and all driveways would have at least 20 feet of parking prohibited on both sides of the driveway. The 37th Avenue extension at Alameda Avenue would provide adequate sight distance between vehicles entering or exiting the new street and pedestrians on either side on the adjacent sidewalk. Sight distance may not be adequate between vehicles turning out of the southbound 37th Avenue extension and vehicles or bicyclists on westbound Alameda Avenue.

Recommendation 3: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project to improve sight distance:

- Prohibit on-street parking for at least 50 feet on the north side of Alameda Avenue just east of the 37th Avenue extension via signage and design elements as approved by the City of Oakland

Commercial Use Access and Circulation

As previously described, the Project would include a retail/restaurant parcel in the southeast corner of the site at the northwest corner of the Alameda Avenue/37th Avenue intersection. No

[1] Adequate sight distance is defined as a clear line-of-sight between a motorist ten feet back from the sidewalk and a pedestrian 10 feet away on each side of the driveway.

specific uses for the site have been identified and the Project site plan does not provide any details, such as driveway location, building location, or amount of parking, for this Project component.

> **Recommendation 4:** While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:
>
> - Review the Project site plan for the commercial component of the Project at the northwest corner of the Alameda Avenue/37th Avenue intersection to ensure adequate access and circulation for all travel modes
> - Ensure that the commercial component of the Project does not include any driveways on Alameda Avenue and that the driveway on 37th Street is located as far to the north as possible

Cut-Through Traffic

A small residential neighborhood is located just north of the Project and south of I-880. Within this neighborhood, on-street parking is provided along the south side of East 8th Street and both sides of Elmwood Avenue, 36th Avenue, and 37th Avenue. The Project also proposes to open Boehmer Street between 36th and 37th Avenues as a public street and extend 37th Avenue south to Alameda Avenue. The Project would also include a driveway on Boehmer Street opposite 36th Avenue. As a result, passenger vehicles approaching the site from Fruitvale Avenue would use East 8th Street to access the Project. In addition, motorists can use East 8th Street and 37th Avenue as an alternate route to Fruitvale and Alameda Avenues, increasing the potential for cut-through traffic through the neighborhood north of the Project. However, the proposed extension of 37th Avenue is consistent with the adopted Central Estuary Area Plan (CEAP), which envisions providing additional east-west and north-south connectivity in this area to enhance emergency access and local connectivity and access.

> **Recommendation 5:** While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:
>
> - To reduce potential for cut-through traffic on East 8th Street and Elmwood Avenue east of Fruitvale Avenue, on 36th Avenue, and on 37th Avenue north of Alameda Avenue, implement one or more of the following:

- Implement traffic calming measures on East 8th Street and Elmwood Avenue east of Fruitvale Avenue, on 36th Avenue, and/or on 37th Avenue north of Alameda Avenue. One option is the installation of speed bumps. The city of Oakland requires a petition signed by 2/3 of the addresses on each block to install speed bumps on the block. If the petition is submitted by 2/3 of the addresses on each of the blocks listed above, the Project shall install speed bumps on these blocks consistent with the City's requirements.
- Narrow 37th Avenue between the south Project driveway and Boehmer Avenue to discourage trucks from using the local streets north of the Project site
- Explore installing signage that limits and/or discourages truck access on East 8th Street and Elmwood Avenue and install the signage as approved by OakDOT

Automobile Parking

This section addresses the automobile parking required by the City of Oakland, the estimated parking demand for the Project, and changes to on-street parking.

Automobile Parking Requirements

The *City of Oakland Planning Code* Section 17.116.090 establishes minimum parking requirements for the Project. The Project has minimum required off-street parking of 1.0 spaces per 3,500 square feet of floor area for industrial activities. Since the office component of the project is an accessory part of the warehouse, the parking requirement for industrial use applies to the whole project. No maximum parking requirement is applicable to the site. **Table 7** summarizes the off-street automobile parking requirements for the Project. The Project is required to provide a minimum of 123 parking spaces.[2] The Project would include 295 off-street parking spaces, exceeding the minimum City Code requirement.

[2] Since the Project site plan does not include the potential retail/restaurant use, the Site Access and Circulation Analysis section of this memorandum does not address the retail/restaurant use.

Table 7: Automobile Parking Requirements

Land Use	Size (KSF)[1]	Minimum Required Parking	Parking Required	Parking Supplied	Meets Requirements?
Industrial [2]	429.9	1.0 space per 3.5 KSF	123	295	Yes

Notes:
1. KSF = 1,000 square-feet.
2. Per Oakland Planning Code Section 17.116.090 – Off-Street Parking – Industrial Activities for D-CE-6 zone with more than 25,000 square feet of floor area.

Source: Fehr & Peers, 2022.

Plug-In Electric Vehicle (PEV) Charging Infrastructure

Chapter 15.04 of the Oakland Municipal Code requires the Project to provide PEV-ready and PEV-capable parking spaces. The Code requires a minimum of ten percent of the parking spaces to be PEV-ready and an additional 10 percent of the spaces to be PEV-capable. Since the Project would provide 295 parking spaces, it is required to provide a minimum of 29 PEV-ready and 29 PEV-capable parking spaces. The Project site plan identifies 29 PEV-ready and no PEV-capable parking spaces, which does not meet the City's minimum requirements.

> **Recommendation 6:** While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:
>
> - Ensure that the Project provides a minimum of 29 PEV-ready and an additional 29 PEV-capable parking spaces

Estimated Parking Demand

The parking demand for the Project would depend on the specific type of industrial use at the site and other factors such as level of automation and employee shift times. The trip generation estimate, presented earlier in this memorandum, was based on a probable use that would have the highest trip generation according to the ITE data, high-cube parcel hub warehouse. Since ITE does not provide parking demand data for high-cube parcel hub warehouse use, the parking demand for the Project is estimated based on the following:

- Per the Project applicant, the Project is estimated to have about 350 employees.
- According to the US Census Transportation Planning Products Program (CTPP, 2012-2016 data) commute mode share data, about 62 percent of the workers in the Project Census Tract (Tract 4061) drive alone to work and about 11 percent carpool, with an average

carpool occupancy of 2.3 passengers per vehicle. Thus, parking demand rate in the Project Census Track is estimated to be about 0.67 vehicles per employee.[3]

Based on the above assumptions, the Project is estimated to have a parking demand of 235 vehicles, which would be below the 295 spaces provided on site.[4] The parking demand estimate does not account for the required TDM Plan that the Project would implement, which is required to reduce the vehicular trips and parking generated by the Project by at least 20 percent. Thus, the parking provided by the Project is more than both the minimum required by the City and the estimated demand at the site.

Since free unrestricted parking is provided on most of the streets in the Project vicinity, it is likely that reducing on-site parking supply could result in Project employees who cannot park on-site to choose to park on the nearby residential streets and increase on-street parking occupancy and cut-through traffic on the nearby residential streets. Therefore, reducing the on-site parking supply is not recommended.

On-Street Parking

Fruitvale Avenue does not provide any on-street parking on either side of the street adjacent to the Project. Alameda and 37th Avenues adjacent to the project site, as well as the local streets north of the project site (Elmwood and 34th Avenues) provide parallel on-street parking on both sides of the street. East 8th Street provides parallel on-street parking on the south side of the street only. Most of the on-street parking in the area is unregulated.

The proposed extension of 37th Avenue and the opened Boehmer Street would provide on-street parking on one side of the streets. The proposed relocation of Alameda Avenue would reduce the existing on-street parking on the north side of the street adjacent to the Project and continue to not provide on-street parking on the south side of the realigned street. As a result, it is estimated that the Project would increase the overall on-street parking supply by about 20 spaces.

Loading Requirements and Truck Access

The *City of Oakland Planning Code* Section 117.116.150 establishes minimum requirements for off-street loading berths for industrial activities. The *City of Oakland Planning Code* Section 17.116.220 establishes required dimensions for industrial facility loading berths which must be at

[3] Percentage drive alone employees plus percentage carpool employees divided by carpool vehicle occupancy = 0.62 + (0.11/2.3) = 0.67

[4] Estimated population multiplied by the parking demand rate = 350 * 0.67 = 235

least 45 feet long, 12 feet wide, and fourteen feet high. No specific drive aisle dimensions for loading areas are provided, rather, the *Code* states they are required to allow efficient utilization of all required loading berths by motor vehicles of the types typically employed by the activities served. **Table 8** summarizes these off-street loading requirements.

The Project would provide a continuous loading berth with 48 docks on the south side of the building. The loading berths would be 60 feet long and a minimum of 12 feet wide. The proposed number and dimensions of the loading berths would meet City requirements.

Table 8: Loading Berth Requirements

Land Use	Size (KSF)[1]	Minimum Required Loading Berths	Loading Berths Required	Loading Berths Supplied	Meets Requirements?
Industrial Activity[2]	429.9	2 berths required per 50-99 KSF, plus an additional berth per each additional 150 KSF	4	48	Yes

Notes:

1. KSF = 1,000 square-feet.
2. Per Oakland Planning Code Section 17.116.150 – Off-Street Loading – Industrial Activities with greater than 99,999 square feet of floor area.

Source: Fehr & Peers, 2022.

The Project would also include 228 trailer parking spaces in a parking lot south of the Project building. The trailer parking spaces would be 10-feet wide by 53-feet long. Drive aisles within this area would be 67-feet wide perpendicular to the trailer parking spaces and loading berths and 40-feet wide on the west and east ends of the lot. **Appendix E** presents the truck turning exhibits which show CA WB-67 trucks, which are the largest trucks expected to access the site, turning into and out of the Project truck driveways and backing into and out of the Project loading docks. The Project truck driveway on 37th Avenue would be 35-feet wide and the truck driveway on Alameda Avenue would be 40-feet wide, which would be adequate to accommodate trucks turning into and out of the driveways. However, Recommendation 2 provides for either reducing the width of the truck driveway on Alameda Avenue to 35 feet to be consistent with the City's Municipal Code, or coordinating with the City of Oakland Driveway Appeals Board to maintain the 40-foot driveway if a high volume of large trucks is expected at the driveway. As shown in Appendix E, the project site, as well as the Project driveways, and the adjacent streets, including Alameda and 37th Avenues can accommodate the trucks expected to access the site.

Designated truck routes in the Project vicinity include High Street south of San Leandro Street, Alameda Avenue between Fruitvale Avenue and High Street, and Fruitvale Avenue south of Alameda Avenue. It is expected that trucks would use the designated routes and travel between the project site and I-880 freeway by using High Street and Alameda Avenue, as shown in Appendix E. In addition, the proposed I-880/42nd Avenue/High Street Freeway Access Project, which would extend 42nd Avenue from its current terminus at the I-880 southbound off-ramp south to Alameda Avenue, would improve truck access between the freeway ramps and the project site and further encourage trucks to access the site to and from the east.

Although Fruitvale Avenue is not a designated truck route, it is part of the overweight (heavy container) truck route in the City of Oakland, which is a joint Port of Oakland-City of Oakland program that allows trucks exceeding the Caltrans weight limit to travel between the Port of Oakland and destinations in East Oakland on designated City streets.

Bicycle Access and Bicycle Parking

Figure 5 shows the existing and proposed bicycle facilities in the Project vicinity.

Existing bicycle facilities adjacent to the Project site include the following:

- Class 2 bicycle lanes on northbound and southbound Fruitvale Avenue
- Class 3 neighborhood bicycle route on East 7th Street west of Fruitvale Avenue
- Class 2 bicycle lanes on eastbound and westbound Alameda Avenue
- Class 1 shared-use path along the Oakland Estuary, accessible via a curb cut on the south side of Alameda Avenue located approximately 850-feet east of Fruitvale Avenue. This facility is part of the San Francisco Bay Trail.

In addition to these facilities, the following two Bay Wheels bike-share stations are located about 0.6 mile from the Project:

- On Avenida de la Fuente, on the north side of the Fruitvale BART Station
- At the Fruitvale Avenue/Farnam Street intersection

The City's Oakland Bike Plan (*Let's Bike Oakland*, 2019) proposes the following facilities in the vicinity of the Project:

- Northbound and southbound Class 4 separated bicycle lanes on Fruitvale Avenue

The City of Oakland's planned *Fruitvale Alive!* Project would improve the Fruitvale Avenue corridor between East 12th Street and Alameda Avenue. Construction started in fall 2022.[5] Along the Project frontage, the *Fruitvale Alive!* Project would generally eliminate one southbound travel lane and move out the curb and gutter on both sides of the street to accommodate an elevated, one-way Class 4 separated bicycle lane between the curb and sidewalk on both sides of the street. The *Fruitvale Alive!* Project would also install new curb ramps with truncated domes on the corners at either end of the new bicycle and pedestrian facilities. The proposed Project driveway on Fruitvale Avenue opposite East 7th Street would be consistent with the *Fruitvale Alive!* Project with truncated domes provided on both corners of the driveway.

City of Oakland's *Fruitvale Bridge Land Crossing* project is planning to complete the existing gap in the Bay Trail between Fruitvale Avenue and Lancaster Street as a Class 1 trail along the Estuary. This new segment of the Bay Trail would be accessed from the Fruitvale Avenue/Alameda Avenue intersection.

The realignment of Alameda Avenue, as proposed by the Project, would include replacing the existing Class 2 bicycle lanes with Class 2B buffered bicycle lanes on both directions of Alameda Avenue and improving the two-way Class 1 path along the Estuary, which is part of the San Francisco Bay Trail. Considering the increase in truck traffic on Alameda Avenue and that the proposed extension of 37th Avenue to Alameda Avenue and the proposed new driveway on Alameda Avenue may result in conflicts between bicycles and trucks, greater protection of cyclists on Alameda Avenue along the Project frontage should be considered. Although the Project would also improve the Class 1 path along the Estuary, the path would not be along the desire lines for cyclists along Alameda Avenue. Thus, implementation of Class 4 separated bikeways, which may require widening Alameda Avenue along the Project frontage and/or eliminating on-street parking, should be considered.

> **Recommendation 7:** While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:
>
> - Redesign the realigned segment of Alameda Avenue along the Project frontage to accommodate Class 4 separated bikeways in both directions of Alameda Avenue

[5] City of Oakland, Fruitvale Alive!, https://www.oaklandca.gov/projects/fruitvale-alive, accessed on March 3, 2022.

- Ensure that the segment of Bay Trail on the re-aligned segment of Alameda Avenue meets the Bay Trail design standards

- Coordinate the design of the Project driveway entrance and exit on Fruitvale Avenue with OakDOT Traffic Engineering and Bike/Ped teams to ensure that the design is coordinated with the new Class 4 separated bikeway on Fruitvale Avenue and with the bicycle movements and pedestrian crossings at this location

Bicycle Parking Requirements

Chapter 17.117 of the *City of Oakland Planning Code* requires long-term and short-term bicycle parking for new buildings. Long-term bicycle parking includes lockers or locked enclosures, and short-term bicycle parking includes bicycle U-racks. Section 17.117.070 sets minimum and maximum bicycle parking requirements for the project as described in **Table 9**.

Table 9: Bicycle Parking Requirements

Land Use	Size (KSF)[1]	Long-Term Bicycle Parking		Short-Term Bicycle Parking	
		Spaces per Unit[2]	Spaces	Spaces per Unit[2]	Spaces
Industrial Activities[2]	429.9	1 space: 40 KSF of floor area	11	No spaces required	0
Minimum Required Bicycle Parking			***13***		***4***
Proposed Parking Spaces			***16***		***16***
Meets Minimum Parking Requirement?			***Yes***		***Yes***

Notes:
1. KSF = 1,000 square-feet.
2. Per Oakland Planning Code Section 17.117.120 – Required Bicycle Parking – Industrial Activities – Warehousing, Storage and Distribution; minimum citywide requirement is 2 spaces.

Source: Fehr & Peers, 2022.

Per City Code the Project is required to provide 13 long-term spaces and 4 short-term bicycle parking spaces. Current site plans show 16 long-term bicycle spaces and 16 short-term bicycle parking spaces within the project site. The long-term bicycle spaces would be in the form of bike racks within the Project building near Project entrances at the northwest, northeast, and southeast corners of the Project. Most of the short-term bicycle spaces would be in the form of bicycle racks along the Project frontage in the northwest corner of the site near the Project entrance on

Fruitvale Avenue. The Project would also provide bicycle racks along the Project frontage near the northeast and southeast corners of the building.

The City of Oakland Planning Code does not require the Project to provide showers and lockers based on its industrial use. However, it is recommended that the Project provide showers and lockers to encourage bicycling.

> **Recommendation 8:** While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:
>
> - Consolidate the long-term bicycle parking spaces in a secure bicycle room or cage within the Project building and near the main building entrance
> - Provide at least two showers per gender and four lockers per shower to encourage bicycling

Pedestrian Access and Circulation

Most existing roadways in the Project vicinity provide sidewalks on both sides of the street. The existing sidewalks along Fruitvale Avenue range from 5.5-feet wide on the east side to between 7.5 and 10 feet on the west side of the street. Sidewalks along Alameda Avenue range from approximately 6 feet on the north side to 10-feet wide on the south side adjacent the Estuary. Other sidewalks in the area are between 5.5 and 6 feet wide.

Gaps in the sidewalk network include the north side of East 8th Street adjacent to the freeway, the north side of East 7th Street between Lancaster Street and Fruitvale Avenue, and the south side of Alameda Avenue just east of the project site.

Existing pedestrian facilities at intersections adjacent to the project site include the following:

- The Fruitvale Avenue/East 7th Street intersection is a three-way unsignalized intersection with a side-street stop control on the eastbound East 7th Street approach and includes diagonal curb ramps with truncated domes on the northwest and southwest corners. The eastbound East 7th Street approach provides a crosswalk marked by white lines and no marked crosswalks are provided across Fruitvale Avenue.
- The Fruitvale Avenue/Alameda Avenue intersection is signalized and includes diagonal curb ramps on the northeast and southeast corners and a parallel curb ramp on the northwest corner of the intersection. All ramps include truncated domes. The southbound Fruitvale Avenue and the westbound Alameda Avenue approaches provide crosswalks

marked by white lines. Pedestrian countdown signal heads and pushbuttons are provided in all directions of marked crossings. The southbound Fruitvale Avenue approach includes a raised median and pedestrian refuge with a pushbutton.

The segment of Fruitvale Avenue between Alameda Avenue and East 16th Steet is identified in the City's High Injury Network per the City's Pedestrian Master Plan (*Oakland Walks!*, 2017). The Pedestrian Master Plan recommends widening sidewalks and adding high visibility crosswalks, bulb outs, improved pavement, lighting, and upgrades to the pedestrian signals along this segment of the corridor. The City of Oakland's *Fruitvale Alive!* Project will implement these improvements.

The main entrance for the Project building would be located at the northwest corner of the building facing west on Fruitvale Avenue. Other building entrances would be located at the middle of the north side of building facing north, the northeast corner of the building facing north, and the southeast corner of the building facing east.

The Project would provide new pedestrian walkways along the building frontage connecting the main building entrances along the west, north, and east sides of the building. The Project would also reconstruct all sidewalks surrounding the site on the adjacent streets. The proposed sidewalks would range in width from 5.5 to 8 feet, consistent with City requirements. The Project would also construct new pedestrian sidewalks and bicycle facilities along the south side of Alameda Avenue along the Estuary as part of the realignment of Alameda Avenue. The Project would also construct diagonal curb ramps (one ramp per corner) at the new driveway intersections for the Project. The Project proposes a marked uncontrolled crossing across the east approach of Alameda Avenue at the Alameda Avenue/Project Driveway intersection.

Recommendation 9: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Ensure that the sidewalks along the Project frontage and along the new streets proposal by the Project would provide a minimum width of six feet where feasible
- Per City of Oakland requirements, ensure that the Project driveways and new intersections proposed by the Project provide dual directional curb ramps at the intersection corners where appropriate
- Install rapid rectangular flashing beacons (RRFB) at the marked pedestrian crossing across the east approach of the Alameda Avenue/Project Driveway intersection

- Install a pedestrian continental crosswalk with an RRFB across the north approach of the East 7th Street/Fruitvale Avenue intersection and coordinate with OakDOT on the intersection design to facilitate the bicycle and pedestrian crossing movements

Transit Access

Figure 6 shows existing transit service in the Project vicinity. Transit service providers in the Project vicinity include BART and AC Transit as described below.

Bay Area Rapid Transit (BART)

BART provides regional rail service throughout the East Bay and across the Bay. The Project is located approximately 0.6 mile south of the Fruitvale BART Station. The nearest station portal is located on the northside of Oscar Grant III Way, approximately 770-feet east of Fruitvale Avenue. The Fruitvale Station is an above ground station with curbside pedestrian access and local transit connections.

The Project is located south of the BART Station, separated by several city streets and the I-880 freeway. The BART Station can be accessed via an approximately 0.6-mile walking route along Fruitvale Avenue. An alternate 0.7-mile route connects the proposed 36th Avenue/Boehmer Street intersection on the north side of the project site to the BART Station via an I-880 pedestrian underpass located on East 8th Street 120-feet east of 34th Avenue. It is expected that most Project trips between the site and the BART Station would use the Fruitvale Avenue route because it is shorter, more direct, and will be improved by the *Fruitvale Alive!* Project.

Alameda-Contra Costa Transit District (AC Transit)

AC Transit is the primary bus service provider in 13 cities, including Oakland, and adjacent unincorporated areas in Alameda and Contra Costa Counties, with Transbay service to destinations in San Francisco, San Mateo, and Santa Clara Counties. **Table 10** summarizes the AC Transit stops in the Project vicinity and **Table 11** summarizes related AC Transit Service as of April 2022. The nearest bus stops to the project site are located on the east side of Fruitvale Avenue, approximately 30-feet south of East 9th Street and on the west side of Fruitvale Avenue, approximately 70-feet north of East 9th Street. The *Fruitvale Alive!* Project would include the addition of new far-side bus stops in both directions of Fruitvale Avenue at the intersection with Alameda Avenue. This planned bus stop would be the nearest bus stop to the Project site.

Table 10: AC Transit Stops

Stop Location	Distance to Project Site[1]	Lines Served	Stop Amenities
Fruitvale Avenue, north of East 9th Street	0.2 miles	19, 51A, 78, 851, O	No amenities
Fruitvale Avenue, south of East 9th Street	0.2 mile	19, 51A, 78, 851, O	No amenities

Notes:
1. Distance shown is walking distance between bus stop and the Project.
Source: Fehr & Peers, 2022.

Table 11: AC Transit Service Summary

Line	Description	Weekday Hours of Operation	Weekday Headways[2]	Weekend Hours of Operation	Weekend Headways[2]
19	Downtown Oakland to Fruitvale BART via the Webster/Posey tubes, Marina Village Pkwy., Atlantic Av., Buena Vista Av., Alameda Bridgeside Center, and Fruitvale Av.	6:45 AM –9:45 PM	60 min	6:50 AM – 9:50 PM	60 min
51A	Rockridge BART to Fruitvale BART via College Av., Broadway (Oakland), Webster St., Santa Clara Av., and Broadway (Alameda).	5:00 AM-12:40 AM	10 min	5:30 AM-12:45 AM	15 min
78	Fruitvale BART to Alameda Seaplane Lagoon Ferry and USS Hornet via Fruitvale Bridge, Alameda Bridgeside Center, Santa Clara Av., Webster St., and Appezzato Pkwy.	6:00 AM-11:10 AM	30-60 min (6:30 AM-7:30 PM, 90 min after 7:30 PM)	N/A	N/A
851	All Nighter. Downtown Berkeley to Fruitvale BART via Southside Berkeley, College Av., Broadway, Uptown Oakland, Downtown Oakland, Webster St., Santa Clara Av., Broadway, and Fruitvale Av.	12:15 AM-5:00 AM	60 min	12:15 AM-5:00 AM	60 min
O	Fruitvale BART to Salesforce Transit Center, San Francisco, via Fruitvale Bridge, Fernside Blvd., High St., Encinal Av., Broadway, Santa Clara Av. and Webster St.	5:00 AM-10:40 PM	30 min	5:00 AM-10:40 PM	30 min

Notes:
1. Service description as of January 2022.
Source: Consolidated from AC Transit Route Schedules, 2022; Fehr & Peers, 2022.

Recommendation 10: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Provide direct pedestrian access between the Project building and the proposed bus stops to be located on Fruitvale Avenue north of Alameda Avenue as part of the *Fruitvale Alive!* Project, including an entrance at the southwest corner of the Project building

6. Collision Analysis

A five-year history (January 1, 2015 to December 31, 2019) of collision data in the study area was obtained from the Statewide Integrated Traffic Records System (SWITRS) and evaluated for this collision analysis. **Table 12** summarizes the collision data by type and location, and **Table 13** summarizes the collision data by severity and location.

As shown in Table 12, 85 collisions were reported during this five-year timeframe along the study intersections and the roadway segments adjacent to the project site. The signalized High Street/ Coliseum Way intersection had the most reported collisions with 21, while the Fruitvale Avenue/ East 9th Street, Fruitvale Avenue/Alameda Avenue, High Street/Oakport Street, and High Street/ Howard Street intersections, which are all signalized, each had 10 to 11 collisions. The Alameda Avenue roadway segment had 10 reported collisions.

The most reported collision type in the study area are broadside collisions, representing 25 collisions (29 percent). Most of the collisions in the study area were due to improper turning (24 percent), drivers traveling at unsafe speeds (22 percent), and vehicle right-of-way (13 percent) and traffic signals and sign violations (12 percent). Pedestrians were involved in five (six percent) and cyclists were involved in four (five percent) of collisions. Trucks were involved in eight (nine percent) of the collisions. As shown in Table 13, 40 collisions (47 percent) resulted in injuries, and none resulted in fatalities.

The Highway Safety Manual (HSM, Predictive Method - Volume 2, Part C) provides a methodology to predict the number of collisions for intersections and street segments based on their specific characteristics, such as vehicle and pedestrian volume, number of lanes, signal phasing, on-street parking, and number of driveways. **Table 14** presents the predicted collision frequencies for the eight study intersections and two study segments using the HSM Predictive Method for Urban and Suburban Arterials and compares the predicted collision frequencies with the actual reported collision frequencies.

Table 12: Summary of Collisions by Type

Location	Head-on	Sideswipe	Rear-End	Broadside	Hit Object	Overturned	Pedestrian-Involved	Other	Total
Intersections									
Fruitvale Avenue/East 9th Street	2	4	1	1	0	0	2	1	11
Fruitvale Avenue/East 8th Street	0	2	0	2	0	0	0	0	4
Fruitvale Avenue/East 7th Street	1	0	0	1	0	0	0	0	2
Fruitvale Avenue/Alameda Avenue	2	2	3	2	1	0	0	0	10
Alameda Avenue/ Howard Street	0	0	0	1	0	0	0	0	1
High Street/Coliseum Way	1	2	4	7	2	0	2	3	21
High Street/Oakport Street	1	2	1	6	0	0	1	0	11
High Street/Howard Street	1	1	3	4	1	0	0	0	10
Roadway Segments									
Fruitvale Avenue (between Elmwood and Alameda Avenues)	0	2	2	0	0	0	0	1	5
Alameda Avenue (between Fruitvale Avenue and Tidal Place)	2	0	2	1	3	1	0	1	10
Total	***10***	***15***	***16***	***25***	***7***	***1***	***5***	***6***	***85***

Source: SWITRS five-year collision data reported from January 1, 2015 to December 31, 2019; Fehr & Peers, 2022.

Table 13: Summary of Collision Severity

Location	Property Damage Only Collisions	Injury Collisions	Fatality Collisions	Total	Truck Involved Collisions	Person-Injuries			
						Bicycle	Pedestrian	Driver / Passenger	Total
Intersections									
Fruitvale Avenue/East 9th Street	4	7	0	11	1	2	2	0	4
Fruitvale Avenue/East 8th Street	1	3	0	4	0	0	0	0	0
Fruitvale Avenue/East 7th Street	1	1	0	2	0	1	0	0	1
Fruitvale Avenue/Alameda Avenue	7	3	0	10	0	0	0	0	0
Alameda Avenue/Howard Street	0	1	0	1	0	1	0	0	1
High Street/Coliseum Way	12	9	0	21	3	0	3	1	4
High Street/Oakport Street	7	4	0	11	1	0	1	0	1
High Street/Howard Street	7	3	0	10	1	0	0	0	0
Roadway Segment									
Fruitvale Avenue (between Elmwood and Alameda Avenues)	1	4	0	5	0	0	0	0	0
Alameda Avenue (between Fruitvale Avenue and Tidal Place)	5	5	0	10	2	0	0	0	0
Total	***45***	***40***	***0***	***85***	***8***	***4***	***6***	***1***	***11***

Source: SWITRS five-year collision data reported from January 1, 2015 to December 31, 2019; Fehr & Peers, 2022.

Table 14: Predicted and Actual Collision Frequencies

Location	Predicted Collision Frequency (per year)[1]	Actual Collision Frequency (per year)[2]	Difference	Higher Than Predicted?
Intersections				
Fruitvale Avenue/East 9th Street	5.0	2.2	-2.8	No
Fruitvale Avenue/East 8th Street	3.7	0.8	-2.9	No
Fruitvale Avenue/East 7th Street	1.9	0.4	-1.5	No
Fruitvale Avenue/Alameda Avenue	4.9	2.0	-2.9	No
Alameda Avenue/Howard Street	1.8	0.2	-1.6	No
High Street/Coliseum Way	10.0	4.2	-5.8	No
High Street/Oakport Street	9.9	2.2	-7.7	No
High Street/Howard Street	4.2	2.0	-2.2	No
Roadway Segments				
Fruitvale Avenue (between Elmwood and Alameda Avenues)	2.1	1.0	-1.1	No
Alameda Avenue (between Fruitvale Avenue and Tidal Place)	1.6	2.0	+0.4	Yes

Notes:
1. Based on the Highway Safety Manual Predictive Method (Volume 2, Part C).
2. Based on SWITRS five-year collision data reported from January 1, 2015 to December 31, 2019.
3. The HSM Predictive Method does not directly account for one-way roadway segments or intersections with one-way approaches. In this analysis, one-way crash frequencies on roadway segments are approximated to be equal to half of the crash frequency of a two-way divided road segment with double the one-way traffic volumes. Crash frequencies for intersections with one-way approaches are calculated as if the approaches are two-way.

Source: Fehr & Peers, 2022.

Appendix F provides the detailed predicted collision frequency calculation sheets based on the HSM methodology. Intersections or roadway segments with collision frequencies greater than the predicted frequency are identified as locations that should be evaluated in greater detail for collision trends and potential modifications.

As shown in Table 14, the Alameda Avenue roadway segment is the only study facility that has a higher reported collision frequency than predicted by the HSM. Review of the collision history along this segment suggests most collisions are due to improper turning, traveling at unsafe speeds, and driving under the influence near the existing sharp bend in the road adjacent the southeast corner of the project site. The realignment of Alameda Avenue, as proposed by the Project, which includes reducing the existing curvature of the roadway in this location, combined

with the removal of on-street parking along the north side of Alameda Avenue, and provision of Class 4 protected bike lanes per Recommendation 7, would improve sightlines along this roadway segment and reduce the likelihood of collisions along this roadway segment. No additional improvements are recommended.

7. At-Grade Railroad Crossing Safety Evaluation

The City of Oakland's Standard Condition of Approval (SCA) TRANS-7, Railroad Crossings, requires the preparation of a Diagnostic Review for projects located within 0.25 mile of an at-grade railroad crossing that generate substantial vehicle, bicyclist, and/or pedestrian traffic. This section of the memorandum describes the at-grade crossings in the vicinity of the Project and recommends improvements that should be considered as part of the Diagnostic Review that will be prepared for the Project.

Union Pacific Railroad Company (UPRR) owns and operates the railroad tracks west of the project site on the west side of Fruitvale Avenue. The single set of tracks is used by freight trains only and primarily serve the local industrial uses. In the Project vicinity, there are three at-grade crossings at East 7th Street, Elmwood Avenue, and East 9th Street. Per the data provided by the Federal Railroad Administration, trains operate at an average of two movements per day, with the maximum speed of 10 mph.

Table 15 summarizes the characteristics of these crossings, which are public at-grade crossings with gate controls on the vehicular approaches of two of the three crossings. Other characteristics are noted below:

- East 7th Street north of Fruitvale Avenue (US DOT crossing inventory number 749626C) - The crossing has discontinuous sidewalks on both sides of the street with no truncated domes (detectable warning surface). The north sidewalk does not continue west of the crossing. The crossing surface is generally smooth. The eastbound approach includes a stop sign at the at-grade crossing.
- Elmwood Avenue north of Fruitvale Avenue (US DOT crossing inventory number 749625V) - The crossing has a sidewalk on the south side of the street that is discontinuous at the gate equipment with no truncated domes (detectable warning surfaces) on the sidewalk. The north side of the street does not provide a sidewalk across the railroad crossing. The crossing surface is generally smooth.

Table 15: At-Grade Railroad Crossing Inventory

Location	Train Crossing Speed (mph)	# of Train Tracks	# of Traffic Lanes Crossing Railroad	Traffic Control Devices						
				Advance Warning	Pavement Markings	Train Signals	Bells	Gates	Four Quadrant Gates	Overhead Warning Light
East 7th Street, west of Fruitvale Avenue	5-10	1	2	W10-1, W10-3	Yes	No	No	No	No	No
Elmwood Avenue, west of Fruitvale Avenue	5-10	1	2	W10-1	Yes	Yes	Yes	Yes	No	Yes
East 9th Street, west of Fruitvale Avenue	5-10	1	2	W10-1	Yes	Yes	Yes	Yes	No	Yes

Source: Consolidated from US Department of Transportation Federal Railroad Administration Crossing Inventory Forms, 2021; Fehr & Peers, 2022.

- East 9th Street north of Fruitvale Avenue (US DOT crossing inventory number 749623G) - The crossing has a sidewalk on the north side of the crossing that is discontinuous at the gate equipment with no truncated domes (detectable warning surfaces) for pedestrians. The south side of the street does not provide a sidewalk across the railroad crossing. The crossing surface is generally smooth.

The City of Oakland *Fruitvale Alive!* project would update the signage and striping at the three at-grade crossings and install truncated domes on the south sidewalk on Elmwood Avenue and the north sidewalk on East 9th Street on both sides of the railroad crossings.

The accident/incident reports collected by the Federal Railroad Administration for at-grade railroad report no collisions at these three at-grade railroad crossings in the last ten years.

The Project driveway on Fruitvale Avenue opposite East 7th Street would be limited to right-in/ right-out only and is designed to minimize Project-generated traffic added to the East 7th Street at-grade crossing just west of Fruitvale Avenue. Recommendation 9 would install a marked crosswalk with an RRFB across the north approach of the East 7th Street/Fruitvale Avenue intersection, just east of the East 7th Street at-grade crossing.

Considering the expected demand for the pedestrian crossing, the existing and expected traffic volumes on East 7th Street, and the improvements that will be made by the *Fruitvale Alive!* Project at the at-grade crossings, the Project is expected to have minimal effects at the at-grade crossing and no additional improvements are recommended.

8. Conclusion and Summary of Recommendations

Based on our review of the Project site plan and conditions on the surrounding streets, the Project would have adequate automobile, bicycle, pedestrian, and transit access and circulation with the inclusion of the following recommendations:

Recommendation 1: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Install a stop-sign on the southbound 37th Avenue approach at Alameda Avenue

Recommendation 2: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Reduce the width of the Project driveways on Boehmer Street and the north end of 37th Avenue from 26-feet to 24-feet
- To be consistent with the City of Oakland Municipal Code Section 12.04.270, complete one of the following regarding the Project driveway on Alameda Avenue:
    - Reduce the width of the driveway opening to 35 feet
    - If a high volume of large trucks, such as WB-67, is expected, then coordinate with the City of Oakland Driveway Appeals Board to provide a 40-foot driveway

Recommendation 3: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project to improve sight distance:

- Prohibit on-street parking for at least 50 feet on the north side of Alameda Avenue just east of the 37th Avenue extension via signage and design elements as approved by the City of Oakland

Recommendation 4: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Review the Project site plan for the commercial component of the Project at the northwest corner of the Alameda Avenue/37th Avenue intersection to ensure adequate access and circulation for all travel modes
- Ensure that the commercial component of the Project does not include any driveways on Alameda Avenue and that the driveway on 37th Street is located as far to the north as possible

Recommendation 5: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- To reduce potential for cut-through traffic on East 8th Street and Elmwood Avenue east of Fruitvale Avenue, on 36th Avenue, and on 37th Avenue north of Alameda Avenue, implement one or more of the following:
    - Implement traffic calming measures on East 8th Street and Elmwood Avenue east of Fruitvale Avenue, on 36th Avenue, and on 37th Avenue north of Alameda Avenue. One option is the installation of speed bumps. The city of Oakland

requires a petition signed by 2/3 of the addresses on each block to install speed bumps on the block. If the petition is submitted by 2/3 of the addresses on each of the blocks listed above, the Project shall install speed bumps on these blocks consistent with the City's requirements.

- Narrow 37th Avenue between the south Project driveway and Boehmer Avenue to discourage trucks from using the local streets north of the Project site
- Explore installing signage that limits and/or discourages truck access on East 8th Street and Elmwood Avenue and install the signage as approved by OakDOT

Recommendation 6: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Ensure that the Project provides a minimum of 29 PEV-ready and an additional 29 PEV-capable parking spaces

Recommendation 7: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Redesign the realigned segment of Alameda Avenue along the Project frontage to accommodate Class 4 separated bikeways in both directions of Alameda Avenue
- Ensure that the segment of Bay Trail on the re-aligned segment of Alameda Avenue meets the Bay Trail design standards
- Coordinate the design of the Project driveway entrance and exit on Fruitvale Avenue with OakDOT Traffic Engineering and Bike/Ped teams to ensure that the design is coordinated with the new Class 4 separated bikeway on Fruitvale Avenue and with the bicycle movements and pedestrian crossings at this location

Recommendation 8: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Consolidate the long-term bicycle parking spaces in a secure bicycle room or cage within the Project building and near the main building entrance

- Provide at least two showers per gender and four lockers per shower to encourage bicycling

- Install a pedestrian continental crosswalk with an RRFB across the south approach of the East 7th Street/Fruitvale Avenue intersection

Recommendation 9: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Ensure that the sidewalks along the Project frontage and along the new streets proposal by the Project would provide a minimum width of six feet where feasible

- Per City of Oakland requirements, ensure that the Project driveways and new intersections proposed by the Project provide dual directional curb ramps at the intersection corners where appropriate

- Install rapid rectangular flashing beacons (RRFB) at the marked pedestrian crossing across the east approach of the Alameda Avenue/Project Driveway intersection

- Install a pedestrian continental crosswalk with an RRFB across the north approach of the East 7th Street/Fruitvale Avenue intersection and coordinate with OakDOT on the intersection design to facilitate the bicycle and pedestrian crossing movements

Recommendation 10: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Provide direct pedestrian access between the Project building and the proposed bus stops to be located on Fruitvale Avenue north of Alameda Avenue as part of the *Fruitvale Alive!* Project, including an entrance at the southwest corner of the Project building

Please contact Sam Tabibnia (stabibnia@fehrandpeers.com or 510-835-1943) with questions or comments.

ATTACHMENTS

Figure 1 – Project Trip Distribution

Figure 2 –Project Trip Assignment

Figure 3 – Existing Intersection Volumes, Lane Configurations, and Traffic Controls

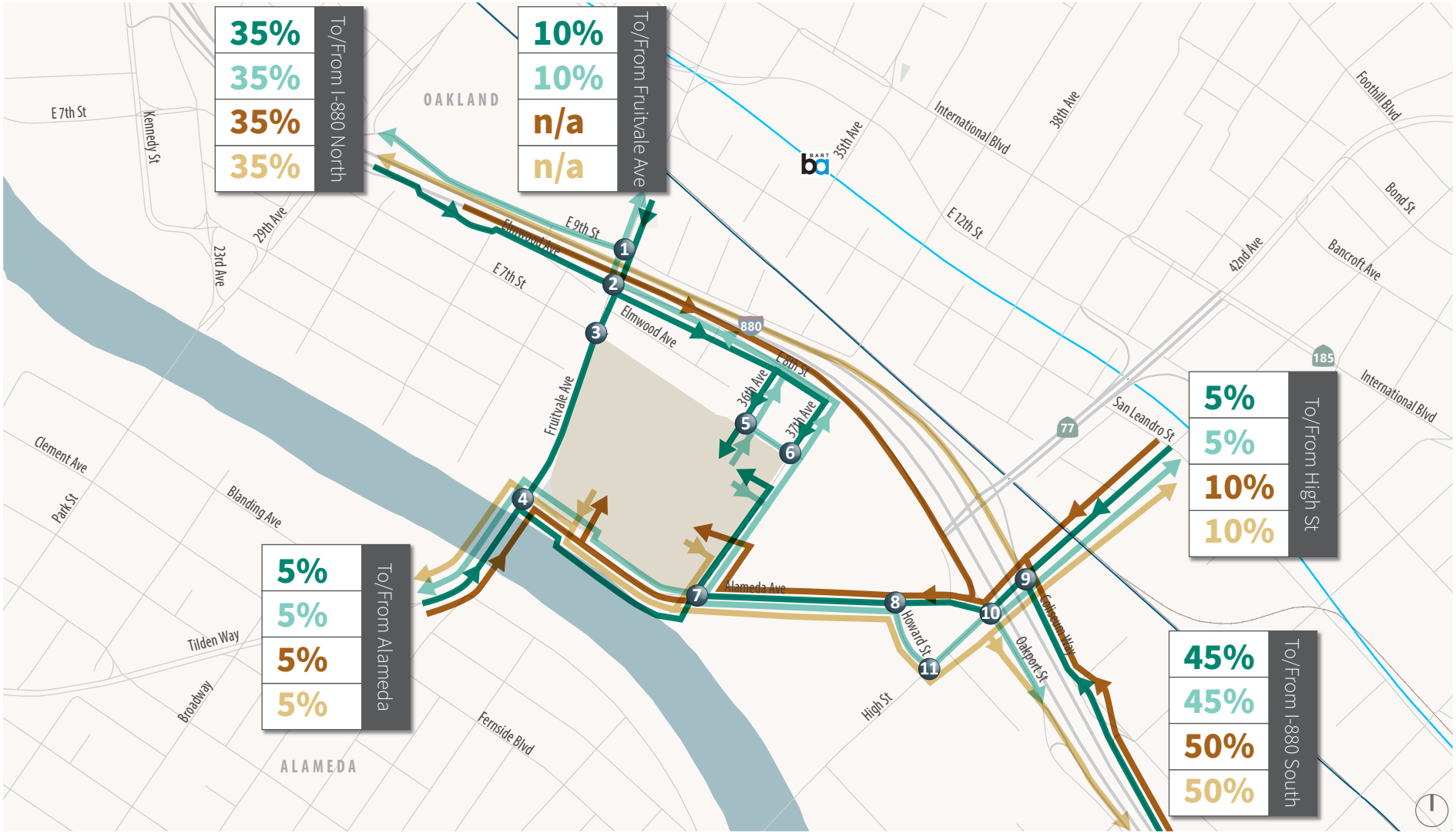
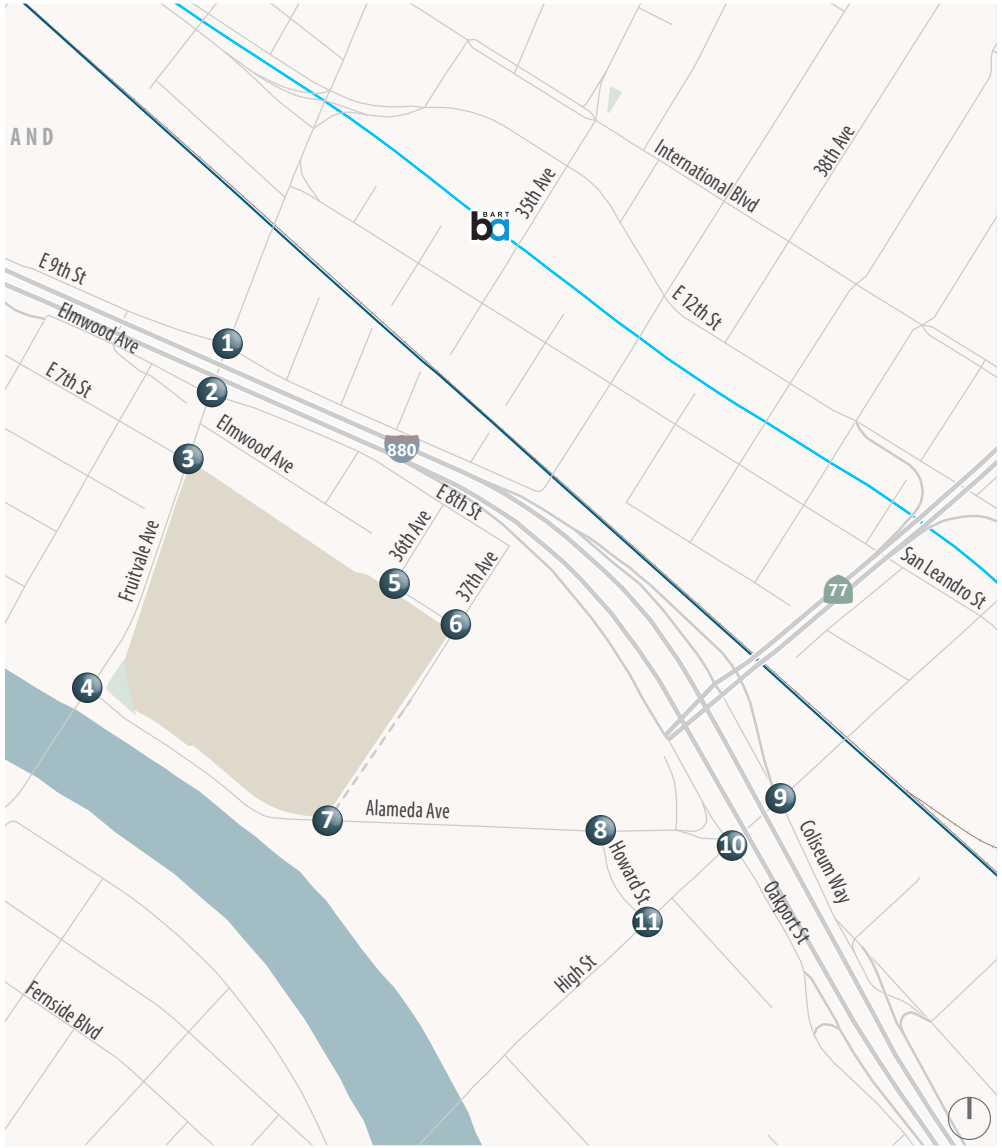
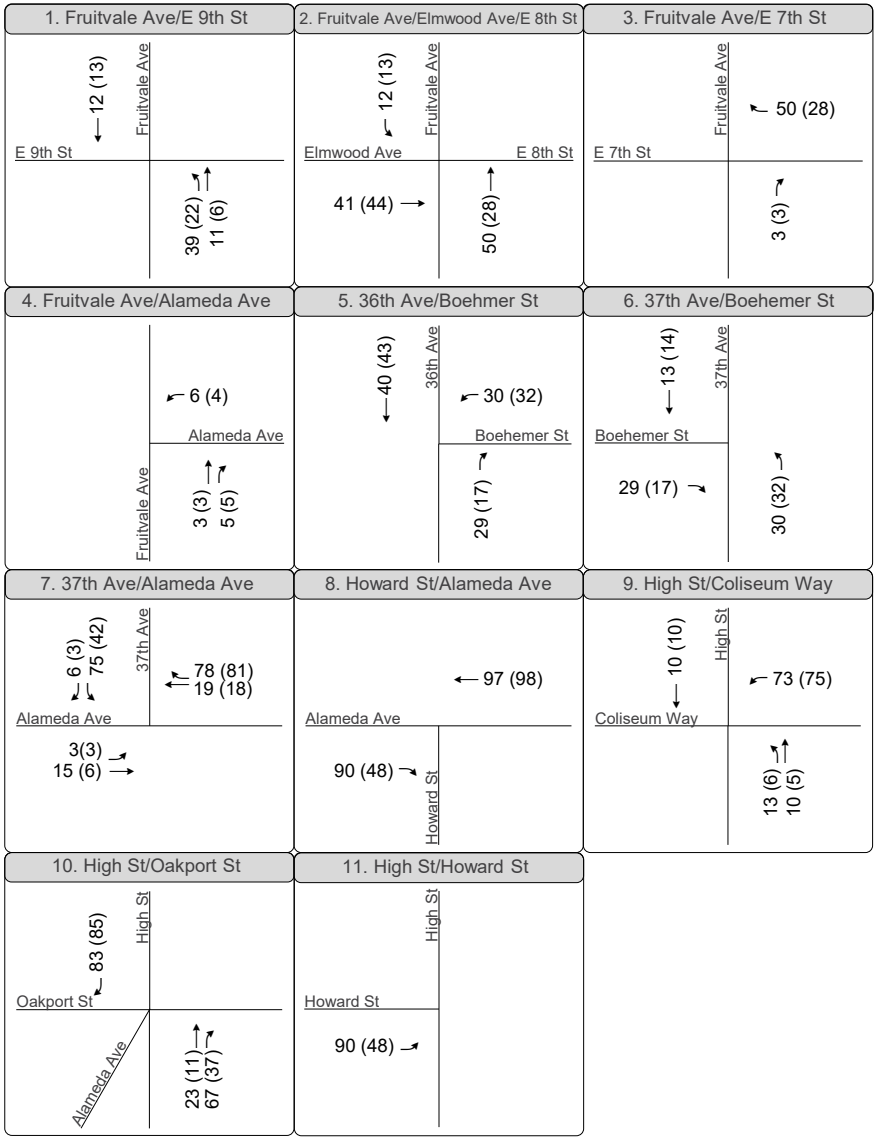


Figure 1

Trip Distribution



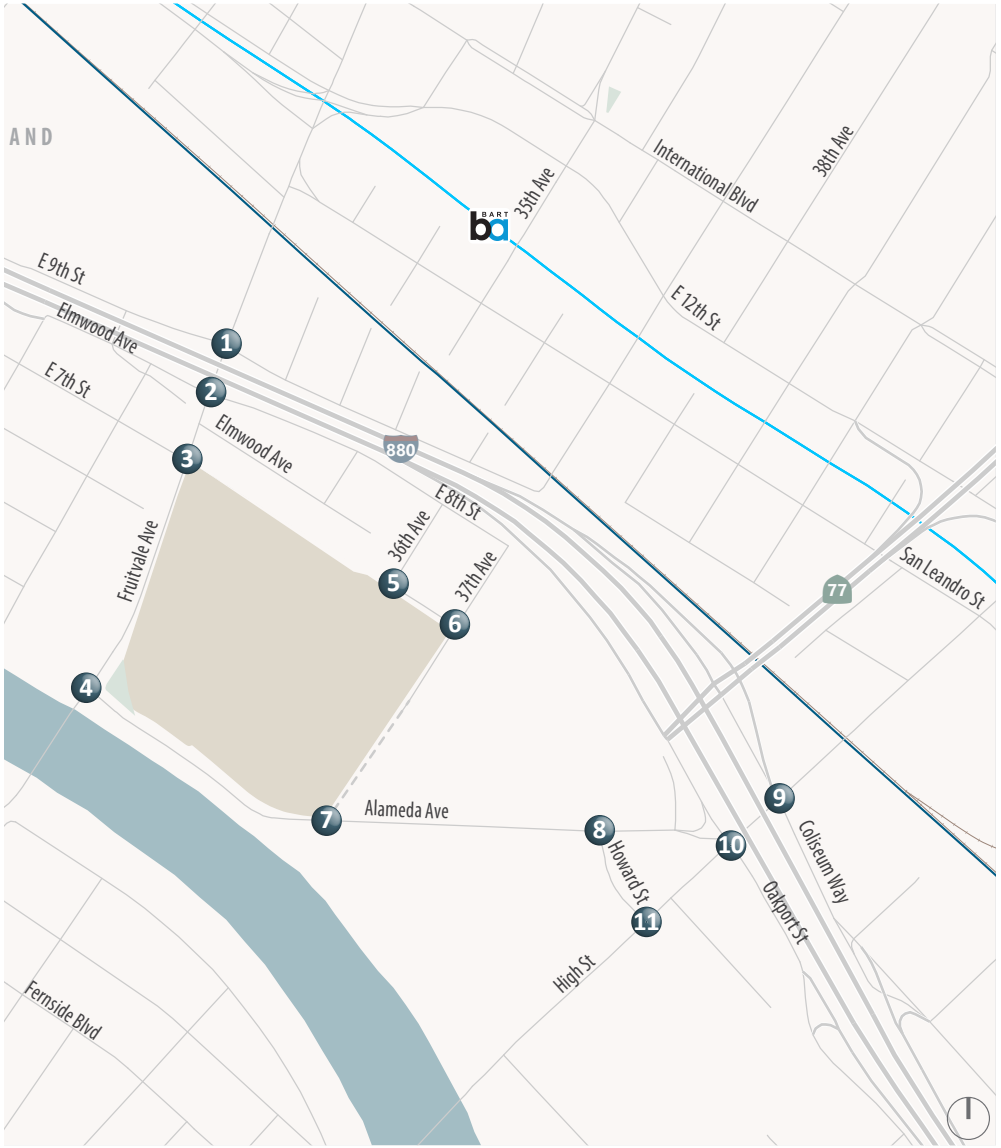


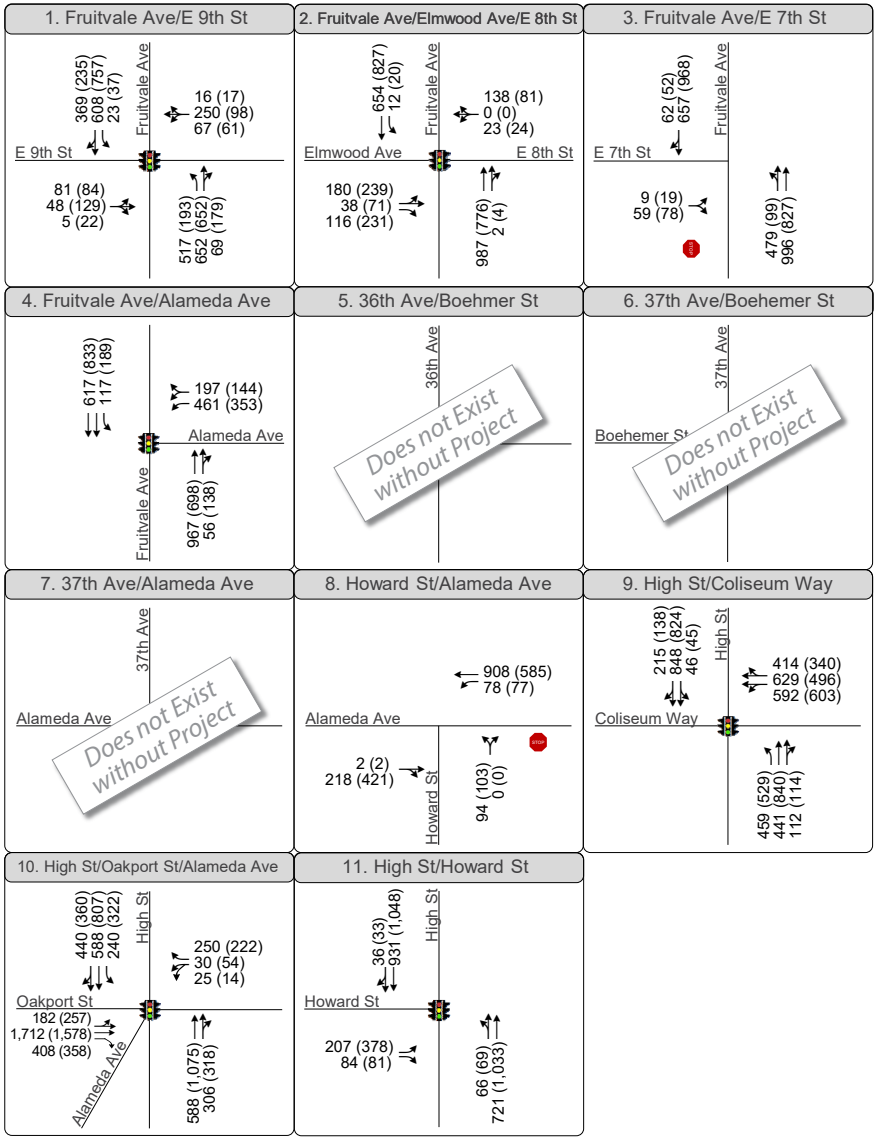
XX (YY) AM (PM) Peak Hour Traffic Volumes

Project Site # Study Intersections

Figure 2

Project Trip Assignment



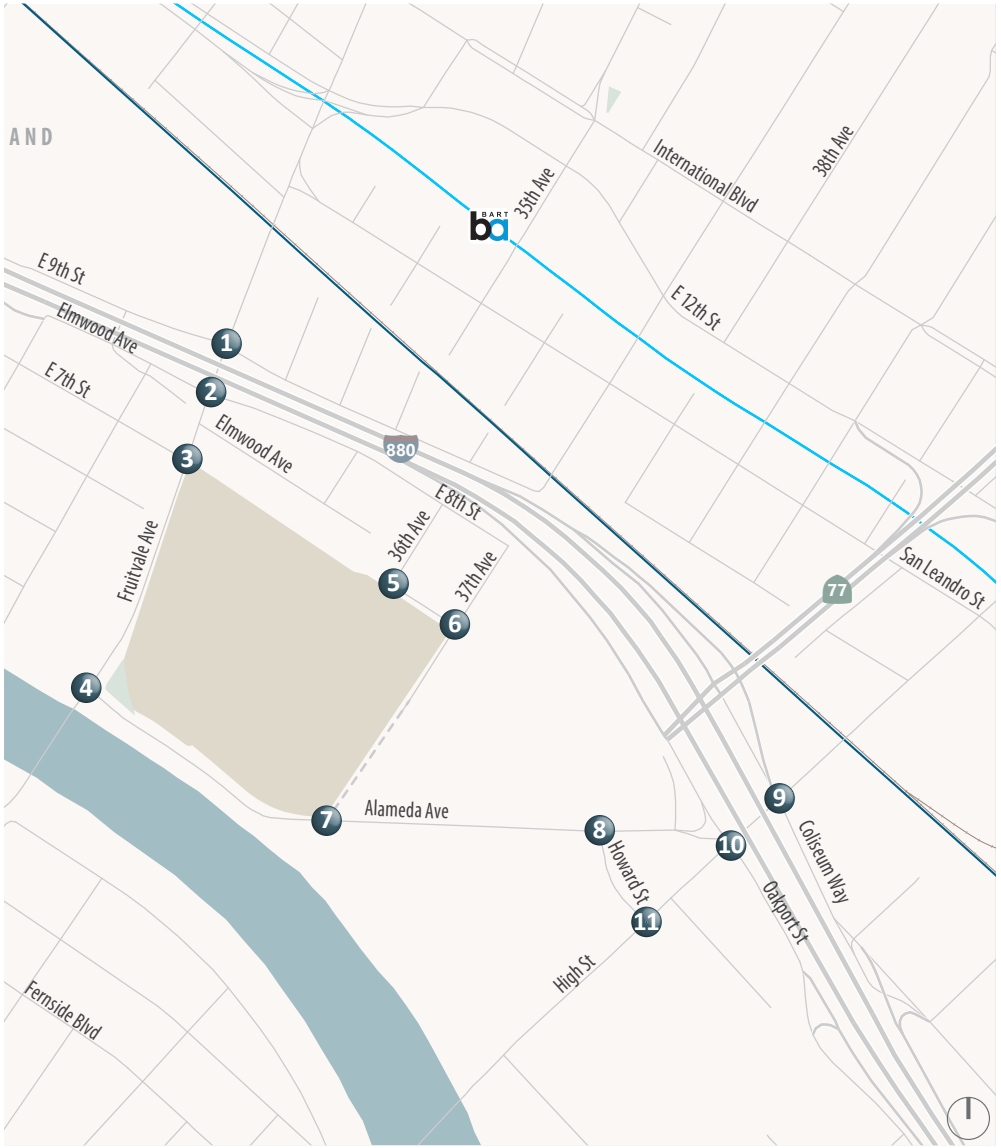


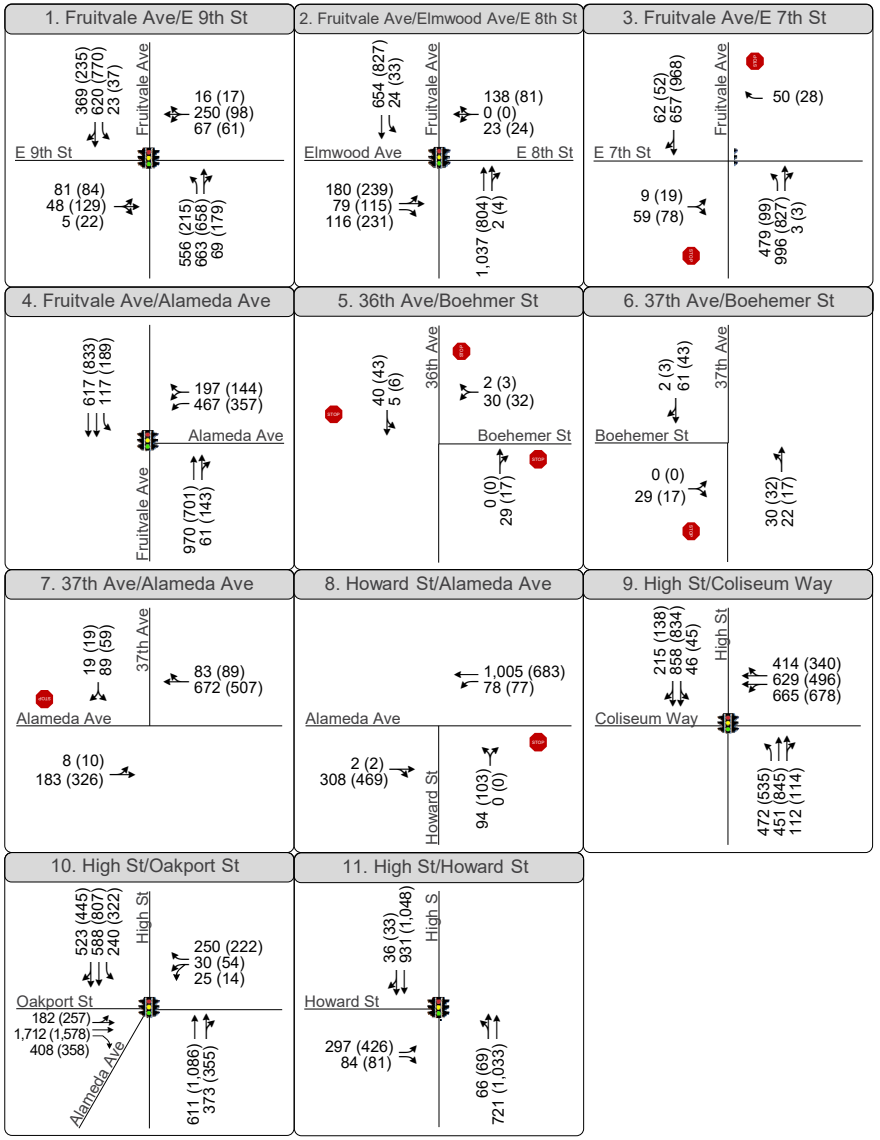
XX (YY) AM (PM) Peak Hour Traffic Volumes Signalized Intersection Stop Sign

Project Site # Study Intersections

Figure 3

Existing
Peak Hour Intersection Volumes, Lane Configurations and Traffic Controls





XX (YY) AM (PM) Peak Hour Traffic Volumes Signalized Intersection Stop Sign

Project Site # Study Intersections

Figure 4

Existing Plus Project
Peak Hour Intersection Volumes, Lane Configurations and Traffic Controls

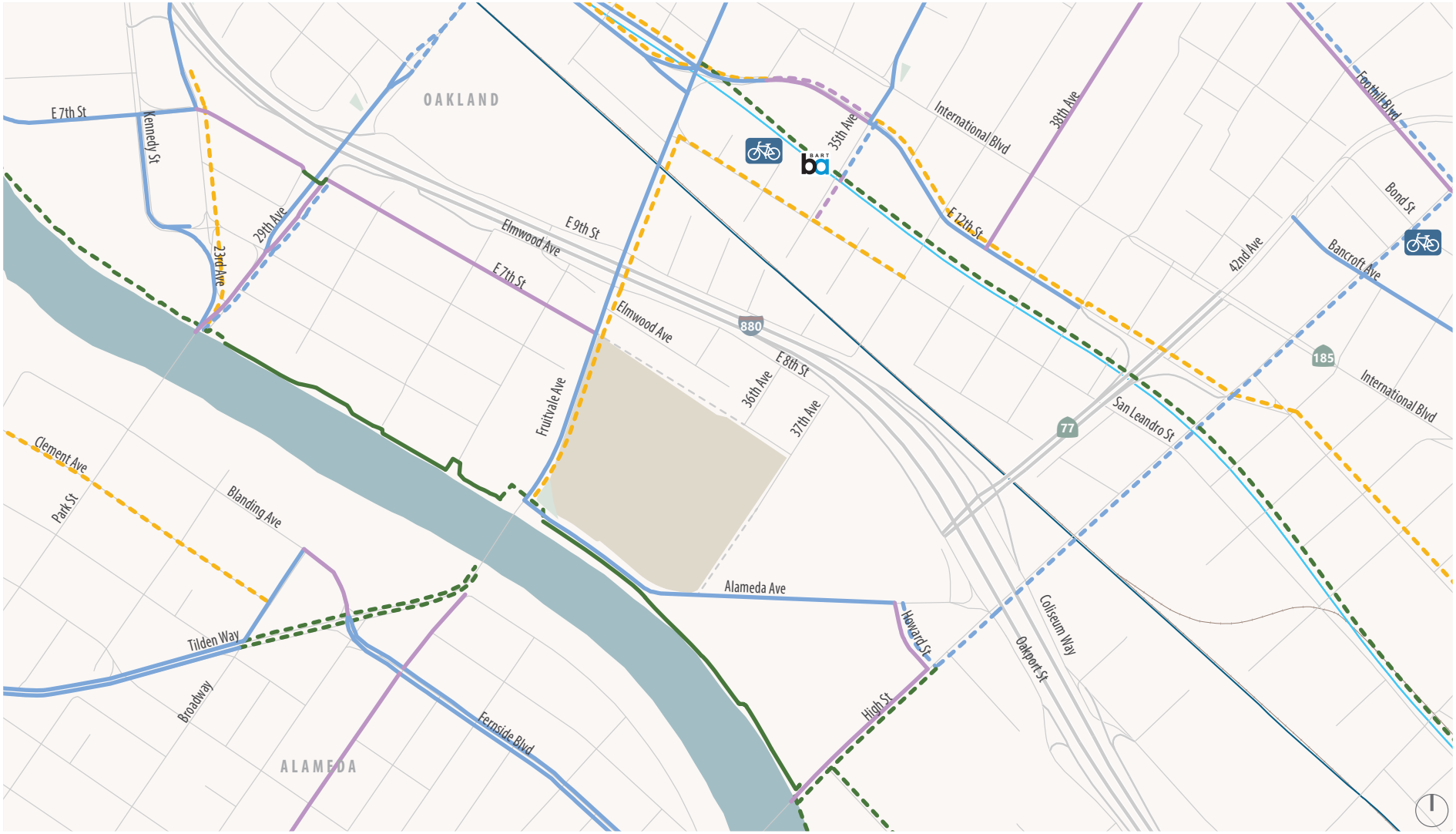
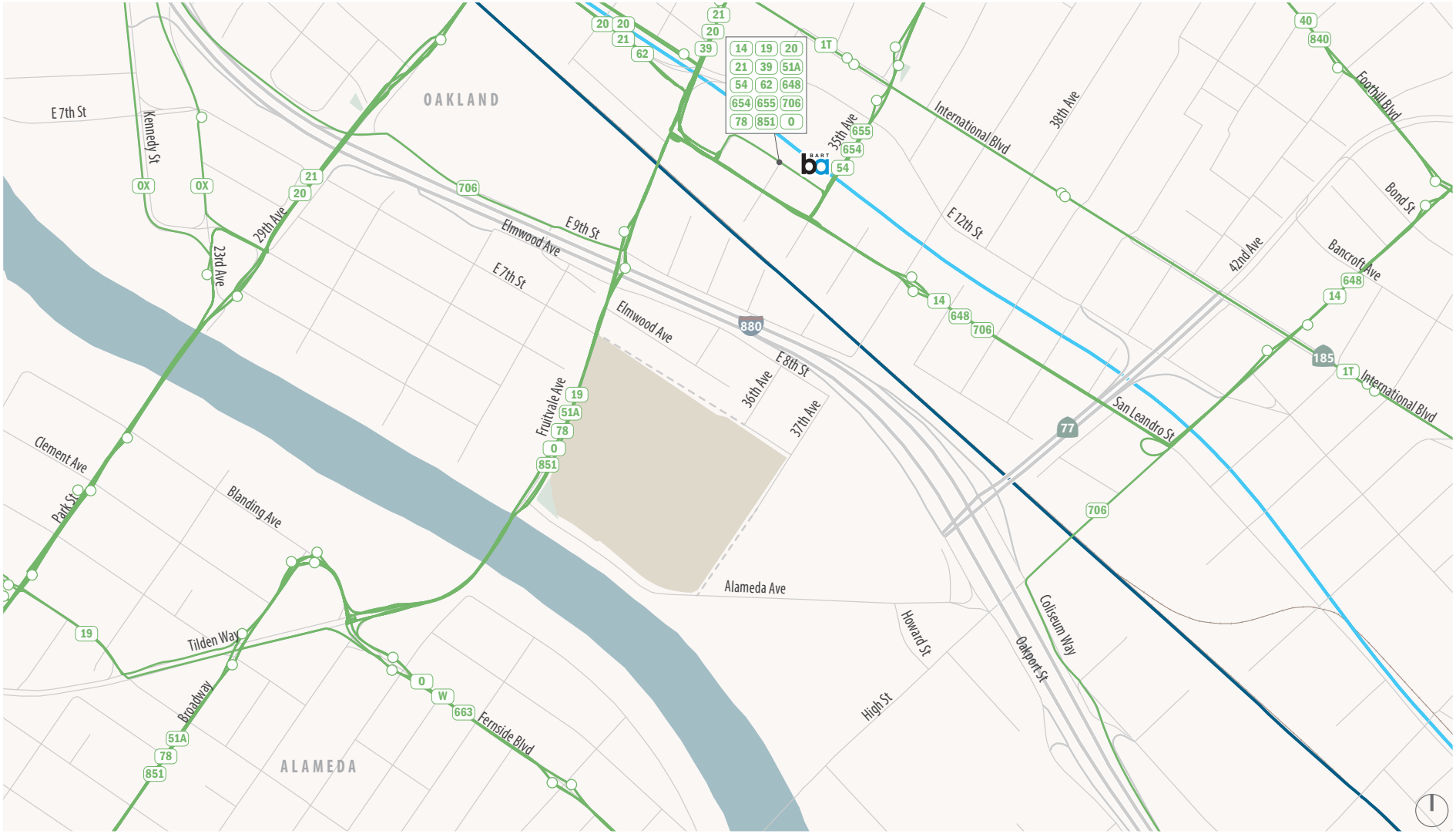


Figure 5

Existing and Proposed Bicycle Facilities



Project Site

BART Line

Amtrak Line

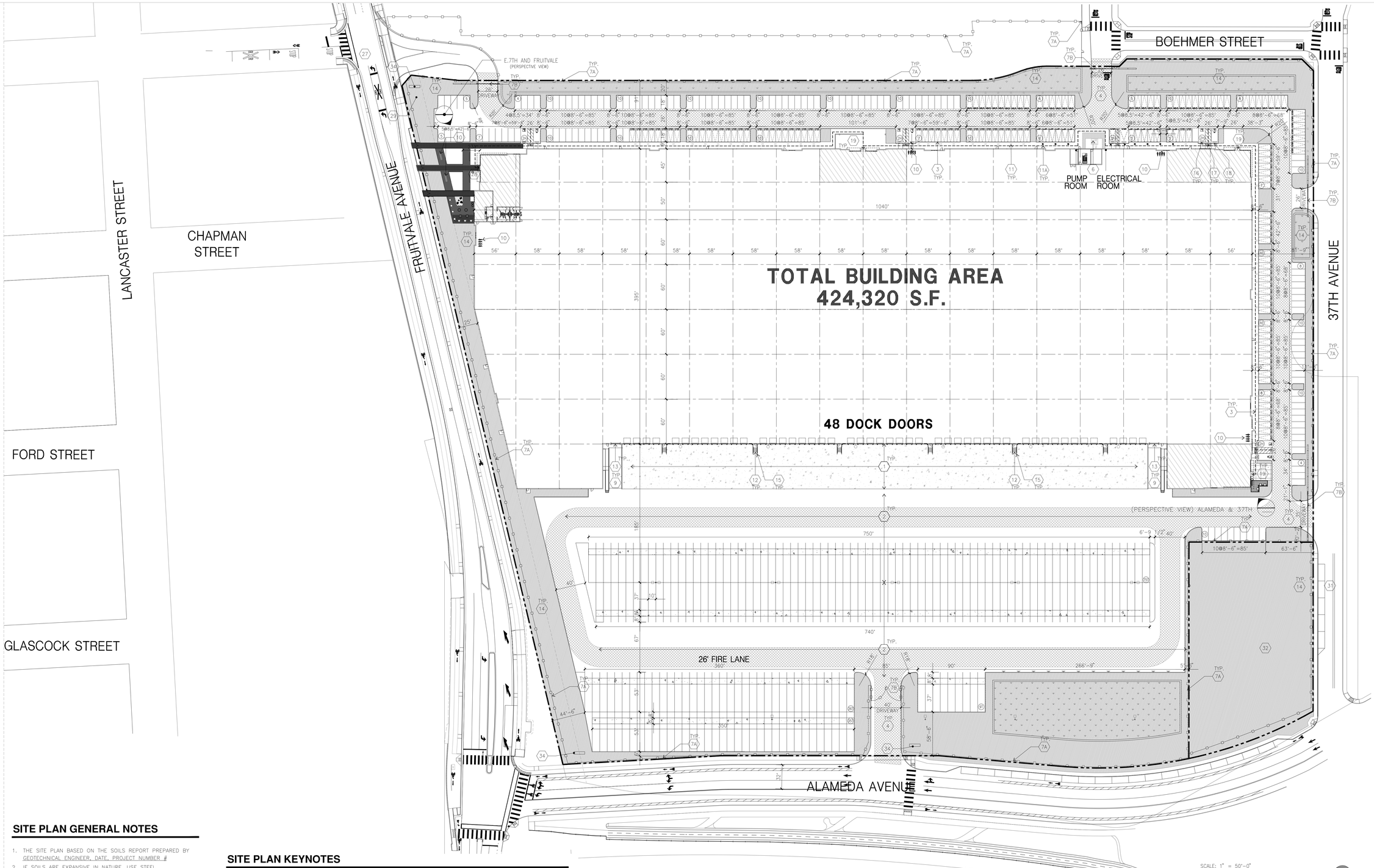
AC Transit Route

Bus Stop

Figure 6

Existing Transit Service

Appendix A:
Project Site Plan



SITE PLAN GENERAL NOTES

1. THE SITE PLAN BASED ON THE SOILS REPORT PREPARED BY GEOTECHNICAL ENGINEER, DATE, PROJECT NUMBER #
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES
5. PROVIDE STRUCTURAL CALCULATION AND CONSTRUCTION ANCHORAGE DETAIL FOR TRANSFORMER PRIOR TO INSTALLATION.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS.
9. SEE "C" DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY W/ 1:20 MAX. SLOPE. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". FINISH TO BE A MEDIUM BROOM FINISH
11. U.N.O. PROVIDE KNOX BOXES AT ALL OFFICE ENTRANCES.
12. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
13. ON-SITE FIRE MAIN, FIRE SPRINKLER, AND SPRINKLER MONITORING SYSTEM SHALL BE SUBMITTED SEPARATELY TO THE FIRE DEPARTMENT FOR REVIEW AND PERMITTING.
14. ALL VERTICAL MOUNTING POLES OF FENCING SHALL BE CAPPED.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB
16. ALL INTERIOR AND EXTERIOR WALK SURFACES TO BE NON-SLIP TYPE

SITE PLAN KEYNOTES

1. HEAVY BROOM FINISH CONCRETE PAVEMENT.
2. ASPHALT CONCRETE (AC) PAVING
3. ACCESSIBLE PATH OF TRAVEL
4. DRIVEWAY APRONS
5. 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH SLOPE TO BE 1/4" : 12" MAX.
6. APPROXIMATE LOCATION OF TRANSFORMER.
7A. 6' HIGH BLACK METAL TUBULAR STEEL SECURITY FENCE. REFER TO DETAIL 1/DAB-A4.1
7B. 6' HIGH BLACK METAL TUBULAR STEEL SECURITY GATE. FOR SLIDING GATE REFER TO DETAIL 5/DAB-A4.1, FOR SWING GATES REFER TO DETAIL 6/DAB-A4.1.
8. CONCRETE WALKWAY, MEDIUM BROOM FINISH.
9. CONCRETE RAMP WITH CONCRETE GUARD WALL.
10. BIKE RACK.
11. ELECTRIC VEHICLE CAPABLE FUTURE CHARGERS.
11A. ELECTRIC VEHICLE CHARGERS.
12. EXTERIOR METAL STEEL STAIR.
13. 12' x 14' DRIVE-IN DOOR
14. LANDSCAPE.
15. CONC. FILLED GUARD POST 6" DIA. U.N.O. 48" H.
16. PRE-CAST CONC. WHEEL STOP.
17. TRUNCATED DOMES.
18. ACCESSIBLE PARKING STALL SIGN.
19. HARDSCAPE AT ENTRANCE.
20. ACCESSIBLE ENTRY SIGN.
21. PUMP ROOM.
22. AREA DEDICATED FOR FUTURE ALAMEDA STREET REALIGNMENT AND/OR PUBLIC PARK/ WATERFRONT USE
23. ELECTRICAL ROOM.
24. EXTERIOR SEATING AREA.
25. CONCRETE DOLLY PAD.
26. METAL POST
27. NEW TRAFFIC SIGNAL
28. PLAZA AND PRIMARY OFFICE ENTRY
29. FUTURE PUBLIC ART
30. FOOD TRUCK
31. DEDICATED RIGHT OF WAY
32. FUTURE RETAIL
33. OFF SITE LANDSCAPING TO BE PROVIDED
34. POTENTIAL MONUMENT SIGN
35. POLE MOUNTED LED LIGHT FIXTURE
36. BUILDING MOUNTED LED LIGHT FIXTURE

SITE PLAN GENERAL NOTES

- CONCRETE PAVING. SEE "C" DRWGS. FOR THICKNESS
- STANDARD PARKING STALL 8'-6" X 18'
- CLEAN AIR/VANPOOL/EV WITH CHARGER
- CLEAN AIR/ VANPOOL/EV WITHOUT CHARGER
- TRAILER PARKING (10' X 53')
- (#) NUMBER OF PARKING STALLS
- LANDSCAPED AREA
- EXISTING PROPERTY LINE
- ULTIMATE PROPERTY LINE
- ACCESSIBLE PARKING STALL (9' X 20') ACCESSIBLE AISLE
- ACCESSIBLE PARKING (VAN) STALL (9' X 20') + 8' W/ ACCESSIBLE AISLE
- PATH OF TRAVEL. MINIMUM WIDTH TO BE 4'. SLOPE NOT TO EXCEED 5% IN THE DIRECTION OF TRAVEL AND CROSS SLOPE NOT TO EXCEED 2%. SEE CIVIL FOR GRADING PLAN
- METAL TUBULAR STEEL SECURITY FENCE
- POTENTIAL OFFICE

NOTE: SITE LIGHTING LOCATIONS INDICATED ON SITE PLAN. SEE EXTERIOR ELEVATIONS AND FRUITVALE MAIN ENTRANCE EXHIBIT FOR PROPOSED EXTERIOR WALL LIGHTING. IMAGE OF PROPOSED PEDESTRIAN LIGHT CAN ALSO BE FOUND ON FRUITVALE MAIN ENTRANCE EXHIBIT.

