Jewish Community Center East Bay Project at Rockridge, Oakland

CEQA Analysis

October 2024

Prepared for:

City of Oakland
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Project Information

1. Project Title:	Jewish Community Center East Bay #PLN 23117
2. Lead Agency Name and Address:	City of Oakland Planning & Building Department, Bureau of Planning 250 Frank Ogawa Plaza, Suite 2114 Oakland, CA 94612
3. Case Planner:	Alexia Rotberg, Planner II ARotberg@oaklandca.gov
4. Project Location:	Fourteen (14) separate parcels comprising an area of just over 2.97 acres, with a primary address at: 5901 College Avenue Oakland, CA Assessor's Parcel Number 014-1268-9-1
5. Owner:	LPC College, LLC
6. Project Sponsor:	Libitzky Property Companies, dba LPC College, LLC Represented by: Suzanne Brown, Equity Community Builders 415-577-3723
6. Existing General Plan Designation:	Neighborhood Center Mixed Use and Mixed Housing Type Residential
7. Existing Zoning:	Neighborhood Commercial-1 (CN-1)
8. Requested Permits:	Major Design Review to alter existing structures, in conjunction with a Conditional Use Permit (CUP) Tentative Parcel Map to merge all 14 existing parcels into one parcel Conditional Use Permit (CUP) to permit Community Assembly and Community Education Civic land use activities Tree Preservation or Removal Permit to remove certain on-site trees and to preserve protected trees located within 10 feet of proposed construction The Project will also require subsequent administrative permits for work located within and close to the public right-of-way, grading, stormwater control, demolition and building permits

I – Introduction

Executive Summary

The purpose of this document is to provide required California Environmental Quality Act (CEQA) review for the proposed Jewish Community Center East Bay project (JCCEB Project, or Project). This document includes:

- A description of the proposed Project
- An assessment of whether the Project qualifies for a CEQA exemption pursuant to CEQA Guidelines Section 15332 as an Infill Development Project
- An examination of whether there are Project-specific significant effects that are peculiar to the Project or its site and that would pose an exception to a CEQA exemption pursuant to CEQA Guidelines Section 15300.2
- An assessment of whether the Project qualifies for CEQA streamlining and exemptions pursuant to CEQA Guidelines Section 15183 as a project that is consistent with the development density established by existing zoning, community plan or general plan policies for which an EIR was certified

Applicable CEQA sections are further described below, each of which separately and independently provide a basis for CEQA compliance.

Project Overview

LPC College, LLC (the Project applicant) wishes to expand educational and community services and to create a hub for non-profit Jewish organizations in Oakland. The Project is to be known as the Jewish Community Campus East Bay (JCCEB Project). The Project applicant has selected a site for the new JCCEB that is located in the Rockridge neighborhood of Oakland, on a site that includes the current corporate headquarters of the Dreyer's/Nestle Company. The Project site consists of fourteen parcels (10 Alameda County Assessor parcels) comprising 2.97 acres of land, with seven existing buildings including the Dreyer's Headquarters office building at 5901 College Avenue and the Dreyer's Conference Building at 6028 Claremont Avenue. The Project proposes relatively minor exterior alterations to both of these two buildings. Five other existing buildings are located at 5936 and 5941 Chabot, and at 6012, 6016 and 6048 Claremont. The Project does not propose to alter the exterior of these five buildings.

The JCCEB Project involves a limited extent of physical changes to the Project site including demolition of a breezeway at the rear of the Dreyer's Conference Building, construction of a new outdoor deck along the southerly side of the Dreyer's Conference Building at 6028 Claremont Avenue, and modification of the rear (interior facing) entry at the Dreyer's Headquarter Building at 5901 College Avenue. Additional site work includes removal of asphalt and concrete from the interior of the site to facilitate development of more attractive and functional outdoor spaces to serve the new campus. These outdoor spaces include children's outdoor play areas, a small court games area, and a central Green outdoor gathering area. With the increase in functional outdoor space, the number of parking spaces will be reduced from 140 existing parking spaces to 91 parking spaces. The changes in outdoor areas as proposed will occur within an approximately 1-acre portion of the nearly 3-acre site.

The Project will utilize existing buildings within the Project site, and will not substantially change the location, size or design of these existing buildings as seen from the street at College Avenue, Claremont Avenue or Chabot Road. The Project seeks a Conditional Use Permit (CUP) to permit Community Assembly and Community Education Civic land uses onsite. The remainder of existing building space will continue to be used for commercial retail (continued use of storefront retail spaces along College Avenue), limited-service restaurant (café for JCCEB use only), and administrative commercial office space.

CEQA Findings

As fully evaluated in this CEQA Document, the Project qualifies for exemptions from additional environmental review. The Project is consistent with the development intensity and land use characteristics established by the City of Oakland General Plan, and potential environmental impacts associated with this development intensity and land use characteristics were adequately analyzed in a prior Program EIR, the 1998 Land Use and Transportation Element EIR (LUTE EIR). The analysis contained in this CEQA document supports a determination that each of the CEQA exemptions, streamlining and/or tiering provisions that are listed below separately and independently provide a basis for CEQA compliance for the Project.

- The Project qualifies for an exemption from further environmental review as specified in CEQA Guidelines Section 15332 for Infill Development Projects.
- The Project qualifies for an exemption from further environmental review per CEQA Guidelines Section 15183 for Projects Consistent with a Community Plan, General Plan or Zoning.
- The Project qualifies for CEQA streamlining by tiering from a prior Program EIR (the LUTE EIR).
- None of the conditions otherwise requiring a supplemental or subsequent EIR as specified in CEQA Guidelines Sections 15162 and 15163 are present.

If approved, the Project is required to comply with applicable mitigation measures identified in the LUTE EIR, as modified and in most cases wholly replaced to reflect the City's current requirements of its Standard Conditions of Approvals (SCAs). With implementation of applicable SCAs, the Project would not result in any new significant impacts that were not previously identified in the LUTE EIR or in a substantial increase in the severity of significant impacts that were previously identified in the LUTE EIR. Accordingly, no further environmental documentation or analysis is required.

Prior Program EIR

The Project site is generally addressed in prior City of Oakland planning documents, including the 1998 General Plan Land Use and Transportation Element (LUTE).[1] A Program EIR was prepared and certified for the 1998 Land Use and Transportation Element (the LUTE EIR).[2] This prior Program EIR is summarized below and hereby incorporated by reference, and can be obtained from the City of Oakland Bureau of Planning at 250 Frank H. Ogawa Plaza, Suite 3315 or online at:
https://www.oaklandca.gov/resources/completedenvironmental-review-ceqa-eir-documents

LUTE Primary Policy Framework

The LUTE identifies policies for utilizing Oakland's land as future changes take place and sets forth an action program to implement its land use policy through development controls and other strategies. The LUTE identifies a number of primary policy framework areas, including Neighborhood Activity Centers and Transit-Oriented Districts. Neighborhood Activity Centers are the focal point of the community and an organizing principal of the LUTE. These areas have or will have diverse business, civic and social activities supported and strengthened by surrounding housing, that help to form neighborhoods and reflect the distinct identities of

1 City of Oakland, *General Plan: Land Use and Transportation Element*, March 1998 as amended through September 2023

2 City of Oakland, *General Plan: Land Use and Transportation Element Final EIR*, certified February 1998

Oakland's communities and assist in efforts to support community governance. Most of the Activity Centers are located along the city's corridors and are particularly well suited for locating community facilities, small open spaces such as public plazas or tot lots, and housing for seniors and others who appreciate easy access to shops, services and transportation.

Transit-Oriented Districts (TODs) are designated to take advantage of opportunities presented by Oakland's eight BART stations and multiple bus lines. Easy pedestrian and transit access to mixed-use development characterize these areas. A strong identity is to be created through careful design and a mix of activity. The Rockridge neighborhood is identified as "an outstanding example of a Transit Oriented District", with College Avenue as its spine.

The policy framework for Neighborhood Activity Centers and Transit-Oriented Districts specifically apply to the Project.

LUTE Program EIR

The 1998 LUTE EIR is considered a Program EIR per CEQA Guidelines Section 15168 and Section 15183. As such, subsequent activities pursuant to the LUTE are subject to requirements under each of these CEQA Guidelines sections. Applicable mitigation measures identified in the 1998 LUTE EIR are largely the same as those identified in the other Program EIRs prepared after the 1998 LUTE EIR, either as mitigation measures or as now incorporated as Standard Conditions of Approval (SCAs).

The 1998 LUTE EIR determined that development consistent with the LUTE would primarily result in impacts that would be less than significant or reduced to a less than significant level with the implementation of mitigation measures and/or SCAs as identified in that EIR. Significant unavoidable impacts were identified in the 1998 LUTE EIR for the following environmental topics:

- air quality (regional emissions, and roadway emissions in Downtown)
- noise (construction noise and vibration in Downtown)
- public services (fire safety)
- transportation and circulation (roadway segment operations)[3]
- wind hazards,[4] and
- policy consistency (inconsistency with Clean Air Plan)

Due to the potential for significant unavoidable impacts, a Statement of Overriding Considerations was adopted as part of the City's approvals of the LUTE.

CEQA Conclusions of this Document

The purpose of this CEQA document is to evaluate the potential environmental effects of the JCCEB Project and to determine whether such impacts were adequately addressed in the LUTE Program EIR, such that CEQA exemptions and streamlining provisions apply. The analysis and supporting documentation contained in this

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3 The LUTE EIR assessed transportation and circulation impacts based on a variety of level of service (LOS) metrics. In April 2017, the City of Oakland published revised Transportation Impact Review Guidelines to guide the evaluation of transportation impacts associated with land-use development projects. Based on these new guidelines, level of service (LOS) or similar measures of vehicular capacity or traffic congestion are no longer used as thresholds for defining a significant impact on the environment.

4 The City's most recent (September 2023) CEQA Thresholds of Significance Guidelines no longer include wind as a CEQA threshold

document provides a comprehensive review and public information that comprises the basis for the following CEQA determinations.

The JCCEB Project qualifies for two separate CEQA exemptions and streamlining provisions, each of which separately and independently provide a basis for CEQA compliance.

Class 32 Categorical Exemption

Public Resources Code Section 21159.21 and CEQA Guidelines Section 15300 to Section 15333 include a list of classes of projects that have been determined to not have a significant effect on the environment and are therefore exempt from further review under CEQA. Among the classes of exempt projects are those projects identified as urban Infill Development. CEQA Guidelines Section 15332 (Class 32) Infill Development projects are characterized as infill development when meeting the following conditions:

- the project is consistent with the applicable zoning designation and regulations
- the proposed development occurs within city limits on a project site of no more than 5 acres substantially surrounded by urban uses
- the project site has no value as habitat for endangered, rare, or threatened species, and
- approval of the project would not result in any significant effects related to traffic, noise, air quality or water quality, and
- the site can be adequately served by all utilities and public

The Project's consistency with these Class 32 exemption requirements is provided in Chapter IV of this document.

No Exceptions

CEQA Guidelines Section 15300.2 identifies exceptions to an otherwise applicable CEQA exemption. These exceptions (as applicable to the Project) include significant cumulative effects not otherwise addressed, significant effects due to unusual circumstances, projects that result in damage to scenic resources within a designated State Scenic Highway, projects located on a hazardous waste site, and projects that may cause a substantial adverse change in the significance of a historical resource. As analyzed in Chapter V of this CEQA document, there are no significant effects peculiar to the Project or its site. No exceptions to a CEQA exemption pursuant to CEQA Guidelines Section 15300.2 apply.

Community Plan Exemption

Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan or Zoning) provide for exemptions and streamlined environmental review for projects that are consistent with the development density established by existing zoning, community plan or general plan policies for which an EIR was certified, except as might be necessary to examine whether there are project specific significant effects which are peculiar to the project or its site. CEQA Guidelines Section 15183(c) specifies that if an impact is not peculiar to the parcel or to the project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards (e.g., City of Oakland SCAs), then an EIR need not be prepared for the project solely on the basis of that impact.

This CEQA document considers the applicability of the environmental evaluation prepared in the 1998 LUTE EIR for the Project, and concludes that the Project would not result in significant impacts that;

- are peculiar to the Project or Project site

- are not identified in the prior LUTE EIR as significant project-level, cumulative or off-site effects, or
- were previously identified as significant effects, but would now have a more severe adverse impact than discussed in the prior LUTE EIR

Findings regarding the Project's consistency with applicable General Plan and zoning provisions are included in Chapter III of this document. The Project meets the requirements for a Community Plan Exemption pursuant to CEQA Guidelines Section 15183. The Project is permitted in the zoning district where the Project site is located and is consistent with the land uses as envisioned in the LUTE. Based on the analysis conducted in Chapter VI of this CEQA document and pursuant to CEQA Guidelines Section 15183, the Project qualifies for a Community Plan Exemption.

CEQA Streamlining / Reliance on a Prior Program EIR

CEQA Guidelines Section 15168 provides that a prior Program EIR can be used in support of streamlining and/or tiering provisions. A Program EIR is an EIR prepared on a series of actions that can be characterized as one large project and that are related geographically and by other shared characteristics. The LUTE EIR is a Program EIR, which can be relied on for streamlining and/or tiering. CEQA Guidelines Section 15168 provides that subsequent activities pursuant to a Program EIR must be examined in light of the Program EIR to determine whether an additional environmental document must be prepared. If the lead agency finds that no new effects could occur or no new mitigation measures would be required, the lead agency can approve the activity as being within the scope of the project covered by the Program EIR and no new environmental document would be required.

Based on an examination of the analysis, findings and conclusions of the prior LUTE EIR as summarized in this CEQA Analysis, the potential environmental impacts associated with the Project have been adequately analyzed and covered in the prior LUTE Program EIR. This CEQA Analysis demonstrates that the Project would not result in substantial changes or involve new information that would warrant preparation of a subsequent EIR per CEQA Guidelines Section 15162, because the level of development and activity now proposed for the Project site is within the broader development assumptions analyzed in the LUTE EIR. The Project is required to incorporate and/or comply with applicable requirements and mitigation measures identified in the LUTE EIR. Therefore, these mitigation measures (as SCAs) are included as part of the Project. The majority of those LUTE EIR mitigation measures have now been fully incorporated into the City's current Standard Conditions of Approval.

Current Standard Conditions of Approval

The City of Oakland established its Standard Conditions of Approval and Uniformly Applied Development Standards in 2008, after certification of the 1998 LUTE EIR. These SCAs have been amended and revised several times since then. The most recent version of the City of Oakland SCAs was published in July 2024. The City's SCAs are incorporated into and applied to project approvals as conditions of approval, regardless of a project's environmental determination. The SCAs incorporate policies and standards from various adopted plans, policies, and ordinances (e.g., Oakland Planning Code and Municipal Code, Creek Protection Ordinance, Stormwater Water Management and Discharge Control Ordinance, Tree Protection Ordinance, Grading Regulations, National Pollutant Discharge Elimination System [NPDES] permit requirements, Housing Element-related mitigation measures, California Building Code and Uniform Fire Code). Implementation of these SCAs have been found to substantially mitigate environmental effects. The SCAs are adopted as requirements of an individual project when it is approved, and are designed to and would substantially mitigate environmental effects.

Consistent with the requirements of CEQA, a determination of whether the Project would have a significant impact was made prior to the approval of the Project and, where applicable, SCAs and/or mitigation measures from the LUTE Program EIR have been identified to mitigate those impacts. In some instances, exactly how the SCAs will be satisfied awaits completion of future studies, an approach that is legally permissible where measures/conditions are known to be feasible for the impact identified; where subsequent compliance with identified federal, state, or local regulations or requirements apply; where specific performance criteria are specified and required; and where the project commits to developing measures that comply with the requirements and criteria identified.

Given the timespan between preparation of the CASP EIR and preparation of this CEQA Checklist there have been updates to these SCAs, and this CEQA Checklist relies on the most current, July 2024 version. These current SCAs are functionally equivalent to, or more protective of the environment than those SCAs and/or mitigation measures as identified in the 1998 LUTE EIR.

No Additional Environmental Review Required

This CEQA Analysis fully analyzes the environmental impacts of the Project to determine the most appropriate approach for its CEQA documentation and compliance. This analysis concludes the following as relates to the CEQA review of the JCCEB Project:

- The Project qualifies for a CEQA exemption pursuant to CEQA Guidelines Section 15332 as an Infill Development Project
- The Project is eligible for a Community Plan exemption pursuant to CEQA Guidelines Section 15183 as a project that is consistent with the development density established by existing zoning, community plan or general plan policies for which an EIR was certified.
- There are no Project-specific significant effects that are peculiar to the Project or its site that present an exception to a CEQA exemption pursuant to CEQA Guidelines Section 15300.2

The Project is within the scope of the broader program as evaluated in the LUTE Program EIR, and no new or additional environmental document is required.

II - Project Description

LPC College, LLC (the Project applicant) wishes to expand educational and community services and to create a hub for non-profit Jewish organizations in Oakland. The Project is to be known as the Jewish Community Campus East Bay (JCCEB). The Project applicant has selected a site for the new JCCEB that is located in the Rockridge neighborhood of Oakland, on a site that includes the current corporate headquarters of the Dreyer's/Nestle Company. The properties have been purchased for the intended Project, and Dreyer's/Nestle will continue to occupy the two main buildings on the project site (5901 College Avenue and 6028 Claremont) until the end of 2024.

This chapter describes the JCCEB Project's proposed changes to the former Dreyer's/Nestle buildings and surroundings, and the proposed changes in use and occupancy within these buildings (i.e., the Project) as evaluated in this CEQA Analysis. The following includes a description of the Project site and surroundings, existing site conditions, the proposed use of the site, and required Project approvals.

Project Location

The Project is located in the Rockridge neighborhood of Oakland. The Project site involves fourteen separate lots or legal parcels, comprising an area of just over 2.97 acres. The Project site is located in the center of the triangle-shaped block between College Avenue to the northeast, Chabot Road to the southeast and Claremont Avenue to the west.

Surrounding Land Uses

Properties to the north of the Project site and on the west side of College Avenue include two buildings of the College Avenue United Presbyterian Church, three 1- and 2-story retail commercial buildings, and a large vacant parcel at the intersection of College Avenue and Claremont Avenue. Properties to the north of the Project site and on the east side of Claremont Avenue are developed with existing commercial and residential buildings. Properties to the south of the Project site and along the east side of Claremont include six residential properties of single-family style. Along Chabot Road and southwest of the Project site include nine residential properties of single-family style, plus a low-density multi-family building at the Claremont and Chabot intersection.

Properties on the opposite, east side of College Avenue are all retail storefronts and commercial buildings that line the College Avenue commercial corridor. Adjacent properties on the opposite, south side of Chabot Road are all single-family style residential homes, with the exception of a restaurant at the corner of Chabot and College. Adjacent properties on the opposite, westerly side of Claremont Avenue are primarily one family residences, two and four family residences, as well as low density-multi-family residences.

The College Avenue Safeway and retail shops on College Avenue at Claremont are less than 0.2 miles to the north via College Avenue (see **Figure 1**).

Site Access

The Project is within 0.2 miles of the Rockridge BART Station, and within walking distance of several AC Transit bus lines, including the AC Transit trunk line #51B (12-minute headways) and AC Transit local line #79 (30-minute headways) along College Avenue. Transbay line E (with service to San Francisco during the morning commute period and from San Francisco during the evening commute period) runs along Claremont Avenue. The nearest bus stops to the Project site are on College and Claremont Avenues at their intersections with Chabot Road.

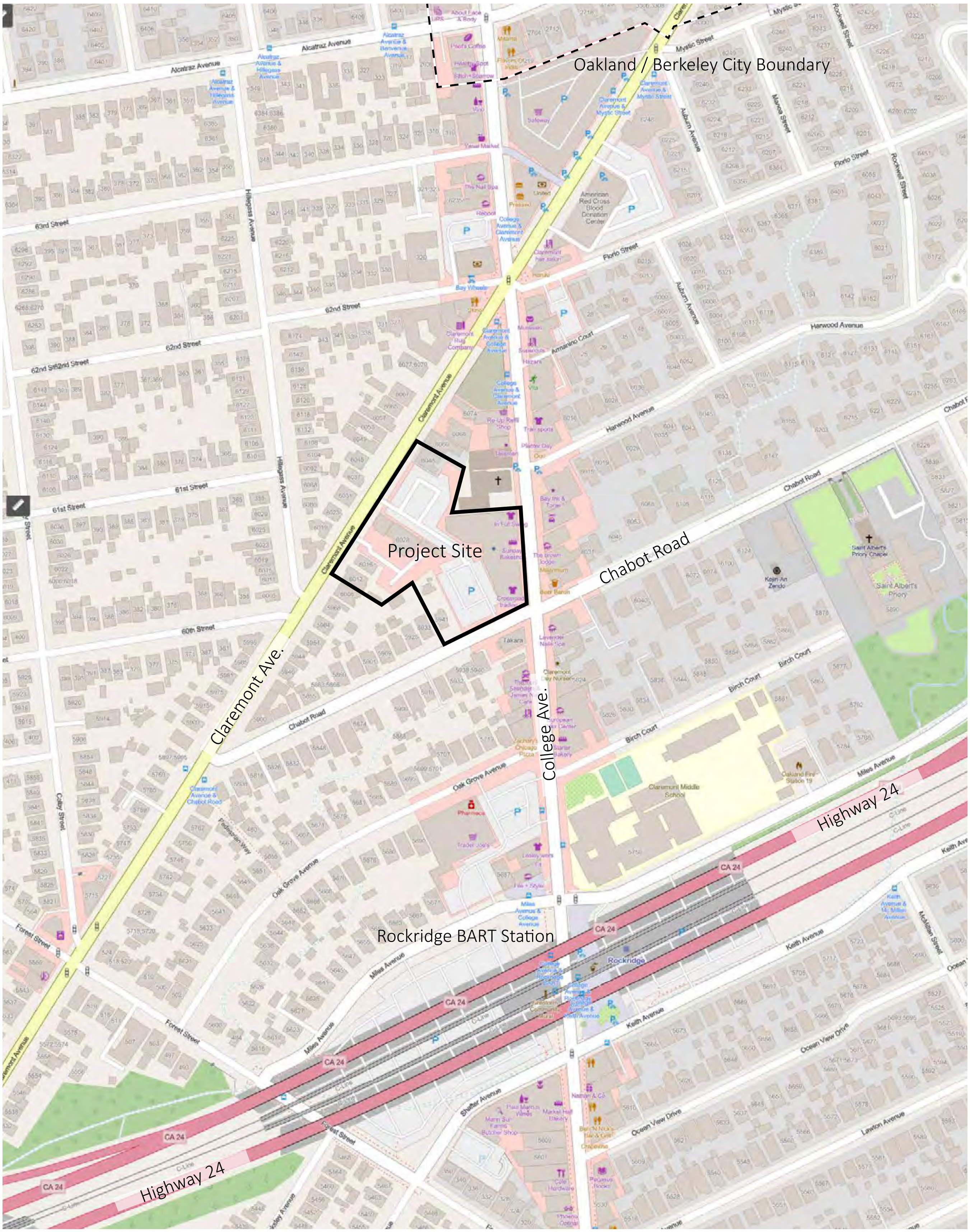

Figure 1
Project Location

Existing bicycle facilities in the Project vicinity include bicycle lanes on College Avenue and sharrows on Chabot Road east of College Avenue. The nearest BayWheels Bike Share stations are on 62nd Street just west of Claremont Avenue and about 0.2 miles north of the Project site, and at the Rockridge BART Station about 0.2 miles south of the Project site.