OVERALL SITE PLAN A
scale: 1"=50'-0"

SCALE: 1" = 50'-0"
0 50' 100' 150'
TRUE NORTH

HPA architecture 43 Years
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Owner:
PROLOGIS®
PIER 1, BAY 1
SAN FRANCISCO
CA 94111

Project:
3600 Alameda Ave
3600 ALAMEDA AVE.
OAKLAND, CA

Consultants:

CIVIL	KIER & WRIGHT
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	HMH
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: OVERALL SITE PLAN

Project Number:	20387
Drawn by:	TSP
Date:	6/10/2022
Revision:	

Sheet:
DAB-A1.1

Appendix B: Intersection Traffic Volume Counts

Intersection 1 - Fruitvale & E 9th St														
Day Type	Time	NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			
		NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBL2	WBT	WBR
1: Midweek (Tu-Th)	00: 12:00am-12:15am	4	30	2	1	3	1	1	17	5	0	0	3	0
1: Midweek (Tu-Th)	01: 12:15am-12:30am	3	20	1	0	3	0	1	13	4	0	0	2	1
1: Midweek (Tu-Th)	02: 12:30am-12:45am	3	20	1	1	2	0	1	10	3	0	0	1	1
1: Midweek (Tu-Th)	03: 12:45am-1:00am	2	33	1	1	1	0	1	8	3	0	0	2	1
1: Midweek (Tu-Th)	04: 1:00am-1:15am	1	20	0	1	1	0	1	7	4	0	0	1	1
1: Midweek (Tu-Th)	05: 1:15am-1:30am	2	21	0	1	2	0	1	8	3	0	0	2	0
1: Midweek (Tu-Th)	06: 1:30am-1:45am	1	13	1	1	1	0	1	11	3	0	0	3	0
1: Midweek (Tu-Th)	07: 1:45am-2:00am	2	14	0	0	1	0	1	7	3	0	0	2	0
1: Midweek (Tu-Th)	08: 2:00am-2:15am	2	13	0	0	1	0	1	6	2	0	0	0	0
1: Midweek (Tu-Th)	09: 2:15am-2:30am	2	11	0	0	2	0	0	8	2	0	0	1	0
1: Midweek (Tu-Th)	10: 2:30am-2:45am	2	9	0	1	1	0	0	6	3	0	0	1	0
1: Midweek (Tu-Th)	11: 2:45am-3:00am	1	8	0	1	1	0	1	11	2	0	0	1	0
1: Midweek (Tu-Th)	12: 3:00am-3:15am	1	7	0	0	1	0	1	30	1	0	0	1	0
1: Midweek (Tu-Th)	13: 3:15am-3:30am	2	7	0	0	1	0	1	11	2	0	0	1	0
1: Midweek (Tu-Th)	14: 3:30am-3:45am	2	10	0	1	2	0	1	5	3	0	0	1	0
1: Midweek (Tu-Th)	15: 3:45am-4:00am	2	15	0	0	2	0	0	5	4	1	0	1	0
1: Midweek (Tu-Th)	16: 4:00am-4:15am	3	30	1	1	1	0	1	8	7	2	0	1	0
1: Midweek (Tu-Th)	17: 4:15am-4:30am	3	14	1	1	1	0	1	10	13	2	0	2	0
1: Midweek (Tu-Th)	18: 4:30am-4:45am	4	8	2	1	2	1	1	11	30	1	0	3	0
1: Midweek (Tu-Th)	19: 4:45am-5:00am	8	12	2	1	3	2	2	15	23	1	0	4	0
1: Midweek (Tu-Th)	20: 5:00am-5:15am	9	26	3	1	2	2	2	16	21	0	0	6	0
1: Midweek (Tu-Th)	21: 5:15am-5:30am	10	23	2	1	2	1	2	15	23	1	0	8	0
1: Midweek (Tu-Th)	22: 5:30am-5:45am	15	46	2	2	3	0	2	15	51	3	0	11	0
1: Midweek (Tu-Th)	23: 5:45am-6:00am	21	33	1	4	2	0	3	22	50	2	0	18	0
1: Midweek (Tu-Th)	24: 6:00am-6:15am	18	44	2	5	3	1	2	48	39	3	0	16	0
1: Midweek (Tu-Th)	25: 6:15am-6:30am	21	34	2	5	7	2	2	31	37	5	0	14	0
1: Midweek (Tu-Th)	26: 6:30am-6:45am	20	41	4	7	8	2	3	53	45	11	0	12	1
1: Midweek (Tu-Th)	27: 6:45am-7:00am	32	103	5	10	5	1	3	66	57	11	0	16	1
1: Midweek (Tu-Th)	28: 7:00am-7:15am	47	90	4	8	7	2	3	64	64	11	0	23	2
1: Midweek (Tu-Th)	29: 7:15am-7:30am	62	122	5	10	9	2	5	85	89	18	0	31	2
1: Midweek (Tu-Th)	30: 7:30am-7:45am	114	155	10	13	10	1	6	155	86	28	0	58	3
1: Midweek (Tu-Th)	31: 7:45am-8:00am	114	167	14	27	9	1	7	188	105	15	0	68	4
1: Midweek (Tu-Th)	32: 8:00am-8:15am	154	173	18	23	11	1	6	153	94	11	0	57	5
1: Midweek (Tu-Th)	33: 8:15am-8:30am	135	157	27	18	18	2	4	112	84	13	0	67	4
1: Midweek (Tu-Th)	34: 8:30am-8:45am	130	153	27	14	19	1	4	108	102	24	0	51	2
1: Midweek (Tu-Th)	35: 8:45am-9:00am	115	183	20	12	13	1	5	145	84	13	0	70	2
1: Midweek (Tu-Th)	36: 9:00am-9:15am	104	160	12	12	13	2	5	119	64	9	0	47	2
1: Midweek (Tu-Th)	37: 9:15am-9:30am	91	123	8	12	14	2	4	87	72	7	0	33	3
1: Midweek (Tu-Th)	38: 9:30am-9:45am	83	128	10	11	14	2	3	89	57	6	0	26	3
1: Midweek (Tu-Th)	39: 9:45am-10:00am	81	181	10	11	13	3	4	107	63	7	0	23	2
1: Midweek (Tu-Th)	40: 10:00am-10:15am	66	112	13	11	11	2	4	85	55	9	0	23	2
1: Midweek (Tu-Th)	41: 10:15am-10:30am	68	114	17	12	11	2	3	91	60	8	0	18	2
1: Midweek (Tu-Th)	42: 10:30am-10:45am	54	105	20	12	11	3	4	79	56	5	0	18	2
1: Midweek (Tu-Th)	43: 10:45am-11:00am	53	110	17	14	9	3	5	108	76	8	0	22	2
1: Midweek (Tu-Th)	44: 11:00am-11:15am	55	113	20	16	10	5	4	89	58	11	0	20	2
1: Midweek (Tu-Th)	45: 11:15am-11:30am	56	104	17	14	14	5	4	89	49	9	0	21	2
1: Midweek (Tu-Th)	46: 11:30am-11:45am	42	107	21	15	13	4	4	102	57	8	0	22	3
1: Midweek (Tu-Th)	47: 11:45am-12:00noon	40	112	25	19	12	3	4	95	56	6	0	22	3
1: Midweek (Tu-Th)	48: 12:00noon-12:15noon	34	120	20	19	13	5	6	88	57	7	0	21	2
1: Midweek (Tu-Th)	49: 12:15noon-12:30noon	44	116	22	16	16	4	5	101	58	11	0	23	2
1: Midweek (Tu-Th)	50: 12:30noon-12:45noon	46	122	34	17	18	3	6	112	60	10	0	23	3
1: Midweek (Tu-Th)	51: 12:45noon-1:00pm	39	116	20	23	20	3	6	112	56	9	0	24	4
1: Midweek (Tu-Th)	52: 1:00pm-1:15pm	52	124	25	19	17	4	4	109	52	8	0	21	4
1: Midweek (Tu-Th)	53: 1:15pm-1:30pm	45	114	34	19	18	4	4	91	56	9	0	29	4
1: Midweek (Tu-Th)	54: 1:30pm-1:45pm	49	136	24	21	22	3	4	111	59	10	0	22	4
1: Midweek (Tu-Th)	55: 1:45pm-2:00pm	62	134	27	18	20	4	4	87	48	12	0	26	4
1: Midweek (Tu-Th)	56: 2:00pm-2:15pm	58	120	28	18	22	4	6	88	55	12	0	25	3
1: Midweek (Tu-Th)	57: 2:15pm-2:30pm	51	154	32	22	20	3	6	103	54	10	0	17	3
1: Midweek (Tu-Th)	58: 2:30pm-2:45pm	53	136	31	20	17	3	5	111	56	10	0	27	4
1: Midweek (Tu-Th)	59: 2:45pm-3:00pm	58	145	33	19	16	5	7	121	64	9	0	29	4
1: Midweek (Tu-Th)	60: 3:00pm-3:15pm	52	153	37	25	21	4	7	115	58	7	0	27	3
1: Midweek (Tu-Th)	61: 3:15pm-3:30pm	47	149	42	24	38	5	7	119	52	6	0	21	3
1: Midweek (Tu-Th)	62: 3:30pm-3:45pm	56	153	61	26	31	5	5	158	49	7	0	19	3
1: Midweek (Tu-Th)	63: 3:45pm-4:00pm	53	167	44	20	29	5	6	114	53	8	0	18	4
1: Midweek (Tu-Th)	64: 4:00pm-4:15pm	47	194	33	23	29	4	8	135	61	9	0	17	4
1: Midweek (Tu-Th)	65: 4:15pm-4:30pm	62	177	34	22	29	4	9	143	58	10	0	21	5
1: Midweek (Tu-Th)	66: 4:30pm-4:45pm	47	158	28	27	24	7	7	159	60	18	0	19	4
1: Midweek (Tu-Th)	67: 4:45pm-5:00pm	47	175	37	21	32	8	7	161	44	19	0	20	3
1: Midweek (Tu-Th)	68: 5:00pm-5:15pm	43	165	34	24	27	7	6	185	52	12	0	18	4
1: Midweek (Tu-Th)	69: 5:15pm-5:30pm	44	153	48	18	28	6	7	173	74	10	0	37	6

1: Midweek (Tu-Th)	70: 5:30pm-5:45pm	49	162	41	20	38	6	8	199	55	12	0	26	5
1: Midweek (Tu-Th)	71: 5:45pm-6:00pm	55	166	58	24	32	6	8	200	64	16	0	28	4
1: Midweek (Tu-Th)	72: 6:00pm-6:15pm	44	141	43	21	28	5	10	181	57	18	0	21	4
1: Midweek (Tu-Th)	73: 6:15pm-6:30pm	45	183	37	19	31	5	11	177	59	15	0	23	4
1: Midweek (Tu-Th)	74: 6:30pm-6:45pm	43	159	33	19	28	4	9	164	52	15	0	20	3
1: Midweek (Tu-Th)	75: 6:45pm-7:00pm	44	154	30	24	19	3	7	141	55	19	0	22	4
1: Midweek (Tu-Th)	76: 7:00pm-7:15pm	39	141	44	17	25	3	7	160	50	32	0	21	3
1: Midweek (Tu-Th)	77: 7:15pm-7:30pm	32	138	52	23	25	3	6	144	40	15	0	19	2
1: Midweek (Tu-Th)	78: 7:30pm-7:45pm	30	100	35	17	21	3	5	143	38	9	0	14	3
1: Midweek (Tu-Th)	79: 7:45pm-8:00pm	26	120	24	18	22	3	4	144	32	7	0	14	3
1: Midweek (Tu-Th)	80: 8:00pm-8:15pm	33	118	21	13	15	3	4	125	32	5	0	14	2
1: Midweek (Tu-Th)	81: 8:15pm-8:30pm	24	122	19	12	14	2	4	98	31	5	0	14	2
1: Midweek (Tu-Th)	82: 8:30pm-8:45pm	27	102	18	12	13	3	4	84	26	4	0	14	2
1: Midweek (Tu-Th)	83: 8:45pm-9:00pm	20	113	18	13	11	3	4	87	41	4	0	13	2
1: Midweek (Tu-Th)	84: 9:00pm-9:15pm	19	112	22	12	10	1	4	88	24	6	0	11	3
1: Midweek (Tu-Th)	85: 9:15pm-9:30pm	19	111	16	12	11	2	3	71	26	4	0	11	2
1: Midweek (Tu-Th)	86: 9:30pm-9:45pm	17	89	15	11	10	3	3	66	25	2	0	10	2
1: Midweek (Tu-Th)	87: 9:45pm-10:00pm	13	96	21	9	10	1	3	70	20	2	0	10	1
1: Midweek (Tu-Th)	88: 10:00pm-10:15pm	11	91	12	7	8	0	3	70	17	2	0	10	2
1: Midweek (Tu-Th)	89: 10:15pm-10:30pm	17	73	8	6	7	1	2	56	21	2	0	10	2
1: Midweek (Tu-Th)	90: 10:30pm-10:45pm	12	63	6	4	8	0	2	37	17	2	0	9	3
1: Midweek (Tu-Th)	91: 10:45pm-11:00pm	8	44	5	3	5	1	2	43	15	1	0	7	3
Peak Hour AM	7:30am-8:30am	517	652	69	81	48	5	23	608	369	67	-	250	16
Peak Hour PM	5:30pm-6:30pm	193	652	179	84	129	22	37	757	235	61	-	98	17

Note: Data collected by Streetlight for February 1st-June 1st and September 1st-November 15th, 2019. AM and PM peak hours are highlighted in green.

Intersection 2 - Fruitvale Ave & E 8th St														
Day Type	Time	NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			
		NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBL2	WBT	WBR
1: Midwee	00: 12:00am-12:15a	0	23	0	10	1	10	0	19	0	1	0	0	2
1: Midwee	01: 12:15am-12:30a	0	15	0	8	0	8	0	15	0	0	0	0	3
1: Midwee	02: 12:30am-12:45a	0	17	0	4	2	6	0	11	0	1	0	0	3
1: Midwee	03: 12:45am-1:00am	0	31	0	4	2	3	0	8	0	0	0	0	3
1: Midwee	04: 1:00am-1:15am	0	18	0	3	0	3	0	8	0	0	0	0	3
1: Midwee	05: 1:15am-1:30am	0	18	0	3	0	3	0	8	0	0	0	0	2
1: Midwee	06: 1:30am-1:45am	0	10	0	2	0	4	0	10	0	0	0	0	2
1: Midwee	07: 1:45am-2:00am	0	10	0	3	0	3	0	7	0	0	0	0	3
1: Midwee	08: 2:00am-2:15am	0	10	0	3	0	4	0	8	0	0	0	0	3
1: Midwee	09: 2:15am-2:30am	0	8	0	3	0	3	0	9	0	0	0	0	2
1: Midwee	10: 2:30am-2:45am	0	6	0	4	0	4	0	7	0	0	0	0	2
1: Midwee	11: 2:45am-3:00am	0	5	0	3	0	3	0	11	0	0	0	0	1
1: Midwee	12: 3:00am-3:15am	0	5	0	2	0	2	1	30	0	0	0	0	2
1: Midwee	13: 3:15am-3:30am	0	4	0	3	0	2	0	12	0	0	0	0	3
1: Midwee	14: 3:30am-3:45am	0	7	0	4	0	1	0	5	0	0	0	0	3
1: Midwee	15: 3:45am-4:00am	0	12	0	3	0	1	0	6	0	0	0	0	3
1: Midwee	16: 4:00am-4:15am	0	26	0	2	0	2	0	10	0	0	0	0	5
1: Midwee	17: 4:15am-4:30am	0	13	0	4	1	2	0	13	0	1	0	0	3
1: Midwee	18: 4:30am-4:45am	0	8	0	5	2	4	0	14	0	1	0	0	3
1: Midwee	19: 4:45am-5:00am	0	12	0	6	1	8	1	20	0	1	0	0	5
1: Midwee	20: 5:00am-5:15am	0	27	0	7	2	7	0	17	0	0	0	0	3
1: Midwee	21: 5:15am-5:30am	0	19	0	7	3	7	0	15	0	0	0	0	5
1: Midwee	22: 5:30am-5:45am	0	42	0	10	2	7	0	19	0	0	0	0	6
1: Midwee	23: 5:45am-6:00am	0	38	0	18	4	10	0	24	0	0	0	0	4
1: Midwee	24: 6:00am-6:15am	0	42	0	17	5	13	1	49	0	1	0	0	5
1: Midwee	25: 6:15am-6:30am	0	40	0	22	4	15	1	40	0	1	0	0	8
1: Midwee	26: 6:30am-6:45am	0	49	0	19	3	17	1	63	0	3	0	0	10
1: Midwee	27: 6:45am-7:00am	0	113	0	25	6	21	1	83	0	5	0	0	11
1: Midwee	28: 7:00am-7:15am	0	118	0	16	6	39	3	71	0	5	0	0	13
1: Midwee	29: 7:15am-7:30am	0	147	0	33	5	19	5	93	0	7	0	0	16
1: Midwee	30: 7:30am-7:45am	0	230	1	41	6	19	3	173	0	8	0	0	28
1: Midwee	31: 7:45am-8:00am	0	230	0	48	10	29	3	200	0	7	0	0	36
1: Midwee	32: 8:00am-8:15am	0	270	0	53	11	36	3	164	0	5	0	0	37
1: Midwee	33: 8:15am-8:30am	0	257	1	38	11	32	3	117	0	3	0	0	37
1: Midwee	34: 8:30am-8:45am	0	265	0	32	9	20	3	130	0	6	0	0	28
1: Midwee	35: 8:45am-9:00am	0	255	0	38	9	40	3	155	0	7	0	0	37
1: Midwee	36: 9:00am-9:15am	0	213	0	46	8	41	1	132	0	6	0	0	26
1: Midwee	37: 9:15am-9:30am	0	174	1	32	7	37	1	96	0	5	0	0	30
1: Midwee	38: 9:30am-9:45am	0	176	1	28	6	30	1	101	0	5	0	0	22
1: Midwee	39: 9:45am-10:00am	0	222	1	34	8	47	1	118	0	5	0	0	25
1: Midwee	40: 10:00am-10:15a	0	154	1	26	9	24	1	90	0	6	0	0	22
1: Midwee	41: 10:15am-10:30a	0	147	1	38	9	32	1	106	0	6	0	0	26
1: Midwee	42: 10:30am-10:45a	0	130	1	34	10	30	1	83	0	5	0	0	22
1: Midwee	43: 10:45am-11:00a	0	128	1	36	10	35	2	116	0	5	0	0	30
1: Midwee	44: 11:00am-11:15a	0	127	0	41	10	46	1	110	0	6	0	0	26
1: Midwee	45: 11:15am-11:30a	0	126	0	46	12	51	1	106	0	5	0	0	23
1: Midwee	46: 11:30am-11:45a	0	124	0	35	10	38	1	119	0	5	0	0	20
1: Midwee	47: 11:45am-12:00n	0	127	1	32	9	41	1	102	0	6	0	0	23
1: Midwee	48: 12:00noon-12:1	0	120	1	44	10	68	0	103	0	7	0	0	18
1: Midwee	49: 12:15noon-12:3	0	128	1	45	11	51	1	125	0	6	0	0	20
1: Midwee	50: 12:30noon-12:4	0	144	1	40	9	58	1	120	0	6	0	0	23
1: Midwee	51: 12:45noon-1:00	0	119	1	41	9	43	1	130	0	6	0	0	23
1: Midwee	52: 1:00pm-1:15pm	0	144	0	44	8	52	3	114	0	5	0	0	24
1: Midwee	53: 1:15pm-1:30pm	0	138	1	39	9	52	3	107	0	3	0	0	22
1: Midwee	54: 1:30pm-1:45pm	0	144	4	52	10	43	2	128	0	3	0	0	25
1: Midwee	55: 1:45pm-2:00pm	0	161	7	46	10	45	4	95	0	3	0	0	30
1: Midwee	56: 2:00pm-2:15pm	0	161	4	41	12	59	4	109	0	2	0	0	24
1: Midwee	57: 2:15pm-2:30pm	0	174	1	47	16	52	2	116	0	5	0	0	22
1: Midwee	58: 2:30pm-2:45pm	0	170	1	44	17	63	2	123	0	5	0	0	27
1: Midwee	59: 2:45pm-3:00pm	0	189	1	46	17	56	2	136	0	5	0	0	20
1: Midwee	60: 3:00pm-3:15pm	0	191	1	45	14	49	1	134	0	7	0	0	18
1: Midwee	61: 3:15pm-3:30pm	0	183	1	42	15	47	2	135	0	8	0	0	22
1: Midwee	62: 3:30pm-3:45pm	0	229	1	38	17	42	4	162	0	6	0	0	18
1: Midwee	63: 3:45pm-4:00pm	0	212	1	53	19	42	2	130	0	6	0	0	17
1: Midwee	64: 4:00pm-4:15pm	0	215	1	61	17	48	4	148	0	6	0	0	27
1: Midwee	65: 4:15pm-4:30pm	0	226	1	50	17	45	4	158	0	5	0	0	22

1: Midwee	66: 4:30pm-4:45pm	0	183	1	55	18	55	2	185	0	3	0	0	24
1: Midwee	67: 4:45pm-5:00pm	0	206	1	54	18	50	4	187	0	3	0	0	21
1: Midwee	68: 5:00pm-5:15pm	0	200	1	49	17	45	5	203	0	5	0	0	21
1: Midwee	69: 5:15pm-5:30pm	0	188	1	56	17	65	5	190	0	6	0	0	20
1: Midwee	70: 5:30pm-5:45pm	0	177	1	69	18	63	5	215	0	6	0	0	20
1: Midwee	71: 5:45pm-6:00pm	0	211	1	65	19	58	5	219	0	7	0	0	20
1: Midwee	72: 6:00pm-6:15pm	0	165	1	63	18	53	3	201	0	6	0	0	19
1: Midwee	73: 6:15pm-6:30pm	0	195	0	67	20	53	2	199	0	6	0	0	19
1: Midwee	74: 6:30pm-6:45pm	0	169	0	63	21	70	2	185	0	6	0	0	19
1: Midwee	75: 6:45pm-7:00pm	0	173	0	60	11	76	1	166	0	7	0	0	17
1: Midwee	76: 7:00pm-7:15pm	0	163	1	65	9	73	1	200	0	6	0	0	18
1: Midwee	77: 7:15pm-7:30pm	0	151	1	61	9	59	2	158	0	3	0	0	16
1: Midwee	78: 7:30pm-7:45pm	0	123	1	47	9	49	3	154	0	3	0	0	15
1: Midwee	79: 7:45pm-8:00pm	0	123	1	30	8	43	5	154	0	2	0	0	17
1: Midwee	80: 8:00pm-8:15pm	0	131	0	34	8	47	6	130	0	1	0	0	18
1: Midwee	81: 8:15pm-8:30pm	0	127	1	35	11	52	4	104	0	1	0	0	17
1: Midwee	82: 8:30pm-8:45pm	0	110	1	27	9	55	2	92	0	1	0	0	17
1: Midwee	83: 8:45pm-9:00pm	0	113	1	29	7	40	4	90	0	2	0	0	12
1: Midwee	84: 9:00pm-9:15pm	0	113	1	32	8	41	4	98	0	2	0	0	12
1: Midwee	85: 9:15pm-9:30pm	0	112	1	33	9	49	4	74	0	2	0	0	12
1: Midwee	86: 9:30pm-9:45pm	0	87	0	20	7	31	2	63	0	2	0	0	13
1: Midwee	87: 9:45pm-10:00pm	0	99	0	27	4	27	3	73	0	2	0	0	13
1: Midwee	88: 10:00pm-10:15p	0	83	0	21	4	28	2	73	0	1	0	0	10
1: Midwee	89: 10:15pm-10:30p	0	71	0	29	2	26	1	61	0	1	0	0	8
1: Midwee	90: 10:30pm-10:45p	0	52	0	26	2	16	1	39	0	1	0	0	8
1: Midwee	91: 10:45pm-11:00p	0	31	0	19	5	20	0	47	0	1	0	0	6
Peak Hour	7:30am-8:30am	-	987	2	180	38	116	12	654	-	23	-	-	138
Peak Hour	5:00pm-6:00pm	-	776	4	239	71	231	20	827	-	24	-	-	81

Note: Data collected by Streetlight for February 1st-June 1st and September 1st-November 15th, 2019. AM and PM peak hours are highlighted in green.

Intersection 3 - Fruitvale Ave & E 7th St														
Day Type	Time	NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			
		NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBL2	WBT	WBR
1: Midwee	00: 12:00am-12:15a	2	19	0	0	2	2	0	28	2	0	0	0	0
1: Midwee	01: 12:15am-12:30a	2	14	0	1	2	1	0	22	1	0	0	0	0
1: Midwee	02: 12:30am-12:45a	3	13	0	1	1	1	0	14	1	0	0	0	0
1: Midwee	03: 12:45am-1:00am	2	33	0	0	1	1	0	12	1	0	0	0	0
1: Midwee	04: 1:00am-1:15am	1	19	0	0	0	1	0	10	1	0	0	0	0
1: Midwee	05: 1:15am-1:30am	1	18	0	1	0	0	0	15	1	0	0	0	0
1: Midwee	06: 1:30am-1:45am	1	11	0	0	0	1	0	14	1	0	0	0	0
1: Midwee	07: 1:45am-2:00am	2	10	0	0	1	1	0	10	1	0	0	0	0
1: Midwee	08: 2:00am-2:15am	2	10	0	0	0	1	0	9	1	0	0	0	0
1: Midwee	09: 2:15am-2:30am	2	8	0	0	0	0	0	10	1	0	0	0	0
1: Midwee	10: 2:30am-2:45am	2	7	0	0	1	0	0	8	0	0	0	0	0
1: Midwee	11: 2:45am-3:00am	1	5	0	0	1	0	0	11	1	0	0	1	0
1: Midwee	12: 3:00am-3:15am	1	5	0	0	2	0	0	25	2	0	0	2	0
1: Midwee	13: 3:15am-3:30am	2	4	0	0	2	0	0	12	2	0	0	1	0
1: Midwee	14: 3:30am-3:45am	2	5	0	0	2	0	0	7	1	0	0	0	0
1: Midwee	15: 3:45am-4:00am	2	11	0	0	2	0	0	8	1	0	0	0	0
1: Midwee	16: 4:00am-4:15am	3	23	0	0	2	0	0	11	1	0	0	0	0
1: Midwee	17: 4:15am-4:30am	4	12	0	0	3	0	0	18	2	0	0	0	0
1: Midwee	18: 4:30am-4:45am	2	8	0	0	2	1	0	15	4	0	0	0	0
1: Midwee	19: 4:45am-5:00am	2	12	0	1	2	1	0	24	4	0	0	0	0
1: Midwee	20: 5:00am-5:15am	3	23	0	3	3	1	0	21	4	0	0	0	0
1: Midwee	21: 5:15am-5:30am	3	19	0	1	3	1	0	16	4	0	0	0	0
1: Midwee	22: 5:30am-5:45am	3	39	0	1	2	3	0	26	4	0	0	0	0
1: Midwee	23: 5:45am-6:00am	3	37	0	1	2	4	0	30	3	0	0	1	0
1: Midwee	24: 6:00am-6:15am	4	47	0	1	2	4	0	55	2	0	0	2	0
1: Midwee	25: 6:15am-6:30am	9	37	0	1	2	4	0	50	3	0	0	1	0
1: Midwee	26: 6:30am-6:45am	15	50	0	1	2	5	0	72	9	0	0	1	0
1: Midwee	27: 6:45am-7:00am	18	110	0	2	2	7	0	81	21	0	0	2	0
1: Midwee	28: 7:00am-7:15am	24	113	0	3	3	9	0	91	11	0	0	4	0
1: Midwee	29: 7:15am-7:30am	58	140	0	3	3	8	0	103	13	0	0	4	0
1: Midwee	30: 7:30am-7:45am	62	214	0	2	3	11	0	170	20	0	0	4	0
1: Midwee	31: 7:45am-8:00am	88	231	0	2	3	16	0	202	20	0	0	4	0
1: Midwee	32: 8:00am-8:15am	116	246	0	3	5	14	0	182	17	0	0	4	0
1: Midwee	33: 8:15am-8:30am	153	260	0	2	5	16	0	131	13	0	0	3	0
1: Midwee	34: 8:30am-8:45am	122	259	0	2	4	13	0	142	12	0	0	4	0
1: Midwee	35: 8:45am-9:00am	77	249	0	2	2	14	0	174	13	0	0	4	0
1: Midwee	36: 9:00am-9:15am	52	215	0	2	2	21	0	157	10	0	0	5	0
1: Midwee	37: 9:15am-9:30am	27	167	0	1	2	13	0	118	6	0	0	3	0
1: Midwee	38: 9:30am-9:45am	26	187	0	1	2	9	0	121	7	0	0	4	0
1: Midwee	39: 9:45am-10:00am	24	210	0	2	4	9	0	149	10	0	0	4	0
1: Midwee	40: 10:00am-10:15a	30	162	0	1	3	8	0	106	8	0	0	3	0
1: Midwee	41: 10:15am-10:30a	20	148	0	1	3	8	0	124	9	0	0	2	0
1: Midwee	42: 10:30am-10:45a	26	136	0	2	3	8	0	105	9	0	0	2	0
1: Midwee	43: 10:45am-11:00a	23	136	0	2	2	10	0	148	8	0	0	2	0
1: Midwee	44: 11:00am-11:15a	29	130	0	2	2	13	0	144	7	0	0	1	0
1: Midwee	45: 11:15am-11:30a	21	134	0	2	2	11	0	142	8	0	0	0	0
1: Midwee	46: 11:30am-11:45a	24	138	0	2	2	11	0	147	7	0	0	0	0
1: Midwee	47: 11:45am-12:00n	27	138	0	2	2	11	0	139	9	0	0	1	0
1: Midwee	48: 12:00noon-12:1	26	133	0	3	2	12	0	149	10	0	0	2	0
1: Midwee	49: 12:15noon-12:3	23	131	0	2	1	12	0	176	9	0	0	4	0
1: Midwee	50: 12:30noon-12:4	25	159	0	2	2	10	0	162	8	0	0	4	0
1: Midwee	51: 12:45noon-1:00	24	142	0	2	3	11	0	173	8	0	0	3	0
1: Midwee	52: 1:00pm-1:15pm	23	150	0	2	4	12	0	151	7	0	0	2	0
1: Midwee	53: 1:15pm-1:30pm	20	136	0	2	4	13	0	145	7	0	0	1	0
1: Midwee	54: 1:30pm-1:45pm	20	160	0	4	4	13	0	154	6	0	0	2	0
1: Midwee	55: 1:45pm-2:00pm	18	176	0	4	4	14	0	140	8	0	0	1	0
1: Midwee	56: 2:00pm-2:15pm	26	177	0	3	4	19	0	160	10	0	0	3	0
1: Midwee	57: 2:15pm-2:30pm	19	169	0	3	5	15	0	153	11	0	0	3	0
1: Midwee	58: 2:30pm-2:45pm	32	174	0	2	4	15	0	180	9	0	0	2	0
1: Midwee	59: 2:45pm-3:00pm	32	187	0	1	5	14	0	183	7	0	0	3	0
1: Midwee	60: 3:00pm-3:15pm	27	194	0	2	6	15	0	170	7	0	0	2	0
1: Midwee	61: 3:15pm-3:30pm	30	204	0	3	5	12	0	175	9	0	0	3	0
1: Midwee	62: 3:30pm-3:45pm	38	253	0	2	4	14	0	194	11	0	0	4	0
1: Midwee	63: 3:45pm-4:00pm	34	219	0	3	4	16	0	157	13	0	0	3	0
1: Midwee	64: 4:00pm-4:15pm	26	220	0	3	4	15	0	178	12	0	0	3	0
1: Midwee	65: 4:15pm-4:30pm	28	222	0	3	7	12	0	181	11	0	0	3	0

1: Midwee	66: 4:30pm-4:45pm	22	203	0	2	6	15	0	214	10	0	0	2	0
1: Midwee	67: 4:45pm-5:00pm	21	211	0	4	6	22	0	225	10	0	0	1	0
1: Midwee	68: 5:00pm-5:15pm	20	212	0	5	7	18	0	233	13	0	0	1	0
1: Midwee	69: 5:15pm-5:30pm	21	209	0	5	8	19	0	236	12	0	0	3	0
1: Midwee	70: 5:30pm-5:45pm	32	193	0	5	7	22	0	246	14	0	0	2	0
1: Midwee	71: 5:45pm-6:00pm	26	213	0	4	9	19	0	253	13	0	0	2	0
1: Midwee	72: 6:00pm-6:15pm	27	180	0	3	9	20	0	236	13	0	0	2	0
1: Midwee	73: 6:15pm-6:30pm	18	199	0	4	8	19	0	250	11	0	0	2	0
1: Midwee	74: 6:30pm-6:45pm	16	180	0	3	7	16	0	235	11	0	0	2	0
1: Midwee	75: 6:45pm-7:00pm	19	185	0	3	7	18	0	223	9	0	0	3	0
1: Midwee	76: 7:00pm-7:15pm	17	164	0	3	6	15	0	239	9	0	0	3	0
1: Midwee	77: 7:15pm-7:30pm	21	163	0	3	4	10	0	203	11	0	0	2	0
1: Midwee	78: 7:30pm-7:45pm	19	135	0	2	4	8	0	186	8	0	0	2	0
1: Midwee	79: 7:45pm-8:00pm	14	128	0	2	4	8	0	181	7	0	0	3	0
1: Midwee	80: 8:00pm-8:15pm	11	137	0	2	4	7	0	169	8	0	0	4	0
1: Midwee	81: 8:15pm-8:30pm	12	137	0	1	2	7	0	144	9	0	0	3	0
1: Midwee	82: 8:30pm-8:45pm	16	119	0	1	2	7	0	143	8	0	0	2	0
1: Midwee	83: 8:45pm-9:00pm	11	116	0	2	3	6	0	116	6	0	0	1	0
1: Midwee	84: 9:00pm-9:15pm	9	109	0	2	3	7	0	123	5	0	0	0	0
1: Midwee	85: 9:15pm-9:30pm	7	116	0	2	3	6	0	114	5	0	0	2	0
1: Midwee	86: 9:30pm-9:45pm	6	86	0	1	2	5	0	96	5	0	0	3	0
1: Midwee	87: 9:45pm-10:00pm	6	100	0	1	2	5	0	94	7	0	0	2	0
1: Midwee	88: 10:00pm-10:15p	7	89	0	1	2	5	0	101	5	0	0	2	0
1: Midwee	89: 10:15pm-10:30p	7	76	0	2	3	4	0	84	3	0	0	2	0
1: Midwee	90: 10:30pm-10:45p	6	58	0	1	4	3	0	65	3	0	0	1	0
1: Midwee	91: 10:45pm-11:00p	8	43	0	1	4	2	0	65	3	0	0	2	0
Peak Hour	7:45am-8:45am	479	996	-	9	-	59	-	657	62	-	-	-	-
Peak Hour	5:00pm-6:00pm	99	827	-	19	-	78	-	968	52	-	-	-	-

Note: Data collected by Streetlight for February 1st-June 1st and September 1st-November 15th, 2019. AM and PM peak hours are highlighted in green.

Intersection 4 - Fruitvale & Alameda														
Day Type	Time	NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			
		NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBL2	WBT	WBR
1: Midwee	00: 12:00am-12:15a	0	12	3	0	0	0	6	25	0	17	0	0	7
1: Midwee	01: 12:15am-12:30a	0	10	2	0	0	0	4	25	0	14	0	0	5
1: Midwee	02: 12:30am-12:45a	0	16	2	0	0	0	4	18	0	8	0	0	6
1: Midwee	03: 12:45am-1:00am	0	31	1	0	0	0	2	13	0	6	0	0	5
1: Midwee	04: 1:00am-1:15am	0	18	1	0	0	0	2	10	0	7	0	0	5
1: Midwee	05: 1:15am-1:30am	0	14	1	0	0	0	2	9	0	7	0	0	5
1: Midwee	06: 1:30am-1:45am	0	7	1	0	0	0	3	9	0	8	0	0	4
1: Midwee	07: 1:45am-2:00am	0	7	1	0	0	0	3	7	0	5	0	0	4
1: Midwee	08: 2:00am-2:15am	0	5	0	0	0	0	1	8	0	3	0	0	5
1: Midwee	09: 2:15am-2:30am	0	6	0	0	0	0	1	8	0	2	0	0	3
1: Midwee	10: 2:30am-2:45am	0	7	0	0	0	0	1	5	0	2	0	0	3
1: Midwee	11: 2:45am-3:00am	0	6	0	0	0	0	7	4	0	3	0	0	2
1: Midwee	12: 3:00am-3:15am	0	4	0	0	0	0	24	5	0	4	0	0	2
1: Midwee	13: 3:15am-3:30am	0	2	0	0	0	0	8	6	0	5	0	0	3
1: Midwee	14: 3:30am-3:45am	0	3	1	0	0	0	2	6	0	3	0	0	4
1: Midwee	15: 3:45am-4:00am	0	5	1	0	0	0	3	6	0	2	0	0	7
1: Midwee	16: 4:00am-4:15am	0	7	1	0	0	0	4	11	0	1	0	0	11
1: Midwee	17: 4:15am-4:30am	0	6	2	0	0	0	4	13	0	2	0	0	6
1: Midwee	18: 4:30am-4:45am	0	4	5	0	0	0	6	10	0	4	0	0	2
1: Midwee	19: 4:45am-5:00am	0	6	7	0	0	0	8	13	0	6	0	0	5
1: Midwee	20: 5:00am-5:15am	0	10	9	0	0	0	10	14	0	9	0	0	6
1: Midwee	21: 5:15am-5:30am	0	14	11	0	0	0	12	14	0	10	0	0	5
1: Midwee	22: 5:30am-5:45am	0	31	10	0	0	0	14	20	0	18	0	0	4
1: Midwee	23: 5:45am-6:00am	0	28	9	0	0	0	18	36	0	39	0	0	6
1: Midwee	24: 6:00am-6:15am	0	32	8	0	0	0	19	47	0	22	0	0	12
1: Midwee	25: 6:15am-6:30am	0	24	9	0	0	0	32	33	0	24	0	0	22
1: Midwee	26: 6:30am-6:45am	0	50	11	0	0	0	26	47	0	41	0	0	16
1: Midwee	27: 6:45am-7:00am	0	100	12	0	0	0	25	67	0	54	0	0	21
1: Midwee	28: 7:00am-7:15am	0	95	10	0	0	0	23	80	0	51	0	0	19
1: Midwee	29: 7:15am-7:30am	0	145	9	0	0	0	19	82	0	72	0	0	25
1: Midwee	30: 7:30am-7:45am	0	233	9	0	0	0	31	144	0	144	0	0	30
1: Midwee	31: 7:45am-8:00am	0	245	12	0	0	0	36	174	0	112	0	0	35
1: Midwee	32: 8:00am-8:15am	0	238	14	0	0	0	26	170	0	115	0	0	36
1: Midwee	33: 8:15am-8:30am	0	251	21	0	0	0	24	129	0	90	0	0	96
1: Midwee	34: 8:30am-8:45am	0	256	27	0	0	0	28	113	0	73	0	0	43
1: Midwee	35: 8:45am-9:00am	0	246	21	0	0	0	37	153	0	69	0	0	52
1: Midwee	36: 9:00am-9:15am	0	187	26	0	0	0	37	146	0	77	0	0	43
1: Midwee	37: 9:15am-9:30am	0	148	18	0	0	0	32	119	0	65	0	0	31
1: Midwee	38: 9:30am-9:45am	0	154	19	0	0	0	30	107	0	65	0	0	31
1: Midwee	39: 9:45am-10:00am	0	176	21	0	0	0	41	117	0	75	0	0	34
1: Midwee	40: 10:00am-10:15a	0	120	17	0	0	0	27	98	0	56	0	0	28
1: Midwee	41: 10:15am-10:30a	0	105	21	0	0	0	33	108	0	53	0	0	31
1: Midwee	42: 10:30am-10:45a	0	103	20	0	0	0	23	101	0	62	0	0	32
1: Midwee	43: 10:45am-11:00a	0	108	22	0	0	0	31	127	0	61	0	0	35
1: Midwee	44: 11:00am-11:15a	0	108	29	0	0	0	38	121	0	62	0	0	34
1: Midwee	45: 11:15am-11:30a	0	96	21	0	0	0	33	127	0	61	0	0	34
1: Midwee	46: 11:30am-11:45a	0	111	29	0	0	0	38	136	0	71	0	0	41
1: Midwee	47: 11:45am-12:00n	0	106	23	0	0	0	28	122	0	62	0	0	41
1: Midwee	48: 12:00noon-12:1	0	111	18	0	0	0	33	142	0	74	0	0	36
1: Midwee	49: 12:15noon-12:3	0	103	28	0	0	0	29	162	0	69	0	0	41
1: Midwee	50: 12:30noon-12:4	0	114	31	0	0	0	31	143	0	82	0	0	43
1: Midwee	51: 12:45noon-1:00	0	96	30	0	0	0	32	147	0	73	0	0	34
1: Midwee	52: 1:00pm-1:15pm	0	116	27	0	0	0	30	138	0	68	0	0	33
1: Midwee	53: 1:15pm-1:30pm	0	110	26	0	0	0	35	155	0	65	0	0	32
1: Midwee	54: 1:30pm-1:45pm	0	110	27	0	0	0	37	166	0	68	0	0	42
1: Midwee	55: 1:45pm-2:00pm	0	138	21	0	0	0	31	149	0	80	0	0	48
1: Midwee	56: 2:00pm-2:15pm	0	136	22	0	0	0	28	147	0	63	0	0	46
1: Midwee	57: 2:15pm-2:30pm	0	131	26	0	0	0	24	162	0	75	0	0	33
1: Midwee	58: 2:30pm-2:45pm	0	133	24	0	0	0	26	164	0	74	0	0	47
1: Midwee	59: 2:45pm-3:00pm	0	142	18	0	0	0	35	169	0	80	0	0	44
1: Midwee	60: 3:00pm-3:15pm	0	144	31	0	0	0	31	137	0	58	0	0	37
1: Midwee	61: 3:15pm-3:30pm	0	157	30	0	0	0	31	159	0	67	0	0	39
1: Midwee	62: 3:30pm-3:45pm	0	175	33	0	0	0	30	177	0	72	0	0	37
1: Midwee	63: 3:45pm-4:00pm	0	178	18	0	0	0	31	144	0	69	0	0	42
1: Midwee	64: 4:00pm-4:15pm	0	194	22	0	0	0	30	168	0	72	0	0	39
1: Midwee	65: 4:15pm-4:30pm	0	158	26	0	0	0	37	166	0	79	0	0	35

1: Midwee	66: 4:30pm-4:45pm	0	177	34	0	0	0	35	195	0	82	0	0	32
1: Midwee	67: 4:45pm-5:00pm	0	173	29	0	0	0	40	211	0	80	0	0	42
1: Midwee	68: 5:00pm-5:15pm	0	189	37	0	0	0	46	204	0	87	0	0	32
1: Midwee	69: 5:15pm-5:30pm	0	166	35	0	0	0	47	207	0	98	0	0	35
1: Midwee	70: 5:30pm-5:45pm	0	170	37	0	0	0	56	211	0	88	0	0	35
1: Midwee	71: 5:45pm-6:00pm	0	159	30	0	0	0	46	213	0	85	0	0	37
1: Midwee	72: 6:00pm-6:15pm	0	140	35	0	0	0	47	223	0	94	0	0	45
1: Midwee	73: 6:15pm-6:30pm	0	155	34	0	0	0	42	186	0	101	0	0	39
1: Midwee	74: 6:30pm-6:45pm	0	118	29	0	0	0	41	200	0	75	0	0	35
1: Midwee	75: 6:45pm-7:00pm	0	121	31	0	0	0	36	202	0	75	0	0	41
1: Midwee	76: 7:00pm-7:15pm	0	136	31	0	0	0	49	225	0	80	0	0	34
1: Midwee	77: 7:15pm-7:30pm	0	111	28	0	0	0	47	162	0	72	0	0	35
1: Midwee	78: 7:30pm-7:45pm	0	102	36	0	0	0	40	163	0	75	0	0	26
1: Midwee	79: 7:45pm-8:00pm	0	94	25	0	0	0	52	130	0	69	0	0	28
1: Midwee	80: 8:00pm-8:15pm	0	96	26	0	0	0	39	137	0	61	0	0	30
1: Midwee	81: 8:15pm-8:30pm	0	99	25	0	0	0	31	115	0	62	0	0	32
1: Midwee	82: 8:30pm-8:45pm	0	86	25	0	0	0	23	135	0	66	0	0	31
1: Midwee	83: 8:45pm-9:00pm	0	84	25	0	0	0	19	105	0	53	0	0	23
1: Midwee	84: 9:00pm-9:15pm	0	93	33	0	0	0	19	109	0	58	0	0	22
1: Midwee	85: 9:15pm-9:30pm	0	76	19	0	0	0	19	107	0	53	0	0	35
1: Midwee	86: 9:30pm-9:45pm	0	70	17	0	0	0	16	80	0	41	0	0	32
1: Midwee	87: 9:45pm-10:00pm	0	66	16	0	0	0	14	84	0	50	0	0	26
1: Midwee	88: 10:00pm-10:15p	0	59	14	0	0	0	11	83	0	36	0	0	29
1: Midwee	89: 10:15pm-10:30p	0	57	12	0	0	0	12	74	0	35	0	0	19
1: Midwee	90: 10:30pm-10:45p	0	46	11	0	0	0	11	64	0	34	0	0	16
1: Midwee	91: 10:45pm-11:00p	0	25	11	0	0	0	10	55	0	35	0	0	14
Peak Hour	7:30am-8:30am	-	967	56	-	-	-	117	617	-	461	-	-	197
Peak Hour	4:45pm-5:45pm	-	698	138	-	-	-	189	833	-	353	-	-	144

Note: Data collected by Streetlight for February 1st-June 1st and September 1st-November 15th, 2019. AM and PM peak hours are highlighted in green.

Intersection 6 - 37th Ave & Boehmer St														
Day Type	Time	NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			
		NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBL2	WBT	WBR
1: Midwee	00: 12:00am-12:15a	0	0	0	0	0	0	0	4	0	0	0	0	0
1: Midwee	01: 12:15am-12:30a	0	0	0	0	0	0	0	3	0	0	0	0	0
1: Midwee	02: 12:30am-12:45a	0	0	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	03: 12:45am-1:00am	0	2	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	04: 1:00am-1:15am	0	3	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	05: 1:15am-1:30am	0	0	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	06: 1:30am-1:45am	0	0	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	07: 1:45am-2:00am	0	3	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	08: 2:00am-2:15am	0	3	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	09: 2:15am-2:30am	0	3	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	10: 2:30am-2:45am	0	0	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	11: 2:45am-3:00am	0	0	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	12: 3:00am-3:15am	0	0	0	0	0	0	0	4	0	0	0	0	0
1: Midwee	13: 3:15am-3:30am	0	4	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	14: 3:30am-3:45am	0	5	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	15: 3:45am-4:00am	0	4	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	16: 4:00am-4:15am	0	7	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	17: 4:15am-4:30am	0	3	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	18: 4:30am-4:45am	0	0	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	19: 4:45am-5:00am	0	0	0	0	0	0	0	3	0	0	0	0	0
1: Midwee	20: 5:00am-5:15am	0	0	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	21: 5:15am-5:30am	0	0	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	22: 5:30am-5:45am	0	4	0	0	0	0	0	0	0	0	0	0	0
1: Midwee	23: 5:45am-6:00am	0	0	0	0	0	0	0	3	0	0	0	0	0
1: Midwee	24: 6:00am-6:15am	0	0	0	0	0	0	0	8	0	0	0	0	0
1: Midwee	25: 6:15am-6:30am	0	0	0	0	0	0	0	8	0	0	0	0	0
1: Midwee	26: 6:30am-6:45am	0	0	0	0	0	0	0	3	0	0	0	0	0
1: Midwee	27: 6:45am-7:00am	0	0	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	28: 7:00am-7:15am	0	0	0	0	0	0	0	12	0	0	0	0	0
1: Midwee	29: 7:15am-7:30am	0	0	0	0	0	0	0	13	0	0	0	0	0
1: Midwee	30: 7:30am-7:45am	0	0	0	0	0	0	0	10	0	0	0	0	0
1: Midwee	31: 7:45am-8:00am	0	0	0	0	0	0	0	10	0	0	0	0	0
1: Midwee	32: 8:00am-8:15am	0	4	0	0	0	0	0	10	0	0	0	0	0
1: Midwee	33: 8:15am-8:30am	0	5	0	0	0	0	0	16	0	0	0	0	0
1: Midwee	34: 8:30am-8:45am	0	6	0	0	0	0	0	13	0	0	0	0	0
1: Midwee	35: 8:45am-9:00am	0	7	0	0	0	0	0	9	0	0	0	0	0
1: Midwee	36: 9:00am-9:15am	0	5	0	0	0	0	0	7	0	0	0	0	0
1: Midwee	37: 9:15am-9:30am	0	3	0	0	0	0	0	7	0	0	0	0	0
1: Midwee	38: 9:30am-9:45am	0	4	0	0	0	0	0	5	0	0	0	0	0
1: Midwee	39: 9:45am-10:00am	0	4	0	0	0	0	0	5	0	0	0	0	0
1: Midwee	40: 10:00am-10:15a	0	9	0	0	0	0	0	4	0	0	0	0	0
1: Midwee	41: 10:15am-10:30a	0	7	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	42: 10:30am-10:45a	0	6	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	43: 10:45am-11:00a	0	13	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	44: 11:00am-11:15a	0	13	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	45: 11:15am-11:30a	0	8	0	0	0	0	0	6	2	0	0	0	0
1: Midwee	46: 11:30am-11:45a	0	14	0	0	0	0	0	10	0	0	0	0	0
1: Midwee	47: 11:45am-12:00n	0	8	0	3	0	0	0	8	0	0	0	0	0
1: Midwee	48: 12:00noon-12:1	0	4	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	49: 12:15noon-12:3	0	0	0	0	0	0	0	9	0	0	0	0	0
1: Midwee	50: 12:30noon-12:4	0	0	0	0	0	0	0	9	0	0	0	0	0
1: Midwee	51: 12:45noon-1:00	0	0	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	52: 1:00pm-1:15pm	0	6	0	0	0	0	0	9	0	0	0	0	0
1: Midwee	53: 1:15pm-1:30pm	0	5	0	0	0	0	0	6	3	0	0	0	0
1: Midwee	54: 1:30pm-1:45pm	0	4	0	0	0	0	0	4	3	0	0	0	0
1: Midwee	55: 1:45pm-2:00pm	0	5	0	0	0	0	0	4	3	0	0	0	0
1: Midwee	56: 2:00pm-2:15pm	0	0	0	0	0	0	0	3	2	0	0	0	0
1: Midwee	57: 2:15pm-2:30pm	0	0	0	0	0	0	0	5	0	0	0	0	0
1: Midwee	58: 2:30pm-2:45pm	0	3	0	0	0	0	0	4	2	0	0	0	0
1: Midwee	59: 2:45pm-3:00pm	0	0	0	0	0	0	0	8	0	0	0	0	0
1: Midwee	60: 3:00pm-3:15pm	0	3	0	0	0	0	0	7	0	0	0	0	0
1: Midwee	61: 3:15pm-3:30pm	0	0	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	62: 3:30pm-3:45pm	0	3	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	63: 3:45pm-4:00pm	0	5	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	64: 4:00pm-4:15pm	0	5	0	0	0	0	0	12	0	0	0	0	0
1: Midwee	65: 4:15pm-4:30pm	0	6	0	0	0	0	0	7	0	0	0	0	0

1: Midwee	66: 4:30pm-4:45pm	0	6	0	0	0	0	0	4	0	0	0	0	0
1: Midwee	67: 4:45pm-5:00pm	0	0	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	68: 5:00pm-5:15pm	0	0	0	0	0	0	0	7	0	0	0	0	0
1: Midwee	69: 5:15pm-5:30pm	0	4	0	0	0	0	0	7	0	0	0	0	0
1: Midwee	70: 5:30pm-5:45pm	0	3	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	71: 5:45pm-6:00pm	0	3	0	0	0	0	0	7	0	0	0	0	0
1: Midwee	72: 6:00pm-6:15pm	0	0	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	73: 6:15pm-6:30pm	0	4	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	74: 6:30pm-6:45pm	0	7	0	0	0	0	0	8	0	0	0	0	0
1: Midwee	75: 6:45pm-7:00pm	0	8	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	76: 7:00pm-7:15pm	0	6	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	77: 7:15pm-7:30pm	0	3	0	0	0	0	0	5	0	0	0	0	0
1: Midwee	78: 7:30pm-7:45pm	0	0	0	0	0	0	0	11	0	0	0	0	0
1: Midwee	79: 7:45pm-8:00pm	0	5	0	0	0	0	0	12	0	0	0	0	0
1: Midwee	80: 8:00pm-8:15pm	0	6	0	0	0	0	0	12	0	0	0	0	0
1: Midwee	81: 8:15pm-8:30pm	0	7	0	0	0	0	0	8	0	0	0	0	0
1: Midwee	82: 8:30pm-8:45pm	0	4	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	83: 8:45pm-9:00pm	0	3	0	0	0	0	0	6	0	0	0	0	0
1: Midwee	84: 9:00pm-9:15pm	0	3	0	0	0	0	0	10	0	0	0	0	0
1: Midwee	85: 9:15pm-9:30pm	0	4	0	0	0	0	0	9	0	0	0	0	0
1: Midwee	86: 9:30pm-9:45pm	0	6	0	0	0	0	0	10	0	0	0	0	0
1: Midwee	87: 9:45pm-10:00pm	0	8	0	0	0	0	0	7	0	0	0	0	0
1: Midwee	88: 10:00pm-10:15p	0	5	0	0	0	0	0	4	0	0	0	0	0
1: Midwee	89: 10:15pm-10:30p	0	2	0	0	0	0	0	4	0	0	0	0	0
1: Midwee	90: 10:30pm-10:45p	0	3	0	0	0	0	0	4	0	0	0	0	0
1: Midwee	91: 10:45pm-11:00p	0	6	0	0	0	0	0	0	0	0	0	0	0
Peak Hour	8:00am-9:00am	-	22	-	-	-	-	-	48	-	-	-	-	-
Peak Hour	4:00pm-5:00pm	-	17	-	-	-	-	-	29	-	-	-	-	-

Note: Data collected by Streetlight for February 1st-June 1st and September 1st-November 15th, 2019. AM and PM peak hours are highlighted in green.

Intersection 8 - Alameda Ave & Howard St														
Day Type	Time	NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			
		NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBL2	WBT	WBR
1: Midwee	00: 12:00am-12:15a	4	0	0	0	0	14	0	0	0	2	0	13	0
1: Midwee	01: 12:15am-12:30a	3	0	0	0	0	12	0	0	0	2	0	11	0
1: Midwee	02: 12:30am-12:45a	2	0	0	0	0	14	0	0	0	1	0	10	0
1: Midwee	03: 12:45am-1:00am	3	0	0	0	0	11	0	0	0	1	0	6	0
1: Midwee	04: 1:00am-1:15am	2	0	0	0	0	9	0	0	0	1	0	6	0
1: Midwee	05: 1:15am-1:30am	1	0	0	0	0	8	0	0	0	1	0	8	0
1: Midwee	06: 1:30am-1:45am	1	0	0	0	0	9	0	0	0	1	0	8	0
1: Midwee	07: 1:45am-2:00am	0	0	0	0	0	6	0	0	0	2	0	9	0
1: Midwee	08: 2:00am-2:15am	0	0	0	0	0	5	0	0	0	2	0	8	0
1: Midwee	09: 2:15am-2:30am	1	0	0	0	0	5	0	0	0	1	0	7	0
1: Midwee	10: 2:30am-2:45am	1	0	0	0	0	4	0	0	0	1	0	6	0
1: Midwee	11: 2:45am-3:00am	1	0	0	0	0	5	0	0	0	1	0	6	0
1: Midwee	12: 3:00am-3:15am	0	0	0	0	0	4	0	0	0	1	0	9	0
1: Midwee	13: 3:15am-3:30am	1	0	0	0	0	4	0	0	0	1	0	9	0
1: Midwee	14: 3:30am-3:45am	0	0	0	0	0	5	0	0	0	1	0	15	0
1: Midwee	15: 3:45am-4:00am	1	0	0	0	0	4	0	0	0	0	0	32	0
1: Midwee	16: 4:00am-4:15am	0	0	0	0	0	3	0	0	0	0	0	18	0
1: Midwee	17: 4:15am-4:30am	1	0	0	0	0	5	0	0	0	1	0	14	0
1: Midwee	18: 4:30am-4:45am	1	0	0	0	0	8	0	0	0	5	0	19	0
1: Midwee	19: 4:45am-5:00am	1	0	0	0	0	10	0	0	0	6	0	33	0
1: Midwee	20: 5:00am-5:15am	2	0	0	0	0	11	0	0	0	7	0	30	0
1: Midwee	21: 5:15am-5:30am	2	0	0	0	0	14	0	0	0	12	0	67	0
1: Midwee	22: 5:30am-5:45am	4	0	0	0	0	14	0	0	0	16	0	39	0
1: Midwee	23: 5:45am-6:00am	5	0	0	0	0	14	0	0	0	30	0	93	0
1: Midwee	24: 6:00am-6:15am	9	0	0	0	0	25	0	0	0	19	0	52	0
1: Midwee	25: 6:15am-6:30am	9	0	0	0	0	30	0	0	0	20	0	66	0
1: Midwee	26: 6:30am-6:45am	11	0	0	0	0	45	0	0	0	17	0	82	0
1: Midwee	27: 6:45am-7:00am	12	0	0	0	0	39	0	0	0	20	0	97	0
1: Midwee	28: 7:00am-7:15am	11	0	0	0	0	49	0	0	0	13	0	119	0
1: Midwee	29: 7:15am-7:30am	14	0	0	0	0	37	0	0	0	13	0	128	0
1: Midwee	30: 7:30am-7:45am	26	0	0	0	1	50	0	0	0	20	0	236	0
1: Midwee	31: 7:45am-8:00am	20	0	0	0	0	57	0	0	0	20	0	229	0
1: Midwee	32: 8:00am-8:15am	21	0	0	0	0	54	0	0	0	23	0	202	0
1: Midwee	33: 8:15am-8:30am	27	0	0	0	1	57	0	0	0	15	0	241	0
1: Midwee	34: 8:30am-8:45am	43	0	0	0	1	55	0	0	0	16	0	163	0
1: Midwee	35: 8:45am-9:00am	48	0	0	0	1	62	0	0	0	16	0	160	0
1: Midwee	36: 9:00am-9:15am	27	0	0	0	0	59	0	0	0	15	0	154	0
1: Midwee	37: 9:15am-9:30am	23	0	0	0	0	67	0	0	0	14	0	138	0
1: Midwee	38: 9:30am-9:45am	26	0	0	0	0	55	0	0	0	12	0	117	0
1: Midwee	39: 9:45am-10:00am	24	0	0	0	1	56	0	0	0	12	0	157	0
1: Midwee	40: 10:00am-10:15a	24	0	0	0	0	71	0	0	0	14	0	128	0
1: Midwee	41: 10:15am-10:30a	26	0	0	0	0	58	0	0	0	15	0	105	0
1: Midwee	42: 10:30am-10:45a	26	0	0	0	0	62	0	0	0	15	0	101	0
1: Midwee	43: 10:45am-11:00a	29	0	0	0	0	60	0	0	0	17	0	110	0
1: Midwee	44: 11:00am-11:15a	26	0	0	0	0	75	0	0	0	15	0	109	0
1: Midwee	45: 11:15am-11:30a	29	0	0	0	1	56	0	0	0	12	0	111	0
1: Midwee	46: 11:30am-11:45a	29	0	0	0	1	52	0	0	0	12	0	112	0
1: Midwee	47: 11:45am-12:00n	23	0	0	0	1	61	0	0	0	15	0	120	0
1: Midwee	48: 12:00noon-12:1	26	0	0	0	0	79	0	0	0	17	0	110	0
1: Midwee	49: 12:15noon-12:3	24	0	0	0	1	78	0	0	0	22	0	129	0
1: Midwee	50: 12:30noon-12:4	28	0	0	0	1	89	0	0	0	17	0	109	0
1: Midwee	51: 12:45noon-1:00	24	0	0	0	1	76	0	0	0	20	0	122	0
1: Midwee	52: 1:00pm-1:15pm	19	0	0	0	1	70	0	0	0	22	0	121	0
1: Midwee	53: 1:15pm-1:30pm	21	0	0	0	1	64	0	0	0	19	0	129	0
1: Midwee	54: 1:30pm-1:45pm	29	0	0	0	1	69	0	0	0	18	0	124	0
1: Midwee	55: 1:45pm-2:00pm	26	0	0	0	1	66	0	0	0	11	0	136	0
1: Midwee	56: 2:00pm-2:15pm	32	0	0	0	0	67	0	0	0	11	0	117	0
1: Midwee	57: 2:15pm-2:30pm	22	0	0	0	0	77	0	0	0	12	0	116	0
1: Midwee	58: 2:30pm-2:45pm	21	0	0	0	0	61	0	0	0	12	0	125	0
1: Midwee	59: 2:45pm-3:00pm	24	0	0	0	0	65	0	0	0	13	0	136	0
1: Midwee	60: 3:00pm-3:15pm	19	0	0	0	1	76	0	0	0	14	0	119	0
1: Midwee	61: 3:15pm-3:30pm	20	0	0	0	1	85	0	0	0	19	0	122	0
1: Midwee	62: 3:30pm-3:45pm	29	0	0	0	0	86	0	0	0	23	0	118	0
1: Midwee	63: 3:45pm-4:00pm	25	0	0	0	1	65	0	0	0	21	0	124	0
1: Midwee	64: 4:00pm-4:15pm	34	0	0	0	1	81	0	0	0	22	0	138	0
1: Midwee	65: 4:15pm-4:30pm	23	0	0	0	0	82	0	0	0	18	0	147	0

1: Midwee	66: 4:30pm-4:45pm	25	0	0	0	0	80	0	0	0	16	0	137	0
1: Midwee	67: 4:45pm-5:00pm	32	0	0	0	0	92	0	0	0	18	0	131	0
1: Midwee	68: 5:00pm-5:15pm	32	0	0	0	0	102	0	0	0	21	0	147	0
1: Midwee	69: 5:15pm-5:30pm	26	0	0	0	1	108	0	0	0	22	0	145	0
1: Midwee	70: 5:30pm-5:45pm	21	0	0	0	0	105	0	0	0	17	0	144	0
1: Midwee	71: 5:45pm-6:00pm	24	0	0	0	1	106	0	0	0	17	0	149	0
1: Midwee	72: 6:00pm-6:15pm	23	0	0	0	0	96	0	0	0	16	0	146	0
1: Midwee	73: 6:15pm-6:30pm	35	0	0	0	1	98	0	0	0	13	0	141	0
1: Midwee	74: 6:30pm-6:45pm	25	0	0	0	1	73	0	0	0	15	0	114	0
1: Midwee	75: 6:45pm-7:00pm	22	0	0	0	1	101	0	0	0	16	0	118	0
1: Midwee	76: 7:00pm-7:15pm	26	0	0	0	1	85	0	0	0	12	0	143	0
1: Midwee	77: 7:15pm-7:30pm	21	0	0	0	0	79	0	0	0	13	0	123	0
1: Midwee	78: 7:30pm-7:45pm	23	0	0	0	1	87	0	0	0	20	0	138	0
1: Midwee	79: 7:45pm-8:00pm	17	0	0	0	1	83	0	0	0	14	0	118	0
1: Midwee	80: 8:00pm-8:15pm	15	0	0	0	1	74	0	0	0	11	0	84	0
1: Midwee	81: 8:15pm-8:30pm	13	0	0	0	1	65	0	0	0	11	0	99	0
1: Midwee	82: 8:30pm-8:45pm	12	0	0	0	0	77	0	0	0	8	0	105	0
1: Midwee	83: 8:45pm-9:00pm	11	0	0	0	0	70	0	0	0	9	0	79	0
1: Midwee	84: 9:00pm-9:15pm	10	0	0	0	0	77	0	0	0	9	0	81	0
1: Midwee	85: 9:15pm-9:30pm	8	0	0	0	0	54	0	0	0	7	0	78	0
1: Midwee	86: 9:30pm-9:45pm	4	0	0	0	0	50	0	0	0	4	0	46	0
1: Midwee	87: 9:45pm-10:00pm	4	0	0	0	0	56	0	0	0	3	0	73	0
1: Midwee	88: 10:00pm-10:15p	7	0	0	0	0	55	0	0	0	2	0	50	0
1: Midwee	89: 10:15pm-10:30p	7	0	0	0	0	41	0	0	0	3	0	52	0
1: Midwee	90: 10:30pm-10:45p	6	0	0	0	0	28	0	0	0	3	0	41	0
1: Midwee	91: 10:45pm-11:00p	5	0	0	0	1	34	0	0	0	4	0	43	0
Peak Hour	7:30am-8:30am	94	-	-	-	2	218	-	-	-	78	-	908	-
Peak Hour	5:00pm-6:00pm	103	-	-	-	2	421	-	-	-	77	-	585	-

Note: Data collected by Streetlight for February 1st-June 1st and September 1st-November 15th, 2019. AM and PM peak hours are highlighted in green.