There is a wide variety of commercial and civic destinations within walking and biking distance of the Project site, and the Project site is well served by available walking and biking infrastructure, and transit services.

Regional auto access to the site from the west is from Highway 24 to Exit 4A toward College Avenue (0.3 miles), continuing on Miles Avenue for 0.3 miles, and then right onto College Avenue for 0.2 miles. Auto access to the site from the east from Highway 24 is via the Claremont Avenue exit for 0.2 miles, left onto Claremont Avenue for 0.4 miles, then right onto Chabot Road for 0.2 miles. The SR 24/Broadway interchange is less than 0.6 miles to the west via Chabot Road. The Project site is approximately 3 miles from downtown Oakland via Broadway to College Avenue, and about 3 miles from downtown Berkeley via Shattuck Avenue to Ashby Avenue, and south on College Avenue.

Project Site

Legal Lots

The Project site is divided among 14 legal lots, established as part of an 1878 Tract Map known as the Batchelder Tract (see **Figure 2**). Within the Project site, these original lots have been deeded to numerous prior owners and are no longer reflective of recent ownership or current building locations. As part of the Project, the Project applicant intends to apply for a Tentative Parcel Map to merge all 14 lots into one overall approximately 2.97-acre parcel.

Assessor's Parcels

The Project site also consists of ten separate Assessor's Parcels (APNs) comprising 129,541 square feet of land, including the following properties:

• 5901 College Avenue	(APN# 14-1268-09-01) [5]	52,707 square feet
• 5965 Chabot Road	(APN# 14-1268-11-01)	4,538 square feet
• 5957 Chabot Road	(APN# 14-1268-12-00)	5,130 square feet
• 5941 Chabot Road	(APN# 14-1268-13-00)	8,937 square feet
• 6048 Claremont Avenue	(APN# 14-1268-39-00)	6,888 square feet
• 6046 Claremont Avenue	(APN# 14-1268-38-00)	7,591 square feet
• 6036 Claremont Avenue	(AP# 14-1268-36-00)	9,367 square feet
• 6028 Claremont Avenue	(APN# 14-1268-35-01)	24,373 square feet
• 6016 Claremont Avenue	(APN# 14-1268-32-01)	4,050 square feet
• 6012 Claremont Avenue	(APN# 14-1268-30-00)	5,960 square feet
Total		129,541 square feet

[5] APN# 14-1268-09-01 is comprised of 5 legal lots, such that the Project site consists of 10 APNs and 10 addresses, but 14 legal lots. The legal lot at 6016 Claremont also shares a portion of an Assessor's Parcel (APN #14-1268-32-01) with 6028 Claremont.

Figure 2
Original Batchelder Tract (Parcel) Map of 1878 (approximate)

These 10 separate Assessor's Parcels form a contiguous area of just over 2.97 acres located in the center of the triangle-shaped block between College Avenue to the northeast, Chabot Road to the southeast and Claremont Avenue to the west (see **Figure 3**).

Existing Land Use

<u>Buildings</u>

The Project site contains seven existing buildings. These existing buildings (see **Figure 4**) include the following:

- The building at 5901 College Avenue is the 2- and 3-story Dreyer's Headquarters office building. The building is 60,547 square feet in size, including 8,920 square feet of ground floor retail space in five separate storefronts along College Avenue. The remaining 51,627 square feet of office space is still being used by Dreyer's/Nestle until the end of 2024, under the purchase terms of the building.
- The building at 6048 Claremont Avenue is a 2-story, 4,170 square-foot building. It currently serves as the main administrative offices of the Jewish Community Center of the East Bay.
- The building at 6028 Claremont Avenue is a graduated 1-, 2- and 3-story Dreyer's Conference Building. The building is 15,267 square feet in size and includes 5,807 square feet of conference rooms, multi-purpose rooms and accessory kitchen space, with the remaining 9,460 square feet as office space. Similar to the Headquarters building at 5901 College Avenue, Dreyer's continues to use this building until the end of 2024.
- The building at 6016 Claremont Avenue is a 1-story, 1,490 square-foot building currently serving as the residence of a rabbinic couple who host events and informal gatherings with Jewish young professionals through a program known as Base Bay.
- The building at 6012 Claremont Avenue is a 1-story, 1,360 square-foot building that is home to the Rockridge Moishe House, where post-college residents host social events for other Jewish young adults.
- The buildings at 5941 and 5939 Chabot Road (two addresses on one parcel) are two similarly sized 2-story, 3,375 square-foot residential buildings. The building at 5941 Chabot is currently an office for Jewish Learning Works, and the building at 5939 Chabot provides office space for the Jewish Community Federation and an artist studio space.

The total amount of building space on the Project site is approximately 89,600 square feet.

<u>Parking and Drive Aisle</u>

Primary vehicle access into the main portion of the site is provided by one drive aisle that runs between Claremont Avenue and Chabot Road. This drive aisle has a curb cut and security gate at the approximate mid-point of the site along Claremont Avenue just north of the building at 6028 Claremont, and a gated curb cut entrance/exit onto Chabot Road.[6]. This drive aisle passes adjacent to the Dreyer's Conference building at 6028 Claremont and continues across the site and past the internal façade of the Dreyer's Headquarters building at 5901 College. The internal drive aisle provides access to two primary parking lots (one adjacent to Claremont Avenue and one adjacent to College Avenue), as well as several smaller parking locations.

An additional curb cut with a security gate is located on Claremont Avenue immediately to the south the Dreyer's Conference building at 6028 Claremont. This curb cut provides ingress and egress to additional parking areas adjacent to and at the rear of the building at 6028 Claremont.

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6 Per a private lease agreement with existing retail tenants on College Avenue the gated site entry on Chabot Road will remain open during business hours.

Figure 3
Project Site and Existing Assessor's Parcels

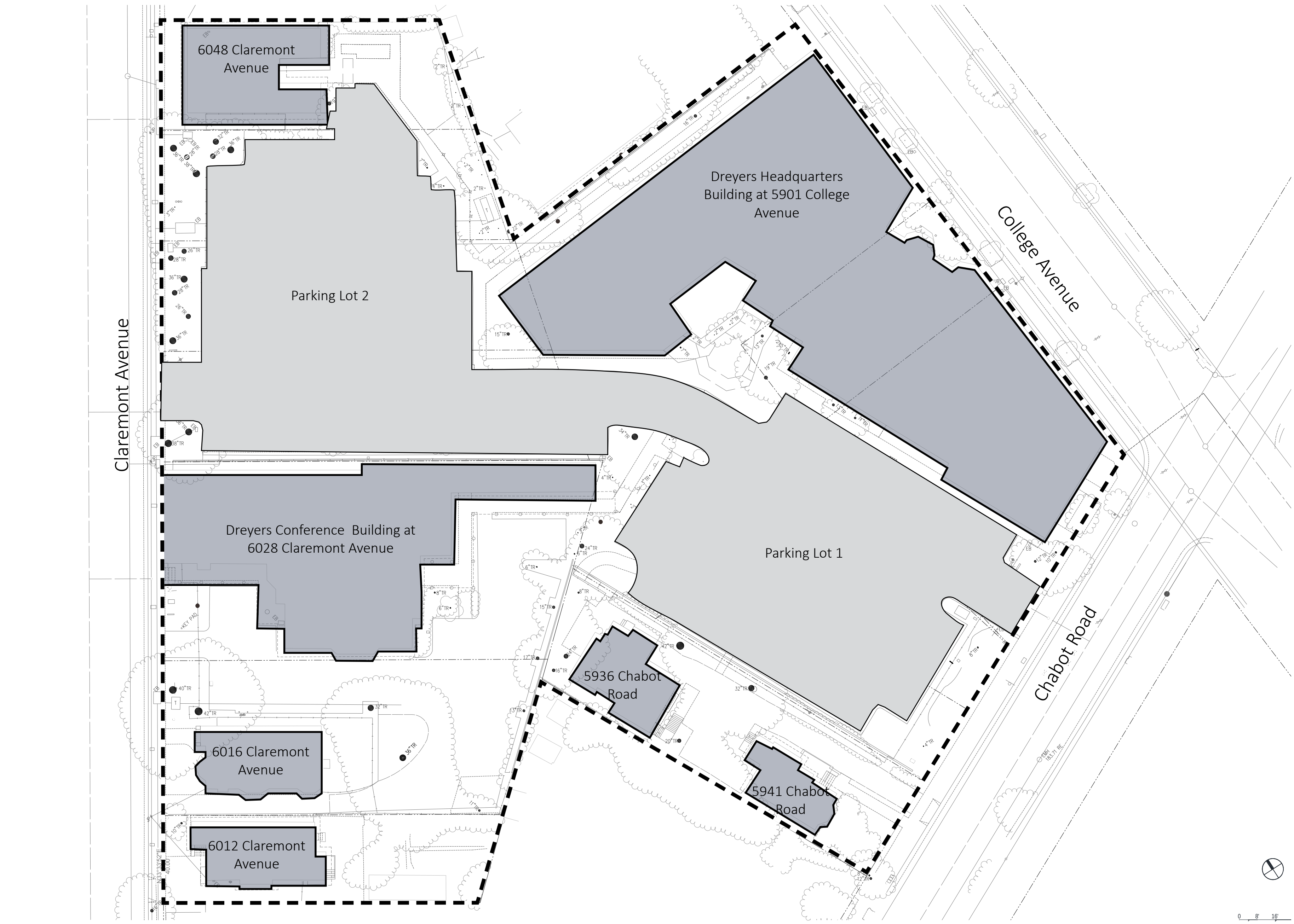


Figure 4
Existing Buildings at Project Site

Four of the Project site's ten Assessor's Parcels contain only parking and drive aisles, and no buildings (properties with addresses at 5957 and 5965 Chabot Road, and 6046 and 6036 Claremont Avenue). In total, the Project site currently provides 140 on-site automobile parking spaces.

<u>Other Site Information</u>

Landscape

The main portion of the Project site at the Dreyer's buildings (5901 College and 6028 Claremont) has a commercial landscape plan that includes mature street trees within a landscape strip along Claremont Avenue, mature street trees within tree grates in the sidewalk along College Avenue, trees planted within parking islands throughout existing on-site parking lots, and trees and shrubs planted around the edges of these buildings. The landscaping at the other parcels that contain buildings is more residential in scale and character, with landscaped front yards and sidewalks.

Historic Resources

According to the Oakland Cultural Heritage Survey (OCHS) that was conducted in the 1980s, the Dreyer's Conference Building at 6028 Claremont was not considered a historic resource. The Dreyer's Headquarters Building at 5901 College Avenue was not constructed until the 1990s, and thus is not documented in the OCHS. Each of the other 5 buildings on the Project site were identified in the OCHS as Potentially Designated Historic Properties (PDHPs). This CEQA document provides further analysis of the eligibility of each of the buildings at the Project site to now qualify as historic resources, and an assessment of whether the Project may result in a substantial adverse change in the significance of any buildings that may now qualify as historical resources.

Hazardous Material Site pursuant to Section 65962.5 of the Government Code (i.e., Cortese List)

According to the California State Water Resources Control Board's Geotracker website, the Dreyer's site (listed as 5929 College Avenue) was a former Leaking Underground Storage Tank (LUST) cleanup site. The site is currently listed as "Case Closed", and a case closure letter was issued by the Alameda County Department of Environmental Health (ACDEH) in February of 2022.

As a separate filing, the Geotracker website also lists 5901 College Avenue (the same property) as a "Non-Case, Informational Item" for preliminary site review as part of a potential property transaction and change in use (i.e., the Project).

The ACDEH Case Closure letter of February 2022 has removed this property from the list of known hazardous materials sites, and the separate Non-Case, Informational Item status of this property does not qualify as a Cortese List identifier per Government Code Section 65962.5. This CEQA document provides further analysis of the details of the Project site's status relative to Government Code Section 65962.5, assessing whether the levels of identified prior contamination present a significant risk to human health or the environment.

<u>General Plan Designation and Zoning</u>

General Plan

The College Avenue commercial corridor, which includes all but one parcel within the Project site, has a General Plan land use classification of Neighborhood Center Mixed Use (see **Figure 5**). Neighborhood Center Mixed Use areas are intended to support adjacent neighborhoods by providing distinctive and conveniently located mixes of retail shops, services, housing and public facilities. Other examples of pedestrian-oriented neighborhood center commercial areas in Oakland include Piedmont Avenue, East 18th Street at Lake Merritt, and Fruitvale at International Boulevard. This land use classification applies to the entire approximately 1-mile, predominantly commercial corridor along College Avenue from the City of Berkeley boundary near Alcatraz Avenue, to Broadway.

The Neighborhood Center Mixed Use classification is intended to identify, create, maintain and enhance mixed-use neighborhood commercial centers. These centers are typically characterized by smaller scale pedestrian-oriented, continuous street frontage with a mix of retail, housing, office, active open space, eating and drinking places, personal and business services, and smaller-scale educational, cultural or entertainment uses. Future development within this classification should be commercial or mixed-uses that are pedestrian-oriented and serve nearby neighborhoods, or urban residential with ground floor commercial. The maximum non-residential FAR for this classification is 4.0, and the maximum residential density is 125 units per gross acre. Vertical integration of uses, including residential units above street-level commercial space, is encouraged.

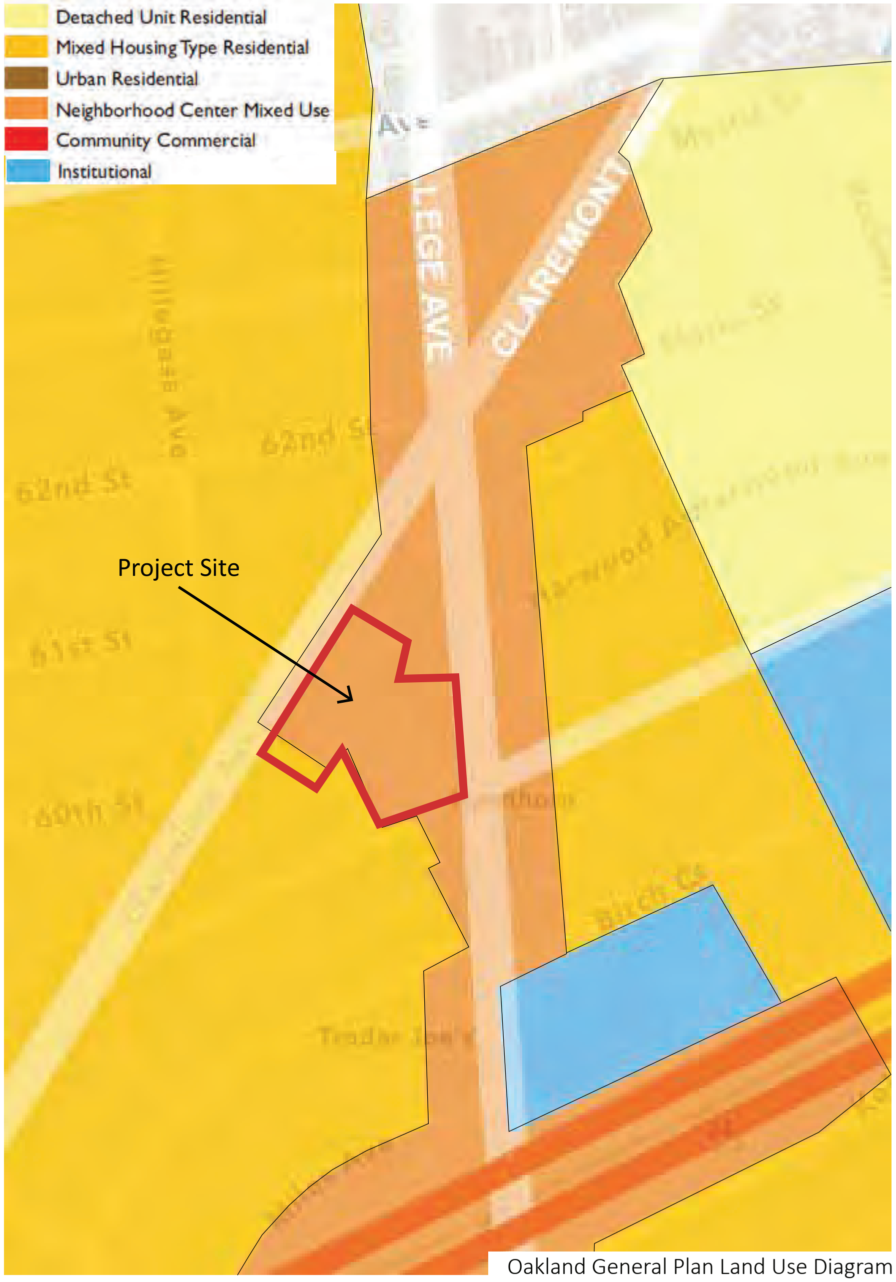
One property within the Project site at 6012 Claremont has a land use designation of Mixed Housing Type Residential. Mixed Housing Type Residential Areas are intended to create, maintain, and enhance residential areas typically located near the City's major arterials and characterized by a mix of single-family homes, townhouses, small multi-unit buildings and neighborhood businesses where appropriate. Future development within this classification should be primarily residential in character, with live-work types of development, small commercial enterprises, schools, and other small scale, compatible civic uses possible in appropriate locations.

Zoning

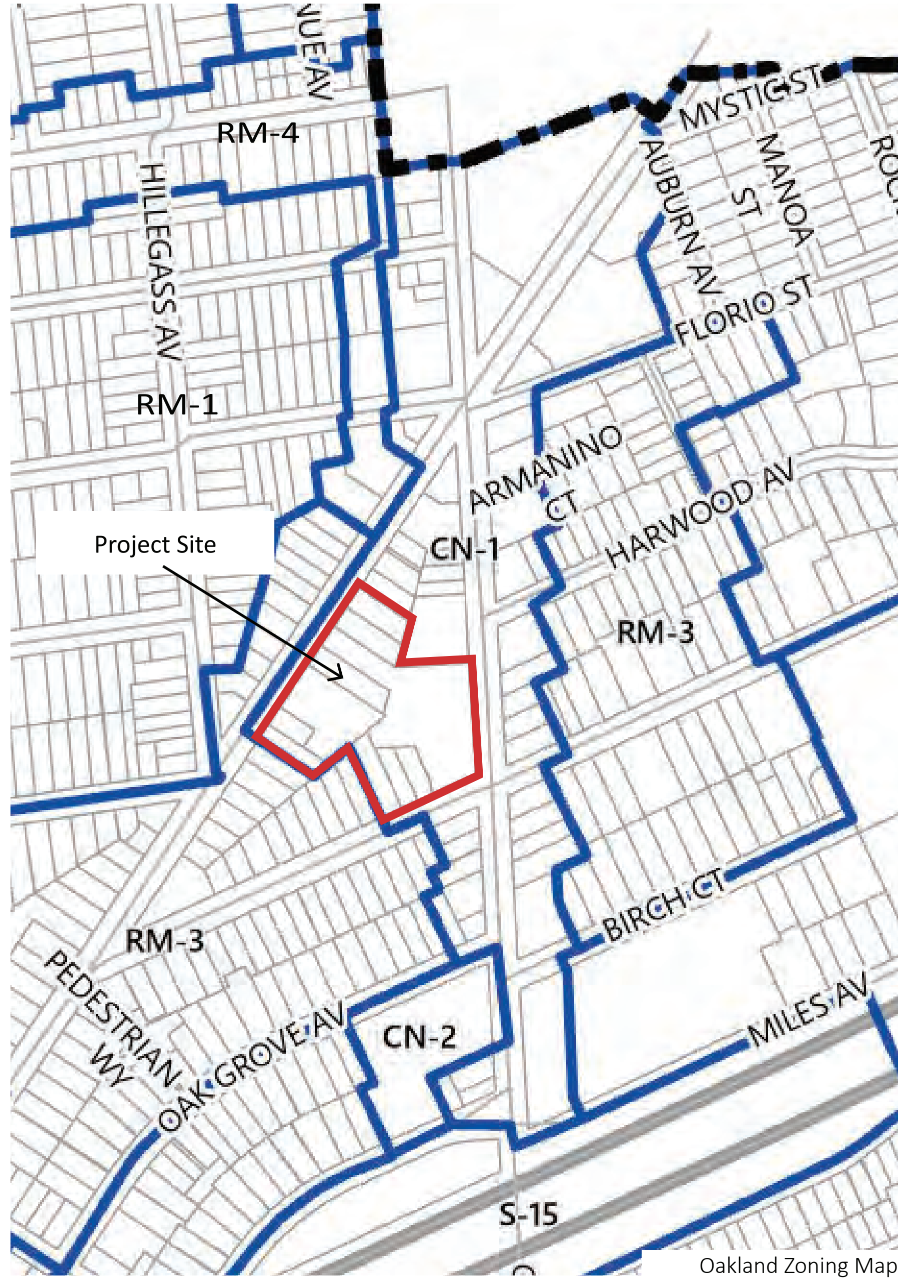
The entire Project site is zoned as Neighborhood Commercial-1 (CN-1) (see also **Figure 5**). [7] Pursuant to the Oakland Planning Code Chapter 17.33, the intent of each of the City's four Neighborhood Center Commercial zones (CN-1 through CN-4) is to create, preserve and enhance mixed-use neighborhood commercial centers. These centers are typically characterized by smaller-scale and pedestrian oriented continuous and active storefronts, with opportunities for comparison-shopping. Specifically, the intent of the CN-1 Zone is to maintain and enhance vibrant commercial districts with a wide range of retail establishments serving both short- and long-term needs in attractive settings oriented to pedestrian comparison-shopping.