Intersection 9 - Coliseum Way & High St														
Day Type	Time	NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			
		NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBL2	WBT	WBR
1: Midwee	00: 12:00am-12:15a	14	31	6	0	0	0	2	23	6	21	0	24	23
1: Midwee	01: 12:15am-12:30a	13	24	5	0	0	0	1	24	4	22	0	20	19
1: Midwee	02: 12:30am-12:45a	22	30	5	0	0	0	1	17	4	15	0	22	22
1: Midwee	03: 12:45am-1:00am	23	31	5	0	0	0	1	13	4	11	0	33	20
1: Midwee	04: 1:00am-1:15am	10	20	5	0	0	0	2	12	5	11	0	14	16
1: Midwee	05: 1:15am-1:30am	6	17	5	0	0	0	1	14	4	11	0	9	13
1: Midwee	06: 1:30am-1:45am	5	16	4	0	0	0	1	17	3	12	0	12	15
1: Midwee	07: 1:45am-2:00am	8	16	2	0	0	0	0	15	2	15	0	12	16
1: Midwee	08: 2:00am-2:15am	13	21	1	0	0	0	0	13	1	14	0	14	14
1: Midwee	09: 2:15am-2:30am	9	16	2	0	0	0	0	14	1	13	0	16	14
1: Midwee	10: 2:30am-2:45am	6	13	2	0	0	0	1	19	2	12	0	18	11
1: Midwee	11: 2:45am-3:00am	5	8	2	0	0	0	1	33	2	9	0	21	7
1: Midwee	12: 3:00am-3:15am	2	5	4	0	0	0	1	28	2	7	0	20	8
1: Midwee	13: 3:15am-3:30am	3	3	4	0	0	0	1	21	1	11	0	13	8
1: Midwee	14: 3:30am-3:45am	5	5	2	0	0	0	1	31	2	19	0	9	8
1: Midwee	15: 3:45am-4:00am	5	5	2	0	0	0	1	20	2	48	0	10	11
1: Midwee	16: 4:00am-4:15am	11	8	2	0	0	0	1	22	4	28	0	14	11
1: Midwee	17: 4:15am-4:30am	24	11	2	0	0	0	1	30	5	20	0	19	22
1: Midwee	18: 4:30am-4:45am	49	10	3	0	0	0	1	36	8	23	0	22	58
1: Midwee	19: 4:45am-5:00am	31	10	4	0	0	0	1	40	9	39	0	29	23
1: Midwee	20: 5:00am-5:15am	23	10	7	0	0	0	1	44	11	30	0	32	21
1: Midwee	21: 5:15am-5:30am	70	14	9	0	0	0	2	57	17	40	0	27	27
1: Midwee	22: 5:30am-5:45am	40	23	8	0	0	0	3	74	21	44	0	34	27
1: Midwee	23: 5:45am-6:00am	73	29	10	0	0	0	5	79	22	101	0	43	30
1: Midwee	24: 6:00am-6:15am	78	40	18	0	0	0	8	94	30	91	0	52	39
1: Midwee	25: 6:15am-6:30am	84	49	31	0	1	0	10	96	31	81	0	55	48
1: Midwee	26: 6:30am-6:45am	68	73	34	0	0	0	10	116	35	86	0	77	42
1: Midwee	27: 6:45am-7:00am	117	79	22	0	0	0	5	141	33	153	0	76	58
1: Midwee	28: 7:00am-7:15am	81	86	22	0	0	0	6	125	52	137	0	58	61
1: Midwee	29: 7:15am-7:30am	117	92	32	0	0	0	13	186	49	154	0	97	91
1: Midwee	30: 7:30am-7:45am	103	94	23	0	0	0	14	225	48	151	0	158	117
1: Midwee	31: 7:45am-8:00am	104	89	24	0	1	0	12	250	49	141	0	177	95
1: Midwee	32: 8:00am-8:15am	105	111	39	0	1	0	8	205	52	130	0	147	91
1: Midwee	33: 8:15am-8:30am	147	147	26	0	1	0	12	168	66	170	0	147	111
1: Midwee	34: 8:30am-8:45am	140	144	25	0	0	0	13	197	54	94	0	150	97
1: Midwee	35: 8:45am-9:00am	173	121	25	0	0	0	11	198	45	92	0	153	68
1: Midwee	36: 9:00am-9:15am	136	123	30	0	0	0	11	181	50	105	0	126	71
1: Midwee	37: 9:15am-9:30am	121	110	25	0	0	0	7	160	47	103	0	127	79
1: Midwee	38: 9:30am-9:45am	130	107	29	0	0	0	8	169	60	96	0	106	78
1: Midwee	39: 9:45am-10:00am	117	102	25	0	0	0	10	194	50	110	0	125	70
1: Midwee	40: 10:00am-10:15a	128	108	25	0	0	0	10	152	42	116	0	119	66
1: Midwee	41: 10:15am-10:30a	136	111	24	0	0	0	10	153	43	98	0	107	67
1: Midwee	42: 10:30am-10:45a	108	104	27	0	1	0	10	160	33	99	0	107	65
1: Midwee	43: 10:45am-11:00a	134	105	34	0	1	0	10	141	36	114	0	99	73
1: Midwee	44: 11:00am-11:15a	124	111	33	0	1	0	9	151	37	98	0	98	83
1: Midwee	45: 11:15am-11:30a	130	99	24	0	1	0	9	161	37	118	0	86	71
1: Midwee	46: 11:30am-11:45a	148	114	23	0	1	0	8	162	47	102	0	102	74
1: Midwee	47: 11:45am-12:00n	132	131	28	0	0	0	7	174	44	113	0	108	73
1: Midwee	48: 12:00noon-12:1	125	126	28	0	0	0	8	164	27	104	0	101	80
1: Midwee	49: 12:15noon-12:3	127	126	33	0	0	0	10	180	32	118	0	116	78
1: Midwee	50: 12:30noon-12:4	137	123	36	0	0	0	11	170	38	113	0	112	74
1: Midwee	51: 12:45noon-1:00	114	150	33	0	1	0	10	151	41	123	0	102	70
1: Midwee	52: 1:00pm-1:15pm	132	133	32	0	1	0	10	166	34	124	0	111	75
1: Midwee	53: 1:15pm-1:30pm	118	137	25	0	0	0	10	167	43	124	0	128	84
1: Midwee	54: 1:30pm-1:45pm	127	113	31	0	0	0	10	166	41	127	0	105	64
1: Midwee	55: 1:45pm-2:00pm	147	154	39	0	0	0	10	165	32	118	0	108	94
1: Midwee	56: 2:00pm-2:15pm	152	127	34	0	0	0	11	145	41	129	0	122	59
1: Midwee	57: 2:15pm-2:30pm	125	137	22	0	0	0	13	165	33	134	0	109	85
1: Midwee	58: 2:30pm-2:45pm	131	139	23	0	0	0	12	177	48	127	0	120	72
1: Midwee	59: 2:45pm-3:00pm	121	128	25	0	0	0	11	171	34	123	0	141	87
1: Midwee	60: 3:00pm-3:15pm	136	132	34	0	0	0	9	185	37	120	0	147	70
1: Midwee	61: 3:15pm-3:30pm	124	146	28	0	0	0	7	167	24	135	0	125	77
1: Midwee	62: 3:30pm-3:45pm	151	182	35	0	0	0	8	178	42	137	0	116	80
1: Midwee	63: 3:45pm-4:00pm	142	150	38	0	1	0	10	201	41	118	0	124	72
1: Midwee	64: 4:00pm-4:15pm	145	171	32	0	1	0	11	189	43	139	0	159	79
1: Midwee	65: 4:15pm-4:30pm	149	140	34	0	1	0	11	191	36	143	0	133	94

1: Midwee	66: 4:30pm-4:45pm	123	178	27	0	1	0	11	223	29	146	0	114	77
1: Midwee	67: 4:45pm-5:00pm	122	185	37	0	1	0	10	172	43	167	0	134	86
1: Midwee	68: 5:00pm-5:15pm	114	210	26	0	1	0	10	219	36	149	0	112	81
1: Midwee	69: 5:15pm-5:30pm	144	199	28	0	0	0	12	210	39	136	0	157	85
1: Midwee	70: 5:30pm-5:45pm	136	218	30	0	1	0	13	187	33	147	0	117	91
1: Midwee	71: 5:45pm-6:00pm	135	213	30	0	1	0	10	208	30	171	0	110	83
1: Midwee	72: 6:00pm-6:15pm	130	172	35	0	1	0	9	217	27	178	0	102	73
1: Midwee	73: 6:15pm-6:30pm	137	218	32	0	1	0	11	239	27	152	0	110	80
1: Midwee	74: 6:30pm-6:45pm	182	214	31	0	1	0	9	202	29	132	0	92	89
1: Midwee	75: 6:45pm-7:00pm	190	177	29	0	1	0	7	184	32	136	0	108	94
1: Midwee	76: 7:00pm-7:15pm	223	194	32	0	1	0	7	171	34	132	0	117	91
1: Midwee	77: 7:15pm-7:30pm	99	158	38	0	0	0	6	155	20	156	0	111	99
1: Midwee	78: 7:30pm-7:45pm	89	162	22	0	0	0	6	160	27	142	0	93	91
1: Midwee	79: 7:45pm-8:00pm	79	150	17	0	0	0	7	123	19	137	0	95	80
1: Midwee	80: 8:00pm-8:15pm	97	134	16	0	0	0	7	126	18	124	0	88	91
1: Midwee	81: 8:15pm-8:30pm	84	143	14	0	0	0	8	124	19	121	0	97	93
1: Midwee	82: 8:30pm-8:45pm	77	130	14	0	0	0	8	120	18	122	0	89	88
1: Midwee	83: 8:45pm-9:00pm	67	107	11	0	1	0	6	114	18	102	0	82	65
1: Midwee	84: 9:00pm-9:15pm	74	123	13	0	1	0	4	116	21	101	0	96	76
1: Midwee	85: 9:15pm-9:30pm	60	108	19	0	1	0	5	111	26	106	0	118	86
1: Midwee	86: 9:30pm-9:45pm	73	92	21	0	0	0	5	89	34	94	0	87	60
1: Midwee	87: 9:45pm-10:00pm	50	80	14	0	0	0	6	82	24	86	0	79	64
1: Midwee	88: 10:00pm-10:15p	53	70	11	0	0	0	6	59	21	81	0	70	58
1: Midwee	89: 10:15pm-10:30p	46	66	10	0	0	0	6	85	23	84	0	75	77
1: Midwee	90: 10:30pm-10:45p	30	50	10	0	0	0	5	60	22	73	0	60	75
1: Midwee	91: 10:45pm-11:00p	52	59	9	0	0	0	4	53	26	68	0	51	57
Peak Hour	7:30am-8:30am	459	441	112	-	-	-	46	848	215	592	-	629	414
Peak Hour	5:00pm-6:00pm	529	840	114	-	-	-	45	824	138	603	-	496	340

Note: Data collected by Streetlight for February 1st-June 1st and September 1st-November 15th, 2019. AM and PM peak hours are highlighted in green.

Intersection 10 - Oakport St & High St														
Day Type	Time	NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			
		NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBL2	WBT	WBR
1: Midwee	00: 12:00am-12:15a	0	31	10	11	62	20	15	16	0	0	0	1	9
1: Midwee	01: 12:15am-12:30a	0	28	8	10	60	26	15	13	0	0	0	1	5
1: Midwee	02: 12:30am-12:45a	0	47	12	12	64	18	13	10	0	0	0	2	3
1: Midwee	03: 12:45am-1:00am	0	38	11	12	51	11	11	7	0	0	0	2	5
1: Midwee	04: 1:00am-1:15am	0	23	8	10	48	8	10	8	0	0	0	2	3
1: Midwee	05: 1:15am-1:30am	0	17	6	12	57	5	9	9	0	0	0	1	2
1: Midwee	06: 1:30am-1:45am	0	15	6	9	46	6	10	12	0	0	0	1	3
1: Midwee	07: 1:45am-2:00am	0	17	6	7	52	9	11	11	0	1	0	1	2
1: Midwee	08: 2:00am-2:15am	0	31	6	5	53	7	10	9	0	0	0	1	4
1: Midwee	09: 2:15am-2:30am	0	17	9	5	44	4	10	11	0	0	0	1	4
1: Midwee	10: 2:30am-2:45am	0	13	5	5	66	8	12	12	0	0	0	0	4
1: Midwee	11: 2:45am-3:00am	0	7	2	6	66	8	28	10	0	0	0	1	2
1: Midwee	12: 3:00am-3:15am	0	4	4	5	80	6	16	11	0	0	0	2	2
1: Midwee	13: 3:15am-3:30am	0	6	5	4	87	5	14	11	0	0	0	1	1
1: Midwee	14: 3:30am-3:45am	0	7	5	4	85	2	24	15	0	0	0	1	1
1: Midwee	15: 3:45am-4:00am	0	6	5	5	97	1	19	16	0	0	0	0	3
1: Midwee	16: 4:00am-4:15am	0	11	7	5	92	2	19	16	0	0	0	1	6
1: Midwee	17: 4:15am-4:30am	0	25	14	6	175	8	27	13	0	0	0	1	6
1: Midwee	18: 4:30am-4:45am	0	48	34	6	270	22	30	12	0	0	0	3	8
1: Midwee	19: 4:45am-5:00am	0	32	22	8	203	17	46	12	0	0	0	5	7
1: Midwee	20: 5:00am-5:15am	0	24	39	14	214	16	37	14	0	0	0	7	5
1: Midwee	21: 5:15am-5:30am	0	76	22	16	251	24	48	18	0	0	0	6	5
1: Midwee	22: 5:30am-5:45am	0	51	18	18	270	49	54	23	0	0	0	6	9
1: Midwee	23: 5:45am-6:00am	0	75	22	21	287	27	58	47	0	1	0	7	12
1: Midwee	24: 6:00am-6:15am	0	89	40	33	274	24	68	63	0	1	0	8	16
1: Midwee	25: 6:15am-6:30am	0	90	40	54	321	27	64	50	0	1	0	9	17
1: Midwee	26: 6:30am-6:45am	0	108	86	57	298	46	65	64	0	0	0	9	22
1: Midwee	27: 6:45am-7:00am	0	123	43	36	350	81	63	138	0	1	0	7	40
1: Midwee	28: 7:00am-7:15am	0	129	67	32	349	59	72	92	0	2	0	7	26
1: Midwee	29: 7:15am-7:30am	0	173	49	32	412	57	102	138	0	2	0	10	35
1: Midwee	30: 7:30am-7:45am	0	133	54	40	475	108	66	185	0	3	0	8	48
1: Midwee	31: 7:45am-8:00am	0	133	52	38	433	139	61	172	0	7	0	6	54
1: Midwee	32: 8:00am-8:15am	0	141	110	57	400	89	63	127	0	9	0	8	62
1: Midwee	33: 8:15am-8:30am	0	181	90	47	404	72	50	104	0	6	0	8	86
1: Midwee	34: 8:30am-8:45am	0	174	80	43	376	70	73	108	0	6	0	8	83
1: Midwee	35: 8:45am-9:00am	0	179	67	46	325	91	83	94	0	5	0	8	73
1: Midwee	36: 9:00am-9:15am	0	151	68	57	323	83	67	102	0	5	0	7	67
1: Midwee	37: 9:15am-9:30am	0	139	70	48	332	66	55	102	0	3	0	7	65
1: Midwee	38: 9:30am-9:45am	0	158	62	51	346	75	70	91	0	5	0	7	56
1: Midwee	39: 9:45am-10:00am	0	147	62	42	356	73	59	134	0	5	0	7	48
1: Midwee	40: 10:00am-10:15a	0	167	63	43	319	69	58	107	0	5	0	7	48
1: Midwee	41: 10:15am-10:30a	0	159	64	48	293	74	71	106	0	5	0	7	54
1: Midwee	42: 10:30am-10:45a	0	139	63	53	362	73	70	112	0	5	0	7	41
1: Midwee	43: 10:45am-11:00a	0	162	57	55	321	72	62	111	0	5	0	7	44
1: Midwee	44: 11:00am-11:15a	0	164	72	52	347	77	64	104	0	5	0	7	44
1: Midwee	45: 11:15am-11:30a	0	173	55	48	345	77	73	117	0	5	0	8	40
1: Midwee	46: 11:30am-11:45a	0	184	50	51	391	88	72	123	0	5	0	8	44
1: Midwee	47: 11:45am-12:00n	0	184	67	55	339	76	84	109	0	5	0	9	51
1: Midwee	48: 12:00noon-12:1	0	180	66	51	352	80	79	105	0	5	0	6	50
1: Midwee	49: 12:15noon-12:3	0	166	78	63	368	78	86	104	0	6	0	6	52
1: Midwee	50: 12:30noon-12:4	0	194	76	53	344	88	77	116	0	5	0	6	43
1: Midwee	51: 12:45noon-1:00	0	200	66	56	393	90	76	108	0	5	0	9	47
1: Midwee	52: 1:00pm-1:15pm	1	185	88	60	351	97	76	110	0	5	0	10	55
1: Midwee	53: 1:15pm-1:30pm	1	172	74	56	361	85	77	119	0	5	0	10	47
1: Midwee	54: 1:30pm-1:45pm	0	163	60	49	360	86	73	115	0	6	0	11	59
1: Midwee	55: 1:45pm-2:00pm	0	200	83	70	322	79	68	116	0	6	0	13	63
1: Midwee	56: 2:00pm-2:15pm	0	183	58	67	314	88	70	108	0	5	0	13	54
1: Midwee	57: 2:15pm-2:30pm	0	182	66	44	337	81	78	126	0	3	0	13	50
1: Midwee	58: 2:30pm-2:45pm	0	195	68	50	333	99	73	138	0	5	0	12	53
1: Midwee	59: 2:45pm-3:00pm	0	159	73	46	330	106	72	138	0	6	0	10	68
1: Midwee	60: 3:00pm-3:15pm	0	187	90	54	327	89	77	141	0	5	0	9	67
1: Midwee	61: 3:15pm-3:30pm	0	193	85	54	340	97	74	142	0	5	0	9	52
1: Midwee	62: 3:30pm-3:45pm	0	205	102	52	416	107	73	150	0	3	0	10	101
1: Midwee	63: 3:45pm-4:00pm	1	219	84	54	465	130	70	152	0	3	0	13	49
1: Midwee	64: 4:00pm-4:15pm	1	219	69	59	393	116	69	150	0	3	0	11	59
1: Midwee	65: 4:15pm-4:30pm	0	211	83	52	371	76	81	146	0	2	0	10	59

1: Midwee	66: 4:30pm-4:45pm	0	211	87	49	385	103	122	153	0	3	0	11	76
1: Midwee	67: 4:45pm-5:00pm	0	212	76	70	382	69	82	164	0	4	0	11	65
1: Midwee	68: 5:00pm-5:15pm	0	228	98	56	413	98	103	156	0	6	0	14	69
1: Midwee	69: 5:15pm-5:30pm	0	244	98	70	402	90	88	157	0	7	0	14	63
1: Midwee	70: 5:30pm-5:45pm	0	257	93	67	381	100	70	152	0	8	0	14	71
1: Midwee	71: 5:45pm-6:00pm	0	268	83	71	386	95	77	207	0	6	0	13	42
1: Midwee	72: 6:00pm-6:15pm	1	252	85	57	394	84	73	211	0	3	0	13	44
1: Midwee	73: 6:15pm-6:30pm	1	272	78	66	414	90	95	212	0	2	0	15	51
1: Midwee	74: 6:30pm-6:45pm	1	283	72	63	384	89	77	177	0	3	0	13	85
1: Midwee	75: 6:45pm-7:00pm	1	282	73	49	361	95	77	160	0	2	0	13	60
1: Midwee	76: 7:00pm-7:15pm	1	299	81	55	375	95	64	134	0	2	0	11	81
1: Midwee	77: 7:15pm-7:30pm	0	223	73	69	367	93	60	157	0	2	0	11	30
1: Midwee	78: 7:30pm-7:45pm	0	188	64	53	285	98	64	132	0	2	0	9	39
1: Midwee	79: 7:45pm-8:00pm	0	186	60	40	300	92	41	133	0	2	0	9	26
1: Midwee	80: 8:00pm-8:15pm	0	171	60	47	268	76	61	116	0	2	0	10	30
1: Midwee	81: 8:15pm-8:30pm	0	171	58	43	258	80	55	106	0	1	0	9	26
1: Midwee	82: 8:30pm-8:45pm	1	171	53	42	275	70	62	97	0	1	0	8	22
1: Midwee	83: 8:45pm-9:00pm	0	137	60	29	251	57	64	96	0	1	0	9	19
1: Midwee	84: 9:00pm-9:15pm	0	161	61	29	234	58	60	94	0	1	0	8	21
1: Midwee	85: 9:15pm-9:30pm	0	131	46	34	250	64	54	94	0	1	0	9	23
1: Midwee	86: 9:30pm-9:45pm	0	122	46	29	237	61	56	85	0	1	0	9	24
1: Midwee	87: 9:45pm-10:00pm	0	102	40	29	197	46	51	58	0	1	0	7	16
1: Midwee	88: 10:00pm-10:15p	0	100	33	23	189	38	33	64	0	1	0	9	14
1: Midwee	89: 10:15pm-10:30p	0	81	33	29	155	35	54	75	0	1	0	8	14
1: Midwee	90: 10:30pm-10:45p	0	57	33	25	153	34	43	52	0	1	0	7	16
1: Midwee	91: 10:45pm-11:00p	0	74	22	25	136	31	40	39	0	1	0	7	17
Peak Hour	7:30am-8:30am	-	588	306	182	1,712	408	240	588	-	30	25	-	250
Peak Hour	5:45pm-6:45pm	-	1,075	318	257	1,578	358	322	807	-	54	14	-	222

Note: Data collected by Streetlight for February 1st-June 1st and September 1st-November 15th, 2019. AM and PM peak hours are highlighted in green.

Intersection 11 - Howard St & High St														
Day Type	Time	NORTHBOUND			EASTBOUND			SOUTHBOUND			WESTBOUND			
		NBL	NBT	NBR	EBL	EBT	EBR	SBL	SBT	SBR	WBL	WBL2	WBT	WBR
1: Midwee	00: 12:00am-12:15a	2	22	0	17	0	2	0	25	1	0	0	0	0
1: Midwee	01: 12:15am-12:30a	2	25	0	15	0	1	0	26	1	0	0	0	0
1: Midwee	02: 12:30am-12:45a	2	51	0	14	0	0	0	20	0	0	0	0	0
1: Midwee	03: 12:45am-1:00am	2	34	0	12	0	1	0	13	1	0	0	0	0
1: Midwee	04: 1:00am-1:15am	1	20	0	11	0	0	0	15	1	0	0	0	0
1: Midwee	05: 1:15am-1:30am	0	13	0	12	0	0	0	16	0	0	0	0	0
1: Midwee	06: 1:30am-1:45am	0	10	0	14	0	1	0	18	0	0	0	0	0
1: Midwee	07: 1:45am-2:00am	0	14	0	10	0	1	0	28	0	0	0	0	0
1: Midwee	08: 2:00am-2:15am	0	29	0	7	0	1	0	17	0	0	0	0	0
1: Midwee	09: 2:15am-2:30am	0	20	0	5	0	1	0	16	0	0	0	0	0
1: Midwee	10: 2:30am-2:45am	1	12	0	5	0	1	0	18	0	0	0	0	0
1: Midwee	11: 2:45am-3:00am	1	5	0	4	0	1	0	18	0	0	0	0	0
1: Midwee	12: 3:00am-3:15am	0	4	0	3	0	1	0	21	0	0	0	0	0
1: Midwee	13: 3:15am-3:30am	0	6	0	6	0	1	0	18	0	0	0	0	0
1: Midwee	14: 3:30am-3:45am	0	6	0	8	0	0	0	18	0	0	0	0	0
1: Midwee	15: 3:45am-4:00am	1	9	0	4	0	0	0	18	0	0	0	0	0
1: Midwee	16: 4:00am-4:15am	1	15	0	3	0	0	0	22	0	0	0	0	0
1: Midwee	17: 4:15am-4:30am	1	21	0	5	0	1	0	18	1	0	0	0	0
1: Midwee	18: 4:30am-4:45am	0	76	0	8	0	1	0	26	2	0	0	0	0
1: Midwee	19: 4:45am-5:00am	0	34	0	10	0	1	0	20	3	0	0	0	0
1: Midwee	20: 5:00am-5:15am	0	57	0	12	0	1	0	20	5	0	0	0	0
1: Midwee	21: 5:15am-5:30am	1	86	0	15	0	2	0	25	3	0	0	0	0
1: Midwee	22: 5:30am-5:45am	2	53	0	17	0	2	0	59	2	0	0	0	0
1: Midwee	23: 5:45am-6:00am	3	80	0	17	0	2	0	59	4	0	0	0	0
1: Midwee	24: 6:00am-6:15am	5	96	0	27	0	6	0	64	9	0	0	0	0
1: Midwee	25: 6:15am-6:30am	4	111	0	28	0	12	0	66	7	0	0	0	0
1: Midwee	26: 6:30am-6:45am	4	139	0	53	0	16	0	94	6	0	0	0	0
1: Midwee	27: 6:45am-7:00am	6	138	0	50	0	15	0	205	4	0	0	0	0
1: Midwee	28: 7:00am-7:15am	8	150	0	50	0	14	0	140	3	0	0	0	0
1: Midwee	29: 7:15am-7:30am	12	182	0	43	0	15	0	178	4	0	0	0	0
1: Midwee	30: 7:30am-7:45am	21	142	0	48	0	19	0	267	7	0	0	0	0
1: Midwee	31: 7:45am-8:00am	14	142	0	48	0	25	0	299	7	0	0	0	0
1: Midwee	32: 8:00am-8:15am	12	210	0	58	0	24	0	211	10	0	0	0	0
1: Midwee	33: 8:15am-8:30am	19	227	0	53	0	16	0	154	12	0	0	0	0
1: Midwee	34: 8:30am-8:45am	41	211	0	55	0	13	0	164	10	0	0	0	0
1: Midwee	35: 8:45am-9:00am	35	208	0	63	0	12	0	177	10	0	0	0	0
1: Midwee	36: 9:00am-9:15am	20	165	0	61	0	11	0	167	13	0	0	0	0
1: Midwee	37: 9:15am-9:30am	14	164	0	63	0	12	0	146	12	0	0	0	0
1: Midwee	38: 9:30am-9:45am	17	160	0	62	0	14	0	159	10	0	0	0	0
1: Midwee	39: 9:45am-10:00am	17	162	0	61	0	12	0	189	10	0	0	0	0
1: Midwee	40: 10:00am-10:15a	16	157	0	73	0	15	0	163	11	0	0	0	0
1: Midwee	41: 10:15am-10:30a	15	155	0	67	0	13	0	155	11	0	0	0	0
1: Midwee	42: 10:30am-10:45a	16	149	0	62	0	13	0	167	11	0	0	0	0
1: Midwee	43: 10:45am-11:00a	22	159	0	64	0	13	0	166	11	0	0	0	0
1: Midwee	44: 11:00am-11:15a	17	141	0	79	0	11	0	172	11	0	0	0	0
1: Midwee	45: 11:15am-11:30a	20	163	0	61	0	11	0	180	10	0	0	0	0
1: Midwee	46: 11:30am-11:45a	21	182	0	56	0	13	0	184	10	0	0	0	0
1: Midwee	47: 11:45am-12:00n	17	185	0	66	0	16	0	155	12	0	0	0	0
1: Midwee	48: 12:00noon-12:1	19	175	0	76	0	17	0	160	11	0	0	0	0
1: Midwee	49: 12:15noon-12:3	21	185	0	74	0	17	0	172	10	0	0	0	0
1: Midwee	50: 12:30noon-12:4	19	184	0	87	0	16	0	182	10	0	0	0	0
1: Midwee	51: 12:45noon-1:00	16	174	0	84	0	17	0	176	9	0	0	0	0
1: Midwee	52: 1:00pm-1:15pm	12	201	0	78	0	17	0	187	10	0	0	0	0
1: Midwee	53: 1:15pm-1:30pm	13	176	0	74	0	13	0	187	10	0	0	0	0
1: Midwee	54: 1:30pm-1:45pm	15	158	0	84	0	11	0	185	9	0	0	0	0
1: Midwee	55: 1:45pm-2:00pm	14	202	0	85	0	9	0	172	10	0	0	0	0
1: Midwee	56: 2:00pm-2:15pm	18	171	0	75	0	11	0	170	10	0	0	0	0
1: Midwee	57: 2:15pm-2:30pm	16	182	0	72	0	11	0	195	7	0	0	0	0
1: Midwee	58: 2:30pm-2:45pm	15	186	0	78	0	11	0	212	8	0	0	0	0
1: Midwee	59: 2:45pm-3:00pm	15	157	0	78	0	15	0	215	11	0	0	0	0
1: Midwee	60: 3:00pm-3:15pm	15	201	0	95	0	15	0	207	10	0	0	0	0
1: Midwee	61: 3:15pm-3:30pm	16	197	0	88	0	20	0	203	9	0	0	0	0
1: Midwee	62: 3:30pm-3:45pm	18	238	0	87	0	27	0	228	9	0	0	0	0
1: Midwee	63: 3:45pm-4:00pm	20	235	0	74	0	19	0	259	7	0	0	0	0
1: Midwee	64: 4:00pm-4:15pm	31	224	0	75	0	21	0	233	7	0	0	0	0
1: Midwee	65: 4:15pm-4:30pm	17	221	0	88	0	18	0	186	9	0	0	0	0

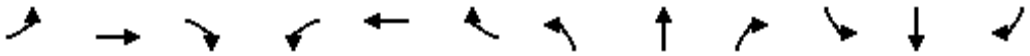
1: Midwee	66: 4:30pm-4:45pm	20	206	0	94	0	15	0	227	10	0	0	0	0
1: Midwee	67: 4:45pm-5:00pm	22	202	0	105	0	15	0	212	10	0	0	0	0
1: Midwee	68: 5:00pm-5:15pm	22	221	0	114	0	17	0	227	9	0	0	0	0
1: Midwee	69: 5:15pm-5:30pm	16	231	0	113	0	19	0	220	9	0	0	0	0
1: Midwee	70: 5:30pm-5:45pm	12	241	0	108	0	20	0	236	10	0	0	0	0
1: Midwee	71: 5:45pm-6:00pm	11	245	0	102	0	20	0	267	9	0	0	0	0
1: Midwee	72: 6:00pm-6:15pm	15	255	0	91	0	23	0	269	8	0	0	0	0
1: Midwee	73: 6:15pm-6:30pm	25	259	0	105	0	21	0	269	9	0	0	0	0
1: Midwee	74: 6:30pm-6:45pm	18	274	0	80	0	17	0	243	7	0	0	0	0
1: Midwee	75: 6:45pm-7:00pm	16	268	0	102	0	14	0	234	7	0	0	0	0
1: Midwee	76: 7:00pm-7:15pm	21	274	0	97	0	13	0	205	8	0	0	0	0
1: Midwee	77: 7:15pm-7:30pm	16	198	0	91	0	16	0	223	7	0	0	0	0
1: Midwee	78: 7:30pm-7:45pm	14	175	0	93	0	22	0	220	7	0	0	0	0
1: Midwee	79: 7:45pm-8:00pm	13	164	0	93	0	18	0	204	6	0	0	0	0
1: Midwee	80: 8:00pm-8:15pm	10	163	0	77	0	15	0	176	5	0	0	0	0
1: Midwee	81: 8:15pm-8:30pm	9	150	0	77	0	11	0	168	4	0	0	0	0
1: Midwee	82: 8:30pm-8:45pm	9	150	0	76	0	9	0	153	3	0	0	0	0
1: Midwee	83: 8:45pm-9:00pm	8	135	0	73	0	9	0	136	3	0	0	0	0
1: Midwee	84: 9:00pm-9:15pm	7	141	0	84	0	8	0	140	5	0	0	0	0
1: Midwee	85: 9:15pm-9:30pm	3	118	0	56	0	7	0	140	4	0	0	0	0
1: Midwee	86: 9:30pm-9:45pm	1	110	0	54	0	5	0	140	2	0	0	0	0
1: Midwee	87: 9:45pm-10:00pm	2	88	0	56	0	4	0	96	2	0	0	0	0
1: Midwee	88: 10:00pm-10:15p	3	85	0	51	0	4	0	95	2	0	0	0	0
1: Midwee	89: 10:15pm-10:30p	3	72	0	44	0	5	0	97	3	0	0	0	0
1: Midwee	90: 10:30pm-10:45p	2	59	0	34	0	3	0	77	4	0	0	0	0
1: Midwee	91: 10:45pm-11:00p	2	56	0	40	0	3	0	67	2	0	0	0	0
Peak Hour	7:30am-8:30am	66	721	-	207	-	84	-	931	36	-	-	-	-
Peak Hour	5:45pm-6:45pm	69	1,033	-	378	-	81	-	1,048	33	-	-	-	-

Note: Data collected by Streetlight for February 1st-June 1st and September 1st-November 15th, 2019. AM and PM peak hours are highlighted in green.

Appendix C: Intersection LOS Calculation Sheets

HCM 6th Signalized Intersection Summary
1: Fruitvale Ave & E 9th St

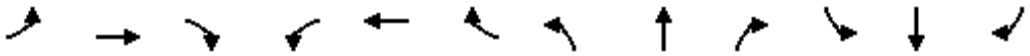
03/21/2022



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	48	5	67	250	16	517	652	69	23	608	369
Future Volume (veh/h)	81	48	5	67	250	16	517	652	69	23	608	369
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	0.99		1.00	1.00		0.97	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	81	48	5	67	250	16	517	652	69	23	608	369
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	147	75	6	99	267	16	433	1000	106	427	457	278
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.42	1.00	1.00	0.02	0.45	0.45
Sat Flow, veh/h	420	363	30	263	1299	79	1697	1578	167	1697	1023	621
Grp Volume(v), veh/h	134	0	0	333	0	0	517	0	721	23	0	977
Grp Sat Flow(s),veh/h/ln	813	0	0	1640	0	0	1697	0	1745	1697	0	1643
Q Serve(g_s), s	0.0	0.0	0.0	4.7	0.0	0.0	20.0	0.0	0.0	0.7	0.0	42.5
Cycle Q Clear(g_c), s	14.5	0.0	0.0	19.2	0.0	0.0	20.0	0.0	0.0	0.7	0.0	42.5
Prop In Lane	0.60		0.04	0.20		0.05	1.00		0.10	1.00		0.38
Lane Grp Cap(c), veh/h	228	0	0	382	0	0	433	0	1106	427	0	735
V/C Ratio(X)	0.59	0.00	0.00	0.87	0.00	0.00	1.19	0.00	0.65	0.05	0.00	1.33
Avail Cap(c_a), veh/h	228	0	0	382	0	0	433	0	1106	922	0	735
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.42	0.00	0.42	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.1	0.0	0.0	37.5	0.0	0.0	20.4	0.0	0.0	13.5	0.0	26.3
Incr Delay (d2), s/veh	3.9	0.0	0.0	19.1	0.0	0.0	97.0	0.0	1.3	0.1	0.0	157.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	0.0	9.6	0.0	0.0	14.7	0.0	0.4	0.3	0.0	47.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.0	0.0	0.0	56.6	0.0	0.0	117.4	0.0	1.3	13.5	0.0	183.6
LnGrp LOS	D	A	A	E	A	A	F	A	A	B	A	F
Approach Vol, veh/h		134			333			1238			1000	
Approach Delay, s/veh		39.0			56.6			49.8			179.7	
Approach LOS		D			E			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	64.7		24.0	24.0	47.0		24.0				
Change Period (Y+Rc), s	4.0	4.5		4.5	4.0	4.5		4.5				
Max Green Setting (Gmax), s	30.0	32.5		19.5	20.0	42.5		19.5				
Max Q Clear Time (g_c+I1), s	2.7	2.0		16.5	22.0	44.5		21.2				
Green Ext Time (p_c), s	0.0	6.0		0.2	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			98.1									
HCM 6th LOS			F									



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	38	116	23	0	138	0	987	2	12	654	0
Future Volume (vph)	180	38	116	23	0	138	0	987	2	12	654	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.5	3.5		3.5			4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95		1.00	1.00	
Frpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.88			1.00		1.00	1.00	
Flt Protected		0.96	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1690	1495		1541			3341		1671	1759	
Flt Permitted		0.57	1.00		0.94			1.00		0.95	1.00	
Satd. Flow (perm)		997	1495		1462			3341		1671	1759	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	180	38	116	23	0	138	0	987	2	12	654	0
RTOR Reduction (vph)	0	0	87	0	104	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	218	29	0	57	0	0	989	0	12	654	0
Confl. Peds. (#/hr)				10			10			10		
Confl. Bikes (#/hr)									5			5
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Turn Type	Perm	NA	Perm	Perm	NA			NA		Prot	NA	
Protected Phases		4			8			2		6	6 2	
Permitted Phases	4		4	8								
Actuated Green, G (s)		23.7	23.7		23.7			33.3		25.5	63.3	
Effective Green, g (s)		23.7	23.7		23.7			33.3		25.5	63.3	
Actuated g/C Ratio		0.25	0.25		0.25			0.35		0.27	0.67	
Clearance Time (s)		3.5	3.5		3.5			4.5		4.5		
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0		
Lane Grp Cap (vph)		248	372		364			1171		448	1172	
v/s Ratio Prot								c0.30		0.01	c0.37	
v/s Ratio Perm		c0.22	0.02		0.04							
v/c Ratio		0.88	0.08		0.16			0.84		0.03	0.56	
Uniform Delay, d1		34.3	27.3		27.9			28.5		25.6	8.4	
Progression Factor		1.00	1.00		1.00			1.00		1.04	0.92	
Incremental Delay, d2		27.7	0.1		0.2			7.5		0.0	0.2	
Delay (s)		62.0	27.4		28.1			36.0		26.7	7.9	
Level of Service		E	C		C			D		C	A	
Approach Delay (s)		49.9			28.1			36.0			8.3	
Approach LOS		D			C			D			A	

Intersection Summary			
HCM 2000 Control Delay	29.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	66.6%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	9	59	479	996	657	62
Future Vol, veh/h	9	59	479	996	657	62
Conflicting Peds, #/hr	0	0	10	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	8	8	8	8	8	8
Mvmt Flow	9	59	479	996	657	62

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	2154	698	729	0	-	0
Stage 1	698	-	-	-	-	-
Stage 2	1456	-	-	-	-	-
Critical Hdwy	6.72	6.32	4.22	-	-	-
Critical Hdwy Stg 1	5.52	-	-	-	-	-
Critical Hdwy Stg 2	5.92	-	-	-	-	-
Follow-up Hdwy	3.576	3.376	2.276	-	-	-
Pot Cap-1 Maneuver	44	427	840	-	-	-
Stage 1	479	-	-	-	-	-
Stage 2	174	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	0	423	833	-	-	-
Mov Cap-2 Maneuver	0	-	-	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	173	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.1	7.4	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	833	-	423	-	-
HCM Lane V/C Ratio	0.575	-	0.161	-	-
HCM Control Delay (s)	15	3.8	15.1	-	-
HCM Lane LOS	C	A	C	-	-
HCM 95th %tile Q(veh)	3.7	-	0.6	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	461	197	967	56	117	617
Future Volume (vph)	461	197	967	56	117	617
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		4.5		3.0	4.5
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	1.00		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.96		0.99		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3120		3311		1671	3343
Flt Permitted	0.97		1.00		0.95	1.00
Satd. Flow (perm)	3120		3311		1671	3343
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	461	197	967	56	117	617
RTOR Reduction (vph)	55	0	4	0	0	0
Lane Group Flow (vph)	603	0	1019	0	117	617
Confl. Peds. (#/hr)					10	
Confl. Bikes (#/hr)				5		
Heavy Vehicles (%)	9%	9%	8%	8%	8%	8%
Turn Type	Prot		NA		Prot	NA
Protected Phases	3		2		1	6
Permitted Phases						
Actuated Green, G (s)	23.0		47.5		14.0	64.5
Effective Green, g (s)	23.0		47.5		14.0	64.5
Actuated g/C Ratio	0.24		0.50		0.15	0.68
Clearance Time (s)	3.0		4.5		3.0	4.5
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	755		1655		246	2269
v/s Ratio Prot	c0.19		c0.31		c0.07	0.18
v/s Ratio Perm						
v/c Ratio	0.80		0.62		0.48	0.27
Uniform Delay, d1	33.8		17.2		37.1	6.0
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	5.9		1.7		1.5	0.3
Delay (s)	39.7		18.9		38.6	6.3
Level of Service	D		B		D	A
Approach Delay (s)	39.7		18.9			11.4
Approach LOS	D		B			B

Intersection Summary			
HCM 2000 Control Delay	22.3	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	64.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

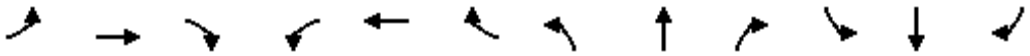
Intersection	
Int Delay, s/veh	3.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	218	78	908	94	0
Future Vol, veh/h	2	218	78	908	94	0
Conflicting Peds, #/hr	0	0	10	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	2	218	78	908	94	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	230	0	1185	121
Stage 1	-	-	-	-	121	-
Stage 2	-	-	-	-	1064	-
Critical Hdwy	-	-	4.19	-	6.49	6.29
Critical Hdwy Stg 1	-	-	-	-	5.49	-
Critical Hdwy Stg 2	-	-	-	-	5.49	-
Follow-up Hdwy	-	-	2.281	-	3.581	3.381
Pot Cap-1 Maneuver	-	-	1298	-	202	912
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	322	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1287	-	188	904
Mov Cap-2 Maneuver	-	-	-	-	188	-
Stage 1	-	-	-	-	880	-
Stage 2	-	-	-	-	302	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	41.9
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	188	-	-	1287	-
HCM Lane V/C Ratio	0.5	-	-	0.061	-
HCM Control Delay (s)	41.9	-	-	8	-
HCM Lane LOS	E	-	-	A	-
HCM 95th %tile Q(veh)	2.5	-	-	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	592	629	414	459	441	112	46	848	215
Future Volume (vph)	0	0	0	592	629	414	459	441	112	46	848	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5		4.5	4.5			4.5	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.96		1.00	0.97			0.97	
Flt Protected					0.98		0.95	1.00			1.00	
Satd. Flow (prot)					3280		1736	3350			3352	
Flt Permitted					0.98		0.95	1.00			0.90	
Satd. Flow (perm)					3280		1736	3350			3038	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	592	629	414	459	441	112	46	848	215
RTOR Reduction (vph)	0	0	0	0	42	0	0	28	0	0	26	0
Lane Group Flow (vph)	0	0	0	0	1593	0	459	525	0	0	1083	0
Confl. Peds. (#/hr)	10									10		
Confl. Bikes (#/hr)									5			5
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	2			6	
Permitted Phases				8						6		
Actuated Green, G (s)					27.5		14.5	43.5			24.5	
Effective Green, g (s)					27.5		14.5	43.5			24.5	
Actuated g/C Ratio					0.34		0.18	0.54			0.31	
Clearance Time (s)					4.5		4.5	4.5			4.5	
Vehicle Extension (s)					3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)					1127		314	1821			930	
v/s Ratio Prot							c0.26	0.16				
v/s Ratio Perm					0.49						c0.36	
v/c Ratio					1.41		1.46	0.29			1.16	
Uniform Delay, d1					26.2		32.8	9.9			27.8	
Progression Factor					1.00		1.43	0.67			1.00	
Incremental Delay, d2					191.4		217.0	0.2			85.7	
Delay (s)					217.6		263.7	6.8			113.4	
Level of Service					F		F	A			F	
Approach Delay (s)		0.0			217.6			123.3			113.4	
Approach LOS		A			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	161.5	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.33		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	116.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	WBL2	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	182	1712	408	25	30	250	588	306	240	588	440
Future Volume (vph)	182	1712	408	25	30	250	588	306	240	588	440
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5		3.5	4.5	
Lane Util. Factor		0.95	1.00		1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00		1.00	1.00	0.99		1.00	0.99	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	0.95		1.00	0.94	
Flt Protected		1.00	1.00		0.95	1.00	1.00		0.95	1.00	
Satd. Flow (prot)		3451	1553		1736	1553	3275		1736	3215	
Flt Permitted		1.00	1.00		0.13	1.00	1.00		0.95	1.00	
Satd. Flow (perm)		3451	1553		232	1553	3275		1736	3215	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	182	1712	408	25	30	250	588	306	240	588	440
RTOR Reduction (vph)	0	0	0	0	0	152	24	0	0	0	0
Lane Group Flow (vph)	0	1894	408	0	55	98	870	0	240	1028	0
Confl. Peds. (#/hr)	10			10	10				10		
Confl. Bikes (#/hr)								5			5
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm	NA	Perm	Perm	Perm	Perm	NA		Prot	NA	
Protected Phases		4					2		1	6	
Permitted Phases	4		4	8	8	8					
Actuated Green, G (s)		31.5	31.5		31.5	31.5	24.5		11.5	39.5	
Effective Green, g (s)		31.5	31.5		31.5	31.5	24.5		11.5	39.5	
Actuated g/C Ratio		0.39	0.39		0.39	0.39	0.31		0.14	0.49	
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5		3.5	4.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1358	611		91	611	1002		249	1587	
v/s Ratio Prot							c0.27		c0.14	0.32	
v/s Ratio Perm		0.55	0.26		0.24	0.06					
v/c Ratio		1.39	0.67		0.60	0.16	0.87		0.96	0.65	
Uniform Delay, d1		24.2	19.9		19.3	15.7	26.2		34.0	15.1	
Progression Factor		1.00	1.00		1.00	1.00	1.00		0.82	1.59	
Incremental Delay, d2		182.2	2.8		10.8	0.1	10.1		10.0	0.2	
Delay (s)		206.4	22.7		30.1	15.8	36.4		38.0	24.2	
Level of Service		F	C		C	B	D		D	C	
Approach Delay (s)		173.9					36.4			26.8	
Approach LOS		F					D			C	

Intersection Summary			
HCM 2000 Control Delay	99.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.13		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	106.1%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			

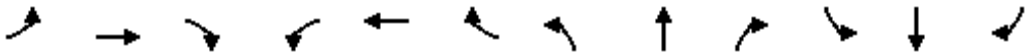
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	207	84	66	721	931	36
Future Volume (veh/h)	207	84	66	721	931	36
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	207	84	66	721	931	36
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	574	511	145	1597	2058	80
Arrive On Green	0.33	0.33	0.60	0.60	0.60	0.60
Sat Flow, veh/h	1753	1560	177	2745	3521	133
Grp Volume(v), veh/h	207	84	370	417	475	492
Grp Sat Flow(s),veh/h/ln	1753	1560	1247	1591	1749	1813
Q Serve(g_s), s	9.9	4.2	5.7	15.6	16.4	16.4
Cycle Q Clear(g_c), s	9.9	4.2	22.1	15.6	16.4	16.4
Prop In Lane	1.00	1.00	0.18			0.07
Lane Grp Cap(c), veh/h	574	511	787	955	1049	1088
V/C Ratio(X)	0.36	0.16	0.47	0.44	0.45	0.45
Avail Cap(c_a), veh/h	574	511	787	955	1049	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	28.2	26.3	12.1	11.9	12.1	12.1
Incr Delay (d2), s/veh	1.8	0.7	2.0	1.5	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.4	1.7	4.8	5.7	6.5	6.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	30.0	27.0	14.1	13.4	13.5	13.4
LnGrp LOS	C	C	B	B	B	B
Approach Vol, veh/h	291			787	967	
Approach Delay, s/veh	29.1			13.7	13.5	
Approach LOS	C			B	B	

Timer - Assigned Phs	2		4		6
Phs Duration (G+Y+Rc), s	71.0		39.0		71.0
Change Period (Y+Rc), s	5.0		3.0		5.0
Max Green Setting (Gmax), s	66.0		36.0		66.0
Max Q Clear Time (g_c+I1), s	18.4		11.9		24.1
Green Ext Time (p_c), s	7.9		0.9		6.6

Intersection Summary	
HCM 6th Ctrl Delay	15.8
HCM 6th LOS	B

HCM 6th Signalized Intersection Summary
1: Fruitvale Ave & E 9th St

03/21/2022



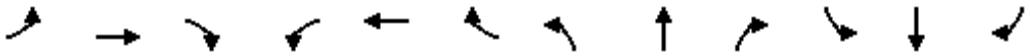
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	129	22	61	98	17	193	652	179	37	757	235
Future Volume (veh/h)	84	129	22	61	98	17	193	652	179	37	757	235
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	0.98		1.00	1.00		0.96	1.00		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856	1856
Adj Flow Rate, veh/h	84	129	22	61	98	17	193	652	179	37	757	235
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	3	3	3	3	3	3	3	3	3	3	3	3
Cap, veh/h	137	168	26	121	172	26	244	901	247	557	874	271
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.06	1.00	1.00	0.03	0.65	0.65
Sat Flow, veh/h	470	929	144	388	949	143	1767	1388	381	1767	1344	417
Grp Volume(v), veh/h	235	0	0	176	0	0	193	0	831	37	0	992
Grp Sat Flow(s),veh/h/ln	1543	0	0	1480	0	0	1767	0	1769	1767	0	1761
Q Serve(g_s), s	3.8	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.6	0.0	42.8
Cycle Q Clear(g_c), s	14.0	0.0	0.0	10.3	0.0	0.0	3.0	0.0	0.0	0.6	0.0	42.8
Prop In Lane	0.36		0.09	0.35		0.10	1.00		0.22	1.00		0.24
Lane Grp Cap(c), veh/h	331	0	0	319	0	0	244	0	1149	557	0	1145
V/C Ratio(X)	0.71	0.00	0.00	0.55	0.00	0.00	0.79	0.00	0.72	0.07	0.00	0.87
Avail Cap(c_a), veh/h	566	0	0	551	0	0	244	0	1149	666	0	1145
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.77	0.00	0.77	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.5	0.0	0.0	35.7	0.0	0.0	24.2	0.0	0.0	4.9	0.0	13.3
Incr Delay (d2), s/veh	2.8	0.0	0.0	1.5	0.0	0.0	12.7	0.0	3.1	0.0	0.0	7.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.4	0.0	0.0	3.9	0.0	0.0	3.9	0.0	1.0	0.2	0.0	16.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.3	0.0	0.0	37.2	0.0	0.0	37.0	0.0	3.1	5.0	0.0	20.5
LnGrp LOS	D	A	A	D	A	A	D	A	A	A	A	C
Approach Vol, veh/h		235			176			1024			1029	
Approach Delay, s/veh		40.3			37.2			9.5			19.9	
Approach LOS		D			D			A			B	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	66.2		21.7	7.0	66.3		21.7				
Change Period (Y+Rc), s	4.0	4.5		4.5	4.0	4.5		4.5				
Max Green Setting (Gmax), s	9.0	41.5		31.5	3.0	47.5		31.5				
Max Q Clear Time (g_c+I1), s	2.6	2.0		16.0	5.0	44.8		12.3				
Green Ext Time (p_c), s	0.0	8.1		1.2	0.0	1.8		0.9				

Intersection Summary			
HCM 6th Ctrl Delay		18.7	
HCM 6th LOS		B	

Notes

User approved pedestrian interval to be less than phase max green.



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	71	231	24	0	81	0	776	4	20	827	0
Future Volume (vph)	239	71	231	24	0	81	0	776	4	20	827	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.5	3.5		3.5			4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95		1.00	1.00	
Frpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		0.99			1.00		1.00	1.00	
Frt		1.00	0.85		0.90			1.00		1.00	1.00	
Flt Protected		0.96	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1776	1568		1625			3502		1752	1845	
Flt Permitted		0.70	1.00		0.90			1.00		0.95	1.00	
Satd. Flow (perm)		1285	1568		1475			3502		1752	1845	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	239	71	231	24	0	81	0	776	4	20	827	0
RTOR Reduction (vph)	0	0	103	0	57	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	310	128	0	48	0	0	779	0	20	827	0
Confl. Peds. (#/hr)				20			20			20		
Confl. Bikes (#/hr)									5			5
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%	3%
Turn Type	Perm	NA	Perm	Perm	NA			NA		Prot	NA	
Protected Phases		4			8			2		6	6 2	
Permitted Phases	4		4	8								
Actuated Green, G (s)		27.8	27.8		27.8			35.2		19.5	59.2	
Effective Green, g (s)		27.8	27.8		27.8			35.2		19.5	59.2	
Actuated g/C Ratio		0.29	0.29		0.29			0.37		0.21	0.62	
Clearance Time (s)		3.5	3.5		3.5			4.5		4.5		
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0		
Lane Grp Cap (vph)		376	458		431			1297		359	1149	
v/s Ratio Prot								0.22		0.01	c0.45	
v/s Ratio Perm		c0.24	0.08		0.03							
v/c Ratio		0.82	0.28		0.11			0.60		0.06	0.72	
Uniform Delay, d1		31.3	25.9		24.6			24.2		30.3	12.2	
Progression Factor		1.00	1.00		1.00			1.00		0.78	0.52	
Incremental Delay, d2		13.7	0.3		0.1			2.1		0.0	0.4	
Delay (s)		45.0	26.2		24.7			26.3		23.7	6.7	
Level of Service		D	C		C			C		C	A	
Approach Delay (s)		37.0			24.7			26.3			7.1	
Approach LOS		D			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	21.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.79		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	74.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	19	78	99	827	968	52
Future Vol, veh/h	19	78	99	827	968	52
Conflicting Peds, #/hr	0	0	20	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	19	78	99	827	968	52

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	1626	1014	1040	0	-	0
Stage 1	1014	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Critical Hdwy	6.645	6.245	4.145	-	-	-
Critical Hdwy Stg 1	5.445	-	-	-	-	-
Critical Hdwy Stg 2	5.845	-	-	-	-	-
Follow-up Hdwy	3.5285	3.3285	2.2285	-	-	-
Pot Cap-1 Maneuver	101	287	662	-	-	-
Stage 1	347	-	-	-	-	-
Stage 2	502	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	70	282	651	-	-	-
Mov Cap-2 Maneuver	70	-	-	-	-	-
Stage 1	245	-	-	-	-	-
Stage 2	493	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	47.6	2.4	0
HCM LOS	E		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	651	-	177	-	-
HCM Lane V/C Ratio	0.152	-	0.548	-	-
HCM Control Delay (s)	11.5	1.3	47.6	-	-
HCM Lane LOS	B	A	E	-	-
HCM 95th %tile Q(veh)	0.5	-	2.8	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	353	144	698	138	189	833
Future Volume (vph)	353	144	698	138	189	833
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		4.5		3.0	4.5
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	1.00		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.96		0.98		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3306		3405		1752	3505
Flt Permitted	0.97		1.00		0.95	1.00
Satd. Flow (perm)	3306		3405		1752	3505
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	353	144	698	138	189	833
RTOR Reduction (vph)	55	0	14	0	0	0
Lane Group Flow (vph)	442	0	822	0	189	833
Confl. Peds. (#/hr)					20	
Confl. Bikes (#/hr)				5		
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Turn Type	Prot		NA		Prot	NA
Protected Phases	3		2		1	6
Permitted Phases						
Actuated Green, G (s)	17.8		60.7		6.0	69.7
Effective Green, g (s)	17.8		60.7		6.0	69.7
Actuated g/C Ratio	0.19		0.64		0.06	0.73
Clearance Time (s)	3.0		4.5		3.0	4.5
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	619		2175		110	2571
v/s Ratio Prot	c0.13		c0.24		c0.11	0.24
v/s Ratio Perm						
v/c Ratio	0.71		0.38		1.72	0.32
Uniform Delay, d1	36.2		8.2		44.5	4.4
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	3.9		0.5		358.5	0.3
Delay (s)	40.1		8.7		403.0	4.8
Level of Service	D		A		F	A
Approach Delay (s)	40.1		8.7			78.4
Approach LOS	D		A			E

Intersection Summary			
HCM 2000 Control Delay	45.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.54		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	59.2%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

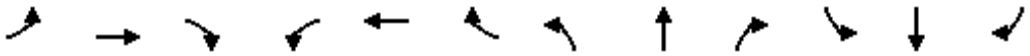
Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	421	77	585	103	0
Future Vol, veh/h	2	421	77	585	103	0
Conflicting Peds, #/hr	0	0	20	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	4	4	4	4	4	4
Mvmt Flow	2	421	77	585	103	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	443	0	972	233
Stage 1	-	-	-	-	233	-
Stage 2	-	-	-	-	739	-
Critical Hdwy	-	-	4.14	-	6.44	6.24
Critical Hdwy Stg 1	-	-	-	-	5.44	-
Critical Hdwy Stg 2	-	-	-	-	5.44	-
Follow-up Hdwy	-	-	2.236	-	3.536	3.336
Pot Cap-1 Maneuver	-	-	1107	-	278	801
Stage 1	-	-	-	-	801	-
Stage 2	-	-	-	-	469	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1089	-	254	788
Mov Cap-2 Maneuver	-	-	-	-	254	-
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	436	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	28.5
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	254	-	-	1089	-
HCM Lane V/C Ratio	0.406	-	-	0.071	-
HCM Control Delay (s)	28.5	-	-	8.6	-
HCM Lane LOS	D	-	-	A	-
HCM 95th %tile Q(veh)	1.9	-	-	0.2	-



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	603	496	340	529	840	114	45	824	138
Future Volume (vph)	0	0	0	603	496	340	529	840	114	45	824	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5		4.5	4.5			4.5	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.96		1.00	0.98			0.98	
Flt Protected					0.98		0.95	1.00			1.00	
Satd. Flow (prot)					3279		1736	3399			3383	
Flt Permitted					0.98		0.95	1.00			0.86	
Satd. Flow (perm)					3279		1736	3399			2900	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	603	496	340	529	840	114	45	824	138
RTOR Reduction (vph)	0	0	0	0	31	0	0	11	0	0	13	0
Lane Group Flow (vph)	0	0	0	0	1408	0	529	943	0	0	994	0
Confl. Peds. (#/hr)	20									20		
Confl. Bikes (#/hr)									5			5
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	2			6	
Permitted Phases				8						6		
Actuated Green, G (s)					31.5		21.5	54.5			28.5	
Effective Green, g (s)					31.5		21.5	54.5			28.5	
Actuated g/C Ratio					0.33		0.23	0.57			0.30	
Clearance Time (s)					4.5		4.5	4.5			4.5	
Vehicle Extension (s)					3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)					1087		392	1949			870	
v/s Ratio Prot							c0.30	0.28				
v/s Ratio Perm					0.43						c0.34	
v/c Ratio					1.30		1.35	0.48			1.14	
Uniform Delay, d1					31.8		36.8	11.9			33.2	
Progression Factor					1.00		1.54	0.45			1.00	
Incremental Delay, d2					139.9		158.9	0.1			77.7	
Delay (s)					171.6		215.6	5.4			110.9	
Level of Service					F		F	A			F	
Approach Delay (s)		0.0			171.6			80.4			110.9	
Approach LOS		A			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	121.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.26		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	111.2%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

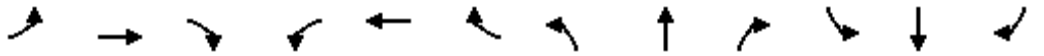
Movement	EBL	EBT	EBR	WBL2	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Traffic Volume (vph)	257	1578	358	14	54	222	1075	318	322	807	360
Future Volume (vph)	257	1578	358	14	54	222	1075	318	322	807	360
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5		4.5	4.5	4.5		3.5	4.5	
Lane Util. Factor		0.95	1.00		1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00	1.00		1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85		1.00	0.85	0.97		1.00	0.95	
Flt Protected		0.99	1.00		0.95	1.00	1.00		0.95	1.00	
Satd. Flow (prot)		3434	1553		1736	1553	3341		1736	3286	
Flt Permitted		0.99	1.00		0.11	1.00	1.00		0.95	1.00	
Satd. Flow (perm)		3434	1553		200	1553	3341		1736	3286	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	257	1578	358	14	54	222	1075	318	322	807	360
RTOR Reduction (vph)	0	0	0	0	0	137	14	0	0	0	0
Lane Group Flow (vph)	0	1835	358	0	68	85	1379	0	322	1167	0
Confl. Peds. (#/hr)	20			20	20				20		
Confl. Bikes (#/hr)								5			5
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm	NA	Perm	Perm	Perm	Perm	NA		Prot	NA	
Protected Phases		4					2		1	6	
Permitted Phases	4		4	8	8	8					
Actuated Green, G (s)		36.5	36.5		36.5	36.5	31.5		14.5	49.5	
Effective Green, g (s)		36.5	36.5		36.5	36.5	31.5		14.5	49.5	
Actuated g/C Ratio		0.38	0.38		0.38	0.38	0.33		0.15	0.52	
Clearance Time (s)		4.5	4.5		4.5	4.5	4.5		3.5	4.5	
Vehicle Extension (s)		3.0	3.0		3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1319	596		76	596	1107		264	1712	
v/s Ratio Prot							c0.41		c0.19	0.36	
v/s Ratio Perm		0.53	0.23		0.34	0.05					
v/c Ratio		1.39	0.60		0.89	0.14	1.25		1.22	0.68	
Uniform Delay, d1		29.2	23.4		27.4	19.1	31.8		40.2	16.9	
Progression Factor		1.00	1.00		1.00	1.00	1.00		0.98	1.33	
Incremental Delay, d2		180.8	1.7		68.1	0.1	118.3		102.2	0.2	
Delay (s)		210.0	25.1		95.5	19.2	150.0		141.7	22.6	
Level of Service		F	C		F	B	F		F	C	
Approach Delay (s)		179.8					150.0			48.4	
Approach LOS		F					F			D	

Intersection Summary			
HCM 2000 Control Delay	127.9	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.30		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	124.6%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	378	81	69	1033	1048	33
Future Volume (veh/h)	378	81	69	1033	1048	33
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	378	81	69	1033	1048	33
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	418	372	135	1982	2404	76
Arrive On Green	0.24	0.24	0.70	0.70	0.70	0.70
Sat Flow, veh/h	1753	1560	146	2935	3550	109
Grp Volume(v), veh/h	378	81	527	575	530	551
Grp Sat Flow(s),veh/h/ln	1753	1560	1406	1591	1749	1818
Q Serve(g_s), s	25.1	5.0	3.9	20.7	15.9	15.9
Cycle Q Clear(g_c), s	25.1	5.0	19.8	20.7	15.9	15.9
Prop In Lane	1.00	1.00	0.13			0.06
Lane Grp Cap(c), veh/h	418	372	1011	1106	1216	1264
V/C Ratio(X)	0.91	0.22	0.52	0.52	0.44	0.44
Avail Cap(c_a), veh/h	760	676	1011	1106	1216	1264
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	44.4	36.7	8.0	8.7	8.0	8.0
Incr Delay (d2), s/veh	7.5	0.3	0.5	0.4	1.1	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.7	2.0	5.5	6.7	5.9	6.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	51.9	37.0	8.5	9.2	9.1	9.1
LnGrp LOS	D	D	A	A	A	A
Approach Vol, veh/h	459			1102	1081	
Approach Delay, s/veh	49.3			8.8	9.1	
Approach LOS	D			A	A	

Timer - Assigned Phs	2		4		6
Phs Duration (G+Y+Rc), s	88.4		31.6		88.4
Change Period (Y+Rc), s	5.0		3.0		5.0
Max Green Setting (Gmax), s	60.0		52.0		60.0
Max Q Clear Time (g_c+I1), s	17.9		27.1		22.7
Green Ext Time (p_c), s	9.2		1.5		10.3

Intersection Summary		
HCM 6th Ctrl Delay	16.0	
HCM 6th LOS	B	



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	81	48	5	67	250	16	556	663	69	23	620	369
Future Volume (veh/h)	81	48	5	67	250	16	556	663	69	23	620	369
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.94	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	81	48	5	67	250	16	556	663	69	23	620	369
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	140	71	6	94	238	14	433	1036	108	438	483	288
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.42	1.00	1.00	0.02	0.47	0.47
Sat Flow, veh/h	432	383	32	266	1290	79	1697	1581	165	1697	1031	614
Grp Volume(v), veh/h	134	0	0	333	0	0	556	0	732	23	0	989
Grp Sat Flow(s),veh/h/ln	847	0	0	1634	0	0	1697	0	1746	1697	0	1645
Q Serve(g_s), s	0.0	0.0	0.0	3.3	0.0	0.0	20.0	0.0	0.0	0.7	0.0	44.5
Cycle Q Clear(g_c), s	14.2	0.0	0.0	17.5	0.0	0.0	20.0	0.0	0.0	0.7	0.0	44.5
Prop In Lane	0.60		0.04	0.20		0.05	1.00		0.09	1.00		0.37
Lane Grp Cap(c), veh/h	217	0	0	347	0	0	433	0	1143	438	0	771
V/C Ratio(X)	0.62	0.00	0.00	0.96	0.00	0.00	1.28	0.00	0.64	0.05	0.00	1.28
Avail Cap(c_a), veh/h	217	0	0	347	0	0	433	0	1143	541	0	771
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.22	0.00	0.22	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.8	0.0	0.0	39.5	0.0	0.0	20.8	0.0	0.0	12.4	0.0	25.3
Incr Delay (d2), s/veh	5.2	0.0	0.0	38.0	0.0	0.0	131.9	0.0	0.6	0.0	0.0	137.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	0.0	0.0	11.4	0.0	0.0	22.4	0.0	0.2	0.3	0.0	45.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	42.0	0.0	0.0	77.5	0.0	0.0	152.6	0.0	0.6	12.5	0.0	162.6
LnGrp LOS	D	A	A	E	A	A	F	A	A	B	A	F
Approach Vol, veh/h		134			333			1288			1012	
Approach Delay, s/veh		42.0			77.5			66.2			159.2	
Approach LOS		D			E			E			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	6.3	66.7		22.0	24.0	49.0		22.0				
Change Period (Y+Rc), s	4.0	4.5		4.5	4.0	4.5		4.5				
Max Green Setting (Gmax), s	8.0	56.5		17.5	20.0	44.5		17.5				
Max Q Clear Time (g_c+I1), s	2.7	2.0		16.2	22.0	46.5		19.5				
Green Ext Time (p_c), s	0.0	6.6		0.1	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			100.4									
HCM 6th LOS			F									

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	180	79	116	23	0	138	0	1037	2	24	654	0
Future Volume (vph)	180	79	116	23	0	138	0	1037	2	24	654	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.5	3.5		3.5			4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95		1.00	1.00	
Frpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.88			1.00		1.00	1.00	
Flt Protected		0.97	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1700	1495		1542			3341		1671	1759	
Flt Permitted		0.62	1.00		0.94			1.00		0.95	1.00	
Satd. Flow (perm)		1088	1495		1456			3341		1671	1759	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	180	79	116	23	0	138	0	1037	2	24	654	0
RTOR Reduction (vph)	0	0	85	0	101	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	259	31	0	60	0	0	1039	0	24	654	0
Confl. Peds. (#/hr)				10			10			10		
Confl. Bikes (#/hr)									5			5
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Turn Type	Perm	NA	Perm	Perm	NA			NA		Prot	NA	
Protected Phases		4			8			2		6	6 2	
Permitted Phases	4		4	8								
Actuated Green, G (s)		25.6	25.6		25.6			31.4		25.5	61.4	
Effective Green, g (s)		25.6	25.6		25.6			31.4		25.5	61.4	
Actuated g/C Ratio		0.27	0.27		0.27			0.33		0.27	0.65	
Clearance Time (s)		3.5	3.5		3.5			4.5		4.5		
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0		
Lane Grp Cap (vph)		293	402		392			1104		448	1136	
v/s Ratio Prot								c0.31		0.01	c0.37	
v/s Ratio Perm		c0.24	0.02		0.04							
v/c Ratio		0.88	0.08		0.15			0.94		0.05	0.58	
Uniform Delay, d1		33.3	25.9		26.4			30.9		25.8	9.5	
Progression Factor		1.00	1.00		1.00			1.00		0.54	0.23	
Incremental Delay, d2		25.4	0.1		0.2			16.2		0.0	0.2	
Delay (s)		58.7	26.0		26.6			47.1		14.0	2.4	
Level of Service		E	C		C			D		B	A	
Approach Delay (s)		48.6			26.6			47.1			2.8	
Approach LOS		D			C			D			A	

Intersection Summary			
HCM 2000 Control Delay	32.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.83		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	18.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	0	59	0	0	50	479	996	3	0	657	62
Future Vol, veh/h	9	0	59	0	0	50	479	996	3	0	657	62
Conflicting Peds, #/hr	0	0	0	0	0	0	10	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	8	2	8	2	2	2	8	8	2	2	8	8
Mvmt Flow	9	0	59	0	0	50	479	996	3	0	657	62

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2679	2655	698	-	-	998	729	0	0	-	-	0
Stage 1	698	698	-	-	-	-	-	-	-	-	-	-
Stage 2	1981	1957	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.52	6.28	-	-	6.22	4.18	-	-	-	-	-
Critical Hdwy Stg 1	6.18	5.52	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.52	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.018	3.372	-	-	3.318	2.272	-	-	-	-	-
Pot Cap-1 Maneuver	14	23	430	0	0	296	848	-	-	0	-	-
Stage 1	421	442	-	0	0	-	-	-	-	0	-	-
Stage 2	77	110	-	0	0	-	-	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	~ 6	10	426	-	-	296	841	-	-	-	-	-
Mov Cap-2 Maneuver	~ 6	10	-	-	-	-	-	-	-	-	-	-
Stage 1	180	438	-	-	-	-	-	-	-	-	-	-
Stage 2	28	47	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	$ 516.1	19.6	4.8	0
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	841	-	-	42	296	-	-
HCM Lane V/C Ratio	0.57	-	-	1.619	0.169	-	-
HCM Control Delay (s)	14.8	-	-	$ 516.1	19.6	-	-
HCM Lane LOS	B	-	-	F	C	-	-
HCM 95th %tile Q(veh)	3.7	-	-	6.9	0.6	-	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	467	197	970	61	117	617
Future Volume (vph)	467	197	970	61	117	617
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		4.5		3.0	4.5
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	1.00		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.96		0.99		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3121		3308		1671	3343
Flt Permitted	0.97		1.00		0.95	1.00
Satd. Flow (perm)	3121		3308		1671	3343
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	467	197	970	61	117	617
RTOR Reduction (vph)	54	0	5	0	0	0
Lane Group Flow (vph)	610	0	1026	0	117	617
Confl. Peds. (#/hr)	10				10	
Confl. Bikes (#/hr)				5		
Heavy Vehicles (%)	9%	9%	8%	8%	8%	8%
Turn Type	Prot		NA		Prot	NA
Protected Phases	3		2		1	6
Permitted Phases						
Actuated Green, G (s)	23.1		47.4		14.0	64.4
Effective Green, g (s)	23.1		47.4		14.0	64.4
Actuated g/C Ratio	0.24		0.50		0.15	0.68
Clearance Time (s)	3.0		4.5		3.0	4.5
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	758		1650		246	2266
v/s Ratio Prot	c0.20		c0.31		c0.07	0.18
v/s Ratio Perm						
v/c Ratio	0.80		0.62		0.48	0.27
Uniform Delay, d1	33.8		17.3		37.1	6.0
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	6.2		1.8		1.5	0.3
Delay (s)	40.0		19.1		38.6	6.3
Level of Service	D		B		D	A
Approach Delay (s)	40.0		19.1			11.5
Approach LOS	D		B			B