The Oakland Planning Code (OPC) Section 17.33.020 provides that, except for projects that are exempt, no building or other associated structure within the Neighborhood Commercial zones shall be constructed, established or altered in exterior appearance unless plans for the proposal have been approved pursuant to the City's Design Review procedure.

[7] In October of 2023 and pursuant to a separate City-initiated effort to implement the 2023-2031 Housing Element, the Oakland City Council completed a citywide effort to update the Oakland Planning Code (Title 17) and amended the City Zoning Map. Pursuant to those amendments, the properties at 5965, 5957 and 5941 and 5901 Chabot Road were rezoned from R-1 to CN-1. Similarly, the properties at 6012 and 6016 Claremont Avenue were rezoned from RM-3 to CN-1. Certain text amendments applicable to the Neighborhood Commercial and other City zoning districts were also made. The updated Planning Code and zoning map amendments became effective October 30, 2023. Accessed at: https://www.oaklandca.gov/topics/oakland-2045-general-plan-zoning-amendments#related-documents



Oakland General Plan Land Use Diagram



Oakland Zoning Map

Figure 5
City of Oakland General Plan and Zoning

Source: City of Oakland General Plan and Zoning Map, accessed at: https://oakgis.maps.arcgis.com/apps/webappviewer/index.html?id=3676148ea4924fc7b75e7350903c7224

The Neighborhood Commercial-1 zoning district also provides for the following land use activities and development standards:

- OPC Section 17.33.040 lists the types of permitted Civic activities within the CN-1 zone as including but not limited to Limited Child-Care Activities (fewer than 14 children), Recreational Assembly, Non-Assembly Cultural, and Administrative. The types of permitted Commercial activities within the CN-1 zone include but are not limited to Restaurants, General Retail Sales, Group Assembly, Personal Instruction and Improvement Services, Administrative and Business, Communications, and Media Services.
- OPC Section 17.33.040 also lists the types of conditionally permitted Civic activities within the CN-1 zone (i.e., requiring a conditional use permit, or CUP) as including but not limited to Community Assembly and Community Education (includes daycare and kindergarten with 15 or more children).
- OPC Table 17.33.03 prescribes development standards specific to the CN-1 zones as including minimum lot dimensions of 25 feet mean lot width, 25 feet frontage and 4,000 square feet lot area.
- OPC Table 17.33.03 also provides for minimum and maximum building setbacks as being 0 feet minimum front setback, 10 feet maximum front setback, 0 feet minimum interior side setback, 0 feet minimum street side setback, 10 feet rear yard setback adjacent to residential facilities (e.g., the adjacent RM zone), and 0 feet rear setback from non-residential facilities.
- OPC Table 17.33.03 also identifies specific design regulations applicable in the 55-Foot Height Area that applies to the Project site: 55 feet maximum building height; 35 feet minimum permitted building height or 25 feet minimum conditionally permitted building height; maximum non-residential floor-to-area ratio (FAR) of 3.0; 65% minimum facade transparency for ground-floor non-residential facilities; 15 feet as the minimum height of ground-floor non-residential facilities, specific requirements for parking and driveway location, and specific requirements for ground-floor active space.

Detailed Project Description

The JCCEB Project proposes a comprehensive reuse of the former Dreyer's site to create an integrated campus for educational, administrative and civic activities, and to create a hub for non-profit Jewish organizations in Oakland. The activities occurring on the property would be different than those associated with the use of the site by Dreyer's, but the buildings would largely remain in their present condition, save for some minor alterations, and repurposed to function as a cohesive campus environment.

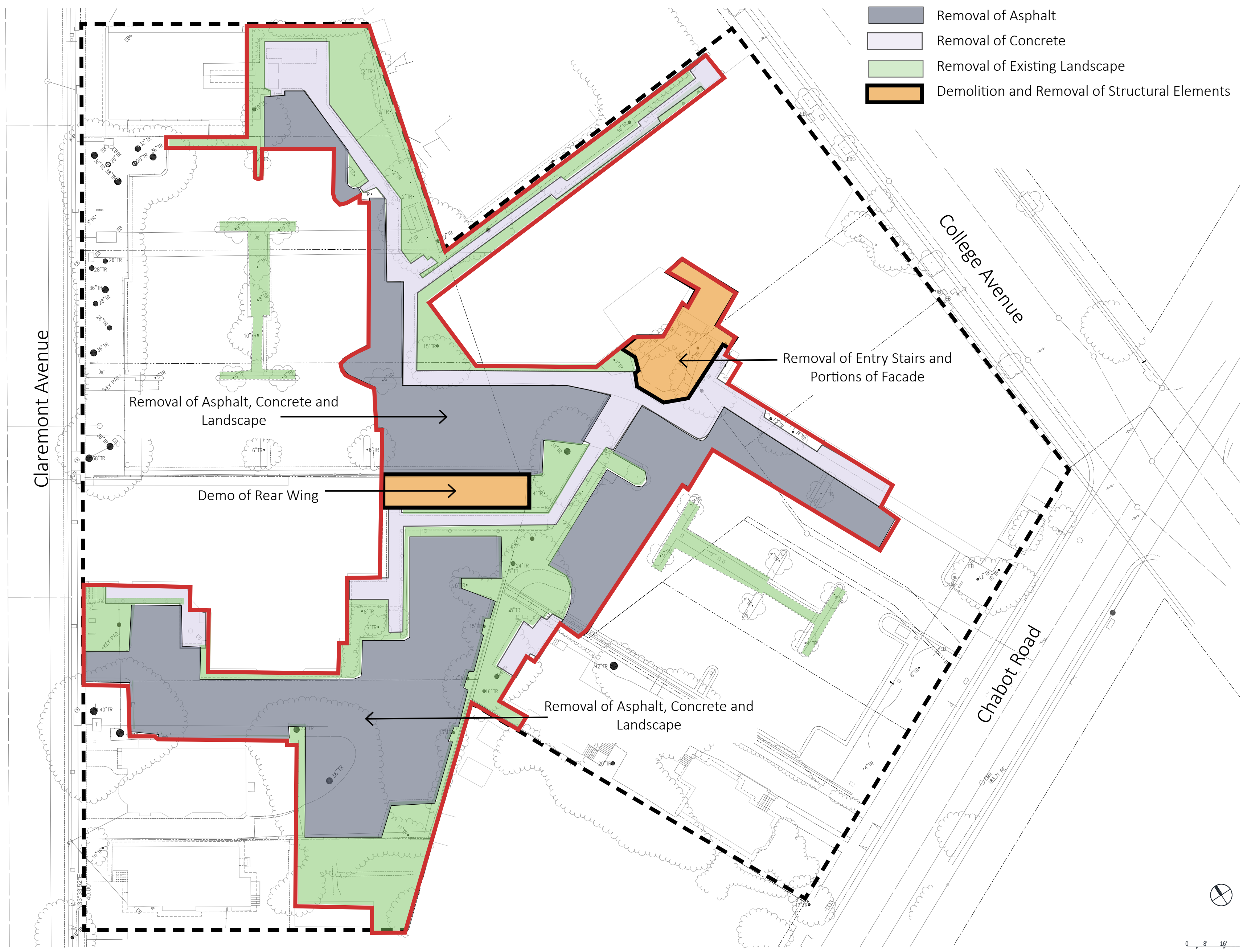
Physical Changes to the Project Site

The JCCEB Project involves a limited extent of physical changes to the Project site. The majority of these limited physical changes occur within the central, inner portions of the site where they are least visible from the exterior of the site.

Demolition

Demolition of existing physical elements of the Project site are limited to the following, as shown on **Figure 6**:

- The Project proposes exterior renovations to the Dreyer's Headquarter Building at 5901 College Avenue at the rear-facing entrance that is oriented towards surface parking interior to the site. The existing exterior staircase entry that provides for a second-floor entrance to this building will be removed to provide for a new ground-level entrance and a newly enclosed space proposed as a café at this internal façade. The Project involves no changes to the building frontage along College Avenue or to the corner frontage on Chabot Road.



Siegel & Strain Architects and BKF Engineers, *Demolition Plan, Sheet C1.0,* 10/31/23

Figure 6
Proposed Demolition at Project Site

- The Headquarters Building at 5901 College has a partial capped roof that extends above the third-floor roofline. The Project proposes to remove this capped roof and replace it with a new parapet wall at the same height, providing visual barrier for the elevator and mechanical penthouse.
- The Project proposes demolition of a two-story section of the Dreyer's Conference Building at 6028 Claremont Avenue, which extends from the rear portion of that building. This section of the building is two stories tall, approximately 64 feet in length and 13 feet in width. The ground floor of this portion of the building is a storage room and breezeway connecting to the main portion of the building, and the second floor is office space. The Project involves no changes to this building's frontage along Claremont Avenue.
- A large portion of existing asphalt parking area and concrete walkways are proposed to be removed from the area immediately south and west of the Dreyer's Conference Building at 6028 Claremont, and from the central area of the Project site to the south of the Dreyer's Headquarters Building at 5901 College Avenue.
- Areas with landscaping that are adjacent to the asphalt parking areas to be removed, will also be removed. Within these areas, 34 trees are proposed to be removed as part of the Project, including 5 trees that are identified as protected trees pursuant to the City's Tree Ordinance.

<u>New Construction</u>

Demolition of a portion of the Conference Building at 6028 Claremont Avenue and removal of asphalt and concrete from the interior of the site is intended to accommodate a more attractive and functional outdoor space within the internal portions of the Project site. New elements of the outdoor landscape are proposed to include the following, as shown on the Project Site Plan (**Figure 7**) and architectural rendering (**Figure 8**).

- Several small children's outdoor play areas are proposed at the northerly end of the site, and a small court games area (half-court basketball) is proposed at the southerly end of the site. These outdoor play areas are connected by a new sidewalk, with an architectural canopy/trellis over the walkway.
- A central green provides an outdoor gathering area near the internal entrance to the Headquarters Building at 5901 College, with a pedestrian connection to the Conference Building at 6028 Claremont.
- An open outdoor deck with railings but no roof is to be added to the south side of the Conference Building at 6028 Claremont. The deck would be approximately 2,800 square feet in size, and primarily constructed at-grade to match the first floor level at 6028 Claremont. A new "barn-door' type doorway would be added to the south façade of the building to access onto the deck, and a trellised walkway would provide access to the deck from the Claremont Avenue frontage. Where demolition of a segment of the building at 6028 Claremont Avenue is proposed, the resulting face of the building would be resurfaced and a new second-flow window added.

Figure 7
Project Site Plan

Source: Siegel & Strain Architects and Einwillerkuehl Landscape, *Site Plan Sheet L1.00S*, 9/9/24

Figure 8
Rendering of Project at Interal Green and Main Building Entrance

Source: Siegel & Strain Architects, *Sheet G0S,* 9/9/2024

The Project will utilize the existing buildings on the site, and would not change the location, size or design of these existing buildings as seen from the street at College Avenue, Claremont Avenue or Chabot Road, with the exception of the new deck at 6028 Claremont, which will be screened by Project fencing (see **Figure 9**).

Limited renovations to the Headquarters Building at 5901 College Avenue will provide for a new ground-level entrance at the internal façade that fronts out to the new outdoor spaces. An extension of the permeable paver stones provides for a larger plaza near the entry. Structural modifications to this building also enable construction of a larger second-level patio or deck above the entrance (see **Figure 10**).

Changes to On-Site Circulation

The Project would change on-site circulation through the site, separating the two main existing parking lots by removing the drive-through aisle between them (see **Figure 11**). There would typically be no vehicle access through the center of the new campus or from parking lot to parking lot. Permeable pavers, security gates and removable bollards would provide drive-through capabilities for emergency vehicles. During community events, the gate and bollards may be opened to allow visitors to park in each of the parking lots and more easily circulate the site. The parking lot on Chabot will be designated as a visitor lot intended for visitors and drop-off for preschool, summer camp, and after school. The drive-aisle within this parking lot would serve as a drop-off loop and queuing space for preschool, summer camp and after school programs. The parking lot on Claremont will be designated as a staff lot for staff parking, with key-card access for staff to enter through the gated entry at Claremont. For special events like high holidays and celebrations, staffed valet would park vehicles in the staff lot in tandem parking, or other transportation demand management strategies as outlined in the Project's Transportation Impact Review/Transportation Demand Management Plan, would be implemented.

The new deck proposed at 6028 Claremont would eliminate one existing driveway on Claremont Avenue that currently provides access to this building, and the deck would replace the small parking area adjacent to this building.

With the increase in functional outdoor space and the overall changed in on-site circulation, the number of parking spaces will be reduced from 140 existing parking spaces to 91 parking spaces: 49 parking spaces at the staff lot off of Claremont Avenue and 42 parking spaces at the visitor lot off of Chabot Road, plus two parking spaces at the adjacent property at 5939/5941 Chabot Road.

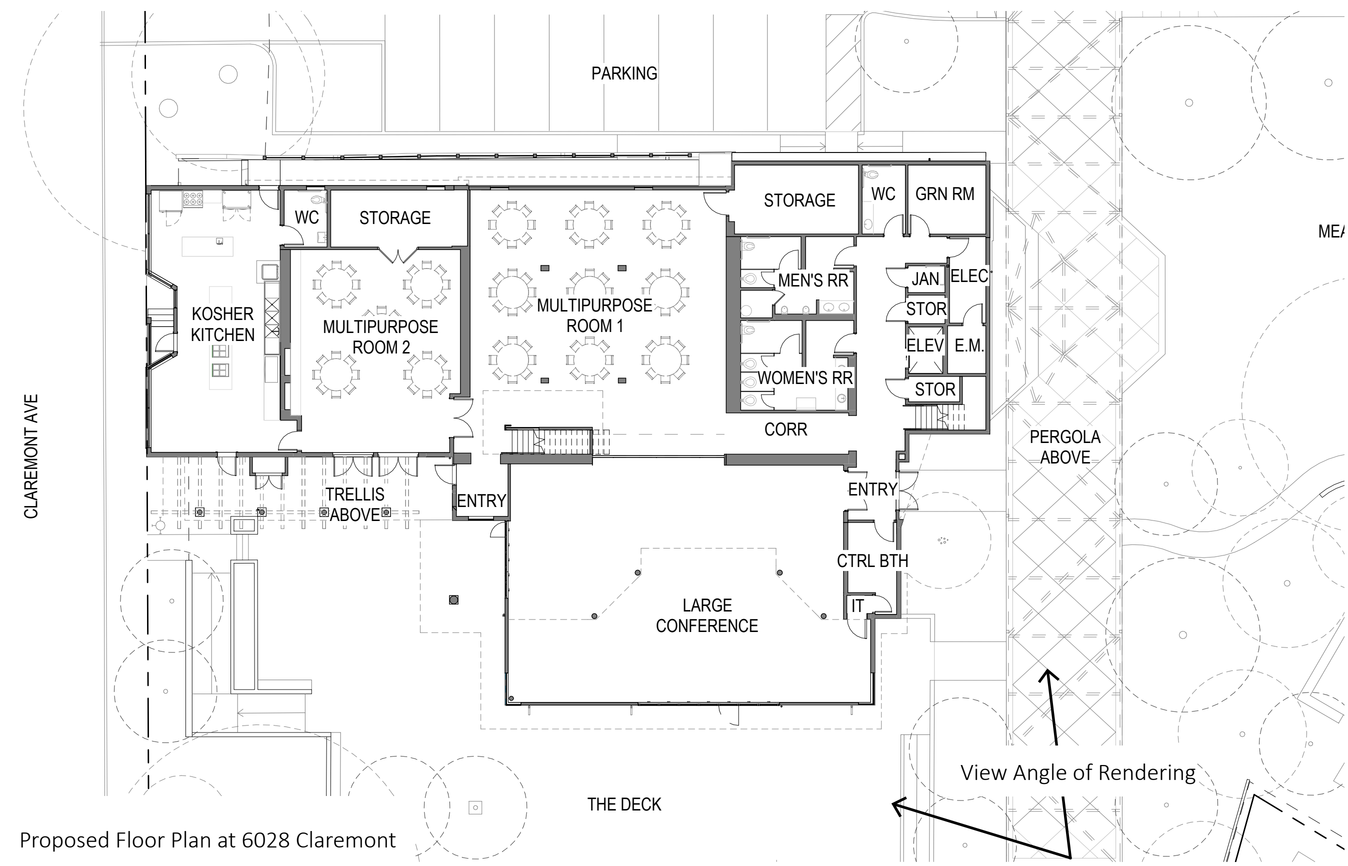
Bicycle Parking

The Project proposes to accommodate bicycle parking for 40 bicycles by providing bicycle racks that can accommodate the Planning Code's required 18 short-term bicycle parking spaces on the sidewalk along the Project frontage on College Avenue. Additionally, the Project proposes to include 22 long-term covered bicycle racks within the fenced area of the campus just north of the visitor parking lot, with primary access through the gate at the north side of the visitor parking lot.

Changes in Pervious and Impervious Area

The changes in outdoor areas as proposed will occur within an approximately 1-acre portion of the nearly 3-acre site, identified as the Area of Work. Within this Area of Work, the Project will result in a net reduction of approximately 10,000 square feet of impervious surface, as shown in **Table 1**.

Proposed Deck at 6028 Claremont

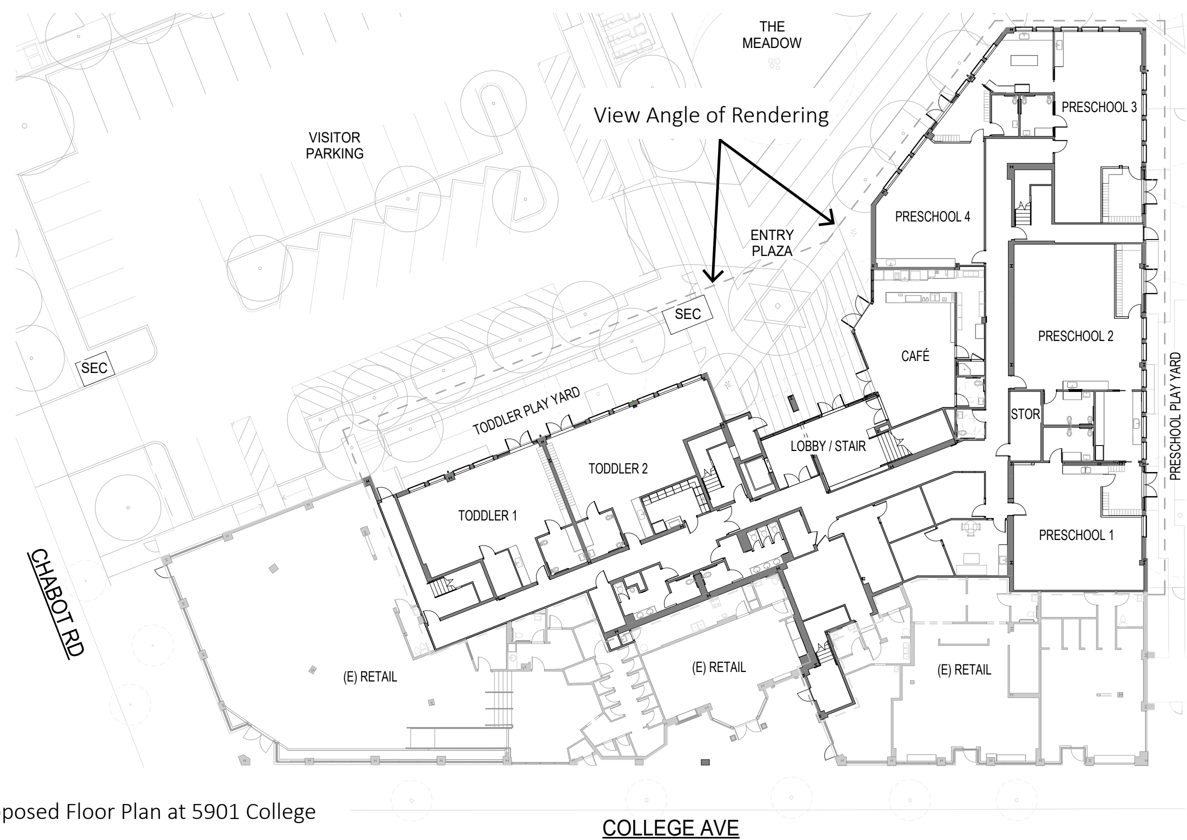


Proposed Floor Plan at 6028 Claremont

Figure 9
6028 Claremont (Conference Building), with New Deck

Source: Siegal & Strain Architects, May 2024

Proposed Internal Entrance at 5901 College



Proposed Floor Plan at 5901 College

Figure 10
5901 College Avenue (Main Building), with New Internal Entrance

Source: Siegal & Strain Architects, May 2024

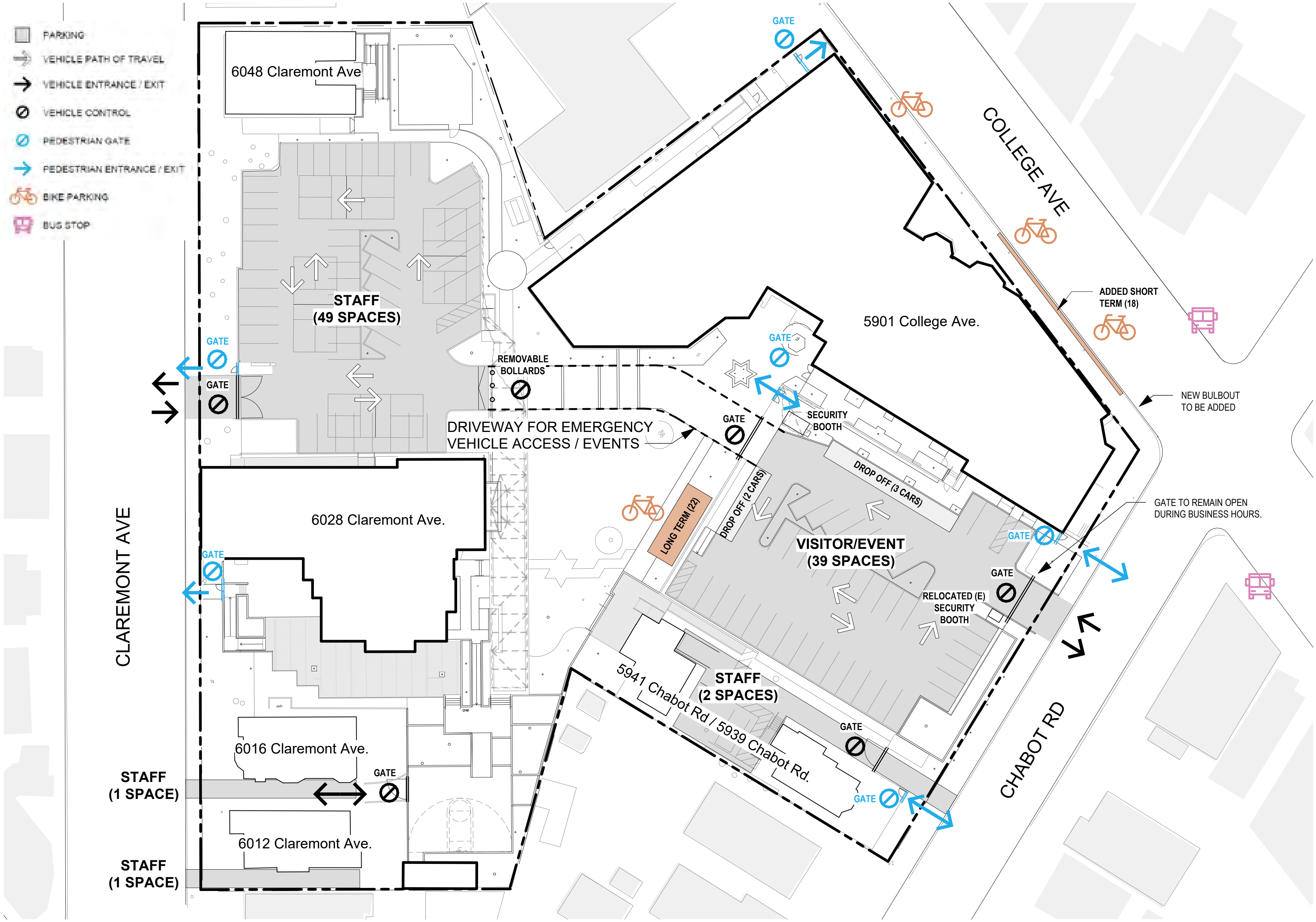


Figure 11
Circulation and Parking Plan

Source: Siegel & Strain Architects, *Site Plan - Circulation, Sheet G0.13,* 9/9/2024