Intersection Summary			
HCM 2000 Control Delay	22.5	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	65.2%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	7.1
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	2	0	29	5	40
Future Vol, veh/h	30	2	0	29	5	40
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	30	2	0	29	5	40
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.4	6.5	7.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	94%	11%
Vol Thru, %	0%	0%	89%
Vol Right, %	100%	6%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	29	32	45
LT Vol	0	30	5
Through Vol	0	0	40
RT Vol	29	2	0
Lane Flow Rate	29	32	45
Geometry Grp	1	1	1
Degree of Util (X)	0.028	0.037	0.05
Departure Headway (Hd)	3.422	4.212	4.033
Convergence, Y/N	Yes	Yes	Yes
Cap	1044	850	889
Service Time	1.449	2.236	2.053
HCM Lane V/C Ratio	0.028	0.038	0.051
HCM Control Delay	6.5	7.4	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2

Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	0	29	30	22	61	2
Future Vol, veh/h	0	29	30	22	61	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	29	30	22	61	2

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	144	62	63	0	-	0
Stage 1	62	-	-	-	-	-
Stage 2	82	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	849	1003	1540	-	-	-
Stage 1	961	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	832	1003	1540	-	-	-
Mov Cap-2 Maneuver	832	-	-	-	-	-
Stage 1	942	-	-	-	-	-
Stage 2	941	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.7	4.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1540	-	1003	-	-
HCM Lane V/C Ratio	0.019	-	0.029	-	-
HCM Control Delay (s)	7.4	0	8.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	8	183	672	83	89	19
Future Vol, veh/h	8	183	672	83	89	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	183	672	83	89	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	755	0	-	0	913	714
Stage 1	-	-	-	-	714	-
Stage 2	-	-	-	-	199	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	855	-	-	-	304	431
Stage 1	-	-	-	-	485	-
Stage 2	-	-	-	-	835	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	855	-	-	-	301	431
Mov Cap-2 Maneuver	-	-	-	-	301	-
Stage 1	-	-	-	-	480	-
Stage 2	-	-	-	-	835	-

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	22
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	855	-	-	-	318
HCM Lane V/C Ratio	0.009	-	-	-	0.34
HCM Control Delay (s)	9.2	0	-	-	22
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1.5

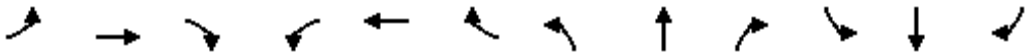
Intersection	
Int Delay, s/veh	4.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	308	78	1005	94	0
Future Vol, veh/h	2	308	78	1005	94	0
Conflicting Peds, #/hr	0	0	10	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	2	308	78	1005	94	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	320	0	1327	166
Stage 1	-	-	-	-	166	-
Stage 2	-	-	-	-	1161	-
Critical Hdwy	-	-	4.19	-	6.49	6.29
Critical Hdwy Stg 1	-	-	-	-	5.49	-
Critical Hdwy Stg 2	-	-	-	-	5.49	-
Follow-up Hdwy	-	-	2.281	-	3.581	3.381
Pot Cap-1 Maneuver	-	-	1201	-	166	860
Stage 1	-	-	-	-	847	-
Stage 2	-	-	-	-	289	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1191	-	154	853
Mov Cap-2 Maneuver	-	-	-	-	154	-
Stage 1	-	-	-	-	840	-
Stage 2	-	-	-	-	270	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.6	59.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	154	-	-	1191	-
HCM Lane V/C Ratio	0.61	-	-	0.065	-
HCM Control Delay (s)	59.5	-	-	8.2	-
HCM Lane LOS	F	-	-	A	-
HCM 95th %tile Q(veh)	3.3	-	-	0.2	-

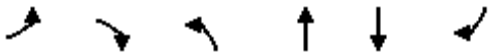


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	665	629	414	472	451	112	46	858	215
Future Volume (vph)	0	0	0	665	629	414	472	451	112	46	858	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5		4.5	4.5			4.5	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.96		1.00	0.97			0.97	
Flt Protected					0.98		0.95	1.00			1.00	
Satd. Flow (prot)					3281		1736	3352			3352	
Flt Permitted					0.98		0.95	1.00			0.90	
Satd. Flow (perm)					3281		1736	3352			3033	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	665	629	414	472	451	112	46	858	215
RTOR Reduction (vph)	0	0	0	0	39	0	0	27	0	0	26	0
Lane Group Flow (vph)	0	0	0	0	1669	0	472	536	0	0	1093	0
Confl. Peds. (#/hr)	10									10		
Confl. Bikes (#/hr)									5			5
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	2			6	
Permitted Phases				8						6		
Actuated Green, G (s)					28.5		16.5	42.5			21.5	
Effective Green, g (s)					28.5		16.5	42.5			21.5	
Actuated g/C Ratio					0.36		0.21	0.53			0.27	
Clearance Time (s)					4.5		4.5	4.5			4.5	
Vehicle Extension (s)					3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)					1168		358	1780			815	
v/s Ratio Prot							c0.27	0.16				
v/s Ratio Perm					0.51						c0.36	
v/c Ratio					1.43		1.32	0.30			1.34	
Uniform Delay, d1					25.8		31.8	10.5			29.2	
Progression Factor					1.00		1.45	0.64			1.00	
Incremental Delay, d2					198.2		151.9	0.2			162.0	
Delay (s)					223.9		197.8	6.9			191.2	
Level of Service					F		F	A			F	
Approach Delay (s)		0.0			223.9			94.0			191.2	
Approach LOS		A			F			F			F	

Intersection Summary			
HCM 2000 Control Delay	179.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.37		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	119.3%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	182	1712	408	13	25	30	250	611	373	240	588	523
Future Volume (vph)	182	1712	408	13	25	30	250	611	373	240	588	523
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5			4.5	4.5	4.5		3.5	4.5	
Lane Util. Factor		0.95	1.00			1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00			1.00	1.00	0.99		1.00	0.99	
Flpb, ped/bikes		1.00	1.00			1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85			1.00	0.85	0.94		1.00	0.93	
Flt Protected		1.00	1.00			0.95	1.00	1.00		0.95	1.00	
Satd. Flow (prot)		3451	1553			1736	1553	3254		1736	3190	
Flt Permitted		1.00	1.00			0.13	1.00	1.00		0.95	1.00	
Satd. Flow (perm)		3451	1553			232	1553	3254		1736	3190	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	182	1712	408	13	25	30	250	611	373	240	588	523
RTOR Reduction (vph)	0	0	41	0	0	0	152	24	0	0	0	0
Lane Group Flow (vph)	0	1894	380	0	0	55	98	960	0	240	1111	0
Confl. Peds. (#/hr)	10				10	10				10		
Confl. Bikes (#/hr)									5			5
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm	NA	Perm		Perm	Perm	Perm	NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4		8	8	8					
Actuated Green, G (s)		31.5	31.5			31.5	31.5	24.5		11.5	39.5	
Effective Green, g (s)		31.5	31.5			31.5	31.5	24.5		11.5	39.5	
Actuated g/C Ratio		0.39	0.39			0.39	0.39	0.31		0.14	0.49	
Clearance Time (s)		4.5	4.5			4.5	4.5	4.5		3.5	4.5	
Vehicle Extension (s)		3.0	3.0			3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1358	611			91	611	996		249	1575	
v/s Ratio Prot								c0.30		c0.14	0.35	
v/s Ratio Perm		0.55	0.24			0.24	0.06					
v/c Ratio		1.39	0.62			0.60	0.16	0.96		0.96	0.71	
Uniform Delay, d1		24.2	19.5			19.3	15.7	27.3		34.0	15.7	
Progression Factor		1.00	1.00			1.00	1.00	1.00		0.85	1.59	
Incremental Delay, d2		182.2	2.0			10.8	0.1	21.1		10.0	0.2	
Delay (s)		206.4	21.4			30.1	15.8	48.4		39.0	25.2	
Level of Service		F	C			C	B	D		D	C	
Approach Delay (s)		172.8						48.4			27.7	
Approach LOS		F						D			C	

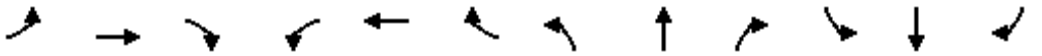
Intersection Summary			
HCM 2000 Control Delay	99.0	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.16		
Actuated Cycle Length (s)	80.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	108.9%	ICU Level of Service	G
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	297	84	66	721	931	36
Future Volume (veh/h)	297	84	66	721	931	36
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	297	84	66	721	931	36
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	574	511	145	1597	2058	80
Arrive On Green	0.33	0.33	0.60	0.60	0.60	0.60
Sat Flow, veh/h	1753	1560	177	2745	3521	133
Grp Volume(v), veh/h	297	84	370	417	475	492
Grp Sat Flow(s),veh/h/ln	1753	1560	1247	1591	1749	1813
Q Serve(g_s), s	15.1	4.2	5.7	15.6	16.4	16.4
Cycle Q Clear(g_c), s	15.1	4.2	22.1	15.6	16.4	16.4
Prop In Lane	1.00	1.00	0.18			0.07
Lane Grp Cap(c), veh/h	574	511	787	955	1049	1088
V/C Ratio(X)	0.52	0.16	0.47	0.44	0.45	0.45
Avail Cap(c_a), veh/h	574	511	787	955	1049	1088
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	30.0	26.3	12.1	11.9	12.1	12.1
Incr Delay (d2), s/veh	3.3	0.7	2.0	1.5	1.4	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.8	1.7	4.8	5.7	6.5	6.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	33.3	27.0	14.1	13.4	13.5	13.4
LnGrp LOS	C	C	B	B	B	B
Approach Vol, veh/h	381			787	967	
Approach Delay, s/veh	31.9			13.7	13.5	
Approach LOS	C			B	B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		71.0		39.0		71.0
Change Period (Y+Rc), s		5.0		3.0		5.0
Max Green Setting (Gmax), s		66.0		36.0		66.0
Max Q Clear Time (g_c+I1), s		18.4		17.1		24.1
Green Ext Time (p_c), s		7.9		1.1		6.6

Intersection Summary		
HCM 6th Ctrl Delay		16.8
HCM 6th LOS		B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	84	129	22	61	98	17	215	658	179	37	770	235
Future Volume (veh/h)	84	129	22	61	98	17	215	658	179	37	770	235
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.99		0.92	1.00		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781	1781
Adj Flow Rate, veh/h	84	129	22	61	98	17	215	658	179	37	770	235
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	131	158	25	117	162	24	237	866	236	496	760	232
Arrive On Green	0.18	0.18	0.18	0.18	0.18	0.18	0.19	1.00	1.00	0.03	0.59	0.59
Sat Flow, veh/h	436	869	135	362	891	134	1697	1336	363	1697	1296	395
Grp Volume(v), veh/h	235	0	0	176	0	0	215	0	837	37	0	1005
Grp Sat Flow(s),veh/h/ln	1441	0	0	1387	0	0	1697	0	1699	1697	0	1691
Q Serve(g_s), s	4.2	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	0.8	0.0	55.7
Cycle Q Clear(g_c), s	15.2	0.0	0.0	11.0	0.0	0.0	7.4	0.0	0.0	0.8	0.0	55.7
Prop In Lane	0.36		0.09	0.35		0.10	1.00		0.21	1.00		0.23
Lane Grp Cap(c), veh/h	313	0	0	303	0	0	237	0	1102	496	0	992
V/C Ratio(X)	0.75	0.00	0.00	0.58	0.00	0.00	0.91	0.00	0.76	0.07	0.00	1.01
Avail Cap(c_a), veh/h	317	0	0	307	0	0	237	0	1102	548	0	992
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.64	0.00	0.64	1.00	0.00	1.00
Uniform Delay (d), s/veh	37.9	0.0	0.0	36.0	0.0	0.0	26.6	0.0	0.0	7.0	0.0	19.6
Incr Delay (d2), s/veh	9.5	0.0	0.0	2.7	0.0	0.0	25.6	0.0	3.2	0.1	0.0	31.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	6.1	0.0	0.0	4.0	0.0	0.0	6.0	0.0	1.0	0.3	0.0	28.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	47.4	0.0	0.0	38.7	0.0	0.0	52.2	0.0	3.2	7.1	0.0	51.4
LnGrp LOS	D	A	A	D	A	A	D	A	A	A	A	F
Approach Vol, veh/h		235			176			1052			1042	
Approach Delay, s/veh		47.4			38.7			13.2			49.9	
Approach LOS		D			D			B			D	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	7.1	66.1		21.8	13.0	60.2		21.8				
Change Period (Y+Rc), s	4.0	4.5		4.5	4.0	4.5		4.5				
Max Green Setting (Gmax), s	6.0	58.5		17.5	9.0	55.5		17.5				
Max Q Clear Time (g_c+I1), s	2.8	2.0		17.2	9.4	57.7		13.0				
Green Ext Time (p_c), s	0.0	8.6		0.0	0.0	0.0		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		33.5	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	239	115	231	24	0	81	0	804	4	33	827	0
Future Volume (vph)	239	115	231	24	0	81	0	804	4	33	827	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		3.5	3.5		3.5			4.5		4.5	4.5	
Lane Util. Factor		1.00	1.00		1.00			0.95		1.00	1.00	
Frpb, ped/bikes		1.00	0.97		0.99			1.00		1.00	1.00	
Flpb, ped/bikes		1.00	1.00		1.00			1.00		1.00	1.00	
Frt		1.00	0.85		0.90			1.00		1.00	1.00	
Flt Protected		0.97	1.00		0.99			1.00		0.95	1.00	
Satd. Flow (prot)		1702	1457		1533			3340		1671	1759	
Flt Permitted		0.73	1.00		0.89			1.00		0.95	1.00	
Satd. Flow (perm)		1283	1457		1382			3340		1671	1759	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	239	115	231	24	0	81	0	804	4	33	827	0
RTOR Reduction (vph)	0	0	99	0	55	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	354	132	0	50	0	0	807	0	33	827	0
Confl. Peds. (#/hr)				20			20			20		
Confl. Bikes (#/hr)			5			5			5			5
Heavy Vehicles (%)	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%	8%
Turn Type	Perm	NA	Perm	Perm	NA			NA		Prot	NA	
Protected Phases		4			8			2		6	6 2	
Permitted Phases	4		4	8								
Actuated Green, G (s)		30.4	30.4		30.4			32.6		19.5	56.6	
Effective Green, g (s)		30.4	30.4		30.4			32.6		19.5	56.6	
Actuated g/C Ratio		0.32	0.32		0.32			0.34		0.21	0.60	
Clearance Time (s)		3.5	3.5		3.5			4.5		4.5		
Vehicle Extension (s)		3.0	3.0		3.0			3.0		3.0		
Lane Grp Cap (vph)		410	466		442			1146		342	1047	
v/s Ratio Prot								0.24		0.02	c0.47	
v/s Ratio Perm		c0.28	0.09		0.04							
v/c Ratio		0.86	0.28		0.11			0.70		0.10	0.79	
Uniform Delay, d1		30.3	24.1		22.8			27.0		30.6	14.7	
Progression Factor		1.00	1.00		1.00			1.00		0.64	0.40	
Incremental Delay, d2		16.9	0.3		0.1			3.6		0.1	1.7	
Delay (s)		47.2	24.5		22.9			30.7		19.7	7.5	
Level of Service		D	C		C			C		B	A	
Approach Delay (s)		38.3			22.9			30.7			7.9	
Approach LOS		D			C			C			A	

Intersection Summary			
HCM 2000 Control Delay	23.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.86		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	76.6%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	0	78	0	0	28	99	827	3	0	968	52
Future Vol, veh/h	19	0	78	0	0	28	99	827	3	0	968	52
Conflicting Peds, #/hr	0	0	0	0	0	0	20	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	100	100	100	100	100	100	100	100	100	100	100	100
Heavy Vehicles, %	8	2	8	2	2	2	8	8	2	2	8	8
Mvmt Flow	19	0	78	0	0	28	99	827	3	0	968	52

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	2055	2042	1014	-	-	829	1040	0	0	-	-	0
Stage 1	1014	1014	-	-	-	-	-	-	-	-	-	-
Stage 2	1041	1028	-	-	-	-	-	-	-	-	-	-
Critical Hdwy	7.18	6.52	6.28	-	-	6.22	4.18	-	-	-	-	-
Critical Hdwy Stg 1	6.18	5.52	-	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.18	5.52	-	-	-	-	-	-	-	-	-	-
Follow-up Hdwy	3.572	4.018	3.372	-	-	3.318	2.272	-	-	-	-	-
Pot Cap-1 Maneuver	39	56	282	0	0	370	646	-	-	0	-	-
Stage 1	280	316	-	0	0	-	-	-	-	0	-	-
Stage 2	271	311	-	0	0	-	-	-	-	0	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	31	46	277	-	-	370	635	-	-	-	-	-
Mov Cap-2 Maneuver	31	46	-	-	-	-	-	-	-	-	-	-
Stage 1	232	311	-	-	-	-	-	-	-	-	-	-
Stage 2	211	262	-	-	-	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	133.7	15.5	1.2	0
HCM LOS	F	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBT	SBR
Capacity (veh/h)	635	-	-	108	370	-	-
HCM Lane V/C Ratio	0.156	-	-	0.898	0.076	-	-
HCM Control Delay (s)	11.7	-	-	133.7	15.5	-	-
HCM Lane LOS	B	-	-	F	C	-	-
HCM 95th %tile Q(veh)	0.6	-	-	5.4	0.2	-	-

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	357	144	701	143	189	833
Future Volume (vph)	357	144	701	143	189	833
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	3.0		4.5		3.0	4.5
Lane Util. Factor	0.97		0.95		1.00	0.95
Frpb, ped/bikes	1.00		1.00		1.00	1.00
Flpb, ped/bikes	1.00		1.00		1.00	1.00
Frt	0.96		0.97		1.00	1.00
Flt Protected	0.97		1.00		0.95	1.00
Satd. Flow (prot)	3125		3245		1671	3343
Flt Permitted	0.97		1.00		0.95	1.00
Satd. Flow (perm)	3125		3245		1671	3343
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	357	144	701	143	189	833
RTOR Reduction (vph)	54	0	15	0	0	0
Lane Group Flow (vph)	447	0	829	0	189	833
Confl. Peds. (#/hr)	20				20	
Confl. Bikes (#/hr)				5		
Heavy Vehicles (%)	9%	9%	8%	8%	8%	8%
Turn Type	Prot		NA		Prot	NA
Protected Phases	3		2		1	6
Permitted Phases						
Actuated Green, G (s)	18.7		55.8		10.0	68.8
Effective Green, g (s)	18.7		55.8		10.0	68.8
Actuated g/C Ratio	0.20		0.59		0.11	0.72
Clearance Time (s)	3.0		4.5		3.0	4.5
Vehicle Extension (s)	3.0		3.0		3.0	3.0
Lane Grp Cap (vph)	615		1906		175	2421
v/s Ratio Prot	c0.14		c0.26		c0.11	0.25
v/s Ratio Perm						
v/c Ratio	0.73		0.44		1.08	0.34
Uniform Delay, d1	35.8		10.9		42.5	4.8
Progression Factor	1.00		1.00		1.00	1.00
Incremental Delay, d2	4.3		0.7		91.0	0.4
Delay (s)	40.0		11.6		133.5	5.2
Level of Service	D		B		F	A
Approach Delay (s)	40.0		11.6			28.9
Approach LOS	D		B			C

Intersection Summary			
HCM 2000 Control Delay	25.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.58		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	10.5
Intersection Capacity Utilization	59.5%	ICU Level of Service	B
Analysis Period (min)	15		
c Critical Lane Group			

Intersection	
Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	32	3	0	17	6	43
Future Vol, veh/h	32	3	0	17	6	43
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	3	0	17	6	43
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	7.4	6.5	7.3
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	91%	12%
Vol Thru, %	0%	0%	88%
Vol Right, %	100%	9%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	17	35	49
LT Vol	0	32	6
Through Vol	0	0	43
RT Vol	17	3	0
Lane Flow Rate	17	35	49
Geometry Grp	1	1	1
Degree of Util (X)	0.016	0.041	0.055
Departure Headway (Hd)	3.432	4.18	4.032
Convergence, Y/N	Yes	Yes	Yes
Cap	1040	857	889
Service Time	1.461	2.204	2.053
HCM Lane V/C Ratio	0.016	0.041	0.055
HCM Control Delay	6.5	7.4	7.3
HCM Lane LOS	A	A	A
HCM 95th-tile Q	0	0.1	0.2

Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	17	32	17	43	3
Future Vol, veh/h	6	17	32	17	43	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	6	17	32	17	43	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	126	45	46	0	-	0
Stage 1	45	-	-	-	-	-
Stage 2	81	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	869	1025	1562	-	-	-
Stage 1	977	-	-	-	-	-
Stage 2	942	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	851	1025	1562	-	-	-
Mov Cap-2 Maneuver	851	-	-	-	-	-
Stage 1	956	-	-	-	-	-
Stage 2	942	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.8	4.8	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1562	-	973	-	-
HCM Lane V/C Ratio	0.02	-	0.024	-	-
HCM Control Delay (s)	7.4	0	8.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.1	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	10	326	507	89	59	19
Future Vol, veh/h	10	326	507	89	59	19
Conflicting Peds, #/hr	20	0	0	0	20	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	10	326	507	89	59	19

Major/Minor	Major1		Major2		Minor2	
Conflicting Flow All	616	0	-	0	938	572
Stage 1	-	-	-	-	572	-
Stage 2	-	-	-	-	366	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	964	-	-	-	293	520
Stage 1	-	-	-	-	565	-
Stage 2	-	-	-	-	702	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	948	-	-	-	280	511
Mov Cap-2 Maneuver	-	-	-	-	280	-
Stage 1	-	-	-	-	548	-
Stage 2	-	-	-	-	690	-

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	20.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	948	-	-	-	315
HCM Lane V/C Ratio	0.011	-	-	-	0.248
HCM Control Delay (s)	8.8	0	-	-	20.1
HCM Lane LOS	A	A	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	1

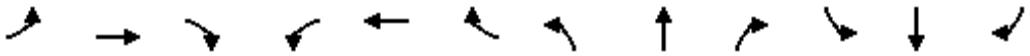
Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	2	469	77	683	103	0
Future Vol, veh/h	2	469	77	683	103	0
Conflicting Peds, #/hr	0	0	20	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	140	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	100	100	100	100	100	100
Heavy Vehicles, %	9	9	9	9	9	9
Mvmt Flow	2	469	77	683	103	0

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	491	0	1094	257
Stage 1	-	-	-	-	257	-
Stage 2	-	-	-	-	837	-
Critical Hdwy	-	-	4.19	-	6.49	6.29
Critical Hdwy Stg 1	-	-	-	-	5.49	-
Critical Hdwy Stg 2	-	-	-	-	5.49	-
Follow-up Hdwy	-	-	2.281	-	3.581	3.381
Pot Cap-1 Maneuver	-	-	1037	-	230	765
Stage 1	-	-	-	-	770	-
Stage 2	-	-	-	-	413	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1020	-	209	752
Mov Cap-2 Maneuver	-	-	-	-	209	-
Stage 1	-	-	-	-	757	-
Stage 2	-	-	-	-	382	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.9	37.9
HCM LOS			E

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	209	-	-	1020	-
HCM Lane V/C Ratio	0.493	-	-	0.075	-
HCM Control Delay (s)	37.9	-	-	8.8	-
HCM Lane LOS	E	-	-	A	-
HCM 95th %tile Q(veh)	2.5	-	-	0.2	-

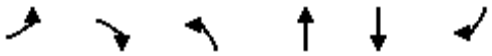


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	678	496	340	535	845	114	45	834	138
Future Volume (vph)	0	0	0	678	496	340	535	845	114	45	834	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)					4.5		4.5	4.5			4.5	
Lane Util. Factor					0.95		1.00	0.95			0.95	
Frpb, ped/bikes					1.00		1.00	1.00			1.00	
Flpb, ped/bikes					1.00		1.00	1.00			1.00	
Frt					0.97		1.00	0.98			0.98	
Flt Protected					0.98		0.95	1.00			1.00	
Satd. Flow (prot)					3281		1736	3400			3384	
Flt Permitted					0.98		0.95	1.00			0.85	
Satd. Flow (perm)					3281		1736	3400			2897	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	0	0	0	678	496	340	535	845	114	45	834	138
RTOR Reduction (vph)	0	0	0	0	28	0	0	11	0	0	13	0
Lane Group Flow (vph)	0	0	0	0	1486	0	535	948	0	0	1004	0
Confl. Peds. (#/hr)	20									20		
Confl. Bikes (#/hr)									5			5
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type				Perm	NA		Prot	NA		Perm	NA	
Protected Phases					8		5	2			6	
Permitted Phases				8						6		
Actuated Green, G (s)					31.5		23.5	54.5			26.5	
Effective Green, g (s)					31.5		23.5	54.5			26.5	
Actuated g/C Ratio					0.33		0.25	0.57			0.28	
Clearance Time (s)					4.5		4.5	4.5			4.5	
Vehicle Extension (s)					3.0		3.0	3.0			3.0	
Lane Grp Cap (vph)					1087		429	1950			808	
v/s Ratio Prot							c0.31	0.28				
v/s Ratio Perm					0.45						c0.35	
v/c Ratio					1.37		1.25	0.49			1.24	
Uniform Delay, d1					31.8		35.8	12.0			34.2	
Progression Factor					1.00		1.56	0.52			1.00	
Incremental Delay, d2					171.1		113.1	0.1			119.6	
Delay (s)					202.9		168.9	6.3			153.8	
Level of Service					F		F	A			F	
Approach Delay (s)		0.0			202.9			64.6			153.8	
Approach LOS		A			F			E			F	

Intersection Summary			
HCM 2000 Control Delay	139.1	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.29		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	13.5
Intersection Capacity Utilization	114.0%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			

Movement	EBL	EBT	EBR	EBR2	WBL2	WBL	WBR	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	257	1578	358	13	14	54	222	1086	355	322	807	445
Future Volume (vph)	257	1578	358	13	14	54	222	1086	355	322	807	445
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)		4.5	4.5			4.5	4.5	4.5		3.5	4.5	
Lane Util. Factor		0.95	1.00			1.00	1.00	0.95		1.00	0.95	
Frpb, ped/bikes		1.00	1.00			1.00	1.00	1.00		1.00	0.99	
Flpb, ped/bikes		1.00	1.00			1.00	1.00	1.00		1.00	1.00	
Frt		1.00	0.85			1.00	0.85	0.96		1.00	0.95	
Flt Protected		0.99	1.00			0.95	1.00	1.00		0.95	1.00	
Satd. Flow (prot)		3434	1553			1736	1553	3330		1736	3259	
Flt Permitted		0.99	1.00			0.11	1.00	1.00		0.95	1.00	
Satd. Flow (perm)		3434	1553			200	1553	3330		1736	3259	
Peak-hour factor, PHF	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj. Flow (vph)	257	1578	358	13	14	54	222	1086	355	322	807	445
RTOR Reduction (vph)	0	0	35	0	0	0	137	14	0	0	0	0
Lane Group Flow (vph)	0	1835	336	0	0	68	85	1427	0	322	1252	0
Confl. Peds. (#/hr)	20				20	20				20		
Confl. Bikes (#/hr)									5			5
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Turn Type	Perm	NA	Perm		Perm	Perm	Perm	NA		Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4		8	8	8					
Actuated Green, G (s)		36.5	36.5			36.5	36.5	31.5		14.5	49.5	
Effective Green, g (s)		36.5	36.5			36.5	36.5	31.5		14.5	49.5	
Actuated g/C Ratio		0.38	0.38			0.38	0.38	0.33		0.15	0.52	
Clearance Time (s)		4.5	4.5			4.5	4.5	4.5		3.5	4.5	
Vehicle Extension (s)		3.0	3.0			3.0	3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)		1319	596			76	596	1104		264	1698	
v/s Ratio Prot								c0.43		c0.19	0.38	
v/s Ratio Perm		0.53	0.22			0.34	0.05					
v/c Ratio		1.39	0.56			0.89	0.14	1.29		1.22	0.74	
Uniform Delay, d1		29.2	23.0			27.4	19.1	31.8		40.2	17.7	
Progression Factor		1.00	1.00			1.00	1.00	1.00		0.99	1.31	
Incremental Delay, d2		180.8	1.2			68.1	0.1	138.5		102.2	0.3	
Delay (s)		210.0	24.2			95.5	19.2	170.2		142.1	23.4	
Level of Service		F	C			F	B	F		F	C	
Approach Delay (s)		178.8						170.2			47.7	
Approach LOS		F						F			D	

Intersection Summary			
HCM 2000 Control Delay	131.6	HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio	1.32		
Actuated Cycle Length (s)	95.0	Sum of lost time (s)	12.5
Intersection Capacity Utilization	126.1%	ICU Level of Service	H
Analysis Period (min)	15		
c Critical Lane Group			



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (veh/h)	426	81	69	1033	1048	33
Future Volume (veh/h)	426	81	69	1033	1048	33
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00	1.00			0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No	No	
Adj Sat Flow, veh/h/ln	1841	1841	1841	1841	1841	1841
Adj Flow Rate, veh/h	426	81	69	1033	1048	33
Peak Hour Factor	1.00	1.00	1.00	1.00	1.00	1.00
Percent Heavy Veh, %	4	4	4	4	4	4
Cap, veh/h	466	415	128	1891	2308	73
Arrive On Green	0.27	0.27	0.67	0.67	0.67	0.67
Sat Flow, veh/h	1753	1560	141	2917	3550	109
Grp Volume(v), veh/h	426	81	528	574	530	551
Grp Sat Flow(s),veh/h/ln	1753	1560	1383	1591	1749	1818
Q Serve(g_s), s	28.3	4.8	6.9	22.5	17.3	17.4
Cycle Q Clear(g_c), s	28.3	4.8	24.2	22.5	17.3	17.4
Prop In Lane	1.00	1.00	0.13			0.06
Lane Grp Cap(c), veh/h	466	415	957	1062	1167	1214
V/C Ratio(X)	0.91	0.20	0.55	0.54	0.45	0.45
Avail Cap(c_a), veh/h	760	676	957	1062	1167	1214
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	42.7	34.1	9.8	10.4	9.5	9.5
Incr Delay (d2), s/veh	10.2	0.2	0.7	0.6	1.3	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.5	1.9	6.2	7.5	6.6	6.9
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	52.9	34.3	10.5	10.9	10.8	10.7
LnGrp LOS	D	C	B	B	B	B
Approach Vol, veh/h	507			1102	1081	
Approach Delay, s/veh	49.9			10.7	10.8	
Approach LOS	D			B	B	

Timer - Assigned Phs		2		4		6
Phs Duration (G+Y+Rc), s		85.1		34.9		85.1
Change Period (Y+Rc), s		5.0		3.0		5.0
Max Green Setting (Gmax), s		60.0		52.0		60.0
Max Q Clear Time (g_c+I1), s		19.4		30.3		26.2
Green Ext Time (p_c), s		9.1		1.6		10.1

Intersection Summary		
HCM 6th Ctrl Delay		18.1
HCM 6th LOS		B

Appendix D:
Peak Hour
Signal Warrants

FEHR PEERS

Major Street	Alameda Av	Project	3600 Alameda
Minor Street	37th Ave	Scenario	Existing Plus Project
		Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	89	8	0
Through	0	0	0	672
Right	0	19	183	83
Total	0	108	191	755

Major Street Direction

	North/South
X	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	22
Approach with Worst Case Delay	SB
Total Vehicles on Approach	108

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing Plus Project	**0.7**	**108**	**1,054**
Limiting Value	**4**	**100**	**650**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

Major Street	Alameda Av
Minor Street	37th Ave

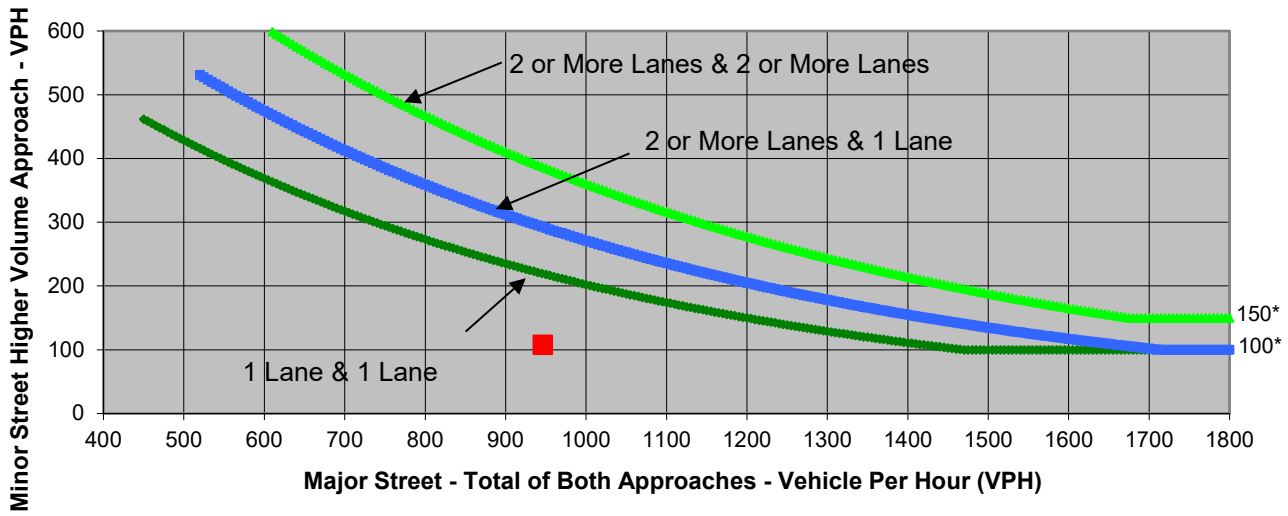
Project	3600 Alameda
Scenario	Existing Plus Project
Peak Hour	AM

Turn Movement Volumes

	NB	SB	EB	WB
Left	0	89	8	0
Through	0	0	0	672
Right	0	19	183	83
Total	0	108	191	755

Major Street Direction

	North/South
X	East/West



* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Alameda Av	37th Ave	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**946**	**108**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

FEHR PEERS

Major Street	Alameda Av	Project	3600 Alameda
Minor Street	Howard St	Scenario	Existing Plus Project
		Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	103	0	0	77
Through	0	0	2	683
Right	0	0	469	0
Total	103	0	471	760

Major Street Direction

	North/South
X	East/West

Intersection Geometry

Number of Approach Lanes for Minor Street	1
Total Approaches	3

Worst Case Delay for Minor Street

Stopped Delay (seconds per vehicle)	37.9
Approach with Worst Case Delay	NB
Total Vehicles on Approach	103

Warrant 3A, Peak Hour			
	Peak Hour Delay on Minor Approach (vehicle-hours)	**Peak Hour Volume on Minor Approach (vph)**	**Peak Hour Entering Volume Serviced (vph)**
Existing Plus Project	**1.1**	**103**	**1,334**
Limiting Value	**4**	**100**	**650**
Condition Satisfied?	**Not Met**	**Met**	**Met**
Warrant Met	**NO**		

FEHR PEERS

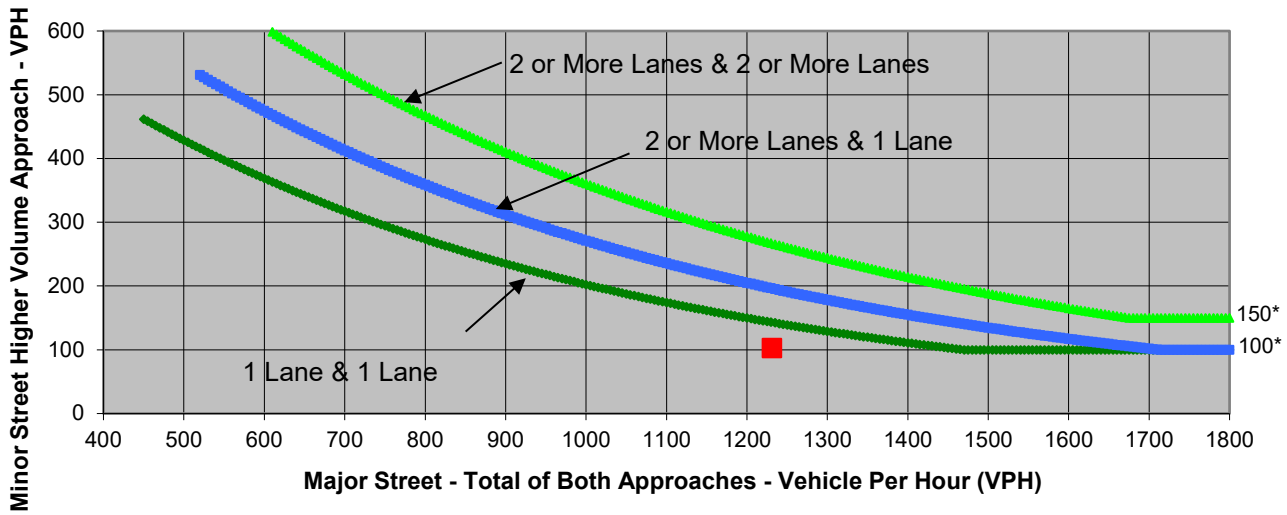
Major Street	Alameda Av	Project	3600 Alameda
Minor Street	Howard St	Scenario	Existing Plus Project
		Peak Hour	PM

Turn Movement Volumes

	NB	SB	EB	WB
Left	103	0	0	77
Through	0	0	2	683
Right	0	0	469	0
Total	103	0	471	760

Major Street Direction

	North/South
X	East/West



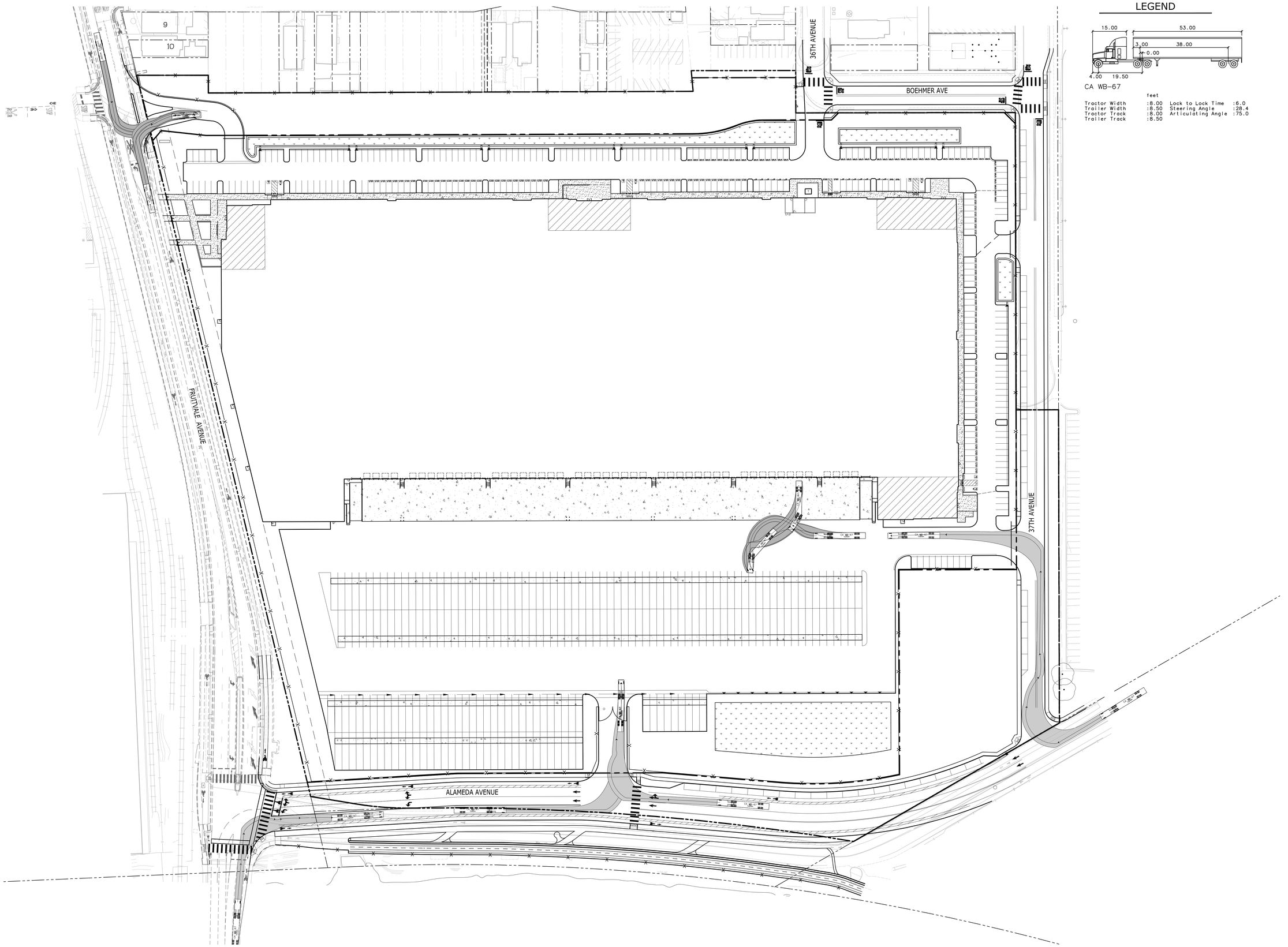
* Note: 150 vph applies as the lower threshold volume for a minor-street approach with two or more lanes and 100 vph applies as the lower threshold volume for a minor-street approach with one lane.

Source: *California Manual on Uniform Traffic Control Devices*, Caltrans, 2014

	Major Street	Minor Street	Warrant Met
	Alameda Av	Howard St	
Number of Approach Lanes	**1**	**1**	**NO**
Traffic Volume (VPH) *	**1,231**	**103**	

* Note: Traffic Volume for Major Street is Total Volume of Both Approches.
Traffic Volume for Minor Street is the Volume of High Volume Approach.

Appendix E: Truck Turning Exhibits



NO.	BY	REVISION

NO.	BY	REVISION
		08.19.2021 - 1ST CITY SUBMITTAL
		06.09.2022 - 2ND CITY SUBMITTAL
		02.15.2023 - 3RD CITY SUBMITTAL

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TRUCK TURNING EXHIBIT - ENTRY

OF

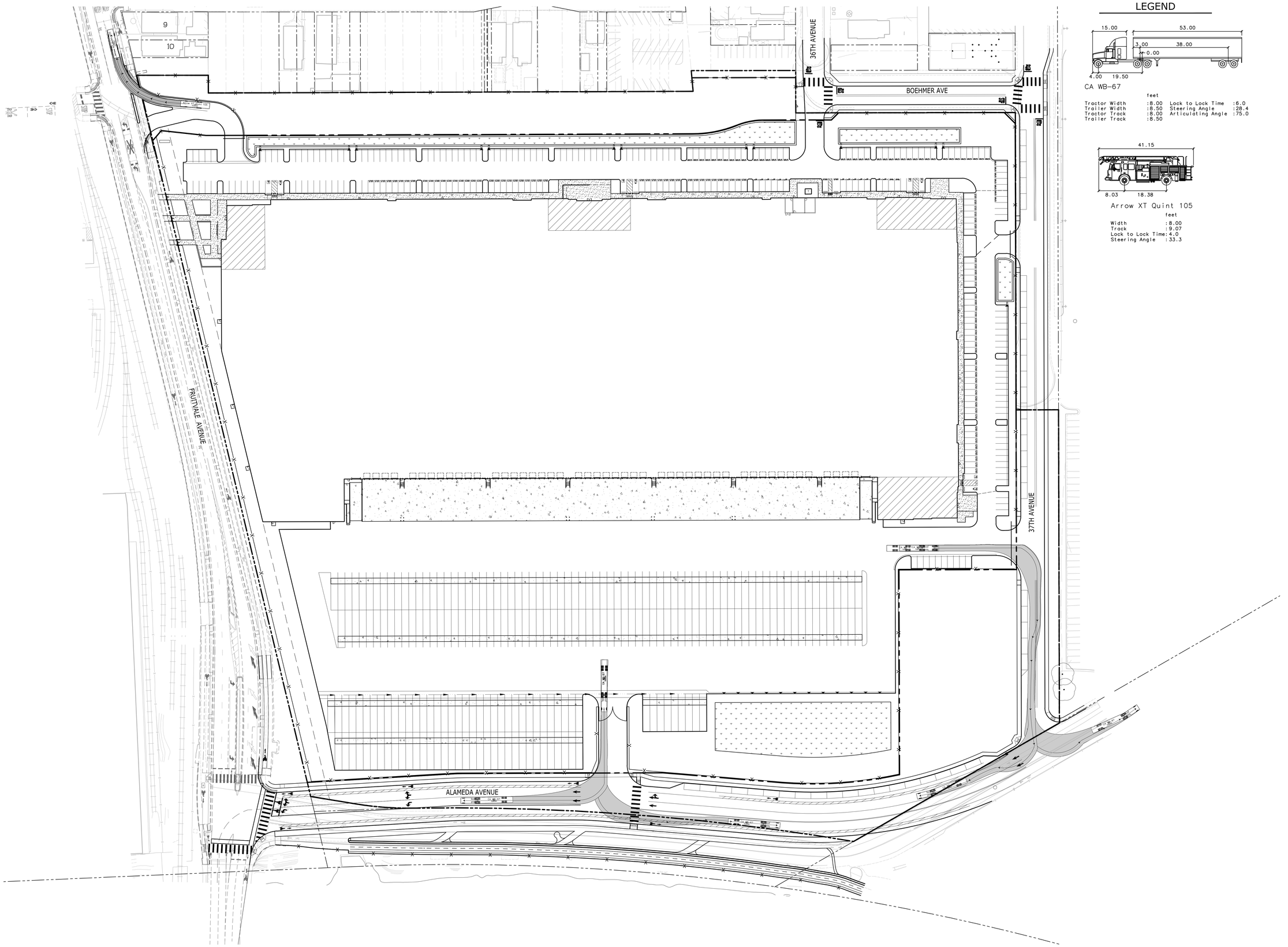
3600 ALAMEDA AVENUE

FOR

PROLOGIS

OAKLAND, CALIFORNIA

DATE	FEBRUARY, 2023
SCALE	AS SHOWN
DESIGNER	DGR
DRAWN BY	REE
JOB NO.	A15642-6
SHEET	C8.0
OF	20 SHEETS



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TRUCK TURNING EXHIBIT - EXIT
OF
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FOR
PROLOGIS

OAKLAND, CALIFORNIA

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SCALE	AS SHOWN
DESIGNER	DGR
DRAWN BY	REE
JOB NO.	A15642-6
SHEET	C8.1
OF	20 SHEETS

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TRUCK EXIT
OF
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FOR
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3	02.15.2023 - 3RD CITY SUBMITTAL	
4		
5		

NO.	REVISION	BY
1		
2		
3		
4		
5		

NORTH

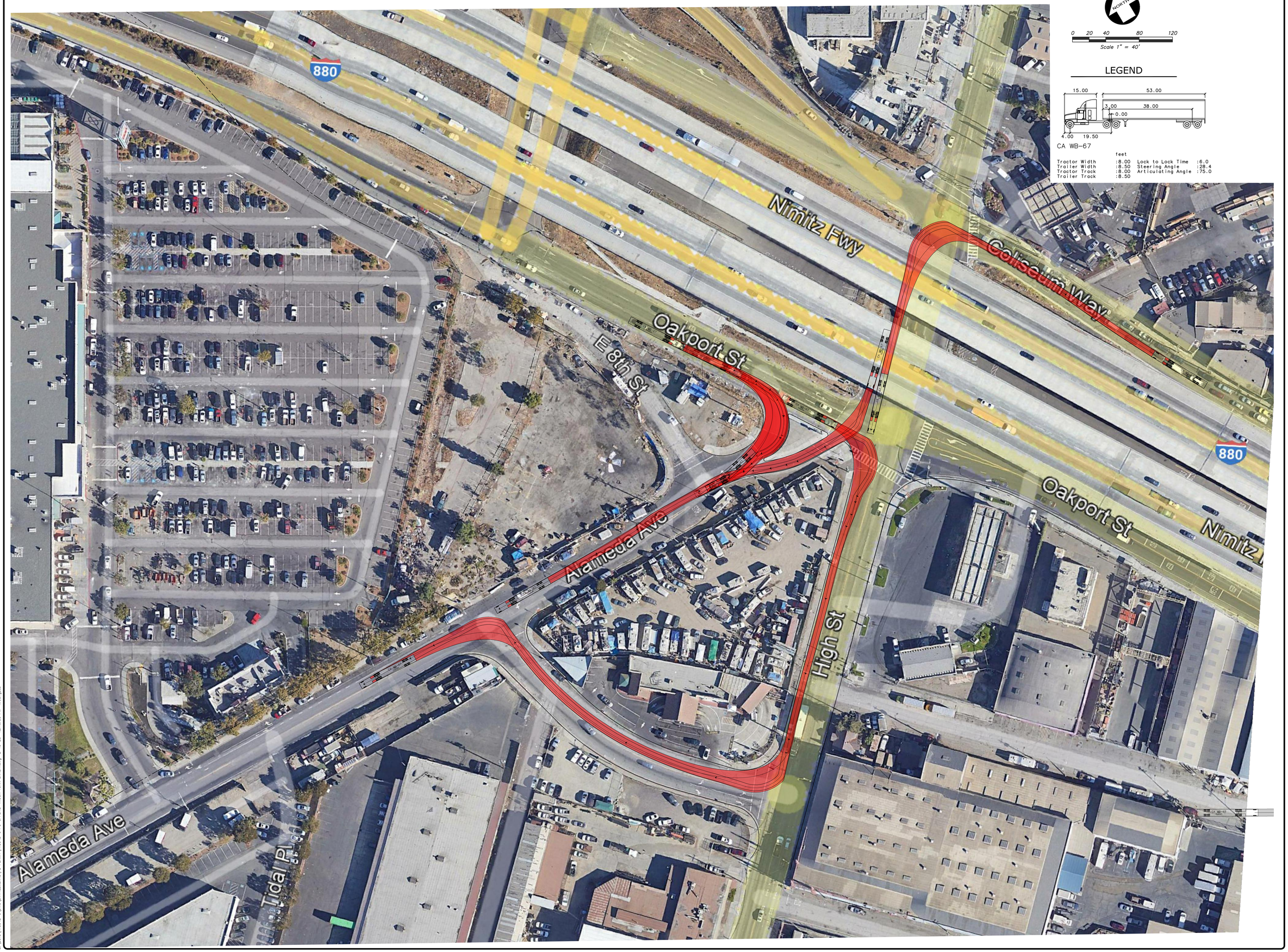
0 20 40 80 120
Scale 1" = 40'

LEGEND

CA WB-67

	feet
Tractor Width	:8.50
Trailer Width	:8.50
Tractor Track	:8.00
Trailer Track	:8.50
Lock to Lock Time	:6.0
Steering Wheel Angle	:84.4
Articulating Angle	:75.0

Coliseum Way
Nimitz Fwy
Oakport St
Nimitz
Oakport St
High St
E 8th St
Alameda Ave
Alameda Ave
Tidal Pl
880
880



NORTH

0 20 40 80 120

Scale 1" = 40'

LEGEND

CA WB-67

feet

Tractor Width	:8.00	Lock to Lock Time	:6.0
Trailer Width	:8.50	Steering Angle	:28.4
Tractor Track	:8.00	Articulating Angle	:75.0
Trailer Track	:8.50		

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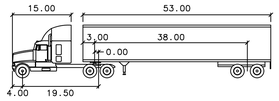
JOB NO.	A15642-6
SHEET	C8.3
OF	20 SHEETS

NORTH

0 50 100 200 300

Scale 1" = 100'

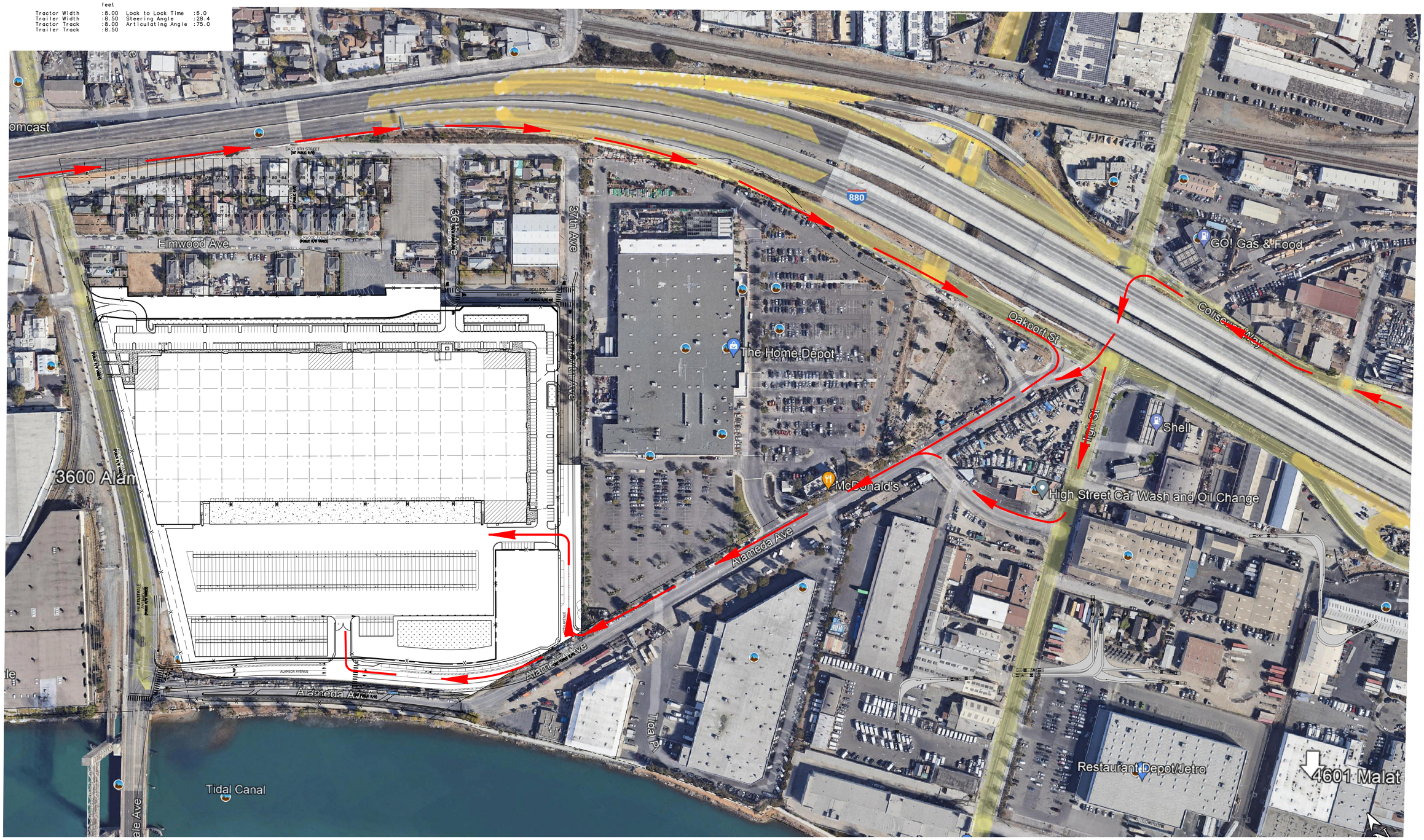
LEGEND



CA WB-67

feet

Tractor Width	:8.00	Lock to Lock Time	:6.0
Trailer Width	:8.50	Steering Angle	:28.4
Tractor Track	:8.00	Articulating Angle	:75.0
Trailer Track	:8.50		



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DESIGNER	DGR
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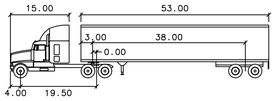
SHEET C8.4
OF 20 SHEETS

NORTH

0 50 100 200 300

Scale 1" = 100'

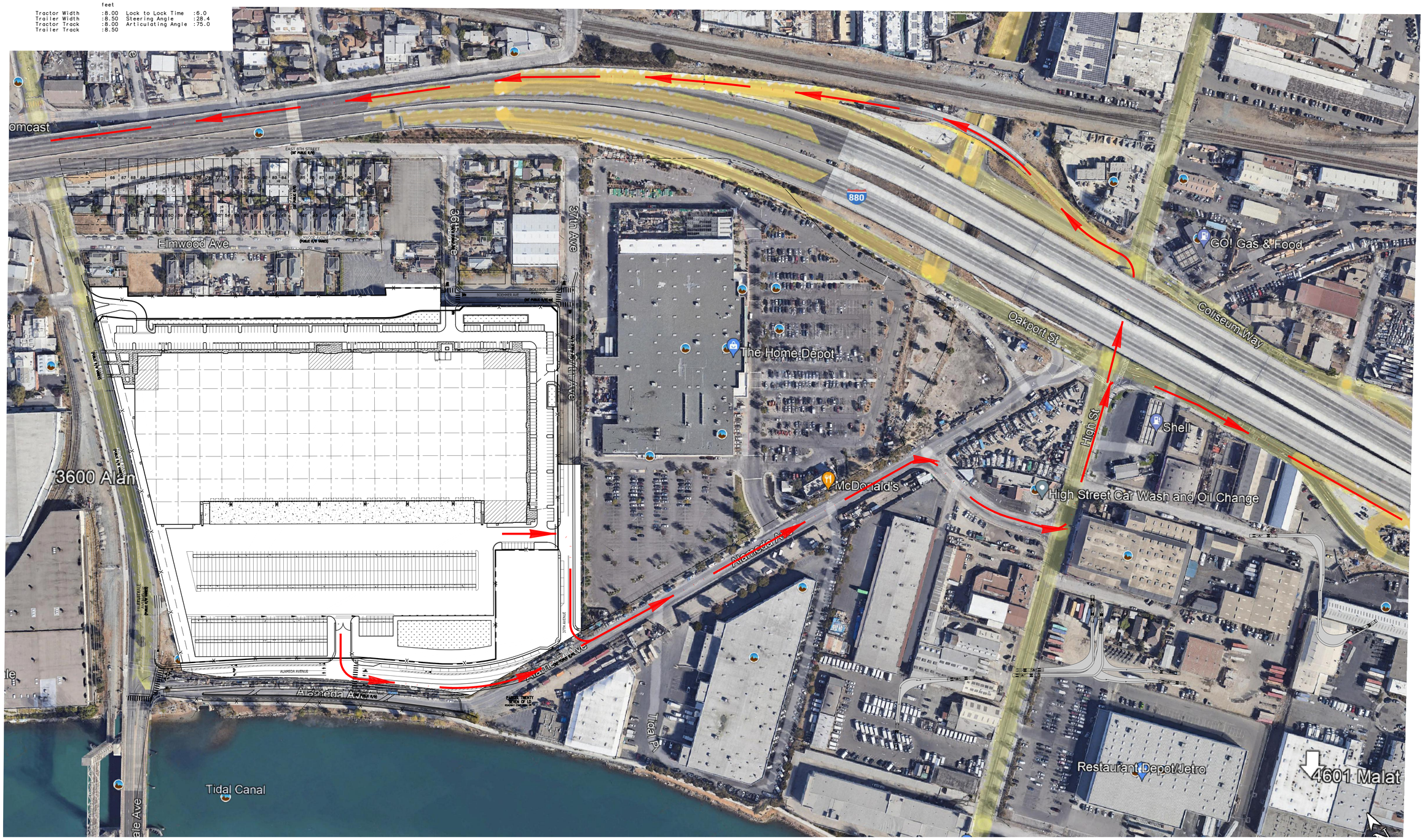
LEGEND



CA WB-67

feet

Tractor Width	:8.00	Lock to Lock Time	:6.0
Trailer Width	:8.50	Steering Angle	:28.4
Tractor Track	:8.00	Articulating Angle	:75.0
Trailer Track	:8.50		



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△		
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HAUL ROUTE EXIT
OF
3600 ALAMEDA AVENUE
FOR
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OAKLAND, CALIFORNIA

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SCALE	AS SHOWN
DESIGNER	DGR
DRAWN BY	REE
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SHEET C8.5
OF 20 SHEETS

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Appendix F: Predicted Collision Frequency Calculation Sheets

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections					
General Information				**Location Information**	
Analyst	Molly Riddle			Roadway	
Agency or Company	Fehr & Peers			Intersection	Fruitvale Avenue & East 9th Street
Date Performed	03/02/22			Jurisdiction	City of Oakland, CA
				Analysis Year	2022
Input Data				**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)				--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ =	67,700	(veh/day)	--	22,840
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ =	33,400	(veh/day)	--	8,760
Intersection lighting (present/not present)				Not Present	Present
Calibration factor, C_i				1.00	1.00
Data for unsignalized intersections only:				--	--
Number of major-road approaches with left-turn lanes (0,1,2)				0	0
Number of major-road approaches with right-turn lanes (0,1,2)				0	0
Data for signalized intersections only:				--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	2
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	0
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]				--	2
Type of left-turn signal phasing for Leg #1				Permissive	Permissive
Type of left-turn signal phasing for Leg #2				--	Permissive
Type of left-turn signal phasing for Leg #3				--	Permissive / Protected
Type of left-turn signal phasing for Leg #4 (if applicable)				--	Protected / Permissive
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]				0	0
Intersection red light cameras (present/not present)				Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only					100
Maximum number of lanes crossed by a pedestrian (n_{lanesx})				--	4
Number of bus stops within 300 m (1,000 ft) of the intersection				0	2
Schools within 300 m (1,000 ft) of the intersection (present/not present)				Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection				0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF $_{COMB}$*
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.81	0.99	1.00	1.00	0.91	1.00	0.73

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	6.276	1.000	6.276	0.73	1.00	4.583
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	2.014	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.333	2.088	0.73	1.00	1.525
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	4.038	$(5)_{TOTAL}-(5)_{FI}$ = 0.667	4.188	0.73	1.00	3.058

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N *bimv* (FI) (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N *bimv* (PDO) (crashes/year)**	**Predicted N *bimv* (TOTAL) (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	1.525	1.000	3.058	4.583
		(2)*$(3)_{FI}$		(4)*$(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	0.686	0.483	1.477	2.163
Head-on collision	0.049	0.075	0.030	0.092	0.166
Angle collision	0.347	0.529	0.244	0.746	1.275
Sideswipe	0.099	0.151	0.032	0.098	0.249
Other multiple-vehicle collision	0.055	0.084	0.211	0.645	0.729

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.393	1.000	0.393	0.73	1.00	0.287
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.100	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.257	0.101	0.73	1.00	0.074
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.289	$(5)_{TOTAL}-(5)_{FI}$ = 0.743	0.292	0.73	1.00	0.213

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bisv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	$(9)_{FI}$ from Worksheet 2E	from Table 12-13	$(9)_{PDO}$ from Worksheet 2E	$(9)_{PDO}$ from Worksheet 2E
Total	1.000	0.074	1.000	0.213	0.287
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.001
Collision with fixed object	0.744	0.055	0.870	0.185	0.240
Collision with other object	0.072	0.005	0.070	0.015	0.020
Other single-vehicle collision	0.040	0.003	0.023	0.005	0.008
Single-vehicle noncollision	0.141	0.010	0.034	0.007	0.018

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)*(5)
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
2.78	1.00	1.12	3.11

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.033	3.11	1.00	0.104
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.104

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	4.583	0.287	4.870	0.015	0.073
Fatal and injury (FI)	--	--	--	--	0.073

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.686	1.477	2.163
Head-on collisions (from Worksheet 2D)	0.075	0.092	0.166
Angle collisions (from Worksheet 2D)	0.529	0.746	1.275
Sideswipe (from Worksheet 2D)	0.151	0.098	0.249
Other multiple-vehicle collision (from Worksheet 2D)	0.084	0.645	0.729
Subtotal	1.525	3.058	4.583
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.001
Collision with fixed object (from Worksheet 2F)	0.055	0.185	0.240
Collision with other object (from Worksheet 2F)	0.005	0.015	0.020
Other single-vehicle collision (from Worksheet 2F)	0.003	0.005	0.008
Single-vehicle noncollision (from Worksheet 2F)	0.010	0.007	0.018
Collision with pedestrian (from Worksheet 2G or 2I)	0.104	0.000	0.104
Collision with bicycle (from Worksheet 2J)	0.073	0.000	0.073
Subtotal	0.251	0.213	0.464
Total	1.776	3.271	5.047

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections

(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	5.0
Fatal and injury (FI)	1.8
Property damage only (PDO)	3.3

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections						
General Information				**Location Information**		
Analyst	Molly Riddle			Roadway		
Agency or Company	Fehr & Peers			Intersection	Fruitvale Avenue & East 8th Street	
Date Performed	03/02/22			Jurisdiction	City of Oakland, CA	
				Analysis Year	2022	
Input Data				**Base Conditions**	**Site Conditions**	
Intersection type (3ST, 3SG, 4ST, 4SG)				--	4SG	
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ =	67,700	(veh/day)	--	23,550	
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ =	33,400	(veh/day)	--	4,680	
Intersection lighting (present/not present)				Not Present	Present	
Calibration factor, C_i				1.00	1.00	
Data for unsignalized intersections only:				--	--	
Number of major-road approaches with left-turn lanes (0,1,2)				0	0	
Number of major-road approaches with right-turn lanes (0,1,2)				0	0	
Data for signalized intersections only:				--	--	
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	3	
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	2	
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]				--	1	
Type of left-turn signal phasing for Leg #1				Permissive	Permissive	
Type of left-turn signal phasing for Leg #2				--	Not Applicable	
Type of left-turn signal phasing for Leg #3				--	Not Applicable	
Type of left-turn signal phasing for Leg #4 (if applicable)				--	Not Applicable	
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]				0	0	
Intersection red light cameras (present/not present)				Not Present	Not Present	
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only					100	
Maximum number of lanes crossed by a pedestrian (n_{lanesx})				--	4	
Number of bus stops within 300 m (1,000 ft) of the intersection				0	2	
Schools within 300 m (1,000 ft) of the intersection (present/not present)				Not Present	Not Present	
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection				0	2	

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF $_{COMB}$*
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.73	0.99	0.92	1.00	0.91	1.00	0.61

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	5.614	1.000	5.614	0.61	1.00	3.405
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	1.819	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.337	1.890	0.61	1.00	1.146
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	3.584	$(5)_{TOTAL}-(5)_{FI}$ = 0.663	3.724	0.61	1.00	2.259

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bimv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	1.146	1.000	2.259	3.405
		(2)*$(3)_{FI}$		(4)*$(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	0.516	0.483	1.091	1.607
Head-on collision	0.049	0.056	0.030	0.068	0.124
Angle collision	0.347	0.398	0.244	0.551	0.949
Sideswipe	0.099	0.113	0.032	0.072	0.186
Other multiple-vehicle collision	0.055	0.063	0.211	0.477	0.540

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.339	1.000	0.339	0.61	1.00	0.205
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.085	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.251	0.085	0.61	1.00	0.051
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.253	$(5)_{TOTAL}-(5)_{FI}$ = 0.749	0.254	0.61	1.00	0.154

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bisv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	(9)$_{FI}$ from Worksheet 2E	from Table 12-13	(9)$_{PDO}$ from Worksheet 2E	(9)$_{PDO}$ from Worksheet 2E
Total	1.000	0.051	1.000	0.154	0.205
		(2)*(3)$_{FI}$		(4)*(5)$_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.038	0.870	0.134	0.172
Collision with other object	0.072	0.004	0.070	0.011	0.014
Other single-vehicle collision	0.040	0.002	0.023	0.004	0.006
Single-vehicle noncollision	0.141	0.007	0.034	0.005	0.012

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)*(5)
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
2.78	1.00	1.12	3.11

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.027	3.11	1.00	0.084
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.084

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	3.405	0.205	3.611	0.015	0.054
Fatal and injury (FI)	--	--	--	--	0.054

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.516	1.091	1.607
Head-on collisions (from Worksheet 2D)	0.056	0.068	0.124
Angle collisions (from Worksheet 2D)	0.398	0.551	0.949
Sideswipe (from Worksheet 2D)	0.113	0.072	0.186
Other multiple-vehicle collision (from Worksheet 2D)	0.063	0.477	0.540
Subtotal	1.146	2.259	3.405
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.038	0.134	0.172
Collision with other object (from Worksheet 2F)	0.004	0.011	0.014
Other single-vehicle collision (from Worksheet 2F)	0.002	0.004	0.006
Single-vehicle noncollision (from Worksheet 2F)	0.007	0.005	0.012
Collision with pedestrian (from Worksheet 2G or 2I)	0.084	0.000	0.084
Collision with bicycle (from Worksheet 2J)	0.054	0.000	0.054
Subtotal	0.189	0.154	0.343
Total	1.336	2.413	3.748

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections

(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	3.7
Fatal and injury (FI)	1.3
Property damage only (PDO)	2.4

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections						
General Information				**Location Information**		
Analyst	Molly Riddle			Roadway		
Agency or Company	Fehr & Peers			Intersection	Fruitvale Avenue & East 7th Street	
Date Performed	03/02/22			Jurisdiction	(enter jurisdiction)	
				Analysis Year	2019	
Input Data				**Base Conditions**	**Site Conditions**	
Intersection type (3ST, 3SG, 4ST, 4SG)				--	3ST	
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ =	45,700	(veh/day)	--	23,900	
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ =	9,300	(veh/day)	--	2,290	
Intersection lighting (present/not present)				Not Present	Present	
Calibration factor, C_i				1.00	1.00	
Data for unsignalized intersections only:				--	--	
Number of major-road approaches with left-turn lanes (0,1,2)				0	1	
Number of major-road approaches with right-turn lanes (0,1,2)				0	0	
Data for signalized intersections only:				--	--	
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	0	
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	0	
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]				--	0	
Type of left-turn signal phasing for Leg #1				Permissive	Not Applicable	
Type of left-turn signal phasing for Leg #2				--	Not Applicable	
Type of left-turn signal phasing for Leg #3				--	Not Applicable	
Type of left-turn signal phasing for Leg #4 (if applicable)				--	Not Applicable	
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]				0	0	
Intersection red light cameras (present/not present)				Not Present	Not Present	
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only						
Maximum number of lanes crossed by a pedestrian (n_{lanesx})				--	0	
Number of bus stops within 300 m (1,000 ft) of the intersection				0	0	
Schools within 300 m (1,000 ft) of the intersection (present/not present)				Not Present	Not Present	
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection				0	0	

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF $_{COMB}$*
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.67	1.00	1.00	1.00	0.91	1.00	0.61

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-13.36	1.11	0.41	0.80	2.725	1.000	2.725	0.61	1.00	1.661
Fatal and Injury (FI)	-14.01	1.16	0.30	0.69	1.006	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.341	0.930	0.61	1.00	0.567
Property Damage Only (PDO)	-15.38	1.20	0.51	0.77	1.942	$(5)_{TOTAL}-(5)_{FI}$ = 0.659	1.795	0.61	1.00	1.094

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bimv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	0.567	1.000	1.094	1.661
		(2)*$(3)_{FI}$		(4)*$(5)_{PDO}$	(3)+(5)
Rear-end collision	0.421	0.239	0.440	0.481	0.720
Head-on collision	0.045	0.025	0.023	0.025	0.051
Angle collision	0.343	0.194	0.262	0.287	0.481
Sideswipe	0.126	0.071	0.040	0.044	0.115
Other multiple-vehicle collision	0.065	0.037	0.235	0.257	0.294

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-6.81	0.16	0.51	1.14	0.286	1.000	0.286	0.61	1.00	0.174
Fatal and Injury (FI)	--	--	--	--	0.089	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.302	0.086	0.61	1.00	0.053
Property Damage Only (PDO)	-8.36	0.25	0.55	1.29	0.205	$(5)_{TOTAL}-(5)_{FI}$ = 0.698	0.200	0.61	1.00	0.122