Table 1: Change in Pervious/Impervious Surfaces within the Area of Work			
	Existing	Proposed	Net Change (within Limits of Work)
Impervious Surfaces	31,665	21,830	- 9,835
Pervious Surfaces	12,192	22,017	+ 9,835
Total	43,847	43,847	-

Source: Siegel & Strain and BF Engineers, *Stormwater Management Plan*, Sheet C30, October 31, 2022

Changes in Land Use Activity at the Project Site

Change in Use at 5901 College Avenue

The three-story building at 5901 College Avenue (the Headquarters Building) is an existing office building, with 5 ground-floor retail spaces along the College Avenue frontage. These existing office and retail uses are permitted uses in the CN-1 zoning district.

The Project seeks a Conditional Use Permit (CUP) for the following change in occupancy type within the 5901 College Avenue building:

- The Project proposes a preschool/daycare use on the ground floor, in-lieu of a portion of existing office space. The preschool/daycare use requires a CUP as a Community Education Civic Activity.

Other proposed uses of 5901 College are permitted uses within the CN-1 zone, including the Project's proposed new Limited-Service Café on the ground floor, the five existing Retail Commercial uses that will remain along College Avenue, and remaining Administrative Commercial office spaces on the ground, second and third floors. These Administrative Commercial office spaces will be repurposed as administrative offices of the Jewish Community Center and office space for other non-profit Jewish organizations.

Change in Use at 6028 Claremont Avenue

The two-story building with a penthouse level at 6028 Claremont is an existing office building with Administrative Commercial uses.

- The Project seeks a Conditional Use Permit (CUP) for a change in occupancy type of this building. All of the existing Administrative Commercial space within this building will be repurposed to provide space for Community Assembly Civic and Community Education Civic activities. The proposed Community Education Civic activities include afterschool childcare/camp, and adult education classes. The proposed Community Assembly Civic activities are to include family events, Jewish holiday events, cultural and arts events, and health and wellness activities (e.g., yoga, meditation and dance) and other Jewish non-profit related services for JCC members.

Occasionally, when operating at different times, the community education and community assembly uses will use each other's primary space, and both of these activities will use the outdoor playgrounds and open space.

Change in Use at Other Buildings

The Project proposes to retain the permitted Administrative Commercial activities at the building at 6048 Claremont, which currently provides administrative office space for the Jewish Community Center.

- The building at 6016 Claremont Avenue serves as the residence of a rabbinic couple who host events and informal gatherings with Jewish young professionals through a program known as Base Bay. This existing use will continue, but under a CUP for Community Assembly Civic activities, with the residence as an accessory use per Section17.10.040.C of the OPC.

- The building at 6012 Claremont Avenue is home to the Rockridge Moishe House where post-college residents host social events for other Jewish young adults. This existing use is also proposed to continue, but under a CUP for Community Assembly Civic activities, as an extension of the larger JCC operations.
- The building at 5939 Chabot Road is proposed to be re-purposed from non-profit office space to a Teen Center operated by JCC partner organizations on the first floor. On the second floor, an artist-in-residence space will be retained to serve as a flexible space for the rotating exhibition of local artist works. This reuse requires a CUP for Civic/Community Assembly activities, as an extension of the larger JCC operations.
- The building at 5941 Chabot Road is proposed to be re-purposed from non-profit office space to a multi-purpose place for JCC partner organizations, such as Jewish LearningWorks, to provide hands-on, creative ways for students to design, experiment and invent with a variety of tools and technology (i.e., “a makers space”) for all ages. This change of use requires a CUP for Community Assembly Civic activities, as an extension of the larger JCC operations.

The overall changes in proposed use within the Project site are as shown on **Figures 12 and 13,** and summarized in the following **Table 2**.

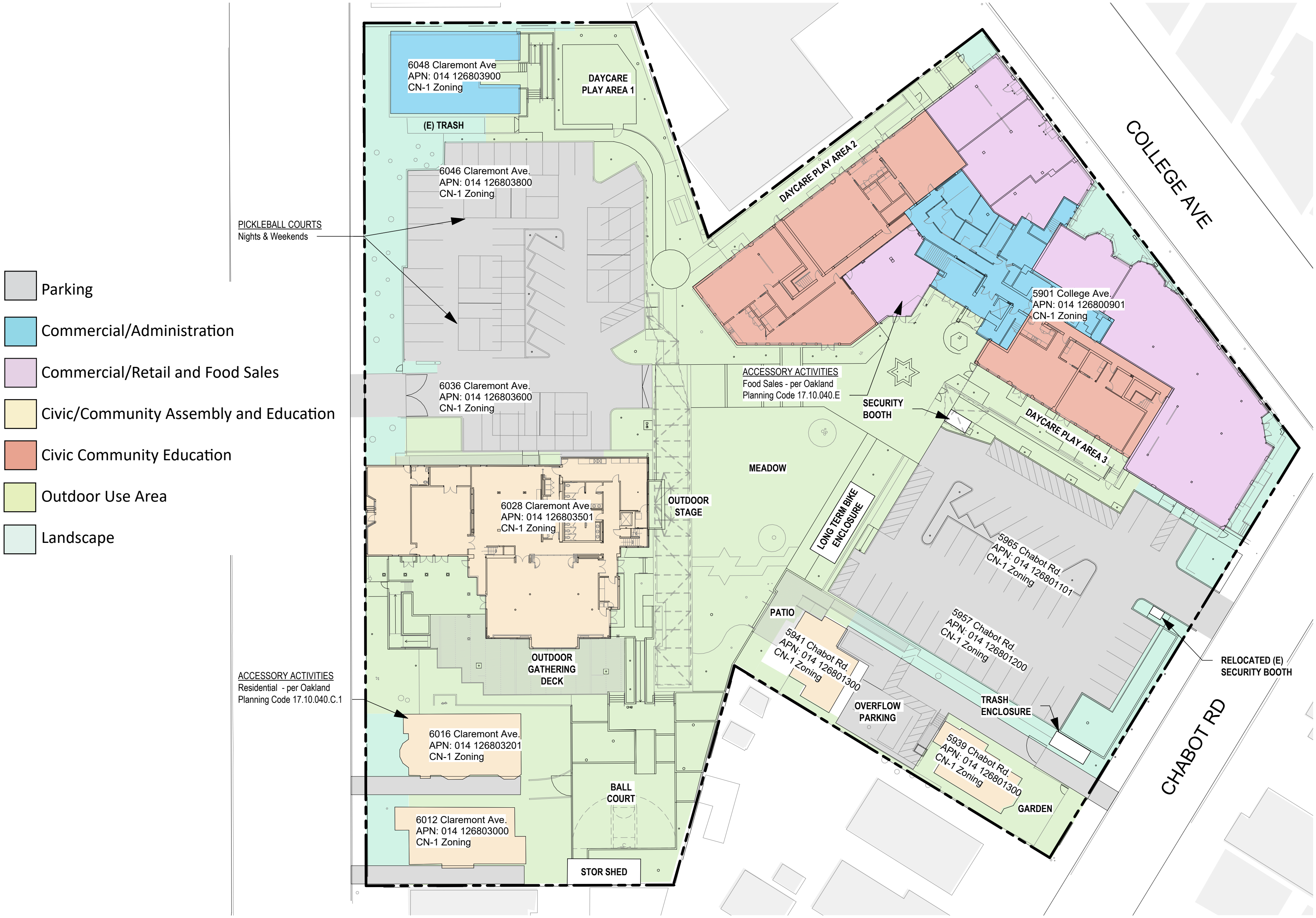
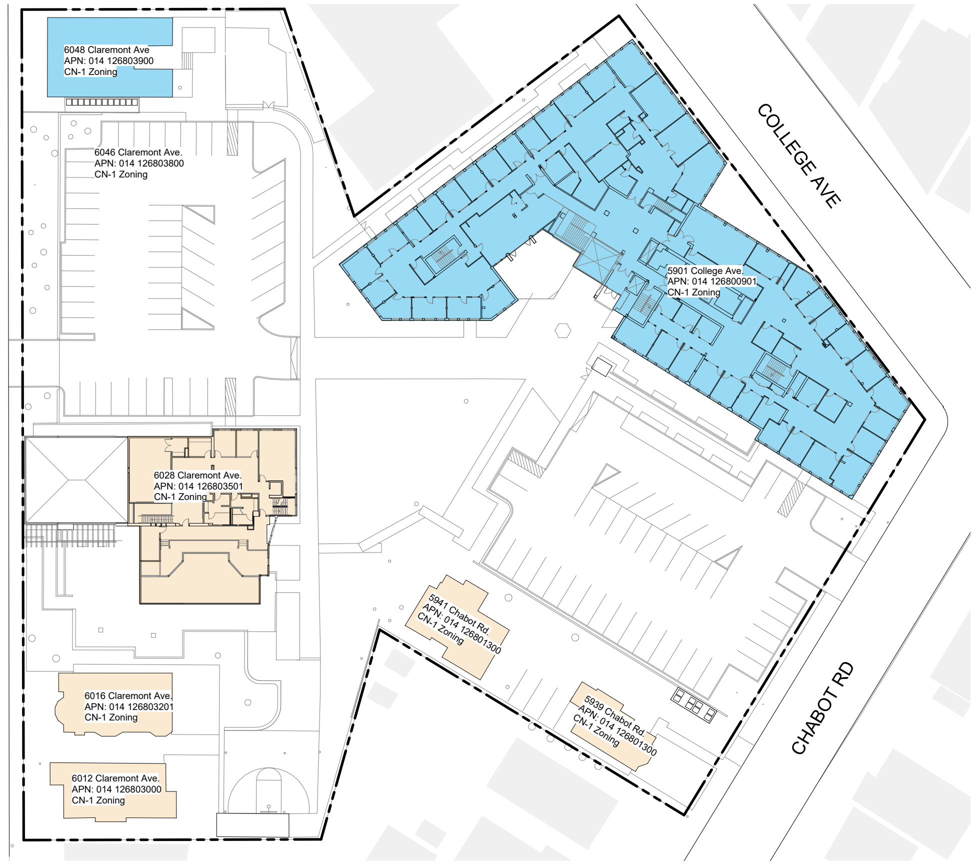


Figure 12
Proposed Land Use Activities at Project Site, Ground Level with CUP

Source: Siegel & Strain Architects, *Site Plan - Level 1 Proposed Activities, Sheet G0.10*, 9/9/2024

Proposed Land Use Activities, 2nd Level



Commercial/
Administration

Civic/Community
Assembly and Education

Proposed Land Use Activities, 3rd Level

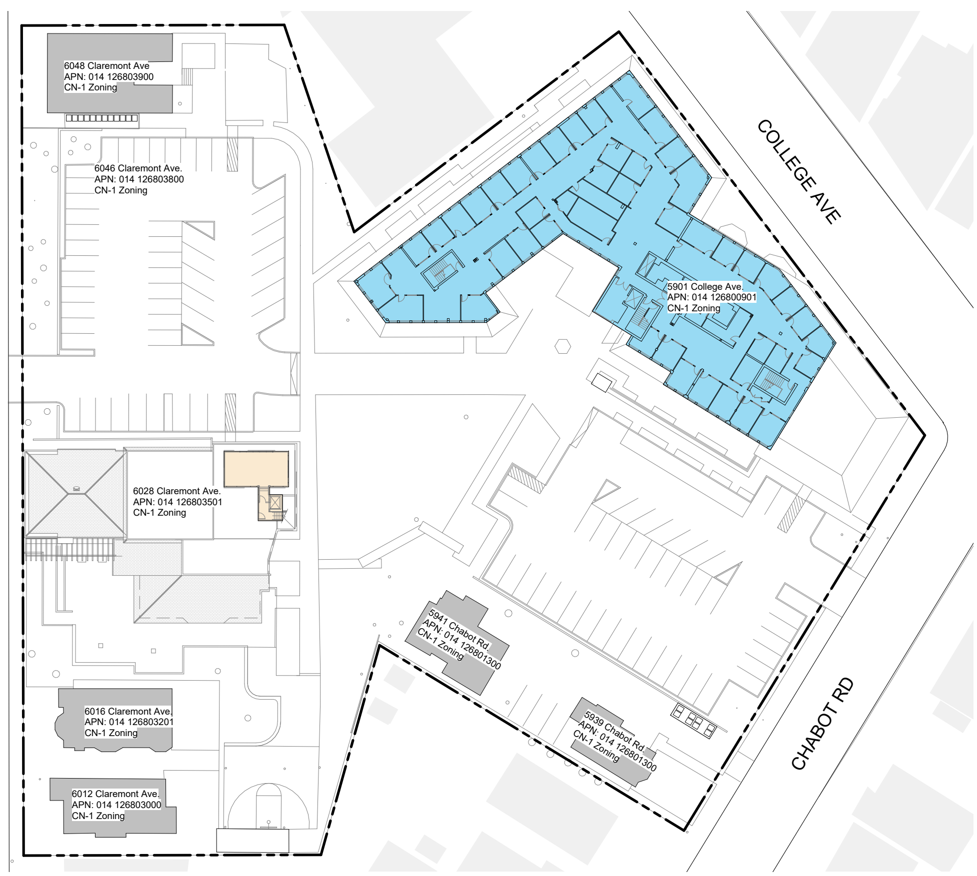


Figure 13
Proposed Land Use Activities at 2nd and 3rd Levels, with CUP

Source: Siegel & Strain Architects, *Site Plan Proposed Activities, Sheet G0.11 and .12,* 9/9/2024

Table 2: Existing and Proposed Use of Building Space

Land Use Activity	Existing (f)	Proposed (sf)
5901 College Avenue		
P – Administrative Commercial	51,627	41,204
P - Food and/or Retail Sales Commercial	8,920	10,002 (Accessory)
CUP - Education Civic (preschool, daycare)		10,197
Total Bldg. SF	***60,547***	***61,403 (+856 sf)***
6048 Claremont Avenue		
P - Administrative Commercial	4,170 sf	4,170 sf
6028 Claremont Avenue		
P - Administrative Commercial	15,267	
CUP - Community Education and Assembly Civic		13,469
Total Bldg. SF	***15,267***	***13,469 (-1,798 sf)***
6016 Claremont		
P Residential	1,490 sf	
CUP - Community Assembly Civic, with accessory residence		1,490 sf
6012 Claremont		
P - Administrative Commercial	1,360 sf	
CUP - Community Assembly Civic		1,360 sf
5941 Chabot Road		
P – Administrative Commercial	3,375 sf	
CUP - Community Assembly Civic		3,375
5939 Chabot Road		
P - Administrative Commercial	3,375	
CUP - Community Assembly Civic		3,375
Total:	**89,584 sf**	**88,642 sf (-942)** **P –55,376 sf** **CUP – 33,266 sf**

Notes:
P = Permitted use
C = Conditionally permitted use

Outdoor Space

Throughout the interior of Project site, the new outdoor areas would provide new space for recreational use accessory to the proposed Community Assembly and Community Education Civic activities. These areas include children's play areas, an outdoor stage and assembly space at the central Green, small court games area, and pickleball courts in the staff parking lot. Pickle ball courts will only operate on weeknights and weekends when the lot is not required to be utilized for staff or event parking (per the Project's Transportation Demand Management conditions).

Project's Proposed Programming Schedule

The Project's proposed hours and days of operation are Monday through Friday from 8:00 am to 6:00 pm, occasional Saturday evenings after sundown, and Sundays from 9:00 am to 6:00 pm. On Saturdays, the campus will close for the Jewish Sabbath (Shabbat) but there will be occasional events in the evenings after sundown.

The preschool at 5901 College Avenue will operate year-round from 8:00 am to 5:00 pm, Monday through Friday. At 6028 Claremont Avenue the summer camp would operate from 8:00 am to 6:00 pm in the summer (June-August), and the afterschool program would operate from 3:00 pm to 6:00 pm. The Civic/Community Assembly uses will consist of Jewish community events including high holiday celebrations (5 days a year), performances, weddings, bar/bat mitzvahs, etc., and these events are expected to take place on Saturdays after sundown and Sundays, as well as after 6:00 pm Monday through Friday. Community classes including teen, senior, new parent, group exercise, cooking, gardening, art, and other classes will occur in the evenings from 6:00 pm to 9:30 pm.

The Jewish community non-profit organizations will operate during regular office hours 8:00 am to 5:00 pm, Monday through Friday.

The Project anticipates that it will take time to grow enrollment for the Project's programming activities, but the programming and activity schedules for the Project's proposed new civic land use activities at their fully operational program is as indicated in the following **Table 3**.

Table 3: JCCEB Site Program Schedule for Civic Land Use Activities

Program	Number of Occupants	Hours of Operation	
Preschool (2-4yrs)		**Year Round at 5901 College**	
Before Care	20 Students	M-F	8:15am-9:00am
Primary Program	120 Students	M-F	9:00am-3:30pm
After Care	20 Students	M-F	3:30pm-5:00pm
Faculty	30 Staff	M-F	8:00am-5:00pm
After School (5-12yrs)		**August – May at 6028 Claremont**	
After School	100 Students	M-F	2:30pm-6:00pm
Faculty	20 Staff	M-F	2:00pm-6:00pm
Summer Camp (5-12yrs)		**June – July at 6028 Claremont**	
Before Care	40 Students	M-F	8:00am-9:00am
Primary Program	200 Students	M-F	9:00am-3:00pm
After Care	40 Students	M-F	3:00pm-6:00pm
Faculty	40 Staff	M-F	8:00am-6:00pm
Community Events		**At both 6028 Claremont and 5901 College**	
Evening Programs	50-100 Participants	M-F	6:15pm-9:30pm, Year Round
Cultural Programs/Event rental	50-250 Participants and Staff	Sa-Su	9:00am-9:30pm (varies)
High Holidays	500 Participants + Staff	5 dates	Sept-Oct (varies)

Source: Siegel & Strain Architects, December 13, 2023

The maximum number of students on site at any time (for preschool and summer camp, combined) will be 320 in the summer.

List of Project Approvals Required

The Project does require the following discretionary actions and approvals from the City of Oakland prior to implementation:

- Tentative Parcel Map to merge all 14 existing legal parcels into one overall, approximately 2.97-acre parcel
- Regular Design Review for alterations to a facility requiring a Conditional Use Permit (CUP)
- Conditional Use Permit (CUP) for Civic Community Assembly and Civic Community Education activities
- Tree Preservation or Removal Permit

The Project will also require subsequent administrative permits for the following:

- work within and close to the public right-of-way
- grading, stormwater control, demolition and building permits

III - Project's Consistency with the General Plan and Zoning

The following analysis has been conducted to determine whether the proposed Project is consistent with the land use and development assumptions and improvement strategies of the City General Plan Land Use and Transportation Element (LUTE) and development standards of the Oakland Planning Code, Title 17.

To be considered eligible for CEQA streamlining as a Project Consistent with a Community Plan or Zoning per CEQA Guidelines Section 15183, the Project must be consistent with the development density established by existing zoning, and community plan or general plan policies for which an EIR was certified (i.e., the Oakland General Plan land Use and Transportation Element's Environmental Impact Report (LUTE EIR).