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bisv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	$(9)_{FI}$ from Worksheet 2E	from Table 12-13	$(9)_{PDO}$ from Worksheet 2E	$(9)_{PDO}$ from Worksheet 2E
Total	1.000	0.053	1.000	0.122	0.174
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.003	0.000	0.000
Collision with animal	0.003	0.000	0.018	0.002	0.002
Collision with fixed object	0.762	0.040	0.834	0.102	0.142
Collision with other object	0.090	0.005	0.092	0.011	0.016
Other single-vehicle collision	0.039	0.002	0.023	0.003	0.005
Single-vehicle noncollision	0.105	0.006	0.030	0.004	0.009

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)*(5)
Total	1.661	0.174	1.835	0.021	0.039
Fatal and injury (FI)	--	--	--	--	0.039

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
--	--	--	--

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	--	--	--	--	--	--	--	--	1.00	--
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	--

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	1.661	0.174	1.835	0.016	0.029
Fatal and injury (FI)	--	--	--	--	0.029

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.239	0.481	0.720
Head-on collisions (from Worksheet 2D)	0.025	0.025	0.051
Angle collisions (from Worksheet 2D)	0.194	0.287	0.481
Sideswipe (from Worksheet 2D)	0.071	0.044	0.115
Other multiple-vehicle collision (from Worksheet 2D)	0.037	0.257	0.294
Subtotal	0.567	1.094	1.661
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.002	0.002
Collision with fixed object (from Worksheet 2F)	0.040	0.102	0.142
Collision with other object (from Worksheet 2F)	0.005	0.011	0.016
Other single-vehicle collision (from Worksheet 2F)	0.002	0.003	0.005
Single-vehicle noncollision (from Worksheet 2F)	0.006	0.004	0.009
Collision with pedestrian (from Worksheet 2G or 2I)	0.039	0.000	0.039
Collision with bicycle (from Worksheet 2J)	0.029	0.000	0.029
Subtotal	0.121	0.122	0.242
Total	0.687	1.216	1.903

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections

(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	1.9
Fatal and injury (FI)	0.7
Property damage only (PDO)	1.2

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections					
General Information				**Location Information**	
Analyst	Molly Riddle			Roadway	
Agency or Company	Fehr & Peers			Intersection	Fruitvale Avenue & Alameda Avenue
Date Performed	03/02/22			Jurisdiction	City of Oakland, CA
				Analysis Year	2022
Input Data				**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)				--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ =	67,700	(veh/day)	--	23,630
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ =	33,400	(veh/day)	--	10,840
Intersection lighting (present/not present)				Not Present	Present
Calibration factor, C_i				1.00	1.00
Data for unsignalized intersections only:				--	--
Number of major-road approaches with left-turn lanes (0,1,2)				0	0
Number of major-road approaches with right-turn lanes (0,1,2)				0	0
Data for signalized intersections only:				--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	2
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	1
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]				--	1
Type of left-turn signal phasing for Leg #1				Permissive	Protected
Type of left-turn signal phasing for Leg #2				--	Permissive
Type of left-turn signal phasing for Leg #3				--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)				--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]				0	0
Intersection red light cameras (present/not present)				Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only					100
Maximum number of lanes crossed by a pedestrian (n_{lanesx})				--	5
Number of bus stops within 300 m (1,000 ft) of the intersection				0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)				Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection				0	0

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF $_{COMB}$*
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.81	0.93	0.96	1.00	0.91	1.00	0.66

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	6.835	1.000	6.835	0.66	1.00	4.505
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	2.197	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.333	2.276	0.66	1.00	1.500
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	4.400	$(5)_{TOTAL}-(5)_{FI}$ = 0.667	4.559	0.66	1.00	3.005

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N *bimv* (FI) (crashes/year)**	**Proportion of Collision Type$_{(PDO)}$**	**Predicted N *bimv* (PDO) (crashes/year)**	**Predicted N *bimv* (TOTAL) (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	1.500	1.000	3.005	4.505
		(2)*$(3)_{FI}$		(4)*$(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	0.675	0.483	1.451	2.126
Head-on collision	0.049	0.074	0.030	0.090	0.164
Angle collision	0.347	0.521	0.244	0.733	1.254
Sideswipe	0.099	0.149	0.032	0.096	0.245
Other multiple-vehicle collision	0.055	0.083	0.211	0.634	0.716

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.426	1.000	0.426	0.66	1.00	0.281
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.108	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.257	0.109	0.66	1.00	0.072
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.313	$(5)_{TOTAL}-(5)_{FI}$ = 0.743	0.317	0.66	1.00	0.209

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bisv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	(9)$_{FI}$ from Worksheet 2E	from Table 12-13	(9)$_{PDO}$ from Worksheet 2E	(9)$_{PDO}$ from Worksheet 2E
Total	1.000	0.072	1.000	0.209	0.281
		(2)*(3)$_{FI}$		(4)*(5)$_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.001
Collision with fixed object	0.744	0.054	0.870	0.181	0.235
Collision with other object	0.072	0.005	0.070	0.015	0.020
Other single-vehicle collision	0.040	0.003	0.023	0.005	0.008
Single-vehicle noncollision	0.141	0.010	0.034	0.007	0.017

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)*(5)
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
1.00	1.00	1.00	1.00

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.038	1.00	1.00	0.038
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.038

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	4.505	0.281	4.785	0.015	0.072
Fatal and injury (FI)	--	--	--	--	0.072

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.675	1.451	2.126
Head-on collisions (from Worksheet 2D)	0.074	0.090	0.164
Angle collisions (from Worksheet 2D)	0.521	0.733	1.254
Sideswipe (from Worksheet 2D)	0.149	0.096	0.245
Other multiple-vehicle collision (from Worksheet 2D)	0.083	0.634	0.716
Subtotal	1.500	3.005	4.505
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.001
Collision with fixed object (from Worksheet 2F)	0.054	0.181	0.235
Collision with other object (from Worksheet 2F)	0.005	0.015	0.020
Other single-vehicle collision (from Worksheet 2F)	0.003	0.005	0.008
Single-vehicle noncollision (from Worksheet 2F)	0.010	0.007	0.017
Collision with pedestrian (from Worksheet 2G or 2I)	0.038	0.000	0.038
Collision with bicycle (from Worksheet 2J)	0.072	0.000	0.072
Subtotal	0.181	0.209	0.390
Total	1.682	3.213	4.895

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections

(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	4.9
Fatal and injury (FI)	1.7
Property damage only (PDO)	3.2

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections						
General Information				**Location Information**		
Analyst	Molly Riddle			Roadway		
Agency or Company	Fehr & Peers			Intersection	Alameda Avenue & Howard Street	
Date Performed	03/02/22			Jurisdiction	City of Oakland, CA	
				Analysis Year	2022	
Input Data				**Base Conditions**	**Site Conditions**	
Intersection type (3ST, 3SG, 4ST, 4SG)				--	3ST	
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ =	45,700	(veh/day)	--	12,410	
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ =	9,300	(veh/day)	--	7,390	
Intersection lighting (present/not present)				Not Present	Not Present	
Calibration factor, C_i				1.00	1.00	
Data for unsignalized intersections only:				--	--	
Number of major-road approaches with left-turn lanes (0,1,2)				0	1	
Number of major-road approaches with right-turn lanes (0,1,2)				0	0	
Data for signalized intersections only:				--	--	
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	0	
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	0	
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]				--	0	
Type of left-turn signal phasing for Leg #1				Permissive	Not Applicable	
Type of left-turn signal phasing for Leg #2				--	Not Applicable	
Type of left-turn signal phasing for Leg #3				--	Not Applicable	
Type of left-turn signal phasing for Leg #4 (if applicable)				--	Not Applicable	
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]				0	0	
Intersection red light cameras (present/not present)				Not Present	Not Present	
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only					100	
Maximum number of lanes crossed by a pedestrian (n_{lanesx})				--	0	
Number of bus stops within 300 m (1,000 ft) of the intersection				0	0	
Schools within 300 m (1,000 ft) of the intersection (present/not present)				Not Present	Not Present	
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection				0	0	

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF $_{COMB}$*
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.67	1.00	1.00	1.00	1.00	1.00	0.67

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-13.36	1.11	0.41	0.80	2.128	1.000	2.128	0.67	1.00	1.426
Fatal and Injury (FI)	-14.01	1.16	0.30	0.69	0.668	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.294	0.625	0.67	1.00	0.419
Property Damage Only (PDO)	-15.38	1.20	0.51	0.77	1.607	$(5)_{TOTAL}-(5)_{FI}$ = 0.706	1.503	0.67	1.00	1.007

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bimv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	0.419	1.000	1.007	1.426
		(2)*$(3)_{FI}$		(4)*$(5)_{PDO}$	(3)+(5)
Rear-end collision	0.421	0.176	0.440	0.443	0.620
Head-on collision	0.045	0.019	0.023	0.023	0.042
Angle collision	0.343	0.144	0.262	0.264	0.408
Sideswipe	0.126	0.053	0.040	0.040	0.093
Other multiple-vehicle collision	0.065	0.027	0.235	0.237	0.264

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-6.81	0.16	0.51	1.14	0.468	1.000	0.468	0.67	1.00	0.314
Fatal and Injury (FI)	--	--	--	--	0.145	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.305	0.143	0.67	1.00	0.096
Property Damage Only (PDO)	-8.36	0.25	0.55	1.29	0.332	$(5)_{TOTAL}-(5)_{FI}$ = 0.695	0.326	0.67	1.00	0.218

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bisv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	(9)$_{FI}$ from Worksheet 2E	from Table 12-13	(9)$_{PDO}$ from Worksheet 2E	(9)$_{PDO}$ from Worksheet 2E
Total	1.000	0.096	1.000	0.218	0.314
		(2)*(3)$_{FI}$		(4)*(5)$_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.003	0.001	0.001
Collision with animal	0.003	0.000	0.018	0.004	0.004
Collision with fixed object	0.762	0.073	0.834	0.182	0.255
Collision with other object	0.090	0.009	0.092	0.020	0.029
Other single-vehicle collision	0.039	0.004	0.023	0.005	0.009
Single-vehicle noncollision	0.105	0.010	0.030	0.007	0.017

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)*(5)
Total	1.426	0.314	1.740	0.021	0.037
Fatal and injury (FI)	--	--	--	--	0.037

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
--	--	--	--

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	--	--	--	--	--	--	--	--	1.00	--
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	--

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	1.426	0.314	1.740	0.016	0.028
Fatal and injury (FI)	--	--	--	--	0.028

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.176	0.443	0.620
Head-on collisions (from Worksheet 2D)	0.019	0.023	0.042
Angle collisions (from Worksheet 2D)	0.144	0.264	0.408
Sideswipe (from Worksheet 2D)	0.053	0.040	0.093
Other multiple-vehicle collision (from Worksheet 2D)	0.027	0.237	0.264
Subtotal	0.419	1.007	1.426
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.001	0.001
Collision with animal (from Worksheet 2F)	0.000	0.004	0.004
Collision with fixed object (from Worksheet 2F)	0.073	0.182	0.255
Collision with other object (from Worksheet 2F)	0.009	0.020	0.029
Other single-vehicle collision (from Worksheet 2F)	0.004	0.005	0.009
Single-vehicle noncollision (from Worksheet 2F)	0.010	0.007	0.017
Collision with pedestrian (from Worksheet 2G or 2I)	0.037	0.000	0.037
Collision with bicycle (from Worksheet 2J)	0.028	0.000	0.028
Subtotal	0.160	0.218	0.378
Total	0.579	1.225	1.804

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections

(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	1.8
Fatal and injury (FI)	0.6
Property damage only (PDO)	1.2

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections					
General Information				**Location Information**	
Analyst	Molly Riddle			Roadway	
Agency or Company	Fehr & Peers			Intersection	High Street & Oakport Street
Date Performed	03/02/22			Jurisdiction	City of Oakland, CA
				Analysis Year	2022
Input Data				**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)				--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ =	67,700	(veh/day)	--	37,740
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ =	33,400	(veh/day)	--	32,550
Intersection lighting (present/not present)				Not Present	Present
Calibration factor, C_i				1.00	1.00
Data for unsignalized intersections only:				--	--
Number of major-road approaches with left-turn lanes (0,1,2)				0	0
Number of major-road approaches with right-turn lanes (0,1,2)				0	0
Data for signalized intersections only:				--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	2
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	2
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]				--	1
Type of left-turn signal phasing for Leg #1				Permissive	Protected
Type of left-turn signal phasing for Leg #2				--	Not Applicable
Type of left-turn signal phasing for Leg #3				--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)				--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]				0	0
Intersection red light cameras (present/not present)				Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only					100
Maximum number of lanes crossed by a pedestrian (n_{lanesx})				--	4
Number of bus stops within 300 m (1,000 ft) of the intersection				0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)				Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection				0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF $_{COMB}$*
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.81	0.93	0.92	1.00	0.91	1.00	0.63

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	14.527	1.000	14.527	0.63	1.00	9.190
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	4.861	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.345	5.010	0.63	1.00	3.170
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	9.235	$(5)_{TOTAL}-(5)_{FI}$ = 0.655	9.517	0.63	1.00	6.021

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bimv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	3.170	1.000	6.021	9.190
		(2)*$(3)_{FI}$		(4)*$(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	1.426	0.483	2.908	4.334
Head-on collision	0.049	0.155	0.030	0.181	0.336
Angle collision	0.347	1.100	0.244	1.469	2.569
Sideswipe	0.099	0.314	0.032	0.193	0.506
Other multiple-vehicle collision	0.055	0.174	0.211	1.270	1.445

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.788	1.000	0.788	0.63	1.00	0.498
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.182	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.235	0.185	0.63	1.00	0.117
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.593	$(5)_{TOTAL}-(5)_{FI}$ = 0.765	0.603	0.63	1.00	0.382

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bisv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	(9)$_{FI}$ from Worksheet 2E	from Table 12-13	(9)$_{PDO}$ from Worksheet 2E	(9)$_{PDO}$ from Worksheet 2E
Total	1.000	0.117	1.000	0.382	0.498
		(2)*(3)$_{FI}$		(4)*(5)$_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.001	0.001
Collision with fixed object	0.744	0.087	0.870	0.332	0.419
Collision with other object	0.072	0.008	0.070	0.027	0.035
Other single-vehicle collision	0.040	0.005	0.023	0.009	0.013
Single-vehicle noncollision	0.141	0.016	0.034	0.013	0.029

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)*(5)
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
1.00	1.00	1.12	1.12

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.057	1.12	1.00	0.063
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.063

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	9.190	0.498	9.689	0.015	0.145
Fatal and injury (FI)	--	--	--	--	0.145

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	1.426	2.908	4.334
Head-on collisions (from Worksheet 2D)	0.155	0.181	0.336
Angle collisions (from Worksheet 2D)	1.100	1.469	2.569
Sideswipe (from Worksheet 2D)	0.314	0.193	0.506
Other multiple-vehicle collision (from Worksheet 2D)	0.174	1.270	1.445
Subtotal	3.170	6.021	9.190
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.001	0.001
Collision with fixed object (from Worksheet 2F)	0.087	0.332	0.419
Collision with other object (from Worksheet 2F)	0.008	0.027	0.035
Other single-vehicle collision (from Worksheet 2F)	0.005	0.009	0.013
Single-vehicle noncollision (from Worksheet 2F)	0.016	0.013	0.029
Collision with pedestrian (from Worksheet 2G or 2I)	0.063	0.000	0.063
Collision with bicycle (from Worksheet 2J)	0.145	0.000	0.145
Subtotal	0.326	0.382	0.707
Total	3.495	6.402	9.898

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections

(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	9.9
Fatal and injury (FI)	3.5
Property damage only (PDO)	6.4

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections					
General Information				**Location Information**	
Analyst	Molly Riddle			Roadway	
Agency or Company	Fehr & Peers			Intersection	High Street & Coliseum Way
Date Performed	03/02/22			Jurisdiction	City of Oakland, CA
				Analysis Year	2022
Input Data				**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)				--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ =	67,700	(veh/day)	--	34,730
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ =	33,400	(veh/day)	--	21,940
Intersection lighting (present/not present)				Not Present	Present
Calibration factor, C_i				1.00	1.00
Data for unsignalized intersections only:				--	--
Number of major-road approaches with left-turn lanes (0,1,2)				0	0
Number of major-road approaches with right-turn lanes (0,1,2)				0	0
Data for signalized intersections only:				--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	1
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	0
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]				--	1
Type of left-turn signal phasing for Leg #1				Permissive	Protected
Type of left-turn signal phasing for Leg #2				--	Not Applicable
Type of left-turn signal phasing for Leg #3				--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)				--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]				0	0
Intersection red light cameras (present/not present)				Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only					100
Maximum number of lanes crossed by a pedestrian (n_{lanesx})				--	4
Number of bus stops within 300 m (1,000 ft) of the intersection				0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)				Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection				0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF $_{COMB}$*
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.90	0.93	1.00	1.00	0.91	1.00	0.76

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	12.138	1.000	12.138	0.76	1.00	9.258
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	4.041	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.344	4.171	0.76	1.00	3.182
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	7.718	$(5)_{TOTAL}-(5)_{FI}$ = 0.656	7.967	0.76	1.00	6.077

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bimv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	3.182	1.000	6.077	9.258
		(2)*$(3)_{FI}$		(4)*$(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	1.432	0.483	2.935	4.367
Head-on collision	0.049	0.156	0.030	0.182	0.338
Angle collision	0.347	1.104	0.244	1.483	2.587
Sideswipe	0.099	0.315	0.032	0.194	0.509
Other multiple-vehicle collision	0.055	0.175	0.211	1.282	1.457

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.669	1.000	0.669	0.76	1.00	0.511
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.156	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.237	0.159	0.76	1.00	0.121
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.504	$(5)_{TOTAL}-(5)_{FI}$ = 0.763	0.511	0.76	1.00	0.390

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bisv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	(9)$_{FI}$ from Worksheet 2E	from Table 12-13	(9)$_{PDO}$ from Worksheet 2E	(9)$_{PDO}$ from Worksheet 2E
Total	1.000	0.121	1.000	0.390	0.511
		(2)*(3)$_{FI}$		(4)*(5)$_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.001
Collision with animal	0.002	0.000	0.002	0.001	0.001
Collision with fixed object	0.744	0.090	0.870	0.339	0.429
Collision with other object	0.072	0.009	0.070	0.027	0.036
Other single-vehicle collision	0.040	0.005	0.023	0.009	0.014
Single-vehicle noncollision	0.141	0.017	0.034	0.013	0.030

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)*(5)
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
1.00	1.00	1.12	1.12

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.048	1.12	1.00	0.054
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.054

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	9.258	0.511	9.769	0.015	0.147
Fatal and injury (FI)	--	--	--	--	0.147

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	1.432	2.935	4.367
Head-on collisions (from Worksheet 2D)	0.156	0.182	0.338
Angle collisions (from Worksheet 2D)	1.104	1.483	2.587
Sideswipe (from Worksheet 2D)	0.315	0.194	0.509
Other multiple-vehicle collision (from Worksheet 2D)	0.175	1.282	1.457
Subtotal	3.182	6.077	9.258
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.001
Collision with animal (from Worksheet 2F)	0.000	0.001	0.001
Collision with fixed object (from Worksheet 2F)	0.090	0.339	0.429
Collision with other object (from Worksheet 2F)	0.009	0.027	0.036
Other single-vehicle collision (from Worksheet 2F)	0.005	0.009	0.014
Single-vehicle noncollision (from Worksheet 2F)	0.017	0.013	0.030
Collision with pedestrian (from Worksheet 2G or 2I)	0.054	0.000	0.054
Collision with bicycle (from Worksheet 2J)	0.147	0.000	0.147
Subtotal	0.321	0.390	0.711
Total	3.503	6.466	9.969

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections

(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	10.0
Fatal and injury (FI)	3.5
Property damage only (PDO)	6.5

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections					
General Information				**Location Information**	
Analyst	Molly Riddle			Roadway	
Agency or Company	Fehr & Peers			Intersection	Hgih Street & Howard Street
Date Performed	03/02/22			Jurisdiction	City of Oakland, CA
				Analysis Year	2022
Input Data				**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)				--	3SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ =	58,100	(veh/day)	--	29,310
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ =	16,400	(veh/day)	--	7,720
Intersection lighting (present/not present)				Not Present	Present
Calibration factor, C_i				1.00	1.00
Data for unsignalized intersections only:				--	--
Number of major-road approaches with left-turn lanes (0,1,2)				0	0
Number of major-road approaches with right-turn lanes (0,1,2)				0	0
Data for signalized intersections only:				--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	1
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]				0	1
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]				--	1
Type of left-turn signal phasing for Leg #1				Permissive	Protected
Type of left-turn signal phasing for Leg #2				--	Not Applicable
Type of left-turn signal phasing for Leg #3				--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)				--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]				0	0
Intersection red light cameras (present/not present)				Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only					100
Maximum number of lanes crossed by a pedestrian (n_{lanesx})				--	3
Number of bus stops within 300 m (1,000 ft) of the intersection				0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)				Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection				0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF 1i	*CMF 2i*	*CMF 3i*	*CMF 4i*	*CMF 5i*	*CMF 6i*	*CMF $_{COMB}$*
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.93	0.94	0.96	1.00	0.91	1.00	0.76

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bimv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bimv}**
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-12.13	1.11	0.26	0.33	5.025	1.000	5.025	0.76	1.00	3.841
Fatal and Injury (FI)	-11.58	1.02	0.17	0.30	1.542	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.323	1.625	0.76	1.00	1.242
Property Damage Only (PDO)	-13.24	1.14	0.30	0.36	3.226	$(5)_{TOTAL}-(5)_{FI}$ = 0.677	3.400	0.76	1.00	2.599

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bimv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bimv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bimv\ (TOTAL)}$ (crashes/year)**
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	1.242	1.000	2.599	3.841
		(2)*$(3)_{FI}$		(4)*$(5)_{PDO}$	(3)+(5)
Rear-end collision	0.549	0.682	0.546	1.419	2.101
Head-on collision	0.038	0.047	0.020	0.052	0.099
Angle collision	0.280	0.348	0.204	0.530	0.878
Sideswipe	0.076	0.094	0.032	0.083	0.178
Other multiple-vehicle collision	0.057	0.071	0.198	0.515	0.585

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections

(1)	(2)			(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**			**Overdispersion Parameter, k**	**Initial N_{bisv}**	**Proportion of Total Crashes**	**Adjusted N_{bimv}**	**Combined CMFs**	**Calibration Factor, C_i**	**Predicted N_{bisv}**
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL}$*(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-9.02	0.42	0.40	0.36	0.326	1.000	0.326	0.76	1.00	0.250
Fatal and Injury (FI)	-9.75	0.27	0.51	0.24	0.090	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.287	0.094	0.76	1.00	0.072
Property Damage Only (PDO)	-9.08	0.45	0.33	0.53	0.224	$(5)_{TOTAL}-(5)_{FI}$ = 0.713	0.233	0.76	1.00	0.178

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{bisv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{bisv\ (PDO)}$ (crashes/year)**	**Predicted N $_{bisv\ (TOTAL)}$ (crashes/year)**
	from Table 12-13	(9)$_{FI}$ from Worksheet 2E	from Table 12-13	(9)$_{PDO}$ from Worksheet 2E	(9)$_{PDO}$ from Worksheet 2E
Total	1.000	0.072	1.000	0.178	0.250
		(2)*(3)$_{FI}$		(4)*(5)$_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.001	0.000	0.003	0.001	0.001
Collision with fixed object	0.653	0.047	0.895	0.159	0.206
Collision with other object	0.091	0.007	0.069	0.012	0.019
Other single-vehicle collision	0.045	0.003	0.018	0.003	0.006
Single-vehicle noncollision	0.209	0.015	0.014	0.002	0.017

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{pedi}**	**Predicted N_{pedi}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)*(5)
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF_{1p}	CMF_{2p}	CMF_{3p}	
from Table 12-28	from Table 12-29	from Table 12-30	(1)*(2)*(3)
1.00	1.00	1.12	1.12

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections

(1)	(2)					(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**SPF Coefficients**					**Overdispersion Parameter, k**	**$N_{pedbase}$**	**Combined CMF**	**Calibration factor, C_i**	**Predicted N_{pedi}**
	from Table 12-14						from Equation 12-29	(4) from Worksheet 2H		(4)*(5)*(6)
	a	b	c	d	e					
Total	-6.60	0.05	0.24	0.41	0.09	0.52	0.014	1.12	1.00	0.016
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.016

Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	**Predicted N_{bimv}**	**Predicted N_{bisv}**	**Predicted N_{bi}**	**f_{bikei}**	**Predicted N_{bikei}**
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	3.841	0.250	4.090	0.011	0.045
Fatal and injury (FI)	--	--	--	--	0.045

* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections

(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 2D)	0.682	1.419	2.101
Head-on collisions (from Worksheet 2D)	0.047	0.052	0.099
Angle collisions (from Worksheet 2D)	0.348	0.530	0.878
Sideswipe (from Worksheet 2D)	0.094	0.083	0.178
Other multiple-vehicle collision (from Worksheet 2D)	0.071	0.515	0.585
Subtotal	1.242	2.599	3.841
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.001	0.001
Collision with fixed object (from Worksheet 2F)	0.047	0.159	0.206
Collision with other object (from Worksheet 2F)	0.007	0.012	0.019
Other single-vehicle collision (from Worksheet 2F)	0.003	0.003	0.006
Single-vehicle noncollision (from Worksheet 2F)	0.015	0.002	0.017
Collision with pedestrian (from Worksheet 2G or 2I)	0.016	0.000	0.016
Collision with bicycle (from Worksheet 2J)	0.045	0.000	0.045
Subtotal	0.133	0.178	0.311
Total	1.375	2.777	4.152

Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections

(1)	(2)
Crash severity level	**Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)**
	(Total) from Worksheet 2K
Total	4.2
Fatal and injury (FI)	1.4
Property damage only (PDO)	2.8

Worksheet 1A -- General Information and Input Data for Urban and Suburban Roadway Segments

General Information		Location Information	
Analyst	Molly Riddle	Roadway	Fruitvale Avenue
Agency or Company	Fehr & Peers	Roadway Section	Elmwood to Alameda Avenue
Date Performed	03/02/22	Jurisdiction	City of Oakland, CA
		Analysis Year	2022

Input Data		Base Conditions	Site Conditions
Roadway type (2U, 3T, 4U, 4D, ST)		--	2U
Length of segment, L (mi)		--	0.25
AADT (veh/day)	$AADT_{MAX}$ = 32,600 (veh/day)	--	23,180
Type of on-street parking (none/parallel/angle)		None	None
Proportion of curb length with on-street parking		--	0
Median width (ft) - for divided only		15	Not Present
Lighting (present / not present)		Not Present	Present
Auto speed enforcement (present / not present)		Not Present	Not Present
Major commercial driveways (number)		--	0
Minor commercial driveways (number)		--	0
Major industrial / institutional driveways (number)		--	0
Minor industrial / institutional driveways (number)		--	0
Major residential driveways (number)		--	0
Minor residential driveways (number)		--	0
Other driveways (number)		--	0
Speed Category		--	Posted Speed 30 mph or Lower
Roadside fixed object density (fixed objects / mi)		0	75
Offset to roadside fixed objects (ft) [If greater than 30 or Not Present, input 30]		30	9
Calibration Factor, Cr		1.00	1.00

Worksheet 1B -- Crash Modification Factors for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)
CMF for On-Street Parking	CMF for Roadside Fixed Objects	CMF for Median Width	CMF for Lighting	CMF for Automated Speed Enforcement	Combined CMF
CMF 1r	*CMF 2r*	*CMF 3r*	*CMF 4r*	*CMF 5r*	*CMF comb*
from Equation 12-32	from Equation 12-33	from Table 12-22	from Equation 12-34	from Section 12.7.1	(1)*(2)*(3)*(4)*(5)
1.00	1.35	1.00	0.93	1.00	1.26

Worksheet 1C -- Multiple-Vehicle Nondriveway Collisions by Severity Level for Urban and Suburban Roadway Segments

(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**		**Overdispersion Parameter, k**	**Initial N_{brmv}**	**Proportion of Total Crashes**	**Adjusted N_{brmv}**	**Combined CMFs**	**Calibration Factor, Cr**	**Predicted N_{brmv}**
	from Table 12-3		from Table 12-3	from Equation 12-10		$(4)_{TOTAL}$*(5)	(6) from Worksheet 1B		(6)*(7)*(8)
	a	b							
Total	-15.22	1.68	0.84	1.322	1.000	1.322	1.26	1.00	1.664
Fatal and Injury (FI)	-16.22	1.66	0.65	0.398	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.289	0.382	1.26	1.00	0.480
Property Damage Only (PDO)	-15.62	1.69	0.87	0.980	$(5)_{TOTAL}-(5)_{FI}$ = 0.711	0.941	1.26	1.00	1.183

Worksheet 1D -- Multiple-Vehicle Nondriveway Collisions by Collision Type for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{brmv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{brmv\ (PDO)}$ (crashes/year)**	**Predicted N $_{brmv\ (TOTAL)}$ (crashes/year)**
	from Table 12-4	$(9)_{FI}$ from Worksheet 1C	from Table 12-4	$(9)_{PDO}$ from Worksheet 1C	$(9)_{TOTAL}$ from Worksheet 1C
Total	1.000	0.480	1.000	1.183	1.664
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.730	0.351	0.778	0.921	1.271
Head-on collision	0.068	0.033	0.004	0.005	0.037
Angle collision	0.085	0.041	0.079	0.093	0.134
Sideswipe, same direction	0.015	0.007	0.031	0.037	0.044
Sideswipe, opposite direction	0.073	0.035	0.055	0.065	0.100
Other multiple-vehicle collision	0.029	0.014	0.053	0.063	0.077

Worksheet 1E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Roadway Segments

(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**		**Overdispersion Parameter, k**	**Initial N_{brsv}**	**Proportion of Total Crashes**	**Adjusted N_{brsv}**	**Combined CMFs**	**Calibration Factor, Cr**	**Predicted N_{brsv}**
	from Table 12-5		from Table 12-5	from Equation 12-13		$(4)_{TOTAL}*(5)$	(6) from Worksheet 1B		(6)*(7)*(8)
	a	b							
Total	-5.47	0.56	0.81	0.293	1.000	0.293	1.26	1.00	0.369
Fatal and Injury (FI)	-3.96	0.23	0.50	0.048	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.172	0.050	1.26	1.00	0.063
Property Damage Only (PDO)	-6.51	0.64	0.87	0.231	$(5)_{TOTAL}-(5)_{FI}$ = 0.828	0.243	1.26	1.00	0.305

Worksheet 1F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{brsv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{brsv\ (PDO)}$ (crashes/year)**	**Predicted N $_{brsv\ (TOTAL)}$ (crashes/year)**
	from Table 12-6	$(9)_{FI}$ from Worksheet 1E	from Table 12-6	$(9)_{PDO}$ from Worksheet 1E	$(9)_{TOTAL}$ from Worksheet 1E
Total	1.000	0.063	1.000	0.305	0.369
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with animal	0.026	0.002	0.066	0.020	0.022
Collision with fixed object	0.723	0.046	0.759	0.232	0.277
Collision with other object	0.010	0.001	0.013	0.004	0.005
Other single-vehicle collision	0.241	0.015	0.162	0.049	0.065

Worksheet 1G -- Multiple-Vehicle Driveway-Related Collisions by Driveway Type for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)
Driveway Type	**Number of driveways, n_j**	**Crashes per driveway per year, N_j**	**Coefficient for traffic adjustment, t**	**Initial N_{brdwy}**	**Overdispersion parameter, k**
		from Table 12-7	from Table 12-7	Equation 12-16 $n_j * N_j * (AADT/15,000)^t$	from Table 12-7
Major commercial	0	0.158	1.000	0.000	
Minor commercial	0	0.050	1.000	0.000	
Major industrial/institutional	0	0.172	1.000	0.000	
Minor industrial/institutional	0	0.023	1.000	0.000	--
Major residential	0	0.083	1.000	0.000	
Minor residential	0	0.016	1.000	0.000	
Other	0	0.025	1.000	0.000	
Total	--	--	--	0.000	0.81

Worksheet 1H -- Multiple-Vehicle Driveway-Related Collisions by Severity Level for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Initial N_{brdwy}**	**Proportion of total crashes (f_{dwy})**	**Adjusted N_{brdwy}**	**Combined CMFs**	**Calibration factor, C_r**	**Predicted N_{brdwy}**
	$(5)_{TOTAL}$ from Worksheet 1G	from Table 12-7	$(2)_{TOTAL}$ * (3)	(6) from Worksheet 1B		(4)*(5)*(6)
Total	0.000	1.000	0.000	1.26	1.00	0.000
Fatal and injury (FI)	--	0.323	0.000	1.26	1.00	0.000
Property damage only (PDO)	--	0.677	0.000	1.26	1.00	0.000

Worksheet 1I -- Vehicle-Pedestrian Collisions for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)	(8)*
Crash Severity Level	**Predicted N_{brmv}**	**Predicted N_{brsv}**	**Predicted N_{brdwy}**	**Predicted N_{br}**	**f_{pedr}**	**Predicted N_{pedr}**
	(9) from Worksheet 1C	(9) from Worksheet 1E	(7) from Worksheet 1H	(2)+(3)+(4)	from Table 12-8	(5)*(6)
Total	1.664	0.369	0.000	2.032	0.036	0.073
Fatal and injury (FI)	--	--	--	--	--	0.073

* Column 7 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-19

Worksheet 1J -- Vehicle-Bicycle Collisions for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)	(8)*
Crash Severity Level	**Predicted N_{brmv}**	**Predicted N_{brsv}**	**Predicted N_{brdwy}**	**Predicted N_{br}**	**f_{biker}**	**Predicted N_{biker}**
	(9) from Worksheet 1C	(9) from Worksheet 1E	(7) from Worksheet 1H	(2)+(3)+(4)	from Table 12-9	(5)*(6)
Total	1.664	0.369	0.000	2.032	0.018	0.037
Fatal and injury (FI)	--	--	--	--	--	0.037

* Column 7 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-20

Worksheet 1K -- Crash Severity Distribution for Urban and Suburban Roadway Segments			
(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 1D and 1F; (7) from Worksheet 1H; and (8) from Worksheet 1I and 1J	(5) from Worksheet 1D and 1F; and (7) from Worksheet 1H	(6) from Worksheet 1D and 1F; (7) from Worksheet 1H; and (8) from Worksheet 1I and 1J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 1D)	0.351	0.921	1.271
Head-on collisions (from Worksheet 1D)	0.033	0.005	0.037
Angle collisions (from Worksheet 1D)	0.041	0.093	0.134
Sideswipe, same direction (from Worksheet 1D)	0.007	0.037	0.044
Sideswipe, opposite direction (from Worksheet 1D)	0.035	0.065	0.100
Driveway-related collisions (from Worksheet 1H)	0.000	0.000	0.000
Other multiple-vehicle collision (from Worksheet 1D)	0.014	0.063	0.077
Subtotal	0.480	1.183	1.664
SINGLE-VEHICLE			
Collision with animal (from Worksheet 1F)	0.002	0.020	0.022
Collision with fixed object (from Worksheet 1F)	0.046	0.232	0.277
Collision with other object (from Worksheet 1F)	0.001	0.004	0.005
Other single-vehicle collision (from Worksheet 1F)	0.015	0.049	0.065
Collision with pedestrian (from Worksheet 1I)	0.073	0.000	0.073
Collision with bicycle (from Worksheet 1J)	0.037	0.000	0.037
Subtotal	0.173	0.305	0.478
Total	0.653	1.488	2.142

Worksheet 1L -- Summary Results for Urban and Suburban Roadway Segments			
(1)	(2)	(3)	(4)
Crash Severity Level	**Predicted average crash frequency, $N_{predicted\ rs}$ (crashes/year)**	**Roadway segment length, L (mi)**	**Crash rate (crashes/mi/year)**
	(Total) from Worksheet 1K		(2) / (3)
Total	2.1	0.25	8.6
Fatal and injury (FI)	0.7	0.25	2.6
Property damage only (PDO)	1.5	0.25	6.0

Worksheet 1A -- General Information and Input Data for Urban and Suburban Roadway Segments

General Information		Location Information	
Analyst	Molly Riddle	Roadway	Alameda Avenue
Agency or Company	Fehr & Peers	Roadway Section	Fruitvale Avenue to Tidal Place
Date Performed	03/02/22	Jurisdiction	City of Oakland, CA
		Analysis Year	2022

Input Data		Base Conditions	Site Conditions
Roadway type (2U, 3T, 4U, 4D, ST)		--	2U
Length of segment, L (mi)		--	0.23
AADT (veh/day)	$AADT_{MAX}$ = 32,600 (veh/day)	--	13,120
Type of on-street parking (none/parallel/angle)		None	Parallel (Comm/Ind)
Proportion of curb length with on-street parking		--	0.5
Median width (ft) - for divided only		15	Not Present
Lighting (present / not present)		Not Present	Present
Auto speed enforcement (present / not present)		Not Present	Not Present
Major commercial driveways (number)		--	0
Minor commercial driveways (number)		--	0
Major industrial / institutional driveways (number)		--	1
Minor industrial / institutional driveways (number)		--	0
Major residential driveways (number)		--	0
Minor residential driveways (number)		--	0
Other driveways (number)		--	0
Speed Category		--	Posted Speed 30 mph or Lower
Roadside fixed object density (fixed objects / mi)		0	75
Offset to roadside fixed objects (ft) [If greater than 30 or Not Present, input 30]		30	10
Calibration Factor, Cr		1.00	1.00

Worksheet 1B -- Crash Modification Factors for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)
CMF for On-Street Parking	CMF for Roadside Fixed Objects	CMF for Median Width	CMF for Lighting	CMF for Automated Speed Enforcement	Combined CMF
CMF 1r	*CMF 2r*	*CMF 3r*	*CMF 4r*	*CMF 5r*	*CMF comb*
from Equation 12-32	from Equation 12-33	from Table 12-22	from Equation 12-34	from Section 12.7.1	(1)*(2)*(3)*(4)*(5)
1.54	1.32	1.00	0.93	1.00	1.90

Worksheet 1C -- Multiple-Vehicle Nondriveway Collisions by Severity Level for Urban and Suburban Roadway Segments

(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**		**Overdispersion Parameter, k**	**Initial N_{brmv}**	**Proportion of Total Crashes**	**Adjusted N_{brmv}**	**Combined CMFs**	**Calibration Factor, Cr**	**Predicted N_{brmv}**
	from Table 12-3		from Table 12-3	from Equation 12-10		$(4)_{TOTAL}$*(5)	(6) from Worksheet 1B		(6)*(7)*(8)
	a	b							
Total	-15.22	1.68	0.84	0.468	1.000	0.468	1.90	1.00	0.887
Fatal and Injury (FI)	-16.22	1.66	0.65	0.142	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.292	0.137	1.90	1.00	0.259
Property Damage Only (PDO)	-15.62	1.69	0.87	0.345	$(5)_{TOTAL}-(5)_{FI}$ = 0.708	0.331	1.90	1.00	0.628

Worksheet 1D -- Multiple-Vehicle Nondriveway Collisions by Collision Type for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{brmv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{brmv\ (PDO)}$ (crashes/year)**	**Predicted N $_{brmv\ (TOTAL)}$ (crashes/year)**
	from Table 12-4	$(9)_{FI}$ from Worksheet 1C	from Table 12-4	$(9)_{PDO}$ from Worksheet 1C	$(9)_{TOTAL}$ from Worksheet 1C
Total	1.000	0.259	1.000	0.628	0.887
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.730	0.189	0.778	0.488	0.678
Head-on collision	0.068	0.018	0.004	0.003	0.020
Angle collision	0.085	0.022	0.079	0.050	0.072
Sideswipe, same direction	0.015	0.004	0.031	0.019	0.023
Sideswipe, opposite direction	0.073	0.019	0.055	0.035	0.053
Other multiple-vehicle collision	0.029	0.008	0.053	0.033	0.041

Worksheet 1E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Roadway Segments

(1)	(2)		(3)	(4)	(5)	(6)	(7)	(8)	(9)
Crash Severity Level	**SPF Coefficients**		**Overdispersion Parameter, k**	**Initial N_{brsv}**	**Proportion of Total Crashes**	**Adjusted N_{brsv}**	**Combined CMFs**	**Calibration Factor, Cr**	**Predicted N_{brsv}**
	from Table 12-5		from Table 12-5	from Equation 12-13		$(4)_{TOTAL}*(5)$	(6) from Worksheet 1B		(6)*(7)*(8)
	a	b							
Total	-5.47	0.56	0.81	0.196	1.000	0.196	1.90	1.00	0.372
Fatal and Injury (FI)	-3.96	0.23	0.50	0.039	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ = 0.208	0.041	1.90	1.00	0.077
Property Damage Only (PDO)	-6.51	0.64	0.87	0.148	$(5)_{TOTAL}-(5)_{FI}$ = 0.792	0.155	1.90	1.00	0.294

Worksheet 1F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	**Proportion of Collision Type$_{(FI)}$**	**Predicted N $_{brsv\ (FI)}$ (crashes/year)**	**Proportion of Collision Type $_{(PDO)}$**	**Predicted N $_{brsv\ (PDO)}$ (crashes/year)**	**Predicted N $_{brsv\ (TOTAL)}$ (crashes/year)**
	from Table 12-6	$(9)_{FI}$ from Worksheet 1E	from Table 12-6	$(9)_{PDO}$ from Worksheet 1E	$(9)_{TOTAL}$ from Worksheet 1E
Total	1.000	0.077	1.000	0.294	0.372
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with animal	0.026	0.002	0.066	0.019	0.021
Collision with fixed object	0.723	0.056	0.759	0.223	0.279
Collision with other object	0.010	0.001	0.013	0.004	0.005
Other single-vehicle collision	0.241	0.019	0.162	0.048	0.066

Worksheet 1G -- Multiple-Vehicle Driveway-Related Collisions by Driveway Type for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)
Driveway Type	**Number of driveways, n_j**	**Crashes per driveway per year, N_j**	**Coefficient for traffic adjustment, t**	**Initial N_{brdwy}**	**Overdispersion parameter, k**
		from Table 12-7	from Table 12-7	Equation 12-16 $n_j * N_j * (AADT/15,000)^t$	from Table 12-7
Major commercial	0	0.158	1.000	0.000	
Minor commercial	0	0.050	1.000	0.000	
Major industrial/institutional	1	0.172	1.000	0.150	
Minor industrial/institutional	0	0.023	1.000	0.000	--
Major residential	0	0.083	1.000	0.000	
Minor residential	0	0.016	1.000	0.000	
Other	0	0.025	1.000	0.000	
Total	--	--	--	0.150	0.81

Worksheet 1H -- Multiple-Vehicle Driveway-Related Collisions by Severity Level for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)	(7)
Crash Severity Level	**Initial N_{brdwy}**	**Proportion of total crashes (f_{dwy})**	**Adjusted N_{brdwy}**	**Combined CMFs**	**Calibration factor, C_r**	**Predicted N_{brdwy}**
	$(5)_{TOTAL}$ from Worksheet 1G	from Table 12-7	$(2)_{TOTAL}$ * (3)	(6) from Worksheet 1B		(4)*(5)*(6)
Total	0.150	1.000	0.150	1.90	1.00	0.285
Fatal and injury (FI)	--	0.323	0.049	1.90	1.00	0.092
Property damage only (PDO)	--	0.677	0.102	1.90	1.00	0.193

Worksheet 1I -- Vehicle-Pedestrian Collisions for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)	(8)*
Crash Severity Level	**Predicted N_{brmv}**	**Predicted N_{brsv}**	**Predicted N_{brdwy}**	**Predicted N_{br}**	**f_{pedr}**	**Predicted N_{pedr}**
	(9) from Worksheet 1C	(9) from Worksheet 1E	(7) from Worksheet 1H	(2)+(3)+(4)	from Table 12-8	(5)*(6)
Total	0.887	0.372	0.285	1.544	0.036	0.056
Fatal and injury (FI)	--	--	--	--	--	0.056

* Column 7 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-19

Worksheet 1J -- Vehicle-Bicycle Collisions for Urban and Suburban Roadway Segments

(1)	(2)	(3)	(4)	(5)	(6)	(8)*
Crash Severity Level	**Predicted N_{brmv}**	**Predicted N_{brsv}**	**Predicted N_{brdwy}**	**Predicted N_{br}**	**f_{biker}**	**Predicted N_{biker}**
	(9) from Worksheet 1C	(9) from Worksheet 1E	(7) from Worksheet 1H	(2)+(3)+(4)	from Table 12-9	(5)*(6)
Total	0.887	0.372	0.285	1.544	0.018	0.028
Fatal and injury (FI)	--	--	--	--	--	0.028

* Column 7 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-20

Worksheet 1K -- Crash Severity Distribution for Urban and Suburban Roadway Segments			
(1)	(2)	(3)	(4)
Collision type	**Fatal and injury (FI)**	**Property damage only (PDO)**	**Total**
	(3) from Worksheet 1D and 1F; (7) from Worksheet 1H; and (8) from Worksheet 1I and 1J	(5) from Worksheet 1D and 1F; and (7) from Worksheet 1H	(6) from Worksheet 1D and 1F; (7) from Worksheet 1H; and (8) from Worksheet 1I and 1J
MULTIPLE-VEHICLE			
Rear-end collisions (from Worksheet 1D)	0.189	0.488	0.678
Head-on collisions (from Worksheet 1D)	0.018	0.003	0.020
Angle collisions (from Worksheet 1D)	0.022	0.050	0.072
Sideswipe, same direction (from Worksheet 1D)	0.004	0.019	0.023
Sideswipe, opposite direction (from Worksheet 1D)	0.019	0.035	0.053
Driveway-related collisions (from Worksheet 1H)	0.092	0.193	0.285
Other multiple-vehicle collision (from Worksheet 1D)	0.008	0.033	0.041
Subtotal	0.351	0.821	1.172
SINGLE-VEHICLE			
Collision with animal (from Worksheet 1F)	0.002	0.019	0.021
Collision with fixed object (from Worksheet 1F)	0.056	0.223	0.279
Collision with other object (from Worksheet 1F)	0.001	0.004	0.005
Other single-vehicle collision (from Worksheet 1F)	0.019	0.048	0.066
Collision with pedestrian (from Worksheet 1I)	0.056	0.000	0.056
Collision with bicycle (from Worksheet 1J)	0.028	0.000	0.028
Subtotal	0.161	0.294	0.455
Total	0.512	1.115	1.627

Worksheet 1L -- Summary Results for Urban and Suburban Roadway Segments			
(1)	(2)	(3)	(4)
Crash Severity Level	**Predicted average crash frequency, $N_{predicted\ rs}$ (crashes/year)**	**Roadway segment length, L (mi)**	**Crash rate (crashes/mi/year)**
	(Total) from Worksheet 1K		(2) / (3)
Total	1.6	0.23	7.1
Fatal and injury (FI)	0.5	0.23	2.2
Property damage only (PDO)	1.1	0.23	4.8

Appendix K

Transportation and Parking Demand Management Plan

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FEHR PEERS

Memorandum

Date: June 22, 2023

To: Elizabeth Kanner, ESA

From: Sam Tabibnia, Fehr & Peers

Subject: 3600 Alameda Avenue – Transportation Demand Management Plan

OK21-0441

The proposed 3600 Alameda Avenue (Project) is required to prepare a Transportation and Parking Demand Management (TDM) Plan per the City of Oakland Standard Condition of Approval (SCA) TRANS-3, Transportation and Parking Demand Management (Department of Planning and Building, Bureau of Planning, Revised December 16, 2021). According to the SCA, the TDM Plan goal is to achieve a 20 percent vehicle trip reduction (VTR) because the Project would generate more than 100 net new peak hour passenger vehicle trips.

This memorandum describes the Project and its setting, lists the mandatory TDM strategies that the Project shall implement, and describes the compliance for the TDM Plan.

Project Description

Appendix A shows the Project site plan. The Project is located at the northeast corner of the Alameda Avenue/Fruitvale Avenue intersection in Oakland. The 23.9-acre site is currently occupied by several vacant buildings totaling 1.24 million square feet, which would be demolished by the Project. The Project would construct a single building providing approximately 429,900 square feet of space. The end user and nature of the use is unknown at this time but, for the purposes of this analysis, is assumed to be a distribution warehouse facility.

The Project would make several changes to the adjacent roadway network including opening Boehmer Street between 36th and 37th Avenues as a public street extending 37th Avenue from

its current terminus south of Boehmer Street to Alameda Avenue, and realigning Alameda Avenue along the south frontage of the Project.

Automobile access to the project site would be provided via five driveways on Fruitvale Avenue (one driveway limited to rights-in and right-outs only), Boehmer Street (one driveway), 37th Street (two driveways), and Alameda Avenue (one driveway). The driveways on Fruitvale Avenue and Boehmer Street and the north driveway on 37th Street would primarily serve the 295 parking spaces in the employee parking lot. The south driveway on 37th Street and the driveway on Alameda Avenue would primarily be used by trucks to access the 48 loading docks on the south side of the project building and the 228 trailer parking spaces.

An approximately 22,000 square-foot parcel on the southeast corner of the site, at the intersection of Alameda Avenue/37th Avenue, may be developed as retail and/or restaurant in the future. This TDM Plan also covers this use.

Project Location

Located in the East Oakland Central Estuary Area, the Project is in a medium-density area with streets generally aligned to a grid and sidewalks on most streets. It is located adjacent or near residential neighborhoods, big box commercial retail sites, and other industrial/warehousing uses.

The Project is approximately 0.6-mile walking distance from the Fruitvale BART Station and is currently served by AC Transit bus service along Fruitvale Avenue (Lines 19, 51A, 78, 851 and O with headways ranging from 10 to 60 minutes).

The Project is currently served by several bicycle facilities including Class 2 bicycle lanes along Fruitvale and Alameda Avenues, and a Class 1 facility along the Oakland Estuary south of Alameda Avenue, which is part of the Bay Trail. Planned bicycle facilities include Class 4 separated elevated bicycle lanes along both sides of Fruitvale Avenue currently under construction, extension of the Bay Trail west Fruitvale Avenue along the Estuary, and improvements to the Class 1 facility along the Estuary proposed by this Project.

Commute Mode Share and Trip Generation

Table 1 summarizes the commute mode split for workers in the Project census tract (Tract 4061). Based on the Census data, about 62 percent of the workers in the project census tract drive alone and about 11 percent carpool to and from work. **Table 2** summarizes the trip generation for the Project by travel mode as summarized in the *Project non-CEQA Transportation Impact Review (TIR)*

Memorandum per the city of Oakland's *Transportation Impact Review Guidelines* (TIRG, April 2017).

Table 1: Journey to Work for Workers in Project Census Tract (Tract 4061)

Transportation Mode	Percent of Workers in Project Census Tract
Automobile	
Drove Alone	62%
Carpooled	11%
Subtotal	*73%*
Transit	
BART	5%
Bus	10%
Subtotal	*15%*
Bike	3%
Walk	7%
Other	1%
Total	**100%**

Source: U.S. Census Bureau, American Community Survey 2012-2016 Five-year estimates. Special Tabulation: Census Transportation Planning; Fehr & Peers, 2022.

Table 2: 3600 Alameda Avenue Project Industrial Component Trip Generation by Travel Mode

Transportation Mode	Mode Share Adjustment Factors[1]	Daily	AM Peak	PM Peak
Passenger Vehicle	0.633	1,630	227	191
Transit	0.236	610	85	71
Bike	0.049	130	18	15
Walk	0.062	160	22	19
Truck	N/A[3]	500	78	52
Total Trips		**3,030**	**430**	**348**

Notes:
1. Based on the City of Oakland's TIRG for an urban environment within 0.5 and 1.0 mile of a BART station.
2. Truck trips in PCE. See Appendix J for detailed calculations.

Source: Fehr & Peers, 2023.

Mandatory TDM Measures

This section describes the mandatory strategies that shall be implemented at the project site. These strategies shall be directly implemented by the Project Applicant and building management. **Table 3** lists the mandatory strategies that are part of the City's TIRG and their applicability to the Project.

Table 3: Mandatory TDM Program Components

TDM Strategy	Required When	Required for Project?
Bus boarding bulbs or islands	• A bus boarding bulb or island does not already exists and a bus stop is located along the project frontage; and/or • A bus stop along the project frontage serves a route with 15 minutes or better peak hour service and has a shared bus-bike lane curb	No, no bus stop is currently located along the Project frontage.
Bus Shelter	• A stop with no shelter is located within the project frontage, or • The project is located within 0.10 miles of a flag stop with 25 or more boardings per day	No, no bus stop is currently located along the Project frontage.
Concrete Bus Pad	• A bus stop is located along the project frontage and a concrete bus pad does not already exist	No, no bus stop is currently located along the Project frontage.
Curb Extensions or bulb-outs	• Identified as an improvement within site analysis	No, the site analysis did not identify new curb extensions or bulb-outs.
Implementation of Corridor-Level Bikeway Improvement	• A buffered Class II or Class IV bikeway facility is in a local or county adopted plan within 0.10 miles of the project location; and • The project would generate 500 or more daily bicycle trips	No, the Project would not generate 500 or more daily bicycle trips.
Implementation of Corridor-Level Transit Capital Improvement	• A high quality transit facility is in a local or county adopted plan within 0.25 miles of the project location; and • The project would generate 400 or more peak period transit trips	No, the Project would not generate 400 or more peak period transit trips.

TDM Strategy	Required When	Required for Project?
Installation of amenities such as lighting; pedestrian oriented green infrastructure, trees, or other greening landscape; and trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.	• Always required	**Yes, the Project would upgrade the pedestrian amenities adjacent to the site.**
Installation of safety improvements identified in the Pedestrian Master Plan (such as crosswalk striping, curb ramps, count down signals, bulb outs, etc.)	• When improvements are identified in the Pedestrian Master Plan along project frontage or at an adjacent intersection	**Yes, the Project would be consistent with the *Fruitvale Alive!* project.**
In-street bicycle corral	• A project includes more than 10,000 square feet of ground floor retail, is located along a Tier 1 bikeway, and • On-street vehicle parking is provided along the project frontages.	No, the project would not include more than 10,000 square feet of ground floor retail.
Intersection improvements	• Identified as an improvement within site analysis	**Yes, the Project would provide crossing improvements at intersections adjacent to the project site.**
New sidewalk, curb ramps, curb and gutter meeting current City and ADA standards	• Always required	**Yes, the Project would upgrade the sidewalks along Project frontage.**
No monthly permits and establish minimum price floor for public parking	• If proposed parking ratio exceeds 1:1000 sf (commercial)	No, the Project would not be a primary commercial project and the parking ratio would not exceed 1:1,000 sf.
Parking garage is designed with retrofit capability	• Optional if proposed parking ratio exceeds 1:1.25 (residential) or 1:1000 sf (commercial)	No, the Project would not provide an off-street parking garage.
Parking space reserved for car-share	• A project is located within downtown. One car share space preserved for buildings between 50 – 200 units, then one car share space per 200 units.	**Yes, although the Project is not located within Downtown Oakland, the Project would offer to designate up to two car share spaces.**
Paving, lane striping or restriping (vehicle and bicycle), and signs to midpoint of street section	• Typically required	**Yes, the Project would update the paving and striping along the Project frontage to the midpoint of the street section.**

TDM Strategy	Required When	Required for Project?
Pedestrian crossing improvements, pedestrian supportive signal changes	• Identified as an improvement within site analysis • Identified as an improvement within operations analysis	**Yes, the Project would provide pedestrian crossing improvements at intersections along the Project frontage.**
Real-time transit information system	• A project frontage block includes a bus stop or BART station and is along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better	**Yes, the Project is located along Fruitvale Avenue, which is a Tier 1 transit route and the *Fruitvale Alive!* project would install bus stops on Fruitvale Avenue at Alameda Avenue, therefore the Project would provide real-time transit information**.
Relocating bus stops to far side	• A project is located within 0.10 mile of any active bus stop that is currently near-side	No, two near-side AC Transit stops are located on Fruitvale Avenue at East 9th Street within 0.10 mile of the Project; however, these will be relocated as part of the City's *Fruitvale Alive!* project.
Signal upgrades	• Project size exceeds 100 residential units, 80,000 sf of retail, or 100,000 sf of commercial; and • Project frontage abuts an intersection with signal infrastructure older than 15 years	No, the only signal adjacent to the project site is at the Fruitvale Avenue/Alameda Avenue intersection, which would be upgraded by the City's *Fruitvale Alive!* Project.
Transit queue jumps	• Identified as a needed improvement within operations analysis of a project with frontage along a Tier 1 transit route with 2 or more routes or peak period frequency of 15 minutes or better	No, not identified as a needed improvement.
Trenching and placement of conduit for providing traffic signal interconnect	• Project size exceeds 100 units, 80,000 sf of retail, or 100,000 sf of commercial; and • Project frontage block is identified for signal interconnect improvements as part of a planned ITS improvement; and • A major transit improvement is identified within operations analysis requiring traffic signal interconnect	No, Project would not meet land use requirements and no transit improvements are identified.
Unbundled parking	• If proposed parking ratio exceeds 1:1.25 (residential)	No, the Project would not meet land use requirements.

Sources: City of Oakland Transportation Impact Review Guidelines, 2017; Fehr & Peers, 2022.

Table 4 lists the mandatory TDM strategies, and the effectiveness of each strategy primarily on reducing VTR based on the Alameda County Transportation Commission (CTC) VMT Reduction Calculator Tool,[1] which is a tool that accounts for the particular location of a development project and quantifies the effects of various strategies in reducing VMT consistent with the research compiled in *Quantifying Greenhouse Gas Mitigation Measures* (California Air Pollution Control Officers Association (CAPCOA), December 2021). This report is a resource for local agencies to quantify the benefit, in terms of reduced travel demand, of implementing various TDM strategies.

The TDM strategies include both one-time physical infrastructure improvements and on-going operational strategies. Physical improvements will be implemented as part of the Project and thus are anticipated to have a one-time capital cost. Some level of ongoing maintenance cost may also be required for certain measures. Operational strategies provide on-going incentives and support for the use of non-auto transportation modes. These TDM measures have monthly or annual costs and will require on-going management.

Operational TDM strategies are most effective for persons that commute to and from a site on a regular basis, especially during weekday peak commute periods when transit service peaks and is most conveniently available. Thus, the mandatory strategies in Table 4 are primarily targeted at the Project employees. Project visitors and commercial customers are not directly targeted because they would generally visit the site too infrequently to be aware of the TDM benefits or to make them cost-effective. However, some of the mandatory strategies, especially the ones that would improve the infrastructure, would also benefit the site visitors and customers as well as the nearby residents and employees.

As shown in Table 4, the mandatory TDM measures combined are estimated to result in an eight to 20 percent VTR. The estimated VTRs are presented as a range to account for the variability in the effectiveness of each measure depending on the specific operating conditions of the site, potential influence of outside factors, and to represent reasonably conservative assumptions about the effectiveness of each measure. Due to the Project location in an area that has very good transit, bicycle, and pedestrian access, it is expected that the high end of the VTR range, which is consistent with the SCA's goal of 20 percent VTR, could be achieved with this TDM program.

[1] See https://www.alamedactc.org/planning/sb743-vmt/ for more information.

Table 4: Mandatory TDM Program Components

TDM Strategy	Description	Estimated Vehicle Trip Reduction[1]
A. Infrastructure Improvements	Various improvements	N/A[2]
B. Pre-Tax Commuter Benefit	Provide all full-time Project employees with pre-tax commuter benefits up to $280 per month.	1%
C. Subsidized or Discounted Transit Program	Provide subsidized, discounted or free transit passes for all employees.	2-5%[3]
D. Designated Parking Spaces for Car-Share	Offer to provide free designated parking spaces for an on-site car-sharing program.	0-1%
E. Preferential Parking for Carpoolers	Provide preferential parking for eligible carpoolers.	1-2%
F. Carpooling and Ride-Matching Assistance	Assist employees in forming carpools.	
G. Vanpool Program	Sponsor a vanpool program where employees are assisted in forming vanpools and the cost is subsidized	2-5%
H. Bicycle Amenities and Monitoring	Provide bicycle parking above the minimum requirement, including showers, long-term bicycle storage and personal lockers, and monitor usage	1-2%
I. Bike-Share Station	Coordinate with City of Oakland and other agencies to provide a bike-share station along the Project frontage	0-2%
J. Bike-Share Membership	Pay for employees' membership fees	
K. Guaranteed Ride Home	Encourage faculty and staff to register for the Guaranteed Ride Home (GRH) program.	N/A[2]
L. Personalized Trip Making	Provide employees with a customized menu of options for commuting	N/A[2]
M. TDM Coordinator	Coordinator responsible for implementing and managing the TDM Plan	N/A[2]
N. TDM Marketing and Education	Active marketing of carpooling, BART, AC Transit, bike sharing, and other non-auto modes	1-4%
	Estimated Trip Reduction	**8-20%**[4]

Notes

1. Based on the results of the Alameda CTC VMT Reduction Calculator Tool. Although the focus of the Tool is reductions to VMT, the research used to generate the reductions also indicates vehicle trip reductions are applicable as well. For the purposes of this analysis the VTR is assumed to equal the VMT reduction.

2. The effectiveness of this strategy cannot be quantified at this time. This does not necessarily imply that the strategy is ineffective. It only demonstrates that at the time of the CAPCOA report development, existing literature did not provide a robust methodology for calculating its effectiveness. In addition, many strategies are complementary to each other and isolating their specific effectiveness may not be feasible.
3. This strategy assumes that employees would receive a transit subsidy of $7.00 per weekday (value to employee).
4. This total does not equal the sum of the VTRs for all individual measures because a multiplicative dampening effect is applied to account for the potential overlap between the measures.

Source: Fehr & Peers, 2023.

Description of TDM Measures

A more detailed description of the TDM measures that comprise the mandatory TDM program is provided below:

A. *Infrastructure Improvements* – the following infrastructure improvements in the Project vicinity, which were identified in the site plan evaluation completed as part of the Project TIR, would improve the bicycling and walking facilities in the area and further encourage the use of these modes:

Recommendation 1: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Install a stop-sign on the southbound 37th Avenue approach at Alameda Avenue

Recommendation 2: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Reduce the width of the Project driveways on Boehmer Street and the north end of 37th Avenue from 26-feet to 24-feet
- To be consistent with the City of Oakland Municipal Code Section 12.04.270, complete one of the following regarding the Project driveway on Alameda Avenue:
    - Reduce the width of the driveway opening to 35 feet
    - If a high volume of large trucks, such as WB-67, is expected, then coordinate with the City of Oakland Driveway Appeals Board to provide a 40-foot driveway

Recommendation 3: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project to improve sight distance:

- Prohibit on-street parking for at least 50 feet on the north side of Alameda Avenue just east of the 37th Avenue extension via signage and design elements as approved by the City of Oakland

Recommendation 4: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Review the Project site plan for the commercial component of the Project at the northwest corner of the Alameda Avenue/37th Avenue intersection to ensure adequate access and circulation for all travel modes
- Ensure that the commercial component of the Project does not include any driveways on Alameda Avenue and that the driveway on 37th Street is located as far to the north as possible

Recommendation 5: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- To reduce potential for cut-through traffic on East 8th Street and Elmwood Avenue east of Fruitvale Avenue, on 36th Avenue, and on 37th Avenue north of Alameda Avenue, implement one or more of the following:
    - Implement traffic calming measures on East 8th Street and Elmwood Avenue east of Fruitvale Avenue, on 36th Avenue, and/or on 37th Avenue north of Alameda Avenue. One option is the installation of speed bumps. The city of Oakland requires a petition signed by 2/3 of the addresses on each block to install speed bumps on the block. If the petition is submitted by 2/3 of the addresses on each of the blocks listed above, the Project shall install speed bumps on these blocks consistent with the City's requirements.
    - Narrow 37th Avenue between the south Project driveway and Boehmer Avenue to discourage trucks from using the local streets north of the Project site
    - Explore installing signage that limits and/or discourages truck access on East 8th Street and Elmwood Avenue and install the signage as approved by OakDOT

Recommendation 6: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Ensure that the Project provides a minimum of 29 PEV-ready and an additional 29 PEV-capable parking spaces

Recommendation 7: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Redesign the realigned segment of Alameda Avenue along the Project frontage to accommodate Class 4 separated bikeways in both directions of Alameda Avenue
- Ensure that the segment of Bay Trail on the re-aligned segment of Alameda Avenue meets the Bay Trail design standards
- Coordinate the design of the Project driveway entrance and exit on Fruitvale Avenue with OakDOT Traffic Engineering and Bike/Ped teams to ensure that the design is coordinated with the new Class 4 separated bikeway on Fruitvale Avenue and with the bicycle movements and pedestrian crossings at this location

Recommendation 8: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Consolidate the long-term bicycle parking spaces in a secure bicycle room or cage within the Project building and near the main building entrance
- Provide at least two showers per gender and four lockers per shower to encourage bicycling

Recommendation 9: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Ensure that the sidewalks along the Project frontage and along the new streets proposal by the Project would provide a minimum width of six feet where feasible
- Per City of Oakland requirements, ensure that the Project driveways and new intersections proposed by the Project provide dual directional curb ramps at the intersection corners where appropriate
- Install rapid rectangular flashing beacons (RRFB) at the marked pedestrian crossing across the east approach of the Alameda Avenue/Project Driveway intersection

- Install a pedestrian continental crosswalk with an RRFB across the north approach of the East 7th Street/Fruitvale Avenue intersection and coordinate with OakDOT on the intersection design to facilitate the bicycle and pedestrian crossing movements

Recommendation 10: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered as part of the final design for the Project:

- Provide direct pedestrian access between the Project building and the proposed bus stops to be located on Fruitvale Avenue north of Alameda Avenue as part of the *Fruitvale Alive!* Project, including an entrance at the southwest corner of the Project building

B. *Pre-tax Commuter Benefits* – Provide all full-time Project employees the option to enroll in the pre-tax commuter benefits program. This strategy allows employees to deduct monthly transit passes or other amount using up to $300 pre-tax dollars. This can help to lower payroll taxes and allows employees to save on transit.

C. *Subsidized or Discounted Transit Program* – Provide free or reduced cost transit for employees to increase transit mode share. Options include:

1. Offer a monthly commuter check (or alternatively Clipper Card, which is accepted by BART, AC Transit, and other major transit providers in the Bay Area) to employees to use public transit. Note that as of 2023, IRS allows up to $300 per employee per month.[2]

2. Participate in AC Transit's EasyPass program, which enables institutions to purchase annual bus passes for their employees in bulk at a deep discount. The passes allow unlimited rides on all AC Transit buses for all participants. For more information, see www.actransit.org/rider-info/easypass.

Based on the CAPCOA report, a transit fare subsidy of about $7.00 per employee per weekday (value to rider and not cost to employer) available to all employees would translate to an approximately two to six percent VTR.

D. *Designated Parking Spaces for Car-Share* – Offer to designate at least two on-site parking spaces for car-sharing (such as Getaround, Zip Car, etc.) for free. Monitor the usage of the car sharing spaces and adjust if necessary. An additional strategy is to consider providing free/subsidized car-share membership to employees.

[2] Department of the Treasury Internal Revenue Service, Publication 15-B, *Employer's Tax Guide to Fringe Benefits 2023*, page 20 (https://www.irs.gov/pub/irs-pdf/p15b.pdf)

E. *Preferential Parking for Carpoolers* – Offer designated preferential carpool parking for eligible commuters. To be eligible for carpool parking, the carpool shall consist of two or more people. project shall monitor and provide adequate carpool spaces to meet and exceed potential demand.

F. *Carpooling and Ride-Matching Assistance* – Provide personalized ride-matching assistance to pair employees interested in forming commute carpools. As an enhancement, consider using specific services such as ComoVee or 511.org RideShare.

G. *Vanpool Program* – Subsidize the cost of vanpool for eligible employees, offer preferred parking for vanpools, and assist employees in forming vanpools.

H. *Bicycle Amenities and Monitoring* – As required by Recommendation 10, the Project would include long-term on-site parking in a secure bicycle room and short-term parking in the form of bike racks along the Project frontages. The Project shall also provide locker room and shower facilities located near the secure long-term bicycle parking room. The Project shall monitor the usage of these facilities and provide additional bicycle parking, if necessary.

I. *Provide a Bike-Share Station* - Coordinate with City of Oakland, and/or other regional agencies to facilitate the installation of a BayWheels bikeshare station along the Project frontage.

J. *Bike-Share/Scooter-Share Membership* – Encourage increased usage of bike-share and/or scooter-share by paying for employees' yearly membership fee and insurance associated with bike-sharing.

K. *Guaranteed Ride home* – Encourage employees to register for the Guaranteed Ride Home (GRH) program. Employees may be hesitant to commute by any other means, besides driving alone, since they lose the flexibility of leaving work in case of an emergency. GRH programs encourage alternative modes of transportation by offering free rides home in the case of an illness or crisis, if the employee is required to work unscheduled overtime, if a carpool or vanpool is unexpectedly unavailable, or if a bicycle problem arises. The Alameda County Transportation Commission offers a GRH service for all registered permanent employees who are employed within Alameda County, live within 100 miles of their worksite, and do not drive alone to work. The GRH program is offered at no cost to the employer, and employers are not required to register for their employees to enroll and use the program.

L. *Personalized Trip Planning* – In the form of in-person assistance or as a web tool, this provides employees with a customized menu of options for commuting. Trip planning reduces the barriers employees see to making a walk, bike, or transit trip to the site.

Transit trip making tools, such as those available from Google or 511.org, could be promoted to inform employees of transit options to/from work. Providing a map of preferred walking routes to destinations within one mile of the site and a map of bicycling routes within five miles of the site would be a proactive strategy to encourage those individuals to use alternatives to driving. An additional strategy is to conduct a survey or mapping exercise with employees and connect those who are traveling from similar origins. The Project can make a presentation to employers and their employees upon request or at set times.

M. *TDM Coordinator* – The Project shall designate a staff person as their TDM coordinator to coordinate, monitor and publicize TDM activities.

N. *TDM Marketing and Education* – Site management shall regularly provide employees information about transportation options. This information shall be provided as part of new employee orientations and would also be posted at central location(s) and be updated as necessary. This information shall include:

- *Transit Routes* – Promote the use of transit by providing user-focused maps. These maps provide employees with wayfinding to nearby transit stops and transit-accessible destinations and are particularly useful for those without access to portable mapping applications.
- *Real-time Transit Information System* – The Project should consider installing real-time transit information, such as TransitScreen, in a visible location in the main building lobby to provide employees and visitors with up-to-date transit arrival and departure times.
- *Transit Fare Discounts* – Provide information about local discounted fare options offered by BART and AC Transit, including discounts for youth, elderly, persons with disabilities, and Medicare cardholders.
- *Car Sharing* – Promote accessible car sharing programs, such as Zipcar, and Getaround by informing employees of nearby car sharing locations and applicable membership information.
- *Ridesharing* – Provide employees with phone numbers and contact information for ride sharing options including Uber, Lyft, and Oakland taxicab services.
- *Carpooling* – Provide employees with phone numbers and contact information for carpool matching services such as the Metropolitan Transportation Commission's 511 RideMatching.

- *Walking and Biking Events* – Provide information about local biking and walking events, such as Oaklavia, as events are planned.
- *Bikeshare/Scooters* – Educate employees about nearby bike sharing station locations and membership information (nearest Bay Wheels bikeshare station is about 0.6 mile north of the Project, on Avenida de la Fuente adjacent the north side of the Fruitvale BART Station.

The mandatory measures described above present the practicable measures that can be implemented at the Project to reduce the vehicle trips generated by the Project. Reducing on-site parking, which is a typical strategy used to reduce vehicle trips, is not effective at this Project because there is free unrestricted parking available in the residential neighborhood within walking distance of the Project site. Thus, if on-site parking is limited, Project employees would use the on-street parking in the nearby streets, which would have the secondary effect of increases on-street parking occupancy and cut-through traffic on the nearby residential streets.