General Plan Context

The City of Oakland's General Plan serves as the guiding policy document for the City's future, based on community values and priorities. The General Plan is a policy document and establishes a citywide vision and consistent direction for future development. It reflects community priorities, values, and includes supporting goals, policies and implementation measures to achieve the community's vision.[8]

California Law requires specific topics, also called Elements, to be covered in a General Plan. The current Oakland General Plan includes several Elements prepared and amended over the years. These Elements include the following:

- Land Use and Transportation Element (LUTE), March 1998 and as amended through September 2023
- Historic Preservation Element, March 1994 and as amended through January 2021
- Open Space, Conservation and Recreation Element (OSCAR), June 1996 and as updated through November 2023
- Environmental Justice Element, September 2023
- Estuary Policy Plan, June 1999 and as amended through May 2022
- Housing Element, as last updated for Years 2023 – 2031 in January 2023
- Noise Element, June 2005 and as updated March 2021
- Safety Element, as updated September 2023
- Scenic Highway Element, September 1974 and as amended through April 2021

The City of Oakland is now working towards a comprehensive General Plan Update for Oakland's 2045 General Plan. The Oakland 2045 General Plan is intended to guide the development of the City for the following two decades, crafting a new direction for the future of Oakland, one focused on creating an equitable and just city. Phase 1 of the General Plan update was completed in September of 2023, when the Oakland City Council adopted a comprehensive update of the Safety Element and the first-ever Environmental Justice Element as part of the Oakland 2045 General Plan Update. In October 2023, the City Council adopted the Planning Code amendments to implement Phase 1 of the General Plan Update. These first new Elements serve to implement actions outlined in the January 2023 Housing Element, reduce pollution, advance environmental justice, and prepare the City to address the impacts of climate change and natural disasters. Phase 2 of the General Plan update is expected to include development of new and comprehensively updated Land Use and Transportation Element, Open Space, Conservation and Recreation Element, Noise Element, and a new Infrastructure and

8 City of Oakland, accessed at: https://www.oaklandca.gov/topics/city-of-oakland-general-plan

Facilities Element. These new Elements will be accompanied by a Racial Equity Impact Analysis and updates of the Zoning Code. Phase 2 of the General Plan Update is expected to be considered for approval in 2025.

Until such time as a new Land Use and Transportation Element of the General Plan is adopted as part of the 2045 General Plan Update, the current Land Use and Transportation Element (March 1998, and as amended through September 2023) remains as the City's primary land use and transportation policy document.

Project Consistency with the Land Use and Transportation Element

Planning Context of the LUTE

The Land Use and Transportation Element (LUTE) combines land use and circulation/transportation topics. It designates the kinds, location and intensity of land uses, as well as appropriate zoning controls to achieve development policies.[9] The "Structure and Identity" chapter of the LUTE provides a conceptual map and "big picture" of how the city is intended to function. Per the Structure and Identity chapter of the LUTE, the Project site is located within two primary policy framework areas, including a Neighborhood Activity Center and a Transit-Oriented District.

Neighborhood Activity Centers

According to the policy framework of the LUTE, Neighborhood Activity Centers are considered the focal point of neighborhood life in the city. These areas serve as cultural, civic, social and economic centers for the city's neighborhoods. Neighborhood Activity Centers are typically served by transit, and they include a diverse mix of business, civic and social activities that are surrounded by housing.[10]

> ***Consistency***: The proposed JCCEB Project will occupy a prominent space within the Rockridge neighborhood, which is already developed as an existing neighborhood activity center. The JCCEB Project will contribute to the ongoing operation of the Rockridge neighborhood activity center by continuing the activation of on-site buildings presently in use, retaining existing retail uses along College Avenue, and providing a diverse mix of new neighborhood serving commercial (primarily non-profit), and civic activities. These activities include childcare services, non-profit community meeting space, and multipurpose assembly/event space for JCCEB members and organizations. , and are anticipated to coalesce with the existing operations of the Rockridge neighborhood activity center. Accordingly the JCCEB Project is consistent with the LUTE pertaining to Neighborhood Activity Centers.

Transit-Oriented Districts

The LUTE Policy Framework envisions a future city pattern in which each of the BART stations is at the center of a mixed-use transit-oriented district (TOD) that relates the station site to surrounding activities. To facilitate this vision, the LUTE establishes a number of TODs at the city's BART stations, including the BART Station within the Rockridge neighborhood. The LUTE identifies the Rockridge station area as a prime example of a TOD, and highlights College Avenue's role as a district "spine". The Rockridge TOD is characterized by small-scale shops, services and restaurants that all contribute to a lively and walkable environment. The Rockridge TOD is connected to surrounding neighborhoods and the larger Oakland community by frequent transit service provided by Alameda County Transit buses and BART. Per the LUTE Policy Framework, this area should continue

9 City of Oakland, LUTE, as updated through September 2023, accessed at: https://www.oaklandca.gov/resources/land-use-and-transportation-element

10 City of Oakland, LUTE Policy Framework, page 34

to develop as a mixed-use area supporting increased housing and commercial opportunities. Significant change to the BART station, area densities or land uses are not expected over the life of the General Plan.[11]

Consistency: The Project site is located within the Rockridge TOD, within 0.2 miles of the Rockridge BART Station, within walking distance of several AC Transit bus lines, and along the Rockridge neighborhood's designated "spine," College Avenue. The TOD is presently developed with a wide variety of existing small-scale shops, services and restaurants that contribute to the walkable nature of the area. With the planned departure of Dreyer's/Nestle from their corporate office space presently occupying the Project site, the JCCEB Project provides for continued activation of buildings within the TOD, without significant change in the neighborhood's urban design. Additionally, the JCEEB Project will provide the TOD with a new mix of neighborhood-serving commercial and civic activities including childcare services, non-profit community meeting space, and multi-purpose assembly/event space for JCCEB members and organizations. The JCCEB Project will retain the five existing retail storefronts along College Avenue that contribute to the Rockridge TOD's "lively and walkable environment". Accordingly, the JCCEB Project is fully consistent with the LUTE Policy Framework pertaining to TODs.

Consistency with General Plan's Neighborhood Center Mixed Use Provisions

Intent: The College Avenue commercial corridor that includes the Project site has a General Plan land use classification of Neighborhood Center Mixed Use (see prior **Figure 5**). Neighborhood Center Mixed Use areas are intended to identify, create, maintain and enhance mixed use neighborhood commercial centers. These areas are typically characterized by smaller scale pedestrian-oriented, continuous street frontage with a mix of retail, housing, office, active open space, eating and drinking places, personal and business services, and smaller scale educational, cultural, or entertainment uses. This land use classification applies to the entire approximately 1-mile long, predominantly commercial corridor along College Avenue from the City of Berkeley boundary near Alcatraz Avenue, to Broadway. Future development within the neighborhood center mixed used classification should be commercial or mixed-uses that are pedestrian-oriented and serve nearby neighborhoods, or urban residential with ground floor commercial.[12]

Consistency: The Project retains existing distinctive and conveniently located retail shops along College Avenue, while repurposing the existing Dreyer's/Nestle offices into faith-based and non-profit commercial uses and community serving assembly spaces (i.e., space for adult education classes, health and wellness activities, mental health services and refugee services, family events, cultural and arts events, and Jewish holiday events).

- The retained retail shops along College Avenue allow for retention of the smaller-scaled, pedestrian-oriented and continuous street frontage along College Avenue.
- The Project proposes to add new active open spaces (i.e., the proposed children's play areas, the outdoor stage, the outdoor assembly space at the Green, and the small court games area) that will primarily replace existing vehicular parking areas.
- Although the General Plan does not define the size of "smaller-scale" educational and cultural uses, the Project's new civic-based cultural spaces (i.e., the daycare center at 5901 College Avenue, the Events Center at 6028 Claremont Avenue, the Teen Center at 5939 Chabot Road, and the Maker's space at 5939 Chabot Road) account for approximately 30,300 square feet of building space. This represent just over one-third of the approximately 88,600 square feet of total building space within the entire Project site. This is approximately the same amount of building space as the adjacent two-

[11] City of Oakland, LUTE Policy Framework, page 54

[12] City of Oakland, LUTE Policies in Action, page 149

buildings housing the College Avenue United Presbyterian Church, about twice the size of the Rockridge Branch of the Oakland Public Library, and slightly less building space than the Claremont Middle School near the Rockridge BART Station.

The Project is fully consistent with the land use intent of the Neighborhood Center Mixed Use land use classification.

Intensity/Density: The maximum non-residential FAR for the Neighborhood Center Mixed Use classification is 4.0, and the maximum residential density is 165 units per gross acre.[13]

Consistency: The Project site is 129,541 square feet (or approximately 2.97 acres) in size. The Project does not propose to increase the amount of building space on the site, but to re-use the existing approximately 89,600 square feet of building space that is already on the site, and to remove approximately 1,660 square feet of building space at the proposed Events Center. The resulting non-residential FAR is approximately 0.68, well below the maximum FAR of 4.0. The intensity of building space at the Project is fully within with the maximum intensity established for the Neighborhood Center Mixed Use land use classification.

Consistency with General Plan's Mixed Housing Type Residential Provisions

Intent: One parcel within the Project site at address of 6012 Claremont Avenue has a General Plan land use classification of Mixed Housing Type Residential (see prior **Figure 5**). Mixed Housing Type Residential Areas are intended to create, maintain, and enhance residential areas typically located near the City's major arterials and characterized by a mix of single-family homes, townhouses, small multi-unit buildings and neighborhood businesses where appropriate. Future development within this classification should be primarily residential in character, with live-work types of development, small commercial enterprises, schools, and other small scale, compatible civic uses possible in appropriate locations.[14]

Consistency: The Project would retain the exterior appearance of the building at 6012 Claremont and would not make any physical changes to this property. The continued use of this property as home to the Rockridge Moishe House represents an extension of the JCCEB Campus' civic-type land use, which would be consistent with the LUTE's desire for small-scale, compatible civic uses within this land use type. The appearance of this property will remain as a single-family residential style, parking will be provided for within the larger Campus parking lots, and continued use of this property for small-scale civic use will have minimal effects, if any, on the adjacent residences.

Consistency with Neighborhood Commercial-1 (CN-1) Zoning Regulations

Intent: The entire Project site is zoned as Neighborhood Commercial-1 (CN-1) as shown on prior **Figure 5**.[15] Pursuant to the Oakland Planning Code Chapter 17.33, the intent of each of the City's four Neighborhood Center Commercial zones (CN-1 through CN-4) is to create, preserve and enhance mixed-use neighborhood commercial centers. These centers are typically characterized by smaller-scale and pedestrian oriented continuous and active storefronts. Specifically, the intent of the CN-1 Zone is to maintain and enhance vibrant commercial

13 City of Oakland, LUTE Policies in Action, page 149 as amended September 2023

14 City of Oakland, LUTE Policies in Action, page 147 as amended September 2023

15 In October 2023, the City Council adopted Planning Code and corresponding Zoning Map amendments to implement Phase 1 of the General Plan Update. Among the amendments made to the City's Zoning Maps (Zoning Map 2.8: North Oakland and North Oakland Hills) include a re-zoning of the properties at 6012 and 6016 Claremont Avenue from RM-3 to CN-1, and rezoning of the properties at 5939/41 Chabot Road, 5957 Chabot Road and 5965 Chabot Road from RM-1 to CN-1.

districts with a wide range of retail establishments serving both short- and long-term needs in attractive settings oriented to pedestrian shopping.

Consistency: The Project maintains the vibrant character of the College Avenue commercial district by retaining the five existing retail establishments along its College Avenue frontage. The Project will further enhance the Rockridge neighborhood commercial center along College Avenue through re-use of the existing Dreyer's / Nestle commercial office space that is expected to be vacated in the near future, as educational and community assembly uses associated with the proposed Jewish community campus.

<u>Permitted Land Uses</u>: The Oakland Planning Code (OPC Section 17.33.030) provides a list of the types of land use activities permitted within the CN-1 zone.[16] These land use types include, but are not limited to Restaurants, General Retail Sales and Administrative Commercial, and Permanent Residential.

- Limited-Service Restaurant and Café activities include the provision of food or beverage services to patrons that generally order and pay at a service counter before eating. Food and beverages may be served in disposable containers and may be consumed on the premises or taken out. Seating for on-premises consumption is usually available and table service may or may not be provided.
- General Retail Sale activities include the sales of items generally for personal or household use, but excludes activities more specifically described in other classifications. This activity does not include establishment where more than five percent (5%) of net retail floor area is devoted to food products.
- Administrative Commercial activities include the professional, executive, management, administrative, and clerical activities of private firms, other than public utility firms. This classification includes, but is not limited to, administrative corporate headquarters offices, business offices, and the offices of investment firms.

Consistency: The JCCEB Project's proposed activities that meet the OPC definition of the types of permitted land use activities permitted in the CN-1 zone include the following:

- retention of the existing five retail storefronts along College Avenue
- the proposed new café at the rear of 5901 College Avenue, which will be accessible to users of the JCCEB campus only, and
- reuse of existing Dreyer's/Nestle administrative commercial office space along the upper floors of 5901 College Avenue, and 6048 Claremont Avenue, to serve as JCCEB and other non-profit administrative offices

<u>Conditionally Permitted Land Uses</u>: Oakland Planning Code (OPC) Section 17.33.030 lists the types of Civic Activities that are conditionally permitted within the CN-1 zone.[17] These land use activity types include but are not limited to Community Assembly and Community Education activities.

- Community Assembly Civic activities include the provision of civic activities to assembled groups of spectators or participants at churches, temples, synagogues and other similar places of worship; public and private non-profit clubs, meeting halls and recreation centers, and community cultural and performing arts centers.

16 Per OPC Section 17.10.260, Commercial Activities include the distribution and sale or rental of goods; the provision of services other than those classified as Civic Activities; and the administrative and research operations of private, profit-oriented firms, other than public utility firms.

17 Per OPC 17.10.130, Civic Activities include the performance of utility, educational, recreational, cultural, medical, protective, governmental, and other activities which are strongly vested with public or social importance.

- Community Education Civic activities include the activities typically performed by public and private day-care centers for fifteen (15) or more children, public and private nursery schools and kindergartens, and support services including self-improvement education.

Consistency: The JCCEB Project's proposed activities that meet the OPC definition of the types of conditionally permitted land use activities permitted in the CN-1 zone include the following:

- assembly activities at 6028 Claremont Avenue, including space for family events, Jewish holiday events, and cultural and arts events
- smaller scale assembly uses at 6016 Claremont, 6012 Claremont and 5941 Chabot Road and 5939 Chabot Road, for use as a teen center and other meeting space for Jewish non-profits serving young adults
- the residence of a rabbinical couple at 6016 Claremont Avenue, in conjunction with a Jewish non-profit, as an accessory residential activity pursuant to Section 17.10.040.C. of OPC
- education activities proposed at 5901 College Avenue and 6028 Claremont Avenue, including pre-school, daycare and summer camp programs which will flexibly utilize both facilities, and
- outdoor recreational spaces that will be utilized by the operation of these assembly and education activities (i.e., the children's play areas, the outdoor stage, the outdoor assembly space at the green, and the small court games area

The Project does not propose any land use activities that are not permitted or not conditionally permitted within the CN-1 zone.

<u>Development Standards</u>: Oakland Planning Section 17.33.050 and Table 17.33.03 provides prescriptive development standards that are specific to construction, establishment or alteration of development within the CN-1 zone. The Project proposes to utilize only existing building space and does not propose construction of any new buildings.

All existing buildings and facilities onsite were originally developed prior to the present day OPC regulations and are therefore considered "non-conforming facilities" per Chapter 17.114 of the Planning Code. Pursuant to Section 17.114.110 of the OPC, nonconforming facilities may be altered in any way that does not create a new nonconformity or increase the degree of any existing nonconformity.

Consistency: The following provides a comparison of the existing building spaces intended to be re-used by the Project, to the development standards of the CN-1 zone:

Lot Dimensions: OPC Table 17.33.03 prescribes Minimum Lot Dimensions applicable to properties within the CN-1 zone as including lot dimensions of 25 feet mean lot width, 25 feet frontage and 4,000 square feet minimum lot area. Each of the current individual parcels that comprise the Project site are fully consistent with these lot dimension requirements. The Project proposes a Parcel Map that will merge each of these individual parcels into one property, and that resulting property will substantially exceed all of the minimum lot dimensions applicable to the CN-1 zone.

Building Setbacks: OPC Table 17.33.03 provides for minimum and maximum building setbacks. Whereas all onsite buildings and facilities were developed prior to the present day OPC regulations, they are considered "non-conforming facilities". Per Section 17.114.110 of the OPC, nonconforming facilities may be altered in any way that does not create a new nonconformity or increase the degree of any existing nonconformity. Accordingly, all renovations and modifications to the existing facilities at 5901 College and 6028 Claremont comply with current building setback standards and do not represent a regulatory conflict or inconsistency.

Building Height: Pursuant to implementation of the October 2023 General Plan Update Phase 1, the applicable Building Height Map (Map 2.5, North Oakland & North Oakland Hills) was amended, showing that the entire Project site has a maximum building height limit of 55 feet and with a maximum number of 5 stories above grade. The two tallest buildings on the Project site are the building at 5901 College Avenue and the building at 6028 Claremont Avenue. These buildings have a maximum building roof height of 35 feet and 33 feet, respectively. The building at 5901 College Avenue is 3 floors above grade, and includes a rooftop mechanical penthouse with a height of nearly 10 feet. The Project proposes to remove this mechanical penthouse and replace it with a new parapet of the same height. The building at 6028 Claremont is primarily 2 floors above grade, with a small (approximately 500 square-foot) third floor. All of the other existing buildings on the Project site have building heights of between 18 feet and 25 feet. None of the Project's buildings exceeds the maximum building height or maximum number of stories permitted per OPC Table 17.33.04 (as amended).

FAR: Pursuant to implementation of the October 2023 General Plan Update Phase 1, the Commercial provisions of the Zoning Code now provide for a maximum non-residential floor-to-area ratio (FAR) of 3.0 in the CN-1 zone with an applicable Height Area of 55 feet. With a total building space of approximately 87,890 square feet on a total Project site 129,890 square feet, the Project has an FAR of only approximately 0.68, well below the maximum non-residential floor-to-area ratio (FAR) of 3.0.

Conclusions

A finding of Project consistency with applicable General Plan policies and OPC regulations as evaluated in a prior program EIR (i.e., the GP LUTE EIR) is required for the Project to qualify for a CEQA exemption pursuant to CEQA Guidelines Section 15332, and for CEQA streamlining and an exemption per CEQA Guidelines Section 15183.

As demonstrated above, the Project's proposed land uses are consistent with the intent of the General Plan LUTE's Neighborhood Center Mixed Use land use designation and its desired mix of land use types, and the Project has a development intensity that is lower than the maximum 3.0 FAR as applicable to properties with the Neighborhood Center Mixed Use land use classification. The Project is consistent with the Land Use and Transportation Element of the General Plan as analyzed in the 1998 LUTE EIR.

The land use types proposed by the Project are all either permitted or permitted with approval of a conditional use permit (CUP) within the Neighborhood Commercial-1 (CN-1) zoning of the Project site. The Project is fully consistent with regulations and development standards of the Neighborhood Commercial-1 (CN-1) zone, including development standards pertaining to lot dimensions, building setbacks, building height, and floor-to-area ratios. The Project is consistent with applicable CN-1 zoning standards that apply to the site.

As such, the Project qualifies as a Project that is consistent with a Community Plan, General Plan and/or zoning, as required pursuant to CEQA Guidelines Section 15332 and Section 15183.

IV - Qualifications for an Infill Development Exemption

Would the Project:	Yes	No	Applicable Standard Conditions of Approval	Level of Significance
a) Is the project consistent with the applicable general plan designation and all applicable general plan policies, as well as with applicable zoning designation and regulations?	■	☐	-	-
b) Does the proposed development occur within city limits, on a project site of no more than five acres, substantially surrounded by urban uses?	■	☐	-	-
c) Does the project site have any value as habitat for endangered, rare or threatened species?	☐	■	-	LTS
d) Would Project approval result in any significant effects relating to transportation?	☐	■	SCA Transportation-1 (#85), Transportation and Parking Demand Management	LTS
e) Would Project approval result in any significant effects relating to noise?	☐	■	SCA Noise-1 (#69), Construction Days/Hours SCA Noise-2 (#70), Construction Noise SCA Noise-3 (#71), Extreme Construction Noise SCA Noise-4(#72), Project-Specific Construction Noise Reduction Measures SCA Noise-5 (#75), Operational Noise	LTS
f) Would Project approval result in any significant effects relating to air quality?	☐	■	SCA Air-1 (#22), Dust Controls – Construction Related (a-h) SCA Air-2 (#23), Criteria Air Pollutant Controls - Construction and Operation Related (a-f) SCA Air-3 (#28), Asbestos in Structures	LTS
g) Would Project approval result in any significant effects relating to water quality?	☐	■	SCA Hydrology-1 (#55), Erosion and Sedimentation Control Plan for Construction SCA Hydrology-2 (#56), State Construction General Permit SCA Hydrology-3 (#60), NPDES C.3 Stormwater Requirements for Regulated Projects	LTS
h) Can the site be adequately served by all utilities and public services?	■	☐	-	LTS

a): General Plan and Zoning Consistency

Yes	No	
■		Is the Project consistent with the applicable General Plan designation and all applicable General Plan policies, as well as with applicable zoning designation and regulations?

As demonstrated in the prior Chapter III of this CEQA Exemption document, the Project is consistent with the applicable General Plan designation and all applicable General Plan policies, as well as with applicable zoning designation and regulations. The Project qualifies under criteria a) as an Infill Development pursuant to CEQA Guidelines Section 15332.

The Project's proposed land uses are consistent with the intent of the General Plan LUTE's applicable Neighborhood Center Mixed Use land use designation, and the LUTE's desired mix of land use types. The Project has a development intensity that is lower than the maximum 3.0 FAR as applicable to properties with the Neighborhood Center Mixed Use land use classification. The Project is consistent with the Land Use and Transportation Element of the General Plan as analyzed in the 1998 LUTE EIR.

The land use types proposed by the Project are all either permitted or permitted with approval of a conditional use permit (CUP) within the Neighborhood Commercial-1 (CN-1) zoning district as applicable to the Project site. The Project is fully consistent with regulations and development standards of the Neighborhood Commercial-1 (CN-1) zone, including development standards pertaining to lot dimensions, building setbacks, building height, and floor-to-area ratios. The Project is consistent with applicable CN-1 zoning standards that apply to the site.

b): Site Location Criteria

Yes	No	
■		Does the proposed development occur within city limits, on a project site of no more than five acres, substantially surrounded by urban uses?

As demonstrated below, the Project would occur within city limits, on a project site of no more than five acres, and on a site that is substantially surrounded by urban uses. The Project qualifies under criteria b) as an Infill Development pursuant to CEQA Guidelines Section 15332.

The Project would occur within the Rockridge neighborhood of the City of Oakland. The City of Berkeley's boundary is approximately one-quarter mile to the north, at Alcatraz Avenue. The Project involves 14 separate legal parcels comprising an area of just over 2.97 acres, which is less than the 5-acre maximum site area to qualify for an Urban Infill Exemption.

The Project site is surrounded by other urban land uses. The immediately surrounding properties on the same block include two buildings of the College Avenue United Presbyterian Church, and three 1- and 2-story retail buildings to the north on College Avenue. Two commercial properties are to the north of the Project site on Claremont Avenue, and six single-family style homes are to the south of the Project site on Claremont Avenue. A multi-family residential building sits at the tip of the block at Claremont Avenue and Chabot Road. Nine single-family style homes are between the multi-family building and the southerly portion of the Project site on Chabot Road. Properties on the opposite, east side of College Avenue are all retail storefronts and commercial buildings that line the College Avenue commercial corridor. Adjacent properties on the opposite, south side of Chabot Road are all single-family style residential homes, with the exception of a restaurant at the corner of Chabot and College. Adjacent properties on the opposite, westerly side of Claremont Avenue are primarily single-family style residential homes with a mix of multifamily facilities. The Project site is approximately 3 miles from downtown Oakland via Broadway to College Avenue, and about 3 miles from downtown Berkeley via Shattuck Avenue to Ashby Avenue, and south on College Avenue.

c): Habitat for Endangered, Rare or Threatened Species

Yes	No	
	■	Does the Project site have any value as habitat for endangered, rare or threatened species?

As demonstrated in the analysis below, the Project site does not provide habitat for endangered, rare or threatened species, and will not adversely affect other important biological resources. The Project qualifies under criteria c) as an Infill Development pursuant to CEQA Guidelines Section 15332.

CEQA Thresholds

Pursuant to City of Oakland CEQA Thresholds of Significance, the Project would have a significant impact on biological resources if it 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 the California Department of Fish and Game or U.S. Fish and Wildlife Service;
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
3. Have a substantial adverse effect on federally protected wetlands (as defined by section 404 of the Clean Water Act) or state protected wetlands, through direct removal, filling, hydrological interruption, or other means;
4. Substantially interfere 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. Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan;
6. Fundamentally conflict with the City of Oakland Tree Protection Ordinance; or
7. Fundamentally conflict with the City of Oakland Creek Protection Ordinance

Species and Habitat

In October of 2023 the City of Oakland certified an Environmental Impact Report (EIR) for Phase I of the Oakland 2045 General Plan Update.[18] That EIR includes a comprehensive inventory of potential locations of habitat for endangered, rare or threatened species. That inventory relied on biological resource databases including the California Department of Fish and Wildlife California Natural Diversity Database (CNDDB), California Native Plant Society Rare Plant Inventory, and the U.S. Fish and Wildlife Service Information for Planning and Consultation Official Species List (2022), and incorporated relevant information from the General Plan Update Map Atlas prepared in support of Phase I of the Oakland 2045 General Plan Update.

That General Plan Update EIR identified that most of Oakland is a highly urbanized environment and most of its lands are disturbed or developed areas. However, that EIR did identify that Oakland has 19 miles of shoreline, 13 creeks, a tidal lake and over 100,000 acres of parks and trails that include coastal salt marsh along the Bay

[18] City of Oakland, Phase I Oakland 2045 General Plan Update Draft EIR, That EIR was prepared to analyze potential physical environmental impacts of the City of Oakland Planning Code, Zoning Map and General Plan text and map amendments implementing its 2023-2031 Housing Element, updates to its Safety Element and its adoption of a new Environmental Justice Element.

shoreline, riparian forest along the City's many creeks, extensive grassland, oak woodland and coastal scrub in the Oakland hills, and other vegetation communities and aquatic features.

- Generally, the potential habitat for most special-status plant species is in the undeveloped hillside areas northeast of State Highway 13, and northeast of Interstate 580 southeast of its intersection with State Highway 13.
- Sensitive Natural Communities include the Oak Woodland and Chaparral habitat located north of Highway 13 and Interstate 580, and Riparian Woodlands associated with creeks.
- Potential habitat for special-status plant species including pallid manzanita, western leatherwood, Presidio clarkia, Tiburon buckwheat and most beautiful jewel flower is present in undeveloped hillside areas northeast of State Highway 13, and northeast of Interstate 580 southeast of its intersection with State Highway 13.
- Critical habitat for the Alameda whipsnake is present in limited locations, specifically in the hills at the northeastern edge of the City.
- Wildlife corridors within the City include the shoreline and open waters of the Bay, as well as significant riparian corridors along Sausal Creek and San Leandro Creek where these creeks daylight and where riparian vegetation is present.

The Project site is not located in any of the areas identified in the Phase I Oakland 2045 General Plan Update EIR as being inclusive of sensitive habitat types. The Project site is not located within any area identified as containing CNDDB-mapped critical habitat, or near any areas where prior observations of special-status animal or plant species have occurred. The Project site is not located within an oak woodland, a chaparral habitat or a riparian woodland. There are small portions of Temescal Creek within about 500 feet of the Project site that include a mix of open channel and culvert, but these open portions of Temescal Creek are within fully established and developed neighborhoods and do not provide habitat for endangered, rare or threatened species.

Other Biological Issues

The Project site does not contain, and the Project site is not in proximity to any federally protected or state protected wetlands and would not have a substantial adverse effect on wetlands through direct removal, filling, hydrological interruption, or other means. The Project would not interfere 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 (see also Chapter VI of this CEQA document pertaining to applicable SCA for nesting birds). The Project would not fundamentally conflict with any habitat conservation plans or natural community conservation plans, as no such plans are applicable to the site.

With implementation of all applicable tree permit requirements (see Chapter VI of this CEQA document) the Project will not fundamentally conflict with the City of Oakland Tree Protection Ordinance.

There are no open creeks within 100 feet of the Project site, and the Project would not fundamentally conflict with the City of Oakland Creek Protection Ordinance.

d) Transportation

Information presented in the following portion of this CEQA document is derived from the following primary source:

- Fehr & Peers, *Jewish Community Campus of the East Bay, Transportation Impact Review and Transportation Demand Management Plan*, September 2024, attached as **Appendix B**.

Yes	No	
	■	Would approval of the Project result in any significant effects relating to transportation?

As demonstrated in the analysis below, approval of the Project would not result in any significant effects relating to transportation, and the Project qualifies under criteria d) as an Infill Development pursuant to CEQA Guidelines Section 15332.

Thresholds of Significance

Pursuant to City of Oakland CEQA Thresholds of Significance, the Project would have a significant impact on the environment related to transportation if it would:

1. Cause substantial additional vehicle miles traveled (per capita, per service population, or other appropriate efficiency measure); or
2. Conflict with a plan, ordinance, or policy addressing the safety or performance of the circulation system, including transit, roadways, bicycle and pedestrian facilities (except for automobile level of service or other measures of vehicle delay); or
3. Substantially induce additional automobile travel by increasing physical roadway capacity in congested areas or by adding new roadways to the network.

According to the City of Oakland's Transportation Impact Review Guidelines (TIRG), the City's CEQA Thresholds require an evaluation of potential impacts related to vehicle miles traveled (VMT) criteria. The following are the criteria of significance related to substantial additional VMT:

- For residential projects, a project would cause substantial additional VMT if it exceeds existing regional household VMT per capita minus 15 percent.
- For office projects, a project would cause substantial additional VMT if it exceeds the existing regional VMT per employee minus 15 percent.[19]
- For retail projects, a project would cause substantial additional VMT if it exceeds the existing regional VMT per employee minus 15 percent.[20]

The City of Oakland's Transportation Impact Review Guidelines also include screening criteria that may be used to identify types, characteristics and/or locations of land use projects that would not exceed these VMT thresholds of significance. If a project or components of the project meet any of the screening criteria, then it is presumed VMT impacts would be less than significant for the project or component of the project, and a detailed VMT analysis is not required.

19 Per City TIRG screening, childcare, K-12 schools, post-secondary institutional (non-student housing),medical, and production, distribution, and repair (PDR) land uses should be treated as office for screening and analysis (TIRG page 23).

20 Per City TIRG screening, grocery stores, local-serving entertainment venues, religious institutions, parks and athletic clubs land uses should be treated as retail for screening and analysis (TIRG page 23).

VMT Screening

State CEQA Guidelines Requirements

CEQA Guidelines Section 15064.3(b)(1) states that, "generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact." Accordingly, a project's transportation impacts are presumed to be less than significant if it meets either of the following criteria:

- The project is located within one-half mile of an existing major transit stop[21], or
- The project is located within one-half mile of a stop along an existing high-quality transit corridor[22]

The proposed Project meets both criteria. The Project is located within 0.25 miles of the Rockridge BART Station, which is considered a major transit stop as defined in the CEQA Guidelines. The Project is also located adjacent to bus stops along College Avenue, which are served by AC Transit Line 51B. AC Transit Line 51B operates at 12-minute intervals during the weekday peak commute periods and College Avenue is therefore considered a high-quality transit corridor. Based on CEQA Guidelines criteria, it can be presumed that the Project would cause a less than significant transportation impact.

City of Oakland VMT Screening

The City of Oakland has its own adopted vehicle miles traveled (VMT) screening criteria that can be applied to the Project. According to the City of Oakland's Transportation Impact Review Guidelines (TIRG), VMT impacts are considered less than significant for a development project if one or more of the following screening criteria are met:

1) Small Projects: The project must generate fewer than 100 vehicle trips per day
2) Low-VMT Areas: The project must meet map-based screening criteria by being located in an area that exhibits below-threshold VMT, or 15 percent or more below the regional average
3) Near Transit Stations: The project must be located in a Transit Priority Area or within one-half mile of a Major Transit Stop and satisfy 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)

The applicability of these screening criteria to the Project are described below.

Criterion 1: Small Projects

The Project would generate more than 100 vehicle trips per day and therefore does not meet Criterion 1.

21 CEQA Guidelines Section 21064.3 defines major transit stop as a site containing an existing rail or bus rapid 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.

22 CEQA Guidelines Section 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.

Criterion 2: Low-VMT Area

The City of Oakland uses VMT maps developed by the Alameda County Transportation Commission (ACTC) based on their Countywide Travel Demand Model (CTC Model) to identify low-VMT areas. According to the City of Oakland TIRG, childcare and school uses should be treated as office, and religious institutions should be treated as retail for purposes of VMT screening and analysis. Both office and retail land uses types rely on a metric of employment-based VMT for screening and analysis. Since the Project is generally comprised of proposed office, childcare and religious/civic-based land uses, this VMT analysis uses the home-to-work VMT per worker threshold as estimated by the Alameda CTC Model, to screen the Project.

Table 4 shows the estimated year 2020 and year 2040 home-to-work VMT per worker for Traffic Analysis Zone (TAZ) #134, which is where the Project is located per the Alameda CTC Model. This Table also shows the applicable VMT threshold of 15 percent below the regional average. As shown, the estimated average home-to-work VMT per worker in this TAZ is less than the regional average minus 15 percent in years 2020 and 2040. Thus, the Project does satisfy the City's Criterion 2 as a project that would have a less than significant VMT impact.

Table 4: Daily Vehicle Miles Traveled Summary

Metric	Home-Work VMT per Worker (2020)	Home-Work VMT per Worker (2040)
Regional Average	18.1	18.2
Regional Average minus 15% (i.e., Screening Criterion)	15.4	15.4
Project TAZ (Alameda CTC Model TAZ 134) [1]	14.0	14.4
Meet Screening Criterion?	Yes	Yes

Notes:

1. Alameda CTC Travel Demand Model results (https://www.alamedactc.org/planning/sb743-vmt/) accessed in January 2024.

Source: Fehr & Peers, September 2024

Criterion #3: Near Transit Stations

The Project is located about 0.25 miles from the Rockridge BART station, which is considered a Major Transit Stop. The Project is also adjacent to frequent bus service along College Avenue (Line 51B with 12-minute headways during the peak commute period as of January 2024), which is considered a high quality transit corridor. Thus, the Project is in a Transit Priority Area. However, the Project would not satisfy Criterion 3 because it would not meet all three conditions for this criterion:

- The Project has a FAR of 0.70, which is less than the minimum FAR of 0.75.
- Consistent with the Section 21155 of the California Public Resources Code and as required by the California Assembly Bill 2097, City of Oakland Municipal Code (Sections 17.116.070 and 17.116.080) does not require parking minimums for developments within a 0.5-mile of a major transit stop. Since the Project is within 0.25 mile of the Rockridge BART Station, no parking minimums apply to the Project. The Project would reduce the on-site parking supply from 140 to 91 parking spaces. However, the estimated parking demand at full Project occupancy would exceed the proposed parking supply. Thus, the Project would provide fewer parking spaces than other typical uses, and the Project would meet this condition.

- The Project is located within the North Oakland/Golden Gate Priority Development Area (PDA) as defined by Plan Bay Area and is therefore consistent with the region's Sustainable Communities Strategy.

Conclusion

The Project satisfies the City of Oakland's screening criterion as a low VMT area (Criteria 2), and its impact related to VMT is presumed to be less than significant. The Project would also have a less than significant impact on VMT because it would meet CEQA Guidelines Section 15064.3 requirements and City of Oakland screening criteria by being located within one-half mile of an existing major transit stop and located along an existing high-quality transit corridor.

Conflict with Transportation Plans or Policies

Transportation Demand Management

According to the *Jewish Community Campus of the East Bay, Transportation Impact Review and Transportation Demand Management Plan* (Fehr & Peers, March September 2024, attached as **Appendix B**), the Project will generate 195 net new peak hour vehicle trips during the a.m. peak hour and 184 net new peak hour vehicle trips during the p.m. peak hour on a typical non-summer day. It is estimated that about 12 to 13 percent of the trips will be generated by Project site staff, while the remaining trips will be generated by the various visitor groups. The Project will generate as many as 338 net new peak hour vehicle trips during the a.m. peak hour and 118 net new peak hour vehicle trips during the p.m. peak hour on a typical summer day when Summer Camp is in session. The main difference between the non-summer and summer trip generation is due to the change from preschool with afterschool programs during the non-summer months (which would serve about 100 students from 2:30 to 6:00 PM), to preschool with summer camp during the summer months (which would serve about 200 students mostly from 9:00 AM to 3:00 PM with about 40 students during extended care hours).

Applicable Standard Conditions of Approval

The following City of Oakland SCAs provide an effective means reducing single-occupant vehicle trips from all projects within the City that generate 50 or more net new a.m. or p.m. peak hour vehicle trips, and would apply to the Project:

❖ ***SCA Transportation-1 (#85), Transportation and Parking Demand Management***

a. *Transportation and Parking Demand Management (TDM) Plan Required*: The project applicant shall submit a Transportation and Parking Demand Management (TDM) Plan for review and approval by the City. The goals of the TDM Plan shall be the following:
   i) Reduce vehicle traffic and parking demand generated by the project to the maximum extent practicable
   ii) Achieve the following project vehicle trip reductions (VTR): Projects generating 50-99 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
   iii) Increase pedestrian, bicycle, transit, and carpool/vanpool modes of travel. All four modes of travel shall be considered, as appropriate.
   iv) Enhance the City's transportation system consistent with City policies and programs

b. The TDM Plan should include the following:
   i) 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.
   ii) Proposed TDM strategies to achieve VTR goals

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.

c. TDM strategies must be incorporated into a TDM Plan based on a project location or other characteristics. When required, mandatory strategies should be identified as a credit toward a project's VTR.

d. 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.

Proposed TDM Plan

A TDM Plan has been prepared for the Project consistent with the requirement to achieve a 20 percent reduction in Project-generated vehicle trips. The Project's TDM Plan includes those mandatory strategies required pursuant to Planning Code requirements, as well as additional features that would reduce the automobile trips generated by the Project to the required 20 percent reduction. These measures are summarized, and their respective reduction in vehicle trips is as indicated below in **Table 5**.

Table 5: TDM Plan Effectiveness in Reduction of Staff-related Vehicle Trips

TDM Strategy	Description	Estimated Vehicle Trip Reduction [1]
A. Infrastructure Improvements	College Avenue and Chabot Road improvements, as more fully described in the Project's TIA/TDM Report Recommendation 8 (Fehr & Peers, **Appendix B**)	N/A[2]
B. Limited Staff Parking Supply	Project would provide 51 parking space for 150 staff	5-10%
C. Parking Management	Establish eligibility requirements for staff parking in the Staff Lot and establish time limits in the Visitor Lot	N/A[2]
D. Bicycle Amenities and Monitoring	Provide short-term and long-term bicycle parking and monitor usage	0-2%
E. TDM Coordinator	Designate a coordinator responsible for implementing and managing the TDM Plan	N/A[2]
F. Marketing and Education	Active marketing of carpooling, transit, bike sharing, and other non-auto modes	1-4%
G. Pre-Tax Commuter Benefit	Provide staff with pre-tax commuter benefits	1-2%
H. AC Transit Passes	Participate in AC Transit's EasyPass program	1-2%
I. Carpooling and Ride-Matching Assistance	Assist Project staff in forming carpools	0-1%
K. Guaranteed Ride Home	Encourage all staff to register for the Guaranteed Ride Home (GRH) program.	N/A[2]
L. Personalized Trip Planning	Provide staff with commute trip planning services	N/A[2]
M. Remote Work Options	Where feasible, allow staff to work flexible schedules and/or remotely	15-25% [3]
	Estimated Trip Reduction	**22-39% [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 vehicle trip reduction (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 15 to 25 percent of staff would work remotely on a typical weekday.
4. This total does not equal the sum of each individual estimated reduction since a multiplicative dampening effect is applied to account for the potential overlap between the measures.

Source: Fehr & Peers, September 2024

Available research that quantifies the effectiveness of TDM measures in reducing automobile trips primarily focus on residential developments and work-focused trips. Limited data is available for other uses such as preschool, afterschool or summer camps. As such, the effectiveness of this TDM Plan in reducing the automobile trips generated by the Project's various student groups (preschool, afterschool, and summer camps) cannot be accurately quantified. However, the TDM Plan does include measures focused on reducing the vehicle trips generated by these student groups (e.g., the TDM coordinator providing information to parents and guardians about transportation options, carpool and rideshare assistance, afterschool shuttles, personalized trip planning, and improved drop-off and pick-up). Additionally, the Project is located in a high-density mixed-use neighborhood with local and regional transit service. It is likely that the student groups would also achieve the 20 percent VTR.

Similarly, it is difficult to estimate the effectiveness of the TDM Plan in reducing automobile trips generated by the site visitors. TDM strategies are most effective for individuals that commute to and from a site on a regular basis, such as employees and students. Most visitors would visit the Project too infrequently to be well aware of the TDM benefits or to make them cost-effective. However, visitors would benefit from many of the TDM measures. Although visitors are not expected to achieve the 20 percent VTR, they are expected to have a lower driving rate than a typical suburban setting due to the Project location in Rockridge and implementation of the TDM Plan.

By achieving the 20 percent reduction in vehicle trips as required by the City of Oakland's TIRG and its Standard Conditions of Approval, the Project would not conflict with City plans and policies related to TDM.

<u>Bicycle, Pedestrian and Transit Priorities</u>

Bicycle Routes and Bike Parking

Existing designated bicycle facilities serving the Project site include Class 2 bicycle lanes on College Avenue adjacent to the Project site, and a Neighborhood Bike Route (with sharrows) on Chabot Road east of College Avenue. The Project would not adversely affect these existing bicycle facilities. The City's Oakland Bike Plan (Let's Bike Oakland, 2019) proposes to add Class 2 bicycle lanes on Claremont Avenue between SR 24 and the Berkeley City border. The City of Oakland plans to explore the implementation of this modification as part of an upcoming repaving project on Claremont Avenue. This modification would be explored as part of a larger road-diet study along Claremont Avenue to improve bicycle and pedestrian safety. However, the feasibility of such a study, or what it may recommend is dependent on variables including staff resources, funding availability, and design challenges identified during such a study. The Project would not add any new curb cuts along College Avenue, Claremont Avenue or Chabot Road that do not already exist, and will remove one curb cut on Claremont, thereby minimizing vehicle/bike conflicts.

Consistent with Chapter 17.117 of the City of Oakland Planning Code and City of Oakland SCAs (see Chapter 6 of this document), the Project will provide 18 short-term bicycle parking spaces (as required of "remodel" projects totaling more than 10,000 square feet in size, but less than 50,000 square feet) as described in the TIA. The Project applicant will coordinate with the City Department of Transportation's Bicycle and Pedestrian staff to locate the short-term stalls along the Project frontage on College Avenue near planned improvements at the College Avenue and Chabot Road intersection. The Project will also provide 22 additional long-term bicycle parking spaces within a fenced area of the Campus near the Visitor Parking lot off Claremont Avenue, even though not required by the Planning Code.

Pedestrian Access

The streets in the Project vicinity provide sidewalks on both sides of the street. Currently, the sidewalks along the Project frontages on Claremont Avenue are 7 feet wide, 10 feet wide on College Avenue, and 8.5 feet wide on Chabot Road. The Project would include improvements to the College Avenue and Chabot Road intersection. Improvements include the relocation of the existing AC Transit bus stations from the near side to the far side of Chabot Road, construction of a bulb out at the northwest corner of the intersection to shorten the crosswalk across College, and installation of Rectangular Rapid Flashing Beacons (RRFBs) at both crosswalks across College Avenue.

Transit

The Project is located approximately 0.25-mile walking distance north of the Rockridge BART Station. Project staff and visitors can access BART by walking along College Avenue. The nearest bus stops to the Project site are on College Avenue on the nearside of the intersection with Chabot Road. The bus stops on College Avenue are served by Lines 51B (local service between Rockridge BART Station and West Berkeley with 12-minute headways during peak commuter periods), Line 79 (local service between Rockridge and El Cerrito Plaza BART stations with 30-minute headways during peak commuter periods), and Line 851 (late night service from midnight to 5:00 AM with 60-minute headways).