Monitoring, Evaluation and Enforcement

Since the Project would generate more than 100 peak hour passenger vehicle trips, this TDM program requires regular periodic evaluation of the program to determine if the program goals in reducing passenger vehicle trips are satisfied and to assess the effectiveness of the various strategies implemented. The Project shall submit an annual compliance report for the first five years following completion of the Project for review and approval by the City. The Project shall conduct a travel mode survey of the Project employees and driveways counts prior to each annual compliance report. The annual report shall document the following:

- Summary of implemented TDM measures and their effectiveness (e.g., bicycle parking occupancy, number of transit passes issued, etc.)
- Results of the Project employee travel mode survey
- Weekday AM and PM peak period and daily traffic volume counts at the Project driveways
- Weekday peak parking occupancy
- The estimated VTR achieved by the Project

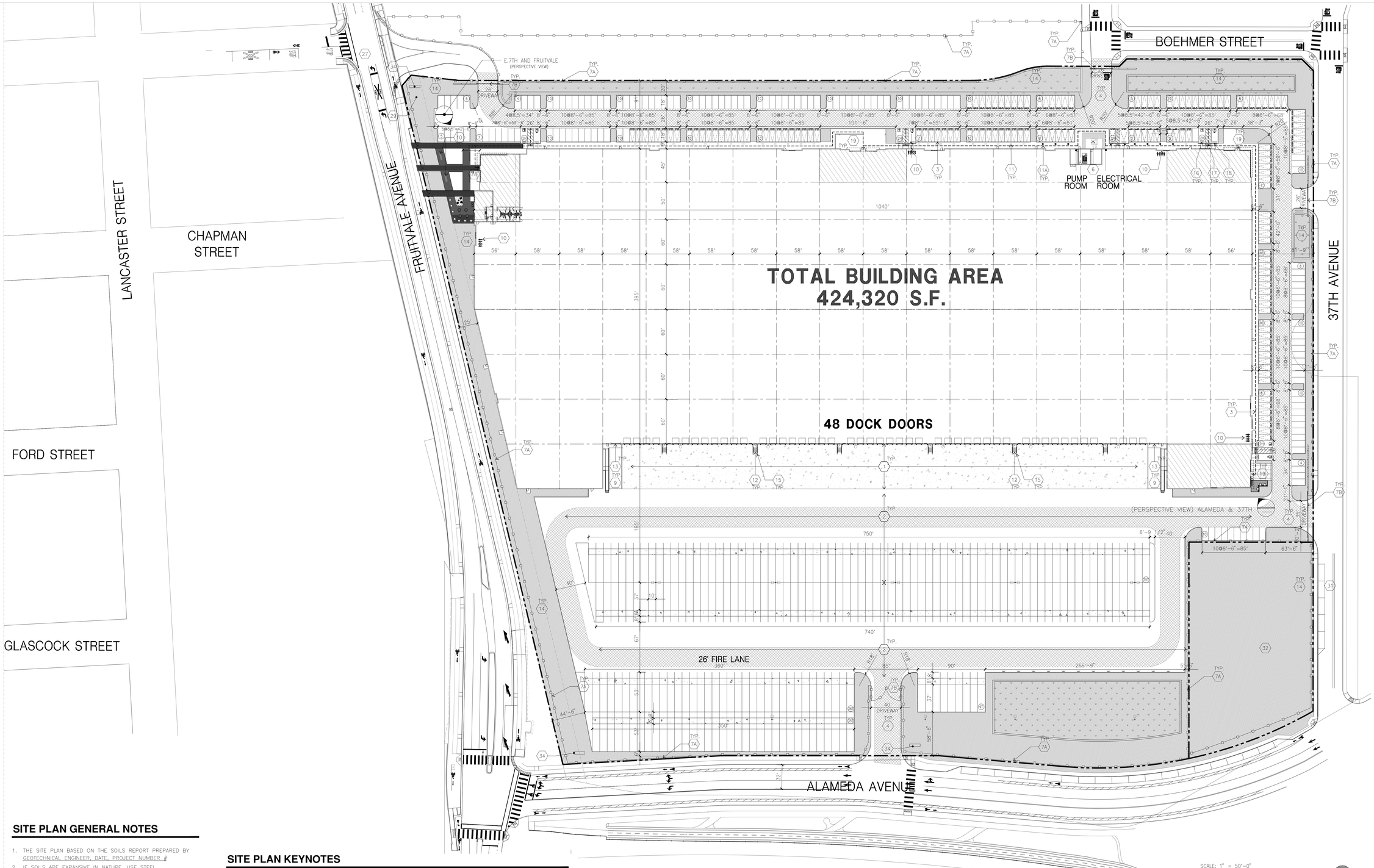
If deemed necessary, the City may elect to have a peer review consultant, paid for by the Project, review the annual report. If timely reports are not submitted and/or the annual reports indicate that the Project has failed to implement the TDM Plan, the Project will be considered in violation of the Conditions of Approval and the City may initiate enforcement action as provided for in the

Project Conditions of Approval. The Project shall not be considered in violation of this Condition if the TDM Plan is implemented but the VTR goal is not achieved.

If in two successive years the project's TDM goals are not satisfied, Project shall implement additional TDM measures. If in five successive years the Project is found to meet the stated TDM goal, additional surveys and monitoring shall be suspended until such a time as the City deems they are needed.

Please contact Sam Tabibnia (stabibnia@fehrnadpeers.com, 510.835.1943) with questions or comments.

Appendix A:
Project Site Plan



SITE PLAN GENERAL NOTES

1. THE SITE PLAN BASED ON THE SOILS REPORT PREPARED BY GEOTECHNICAL ENGINEER, DATE, PROJECT NUMBER #
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES
5. PROVIDE STRUCTURAL CALCULATION AND CONSTRUCTION ANCHORAGE DETAIL FOR TRANSFORMER PRIOR TO INSTALLATION.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS.
9. SEE "C" DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY W/ 1:20 MAX. SLOPE. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". FINISH TO BE A MEDIUM BROOM FINISH
11. U.N.O. PROVIDE KNOX BOXES AT ALL OFFICE ENTRANCES.
12. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
13. ON-SITE FIRE MAIN, FIRE SPRINKLER, AND SPRINKLER MONITORING SYSTEM SHALL BE SUBMITTED SEPARATELY TO THE FIRE DEPARTMENT FOR REVIEW AND PERMITTING.
14. ALL VERTICAL MOUNTING POLES OF FENCING SHALL BE CAPPED.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB
16. ALL INTERIOR AND EXTERIOR WALK SURFACES TO BE NON-SLIP TYPE

SITE PLAN KEYNOTES

1. HEAVY BROOM FINISH CONCRETE PAVEMENT.
2. ASPHALT CONCRETE (AC) PAVING
3. ACCESSIBLE PATH OF TRAVEL
4. DRIVEWAY APRONS
5. 5'-6"X5'-6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH SLOPE TO BE 1/4" : 12" MAX.
6. APPROXIMATE LOCATION OF TRANSFORMER.
7A. 6' HIGH BLACK METAL TUBULAR STEEL SECURITY FENCE. REFER TO DETAIL 1/DAB-A4.1
7B. 6' HIGH BLACK METAL TUBULAR STEEL SECURITY GATE. FOR SLIDING GATE REFER TO DETAIL 5/DAB-A4.1, FOR SWING GATES REFER TO DETAIL 6/DAB-A4.1.
8. CONCRETE WALKWAY, MEDIUM BROOM FINISH.
9. CONCRETE RAMP WITH CONCRETE GUARD WALL.
10. BIKE RACK.
11. ELECTRIC VEHICLE CAPABLE FUTURE CHARGERS.
11A. ELECTRIC VEHICLE CHARGERS.
12. EXTERIOR METAL STEEL STAIR.
13. 12' x 14' DRIVE-IN DOOR
14. LANDSCAPE.
15. CONC. FILLED GUARD POST 6" DIA. U.N.O. 48" H.
16. PRE-CAST CONC. WHEEL STOP.
17. TRUNCATED DOMES.
18. ACCESSIBLE PARKING STALL SIGN.
19. HARDSCAPE AT ENTRANCE.
20. ACCESSIBLE ENTRY SIGN.
21. PUMP ROOM.
22. AREA DEDICATED FOR FUTURE ALAMEDA STREET REALIGNMENT AND/OR PUBLIC PARK/ WATERFRONT USE
23. ELECTRICAL ROOM.
24. EXTERIOR SEATING AREA.
25. CONCRETE DOLLY PAD.
26. METAL POST
27. NEW TRAFFIC SIGNAL
28. PLAZA AND PRIMARY OFFICE ENTRY
29. FUTURE PUBLIC ART
30. FOOD TRUCK
31. DEDICATED RIGHT OF WAY
32. FUTURE RETAIL
33. OFF SITE LANDSCAPING TO BE PROVIDED
34. POTENTIAL MONUMENT SIGN
35. POLE MOUNTED LED LIGHT FIXTURE
36. BUILDING MOUNTED LED LIGHT FIXTURE

SITE PLAN GENERAL NOTES

- CONCRETE PAVING. SEE "C" DRWGS. FOR THICKNESS
- STANDARD PARKING STALL 8'-6" X 18'
- CLEAN AIR/VANPOOL/EV WITH CHARGER
- CLEAN AIR/ VANPOOL/EV WITHOUT CHARGER
- TRAILER PARKING (10' X 53')
- (#) NUMBER OF PARKING STALLS
- LANDSCAPED AREA
- EXISTING PROPERTY LINE
- ULTIMATE PROPERTY LINE
- ACCESSIBLE PARKING STALL (9' X 20') ACCESSIBLE AISLE
- ACCESSIBLE PARKING (VAN) STALL (9' X 20') + 8' W/ ACCESSIBLE AISLE
- PATH OF TRAVEL. MINIMUM WIDTH TO BE 4'. SLOPE NOT TO EXCEED 5% IN THE DIRECTION OF TRAVEL AND CROSS SLOPE NOT TO EXCEED 2%. SEE CIVIL FOR GRADING PLAN
- METAL TUBULAR STEEL SECURITY FENCE
- POTENTIAL OFFICE

NOTE: SITE LIGHTING LOCATIONS INDICATED ON SITE PLAN. SEE EXTERIOR ELEVATIONS AND FRUITVALE MAIN ENTRANCE EXHIBIT FOR PROPOSED EXTERIOR WALL LIGHTING. IMAGE OF PROPOSED PEDESTRIAN LIGHT CAN ALSO BE FOUND ON FRUITVALE MAIN ENTRANCE EXHIBIT.

OVERALL SITE PLAN A
scale: 1"=50'-0"

SCALE: 1" = 50'-0"
0 50' 100' 150'
TRUE NORTH

HPA architecture 43 Years
hpa, inc.
600 grand ave, suite 302
oakland, ca
94610
tel: 949•862•2113
email: hpa@hparchs.com

Owner:
PROLOGIS®
PIER 1, BAY 1
SAN FRANCISCO
CA 94111

Project:
3600 Alameda Ave
3600 ALAMEDA AVE.
OAKLAND, CA

Consultants:

CIVIL	KIER & WRIGHT
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	HMH
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: OVERALL SITE PLAN

Project Number:	20387
Drawn by:	TSP
Date:	6/10/2022
Revision:	

Sheet:
DAB-A1.1

Appendix L

Peer Review of Historic Resource Evaluation and Supporting Information

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CARLSBAD
FRESNO
IRVINE
LOS ANGELES
PALM SPRINGS
POINT RICHMOND
RIVERSIDE
ROSEVILLE
SAN LUIS OBISPO

MEMORANDUM

DATE: May 20, 2021

TO: Danae Hall, AICP, Project Manager, Kimley-Horn and Associates, Inc.

FROM: Michael Hibma, M.A., AICP, Architectural Historian, LSA

SUBJECT: Preliminary Findings of the former Owens-Brockway (Owns-Illinois) Glass Facility at 3600 Alameda Avenue, Oakland, California.

This memorandum presents the results of a pedestrian field survey of the former Owens-Illinois glass factory complex located on a 26.64-acre parcel at 3600 Alameda Avenue (APN 033-2250-011-04) in the City of Oakland, Alameda County, California. This memorandum identifies, describes, and using digital photographs and other supporting materials, depict the *potential* character-defining features of the project site's built environment. LSA understands this memorandum will assist the applicant team in internal deliberations regarding potential redevelopment of the site.

Michael Hibma, M.A., AICP, completed the analysis. Mr. Hibma is an architectural historian at LSA's Point Richmond office and has over 15 years of experience in cultural resources management. He holds an M.A. in History from California State University, Sacramento; meets the Secretary of the Interior's *Professional Qualifications Standards* as an architectural historian and historian (Title 36 Code of Federal Regulations Part 61); and is certified by the American Institute of Certified Planners (AICP #32009). Mr. Hibma currently serves on the Historic Preservation Commission for the City of Richmond.

***Note*:** the following presents a *preliminary* opinion based on a field survey and limited background research. The findings contained herein do not formally constitute a finding of eligibility as a "historical resource" for the purposes of the California Environmental Quality Act (CEQA). The results of the survey and subsequent findings are described below.

ARCHITECTURAL FIELD SURVEY

On May 17, 2021, Mr. Hibma surveyed the industrial complex within the project site. Christina Kennedy, Principal at St. Helena-based CKG Environmental, Inc., escorted Mr. Hibma through a majority of the complex's fourteen buildings. The purpose of the survey was to characterize the architectural style of the built environment and to identify its *potential* character-defining features.

Results. The site contains a 26.64-acre industrial complex located in a mixed setting containing residential, commercial and industrial land uses on the east bank of the Tidal Canal just south of the Fruitvale Avenue Railroad Bridge, separating the cities of Oakland and Alameda. The site's main

entrance is located off Alameda Avenue along the western parcel boundary, behind a security gate and fence. The industrial complex contains 14 buildings and segments of abandoned railroad spurs. The survey proceeded in a fashion that reversed the process of where raw materials arrived, processed into glass, molded, cooled, and stored. Several buildings were not photographed due to low ambient interior light. LSA documented the survey using field notes and digital photographs.

POTENTIAL CHARACTER DEFINING FEATURES

In a preservation context, the term "character-defining features" refers to those necessary aspects or elements of a resource that convey its significance. Character defining features "refers to all those visual aspects and physical features that comprise the appearance of every historic building. Character-defining elements include the overall shape of the building, its materials, craftsmanship, decorative details, interior spaces and features, as well as the various aspects of its site and environment."[1]

Based on the pedestrian field review and limited background research, LSA identified the following as *potential* character-defining features of the built environment of this industrial complex:

- Modernist, industrial architectural aesthetic, varied massing, roof profile, and smokestacks;
- Building arrangement to facilitate commercial glass manufacture process;
- Steel-framing and use brick masonry, reinforced concrete, and glass-block on the visible portions of Building 1 and the east-facing façades of buildings 6, 8, 9, 10, and 12;
- Full-length inverted roof monitor/furnace exhaust vents atop Building 8;
- Sawtooth factory roof form atop Building 9.

CURRENT HISTORICAL RESOURCE STATUS

According to a December 14, 2009 Oakland Landmarks Preservation Advisory Board (LPAB) staff report to discuss "historic preservation issues in the Central Estuary Specific Plan Area", the project site was listed among several "Properties of Secondary Importance, Not in a District." The staff report quoted below specifically describes the project site as follows:

> This property [i.e. project site] is rated Cb+3, which is a property of Secondary Importance that is not in a district, but the [Oakland Cultural Heritage Survey (OCHS)] considers it to be potentially eligible for the National Register if restored or re-evaluated (b+). As currently rated, however, this property is of Secondary Importance, and is not in a district. The buildings are not considered to be part of the Oakland Local Register of Historical Resources. The property was evaluated as part of a local government inventory and has a California OHP rating of 4S7, and is presumed to be a historical resource unless the preponderance of evidence demonstrates it is not. The DPR523 form was accepted by OHP on September 30, 1995. This property is considered to be a historical resource for

[1] See National Park Service publication, *Preservation Brief 17: Architectural Character - Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character*. Available online: https://www.nps.gov/tps/how-to-preserve/briefs/17-architectural-character.htm.

the purposes of CEQA. Demolition of the property would constitute significant adverse change and would be a significant impact on the environment.[1]

The staff report misinterpreted the California Historic Resource Status Code (CHRS Code) of "4S7."According to the Office of Historic Preservation, the "4S7" designation was a two-part code. The first element "4S" indicates the project site's built environment, "[m]ay become eligible for separate listing in the National Register when one of the following occurs" the code text then offers three potential secondary codes to reflect which is ("… the most important reason if more than one applies)." In this case, the second element, "7" indicates the applicable condition for the project site was when or if "the architectural integrity of the property is restored."[2]

Taken together, a CHRS Code of "4S7" indicated that the project site "May become eligible for separate listing in the National Register when the architectural integrity of the property is restored." A conditional eligibility finding infers that the project site's *de facto* built environment did not meet the threshold for eligibility for by the OCHS survey team in 1994. What is actually present in the environment is relevant in assessing significance, not speculation of what its potential appearance, and possible significance, could be if certain conditions are met.

Accordingly, the project site's status as a historical resource for the purposes of CEQA remains undetermined and the statement in the LPAB staff report "*This property is considered to be a historical resource for the purposes of CEQA. Demolition of the property would constitute significant adverse change and would be a significant impact on the environment*" is premature. In March 2020, OHP issued new OCHS Codes. The "4S7" code number was retired, code language revised, and a new number, "7N1" issued. This new code, indicates the project site "needs to be reevaluated (former status code 4) – may become N[ational] R[egister] eligible with restoration or other specific conditions."[3]

PRELIMINARY ELIGIBILITY FINDING

Determining historic significance is a two-part test. A resource found eligible must meet one of the National Register or California Register criteria for evaluation by:

- Being associated with an important historic context, *and*;
- Retaining historic integrity if those features necessary to convey its significance.[4]

[1] December 14, 2009 LPAB staff report. Page 11. Source: http://www2.oaklandnet.com/oakca1/groups/ceda/documents/webcontent/oak035355.pdf
See attachment 4 for explanatory text of the City's Historic Preservation Element and a table that presents and describes OCHS' rating system.

[2] Office of Historic Preservation, *Instructions for Recording Historical Resources*. Superseded Status Codes found on pages 45-46. Source: https://scic.sdsu.edu/_resources/docs/manual95.pdf.

[3] Current OHP CHRS Codes: https://ohp.parks.ca.gov/pages/1069/files/Resource-Status-Codes.pdf

[4] *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. 1997, page 3. Available here: https://www.nrc.gov/docs/ML1912/ML19120A529.pdf.

A review of plans prepared circa 1950 for a two-story warehouse expansion included a drawn aerial perspective of the then built environment. The perspective indicates that the original main façade of the industrial complex faced south, towards 37th Avenue. Employee and visitors entered the project site off Alameda Avenue near the southern parcel boundary. The same perspective shows the current main entrance into the project site was secondary and used for trucks.

This configuration changed circa 1980 with the construction of buildings 43 and 44, which collectively cover approximately one third of the project site. These additions blocked the historical public views west from 37th Avenue of the plant's original main façade as expressed in the visible portions of Building 1 and the east-facing façades of buildings 6, 8, 9, 10, and 12. The circa 1980 additions removed the employee and visitor entrance off Alameda, removed onsite employee and visitor parking lots east of the buildings 1, 6, 8, 9, 10, and 12, cut off employee and visitor access of Alameda and reoriented access via the Ellsworth Avenue gate, removed a detached one- and two-story building southeast of the main complex built in 1937 that according to Sanborn Maps of the project site, contained the Maintenance Department, Central Mold Shop, and storage department. This change removed original buildings, reduced the amount of total original decorative façade, and effectively buried the original, primary street-facing façade of the remaining east-facing façades, as well as altered internal circulation patterns thereby fundamentally changing how the public viewed the project site's built environment and made the long stretch of blank wall facing Fruitvale Avenue the public face of this industrial complex by default.

According to a draft National Register White Paper prepared in 2008 by Linda McClelland titled "Evaluating the Significance of Additions and Accretions" the following principles to ascertain the significance of additions are applicable to how addition impact the original fabric and potentially interrupt or obscure historically significant views of the original buildings.[1] The relevant principles regarding additions and their potential to impact the original, historical building are listed below:

- *An addition should not overwhelm or dominate the historic character of the property as a whole or alter the property's character-defining features (including significant open space). Out-of-scale additions, rooftop additions, and additions that obscure principal elevations are particularly problematic (unless they are stepped back and appear small in scale) and may be difficult to justify as contributing.*
- *An addition should not hide a building's principal façade from the public right of way and other significant viewpoints, or change the perceived orientation of entrances.*
- *An addition should not impair significant or character-defining features of the historic resource*.

Based on this analysis, sustain a finding of eligibility is complicated by the impact of these later additions to the overall *potential* historic integrity of the project site. However, this in and of itself does not support a conclusion of non-eligibility for inclusion in the National Register, California Register, or for local listing.

[1] Available here: https://www.nps.gov/nr/publications/guidance/NR_workshop_3-11-09/White_paper_on_additions_4-09.doc. See page 5.

RECOMMENDATIONS

LSA recommends the following:

- Complete an eligibility analysis of the project site to address issues raised above and provide a current baseline analysis and findings for cultural resources within the project site.
- Reach out to Owens-Illinois' corporate records or archives department(s) for building permits, work orders for major alterations/retrofits, company photographs, promotional materials, or other related documentation of 3600 Alameda Avenue that describe how, where, and to what degree the project site changed over time. Such information would support a defensible finding regarding the integrity of the project site's built environment, one way or the other. While some of this information may be on file with the City of Oakland, reaching out to Owens-Illinois may anticipate potential gaps in records or plans on file with City and demonstrate to decision makers that the evaluation is robust and rests on a large body of primary source evidence.
- Should the project site's built environment ultimately be found not eligible for listing in any register or inventory of historical resources, design of the new construction may not need to reference or mimic the extant materials (e.g., brick, concrete, corrugated metal, exposed structural steel, etc.), presently the project site into new construction design. However, other design guidelines, such as those found in the City's *Central Estuary Plan Design Guidelines*[1] may apply to redevelopment of the project site.

Attachments:

1) Site visit photographs – LSA; May 17, 2021

2) *Aerial Perspective of the Oakland Plant Showing a Proposed 2 Story Warehouse Expansion*. Circa 1950. On file at Owens-Illinois, Inc., Toledo, Ohio

3) Alta/NSPS Land Title Survey (April 2011). Modified by LSA to show areas that may contain *potential* character-defining features.

4) City of Oakland Historic Preservation Element & OCHS Ratings

[1] *Central Estuary Plan Design Guidelines*: https://cao-94612.s3.amazonaws.com/documents/oak040390.pdf

3600 Alameda Avenue. Building 1: west façade, view northeast.
Building 44 behind and to the right. Portion of Building 41, rear, left-center. 5/17/21.

Building 1: west façade, view southeast. 5/17/21.

Building 12: east façade, view southwest. 5/17/21.

Building 12: east façade, view north. 5/17/21.

Building 12: (right) north façade, Building 6: (left), east façade, view southwest. 5/17/21.

Building 6: north façade, view south. 5/17/21.

Building 6: east façade, view southwest. 5/17/21.

Building 6: south and east façades. View north. 5/17/21.

Building 8: (left), east and (partial) south façade. Building 6: (right), south façade. View north. 5/17/21.

Building 8: east façade, view west. 5/17/21.

Building 6: interior view of glass block wall. View northeast. 5/17/21.

Building 8: interior view of roof monitor and related steel structure. View west. 5/17/21.

Building 8: interior view of roof monitor and related steel structure. View west. 5/17/21.

Building 8: interior view of east-facing façade wall and related steel structure. View southeast. 5/17/21.

Building 12: interior view. View north. 5/17/21.

Building 12: roof structure and underside of rooftop monitor. View northeast. 5/17/21.

Building 29: interior, Roof structure detail. View north. 5/17/21.

Building 29: interior, Roof structure detail. View north. 5/17/21.

Building 9: west façade, sawtooth roof. View east. 5/17/21.

Building 9: interior view of sawtooth roof structure. View northeast. 5/17/21.

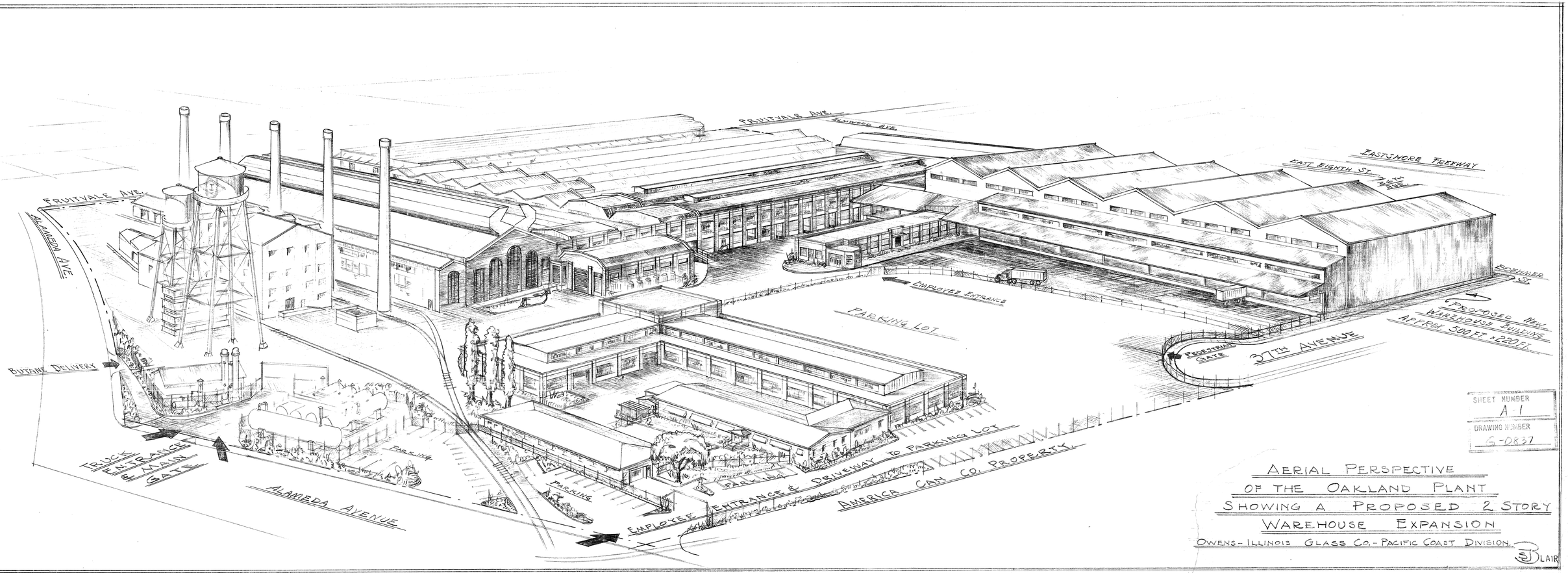
Building 9: interior view of sawtooth roof. View west. 5/17/21.

Building 9: interior view of sawtooth roof structure. View southeast. 5/17/21.

Building 7: west façade, massing variation. View north. 5/17/21.

Building 7: exterior covered stairs and materials conveyance systems. View northeast. 5/17/21.

Aerial Perspective of the Oakland Plant Showing a Proposed 2 Story Warehouse Expansion. Circa 1950. On file at Owens-Illinois, Inc., Toledo, Ohio.



SHEET NUMBER A 1

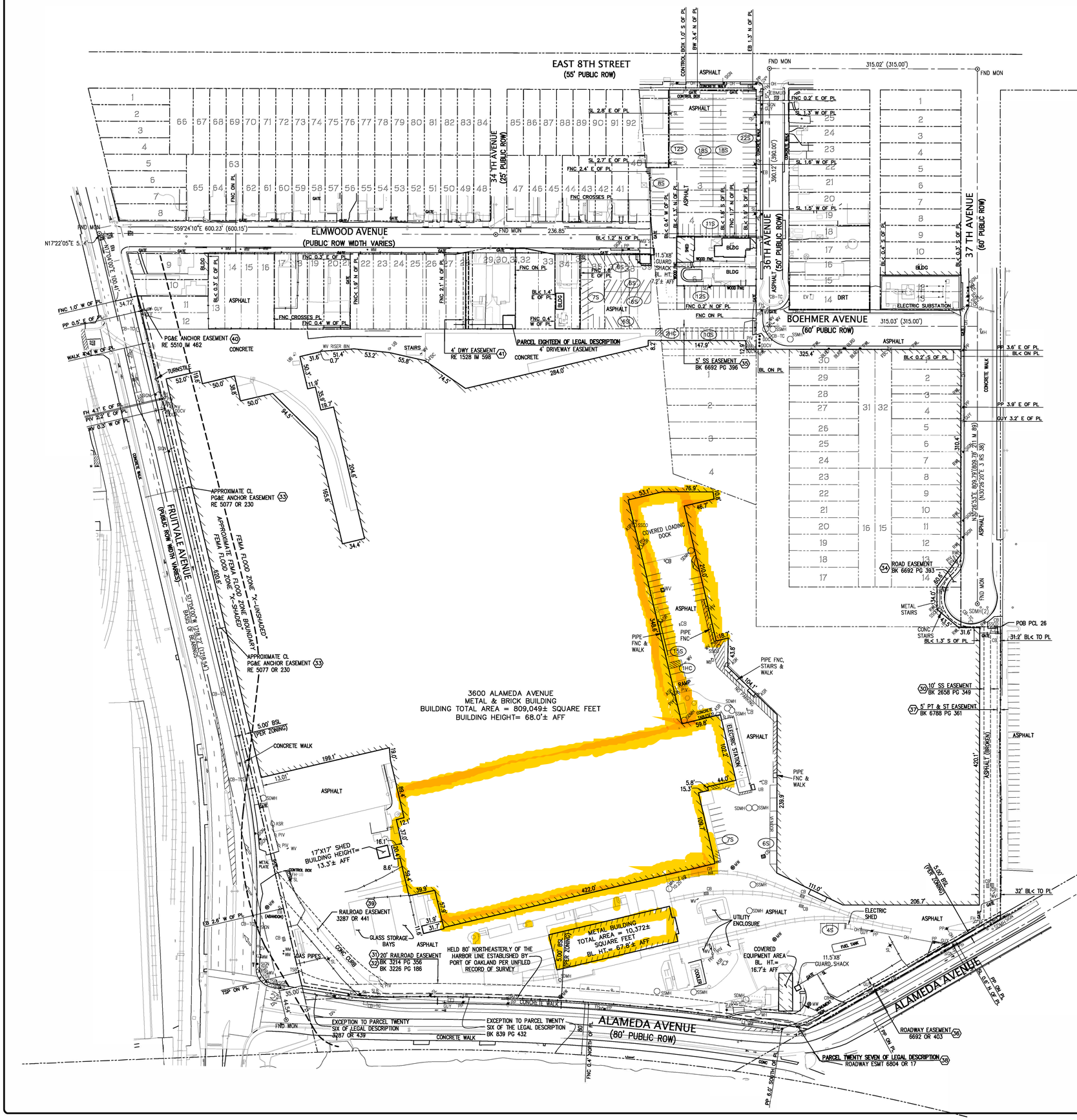
DRAWING NUMBER S-D837

AERIAL PERSPECTIVE OF THE OAKLAND PLANT SHOWING A PROPOSED 2 STORY WAREHOUSE EXPANSION

OWENS-ILLINOIS GLASS CO. - PACIFIC COAST DIVISION.

BLAIR

ALTA/NSPS Land Title Survey (April 2011).
Modified by LSA to depict areas that may contain *potential* character-defining features.



LEGEND

	BUILDING LINE
	BUILDING OVERHANG
	BACK OF WALK
	CENTER LINE
	CONCRETE CURB
	CONCRETE CURB & GUTTER
	EASEMENT LINE
	EDGE OF PAVEMENT
	FENCE LINE
	LOT LINE
	MONUMENT/MONUMENT LINE
OH	OVERHEAD POWER LINE
	PROPERTY LINE
	SIDEWALK
	AIR RELEASE VALVE
	BOLLARD
	BACKFLOW PREVENTION DEVICE
	CATCH BASIN
C	CORNER
Ø	DIAMETER
	ELECTROLIER
	FIRE DEPARTMENT CONNECTION
	FIRE HYDRANT
	GUY WIRE
	HANDICAP PARKING SYMBOL
	MANHOLE
	POST INDICATOR VALVE
	POWER POLE/JOINT POLE
	STREET LIGHT
	TRAFFIC BOX
	TRAFFIC SIGN
	TRANSFORMER
	UTILITY BOX
WM	WATER METER
	WATER VALVE
AFF	ABOVE FINISH FLOOR
ASR	AUTOMATIC SPRINKLER RISER
BL	BUILDING
BSL	BUILDING SETBACK LINE
BW	BACK OF WALK
BLDG	BUILDING
BK	BOOK
CB	CATCH BASIN
DWY	DRIVEWAY
E	EAST
EB	ELECTRIC BOX
EBMUD	EAST BAY MUNICIPAL UTILITY DISTRICT
EV	ELECTRIC VAULT
FNC	FENCE
FF	FINISH FLOOR
FH	FIRE HYDRANT
FND	FOUND
FD MON	FOUND MONUMENT
GM	GAS MARKER/METER
HT.	HEIGHT
MW	MONITOR WELL
N	NORTH
O.R.	OFFICIAL RECORD
OH	OVERHEAD
P.O.B.	POINT OF BEGINNING
PIV	POST INDICATOR VALVE
PP	POWER POLE
PL	PROPERTY LINE
RWL	RAIN WATER LEADER
SDMH	STORM DRAIN MANHOLE
SSCO	SANITARY SEWER CLEAN OUT
SSMH	SANITARY SEWER MANHOLE
S	SOUTH
SL	STREET LIGHT
SLB	STREET LIGHT BOX
TB	TELEPHONE BOX
TC	TOP OF CURB
TSB	TRAFFIC SIGNAL BOX
UB	UNKNOWN UTILITY BOX
WB	WATER BOX
WV	WATER VALVE
WM	WATER METER
W	WEST
(4)	ITEM NO. IN TITLE REPORT
(1HC)	NO. OF PARKING SPACES (HANDICAP)
(5S)	NO. OF PARKING SPACES (STANDARD)

NO.	REVISION	BY

KIER+WRIGHT
2850 Collier Canyon Road
Livermore, CA 94551
Phone: (925) 245-8788
www.kierwright.com

ALTA/NSPS LAND TITLE SURVEY
OF
3600 ALAMEDA AVENUE
FOR
DUKE REALTY

OAKLAND CALIFORNIA

DATE	APRIL, 2021
SCALE	AS SHOWN
SURVEYOR	JRV
DRAWN BY	JF
JOB NO.	A15642-6
SHEET	3
OF	3 SHEETS

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City of Oakland Historic Preservation Element & OCHS Ratings

The Historic Preservation Element (HPE) of the Oakland General Plan presents goals, policies, and objectives that guide historic preservation efforts in Oakland. HPE policies define the criteria for legal significance that must be met by a resource before it is listed in Oakland's local register of historical resources. Based on a city-wide preliminary architectural inventory by the OCHS, pre-1945 properties have been assigned a significance rating of A, B, C, D, E, or F and assigned a number (1, 2, or 3) which indicates a building's district status. The ranking system, described in Table A, indicates a property's historical status and identifies those properties warranting special consideration in the planning process. The individual property rating of a resource is based on the following criteria:

- *Visual Quality/Design*: Evaluation of exterior design, interior design, materials and construction, style or type, supporting elements, feelings of association, and importance of designer.
- *History/Association*: Association of person or organization, the importance of any event, association with patterns, and the age of the building.
- *Context*: Continuity and familiarity of the building within the district.
- *Integrity and Reversibility*: Evaluation of the building's condition, its exterior and interior alterations, and any structural removals.

Oakland Cultural Heritage Survey Significance Ratings

Rating Level	Description
A: Properties of Highest Importance	This designation applies to properties considered clearly eligible for individual NRHP listing and City Landmark designation. Such properties consist of outstanding examples of an important style, type, or convention, or intimately associated with a person, organization, event, or historical pattern of extreme importance at the local level or of major importance at the state or national level.
B: Properties of Major Importance	These are properties of major historical or architectural value but not sufficiently important to be rated "A". Most are considered individually eligible for the NRHP, but some may be marginal candidates. All are considered eligible for City Landmark designation and consist of especially fine examples of an important type, style, or convention, or intimately associates with a person, organization, event, or historical pattern of major importance at the local level or of moderate importance at the state or national level.
C: Properties of Secondary Importance	These are properties that have sufficient visual/architectural or historical value to warrant recognition but do not appear individually eligible for the NRHP. Some may be eligible as City Landmarks and are superior or visually important examples of a particular type, style, or convention, and include most pre-1906 properties.
D: Properties of Minor Importance	These are properties which are not individually distinctive but are typical or representative examples of an important type, style, convention, or historical pattern. The great majority of pre-1946 properties are in this category.
E, F, or *: Properties of No Particular Interest	Properties that are less than 45 years old or modernized.

Oakland Cultural Heritage Survey Significance Ratings

Rating Level	Description
District Status	**Description**
1	A property in an Area of Primary Importance (API) or NRHP-quality district. An API is a historically or visually cohesive area or property group identified by the OCHS which usually contains a high proportion of individual properties with ratings of "C" or higher.
2	A property in an Area of Secondary Importance (ASI) or a district of local significance. An ASI is similar to an API except that an ASI does not appear eligible for the NRHP.
3	A property not within a historic district.

Note: Properties with ratings of "C" or higher or are contributors to or potential contributors to an API or ASI are considered Potential Designated Historic Properties (PDHPs) that may warrant consideration for preservation by the City. The OCHS has assigned some properties a contingency rating, indicated by a lower-case letter. A contingency rating is a potential rating under some condition, such as "if restored" or "when older" or "with more information."

PAGE&TURNBULL

OWENS-ILLINOIS PLANT 20, 3600 ALAMEDA AVENUE HISTORIC RESOURCE EVALUATION

OAKLAND, CALIFORNIA
[21236]

PREPARED FOR
DUKE REALTY

December 17, 2021

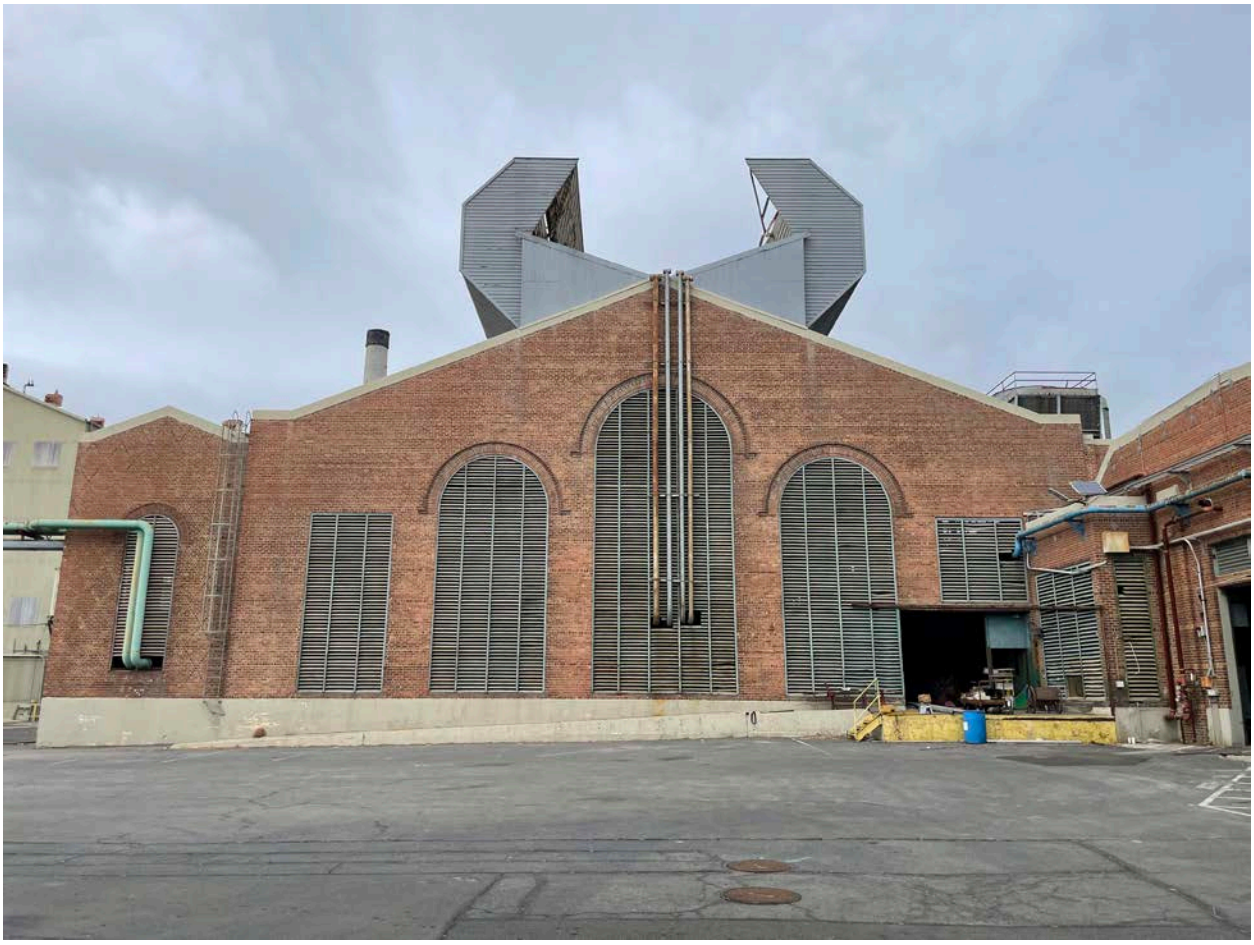

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TABLE OF CONTENTS

I. INTRODUCTION

This Historic Resource Evaluation (HRE) has been prepared at the request of Duke Realty for the industrial complex at 3600 Alameda Avenue, Oakland (APN 33-2250-11-4). The subject property is an approximately 27-acre parcel which contains Plant 20 of the Oakland Owens-Brockway, formerly Owens-Illinois Pacific Coast Company, a container glass and cardboard packaging material manufacturing facility. The property is bounded on the northwest by Fruitvale Avenue; on the northeast by a property line coincident with the rear lots of Elmwood Avenue-facing parcels, 36th Avenue, and Boehmer Street; on the southeast by 37th Avenue; and on the southwest by Alameda Avenue. In addition to its current street address, the facility was historically referred to as 601 36th Avenue.

The parcel currently includes fifteen buildings and associated utilities and landscape features constructed between 1936 and 1987 to serve in manufacturing, storage, and administration capacities for the working factory. Owens-Illinois Plant 20 operated until 2015.

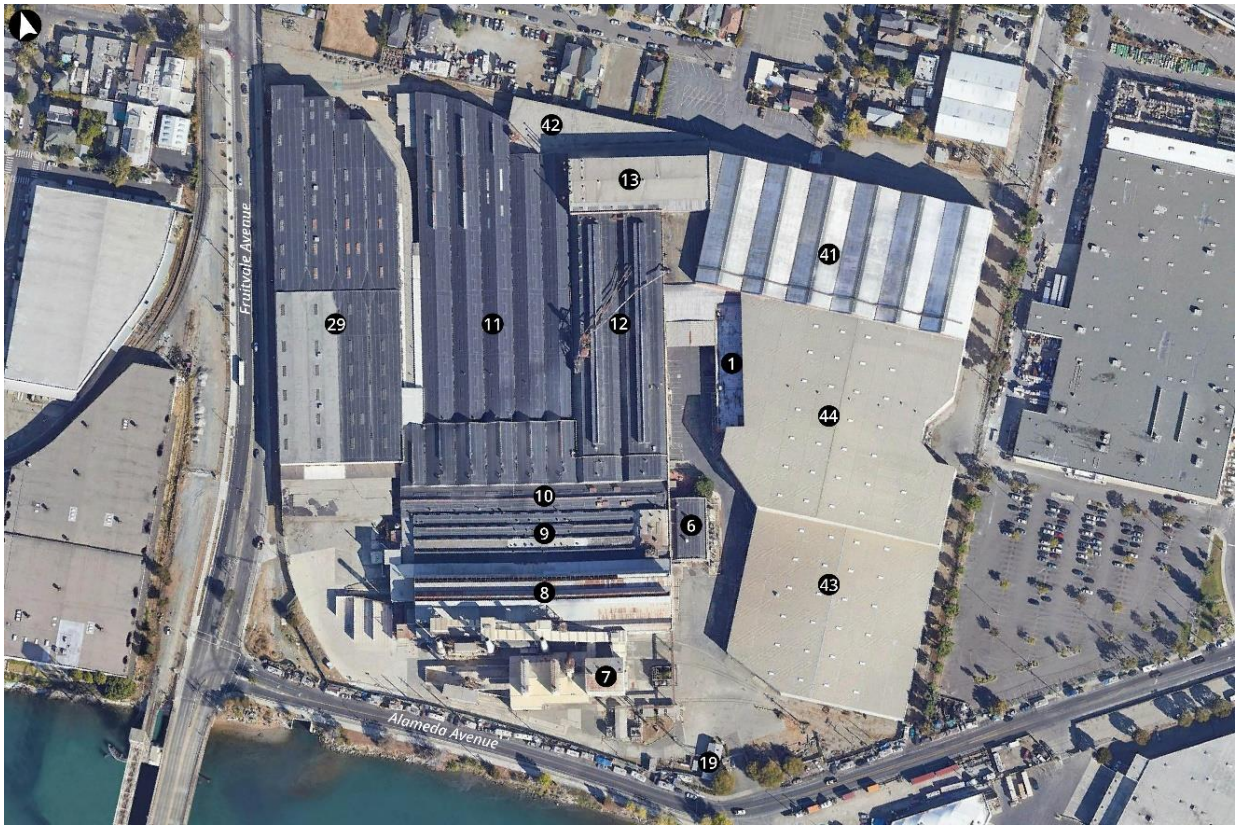

Figure 1: Aerial Overview of Owens-Illinois Pacific Coast Company Plant 20. Building numbers are those assigned by Owens-Illinois during operation of the plant. Source image: Google Earth 2021, edited by Page & Turnbull.

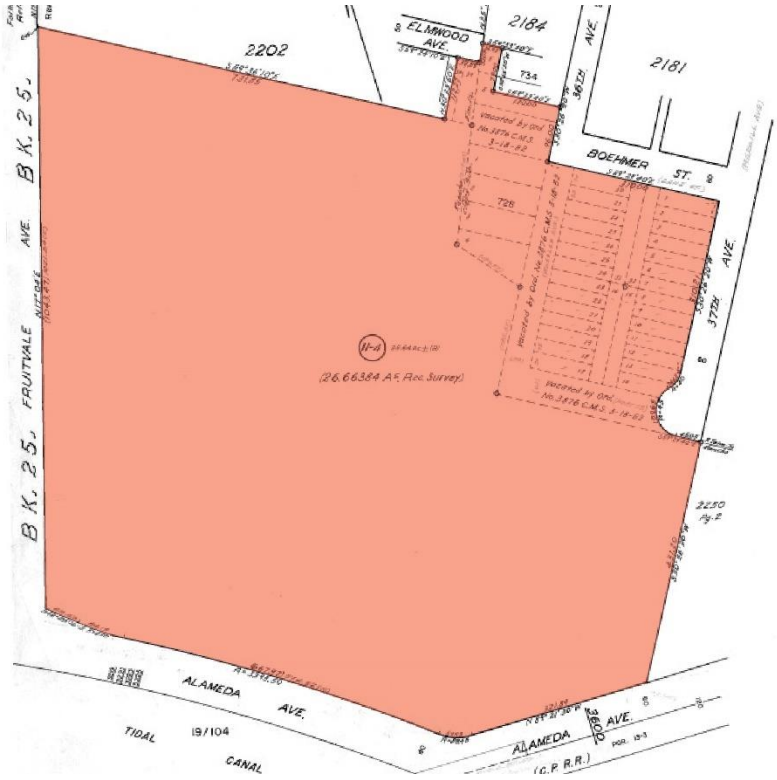

Figure 2. Assessor's parcel map, subject property shaded red. .Source: Alameda County Assessor, edited by Page & Turnbull.

Methodology

This report follows a standard outline for Historic Resource Evaluations (HREs) and provides a summary of the building's current historic status, an architectural description, a historic context for the development of the subject property and industrial growth in Oakland, and a narrative description of the construction and subsequent changes to the complex since its construction in 1936. This report includes an evaluation of the property's eligibility for listing in the California Register of Historical Resources and as a designated historic property within the City of Oakland.

This evaluation was performed using historic research from Sanborn Map Company fire insurance maps, historic aerial photographs, historic Oakland and San Francisco newspaper articles, building permit applications and plans in the records of the City of Oakland Planning & Building Department, and a review of primary and secondary historical documentation by and about the Owens-Illinois Glass Company.

Page & Turnbull staff conducted a site visit to 3600 Alameda Avenue on October 13, 2021. All photographs within this report were taken at that time, unless otherwise noted.

Summary of Findings

Page & Turnbull evaluated Owens-Illinois Pacific Coast Company Plant 20, located at 3600 Alameda Avenue, Oakland, for eligibility for listing in the California Register and for designation as a historical resource at the local level. While the property was found to be significant as a district for its design as an industrial facility, comprising 11 contributing buildings built between 1936 and 1938, the Plant 20 buildings lack sufficient integrity of setting, design, materials, workmanship, feeling, and association to be eligible for listing in the California Register. Further, the property does not retain the level of integrity necessary for designation as a City of Oakland Landmark. The subject property is therefore not a historical resource for the purposes of CEQA.

II. EXISTING HISTORIC STATUS

The following section examines the national, state, and local historic status currently assigned to the 3600 Alameda Avenue.

National Register of Historic Places

The National Register of Historic Places (National Register) is the nation's most comprehensive inventory of historic resources. The National Register is administered by the National Park Service and includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level.

The subject property is not currently listed on the National Register.

California Register of Historical Resources

The California Register of Historical Resources (California Register) is an inventory of significant architectural, archaeological, and historical resources in the State of California. Resources can be listed in the California Register through a number of methods. State Historical Landmarks and National Register-listed properties are automatically listed in the California Register. Properties can also be nominated to the California Register by local governments, private organizations, or citizens. The evaluative criteria used by the California Register for determining eligibility are closely based on those developed by the National Park Service for the National Register of Historic Places.

The subject property is not currently listed on the California Register.

California Historical Resource Status Codes

Properties listed or under review by the State of California Office of Historic Preservation are listed within the Built Environment Resource Directory (BERD) and are assigned a California Historical Resource Status Code (Status Code) of "1" to "7" to establish their historical significance in relation to the National Register of Historic Places (National Register) or California Register of Historical Resources (California Register).[1] Properties with a Status Code of "1" or "2" are either eligible for listing in the California Register or the National Register, or are already listed in one or both of the registers. Properties assigned Status Codes of "3" or "4" appear to be eligible for listing in either register, but normally require more research to support this rating. Properties assigned a Status Code of "5" have typically been determined to be locally significant or to have contextual importance. Properties with a Status Code of "6" are not eligible for listing in either register. Finally, a Status Code of "7" means that the resource has not been evaluated for the National Register or the California Register, or that the property needs reevaluation.

The subject property is listed in the most recent, March 2020 version of the Office of Historic Preservation (OHP) Built Environment Resources Directory (BERD) for Alameda County with a status code of "7N1," assigned in 1995 by the Oakland Cultural Heritage Survey. A 7N1 status code indicates that a property needs reevaluation and may become eligible for listing in the National Register "with restoration or other specific conditions."[2]

City of Oakland Landmarks

City of Oakland Historic Landmarks are the most prominent historic properties in the city. They may be designated for historical, cultural, educational, architectural, aesthetic, or environmental value. They are nominated by their owners, the City, or the public and are designated after public hearings by the Landmarks Board, Planning Commission, and City Council. This category also includes preservation districts and Heritage Properties. According to the Historic Preservation Element of Oakland's General Plan, adopted 1994, properties eligible for landmark status include those which are assigned a rating of A or B through evaluation according to the City of Oakland Landmarks Preservation Advisory Board Evaluation Sheet for Landmark Eligibility.[3] Developed prior to establishment of the California Register, the criteria for landmark eligibility closely correspond to the National Register criteria for significance, as well as requirements for integrity.

---

[1] California State Office of Historic Preservation, Built Environment Resource Directory (BERD), Santa Clara County, updated March 2020.
[2] California State Office of Historic Preservation, "California Historical Resource Status Codes," updated March 2020. Electronic resource at https://ohp.parks.ca.gov/pages/1069/files/Resource-Status-Codes.pdf, accessed November 5, 2020.
[3] City of Oakland, Oakland General Plan: Historic Preservation Element (Oakland, October 1993), Appendix D.

The subject property is not listed as a City of Oakland Historic Landmark.

Oakland Cultural Heritage Survey

The Oakland Cultural Heritage Survey (OCHS) was established in 1981. The categories, ratings, and guidelines for interpretation that are used by the OCHS closely parallel those presented in *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*, Section IV, "How to Identify the Type of Significance of a Property;" and Section V, "How to Determine if a Property has Integrity."[4]

The Oakland Cultural Heritage Survey (OCHS), established in 1981, evaluates individual properties according to a five-tiered alphanumeric system. The alphabetical portion, the Individual Property Rating, is based on evaluation of a property according to the following four criteria:

- Visual Quality/Design: Evaluation of exterior design, interior design, materials and construction, style or type, supporting elements, feelings of association, and importance of designer.
- History/Association: Association of person or organization, the importance of any event, association with patterns of history, and the age of the building.
- Context: Continuity and familiarity of the building within the city, neighborhood, or district.
- Integrity and Reversibility: Evaluation of the building's condition, its exterior and interior alterations, and any structural removals.

Evaluated properties are assigned an Individual Property Rating corresponding to their ability to meet these criteria as follows:

A. Highest importance (Outstanding architectural example or of extreme historical importance);
B. Major importance (Fine architectural example or of major historical importance);
C. Secondary importance (Superior or visually important architectural example, or very early);
D. Minor importance (Representative architectural example);
E. Of no particular interest; and
F. Less than 45 years old or modernized.

A building's rating in its existing condition is expressed as a capital letter. Contingency ratings, expressed after the rating as a lower-case letter, indicate a potential rating under certain conditions.

[4] National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* (Washington D.C.: National Park Service, 1997).

Contingency ratings may be applied to buildings whose rating would change with restoration or increased age, or for which additional information is needed.

A property's relationship to an Area of Primary or Secondary Importance is expressed as part of its rating in numeric form as follows:

1. Located in an Area of Primary Importance or National Register quality district;
2. Located in an Area of Secondary Importance, or district of local interest; and
3. Not located in a historic district.

City of Oakland Areas of Primary Importance, or APIs, and Areas of Secondary Importance, or ASIs, are defined by the city's Historic Preservation element as follows:

> Area or Primary Importance (API). A historically or visually cohesive area or property group identified by the Reconnaissance or Intensive Surveys which usually contains a high proportion of individual properties with ratings of "C" or higher. At least two thirds of the properties within an API must be contributory to the API, i.e. they reflect the API's principal historical or architectural themes.
>
> Properties which do not contribute to the API because of alterations, but which would contribute if restored are considered noncontributors for purposes of the two-thirds threshold.
>
> APIs appear eligible for the National Register of Historic Places either as districts or as historically related complexes.
>
> Area of Secondary Importance (ASI). Similar to Area of Primary Importance except that (1) an ASI does not appear eligible for the National Register of Historic Places and (2) altered properties which do not now contribute to the ASI but would- if restored are counted as contributors for purposes of the two-thirds threshold.[5]

Individual properties that are contributors to an API or ASI are assigned a "+", non-contributors a "-", and potential contributors are assigned a "*" as part of their numeric rating.

Any property that has at least a contingency rating of C ("secondary importance") or contributes or potentially contributes to a primary or secondary district, may "warrant consideration for possible

[5] City of Oakland, Oakland General Plan: Historic Preservation Element (Oakland, October 1993), Appendix A.

preservation" according to the City of Oakland. All properties meeting these minimum significance thresholds (and have not already been designated) are called Potential Designated Historic Properties (PDHPs). "PDHP" is not a designation, but rather a category based on the OCHS ratings.

The subject property is not currently listed as a City of Oakland Designated Historic Property or Heritage Property, and an Oakland Cultural Heritage Survey (OCHS) rating is not listed in the parcel information for 3600 Alameda Avenue in the online, GPS-based City of Oakland Planning and Zoning Map.[6] It is not located within a local historic district or Area of Primary or Secondary Importance. A California Department of Parks and Recreation (DPR) 523A Primary Record Form completed for the property in 1994 recommends an OCHS rating of Cb+3 with the following description:

> The Oakland Cultural Heritage survey rates this property Cb+3 (C, secondary importance or superior example, potentially B+, National Register, if restored), particularly for its design quality and materials and type/style and historical associations. It is not located in a district (3).[7]

The 1994 DPR forms are included as Appendix A.

III. ARCHITECTURAL DESCRIPTION

Owens-Illinois Pacific Coast Company Plant 20 is in the Fruitvale neighborhood of Oakland, immediately northeast of the Oakland Estuary, and southeast of the Fruitvale Avenue Bridge leading to the island of Alameda. The 27-acre site contains 15 buildings and numerous smaller features. The buildings are all attached, in some form, to others on the site, and the interconnected complex of structures covers much of the parcel. Some buildings are largely surrounded by other structures and have very limited exterior exposure; sometimes only a single wall is visible. Primary access into the site is through an entrance gate on Alameda Avenue, on the property's south border.

The following architectural description of individual buildings is organized by building numbers assigned by Owens-Illinois site managers during operation of the plant.

[6] City of Oakland, "Planning and Zoning Map," electronic resource at https://oakgis.maps.arcgis.com/apps/webappviewer/index.html?id=3676148ea4924fc7b75e7350903c7224, accessed November 5, 2021.
[7] Oakland Cultural Heritage Survey, *DPR 523 Forms for 3600 Alameda Avenue* (Oakland, 1995), 3.

Building 1 (Administration Building, 1937)

Building 1, the original Plant 20 Administration Building, is situated in the center of the site, between Building 44 and the central parking courtyard **(Figure 3 through Figure 8)**. The rectangular-footprint structure is oriented slightly off axis with the cardinal directions. Only its long west façade and a portion of the south façade are visible from the exterior. The east façade is encompassed within Building 44 and the north façade faces into the loading dock of Building 41. The one-story building has a flat roof, concrete foundation, and is clad in brick, with a single row of headers laid every five rows of stretchers. The structure's façades are organized with evenly spaced bays with large glass-block panels illuminating the interior. The west façade has eleven bays, divided by banded-brick piers, and some glass-block panels have inset steel-frame casement and fixed windows. Just north of the west façade's center bay, a metal-frame glazed door permits entry to the interior, accessed by semi-circular concrete stairs and sheltered with a metal canopy. Building 1's north façade, covered under a loading dock, has two bays, with a wood, half-glazed door on the west side and a glass-block panel on the east side. Most openings at the east façade, which is inside Building 44, have been infilled with concrete masonry units. At its north end, the west façade has a single unglazed metal door, with a service window and small counter to its right. Like the north façade, the south façade also has two bays, though Building 44 obstructs the east bay. The portion of the west bay that is visible from outside has a glass-block panel bay and a single, deep-set wired-glass window. At the interior of Building 44, the east bay of Building 1's south façade has an unglazed wood door with a wide wood surround accessed by a concrete platform.

Figure 3. Building1, west and south façades, view northeast.

Figure 4. Building 1, main entrance at west façade, view southeast.

Figure 5. Building 1, east bay of north façade, inside Building 44, view southeast.

Figure 6. Building 1, north end of east façade, inside Building 44, view southwest.

Figure 7. Painted glass block wall at entry of Building 1, view northwest.

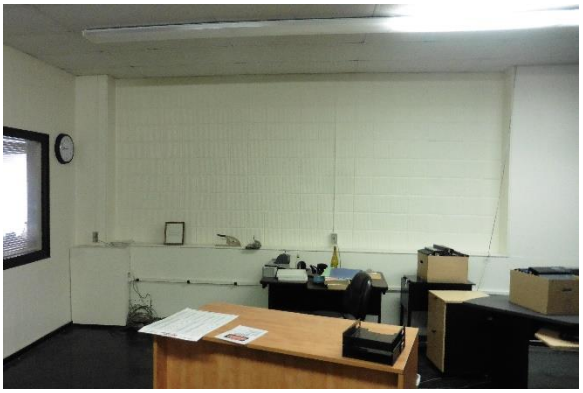

Figure 8. View of office, Building 1, with painted glass block opening, view west.

Building 6 (Compressor Building, 1937)

Building 6, the Compressor Building, adjoins the east end of Building 9 and separates the central parking courtyard from the site's vehicular entrance on Alameda Avenue **(Figure 10 and Figure 11)**. Like Building 1, Building 6 has a rectangular footprint slightly off axis with the cardinal directions. Three façades have exterior exposure, while the west face of the building abuts Building 9. The building has a concrete foundation and brick cladding, with a row of headers between every five or six courses of stretchers. The east façade forms the long axis of the rectangular building, and six banded-brick piers articulate the façade's five bays. Glass-block panels, headed by louvered vents, are contained in each of the bays. A copper downspout remains on the easternmost pier. The north and south façades each have three bays. On the south façade, a central utility door is flanked on the west bay by a vented projection and an inset brick panel to the east. Glass-block panels fill all the bays on the north façade, and a wood Dutch door abuts the glass-block panel in the easternmost bay. Building 6 is covered by a gambrel roof with slightly raised parapets. The roof sheathing is unidentifiable from the ground.

Figure 9. Building 6, south façade, view northeast. Photograph by Page& Turnbull, January 4, 2019.

Figure 10. Building 6, east façade, view southwest. Photograph by Page& Turnbull, January 4, 2019.

Figure 11. Building 6, north façade, view southwest.

Figure 12. Building 6, interior of main volume, view east. Photograph by Page& Turnbull, January 4, 2019.

Building 7 (Batch Plant, 1937)

Building 7, the Batch Plant, is at the southern end of Plant 20, near the property fence at Alameda Avenue **(Figure 13 through Figure 16)**. The structure has corrugated and sheet metal cladding and is situated on an irregular footprint formed by several adjoining rectangular volumes. The building is oriented on the same axis as Buildings 1 and 6. Building 7's eastern volume rises four stories and is capped by a gabled roof. The western volume rises two stories and has a gabled roof, with three cross-gabled towers bisecting the roof ridge and elevating the volume an additional two stories. Off the southern façade of the west volume, an open-air, shed-roofed appendage extends over rail spurs and a loading area. Attached to the west end of Building 7, a "glass reclamation center" consists of a reinforced concrete wall bin, a corrugated metal shed, and a steel tower with a catwalk connecting back to Building 7. Shed-roofed canopies span rail spurs and a loading area between the north façades of Building 7 and Building 8. Several chutes and walkways connect the upper stories of the two buildings, and three massive concrete chimneys are in this passage, rising several stories

higher than any other structures on the site. In addition to several pedestrian-scaled doors and open loading doors on the building's façades, numerous rectangular multi-lite steel sash windows illuminate Building 7's interior, though many have been obscured by corrugated sheet metal panels, particularly on the south façade. The interior of Building 7 was not accessed due to chemical contamination hazards.

Figure 13. Building 7, east façade, view northwest. Photograph by Page& Turnbull, January 4, 2019.

Figure 14. Building 7, south façade, view north. Photograph by Page& Turnbull, January 4, 2019.

Figure 15. Building 7, west and south façades, view northeast. Photograph by Page& Turnbull, January 4, 2019.

Figure 16. Building 7, west façade, view southeast. Photograph by Page& Turnbull, January 4, 2019.

Building 8 (Factory, Furnace & Forming, 1937)

Building 8, a factory building, has an expansive rectangular footprint with its long axis oriented slightly off east-west **(Figure 17 through Figure 20)**. The structure is north of Building 7, and the buildings are connected by an open-air canopy and various chutes. The building has a concrete foundation and is clad in brick on the east façade, with corrugated metal cladding at its south and west façades. The building abuts and opens into Building 9 to the north. Building 8's volume is divided between two long aisles, narrow and wide, evident in the roof planes and in the east and

west façades. The narrow aisle is one bay wide and runs along the south side of the building, while the wide aisle spans five bays, running along the north side of the building. Both aisles have gabled roofs, though the roof above the wide (north) aisle rises much higher. The east, brick-clad façade is the most elaborate and public facing. Five large, vented openings comprise the façade's primary fenestration, with the central opening rising to the highest peak and its flanking openings rising to subsequently lower heights. The three center vents are arched and are headed by decorative sawtooth-brick hood molds. The two flanking vents are rectangular. A loading ramp leads to a wide utility door below the northernmost vent opening. The brick cladding on the north aisle is laid with a single course of headers every five or six courses of stretchers. Adjoining the north aisle on the east façade, the narrow (south) aisle has a single bay containing an arched vented opening. The cladding on this aisle has glazed brick headers forming a decorative diamond pattern. The south façade is largely obscured by the chutes and walkways to Building 7, and the west façade has a projecting, gabled one-story volume, under which a concrete ramp descends to the basement. Windows on these two façades are typically rectangular, multi-lite steel sash. Extending to the west of Building 8, three reinforced concrete-walled bins provide loading bays for glass refuse. The roof of Building 8 is sheathed in corrugated metal, and the gable's ridge is crowned with a large U-shaped vent that runs the length of the building.

Figure 17. Building 8, east façade, view northwest.

Figure 18. Building 8, east part of south façade and east façade, view north.

Figure 19. Building 8, west façade and west part of south façade, view northeast.

Figure 20. Building 8, west façade, view southeast.

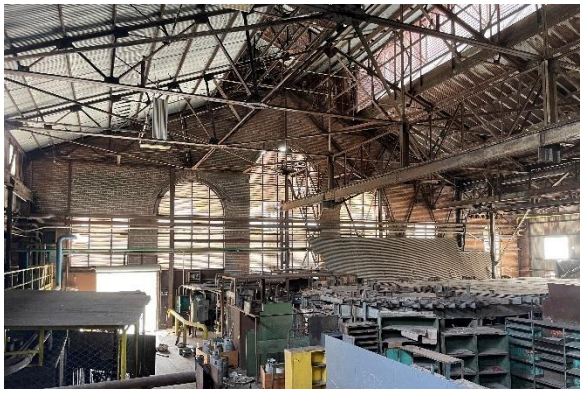

Figure 21. Building 8, interior of main volume, view southeast.

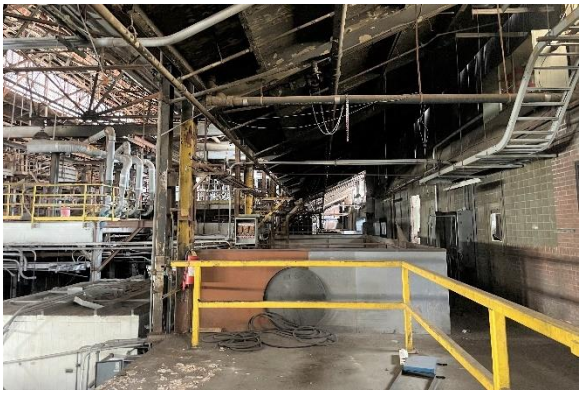

Figure 22. Building 8, interior of main volume, view northwest. Brick and glass block wall shared with south end of Building 9 is at right.

Building 9 (Kilns, Mold Storage & Repair, 1937)

Building 9 has a rectangular footprint and is sandwiched between Building 8 and Building 10 **(Figure 23 and Figure 24)**. Its east façade is obscured by Building 6, so the west façade is the only one fully exposed. The façade is clad in corrugated metal and two distinct volumes are evident: a sawtooth-roofed south volume and a gabled north volume. Various utility and pedestrian-scaled doors, as well as steel-sash windows, are positioned across the façade.

Figure 23. Building 9, west façade, view southeast.

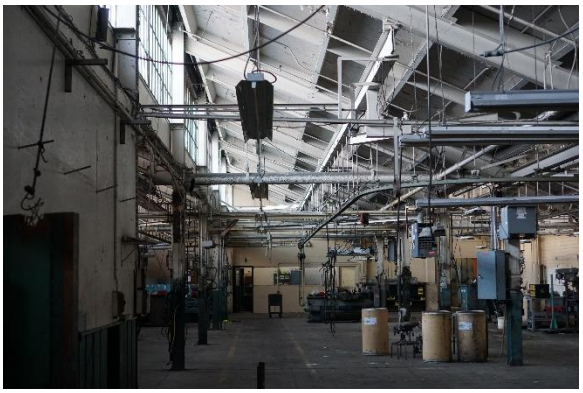

Figure 24. Building 9, interior at second story, view southeast.

Building 10 (Inspection, Packing, Carton Assembly & Storage, 1937)

Building 10 also has a rectangular footprint and is almost entirely enclosed between Buildings 29, 11, 12, and 9 **(Figure 25 and Figure 26)**. A small section of the building's north side, visible between Building 29 and Building 9, represents the structure's only significant exterior exposure. The wall is clad in corrugated metal and a series of six cross-gabled roof volumes are apparent, spanning the building's width.

Figure 25. Building 10, west façade, view southeast. This is the only portion of the building exposed at the exterior.

Figure 26. Building 10, interior at second story, view southeast toward junction with Building 12.

Building 11 (Factory, Warehouse, 1937)

Building 11 has an expansive rectangular footprint, spanning between Building 12 and Building 29 and abutting Buildings 10, 13, and 42 **(Figure 27 through Figure 30)**. The north portion of the building has the only exterior exposure and has a combination of brick and corrugated metal cladding at the northeast side and corrugated metal at the northwest. Typical windows are

rectangular, multi-lite steel sash. Several vents and utility doors lead inside. A one-story concrete-block addition extends from the northwest corner of Building 11 and is illuminated with fixed, multi-lite steel sash windows. Five cross-gabled roof volumes run the length of Building 11.

Figure 27. Northeast exterior exposure of Building 11, view southwest.

Figure 28. Building 11, north façade, view west. Photograph by Page& Turnbull, January 4, 2019.

Figure 29. Building 11, west façade, view southeast. Photograph by Page& Turnbull, January 4, 2019.

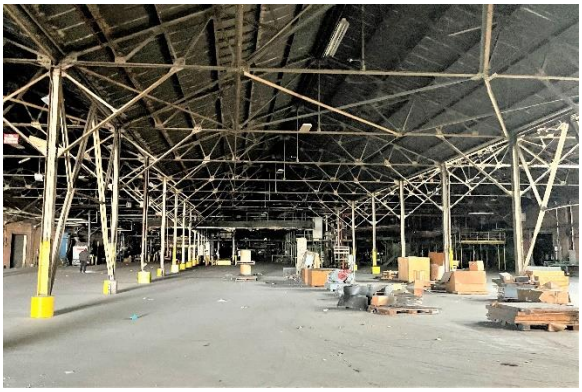

Figure 30. Building 11, interior of main volume, view southwest.

Building 12 (Factory, Office, Warehouse, 1937)

Building 12, a factory and office building, has a long axis which runs slightly off north-south. Its exposed east façade runs the length of the central parking courtyard **(Figure 31 through Figure 34)**. The other façades are obscured by neighboring buildings, including Buildings 9, 10, 11, 13, and 41. The two-story building has brick cladding and 17 evenly spaced bays on the exposed east façade, delineated through banded-brick piers. The brick bond alternates between a single course of headers and five courses of stretchers. The structure's five northernmost exposed bays are situated under Building 41's loading canopy and the two northernmost behind the raised loading dock. The first floors of the east façade's bays are asymmetrically utilized, with various bays framing large utility or loading entrances, smaller pedestrian-scaled entrances, windows of various sizes, or

uninterrupted brick. Six bays have loading entrances, one with its own ramp and two leading onto Building 41's raised loading dock. Four bays have pedestrian-scaled entrances, two covered and two uncovered. Four bays have fixed steel-frame windows. The second floor of the façades' bays are much more regularly organized. Each bay has three panels of glass blocks above a steel-frame pivot window. The building's roof is flat, and the roofing material is visible from the ground.

Figure 31. Building 12, south end of west façade, view northwest. Photograph by Page& Turnbull, January 4, 2019.