According to the Transportation Impact Review and Transportation Demand Management Plan prepared for the Project (Fehr & Peers, September 2024), the Project is expected to have 30-percent transit mode share on typical weekdays, resulting in 592 daily transit trips, 122 in the a.m. peak period and 116 in the p.m. peak period. This increase in transit trips would not exceed the capacity of existing transit services. The 30-percent transit mode share supports (rather than conflicts with) the City Transit-First policies and priorities.

The Project would not conflict with a plan, ordinance or policy addressing transit, bicycle or pedestrian infrastructure.

e) Noise

Yes	No	
	■	Would approval of the Project result in any significant effects relating to noise?

As demonstrated in the analyses below, and with implementation of all required City of Oakland SCAs, approval of the Project would not result in any significant effects relating to noise. The Project qualifies under criteria e) as an Infill Development pursuant to CEQA Guidelines Section 15332.

Thresholds of Significance

The Project would result in a significant impact if it were to:

1. Generate construction noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code Section 17.120.050), except if an acoustical analysis is performed that identifies recommended measures to reduce potential impacts.
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
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
5. Expose persons to interior Ldn or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities
6. Expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan 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
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

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

The Noise Element of the Oakland General Plan defines noise-sensitive receptors as land uses whose purpose and function can be disrupted or jeopardized by noise. Noise-sensitive receptors include residences, schools, churches, hospitals, elderly-care facilities, hotels, libraries and certain types of passive recreational open space. The nearest noise-sensitive receptors to the Project site are College Avenue United Presbyterian Church to the immediate north, and single-family homes immediately to the south and west along Claremont Avenue, and to the south along Chabot Road.

Construction-Period Noise

The primary noise impacts from construction of the Project would occur from noise generated by the operation of construction equipment on the Project site. Secondary sources of noise during construction would include increased traffic flow from the transport of workers, equipment and materials. Construction is expected to occur over a period of approximately 15 weeks and is expected to be completed before the end of year 2025. Construction noise levels would vary from day-to-day, depending on a number of factors including the quantity and condition of equipment being used, the types and duration of activity being performed, the distance between the noise source and the receptor, and the presence or absence of barriers between the noise source and receptor. Demolition and removal of asphalt and concrete is likely the noisiest phase of construction and would occur during the first 4 to 5 weeks of construction. Later phases of construction including laying of new pavement and pouring of concrete will also be noisy construction activities.

Table 6 shows typical noise levels associated with the types of construction equipment likely to be used during construction of the Project. These types of construction equipment can generate noise levels of between 69 and 90 dBA Leq at 50 feet.

Table 6: Typical Noise Levels from Construction Equipment (dBA Leq)

Equipment	Reference Noise Levels at 50 Feet
Concrete Saw	90
Large Haul Truck	88
Jackhammer	85
Cement Mixer	85
Paver	82
Rubber Tired Dozer	81
Tractor/Loader/Backhoe	80
Generator Set	79
Roller	78
Crane	77
Air Compressor	76
Welder	69

Source: U.S. Department of Transportation, FHWA Highway Construction Noise Handbook, 2006

The City of Oakland's Noise Ordinance establishes a threshold of 65 dBA at the nearest noise-sensitive receptor's property line for construction lasting more than 10 days. The Project's construction activity would exceed this threshold when heavy construction equipment is operated at, or close to the Project site's boundary.

The nearest noise-sensitive receptor is the College Avenue United Presbyterian Church located only about 20 feet from the nearest area of construction activity. Noise levels at the Church could exceed 90 dBA during the noisiest construction activities. Single-family style homes are located approximately 40 feet immediately to the south on Claremont Avenue and about 80 feet to the west on Chabot Road, and what appears to be an accessory dwelling unit is located immediately at the property line adjacent to where new construction (asphalt removal and new paving) is proposed. These homes could be subject to construction noise of 80 to 90 dBA during the noisiest construction activities. Homes on the opposite (westerly) side of Claremont Avenue are about 100 feet from the nearest construction activities at the proposed deck and could be subject to construction noise of 75 to 83 dBA during the noisiest construction activities.

<u>Applicable Standard Conditions of Approval</u>

The following City of Oakland SCAs provide an effective means for addressing construction-period noise from all construction projects within the City, and would apply to the Project:

- **SCA Noise-1 (#69), Construction Days/Hours**: 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.

  d. 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.

  e. 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 Noise-2 (#70), Construction Noise**: 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., 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.

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 Noise-3 (#71), Extreme Construction Noise**

a. *Construction Noise Management Plan Required*: 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 receptors 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*: 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 shall describe noise attenuation measures to be implemented.

- **SCA Noise-4 (#72), Project-Specific Construction Noise Reduction Measures**: 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 sensitive receptors. The project applicant shall implement the approved Plan during construction.

<u>Resulting Level of Significance</u>

Pursuant to SCA Noise-3, the types of measures that could effectively reduce construction noise include temporary noise barriers and exhaust mufflers, which could provide noise reduction of 15 to 25 dBA. Additionally, much of the construction will occur in areas shielded by existing on-site buildings, which will also provide for noise attenuation of 25 dBA or more at certain noise receptors.

The proximity of the Project site to noise-sensitive receptors, and the types of construction equipment that would be used during Project construction, are similar to other construction projects in urbanized areas of Oakland. Temporary exposure to construction-related noise and vibration is common in such areas. Implementation of the City of Oakland's SCAs would reduce construction noise levels emanating from the site, limit construction hours, and minimize disruption and annoyance from construction-period noise to the degree feasible. With implementation of these noise controls and recognizing that noise generated by construction activities would occur intermittently and over a temporary period of approximately 15 weeks, the temporary increase in ambient noise levels during construction would be less than significant.

Operational Noise

Information presented in the following portion of this CEQA document is derived from the following primary source:

- Wilson Ihrig, *Jewish Community Campus – Oakland, Acoustical Study*, September 13, 2024, attached as **Appendix C**.

<u>Ambient Noise Levels, Sensitive Receptor Locations and Applicable Thresholds</u>

Per the City of Oakland Noise Ordinance as codified within Section 17. 125.050 of the Oakland Planning Code, compliance with the City's noise standards is evaluated in terms of the noise level (dBA) received by adjacent properties, and by the respective zoning of the adjacent properties. The Noise Ordinance includes further provisions which allow noise standards to be:

- adjusted upwards to meet existing ambient noise levels, when measured ambient noise levels exceed the applicable noise level standard as established by the Noise Ordinance, and
- adjusted downwards by 5 dBA for a simple tone noise such as a whine, screech, or hum, noise consisting primarily of speech or music, or for recurring impulse noise such as hammering or riveting

Ambient Noise

In accordance with the City's Noise Ordinance requirements to establish existing noise levels at the Project site, an ambient noise survey was conducted, providing long-term noise measurements at four locations along the Project site boundaries. Long-term noise monitors were placed at the following locations:

- LT-1 at the Project property line at Claremont near the proposed outdoor deck at 6028 Claremont
- LT-2 at the Project property line at the rear of the adjacent property at 5933 Chabot, near the proposed ball court
- LT-3 at the property line across Chabot Road, near 5944 Chabot Road, and

- LT-4 at the Project property line at the rear of the adjacent church at 5951 College Avenue

The ambient noise survey used precision sound level meters over a period of seven days, from January 12 to January 18, 2024. The sound meters monitored noise levels continuously for several 24-hour periods, providing hourly-averaged and statistical noise levels throughout the survey duration.

Figure 14 shows the location of the long-term noise monitors, and **Table 7** presents a summary of the ambient noise measurement results as compared to the City's Noise Performance Standards for Residential and Civic Noise levels. Areas where existing measured ambient noise levels exceed residential and civic standards established by the Noise Ordinance are **bolded** within Table 7.

Table 7: Ambient Noise Measurement Results

Cumulative number of minutes in either the daytime or nighttime one hour time period	Equivalent Ln Statistic	Daytime Limit* (7 AM to 10 PM)	LT-1	LT-2	LT-3	LT-4
20	L33	60	**65-70**	52-55	53-60	53-**65**
10	L17	65	**68-72**	54-58	57-63	55-**68**
5	L08	70	70-**73**	56-59	60-65	57-70
1	L02	75	73-**76**	58-61	63-70	58-72
0	Lmax	80	80-**90**	65-80	72-**88**	65-**84**

Source: Wilson Ihrig, September 2024

Notes: **Bold values** indicate locations where existing ambient levels exceed the City's standards during the noise survey.

The ambient noise level data presented in Table 7 are statistical noise levels measured throughout the survey period, and demonstrate that ambient noise levels vary by location and by day throughout the week.

Based on the ambient noise measurements presented in Table 7, those areas near monitoring locations LT-1 and LT-4 experience ambient L33 noise levels (i.e., noise levels lasting for twenty of more cumulative minutes within an hour) that exceed standards established by the City Noise Ordinance.

- LT-1 corresponds to areas along Claremont Avenue near 6016 Claremont. Existing ambient noise levels near noise monitor LT-1 were measured as reaching 70 dBA L33.
- LT-4 corresponds to the area north of the Project site abutting the adjacent church. Existing ambient noise levels near noise monitor LT-4 were measured as reaching 65 dBA L33.

Noise Monitoring Locations

LT-1

Sensitive Receptors:

1: Residnece at 5911 Chabot Rd.
2: Residence at 5925 Chabot Rd.
3: Residence at 5933 Chabot Rd.
4: Residence at 5933 Chabot Rd.
5: Church at 5951 College
6: Church at 5951 College
7: Residence at 6006 Claremont Ave.
8: Commercial use at 6060 Claremont Ave.
9: Residence at 6023 Claremont
10: Residence at 5944 Chabot Rd.

Ambient noise (L33) less than 60 dBA

Ambient noise (L33) 60 dBA or greater

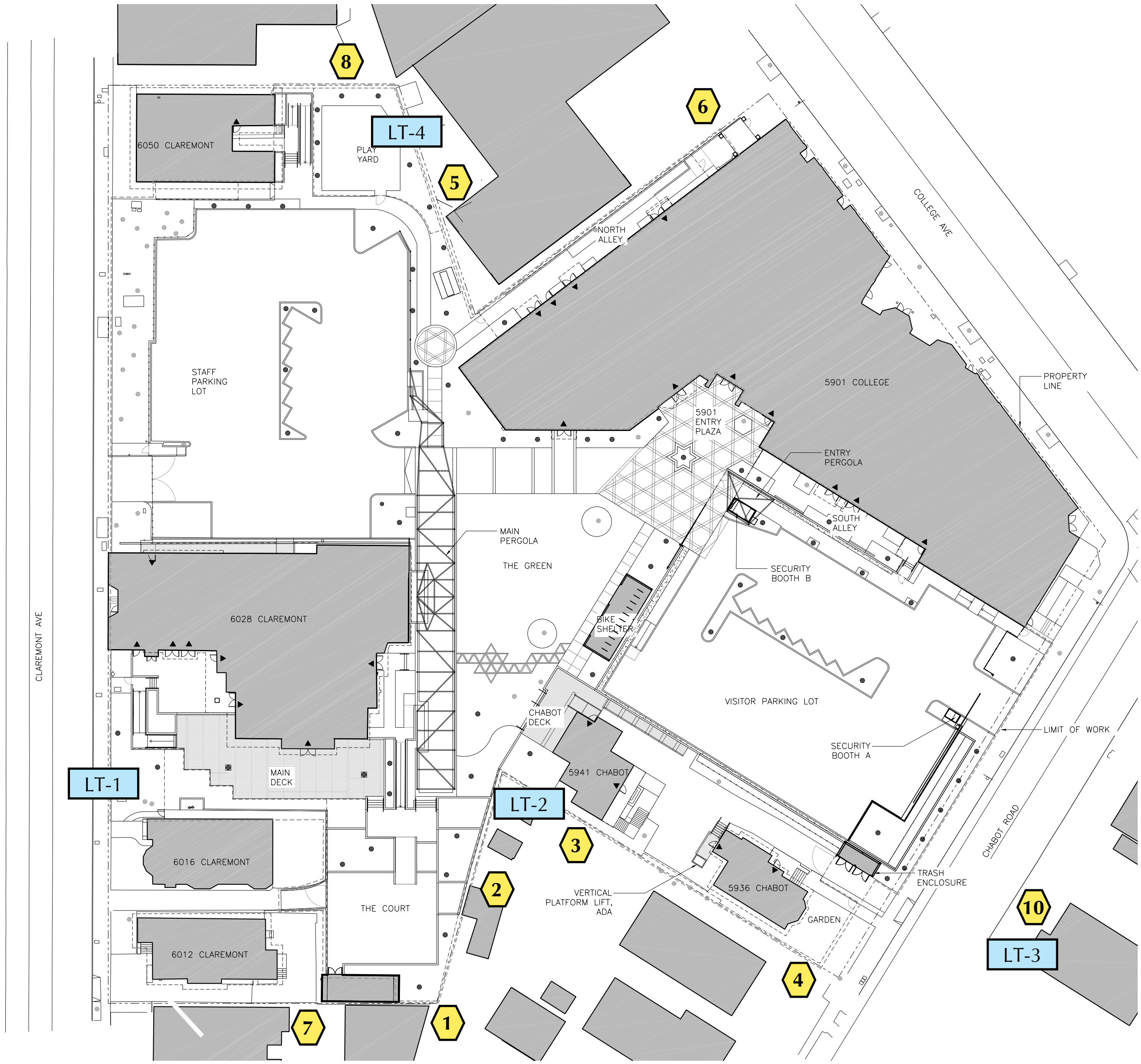


Figure 14
Noise Monitoring Locations and Sensitive Noise Receptors

Source: Wilson Ihrig, Septermber 2024

Adjusted Thresholds

The noise analysis for the Project utilizes the City's Noise Ordinance standard of 60 dBA L33 to evaluate noise impacts generated by the Project for noises anticipated to occur for 20 or more minutes, unless the measured ambient noise level already exceeds that standard. This standard of 60 dBA is further reduced by 5 dBA to account for the Noise Ordinance's provision regarding simple tone noises, resulting in an adjusted noise standard of 55 dBA L33 for Project-generated noise anticipated to last twenty or more minutes within an hour.

At locations where the existing ambient noise already exceeds the City's standard, the noise analysis conservatively relies on the lower value within the range of measured ambient conditions, then reduces that measured ambient noise level by 5 dBA to account for the Noise Ordinance's provision regarding simple tone noises, resulting in an adjusted noise standard of 5 dBA below the lower range of measured L33 ambient conditions.

Applicable Thresholds at Each Sensitive Receptor Location

For purposes of assessing operational noise impacts, ten locations surrounding the Project site were selected as representative noise receptor locations. These 10 noise receptors are each in the general location of one of the long-term ambient noise monitor locations, providing an indication of existing ambient noise levels at each receptor (see prior Figure 14).

Four sensitive noise receptors are best associated with noise levels measured at noise monitoring location LT-2 (i.e., ambient noise levels of between 52 to 55 dBA L33). These four receptors include the following:

1. 5911 Chabot Rd, at the rear property line with the Project site
2. 5925 Chabot Rd, at the rear property line with the Project site
3. 5933 Chabot Rd, at the rear property line with the Project site
7. 6006 Claremont Ave, at the rear property line adjacent to the Project site

The range of ambient noise measured at LT-2 is below the City's standard of 60 dBA. Thus, the applicable maximum allowable receiving noise level at these four receptors (Receptors 1, 2, 3 and 10) is the City standard of 60 dBA. This standard is further reduced by 5 dBA to account for the types of noise generated by the Project, resulting in an adjusted noise threshold at these four receptors of 55 dBA L33.

Two sensitive noise receptors are best associated with noise levels measured at noise monitoring location LT-3 (i.e., ambient noise levels of between 53 to 60 dBA L33). These receptors include:

4. 5933 Chabot Rd, at the front property line on Chabot Road, adjacent to the Project site
10. 5944 Chabot Rd, across the street on Chabot Road, directly across from the Project's visitor parking lot

The range of ambient noise measured at LT-3 is at or below the City's standard of 60 dBA. Thus, the applicable maximum allowable receiving noise level at Receptors 4 and 10 is the City standard of 60 dBA. This standard is further reduced by 5 dBA to account for the types of noise generated by the Project, resulting in an adjusted noise threshold at these two receptors of 55 dBA L33.

Three sensitive noise receptors are best associated with noise levels measured at noise monitoring location LT-4 (i.e., ambient noise levels of between 53 to 65 dBA L33). These three receptors include the following:

5. 5951 College Ave (the adjacent Church), at the rear property line with the Project site
6. 5951 College Ave (the adjacent Church), at the front of the Church adjacent to Project site
8. 6060 Claremont Ave (adjacent commercial property), at the side property line with the Project site

Ambient noise measured at LT-4 ranges from lower than, to higher than the City's standard of 60 dBA. Conservatively, this analysis uses the lower of these values (53 dBA L33, rather than the more permissive 65 dBA) to establish ambient noise conditions. This established ambient noise level is below the City's standard of 60 dBA, and thus the applicable maximum allowable receiving noise level at these three receptors (Receptors 5, 6 and 8) is the City standard of 60 dBA. The City's established standard is further reduced by 5 dBA to account for the types of noise generated by the Project, resulting in an adjusted noise threshold at these three receptors of 55 dBA L33.

One sensitive noise receptor is best associated with noise levels measured at noise monitoring location LT-1 (i.e., ambient noise levels of between 65 and 70 dBA L33):

9. 6023 Claremont Ave, across the street on Claremont Avenue, directly across from the Project's proposed deck at 6028 Claremont Ave, and

Ambient noise levels as measured at LT-1 are higher than the City's standard of 60 dBA. Conservatively, this analysis uses the lower of these values (65 dBA L33, rather than the more permissive 70 dBA) to establish ambient noise conditions. This established ambient noise level is greater that the City's standard of 60 dBA, and thus the applicable maximum allowable receiving noise level at this Receptor 9 is 65 dBA L33 (i.e., ambient). This noise level is reduced by 5 dBA to account for the types of noise generated by the Project, resulting in an adjusted noise threshold at this receptor of 60 dBA L33.

Project Impacts

Noise data from various parks and playgrounds as studied by Wilson Ihrig for other projects was used as reference noise levels for analysis of the Project. The majority of outdoor uses at the Project, such as children's play areas and basketball and pickleball courts, involve group activity for which relatively constant speech communication is inherent. Other noise sources attributable to the Project include amplified speech and music, which is anticipated to occur at the Project during outdoor events. A summary of the noise level data used as reference for the Project's typical park and playground-type activities include the following:

- 10 teen boys playing half-court basketball at 80 to 100 feet: dBA Leq = 55, based on 20-minute measurement at Albany Memorial Park, Albany HS
- 50 to 60 elementary school children at recess, with approximately 30 playing soccer on grass at 50 to 80 feet: dBA Leq = 64, based on 15-minute measurement at day school playground, Palo Alto
- 40 to 50 college students playing soccer on artificial turf within 200 feet: dBA Leq = 58, based on 20-minute measurement at practice field, UC Berkeley
- 50 people of all ages with picnics at a playground on grass, within 200 feet: dBA Leq = 57, based on 10-minute measurement at Cordonices Park, Berkeley
- 15 to 20 kindergartners in a grass play area at 80 feet: dBA Leq = 58, based on 15-minute measurement at school playground, Palo Alto
- playground recess with 100 to 500 children: dBA Leq = 68-77, based on Handbook of Environmental Acoustics (J.P. Cowan, p. 233)
- 24 people of all ages playing pickleball on 6 (2x3) courts, as measured in between the courts: dBA Leq = 69, based on 40-minute measurement at tennis/pickleball courts, Bushrod Recreation Center, Oakland
- 15 pre-school children in play on grass at 20 feet: dBA Leq = 66, based on 15-minute measurement at pre-school playground, Wild Child Daycare, Oakland

Average noise levels generated by activities in outdoor use areas are determined to a large degree by the number of people (i.e., students/staff) at the activity. The Project's Acoustic Study has adjusted the reference noise levels for such outdoor activities, based on the number of expected people at each of the Project's outdoor activity areas.

Additionally, the noise data from the various reference noise sources used in the Project's acoustic study is expressed in terms of Leq (representing the average sound energy occurring over a specified period), whereas the City's noise threshold is expressed in terms of L33 (representing the sound level exceeded 33 percent of a specified period). Where L33 noise values were available for the reference noise sources, the corresponding Leq values are between 0.5 and 1 dBA higher than the L33 value. Accordingly, the Acoustic Study's reliance on adjusted Leq values for each of the Project's noise sources (rather than L33 values) presents a conservative, slightly over-estimate of the Project's noise impacts (by 0.5 to 1 dBA) as compared against the City L33 threshold.

Infrequent or intermittent maximum noise levels produced by various outdoor use areas will vary considerably depending on the activity. Impulsive noise induced by impact with a ball is associated with pickleball, soccer, and the dribbling of a basketball. This type of noise and short-duration, high-level speech events occur intermittently and is generally associated with the L2 (or 1-minute) noise levels.

To calculate the Project's expected future noise levels at adjacent residences and at the adjacent church, a state-of-the-art three-dimensional noise modeling software package (SoundPLAN2) was used. The model incorporates the geometry of the proposed JCCEB Project utilizing the applicant's plans as submitted on July 12, 2023, including existing buildings and proposed walls, fences and structures, as well as other surrounding off-site structures. The noise model accounts for site-specific acoustical characteristics of the Project, as well as noise attenuation of existing and proposed structures or barriers.

Daily Outdoor Play

Many of the Project's new noise sources are associated with typical outdoor play and gathering areas for children during the proposed preschool, daycare, after school childcare, and camp programs. The preschool and daycare programs would operate year-round, generally from the hours of 9:00 am to 3:30 pm, and with before care starting as early as 8:15 am and afterschool programs lasting until 6:00 pm from August to May. The primary noise sources during these activities would be children using "outdoor voices". Outdoor play would not occur all day long, but would be a recurring noise-generating activity throughout the day. The following **Table 8** presents the predicted noise levels at each receptor during the outdoor play activities at each outdoor use area.