Figure 32. Building 12, east façade, view southwest. Photograph by Page& Turnbull, January 4, 2019.

Figure 33. Building 12, north portion of east façade, view northwest.

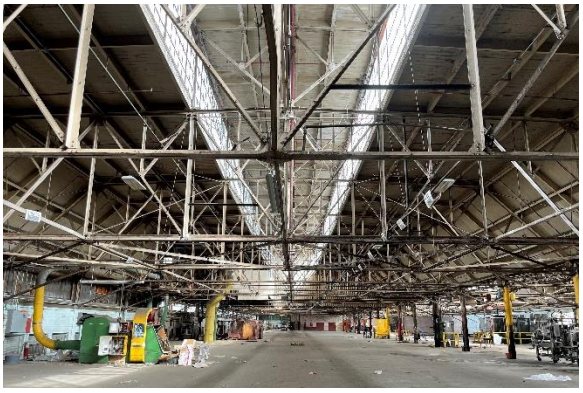

Figure 34. Building 12, interior of main volume, second floor, view northeast.

Building 13 (Rolled Paper Storage, 1937)

Building 13 is a two-story, rectangular-footprint warehouse surrounded on all four sides by buildings 11, 12, 42, and 41 **(Figure 35 and Figure 36)**. However, because Building 41 is an open wood-frame canopy, portions of Building 13's brick and corrugated-metal façade are visible at the interior. A concrete vehicular ramp rises under the canopy of Building 41 along the exposed exterior wall of Building 13. Portions of what appear to be the former exterior brick walls of the building now serve

as interior subdivisions within the internally connected warehouse area spanning across several buildings in the complex.

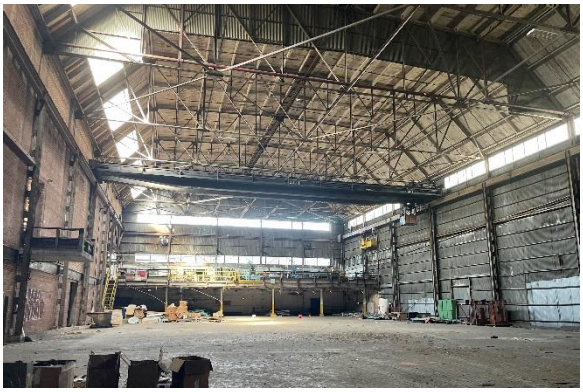

Figure 35. Interior of Building 13, view northwest.

Figure 36. Interior of Building 13, view southeast.

Building 19 (Butane Mixing Plant, 1937)

Building 19 is an open-sided machinery shelter by the Alameda Avenue vehicular entrance, south of other buildings in the complex **(Figure 37)**. It has a rectangular footprint, and its long axis is oriented northeast-southwest. Though the building is open-air, it has partial brick walls at its base and below the eaves, and corrugated and sheet metal-clad upper walls with louvered vents. Steel I-beams support the gabled roof, sheathed in corrugated metal.

Figure 37. Building 19, view south. Photograph by Page& Turnbull, January 4, 2019.

Building 29 (Warehouse, 1938)

Building 29 is Plant 20's westernmost building, abutting buildings 10 and 11 to the east **(Figure 38 through Figure 41)**. The structure has a rectangular footprint with a clipped northeastern corner and spans almost the length of the complex next to Fruitvale Avenue. The warehouse has one high story, and it is clad in corrugated sheet metal, with some smooth sheet metal panels. The long west façade has four loading entrances, a pedestrian-scaled door, and several vents along the foundation. The south façade opens into a loading platform behind Buildings 9 and 10, covered by a wood canopy supported by four steel I-beam posts. The loading dock is reached by a wide concrete ramp, and three large loading entrances lead inside. The north façade is divided between three projecting stepped bays that lead into a clipped corner, forming an alley between Buildings 29 and 11. The westernmost bay projects the farthest and has no openings. The center bay is set back and has a large utility or loading entrance. The easternmost recessed bay has a shed-roof metal and steel-beam canopy covering a pedestrian-scaled entrance and a utility entrance. The building then begins to curve to the southeast, leading into the east façade and clipping the northeast corner of the building. This curve follows the path of a rail spur, still visible in the ground. A concrete loading ramp rises along this curving rail spur and stretches into the alley by Building 11. The loading dock is covered with a wood and metal roof until the alley and rail spur end at an extension of Building 11. The roof of Building 29 is comprised of four gently sloping gables, stretching the length of the structure.

Figure 38. Building 29, south façade, view northeast.

Figure 39. Building 29, west portion of north façade, view southwest. Photograph by Page& Turnbull, January 4, 2019.

Figure 40. Building 29, loading dock and canopy at east façade, view southwest. Photograph by Page& Turnbull, January 4, 2019.

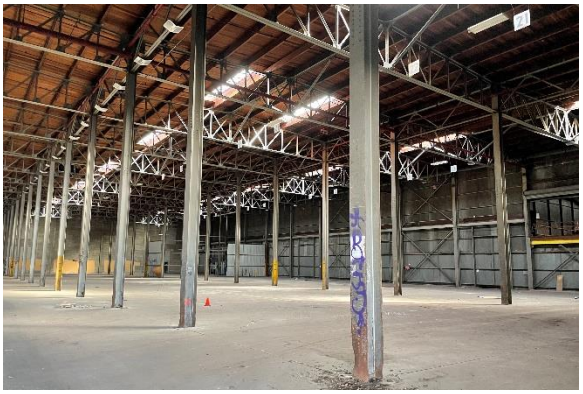

Figure 41. Building 29, interior of main volume, view northeast. Photograph by Page& Turnbull, January 4, 2019.

Buildings 41 And 42 (Warehouse and Loading Dock, 1952)

Building 41 is rectangular and is sited at the northeast corner of Plant 20, between Buildings 12, 13, and 44 **(Figure 42 through Figure 45)**. The two-building warehouse has a long axis oriented northwest-southeast, slightly askew from many other buildings in the complex. Its southwest corner has a one-story appendage, a loading dock that terminates the central parking courtyard and its associated storeroom. The main volume of Building 41 is clad in corrugated metal on its north and east façades. The main volume's south façade is obscured by Building 44, but the structure's brick cross gables are visible from the central parking courtyard. The east façade has no windows or doors, and the north façade has continuous bands of corrugated glass-covered windows on both the first and second floors. Three vehicular entrances interrupt the window bands in the center of the first floor. At the western end of the north façade, the vehicular ramp that starts in Building 42 terminates at the second floor of Building 41 **(Figure 46 and Figure 47)**. Six cross-gabled roof

volumes cap the main volume of Building 41. The northwest loading dock appendage adjacent to the central parking courtyard is clad in painted brick and has two loading entrances and a smaller, pedestrian-scaled entrance. This appendage has a flat roof.

Figure 42. Building 41, north façade, view southwest. Photograph by Page& Turnbull, January 4, 2019.

Figure 43. Building 41, portion of north façade visible above canopy, view northeast. Photograph by Page& Turnbull, January 4, 2019.

Figure 44. Building 41, main volume, second floor, view south.

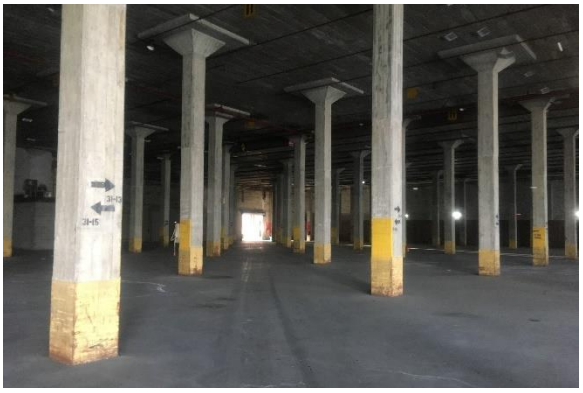

Figure 45. Building 41, main volume, ground floor, view northeast.

Figure 46. Building 42, view west.

Figure 47. Building 42, view southeast.

Buildings 43 and 44 (Warehouses, 1985)

Building 43 is a one-story warehouse that is attached to the south end of Building 44, on Plant 20's south end **(Figure 48 and Figure 49)**. Other than a clipped southeast corner, the structure has a square footprint and is clad in corrugated metal. Several metal-frame, undivided light windows are oriented horizontally near the roofline along the east and west façades, and a large utility entrance is located on the clipped corner. A very shallow gable roof covers the building.

Figure 48. Building 43, south façade, view northeast. Photograph by Page& Turnbull, January 4, 2019.

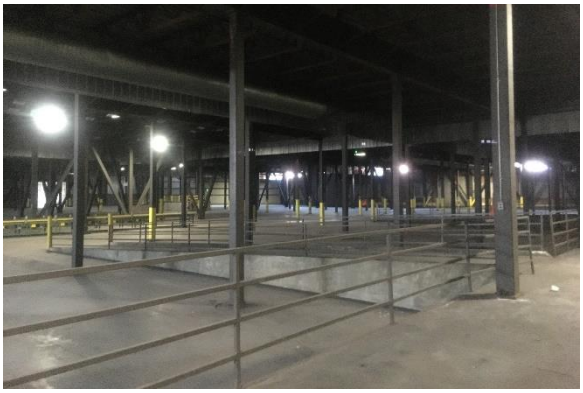

Figure 49. Building 43 interior. Photograph by Page& Turnbull, January 4, 2019.

Building 44 has an irregular footprint and fills the area between Building 43 and Buildings 1 and 41 **(Figure 50 and Figure 51)**. It is similar to Building 43 in materials, massing, and fenestration. Unlike its neighbor, however, Building 44 has two stories. At the north part of its west façade, Building 44 intersects the east façade of Building 1, which is exposed at the interior of Building 44. On the building's southeast side, 37th Avenue terminates in a cul-de-sac, and Building 44 consequently has a small irregular-bordered court around this street end. Building 44 is also covered with a very shallow gable roof.

Figure 50. Building 44, west façade at intersection with Building 1, view northeast. Photograph by Page& Turnbull, January 4, 2019.

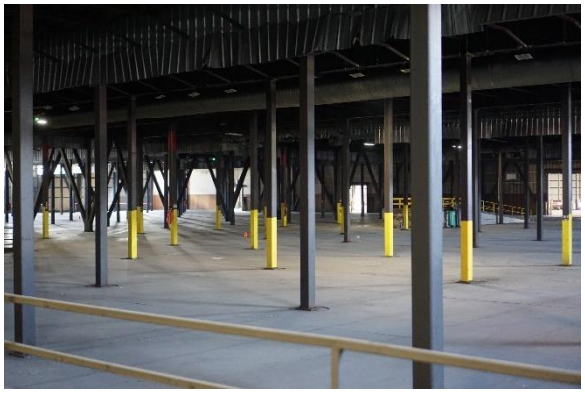

Figure 51. Building 44 interior, first floor.

Other Site Features

There are three additional structures of note at Plant 20 that were not assigned building numbers. All three structures are situated immediately south of Building 7, near the fence along Alameda Avenue **(Figure 52 and Figure 53)**. Two structures are cooling towers: rectangular structures with integrated metal pipe systems and machinery set on I-beams over open concrete foundations. The third structure contains the remains of a former cooling tower. The surviving concrete basin foundation has been covered with a corrugated metal roof and enclosed with wire fencing .

In addition to buildings and structures, the ground surface of Plant 20 retains some remains of rail spurs accessing loading areas of Buildings 29 and 11 at the north end of Plant 20, and Buildings 7 and 8 at the south end of the plant. These rail spurs connected to Southern Pacific Railroad lines along Fruitvale Avenue and Alameda Avenue.

The southern extent of the complex contains the most exterior open space in the property, roughly divided between two circulation areas: a paved lot that wraps around Building 7, allowing vehicles to access a large court behind Buildings 8, 9, 10, and 29; and a parking courtyard that extends into the center of the parcel, surrounded by Buildings 6, 12, 41, 1, and 44.

Figure 52. Accessory structures south of Building 7, with disused rail track in foreground, view southwest. Photograph by Page& Turnbull, January 4, 2019.

Figure 53. Accessory structures south of Building 7, view northwest. Photograph by Page& Turnbull, January 4, 2019.

IV. HISTORIC CONTEXT

Brief History of Oakland

Native Americans' settlement in Oakland predates the arrival of Spanish explorers in the eighteenth century by more than one thousand years. Huchiuin and Jalquin tribes of Ohlone Indians lived in settlements along the banks of local creeks dating from at least the sixteenth century, including the areas now occupied by the Holy Names College campus and in Indian Gulch, now known as Trestle Glen. Between these two former villages, Dimond Canyon contains Sausal Creek.[8]

In 1772, a small exploration party from the Spanish garrison at Monterey, led by Don Pedro Fages, paused in their travels on a high hill overlooking the site of the future city. Despite Father Juan Crespi's description recorded in his journal of the beauty of this place, the exploration party opted to travel on, and the area went untouched by Europeans for nearly 50 years. In 1820, the Spanish government granted 44,000 acres to Luis Maria Peralta upon his retirement from the military. Peralta's grant extended from the shore of San Francisco Bay to the crest of the Oakland hills, and from San Leandro Creek to "El Cerrito," or the little hill (most likely Albany Hill). Peralta used the land as a cattle ranch, which he sub-divided and bequeathed to his four sons in 1842. The area around Dimond Canyon was within the portion of *Rancho San Antonio* granted to Antonio Maria Peralta.

The 1849 Gold Rush that dramatically influenced San Francisco's development also brought fortune-seekers to Oakland. Miners, lumbermen, businessmen, bankers, speculators, and opportunists settled across the bay in what was then known as Contra Costa, or "the other coast." In 1850, three

[8] Eleanor Dunn, "A Short History of Diamond Canyon and Sausal Creek," *The Montclarion*, March 24, 1998, Electronic resource at https://fruitvaleoakland.wordpress.com/category/history/, accessed December 8, 2021.

East Coast men arrived in Contra Costa: Horace W. Carpentier, Edson Adams, and Andrew J. Moon. Each man leased 160 acres of land from Vicente Peralta and opened the area to squatters. The town of Oakland was incorporated on March 25, 1852. Oakland saw rapid growth and improvement after transportation connections were established with other communities. Ferry service to San Francisco began in 1854, and the small settlements of San Antonio and Clinton east of Lake Merritt were connected with Oakland by a bridge built in 1856. Commercial and industrial businesses were established near the wharves, and the Central Pacific Railroad ran through downtown Oakland by 1863.

In 1868, Oakland was chosen as the western terminus for the Transcontinental Railroad. Beginning in 1869, the train brought tourists and workers to California and made Oakland a major port city and manufacturing center.[9] West Oakland became a shipping hub for western U.S. factories and a processing and manufacturing center for raw commodities such as agricultural products and lumber.

As Oakland became an increasingly popular industrial core, residential and commercial communities expanded within the city limits. In 1873, Oakland became the county seat of Alameda County.[10] By 1880, the city's population rose to 34,555, more than 20 times what it had been in 1860.[11] Many of the new residents were San Francisco commuters drawn by Oakland's relatively low density and the ferry service across the bay. Promotional materials advertised Oakland's "world-renowned" climate, the prosperity of its citizens, its paved streets, and extensive streetcar lines.[12] It was home to several colleges, including the College of California (the precursor of the University of California, Berkeley), Mills Seminary (later Mills College), and St. Mary's College, located at 30th and Broadway.

The city expanded by annexing existing settlements and developing new districts.[13] Clinton, San Antonio, and the small town of Lynn (or Brooklyn) were annexed in 1872, pushing Oakland's eastern city limits out to 36th Street.[14] The small Temescal community, located in north Oakland, expanded in the 1860s with the installation of a telegraph line down present-day Telegraph Avenue and the establishment of a streetcar line to the University of California, Berkeley. Neighborhoods north of Lake Merritt were annexed in 1891, and Temescal, Golden Gate, and other north Oakland neighborhoods were annexed in 1897.[15] By 1900, Oakland's population numbered almost 67,000.

The 1906 earthquake and fire displaced thousands of San Francisco residents to the East Bay for temporary and permanent housing. Oakland continued to grow geographically, increasing to nearly

[9] Lois Rather, *Oakland's Image: A History of Oakland, California* (Oakland, CA: The Rather Press, 1972), 53-54.
[10] City of Oakland, Oakland General Plan: Historic Preservation Element (Oakland, October 1993), 1-5.
[11] Beth Bagwell, *Oakland, The Story of a City* (Oakland, CA: Oakland Heritage Alliance, 1982), 59.
[12] Rather, *Oakland's Image: A History of Oakland, California*, 63.
[13] Bagwell, *Oakland, The Story of a City*, 59.
[14] City of Oakland, Historic Preservation Element, 1-5.
[15] City of Oakland, Historic Preservation Element, 1-7.

its present size by 1909, with the annexation of the hills area, Fruitvale, Melrose, Elmhurst, and the area south to San Leandro. With those additions, the city's area increased from 22.9 to 60.25 square miles. The city experienced a surge of commercial and civic development in the downtown area after the earthquake, as well, including construction of a new city hall, which was the first in the United States designed as a skyscraper. In 1910, the City of Oakland assumed control of its waterfront, which previously had been held by private entities. The change of ownership prompted the expansion of the Port of Oakland.[16] During World War I, Oakland's shipyards provided a "fleet of steel and concrete ships that…within the short space of a year put the Oakland estuary in the national limelight."[17] By 1918, at least 50,000 people were employed by the shipyards.

The 1920s saw continuing prosperity in Oakland.[18] Civic works abounded, including the installation of a new lighting system and procurement of land for an airport. Development slowed during the Great Depression, but Oakland grew into a major shipbuilding center during World War II.[19] The city's population expanded with wartime workers, including many African Americans who migrated from the southern states seeking employment. The Bay Bridge, which opened in 1936, eased the commute between Oakland and San Francisco. In 1945, the city's population was 405,301.

The post-World War II emphasis on the automobile led to increased suburban development and new freeways to reach outlying areas.[20] While freeway construction and redevelopment enticed some businesses and residents away from the city center, in many cases businesses and residents were forced to relocate as the historic commercial and residential fabric of downtown and West Oakland was replaced and disconnected by growing freeway systems. Increased economic and racial segregation were byproducts of this transportation and suburban development pattern, and through the 1960s and 1970s Oakland experienced infrastructure decline associated with entrenched poverty, deindustrialization, and a weak urban tax base.[21]

A tight real estate market in San Francisco in the early 1980s sparked new development and preservation projects in Oakland, especially downtown.[22] Homebuyers began seriously considering Oakland neighborhoods, many of which retained strong local character.[23] The 1989 Loma Prieta earthquake damaged many of Oakland's older building stock, but the city's population has remained

[16] City of Oakland, Historic Preservation Element, 1-7.
[17] Florence B. Crocker, *Who Made Oakland?* (Oakland, CA: Clyde Dalton, 1925), quoted in Rather, *Oakland's Image: A History of Oakland, California*, 87.
[18] Rather, *Oakland's Image: A History of Oakland, California*, 89.
[19] City of Oakland, Historic Preservation Element, 1-9.
[20] City of Oakland, Historic Preservation Element, 1-9.
[21] Robert O. Self, *American Babylon: Race and the Struggle for Postwar Oakland* (Princeton, NJ: Princeton University Press, 2003).
[22] Bagwell, *Oakland, The Story of a City*, 260-262.
[23] Bagwell, *Oakland, The Story of a City*, 263.

relatively steady throughout the 1990s, 2000s, and 2010s and was estimated to be approximately 433,000 in 2019.[24]

Industrial Development along the Oakland Estuary

Industrial development of Oakland's waterfront began in the mid nineteenth century, reaching in these early years to the Brooklyn Basin inner harbor area. Proximity to water transportation attracted both industry and land transportation networks to the city's port, with the transcontinental railroad reaching the city – its land terminus - in 1869. This, in turn, spurred industrial, commercial, and residential development of the surrounding areas, including the lands bordering the estuary.[25] Dredging projects through the second half of the nineteenth century sought to open the estuary and channel to water traffic, with the land connection between Oakland and Alameda, now an island, severed in the 1890s. The Pacific States Refinery was established on the location of the subject property in 1902.[26] By 1912, when the plant was included in the Sanborn Map Company fire insurance maps for Oakland, the facility was an oil refinery with buildings and tanks serving asphalt production and a lubricating plant **(Figure 54)**.[27] Much of the plant was destroyed by a fire in December 1913, in which a "receiving tank containing 10,000 barrels of oil, two tanks of benzine containing 25,000 gallons each, and several smaller tanks of gasoline and oil products ignited simultaneously."[28]

Other industrial development in the vicinity of the subject property in the second decade of the twentieth century included the construction of chemical manufacturing plants in what was previously a residential area bordering the northeastern side of the tidal canal. In the first two decades of the twentieth century, the Leona Chemical Company (which produced sulfuric acid) and the Electro-Alkaline Company (later the Clorox Chemical Company, one of Owens-Illinois' most important clients) operated a little less than half a mile to the southeast of the project area near High Street.[29]

[24] United States Census Bureau, Quick Facts: Oakland city, California. Electronic resource at https://www.census.gov/quickfacts/oaklandcitycalifornia, accessed December 8, 2021.
[25] Community Design + Architecture, Inc., *Oakland Central Estuary – Existing Conditions Report* (Oakland: Prepared for the City of Oakland, 2009), 18.
[26] "Oil Refinery at Fruitvale," *Oakland Tribune*, December 22, 1902, 3
[27] Sanborn Map Company. Insurance Maps of Oakland, California, Volume 5, Sheet 539, 1912.
[28] "Motor Engine Spark Starts $250,000 Fire," *San Francisco Examiner*, December 18, 1913, 6.
[29] "Commercial Paragraphs," *Mining and Scientific Press*, February 25, 1911, 316; Mark Walker, Thad Van Bueren, Dana Ogo Shew, Michael D. Meyer, Adrian Praetzellis, and Mary Praetzellis, *Nearly Neighbors: Archaeological Investigations for the High Street Seismic Retrofit Project in Oakland, California* (Rohnert Park: Anthropological Studies Center, Sonoma State University, 2012), 22.

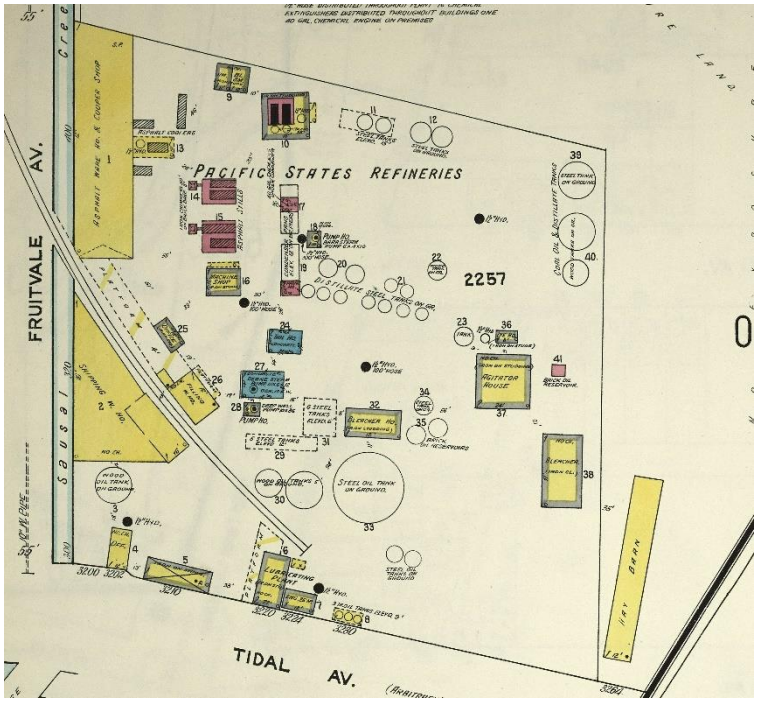

Figure 54. Detail of the Sanborn Map Company's 1912 map of Oakland, Sheet 539, showing the Pacific States Refineries at the subject site. Source: HIG Fire Insurance Maps Online through the San Francisco Public Library.

Nearby Areas of Primary Importance (APIs), Areas of Secondary Importance (ASIs), and Potential Designated Historic Properties (PDHPs) reflect industrial development in the vicinity of Owens-Illinois Plant 20 in the early decades of the twentieth century. Sixteen nearby industrial resources, including complexes and individual buildings, have been identified as either designated or potential historic properties by the City of Oakland. These locations are depicted on **Figure 55,** and include the following: [30]

1. 57th Avenue Industrial District, API, 1930s
2. Continental Can Company at 5601-6201 San Leandro Street, ASI, ca. 1929
3. Melrose Lumber, 46th and Melrose Avenues, ASI, 1920s
4. Vulcan Foundry, 4321 and 4401 San Leandro Street, ASI, 1924-1930
5. California Cotton Mills, 1000 22nd Street, ASI, ca. 1888-1901
6. Metal shops, 812, 826, and 848 49th Avenue, PDHP, 1920s
7. The Best Brush Co., Inc., 4926 East 12th Street, PDHP, 1920

[30] City of Oakland, ITD, Planning and Zoning Map. Accessed at http://oakgis.maps.arcgis.com/apps/webappviewer/index.html?id=3676148ea4924fc7b75e7350903c7224, December 8, 2021; Business names are from 1925 and 1950 Sanborn Map Company Insurance Maps of Oakland, California, Volume 5.

8. Westgate Metal Products,1066 47th Avenue, PDHP, 1923
9. National Lead Co. of California, 4701 San Leandro Street, PDHP, 1919
10. Bell Cleaning and Dyeing Co., 752 High Street, PDHP, ca. 1920
11. Clorox Chemical Corporation, 850 42nd Avenue, PDHP, ca. 1924-1925[31]
12. Atlas Imperia Diesel Engine Co., 400 Derby Avenue, PDHP, 1910s
13. Gilro Machine & Stamping Co., 2915 Ford Street, PDHP, 1910s
14. Halstead Products Co., 2912 Ford Street, PDHP, 1920s
15. Rhodes & Jamieson Ltd., 333 23rd Avenue, PDHP, 1920s
16. West Coast Wharf & Storage Co. / Ralston Purina Co., 2201 East 7th Street, PDHP, 1920

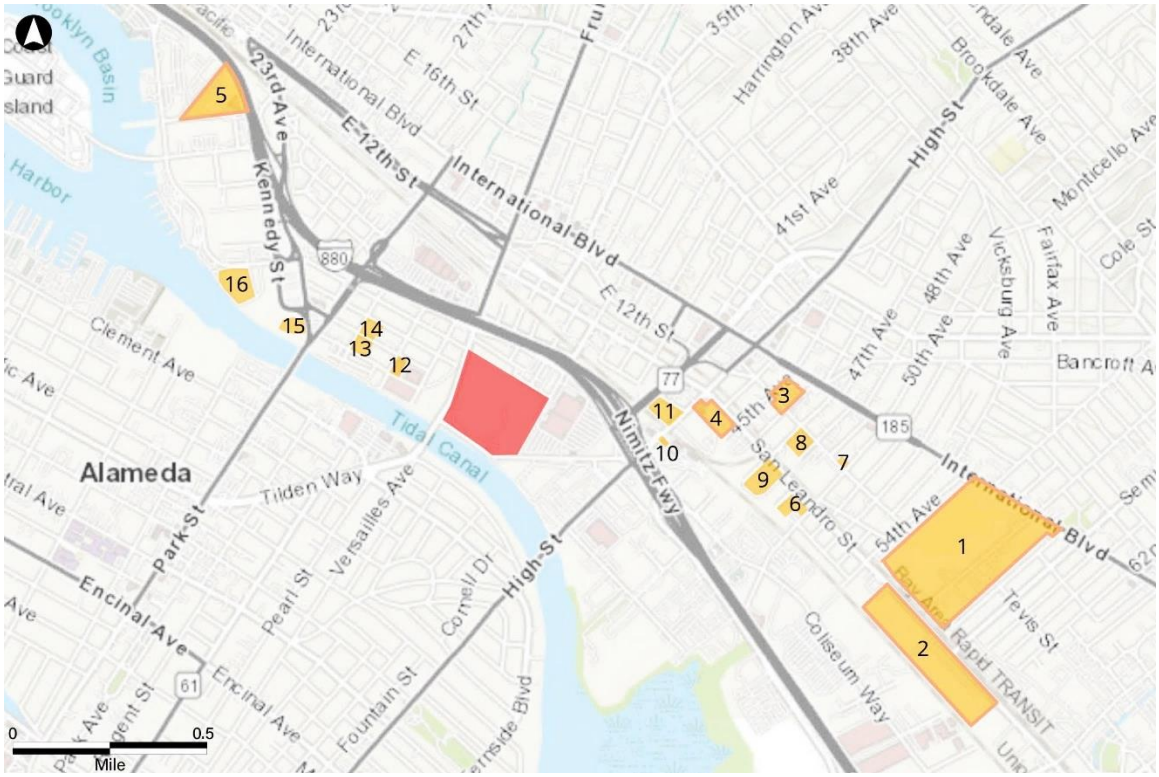

Figure 55. Industrial APIs, ASIs, and PDHPs (shaded yellow) in the vicinity of Owens-Illinois Plant 20 (shaded red). Base map ESRI 2021, edited by Page & Turnbull.

Owens-Illinois Glass Company Plant 20

The Owens-Illinois Glass Company incorporated officially in 1931 following a series of mergers including the Illinois Glass Co. (incorporated in 1873), the Toledo Glass Co. (incorporated in 1896), the Owens Bottle Machine Co. (incorporated in 1903) and others, marshalling the technical

[31] R.L. Polk & Co., *Polk's Oakland City Directory* (San Francisco: R.L. Polk & Co., 1937), 1253.

capabilities of the Owens Automatic Bottle Machine to create one of the largest glass container manufacturing companies in the world.[32] At the time Plant 20 was constructed, the Owens-Illinois Pacific Coast Company was a subsidiary to the larger Owens-Illinois Glass Company along with the Owens-Illinois Closure Company (which made glass container caps and closures), Owens-Illinois Can Company (which made metal containers), and the Libbey Glass Company (which made glass tableware).[33] Plant 20 was built to replace two factories in San Francisco that dated to earlier Illinois-Pacific Glass Co. operations, taken over by Owens-Illinois after merger with the Illinois-Pacific Coast Company in 1932.[34]

Negotiations to establish an Owens-Illinois glass plant in the East Bay were part of public discourse as early as 1931, when the company announced plans to open their facility on a 14-acre parcel in Alameda described as within "the Cohen tract bordering the estuary between Fruitvale Avenue and High Street." This location was selected as the preferred option to other sites explored in Emeryville and East Oakland.[35] Industrial use of the tract required an ordinance rezoning a previously residential area for industrial use. Alameda's rezoning ordinance, passed in 1931, stipulated that construction was to begin within six months, or the parcel's zoning classification would revert to residential, and the company would be unable to re-file the application. By the summer of 1932, the Owens-Illinois company had failed to begin construction on the rezoned Alameda site south of the estuary, and plans for a larger than previously anticipated factory had gained the attention the Alameda Homes Protective League, a group of worried neighboring homeowners.[36]

Reorientation of the planned factory to the north side of the canal, on a 22-acre parcel at the current Oakland location (rather than in Alameda) revived the project in the public eye when the Owens-Illinois Glass Company purchased a 22-acre parcel at the subject site in the fall of 1935.[37] At the time construction commenced, the Oakland Chamber of Commerce estimated that the plant would provide more than 1,000 jobs, would cost $2 million to build, and would be "the first on the Pacific Coast constructed entirely of glass bricks" **(Figure 56)**.[38] A more detailed description of the planned exterior described the buildings as follows: "The exterior of the concrete and steel construction will

[32] Bill Lockhart and Russ Hoenig, "The Bewildering Array of Owens-Illinois Glass Co. Logos and Codes." (Society for Historical Archaeology, 2015), 2. Electronic resource at https://sha.org/bottle/pdffiles/OwensIll_BLockhart.pdf, accessed December 8, 2021.
[33] "New Plant Here to Cost 2 Millions," *Oakland Tribune*, March 18, 1936, p. 1, 4.
[34] Bill Lockhart, Russ Hoenig, Beau Schriever, Bill Lindsey, and Carol Serr, "Owens-Illinois Glass Co., Part 1 – History." (Society for Historical Archaeology, 2018), 279. Electronic resource at https://sha.org/bottle/pdffiles/OwensIllinois2018Part1.pdf, accessed December 8, 2021.
[35] "Official Choice of Alameda Site for Glass Plant Awaited," *Oakland Tribune*, April 3, 1931, C37.
[36] "Project is Changed," *Oakland Tribune*, June 8, 1932, 1.
[37] "Owens-Illinois Glass Co. Purchases 22 Acres Here as Site for Establishment," *Oakland Tribune*, September 28, 1935, 1.
[38] "New Plant Here to Cost 2 Millions," *Oakland Tribune*, March 18, 1936, p. 1, 4.

be of brick and glass building blocks manufactured by the Owens-Illinois Company, which admit the maximum of diffused light. Many of the interior partitions will also be constructed of glass blocks."[39]

The company's annual report from 1936 noted that construction of the plant, as well as another in Los Angeles, made use of Owens-Illinois' own "Insulux" glass blocks.[40] Developed as a building material in the early 1930s and in widespread use both in Owens-Illinois' own network of plants and those of their clients, these blocks offered strength and insulation in addition to light transmittal in modern building designs (**Figure 57**).[41] The June 1938 issue of *The Architect & Engineer* lauded the modern equipment systems and interior design of the new Building 1: "The attractive and useful combination of glass blocks and terra cotta wall units is exemplified in these interiors which express the most up-to-date manner for industrial installation."[42] Plant 20 would also utilize the company's glass wool insulation and glass dust filters in maintaining optimal working conditions.

Figure 56. Pre-Construction Sketch of Planned Owens-Illinois Plant in Oakland.
Source: *Oakland Tribune*, March 18, 1936.

[39] "New Plant Here to Cost 2 Millions," *Oakland Tribune*, March 18, 1936, p. 1, 4.
[40] Lockhart et al., "Owens-Illinois History," 278.
[41] Ward M. Canaday Center for Special Collections, "Time in a Bottle: A History of Owens, Illinois, Inc." Electronic resource at http://www.utoledo.edu/library/canaday/exhibits/oi/OIExhibit/MainPage.htm, accessed December 8, 2021.
[42] "New Note in Industrial Building Design." *The Architect & Engineer*, June 1938, 25.

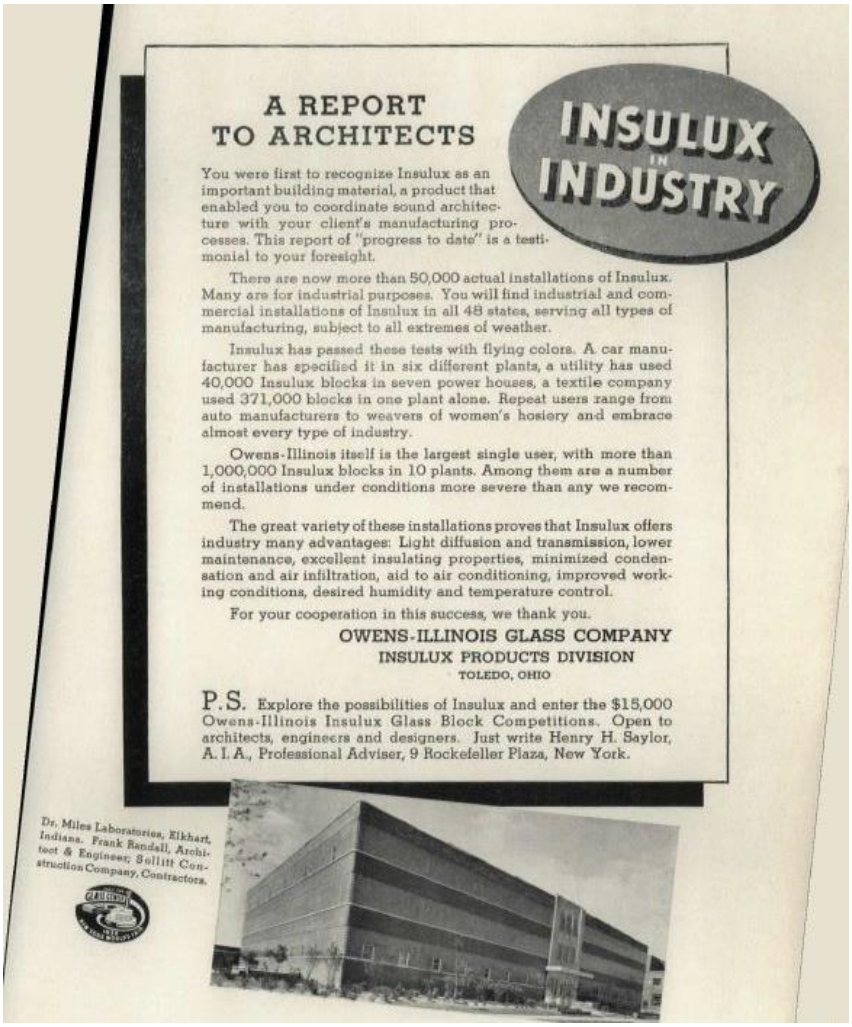

Figure 57. Advertisement for the industrial use of Insulux glass blocks, *Pencil Points,* June 1939.

While using Owens-Illinois' architectural and structural products in its design, the purpose of Plant 20 was to produce glass containers and corrugated paper shipping cases. The first container reportedly produced by Plant 20 in 1937 was a "32-ounce amber Clorox bottle."[43] Over the following decades, one of the most important bottle types produced by the plant was the "Duraglas" line, a formula with improved strength to allow use of less overall glass (to increase profitability) introduced by the company in 1940.[44] Archaeological deposits recovered from domestic contexts less than a half mile southeast of Plant 20, studied by the Sonoma State University Anthropological Studies Center in 2012, contained colorless and brown glass bottles, some from Clorox products and some bearing the "Duraglas" brand, produced by Plant 20 between 1938 and 1941, as well as

[43] Lockhart et al., "Owens-Illinois History," 278.
[44] Lockhart and Hoenig, "Owens-Illinois Logos and Codes," 9.

Owens-Illinois bottles produced through the 1920s and 1930s by the company's factories in Alton, Illinois; Charleston and Clarksburg, West Virginia; Los Angeles, California; San Francisco, California; Bridgeton, New Jersey; and Toledo, Ohio.[45] When it began production, Plant 20 provided a local source of containers for companies whose distribution networks already reached into the Bay Area. At the time the Owens-Illinois plant opened in Oakland, the Hazel Atlas Glass Company plant at 89th Avenue and G Street had been in operation for just under a decade.

Plant 20's operation during World War II is among the best documented phases of the facility's history aside from the years of its initial construction. The company took its position as an industrial role model seriously during the war years, publishing a full-page advertisement in a January 1942 issue of the *Oakland Tribune* to state its commitment to wartime manufacturing and to honor Bay Area Owens-Illinois men serving in the Armed Forces. Touting its strategic location for western distribution, the advertisement claimed that the plant produced more than 245 million Duraglas containers in 1941.[46] Employees at the plant participated in Red Cross blood drives, in which the organization's mobile donation unit visited Plant 20 to collect blood for use overseas.[47] In 1943, the Owens-Illinois Pacific Coast Company published an advertisement sharing its pride in the award of the "Army-Navy 'E'" to workers at the Central Mold Shop at Plant 20 (**Figure 58**).[48] This award was given to companies who achieved "excellence" in production of war equipment. In the case of Plant 20, the mold shop took on contracts to produce Navy ordnance.

Of the necessity to bring women into the work force, "Ray Mulford, who later became a Company CEO, often told how effectively women performed as foremen when, for the first time ever, they were trained for such supervisory positions in the O-I Oakland, California, plant he managed during the war years."[49] Advertisements in 1942-1945 issues of the *Oakland Tribune* called for women to apply for work in the "permanent, essential" industry (**Figure 59 and Figure 60**). Plant 20's newsletter, *The Onewser*, reported improvements to women's facilities in the factory, and about their success in jobs previously held exclusively by men **(Figure 61 through Figure 63)** from 1946 suggest that women continued to work at the plant even after the war ended. Equity in employment was not a long-term company priority, however, as in 1985 the Oakland plant lost a class action settlement alleging discriminatory "job placement, promotions, firings and treatment on the job" of African American employees and women working at the facility.[50]

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[45] Mark Walker, Thad Van Bueren, Dana Ogo Shew, Michael D. Meyer, Adrian Praetzellis, and Mary Praetzellis, *Nearly Neighbors: Archaeological Investigations for the High Street Seismic Retrofit Project in Oakland, California* (Rohnert Park: Anthropological Studies Center, Sonoma State University, 2012).
[46] Advertisement for Owens-Illinois Company, *Oakland Tribune*, January 12, 1942, 12.
[47] "Actress Presents Donor Pins to Oakland Plasma Givers," *Oakland Tribune*, July 10, 1943.
[48] Advertisement for Owens-Illinois Company, *San Francisco Examiner*, September 29, 1943, 13.
[49] Paquette, Jack K., *The Glassmakers, Revisited: A History of Owens-Illinois, Inc.*, revised edition. (Toledo, OH: Xlibris, 2011), 67.
[50] "Owens-Illinois Will Pay New Hiring Bias Claims," *Oakland Tribune*, November 16, 1985.

Figure 58. Advertisement Announcing Owens-Illinois' Plant 20's "Army-Navy E" Award. Source: *San Francisco Examiner*, September 29, 1943.

Figure 59. Employment Advertisement, *Oakland Tribune*, December 31, 1942.

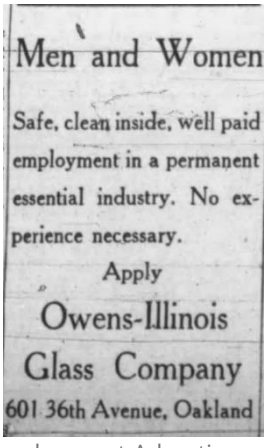


Figure 60. Employment Advertisement, *Oakland Tribune*, October 23, 1943.

Ladies' Lounge Remodeled

Remodeled and enlarged, the Ladies' Lounge in the Administration Building was in use last week. Above, left to right, Thelma Wheling, Emily Dezzani, Jane Voigt, Nina Lockhart, Beverley Haines and Louise Jacobson enjoy their rest period in the "new" room.

Figure 61. Women employees' lounge improvements in Building 1, *The Onewser*, Volume II, Number 2, January 14, 1942.

New Lounge Is Completed

Brightly decorated with gay furniture and fresh white paint, the new Ladies' Lounge in Design Control, is fully enjoyed by feminine Onlzers from that Department. Relaxing during a rest period there, are Wanda Skovmand, Anne Hodges, Betty Jones, Fay Baumgarten, and "Zimmy" Zimmerman.

Figure 62. New lounge for women employees, *The Onewser*, Volume II, Number 2, January 21, 1942.

Home Front: Edna Mathisen, of Mold Repair, is another of the many women of Plant 20 who are doing men's work in this war emergency. She repairs Miller blanks, a job formerly done by men only, thus relieving another man for the fighting fronts.

Figure 63. Wartime women workers, *The Onewser*, Volume II, Number 23, June 9, 1942.

Advertisements for employment at the plant regularly assured applicants of the safety of the work, but as with any industrial facility, the work was not without hazards. The plant's newsletter, *The*

Onewser, regularly featured safety instructions, incidents, and "dos and don'ts" as acted out in photographs by plant employees. In 1947, 61-year-old employee Juan B. Rodriguez was crushed to death after falling onto a conveyer belt in the sand elevator pit.[51] A fire caused by a spark igniting "oily soot" buildup in the factory's roof vents caused up to $10,000 damage to the building in 1949.[52] Two years later, another fire in the factory's ventilation system drew a force of 50 firefighters who helped avoid extensive losses.[53]

In 1988, Owens-Illinois purchased Brockway, Inc., and was renamed Owens-Brockway.[54] The plant continued in operation, and included facilities for glass recycling, until its closure in 2015.

V. SITE HISTORY

Plant 20 Construction Chronology

The land occupied by Plant 20 is an irregularly shaped 27-acre parcel northeast of the intersection of Fruitvale and Alameda avenues in Oakland, overlooking the tidal canal between Oakland and the island of Alameda to the south. The photographs on the following pages and Table 1 reflect numbers assigned to each building during Plant 20's years of operation. Dates of construction were determined based on permit records, historic newspaper articles, historic aerial photos and maps, and drawings housed at the subject property.

Construction of Plant 20 began in 1936 with a complex of factory, office, and warehouse buildings **(Figure 64 through Figure 75)**. The design of Plant 20 reflected a combination of utilitarian structures (particularly the warehouse buildings and Batch Plant) with aesthetically cohesive brick and glass block façades of more publicly visible buildings such as the Administration Building (Building 1), central mold shop and machine shop (Building 33, demolished 1985), Compressor Building (Building 6), and eastern façades of factory and shipping buildings (Buildings 8 and 12). The initial construction cost of the Batch Plant (Building 7) was $62,000, and for three of the total of five concrete chimneys was $5,290.[55] A "two-story concrete glass factory" (Building 8) and "one-story brick and concrete shop building" (Building 33, not extant) were permitted in 1936 with an estimated cost of $545,000, as well as an "outbuilding and auxiliary buildings" estimated to cost $47,000.[56] Early in 1937, the company applied for permits to construct the brick office (Building 1) at a cost of

[51] "Conveyer Crushes Worker to Death," *San Francisco* Examiner, September 8, 1947; "Man Crushed to Death by Conveyer Belt," *Oakland Tribune*, September 8, 1947, 2.
[52] "Flash Fire in Oakland," *San Francisco Examiner*, April 11, 1949, 22.
[53] "Glass Plant Fire Quickly Quenched," *Oakland Tribune*, November 5, 1951, 10.
[54] Lockhart and Hoenig, "Owens-Illinois Logos and Codes," 3.
[55] "Span Building Permits Issued," *Oakland Tribune*, June 12, 1936, 6D.
[56] "Building in June Up to $1,916,863," *Oakland Tribune*, July 2, 1936, 1.

$52,000.[57] A permit was issued to build a cafeteria at the cost of $10,000 in July 1937 (Building 2, not extant), and a one-story butane mixing plant (Building 19) at a cost of $5,000 in December 1937.[58] Drawings for the design and construction of all original buildings, with the exception of Building 7, the Batch Plant, are retained at the City of Oakland Planning and Building Department.

Buildings remaining from the initial period of construction include Building 1 (Office), Building 6 (Compressor Building), Building 7 (Batch Plant), Building 8 (Factory), Building 9 (Factory), Building 10 (Factory), Building 11 (Warehouse), Building 12 (Factory/Office/Warehouse), Building 13 (Rolled Paper Storage), Building 19 (Butane Mixing Plant), and Building 29 (Warehouse).

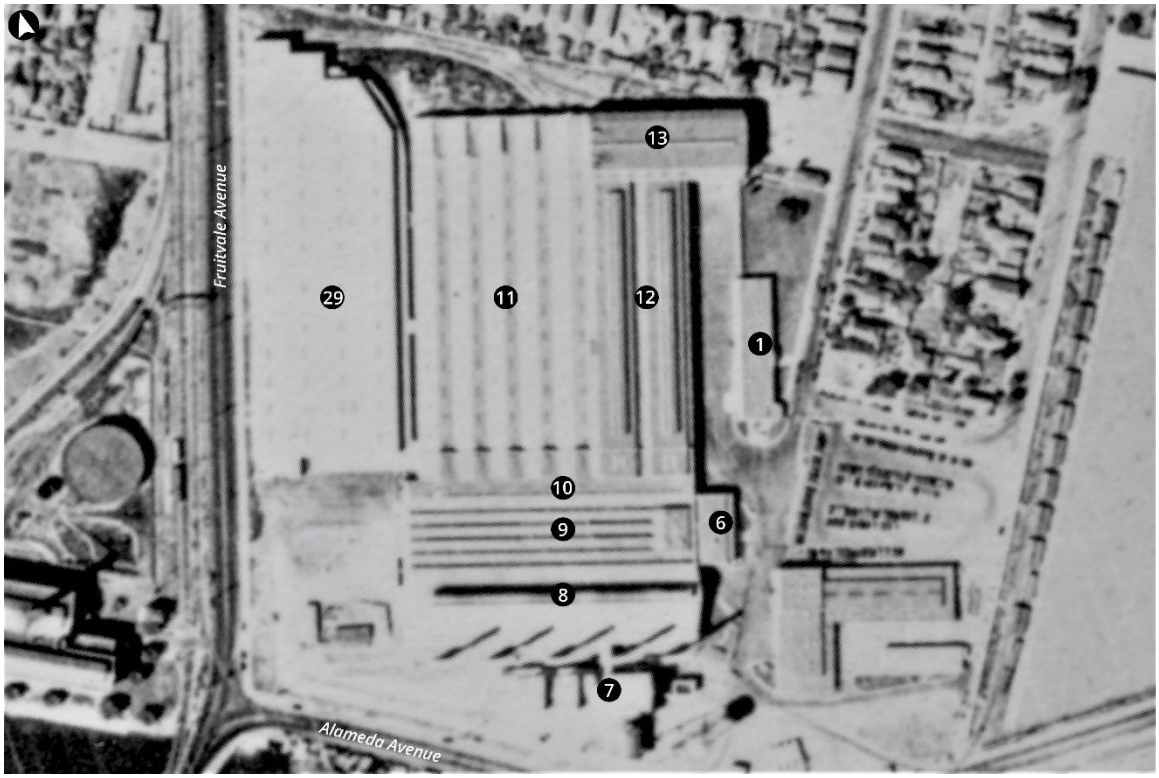


Figure 64. Aerial photograph of Plant 20, 1939. Source: Fairchild Aerial Surveys, Flight C-5750, Frame 289-61, Collection of U.C. Santa Barbara Library, edited by Page & Turnbull.

[57] "Building Permits $314,491 in 10 Days," *Oakland Tribune*, February 26, 1937.
[58] "Year Records Building Gain," *Oakland Tribune*, July 4, 1937; "Building Permits Here Are $269,967," *Oakland Tribune*, December 18, 1937.

Figure 65. Construction of smokestacks, October 1936. Photo in collection of Oakland History Center, Oakland Public Library.

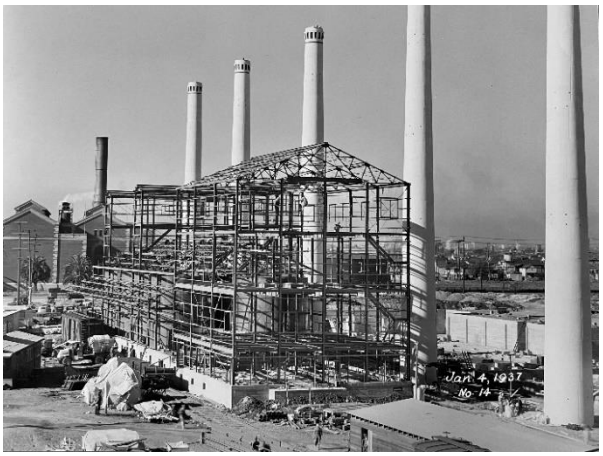


Figure 66. Construction of Building 7, January 1937. Photo in collection of Oakland History Center, Oakland Public Library. The brick building in the background at left is the Southern Pacific Co. powerhouse, demolished between 1950 and 1952.

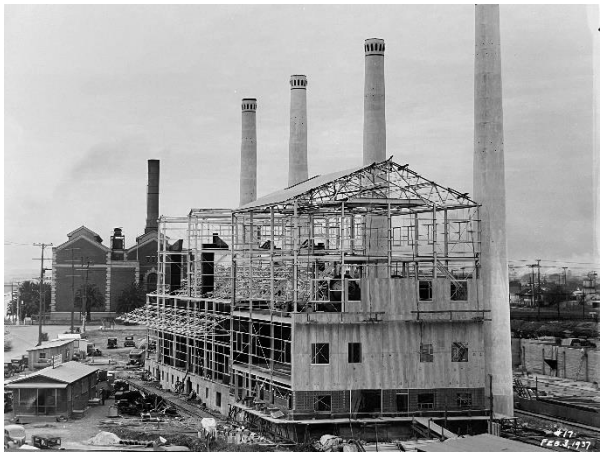


Figure 67. Construction of Building 7, February 1937. Photo in collection of Oakland History Center, Oakland Public Library.

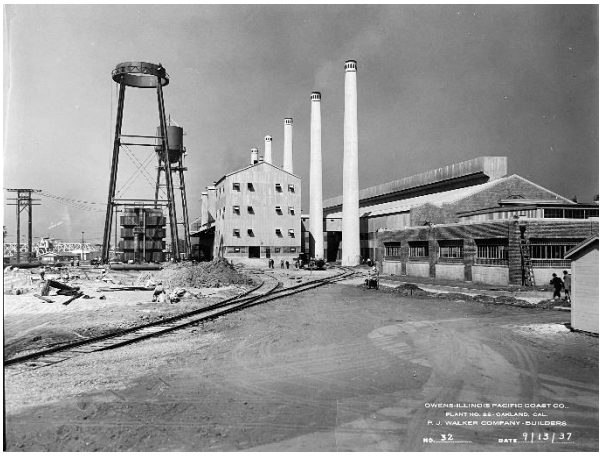


Figure 68. Completed Buildings, 7, 8, and 33, September 1937. Photo in collection of Oakland History Center, Oakland Public Library.

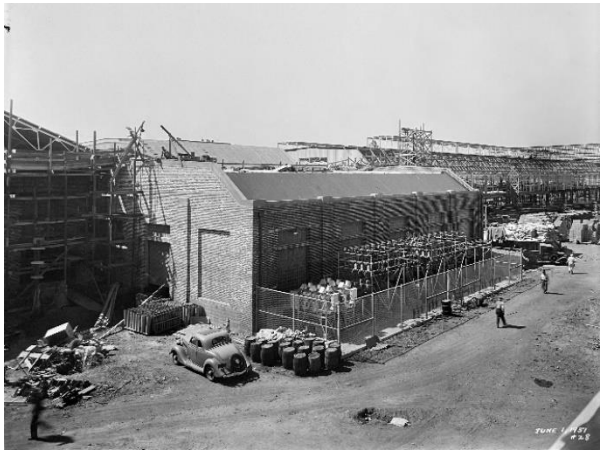


Figure 69. Completed Building 6 (at center), Buildings 8 and 12 under construction, June 1937. Photo in collection of Oakland History Center, Oakland Public Library.

Figure 70. Construction of Building 33, November 1936. Photo in collection of Oakland History Center, Oakland Public Library.

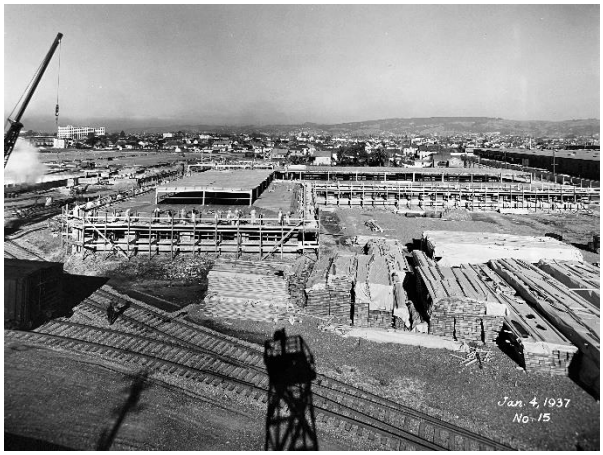


Figure 71. Construction of Building 33, January 1937. Photo in collection of Oakland History Center, Oakland Public Library.

Figure 72. Construction of Building 33, February 1937. Photo in collection of Oakland History Center, Oakland Public Library.

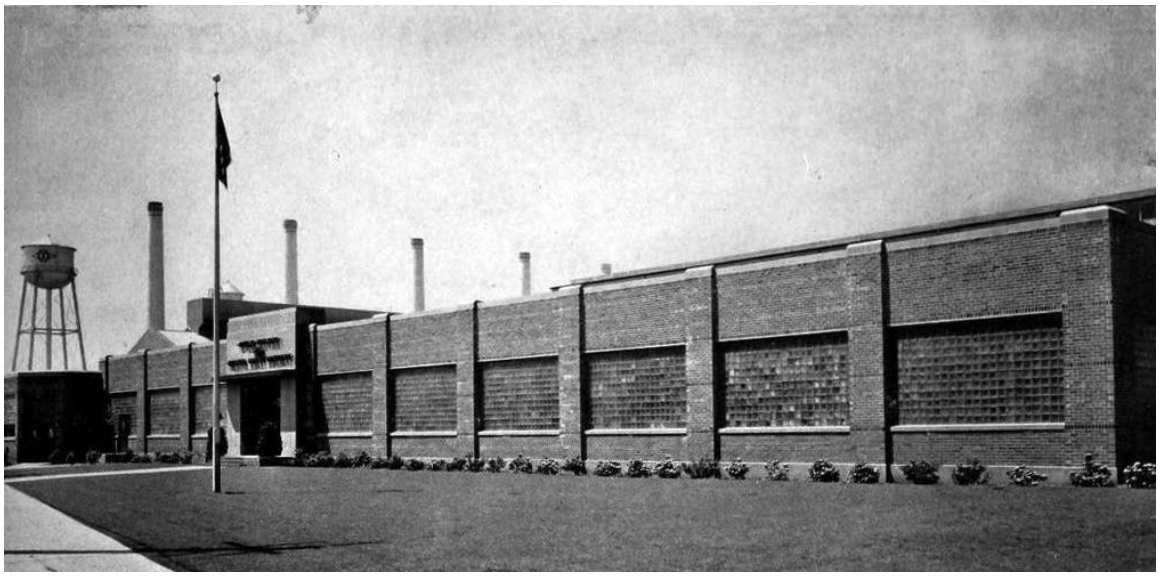


Figure 73. View of the recently completed Administration Building, Building 1, in 1938. Looking southwest across the east façade, which is currently incorporated into the west wall of Building 44. Source: *The Architect & Engineer*, June 1938, 25.

Figure 74. Interior view of the recently completed Administration Building, Building 1, taken in 1938. Source: *The Architect & Engineer*, June 1938, 2.

Figure 75. Interior view of entrance lobby at the recently completed Administration Building, Building 1, taken in 1938. Source: *The Architect & Engineer*, June 1938, 25.

While construction continued on the factory, the Southern Pacific Railroad constructed improvements to its culvert structure over Sausal Creek, which runs belowground northwest of the plant, and constructed pavement approaches along Fruitvale Avenue.[59]

Appendix B lists permit records on file with the City of Oakland Planning & Building Department. Permitted alterations and expansion at Plant 20 began in 1942 with the construction of a women's restroom in a warehouse building to accommodate the needs of its wartime workforce. Exterior alterations for which permits were issued during the 1940s included the addition of nine rolling door openings at a warehouse building, construction of the angled, northern portion of Building 11, construction of a one-story refractory building to the west of Building 7, and the replacement of

[59] "Spur Track O.K.'d," *Oakland Tribune*, August 12, 1936, 5.

some Building 8 windows with galvanized louvers. Though the latter permit does not specify which windows were replaced under this permit, this may refer to the arched openings at the east façade of Building 8. Elevation drawings prepared by the Owens-Illinois company and dated June 15, 1936 in the collection of the City of Oakland Planning & Building department for construction of Building 66 indicate that the original design for the east façade of the factory, Building 8, included glass block and brick panels within the arched and rectangular openings, with a row of decorative cast iron grilles at the base of each opening **(Figure 76)**.[60] In addition to replacement of the original glass block and brick panels in the openings at the east façade of Building 8, the rectangular opening to the left (south) of the three central arched openings has been lengthened from its original dimension to reach the building's foundation, and the entrance at the right (north) of the façade has been widened to the edge of the northernmost arched opening **(Figure 77)**.[61]

The 1950 Sanborn Map Company insurance map for Plant 20 and an oblique aerial photograph published in the *Oakland Tribune* in 1952 show that these alterations were relatively minor with respect to the large scale of Plant 20; the overall layout of the facility changed little during the 1940s **(Figure 79 and Figure 78**). The building functions noted on the Sanborn map also provide a summary of the production processes at the site. Raw materials for glass production - lime, soda ash, sand, and cullet – were delivered via rail spurs and stored in the Batch House, Building 7, at the south end of the site. Bottle production by the Forming Department in Building 8, to the north of the Batch House, utilized five furnaces, and were supported by machine and mold repair shops in Building 9 to the north. Packaging in Building 10 utilized corrugated cartons assembled to the north in Building 11. Storage and shipping centered in Building 12.

[60] The name "Building 66" was used in permit documentation to refer to the combined factory and warehouse complex consisting of Buildings 6, 8, 9, 10, 11, 12, and 13.
[61] Owens-Illinois, Drawings for Permit No. A6304, construction of Building 66, June 15, 1936. In records of City of Oakland Planning & Building Department.

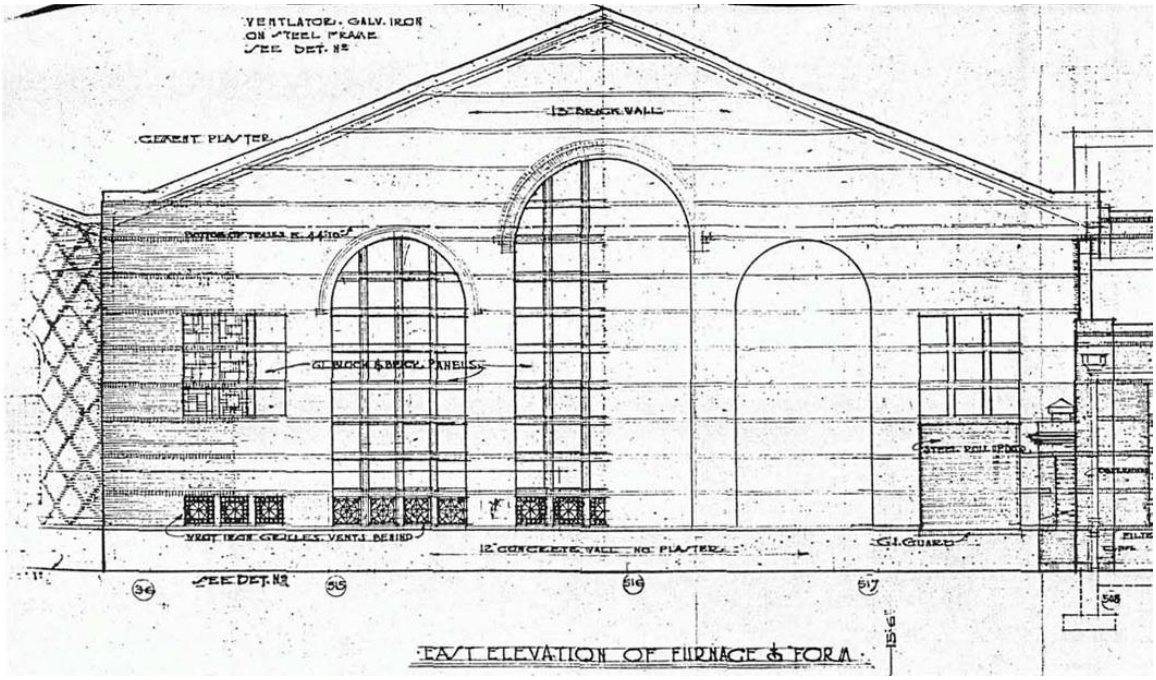


Figure 76. Detail of the 1936 design for Building 8's east façade, from Drawings for Permit No. A6304, for construction of Building 66, June 15, 1936. In records of City of Oakland Planning & Building Department. Excerpted from 1994 DPR 523 forms.

Figure 77. Current appearance of Building 8's east façade, view west.

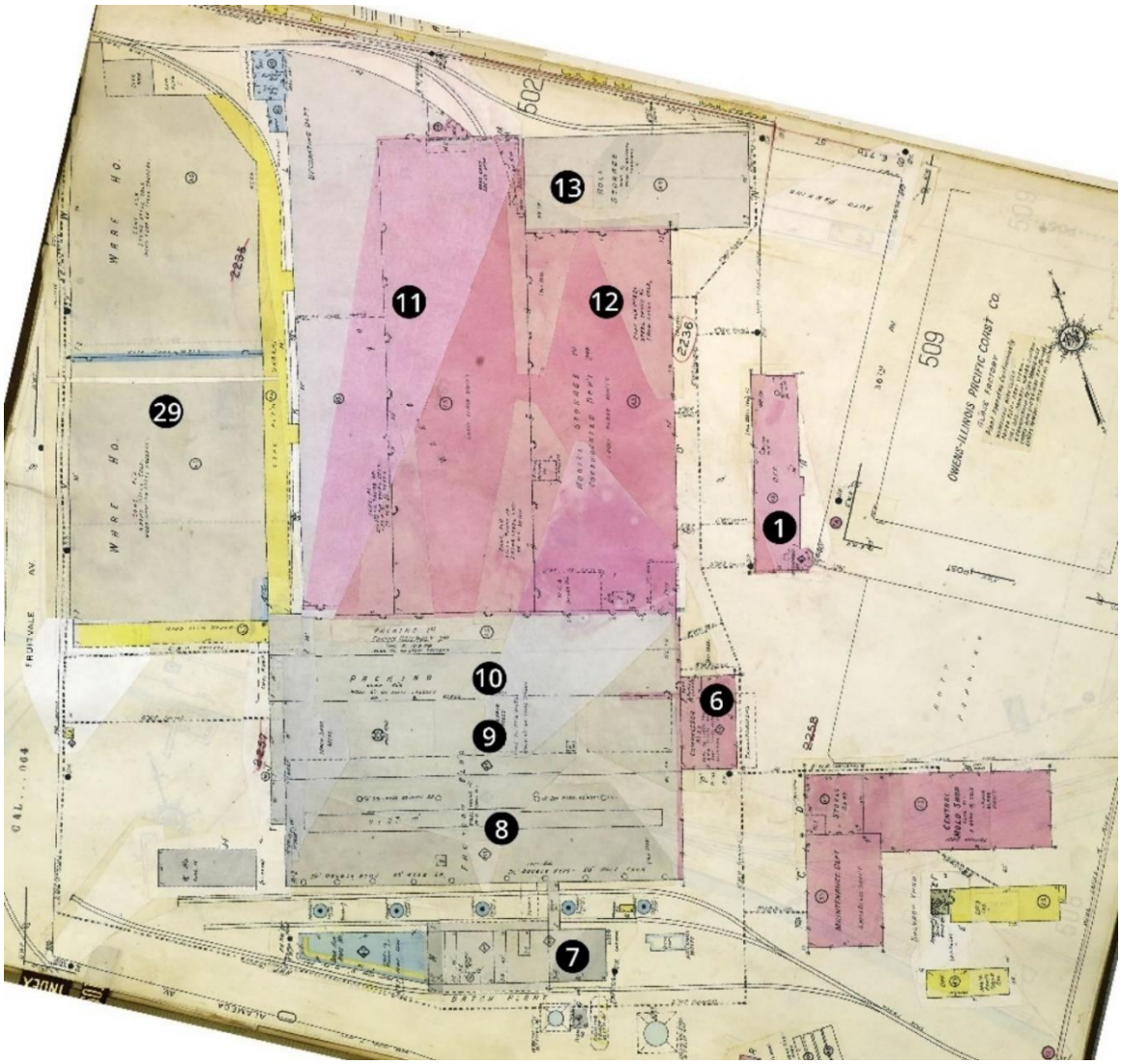


Figure 78. Detail of the Sanborn Map Company's 1950 map of Oakland, Volume 5, Sheet 501. Extant buildings are indicated by circled numbers. Source: HIG Fire Insurance Maps Online through the San Francisco Public Library

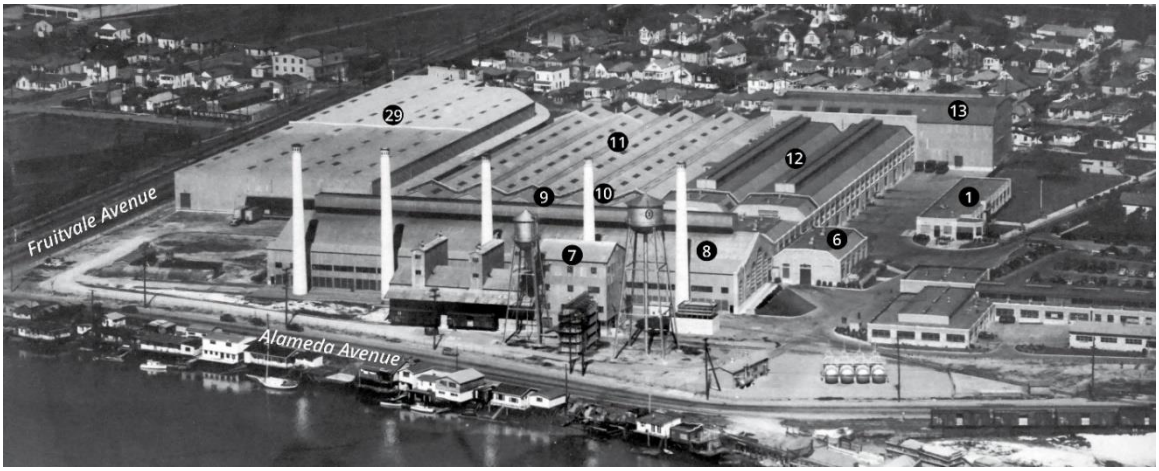


Figure 79. Oblique pre-1952 Aerial Photograph. Source: Collection of O-I, Oakland. Also published in Oakland Tribune, May 1, 1952. Edited by Page & Turnbull.

The first significant period of expansion at Plant 20 began in 1952, and included construction of the two-story, 100,000 square foot Building 41, which comprised a warehouse and loading dock with a ramp to the second story, permitted in 1952 with an estimated cost of $850,000 **(Figure 80)**.[62] The building would house "pallet loads of Duraglas bottles and jars in cases" closer to the manufacturing buildings than the facility could previously accommodate. This phase of construction significantly altered the appearance and entrance route of the plant. Prior to construction of Building 41, visitors to the plant could enter via 36th Avenue or Post Street, with automobile parking available beside Building 1 and the Central Mold Shop. Building 41 obstructed the 36th Avenue and Post Street entrances, and a cul-de-sac at the end of 37th Street was built adjacent to the remaining parking area north of the Central Mold Shop. Building 41 surrounded and obscured the northern portion of the Administration Building, Building 1.

The company continued to expand production capacity and warehouse space through additions and alterations to buildings at the site through the mid-1950s, with exterior alterations including construction of wood-frame additions to the office and a storage building, addition of a bay to the machine shop, and replacement of some glass block panels at Building 6, the Compressor Building, with louvered metal vents.[63]

[62] "Business in the Eastbay," *Oakland Tribune*, March 14, 1952, 50.
[63] "Alameda County Industry Shows Enormous Gain," *Oakland Tribune*, January 5, 1955, 30, 33.

Figure 80. Detail of the Sanborn Map Company's 1957 map of Oakland, Volume 5, Sheet 501. Extant buildings are indicated by circled numbers. New construction between 1950 and 1957 is shaded red. Source: HIG Fire Insurance Maps Online through the San Francisco Public Library

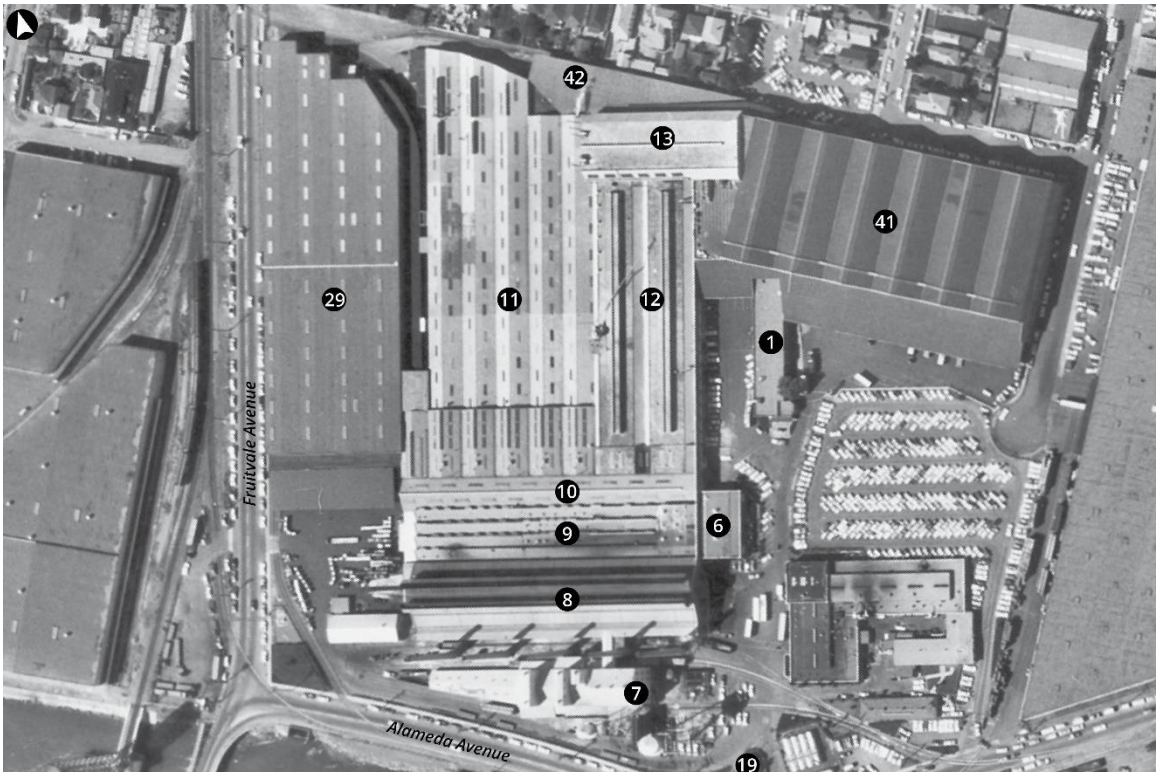


Figure 81. Aerial photograph of Plant 20, 1965. . Extant buildings are indicated by circled numbers. Source: Cartwright Aerial Surveys, Flight CAS-65-130, Frame 6-217. Collection of U.C. Santa Barbara Library, edited by Page & Turnbull.

The mold shop, whose workers were awarded with the "Army-Navy E" for wartime production in 1943, was demolished in 1985, along with its maintenance department wing and two other buildings, to make way for the current large warehouse complex that comprises Buildings 43 and 44. The east façade of these new warehouses accommodates the cul-de-sac added in response to circulation changes created by the construction of Building 41 **(Figure 82)**. The east façade of Building 1 was fully enclosed by the new Building 44. The former main entrance to the Administration Building, which was centered in the east façade, was removed. According to drawings on file at the City of Oakland Planning and Building Department, this entrance consisted of a wide rectangular surround and terrazzo flooring and revolving doors leading to a lobby, showroom, and sales offices. The current, non-historic main entrance to Building 1, roughly centered on the west façade, was likely added at this time. In addition, as part of the 1985 warehouse construction, glass block sections at the former exterior east and south façades of the Administration Building were filled with concrete masonry units to provide required fire protection, and the security watchhouse

at the southeast corner of the building was removed.[64] In addition to these documented changes, non-historic windows observed at the west façade of Building 12 appear to date to the 1980s period of construction at Plant 20.

Two of the facility's five smokestacks were demolished in 1999. The complex has remained unused since cessation of Owens-Illinois' manufacturing operations at the site in 2015.

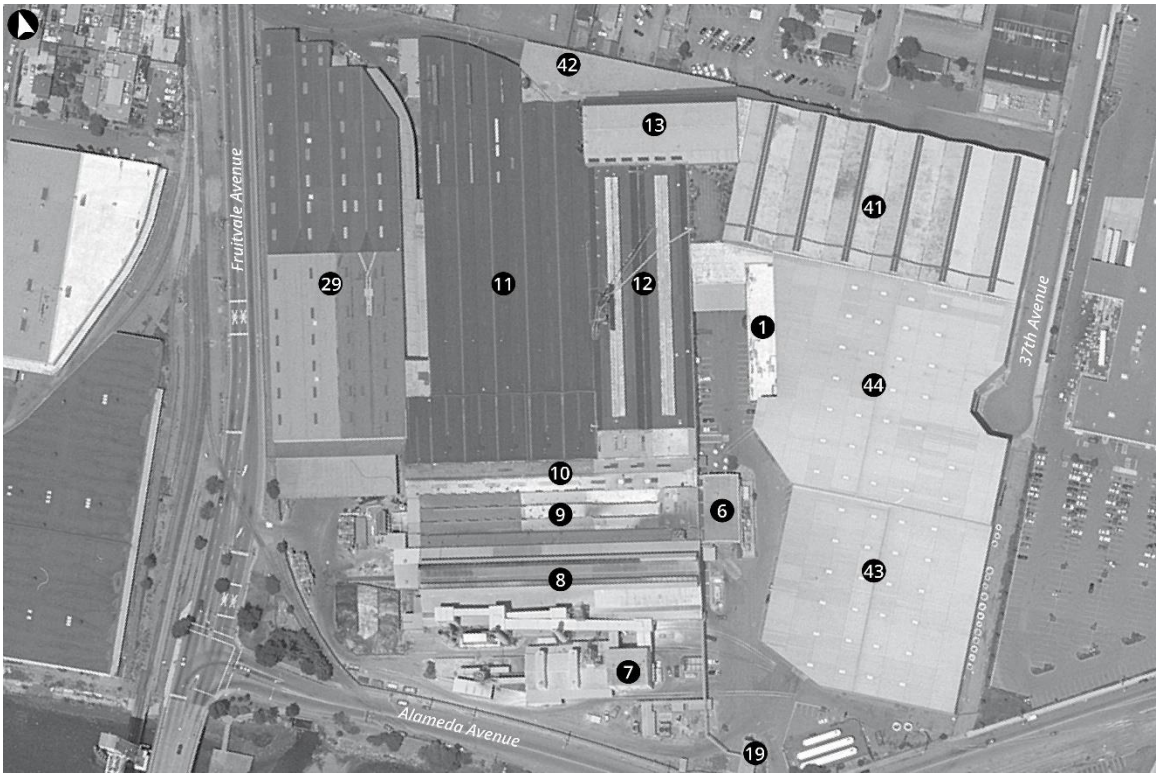


Figure 82. Aerial Photograph of Plant 20, taken 2000. Source: Hauts-Monts, Inc., Flight HM-2000-USA, Frame 1122-8. Collection of U.C. Santa Barbara Library, edited by Page & Turnbull.

Architects and Builders

The original, ca. 1936-1938 buildings at Plant 20 were designed under the direction of the Owens-Illinois Company's own Engineering Department, with local consultation by San Francisco engineers H.J. Brunnier (Building 29) and Kaj Theill (Buildings 1, 8, and 33), and construction by the P.J. Walker Company.

[64] Owens-Illinois, Kaj Theill (Structural Engineer), and P.D. Burtt (Engineer), Drawings for Permit No. A66202, construction of Building 1, January 12, 1937. In records of City of Oakland Planning & Building Department.

Engineer H.J. Brunnier began his career in San Francisco shortly after the 1906 earthquake and fires, and during the 1920s and 1930s served as engineer in the design and construction of many downtown San Francisco buildings, as well as the Durant Motor Company factory and Pacific Shredded Wheat Company buildings in Oakland, Standard Oil administration building in Richmond, and Owens-Illinois plant buildings in Los Angeles.[65] He often worked closely with noted architect George W. Kelham, and was widely respected during his career for his expertise and influence.[66]

Active through the 1930s and 1940s, structural engineer Kaj Theill contributed to the design and construction of numerous commercial and industrial buildings in the Bay Area. Documented examples include a Safeway store at 822 Geary Street (1941), a fertilizer factory at 1415 South 47th Street, Richmond (1946), a Best Foods office and warehouse at 1900 Bryant Street, San Francisco (1949), as well as wartime contracts for the U.S. Navy in Berkeley and Pittsburg.[67]

Founded around the turn of the 20th century by Percival John Walker (1875-1933), the San Francisco-based P.J. Walker Company was a prolific building contractor whose East Bay work, as reported in his and his son, P.J. Walker Jr.'s, obituaries, included the Hotel Oakland, several buildings on the University of California, Berkeley campus, the Chevrolet and Durant motor plants, the H.C. Capwell building, and the Bruener buildings. In San Francisco, the company's projects included the old Federal Reserve Bank, the Shell Oil building, the Clift Hotel, the Hills Brothers coffee plant, and the Bohemian Club. The firm also built the Stanford Library and the International House on the UC Berkeley campus."[68]

Throughout their years of operation, Plant 20 housed an Engineering Department and Blueprint Department to design and produce updated drawings for regular upgrades and additions to the facility. Alterations to the complex from the 1940s through the 1960s employed several different building contractors over the decades, including Christensen & Lyons, Monson Brothers, E.S. McKittrick Co., Ransome Co., and Robert Lilja.

[65] Michael R. Corbett, *Chevron Refinery – Historic Resource Evaluation, Standard Oil Administration Building, Richmond, California* (Berkeley: Prepared for Perkins + Will, 2012), 20-21.
[66] Michael R. Corbett, *Chevron Refinery*, 20-21.
[67] Michael R. Corbett and Anne Bloomfield, National Register of Historic Places Registration Form for the Uptown Ternderloin Historic District, San Francisco (Berkeley, 2008), Section 7, Page 41; "Working Drawings in Progress; C.P.A. Permit Granted," *Organized Labor*, Volume 47, Number 37, September 1946; "2 New Buildings for Best Foods," *Organized Labor*, Volume 50, Number 22, May 1949.
[68] "P.J. Walker, Builder, Dies," *Oakland Tribune*, November 3, 1933; "P.J. "Jack" Walker, Contractor," *San Francisco Examiner*, March 20, 1991.

VI. EVALUATION

Typically, evaluation of the historical significance and integrity of a group of buildings and structures for designation at state and local levels includes individual evaluation of each building as well as evaluation of the grouping for status as a historic district or cultural landscape. The interconnected nature of buildings at the subject property prevents a straightforward evaluation of each building as a separate historical and architectural entity, however. Designed to operate as an integrated production, packing, and shipping facility, many of the buildings at Plant 20 share one or more walls with other buildings, with the central factory and warehouse complex – referred to in some Owens-Illinois documents as "Building 66" – comprising the most tightly connected grouping including Buildings 6, 8, 9, 10, 11, 12, and 13. As the buildings at the subject property share a common historic context, Plant 20 is evaluated in this section as a potential historic district coterminous with the industrial complex. Individual buildings are identified as contributors or non-contributors.

California Register of Historical Resources

The California Register of Historical Resources (California Register) is an inventory of significant architectural, archaeological, and historical resources in the State of California. Resources can be listed in the California Register through a number of methods. State Historical Landmarks and National Register-listed properties are automatically listed in the California Register. Properties can also be nominated to the California Register by local governments, private organizations, or citizens. The evaluative criteria used by the California Register for determining eligibility are closely based on those developed by the National Park Service for the National Register of Historic Places.
In order for a property to be eligible for listing in the California Register, it must be found significant under one or more of the following criteria.

- **Criterion 1 (Events):** Resources that are associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.

- **Criterion 2 (Persons):** Resources that are associated with the lives of persons important to local, California, or national history.

- **Criterion 3 (Architecture):** Resources that embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of a master, or possess high artistic values.

- **Criterion 4 (Information Potential):** Resources or sites that have yielded or have the potential to yield information important to the prehistory or history of the local area, California, or the nation.

The following section examines the eligibility of the Owens-Illinois Pacific Coast Company's Plant 20 at 3600 Alameda Avenue for individual listing in the California Register.

CRITERION 1 (EVENTS)

The Owens-Illinois Pacific Coast Company's Plant 20 at 3600 Alameda Avenue, Oakland was constructed in 1936-1938 to expand the already large company's West Coast production capacity. It was not the first Owens-Illinois affiliated plant in the San Francisco Bay area, as the company had acquired the San Francisco operations of the Illinois-Pacific Glass Company – and this company's San Francisco glass factory, located on 15th Street between Folsom and Harrison Streets - through a merger in 1932. At the time of its completion, Plant 20 was part of the industrial development of blocks near the northeast bank of the Oakland Estuary. It was neither the first industrial operation on the parcel, as the Owens-Illinois factory post-dated the Pacific States Refinery, which operated at the site beginning in 1902, nor the first glass producer in Oakland, as the Hazel Atlas Glass Company factory opened in 1929 a few miles to the southeast. During Plant 20's operation, it enthusiastically participated in and was recognized for wartime production efforts. It was one among many Oakland manufacturers whose facilities supported military needs by recruiting women to its industrial workforce. However, it does not appear to have produced unique or historically significant items contributing to the war effort, or participated in a manner that distinguishes it from other Bay Area industries. The property is therefore not significant under Criterion 1.

CRITERION 2 (PERSONS)

Research has not identified any association of the subject property with the lives of persons significant to the history of Oakland, or the state or nation. Individual company managers associated with the Owens-Illinois Glass Company, such as Ray Mulford, who later became company president, contributed to daily operations at the plant, but did not distinguish themselves in Oakland's history in a way directly associated with this property. Noteworthy visitors from manufacturing industries and celebrities from the entertainment world periodically visited Plant 20 for educational and public relations purposes, but the subject property is not uniquely representative of the significance of any of these individuals. The property is therefore not significant under Criterion 2.

CRITERION 3 (DESIGN/ARCHITECTURE)

Research regarding the subject site identified 11 buildings of an estimated original 17 buildings and structures remaining from the initial period of plant construction between 1936 and 1938: Buildings,

1, 6, 7, 8, 9, 10, 11, 12,13,19, and 29, as well as three remaining of five smokestacks. The design of this group of buildings, as an industrial complex, incorporated distinctive architectural characteristics indicative of their design, materials, and period of construction. Lauded in a June 1938 issue of the trade magazine, *The Architect and Engineer*, the offices, factory, mechanical, and warehouse buildings (Buildings 1, 6, 7, 8, 9, and 12) were praised for their modern safety equipment as well as the use of glass block construction in concert with interior glazed terracotta Kraftile wall covering (produced in Niles, California). The glass block elements, developed in the early 1930s by the Owens-Illinois company with the product name "Insulux" were incorporated to great extent in both exterior façades and interior partitions in all five buildings. These examples of mid-1930s industrial architecture incorporated concrete, brick, and glass block to appeal to both functional and aesthetic needs. Contemporary publicity images of the plant highlighted Building 8's arched windows and towering smokestacks alongside the expansive, regular façades of Buildings 6, 12, and 33 (non-extant). Buildings 7, 10, 11, 13, 19, and 29, though more utilitarian in their design, supported the plant's early operations. In addition to their distinctive design, the development and construction of Owens-Illinois Plant 20 included contributions from noted engineer H.J. Brunnier and important Bay Area builder, the P.J. Walker Company. Though not the most architecturally impressive or innovative of either of these professionals' work in the Bay Area, the use of prominent engineering and building contracting firms to assist with the construction of Plant 20 demonstrates the Owens-Illinois Pacific Coast Company's investment in establishing a plant that would represent the company's West Coast presence well. The 11 buildings remaining from the original construction of Plant 20 therefore appear to be significant under Criterion 3 as a district, as an example of mid-late 1930s design of an industrial facility, with a period of significance of 1936-1938.

The later buildings (Buildings 19, 41, 42, 43, 44) and site features within the subject property were added in subsequent decades of Plant 20's use, and appear to be typical of utilitarian industrial design standards employed at the time of their construction. Builders employed concrete, corrugated sheet metal, and steel in forms that primarily served the functional goals of manufacturing. These buildings were not designed or built by master architects or builders, they display few stylistic elements, lack artistic or architectural distinctiveness, and do not contribute to the significance of the original Plant 20 complex under Criterion 3.

CRITERION 4 (INFORMATION POTENTIAL)

The "potential to yield information important to the prehistory or history of California" typically relates to archeological resources, rather than built resources.[69] When California Register Criterion 4 (Information Potential) does relate to built resources, it is relevant for cases when the buildings

[69] California State Office of Historic Preservation. *Technical Assistance Bulletin No. 7: How to Nominate a Resource to the California Register of Historical Resources*. Sacramento: California Office of State Publishing, (September 4, 2001), 11.

themselves are the principal source of important construction-related information. The subject property does not appear to be individually significant under Criterion 4 as a historic district that has the potential to provide information important to the prehistory or history of the City of Oakland, the state, or the nation. It does not appear to feature construction or material types, or embody engineering practices that would, with additional study, provide important information. The processes of modern glass manufacture embodied in the design and layout of the property are well-documented elsewhere, and further investigation of Plant 20's remaining systems and facilities is unlikely to further our understanding of this industry. Page & Turnbull's evaluation of this property was limited to age-eligible resources above ground and did not involve survey or evaluation of the subject property for the purposes of archaeological information.

In sum, Owens-Illinois Plant 20 meets the requirements of Criterion 3 for the California Register, significant as a historic district exemplifying the design of pre-war manufacturing facilities as applied to a large glass factory. Its period of significance is 1936-1938, and the contributors are Buildings 1, 6, 7, 8, 9, 10, 11, 12,13, 19 and 29, and the three remaining smokestacks. The historic integrity of the property, which informs eligibility for listing at the local, state, or federal level, is discussed in the following section.

INTEGRITY

In order to qualify for listing in any local, state, or national historic register, a property or landscape must possess significance under at least one evaluative criterion as described above and retain integrity. Integrity is defined by the California Office of Historic Preservation as "the authenticity of an historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance," or more simply defined by the National Park Service as "the ability of a property to convey its significance."[70]

To evaluate whether the subject property retains sufficient integrity to convey its historic significance, Page & Turnbull used established integrity standards outlined by the *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. Seven variables, or aspects, that define integrity are used to evaluate a resource's integrity—location, setting, design, materials, workmanship, feeling, and association.[71] A property must possess most, or all, of these aspects in order to retain overall integrity. If a property does not retain integrity, it can no longer convey its significance and is therefore not eligible for listing in local, state, or national registers.

[70] California State Office of Historic Preservation. *Technical Assistance Bulletin No. 7: How to Nominate a Resource to the California Register of Historical Resources*. Sacramento: California Office of State Publishing, (September 4, 2001), 11.
[71] U.S. Department of the Interior, National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* (Washington, D.C.: National Park Service, 1995), 44.

The seven aspects that define integrity, and the Plant 20 buildings' retention of each aspect, are as follows:

Location is the place where the historic property was constructed or the place where the historic event occurred;

Discussion: The Plant 20 buildings remain in the locations at which they were constructed between 1936 and 1938. Plant 20 therefore retains integrity of location.

Setting addresses the physical environment of the historic property inclusive of the landscape and spatial relationships of the building(s);

Discussion: The Plant 20 buildings retain integrity of the district's broader, neighborhood setting, as the site remains an industrial facility bordered by a mixed residential, commercial, and industrial neighborhood. The spatial relationships of Buildings 6, 7, 8, 9, 10, 11, 12, and 29, as internally connected structures configured to facilitate commercial glass container manufacturing, packing, and shipping, has been retained. The spatial relationships at the east side of the site, where the Administration Building, Building 1, once faced the public rights-of-way at 36th Avenue and Post Street as a standalone structure overlooking a triangular lawn, has been significantly altered. Construction of Building 41 in 1952 partially obscured Building 1, and closed off approach to the plant from the north and west. Demolition of the Central Mold Shop and Maintenance Department (Building 33) in 1985, and subsequent construction of Buildings 43 and 44 across the majority of the eastern portion of the lot, enclosed the eastern portion of Building 1, removed a functional relationship which was central to the plant's early operation and obscured all visibility of the plant from the east. These changes necessitated a reorientation of Building 1's main entrance to the west, toward the interior of the facility. Due to the changes in site configuration caused by construction of Buildings 41, 43, and 44, Plant 20 does not fully retain its integrity of setting.

Design is the combination of elements that create the form, plan, space, structure, and style of the property.

Discussion: At its construction, Plant 20 embodied a design vision that highlighted Owens-Illinois' own products, the Insulux glass blocks, as part of what was, at the time, a modern production facility with offices and product design functions facing the public rights-of-way to the east, with factory processes concentrated in an interconnected complex at the west of the parcel. To continue to meet technological and economic needs, regular modernization of factory systems, structures, and

facilities was undertaken throughout Plant 20's 78 years of operation. As part of this ongoing process, many of the contributing buildings have had significant design elements altered or removed. The glass block bays, entrance, and protruding beveled watch-house were removed from the east façade of Building 1, and were replaced with concrete when this wall was incorporated into the interior of warehouse Building 44 in 1985. The distinctive brick and glass block panels which originally filled the arched openings at the east façade of Building 8 were infilled with louvered sheet metal vents, and the dimensions of some openings have been changed. The east façade of Building 12 were partially incorporated into the later warehouse buildings and exterior loading docks of Building 41. Glass block wall segments were replaced with metal louvers at Buildings 6 and 8, and the glass block and steel sash windows at the ground level of Building 7 were either replaced or obscured by corrugated metal sheeting. Many of Building 7's original multi-lite steel-sash windows at the upper stories were replaced or obscured by corrugated sheet metal patches. Alterations which were necessary to continue operation of Plant 20 also reduced its ability to convey its 1936-1938 appearance, particularly at the north and east. Plant 20 does not substantially retain integrity of design.

Materials refer to the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form the historic property;

Discussion: The buildings at Plant 20 include some original materials, including brick, glass block, flat glazing, and corrugated steel sheeting that characterized the plant in its 1936-1938 period of significance. As discussed above, however, regular upgrades, maintenance, and alterations during the plant's operation have removed a substantial amount of the most distinctive original materials. All glass block sections at the east and south façades of Building 1 were infilled with concrete, and glass block sections at Buildings 6 and 7 were replaced or obscured by louvered metal vents and corrugated metal sheeting. The distinctive brick and glass block panels which originally filled the arched openings at the east façade of Building 8 were infilled with louvered sheet metal vents. Building 33, the one- and two-story brick and glass block Central Mold Shop and Maintenance Department building, was demolished in 1985, contributing to the district's overall loss of original materials. Overall, Plant 20 does not substantially retain integrity of materials.

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;

Discussion: As with the plant's design and materials, changes to the original Plant 20 buildings and construction of the large warehouses, Buildings 41, 43, and 44, have

led to a substantial loss of original workmanship. The decorative brick cladding at the east façade of Building 8 does convey the workmanship of the plant's builders, as does the concrete construction of the three remaining smokestacks with fluted caps, and the overall massive scale of the factory buildings, Buildings 8, 9, 10, 11, 12, and 29. However, original plant buildings retain only a small proportion of their exterior glass block glazing, with most of this originally prominent material only visible today at the interior vehicle parking area, outside of view from public rights-of-way. As the brick and glass block construction of the most publicly visible buildings and façades at Plant 20 were the most distinctive elements of the original building's workmanship, Plant 20 does not overall retain integrity of workmanship.

Feeling is the property's expression of the aesthetic or historic sense of a particular period of time;

Discussion: Though many individually distinctive elements remain on Buildings 1, 6, 7, 8, and 12, the integrity of workmanship, materials, and design of Plant 20's original complex have been diminished to the extent that the property can no longer convey its significance as an industrial facility erected between 1936 and 1938. The plant remains an unambiguously industrial facility; however, those characteristics which most clearly identified the most publicly visible buildings with their period of significance and builders have been diminished. Plant 20 does not retain integrity of feeling.

Association is the direct link between an important historic event or person and the historic property.

Discussion: As with its integrity of design and feeling, the overall complex at Plant 20 has changed sufficiently in the nearly eight decades since its construction, and those design characteristics which set it apart from other manufacturing facilities of the late 1930s, most notably its expansive use of glass block in multiple original buildings, are no longer prominent at the site. The design work of Owens-Illinois architects and engineers from the 1930s was necessarily altered to suit changing industrial needs, and thus Plant 20 does not retain integrity of association.

Integrity Discussion: The remaining 11 buildings and site features at Plant 20 retain only integrity of location. Alterations to Plant 20 made subsequent to the plant's original construction and period of significance, 1936-1938, have altered the setting, design, materials, workmanship, feeling, and association of the property to the extent that its original design intent and vision are no longer comprehensible. While a few interesting features remain, including some segments of glass block and brick masonry, and the integrated factory and warehouse complex retains its original massing, rooflines, and scale, non-historic alterations to the property have diminished its ability to convey the original 1936-1938 appearance that was to be the Bay Area face of the Owens-Illinois Pacific Coast

Company. Due to this loss of integrity, the subject property is not eligible for listing in the California Register.

City of Oakland Historic Resource Designation

Per the City of Oakland's Thresholds of Significance Guidelines, an historical resource under CEQA is a resource that meets any of the following criteria:

1) A resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources;
2) A resource included in Oakland's Local Register of historical resources, unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
3) A resource identified as significant (e.g., rated 1-5) in a historical resource survey recorded on Department of Parks and Recreation Form 523, unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
4) Meets the criteria for listing on the California Register of Historical Resources; or
5) A resource that is determined by the Oakland City Council to be historically or culturally significant even though it does not meet the other four criteria listed above.[72]

The City of Oakland's Local Register includes all designated historic properties (Landmarks, Heritage Properties, Study List Properties, Preservation Districts, and S-7 and S-20 Preservation Combining Zone Properties) as well as all Potential Designated Historic Properties that have an existing rating of "A" or "B" or are located within an Area of Primary Importance.

Eligibility of Plant 20 for Local Designation and CEQA Status

Plant 20 is not currently listed in and is not eligible for listing in the California Register, and as such does not meet Criteria 1 and 4 of the City of Oakland's Thresholds of Significance Guidelines for historical resources under CEQA.

The subject property is not currently included in Oakland's Local Register (Threshold of Significance Criterion 2). Previous evaluation of Plant 20, conducted in 1994 by the OCHS, assigned a local rating of Cb+3 and California Historical Resource Status Code of 7. This preliminary rating does not appear to have been based on a thorough review of site features and history. Based on the findings presented above, a more appropriate local rating for the complex of original buildings at Plant 20 would be an unmodified "C." While its initial architectural design incorporated distinctive features,

[72] City of Oakland, CEQA Thresholds of Significance Guidelines, October 28, 2013, Appendix A: Guidance on Historical Resources. Electronic document at http://www2.oaklandnet.com/oakca1/groups/ceda/documents/report/oak051200.pdf, accessed December 8, 2021.

subsequent changes to the property have resulted in the loss of historic materials, and diminished its historic integrity to the degree that the property could not be feasibly rehabilitated in a manner that would increase its rating. Its California Historical Resource Status Code is 6Z, indicating that the property has been found ineligible for the National Register, California Register, or local designation through survey evaluation. As such, the property does not meet the requirements for Threshold of Significance Criterion 3. Based on these ratings, the property is not eligible for designation as a City of Oakland Landmark. Further, as it is not eligible for listing in the California Register, Plant 20 does not meet the threshold for identification as an API, which generally requires National Register eligibility. Overall, the subject property does not qualify for inclusion in Oakland's Local Register. The original buildings at Plant 20 are representative architectural examples with good continuity and context, but whose integrity is compromised and to which irreversible alterations have been made.

The subject property has not been determined by the Oakland City Council as historically or culturally significant, and thus does not meet Threshold of Significance Criterion 5.

The subject property does not meet any of the City of Oakland's criteria for identification as a historical resource under CEQA.

VII. CONCLUSION

Page & Turnbull evaluated Owens-Illinois Pacific Coast Company Plant 20, located at 3600 Alameda Avenue, Oakland, for eligibility for listing in the California Register and for designation as a historical resource at the local level. The earliest buildings at the plant were constructed between 1936 and 1938, and the facility operated as a container glass manufacturing and packing facility continuously until its closure by the company in 2015. Several original buildings possess distinctive architectural features and significance as examples of the mid- to late-1930s design of industrial facilities as reflected in a manufacturing complex. However, the integrity setting, design, materials, workmanship, feeling, and association of Plant 20's original buildings have been diminished by decades of continued modification for use by the glass factory. The Owens-Illinois Pacific Coast Company Plant 20 at 3600 Alameda Avenue in Oakland is therefore not eligible for the California Register as a historic district. Further, the property does not retain the level of integrity necessary for designation as a City of Oakland Landmark. The subject property is therefore not a historical resource for the purposes of CEQA.

VIII. REFERENCES

The Architect and Engineer. "New Note in Industrial Building Design," June 1938, pp.25-28.

Bagwell, Beth. *Oakland, The Story of a City*. Oakland: Oakland Heritage Alliance, 1982.

California Office of Historic Preservation. Built Environment Resource Directory (BERD), Santa Clara County, updated March 2020.

_____. "California Historical Resource Status Codes," updated March 2020. Electronic resource at https://ohp.parks.ca.gov/pages/1069/files/Resource-Status-Codes.pdf, accessed November 5, 2020.

____. *Technical Assistance Bulletin No. 7: How to Nominate a Resource to the California Register of Historical Resources*. Sacramento: California Office of State Publishing, September 4, 2001.

City of Oakland. CEQA Thresholds of Significance Guidelines, October 28, 2013, Appendix A: Guidance on Historical Resources. Electronic document at http://www2.oaklandnet.com/oakca1/groups/ceda/documents/report/oak051200.pdf, accessed December 8, 2021.

_____.Oakland General Plan: Historic Preservation Element. Oakland, October 1993.

Community Design & Architecture, Inc. *Oakland Central Estuary Existing Conditions Report*. Oakland, CA: City of Oakland Community and Economic Development Agency, 2009.

Corbett, Michael R. *Chevron Refinery – Historic Resource Evaluation, Standard Oil Administration Building, Richmond, California*. Berkeley: Prepared for Perkins + Will, 2012.

Corbett, Michael R. and Anne Bloomfield. National Register of Historic Places Registration Form for the Uptown Tenderloin Historic District, San Francisco. Berkeley, 2008.

Dunn, Eleanor. "A Short History of Diamond Canyon and Sausal Creek," *The Montclarion*, March 24, 1998, Electronic resource at https://fruitvaleoakland.wordpress.com/category/history/, accessed December 8, 2021.

Lockhart, Bill and Russ Hoenig. "The Bewildering Array of Owens-Illinois Glass Co. Logos and Codes." Published by Bill Lockhart, 2015.

Lockhart, Bill, Russ Hoenig, Beau Schriever, Bill Lindsey, and Carol Serr. "Owens-Illinois Glass Co., Part 1 – History." Published by the Society for Historical Archaeology, 2018. Accessed at https://sha.org/bottle/pdffiles/OwensIllinois2018Part1.pdf, January 15, 2019.

Mining and Scientific Press. "Commercial Paragraphs," February 25, 1911.

Oakland Cultural Heritage Survey. *DPR 523 Forms for 3600 Alameda Avenue*. Oakland, 1995.

Oakland Tribune. "Owens-Illinois Will Pay New Hiring Bias Claims," November 16, 1985.
_____. "Alameda County Industry Shows Enormous Gain," January 5, 1955, p. 30, 33.
_____. "Business in the Eastbay," March 14, 1952, p. 50.
_____. "Glass Plant Fire Quickly Quenched," November 5, 1951, p. 10.
_____. "Fire Damages Glass Factory," April 11, 1949, p. 6.
_____. "Man Crushed to Death by Conveyer Belt," September 8, 1947, p. 2.
_____. "Actress Presents Donor Pins to Oakland Plasma Givers," Oakland Tribune, July 10, 1943.
_____. Advertisement for Owens-Illinois Company. January 12, 1942, p. 12.
_____. "Building Permits Here Are $269,967," December 18, 1937.
_____. "Year Records Building Gain," July 4, 1937.
_____. "Building Permits $314,491 in 10 Days," February 26, 1937.
_____. "Spur Track O.K.'d" August 12, 1936, p. 5.
_____. "Building in June Up to $1,916,863," July 2, 1936, p. 1.
_____. "Span Building Permits Issued," June 12, 1936, p. 6D.
_____. "New Plant Here to Cost 2 Millions," March 18, 1936, p. 1, 4.
_____. "Owens-Illinois Glass Co. Purchases 22 Acres Here as Site for Establishment," September 28, 1935, p. 1.
"P.J. Walker, Builder, Dies," November 3, 1933.
_____. "Project is Changed," June 8, 1932, p. 1.
_____. "Official Choice of Alameda Site for Glass Plant Awaited," April 3, 1931, p. C37.
_____. "Oil Refinery at Fruitvale," December 22, 1902, p. 3

Organized Labor."2 New Buildings for Best Foods," Volume 50, Number 22, May 1949.
_____. "Working Drawings in Progress; C.P.A. Permit Granted," Volume 47, Number 37, September 1946.

Owens-Illinois Pacific Coast Company. *The Ownewser*, Volume II, 1942.

Paquette, Jack K. *The Glassmakers, Revisited: A History of Owens-Illinois, Inc*., revised edition. Toledo, OH: Xlibris, 2011.

Pencil Points. Advertisement for Insulux Glass Blocks, June 1939.

Rather, Lois. *Oakland's Image: A History of Oakland, California*. Oakland, CA: The Rather Press, 1972.

R.L. Polk & Co. *Polk's Oakland City Directory*. San Francisco: R.L. Polk & Co., 1937.

San Francisco Examiner. "P.J. "Jack" Walker, Contractor," March 20, 1991.
_____. "Flash Fire In Oakland." April 11, 1949, p. 22.
_____. "Conveyer Crushes Worker to Death." September 8, 1947.
_____. Advertisement for Owens-Illinois Company. September 29, 1943, p. 13.
_____. Motor Engine Spark Starts $250,000 Fire," December 18, 1913, p. 6.

Sanborn Map Company. *Insurance Maps of Oakland, California, Volume 5*. New York, NY: Sanborn Map Company, 1912 (Revised 1950)
_____. *Insurance Maps of Oakland, California, Volume 5*. New York, NY: Sanborn Map Company, 1912.

Self, Robert O. *American Babylon: Race and the Struggle for Postwar Oakland*. Princeton, NJ: Princeton University Press, 2003.

Schiff, Naomi. "Our Industrial Past Encounters Oakland's Land Boom." *Oakland Heritage Alliance News*. Vol. 37, No. 1, Spring 2017, 6.

U.S. Department of the Interior, National Park Service. *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation*. Washington, D.C.: National Park Service, 1995.

Walker, Mark, Thad Van Bueren, Dana Ogo Shew, Michael D. Meyer, Adrian Praetzellis, and Mary Praetzellis. *Nearly Neighbors: Archaeological Investigations for the High Street Seismic Retrofit Project in Oakland, California*. Rohnert Park: Anthropological Studies Center, Sonoma State University, 2012.

Ward M. Canaday Center for Special Collections. "Time in a Bottle: A History of Owens, Illinois, Inc." Electronic resource at http://www.utoledo.edu/library/canaday/exhibits/oi/OIExhibit/MainPage.htm, accessed December 8, 2021.

APPENDIX A

DPR 523 Forms for 3600 Alameda Avenue, 1994

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # _____
HRI # _____
Trinomial _____
NRHP Status Code: 7

Page P1 of 2

Other Listings OCHS Cb+3
Review Code _____ Reviewer _____ Date _____

*P1. a. Resource Identifier (assign a name or number): Serial No. 1301 (Seqnos 1298 - 1302)
b. Other Identifier: Owens Illinois Pac. Coast glass factory
*P2. Location:
a. County Alameda
*b. Address 3600 ALAMEDA AV/FRUITVALE/ELMWD
City Oakland, CA Zip 94601
*c. UTM: USGS 7.5' Quad Oakland East Date 1980; Zone: mE / mN
*d. Other Locational Data (e.g. parcel #, legal description, additional UTMs, etc.)
Parcel no.: 033 2250 011 04

*P3. a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, etc.):

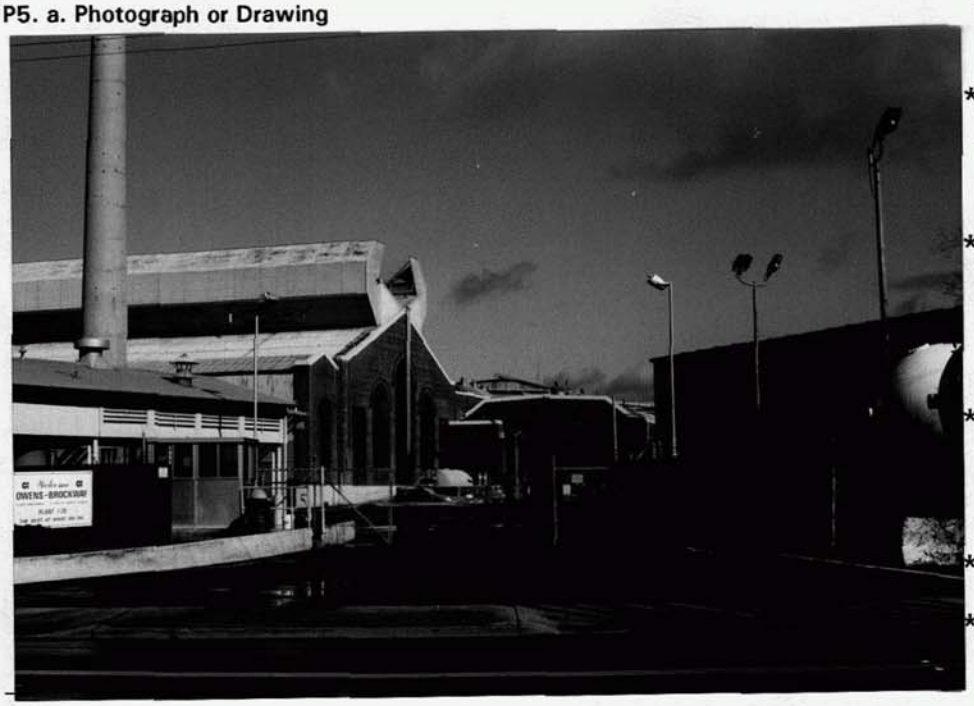
3600 ALAMEDA AV is an early 20th century utilitarian-1920s decorative brick factory. It is a connected group of buildings, mostly very high one story, on a multi-block lot bounded on two sides by Sausal Creek and the Oakland Estuary. It has gable and monitor roofs, industrial sash, and exterior walls of corrugated metal and brick. Roofs are metal. Foundation is concrete. Structure is brick bearing wall and steel frame. Sanborn maps describe it as brick, metal, and concrete. The main block of buildings covers an area about 650' x 800', with surrounding office and maintenance buildings, and a four-story metal batch plant and five tall concrete chimneys along Alameda Avenue.

Facing the main vehicle entrance from Alameda Avenue are the architecturally elaborated sides of the main block at the left, and a utilitarian brick maintenance shop building at the right. The end of the factory building is decorated with a gabled brick facade, with diamond patterned brickwork, five

(see continuation page)

b. Resource attributes: HP08--factory building
*P4. Resources present: /X/Building / /Structure / /Object / /Site / /District / /Element of District ( ) / /Other

*P5. a. Photograph or Drawing



P5. b. Photo number: 655-19
Photo date: 02/20/94

*P6. Date Constructed/Age, and Source:
/ /Prehistoric /X/Historic / /Both
1936-37 F
building permit

*P7. Owner and Address:
OWENS ILLINOIS GLASS
CONTAINER INC c/o MIKE NESTOR
ONE SEAGATE
TOLEDO OH 43604

*P8. Recorded by (name, affiliation, address):
Oakland Cultural Heritage
Survey, 1 City Hall Plaza,
Oakland 94612 (510-238-3941)

*P9. Date Recorded: 09/30/94

*P10. Type of Survey: / /Intensive
/X/Reconnaissance / /Other

*P11. Report Citation: OCHS Completion Report, CLG Project #06-93-80101, 9/30/94 (URM Citywide)

*Attachments: / /None / /Location Map / /Sketch Map /X/Continuation Sheet / /Building, Structure, and Object Record / /Other

P3.a. Description; 5.a. Photographs (continued)

tall brick arched windows, and peaked parapets with stucco coping. The rest of the building is corrugated metal, with a long gabled roof and high monitor/vent. Farther back are utilitarian brick office and warehouse buildings, and large newer metal buildings that enclose or replace parts of the original plant. Present use is industrial, Owens-Brockway Glass plant, the original occupant. Surroundings are densely built up, industrial, residential. Visible alterations include additions and demolitions over time, grilles over arched windows. The complex is in good condition; its integrity is fair.

Photo #656-33
02/24/94
view along
Alameda Avenue,
stacks and
batch plant

Photo #656-37
02/24/94
warehouse with
ramp to upper
floor; rear of
plant from
East 8th Street

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
BUILDING, STRUCTURE, AND OBJECT RECORD
Page B1 of 3

Primary # _____
HRI # _____

*NRHP Status Code: 4S7
Local/Other Rating: Cb+3

*Resource Name or #: Serial No. 1301
3600 ALAMEDA AV/FRUITVALE/ELMWD Oakland CA 94601

B1. Historic Name: Owens Illinois Pac. Coast glass factory
B2. Common Name: Owens-Illinois Glass plant
B3. Original Use: Industry/manufacturing B4. Present Use: Industry/manufacturing
*B5. Architectural Style: early 20th century utilitarian
*B6. Construction History: built 1936-37, addition, altered addition, part removed
*B7. Moved? /X/No / /Yes / /Unknown Date: Original Location:
*B8. Related Features:

B9a. Architect: Theill, Kaj (eng.) Brunnier, H.J. b. Builder: owner & Moore Dry Dock Walker, P.J.
*B10. Significance: Theme: masonry buildings (industrial) Area: Oakland
Period: 1850-1948 Property Type: factory building N.R. Criteria: N/A
(Discuss importance in terms of context as defined by theme, period, and geographic scope. Also address integrity.)

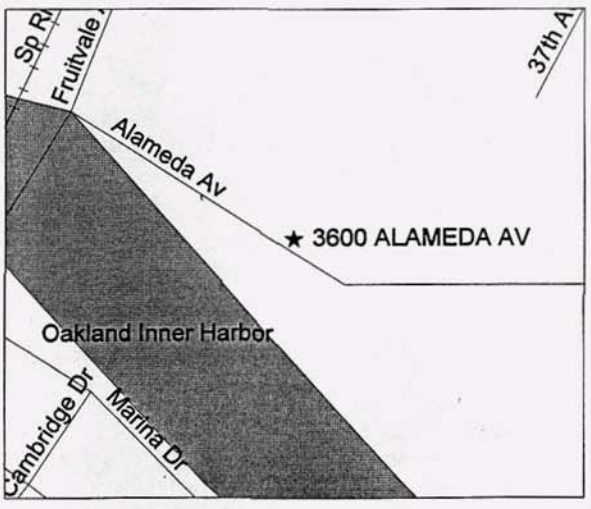
3600 ALAMEDA AV, the Owens Illinois Pacific Coast glass factory, is a very good example of an early 20th century utilitarian factory building (now remodeled). It was built in 1936-37, engineer Kaj Theill and builder listed as owner. Terra cotta was by Gladding McBean of Lincoln, California (job #2644). It is dated by building permit A63024, valued at $545,000. Plans are on file with the City of Oakland. Additions and remodelings have affected its historic character. Historically the building reflects industrial development in Oakland, national businesses and industries in Oakland, and Oakland in the Depression era. The original and current owner, developer and business is Owens-Illinois Pacific Glass. Engineer Kaj Theill appears as designer of many industrial buildings in Oakland and Berkeley around the 1930s and 40s. The interior use of glass blocks and terra cotta wall units was featured in the June 1938 Architect and Engineer. There is an excellent series of construction photos at the Oakland History Room.
The Oakland Cultural Heritage Survey rates this property Cb+3 (C, secondary importance or superior example; potentially B+, National Register, if restored), particularly for its design quality and materials and type/style and historical associations. It is not located in a district (3). Its Survey rating makes it a historic property under Oakland's Preservation Element. At present it does not appear eligible for individual listing on the National Register. However if its architectural integrity were accurately restored, it might become eligible.
(see continuation pages)

B11. Resource Attributes: HP08--factory building
*B12. References:
Building and alteration permits, Sanborn maps, 1912-1935, 1951, 1970s; directories & phone books; city & county block books; name and subject indexes, Oakland History Room, OPL

B13. Remarks:
Primary Record submitted 9/30/94.

*B14. Evaluator: Betty Marvin
*Date of Evaluation: 02/26/94
Date Recorded: 09/30/95
(This space reserved for official comments.)

(Sketch map, ^N^ north at top.)



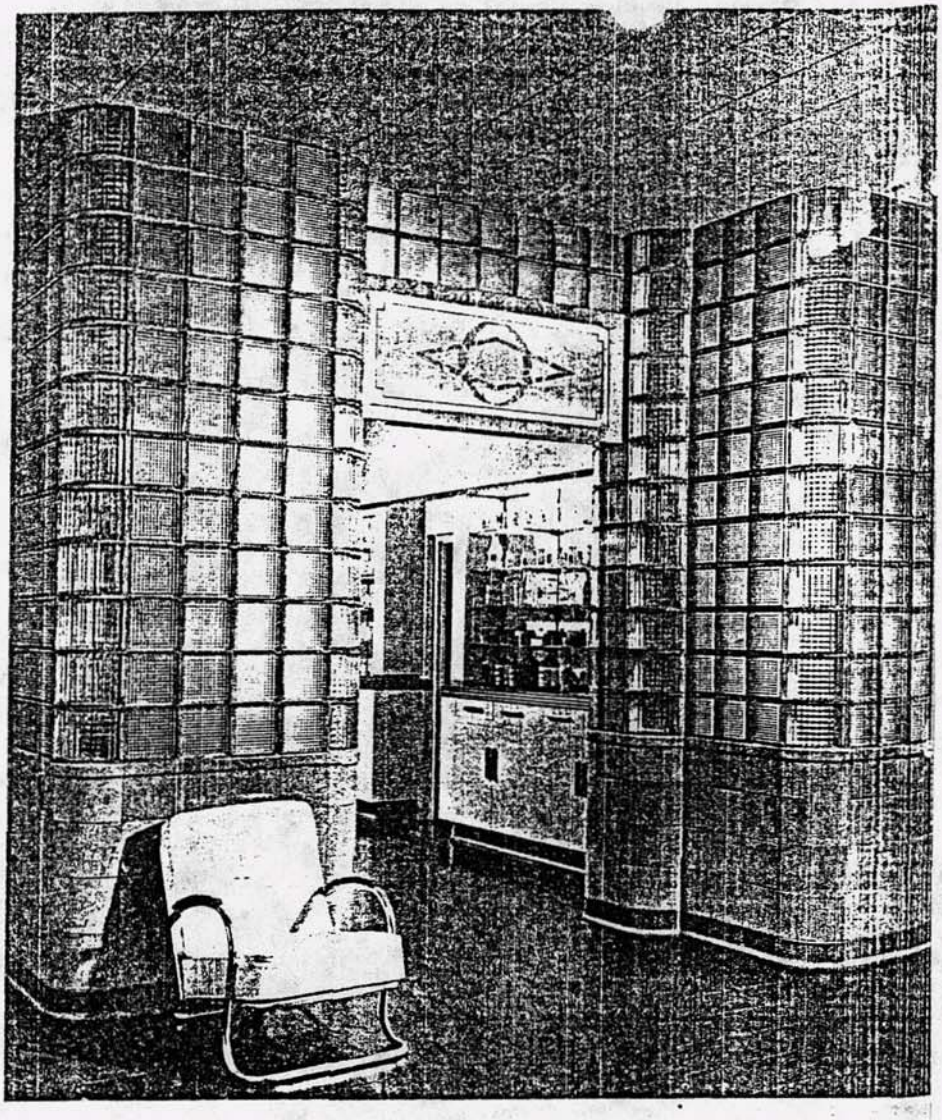
Primary # _____
HRI # _____

*Resource Name or #: Ser. No. 1301-Owens Illinois Pac. Coast glass factory
3600 ALAMEDA AV/FRUITVALE/ELMWD Oakland CA 94601

*Recorded by Oakland Cultural Heritage Survey *Date 09/30/95 /X/ Continuation / / Update

Additional illustrations:

Interior
Owens-Illinois Glass plant
Architect and Engineer
June 1938



ENTRANCE VESTIBULE, OWENS-ILLINOIS PACIFIC COAST COMPANY
OAKLAND, CALIFORNIA
Showing exemplary use of glass blocks and tile for maximum utility and beauty of design

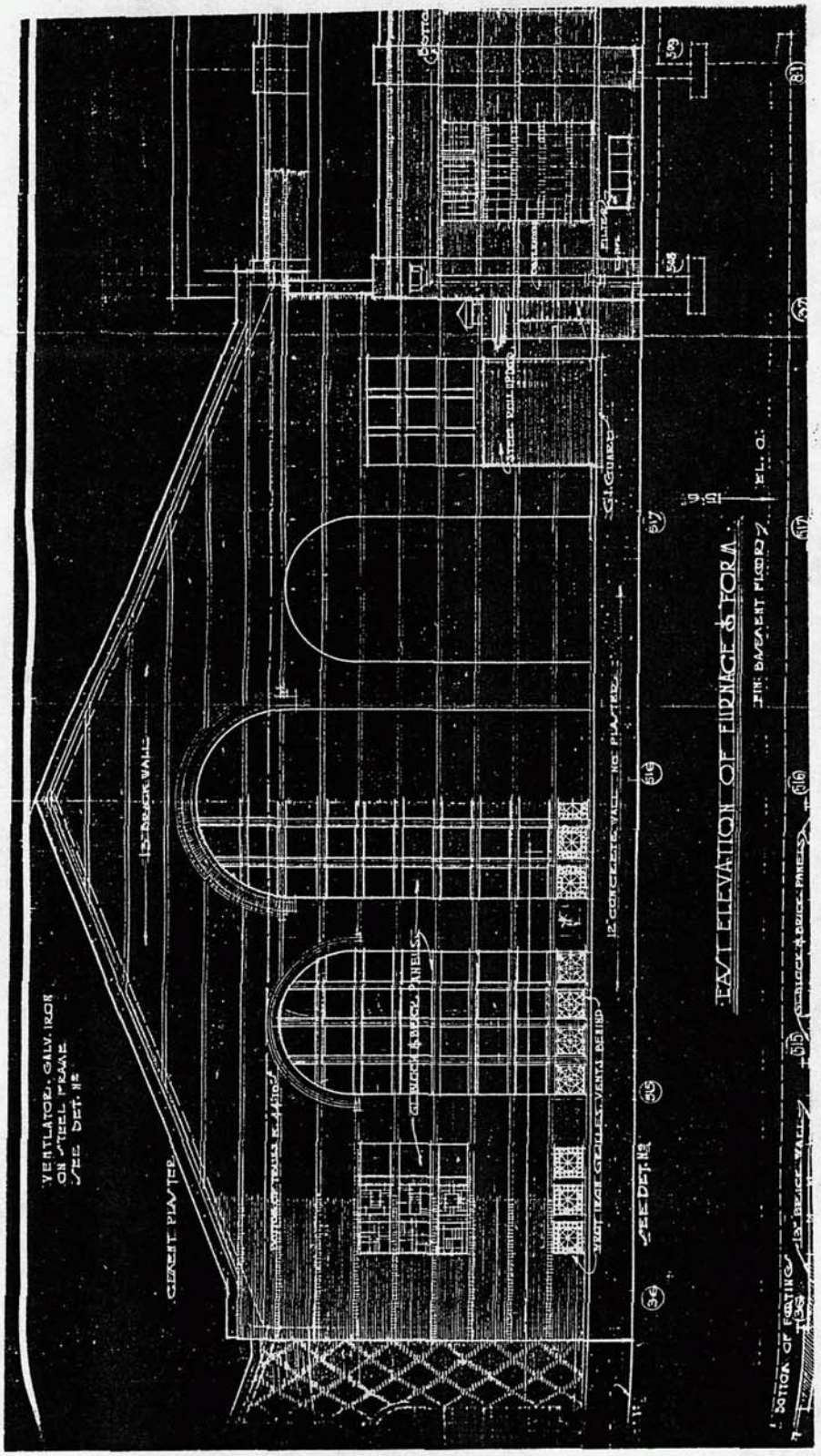
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
CONTINUATION SHEET
Page B3 of 3

Primary # _____
HRI # _____

*Resource Name or #: Ser. No. 1301-Owens Illinois Pac. Coast glass facto
3600 ALAMEDA AV/FRUITVALE/ELMWD Oakland CA 94601

*Recorded by Oakland Cultural Heritage Survey *Date 09/30/95 /X/ Continuation / / Update

Permit #A63024, 06/30/36 Plans and specs on file with City of Oakland (excerpt)
2s conc glass factory for Owens-Ill. Pac Coast Co, N/Alameda Av 300E/Frtvle, Kaj Theill a



APPENDIX B

Permit Records on File at the City of Oakland Planning & Building Department

Permit No.	Year	Contractor	Description
A65004	1936	Pittsburgh-Des Moines Steel Company	Steel water tank and tower, 100,000 Gals. Capacity and 100-ft high to Bottom. All as per plans herewith, numbered as follows: Design Drawing 8120 (Copy) Dated 8-26-36; Revised 9-22-36, Foundation Plan Sheet No. 1, Explanatory Drawing 8120-A
Not specified	1937	P.J. Walker Co. (contractor), Owens-Illinois (architect)	Construction of 1-story and basement Office Building (designated as Bldg. 1), exterior brick and glass block, interior glass block partition, concrete floor, wood roof construction with composition covering.
A62606	1937	Not specified	Construction of 2-story concrete and steel building with corrugated iron roofing to be used for storage and mixing. Concrete and corrugated iron exterior. 186' x 53'.
A62607	1937	Not specified	Concrete chimney
A62608	1937	The Alphons Costodis Chimney Construction Co.	Reinforced concrete chimney "B" as per plan 8761
A62609	1937	The Alphons Costodis Chimney Construction Co.	Reinforced concrete chimney "C" as per plan 8761
A62610	1937	The Alphons Costodis Chimney Construction Co.	Chimney foundation and shaft to grade "E" as per plan 8761
A62611	1937	The Alphons Costodis Chimney Construction Co.	Chimney foundation and shaft to grade "D" as per plan 8761
A67685	1937	Pittsburgh-Des Moines Steel Company	Construction of a steel water tank and tower of 50,000 gals. Capacity and 75 ft high to bottom of tank.
A68145	1937	Owens-Illinois	1-story frame building, 34' x 124', to be used as cafeteria.
A63025	1937	Kaj Theill, Structural Engineer	Construction of one-story, six-room concrete and steel Class C building for use as shop. Brick exterior. 200' x 180'.

Permit No.	Year	Contractor	Description
A63024	1937	Kaj Theill, Structural Engineer	Construction of one- and two-story, six-room concrete, tile, and steel Class C building for use as a glass factory. Corrugated iron and brick exterior. 480' x 785'.
A70582	1937	Larsen & Larsen	At mixing plant, corrugated iron building, 4' brick wainscot, concrete floor, 60' x 20'. To be used as butane pump house.
A70865	1937	H.J. Brunnier	Construct warehouse, one-story structural steel frame, corrugated iron siding, wood purlins, wood sheathing, composition roofing, skylights, concrete fire wall dividing the building, canopy over loading platform, foundations concrete and the ground floor slab is to be concrete. The building is irregular shape approximately 200ft. wide and [58]ft. in length, as more fully shown on drawings numbered 29S-1 to 29S-9 inclusive.
A97640	1942	Christensen & Lyons (contractors)	Construct partitions and install plumbing for women's rest room in existing Class "A" warehouse.
B51800	1945	Christensen & Lyons (contractors)	Remove existing sash and install G.I. louvers. Cut certain floor openings and install steel gratings. As per drawings and details heretofore attached. Glass factory building.
B5680	1945	Christensen & Lyons (contractors)	Install concrete track hopper as per plans submitted, in building used as glass factory
B5975	1945	Christensen & Lyons (contractors)	Concrete pit
B10373	1946	Monson Brothers	Interior alteration to compressor room in glass plant building
B10372	1946	Monson Brothers	Extend glass plant mezzanine floor
B13085	1946	Monson Brothers	Alterations to warehouse. Cut openings for 9 new steel rolling doors and install new doors, as per plan.
B19287 [?]	1947	Monson Brothers	Irregular shape addition and alterations to structural steel and corrugated iron building, used as warehouse and factory, per plans.
B14930	1947	Russell A. Cullen Inc.	Construction of one-story, all steel refractory building, 40' x 100', as shown on plans
B15271	1947	E.S. McKittrick Co. (contractor), Owens-	Construction of a one-story, one-room file storage vault, 17' x 27', concrete.

Permit No.	Year	Contractor	Description
		Illinois Engineering Department (engineers/architects)	
B15272	1947	E.S. McKittrick Co. (contractor), Owens-Illinois Engineering Department (engineers/architects)	Construct toilet and locker room inside present building #66
B35890	1951	Ransome Co.	Foundations for 30,000 propane tank.
B35891	1951	Ransome Co.	Foundations for propane vaporizers
B40338	1952	Moore Dry Dock Company	Construct a 60' x 180' canopy over existing loading dock, frame to be structural steel, roof to be T.&G. sheathing with compo roofing on concrete piers and footings.
B41748	1952	Monson Brothers	Construct 29' x 24' wood frame addition to storage building. Plan submitted.
B41421	1952	Monson Brothers	Construct a 2-story, Type "IV" concrete and corrugated iron warehouse, 450' x 216', steel trusses and roofing. Plans submitted.
B41749	1952	Monson Brothers	Construct 29' x 35' wood frame addition to office building. Plan submitted.
Not specified	Not specified	Bechtel Corporation (220 Bush Street, SF)	Alterations to existing Compressor Building coincident with installation of a new 500HP compressor. Alterations as follows: (1) Reconstruction of 3-5'4" x 16'0" existing skylights including curb, siding and flashing to provide for new fixed wood louvres and frames 1'7" high. (2) Removal of 3 - 4'8' x 9'4" panels of existing glass block and replacement with metal louvres and frames. (3) Demolition of existing floor slab to accommodate new compressor foundation and pouring of new slab subsequent to installation of new unit.
B48845	1953	Christensen & Lyons (contractors)	Alterations to Compressor Building - Existing concrete floor will be removed for an area approximately 20' x 20', excavation will be carried down an average of 6'. A reinforced concrete foundation will then be poured. Then a 600 H.P. compressor will be installed.

Permit No.	Year	Contractor	Description
B50998	1954	Monson Brothers	Add one 20' x 100' bay to existing machine shop. Plan submitted, building No. 33.
B50999	1954	Monson Brothers	Alter interior of storage building for office use. Plan submitted, building No. 34.
B59413	1955	Monson Brothers, H. J. Brunnier (engineer)	Alterations to warehouse. Wreck existing brick walls, raise existing roof, install mezz. Storage area, install new and extend existing firewall, total 3000sf new storage area.
B67010	1957	Christensen & Lyons (contractors)	Alterations to cafeteria. Remove interior partitions, services, and finishes. Construct new masonry interior partitions, services, and finishes as per plans.
B72104	1957	Christensen & Lyons (contractors)	Alterations to existing warehouse. Add 14' x 24' shipping office addition, erected on existing concrete floor slab, 8" thick concrete block walls, 2 x 12 roof joists @ 16", 1" T&G roof sheathing, acoustical tile ceilings.
B90448	1960	Christensen & Lyons (contractors)	Complete ceiling area started under previous permit, Bldg 66, See B67010
C51991	1969	Robert Lilja	40' x 56'6" addition to existing factory building.
C77192	1974	Plant Bros. Corp.	Fill concrete ramp. Cut slab for elevator shaft. Install elevator pit & guards. Install new steel beams at elevator shaft.
C80866	1974	Pacific Rolling Door Co.	Add a 10' x 12' steel rolling fire door and a 3' x 7' hollow metal fire door and frame to an existing 14' x 12' opening in an 8" concrete wall. Opening is Door No. 1 at plasti shield storage area.
C96173	1977	Owens-Illinois	Alterations to interior office partitions
82563	1978	Contra Costa Electrical Inc.	Electrical
D7224	1970	Owens-Illinois	Alterations to interior office partitions
D14034	1980	Owens-Illinois	Interior structural partitions
D14959	1980	Lilja Industrial Controls & Construction (contractor), H.J. Brunnier Assoc. (engineer)	Add structural tower and batch sand bin to existing furnace building, "E" furnace
D17142	1980	Owens-Illinois	Addition of interior walls, lighting, cabinets, and benches for maintenance shop area.

Permit No.	Year	Contractor	Description
D19590	1981	S.S. & T. Construction Co.	Construct interior walls, sheetrock.
D23918	1982	A.C. Leadbetter & Son, Inc.	Rebuild of #20c glass melting furnace
D28819	1983	M.J. Brunnier Assoc.	Batch tower to support 2 40-ton bins to store batch materials, revise partial furnace platforms, catwalks, ad forming floor.
D39404	1985	Charles S. Campanella, Inc.	Demolish and remove one story warehouse building.
D39405	1985	Charles S. Campanella, Inc.	Demolish and remove one story warehouse building
D39406	1985	Charles S. Campanella, Inc.	Demolish 2 story warehouse and office building
D39407	1985	Charles S. Campanella, Inc.	Demolish 1 story warehouse building
D39408	1985	Charles S. Campanella, Inc.	Demolish, remove one story building
D40909	1985	Vanderson Construction Inc.	Single-story pre-engineered steel building for warehouse use.
40909	1986	Marina Plumbing Co.	[Illegible] in new warehouse.
D41633	1986	Vanderson Construction, Inc.	Cover existing glass block windows in office and warehouse with masonry walls and fill hollow block solid to make 4 hour
D42299	1986	Vanderson Construction, Inc.	Two story pre-engineered steel building for warehouse use.
B619524	1987	T. Fairbanks Weighing	Construct concrete foundation for truck scale.
B8701906	1987	Lilja Construction Co.	Remove portion of roof from one story concrete building.
B8701907	1987	Lilja Industrial Construction	Demolish one story metal building.
B8705206	1988	Lilja Construction Co.	Processed [cullet?] receiving facility & conveyor.
88047	1988	H.J. Brunnier & Assoc., Henry F. Teichmann, Inc.	Major repair to existing production equipment – this package covers the furnace support and [binding steel?]. A package will follow for the access platforms.
9E+06	1990	H.J. Brunnier / Lilja Corp.	Installing loading dock
9E+06	1990	H.J. Brunnier / Lilja Corp.	Rebuild of E [?] structure and concrete, furnace installation, concrete base and bolting
B9401933	1994	Lilja Corp	Construction of canopy over loading area

Permit No.	Year	Contractor	Description
B9401933	1994		Construction of canopy area loading area.
B9404355	1994		Piers & concrete foundation for electrical sub station
B9601526	1996		addition of 3 industrial towers and conveyor support and enclosure w/some alterations at existing structures
B9701027	1997		Foundation pad for exhaust equipment
B9701470	1997		Permit for equipment placement on concrete pad
B9800588	1998		Alterations at interior of industrial building (glass refractory). Roof trusses and foundation work.
B9804462	1999		Building modifications for "D Repair". Machine exchange/ modifications.
B9902371	1999		Demolition of 130 sq ft smokestack.
B9902372	1999		Demolition of 130 sq ft smokestack.
B0105580	2001		Demolish and remove baghouse to grade (slab remains)
B0804912	2008		Structural strengthening at floor level and mezzanine, for the installation of machine equipment.
B1304184	2013		Construct concrete footing for pre-fab Bag House.

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memorandum

date	January 26, 2022
to	Pete Vollmann, City of Oakland Planning Department
cc	Elizabeth Kanner, ESA; File
from	Johanna Kahn and Becky Urbano, ESA
subject	Peer Review of *Historic Resource Evaluation [for] Owens-Illinois Plant 20, 3600 Alameda Avenue*

Introduction

As part of the California Environmental Quality Act (CEQA) environmental review of the 3600 Alameda Avenue Project, ESA has conducted a peer review of the *Historic Resource Evaluation [for] Owens-Illinois Plant 20, 3600 Alameda Avenue* (HRE) prepared by Page & Turnbull in December 2021. The HRE presents the following conclusion:

> Page & Turnbull evaluated Owens-Illinois Pacific Coast Company Plant 20, located at 3600 Alameda Avenue, Oakland, for eligibility for listing in the California Register [of Historical Resources (California Register)] and for designation as a historical resource at the local level. The earliest buildings at the plant were constructed between 1936 and 1938, and the facility operated as a container glass manufacturing and packing facility continuously until its closure by the company in 2015. Several original buildings possess distinctive architectural features and significance as examples of the mid- to late-1930s design of industrial facilities as reflected in a manufacturing complex. [The 11 buildings remaining from the original construction of Plant 20 therefore appear to be significant under Criterion 3 as a district, as an example of mid-late 1930s design of an industrial facility, with a period of significance of 1936-1938.[1]] However, the integrity [of] setting, design, materials, workmanship, feeling, and association of Plant 20's original buildings have been diminished by decades of continued modification for use by the glass factory. The Owens-Illinois Pacific Coast Company Plant 20 at 3600 Alameda Avenue in Oakland is therefore not eligible for the California Register as a historic district. Further, the property does not retain the level of integrity necessary for designation as a City of Oakland Landmark. The subject property is therefore not a historical resource for the purposes of CEQA.[2]

[1] Page & Turnbull, *Historic Resource Evaluation [for] Owens-Illinois Plant 20, 3600 Alameda Avenue*, p. 51, prepared for Duke Realty, December 17, 2021.

[2] Ibid., p. 57.

Eligibility for Listing in the California Register

The complex at 3600 Alameda Avenue comprises 15 industrial and utilitarian buildings and structures, most of which were constructed in the mid-to-late 1930s. ESA concurs that the plant appears to be significant under California Register Criterion 3 (design/architecture) as a district. Eleven buildings and structures remain from the period of the plant's initial development (1936–1938) and represent a significant concentration of built resources that embody distinctive characteristics of a 1930s-era industrial facility.

When 3600 Alameda Avenue was examined as part of the Oakland Cultural Heritage Survey (OCHS) in 1994, City preservation planning staff concluded that, "[A]t present it does not appear eligible for individual listing on the National Register [of Historic Places (National Register)]. However if its architectural integrity were accurately restored, it might become eligible."[3] *National Register Bulletin 15* provides the following guidance for properties that are architecturally significant:

> A property that has lost some historic materials or details can be eligible *if* it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, pattern of windows and doors, texture of material, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of the features that once characterized its style.[4]

The subject property was not evaluated by the OCHS for eligibility for listing in the California Register, which was first established two years previously in 1992. According to guidance from the California Office of Historic Preservation, "It is possible that historical resources may not retain sufficient integrity to meet the criteria for listing in the National Register, but they may still be eligible for listing in the California Register."[5]

The HRE concludes that the "remaining 11 buildings and site features at Plant 20 retain only integrity of location," and the subject property does not retain sufficient integrity to be eligible for listing in the California Register.[6] Alterations, new construction, and demolition were first observed in the 1994 evaluation and later thoroughly documented in the HRE. ESA concurs that 3600 Alameda Avenue does not retain sufficient integrity to convey is architectural significance under Criterion 3, and the property does not appear to be eligible for listing in the California Register.

Eligibility for City of Oakland Historical Resource Designation

In Oakland, an age-eligible (i.e., 45 years or more) property may qualify as a historical resource under CEQA and/or as a City of Oakland historical resource. The City uses a multi-part rating system that evaluates the building's current historical significance (rated A through F) and also provides an indication of its potential for a

[3] Oakland Cultural Heritage Survey, *Department of Parks and Recreation 523 Forms for 3600 Alameda Avenue*, 1994, on file at the City of Oakland Planning Department.

[4] U.S. Department of the Interior, National Park Service, *National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation* (Washington, D.C.: National Park Service, 1995), p. 46.

[5] California Office of Historic Preservation, "Technical Assistance Series No. 6: California Register and National Register: A Comparison (for Purposes of Determining Eligibility for the California Register)," 2011, p. 2, https://ohp.parks.ca.gov/pages/1069/files/technical%20assistance%20bulletin%206%202011%20update.pdf, accessed January 11, 2022.

[6] Page & Turnbull, pp. 55–56.

changed rating based on future modification. For the purposes of CEQA, only properties rated A or B on this scale would qualify as historical resources.

As noted in the HRE:

> Previous evaluation of Plant 20, conducted in 1994 by the OCHS, assigned a local rating of Cb+3[7] and California Historical Resource Status Code of 7. This preliminary rating does not appear to have been based on a thorough review of site features and history. Based on the findings presented above, a more appropriate local rating for the complex of original buildings at Plant 20 would be an unmodified "C." While its initial architectural design incorporated distinctive features, subsequent changes to the property have resulted in the loss of historic materials, and diminished its historic integrity to the degree that the property could not be feasibly rehabilitated in a manner that would increase its rating.[8]

In an email dated January 7, 2022, Page & Turnbull staff provided additional support for their recommendation of a C rating: "Our evaluation did not find that the property had been restored or rehabilitated, or had changed in its significance or association, such that an upgrade of the OCHS's 1994 rating of 'C' with a contingency of 'b' was warranted."[9] The HRE recommends that "a more appropriate local rating for the complex of original buildings at Plant 20 would be an unmodified 'C.'"[10] City preservation planning staff has concurred with this assessment.[11]

The HRE concludes that the subject property does not qualify for designation as a historical resource under CEQA at the local level because it does not meet any of the five criteria established under the City of Oakland's Thresholds of Significance Guidelines. ESA concurs that, based on its current historic status, 3600 Alameda Avenue does not meet any of the City of Oakland criteria for identification as a historical resource under CEQA.

Conclusion

In summary, ESA concurs with the report's author that the subject property at 3600 Alameda Avenue is not considered to be a historical resource for the purposes of CEQA.

Johanna Kahn, M.Ar.H.
Senior Architectural Historian

Becky Urbano, M.S.
Senior Architectural Historian

[7] The Cb+3 rating signifies that 3600 Alameda Avenue was considered to be of Secondary Importance (i.e., a superior or visually important example), potentially of Major Importance (i.e., an especially fine architectural example or of major historical importance) if restored or rehabilitated, and not located in a district.

[8] Page & Turnbull, pp. 56–57.

[9] Jason Bernstein (Duke Realty), Email to Elizabeth Kanner (ESA), January 7, 2022.

[10] Page & Turnbull, p. 56.

[11] Betty Marvin (City of Oakland), email to Elizabeth Kanner (ESA), January 26, 2022.

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Appendix M
Energy Calculations

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3600 Alameda Ave Project Fuel Use Calculations

3/13/2023

CO_2 emissions from AQ Calculations:

Conversion	1 MT =	1000	kg

Construction Diesel Sources	CO_2 Emissions	
Off road equipment	578	MT
Haul/Vendor trucks	213.41	MT
TOTAL Diesel Sources =	**791.88**	MT
Convert to kilograms	7.92E+05	kg

Diesel fuel combustion[a] = 10.21 kg CO2/gallon

Diesel Combustion Rate =	77559.47	gallons	(over the construction period)	104	104000000	0.07%

Construction Gasoline Sources	CO_2 Emissions	
Construction workers	204	MT
Convert to kilograms	2.04E+05	kg

Gasoline fuel combustion[a] = 8.78 kg CO2/gallon

Gasoline combustion rate =	23180.99	gallons	(over the construction period)	442	442000000	0.005%

Operational Stationary Diesel Sources	CO_2 Emissions	
Emergency generator if diesel	6.664	MT
Convert to kilograms	6.66E+03	kg

Diesel fuel combustion[a] = 10.21 kg CO2/gallon

Diesel combustion rate =	652.69	gallons	Per year during operation	104	104000000	0.0006%

Operational Mobile Diesel Sources	CO_2 Emissions	
Operational Diesel Vehicles	1481.53	MT
Convert to kilograms	1.48E+06	kg

Diesel fuel combustion[a] = 10.21 kg CO2/gallon

Diesel Combustion Rate =	145105.66	gallons	per year during operation	104	104000000	0.14%
TOTAL OPERATIONAL DIESEL =	145758.35			104	104000000	0.14%

Operation Gasoline Sources		
	CO_2 Emissions	
Operational Vehicles	1,850.72	MT
Convert to kilograms	1.85E+06	kg

Gasoline fuel combustion[a] = 8.78 kg CO2/gallon

Gasoline combustion rate =	210787.72	gallons	Per year during operation	442	442000000	0.05%

Notes: [a] Emissions factors per The Climate Registry 2020 Default Emission Factors (Table 2.1 - US Default CO2 Emission Factors for Transport Fuels)