The highlighted cells of Table 8 represent areas where acoustical modeling indicates that noise from children's outdoor play and activity areas could exceed the applicable threshold levels at two of the ten identified sensitive receptors: i.e., at Receptor 1 nearest to the Project's proposed Ball Court, and Receptor 5 at the adjacent church nearest to the Project's proposed Play Area C.

Table 8: Predicted Average Noise Levels from Outdoor Play Areas, at Nearest Sensitive Receptors

Outdoor Use Area	Description of Noise Source	Estimated Noise Level at Receptor Locations, Leq (dBA)									
		1	2	3	4	5	6	7	8	9	10
Ball Court	10 Students Playing Basketball	**56**	55	48	39	28	27	50	30	37	34
Daycare Play Area A	22 Children	34	36	36	39	27	29	34	24	31	44
Daycare Play Area B	22 Children	26	30	34	29	41	55	30	38	38	29
Daycare Play Area C	22 Children	35	39	41	28	**56***	33	33	55	43	29
Garden	6 Students /Staff	38	42	42	51	21	26	34	27	30	46
Patio	10 Students /Staff	36	44	41	35	28	26	39	40	43	44
Pickleball Courts	12 Students Playing	30	30	33	30	46	30	29	46	44	33
The Meadow	100 Students /Staff	47	52	54	48	43	37	51	50	46	54
Threshold (dBA L33)		55	55	55	55	55	55	55	55	60	55

Source: Wilson Ihrig, September 2024, Table 5

Notes: Highlighted cells indicate an exceedance of the Oakland Noise Ordinance limits

*Highlighted noise levels from Daycare Play Area C, as heard at Receptor 5 (the adjacent church) is conservatively highlighted as exceeding the L33 threshold of 55 dBA. Per Table 7, existing ambient noise levels at the adjacent church can reach 65 dBA during certain times of the day. The Project's estimated noise level of 56 dBA would not result in a significant increase in the ambient condition during overlapping periods when existing noise at the Church exceeds 60 dBA.

Outdoor Use Areas with Amplified Sound

Acoustical modeling has also been used to evaluate potential noise impacts from two outdoor use areas that would also involve occasional use of amplified sound via speakers (PA systems). These two outdoor use area are the proposed Outdoor Gathering Deck located along the south side of the Events Center Building at 6028 Claremont, and a small outdoor children's stage proposed within the central portion of the Project site.

The new outdoor deck at 6028 Claremont is proposed to be used for large events such as performances, weddings, bar/bat mitzvahs, etc., and are proposed to take place year-round on Saturdays after sundown, any time of day on Sundays, and after 6:00 pm Monday through Friday. These events are predicted to have as many as 50 to 250 participants, with an estimated maximum of 120 persons (about one-half of the maximum attendance) on the deck. The small outdoor stage would be used primarily for children's performances associated with the proposed Community Education uses, and perhaps for cultural or special events associated with the proposed Community Assembly use. This small stage is only anticipated to accommodate up to 5 persons. Acoustical modeling was conducted for these two outdoor use areas.

The Outdoor Gathering Deck was modeled separately as a 120-person noise source, and as a 3-speaker PA system noise source. Modeling of the proposed PA system was based on the following specifications and parameters of the PA speakers:

- JBL AW266 High Power 2-Way Loudspeaker with 1 x 12" LF – one speaker per location

- Speaker directionality as shown in **Figure 15** (one speaker facing east, two facing north), no vertical tilt
- Approximate speaker locations as shown in Figure 15, placed in front of solid wood fencing
- Maximum speaker height of 7 feet above grade or finished floor for each speaker

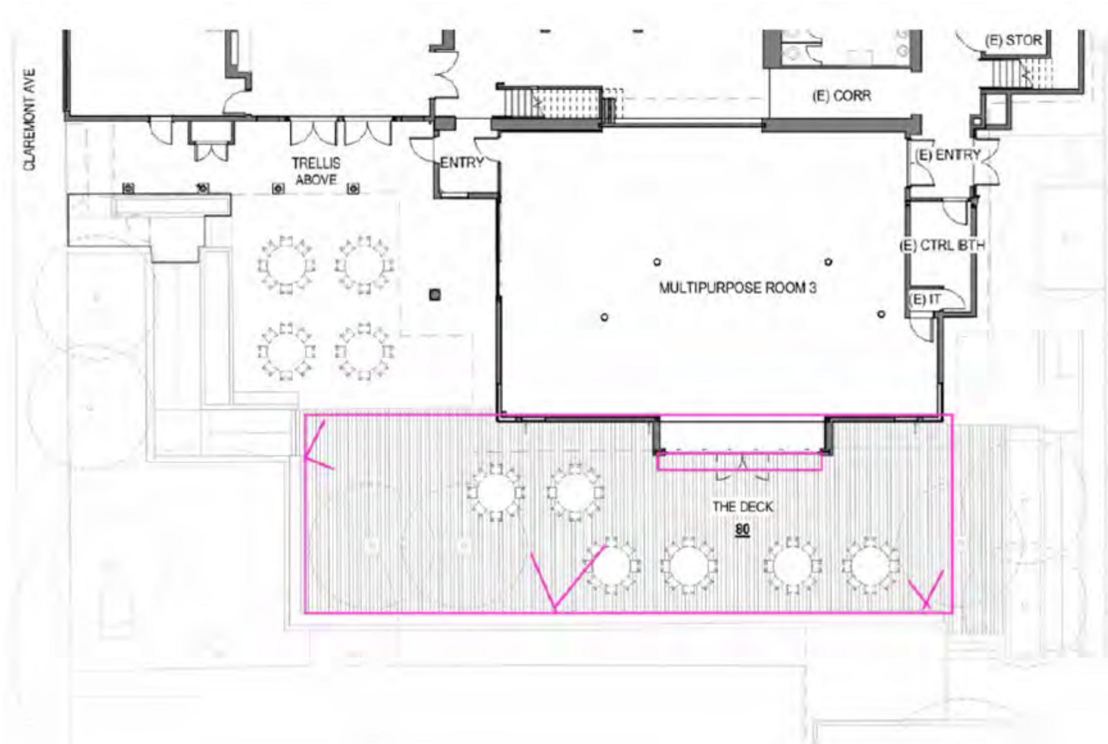


Figure 15
Outdoor Deck - Concentrated Noise Source Area

Since the attendee and the PA system noise sources are not assumed to always be occurring simultaneously, noise modeling of these two noise sources was treated separately. The noise model predicts that noise levels from 120 persons on the deck will be dominant noise source at the affected noise receptors. Therefore, predicted noise levels shown in **Table 9** reflect that of the 120-person noise source. Because noise from the PA system can be adjusted for volume, limits have been established for the PA system based on the maximum sound levels from the PA system that would avoid exceeding noise thresholds at affected receptor locations when logarithmically added to that crowd noise (see further discussion of PA system limits, below). [23]

At the small Outdoor Stage the PA system was found to be the dominant noise source, as only 5 to 10 children as assumed to be on the stage at one time. Noise from the PA system at the small outdoor stage was simulated with the same speakers, speaker height and tilt as assumed for the PA system on the deck, with speaker directionality pointed towards the center of the Meadow. Limits were then established for this PA system based

[23] Because the decibel scale is logarithmic, two different sound sources cannot simply be added together to obtain their combined sound pressure level. In order to determine the resultant sound pressure level of two or more sources, the sound pressure levels are added logarithmically.

on the maximum sound level limits that would avoid exceeding noise thresholds at affected receptor locations (see further discussion of PA system limits, below).

As shown in **Table 9**, modeled amplified sound levels from the small outdoor stage do not exceed noise thresholds at any of the receptor locations, partly due to the stage location within the central portion of the Project site such that receptor locations are shielded by intervening on-site structures and proposed noise-attenuating walls and fences that were included in the application submittal.

However, modeled noise from outdoor gatherings on the deck, with up to 120 persons on the deck at a time, are predicted to exceed the City of Oakland's Noise Ordinance limits at four of the ten identified sensitive receptors (Receivers 1, 2, 3 and 7).

Table 9: Predicted Average Noise Levels from Outdoor areas with PA Systems, at Nearest Sensitive Receptors

Outdoor Use Area	Description of Noise Source	Estimated Noise Level at Receptor Locations, Leq (dBA)									
		1	2	3	4	5	6	7	8	9	10
Outdoor Gathering Deck	120 Participants*	**57**	**56**	**56**	45	45	36	**56**	44	57	48
Outdoor Stage	Amplified Music (PA System)**	40	46	49	45	31	31	42	41	36	54
Comparable L33 Threshold		55	55	55	55	55	55	55	55	60	55

Source: Wilson Ihrig, September 2024, Table 5

Notes: Highlighted cells indicate an exceedance of the Oakland Noise Ordinance limits

* The noise levels presented above for the Outdoor Gathering Deck are the modeled results of 120 persons on the deck, which was determined to be the dominant noise over noise levels from the PA system. As further discussed below, sound pressure limits for the PA system at the Deck have been established to maintain less than significant noise threshold levels when noise from that PA system is logarithmically added to noise from the Deck (see Table 10: Predicted Average Noise Levels from Outdoor Uses With Additional Noise Attenuation).

** The noise levels presented above for the small Outdoor Stage are the modeled results of the PA system, which was determined to be the dominant noise over noise levels from a small number of children on the Stage. As further discussed below, sound pressure limits for the PA system at the small Stage have been established to maintain less than significant noise threshold levels when noise from Stage is logarithmically added to noise from the PA system (see predicted average noise levels for the Outdoor Stage at Receiver 10, above).

Applicable Standard Conditions of Approval

The following City of Oakland SCA addresses operational noise from all projects within the City, and would apply to the Project:

- **SCA Noise-5 (#75), Operational Noise**: 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.

Based on the results of the acoustical analysis (above) and acoustical modeling which helped inform these results (Wilson Ihrig, Appendix C), certain daily outdoor play areas and outdoor gatherings on the Deck are expected to exceed City of Oakland Noise thresholds. Without further noise attenuation/noise abatement, the Project is predicted to exceed the noise performance standards of the OMC at five different receptor locations (Receptors 1, 2, 3, 5 and 7).

Application Resubmittal and Noise Attenuation Plans in Furtherance of SCA Noise-5

Based on these results and the applicant's obligations to comply with City of Oakland operational noise standards (per SCA Noise-5), the applicant submitted revised plans on September 10, 2024 that incorporated changes to fencing locations, fence heights and play area locations. The operational noise analysis included as Appendix C was subsequently revised to incorporate these design features as further described below, as well as an additional existing attenuating structure not previously included within the analysis. Based on these revisions, the Project is not anticipated to exceed the noise performance standards of the OMC. The following changes have been incorporated into the applicant's September 2024 revised plans to provide compliance with the City of Oakland's SCA for operational noise and with the City's Noise Ordinance limits:

- *Fencing at Outdoor Gathering Deck:* The span of the Project's proposed 8-foot high solid wood fence that is located immediately to the south of the deck at 6028 Claremont has been extended by 14 feet past the fence's prior easternmost point, covering as much of the southeastern side of the Outdoor Gathering Deck as possible.

The additional length of this solid wood fence is calculated to reduce noise levels from outdoor gatherings of as many as 120 people on the deck to below threshold levels at Receptors 1, 2, 3 and 7 (those affected receptors with rear yards nearest the Deck).

- *Location of the Ball Court:* The ball court's location has been moved 5 feet to the north, creating further separation between the Ball Court and the backyard of the property at 5911 Chabot Road.

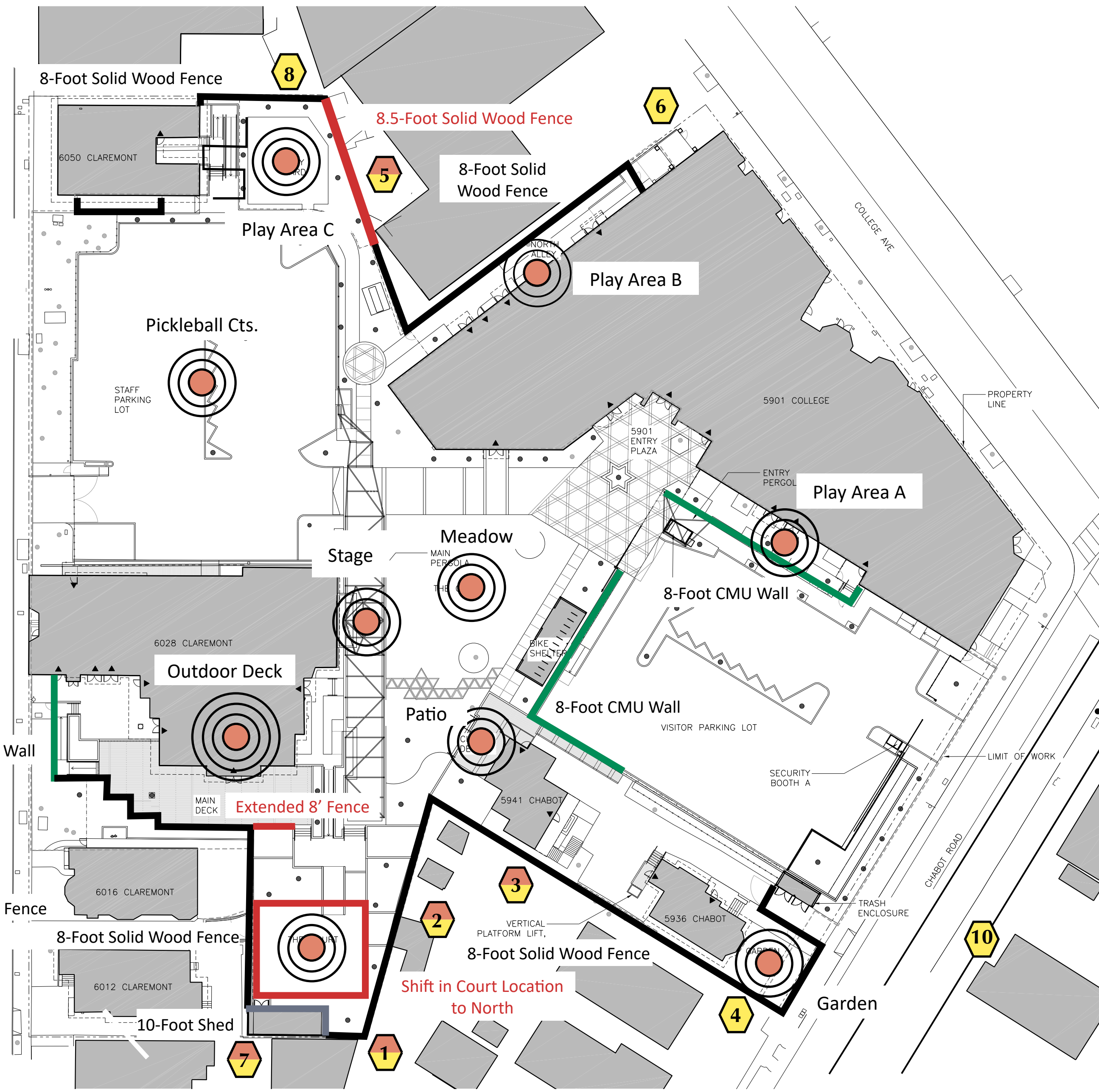
This additional separation between the ball court, together with the proposed fence, proposed shed, and the existing adjacent carport, has been calculated to reduce noise associated with children's play at this location to a level below the City threshold at affected Receptor 1.

- *Fencing at Daycare Play Area C:* The 65 foot length of 8-foot solid wood fence separating Play Area C from the side yard of the adjacent church at 5951 College Avenue has been extended in height from 8 feet, to 8 feet-6 inches tall.

This additional fence height is estimated to reduce noise levels from children's play activities at Play Area C to below threshold levels at the affected Receptor 5 (the adjacent Church).

For the Project's sound walls/fences to be effective, they are to be constructed of typical construction materials such as concrete block, wood studs and stucco, etc. The selected material or assembly shall have a minimum surface mass of 2 pounds per square foot (PSF), with no gaps or openings. Typical wood fencing inherently has small gaps or openings that can severely degrade its effectiveness in abating noise, and is not to be used for noise attenuation.

Figure 16 shows the Project's site plan with these additional noise abatement measures. **Table 10** presents the predicted noise levels resulting from implementation of these additional noise abatement measures.



Noise Sources

Project Noise Attenuation Measures

- Proposed 8-Foot CMU Wall
- Proposed 8-Foot Solid Wood Fence
- Additional Noise Attenuation

Resulting Noise Levels

- Below threshold levels with proposed fences and walls
- Exceeds threshold levels with proposed fences/walls - reduced to below threshold levels with additional attenuation

Sensitive Receptors:

1: Residence at 5911 Chabot Rd.
2: Residence at 5925 Chabot Rd.
3: Residence at 5933 Chabot Rd.
4: Residence at 5933 Chabot Rd.
5: Church at 5951 College
6: Church at 5951 College
7: Residence at 6006 Claremont Ave.
8: Commercial use at 6060 Claremont Ave.
9: Residence at 6023 Claremont
10: Residence at 5944 Chabot Rd.

Figure 16
Original Proposed and Additional Noise Attenuation Measures

Source: Siegel & Strain and Wilson Ihrig, September 2024

Table 10: Predicted Average Noise Levels from Outdoor Uses With Additional Noise Attenuation

Outdoor Use Area	Description of Noise Source	Estimated Noise Level at Receptor Locations, Leq (dBA)									
		1	2	3	4	5	6	7	8	9	10
Ball Court	10 Students Playing Basketball	55	55	48	39	28	27	50	30	37	34
Daycare Play Area A	22 Children	34	36	36	37	27	29	34	24	31	44
Daycare Play Area B	22 Children	26	30	34	29	41	55	30	38	38	29
Daycare Play Area C	22 Children	34	39	41	28	55	33	33	55	43	29
Garden	6 Students /Staff	38	42	42	51	21	26	34	27	30	46
Outdoor Gathering at Deck *	120 Participants	55	55	55	45	44	36	55	44	57	48
Outdoor Stage **	Amplified Music, 5 students	40	46	49	45	31	31	42	41	36	54
Patio	10 Students /Staff	36	44	41	35	28	26	39	40	43	44
Pickleball Courts	12 Students Playing	30	30	33	30	46	30	29	46	44	33
The Meadow	100 Students /Staff	47	52	54	48	43	37	51	50	46	54
Comparable L33 Threshold		55	55	55	55	55	55	55	55	60	55

Source: Wilson Ihrig, September 2024, Table 5

Notes: Highlighted cells indicate an exceedance of the Oakland Noise Ordinance limits

* The noise levels presented above for the Outdoor Gathering Deck are the modeled results of 120 persons on the deck, which was determined to be the dominant noise over noise levels from the PA system. As further discussed below, sound pressure limits for the PA system at the Deck have been established to maintain less than significant noise threshold levels when noise from that PA system is logarithmically added to noise from the Deck.

** The noise levels presented above for the small Outdoor Stage are the modeled results of the PA system, which was determined to be the dominant noise over noise levels from a small number of children on the Stage. Sound pressure limits for the PA system at the small Stage have been established to maintain less than significant noise threshold levels when noise from Stage is logarithmically added to noise from the PA system.

The Project's resubmitted plans (September 2024) include an additional fence height adjacent to the Church, an extended fence length south of the Outdoor Deck, and relocation of the basketball court. As shown in the table above, these Project revisions resolve predicted noise exceedances resulting from outdoor play activities and comply with Noise Ordinance thresholds, such that these outdoor activities would not have a significant noise impact on the surrounding neighborhood.

Limits on the PA Systems

The acoustic analysis (Wilson Ihrig, Appendix C) has calculated the sound pressure limits for the PA systems at both the Deck and at the small Outdoor Stage that are necessary to maintain less than significant noise threshold levels, when noise from these PA systems are added to the noise from their respective outdoor activities. In furtherance of SCA Noise-5, the following conditions shall be placed on the Project to ensure that, under no circumstances shall the PA systems be operated above the following limits: [24]

- PA System Limits at the Deck: To comply with the City of Oakland noise thresholds at all studied noise receptor locations, the PA system at the Outdoor Gathering Deck shall be operated with a maximum allowable sound pressure level not to exceed an average (Leq) level of 81 dBA for 20-plus minutes, and a maximum of 96 dBA as measured at approximately the center of the Outdoor Deck area and 5 feet above grade or finished floor.
- PA System Limits at the Small Outdoor Stage: To comply with the City of Oakland noise thresholds at all studied noise receptor locations, the PA system at the small Outdoor Stage shall be operated with a maximum allowable sound pressure level not exceed an average of 94 dBA Leq for 20-plus minutes, and a maximum of 102 dBA as measured approximately 5 feet in front of the speakers and 5 feet above grade or finished floor.

With compliance with these sound pressure requirements for the PA systems, the City of Oakland's noise thresholds will continue to be met at all receptor locations even when PA system noise is added to the outdoor activities at the Deck and the small Outdoor Stage. This conclusion for the added PA system is reliant on implementation of the extended fence length south of the Outdoor Deck, as included in the applicant's September 2024 plans.

Fence Height Considerations

Oakland Planning Code Section 17.108.140, subsection C applies to all commercially zoned properties, including the Project site's CN-1 zoning. The provisions of this subsection of the Planning Code provide the following:

- The maximum height allowed by right of any fence, dense hedge, barrier or similar freestanding wall located within ten feet of the public right-of-way or any abutting property located in a residential or open space zone is eight feet (as measured from the top of the fence to the finished grade at the outside perimeter of the fence).
- A fence higher than eight feet but no more than ten feet may only be permitted in these locations if installed with additional landscape screening, and upon the granting of Design Review approval.
- The maximum height of any fence, dense hedge, barrier or similar freestanding wall elsewhere on a lot is ten feet.

As shown in Figure 16, the only fence that is proposed to be more than 8 feet tall is the fence between the Project's Play Area C and the adjacent Church. The Church is not located within a residential zone, and the 8.5-foot fence at this location is lower than the 10-foot maximum fence height for a non-residential adjacent site.

Special Event Noise

The Project's proposed program of activities includes four to five High Holiday events per year, typically during the months September and October, with as many as 500 people in attendance. These High Holiday events will include a service that primarily occurs within the building at 6028 Claremont but will also extend outdoors onto the proposed outdoor deck. The design of the outdoor deck is intended to accommodate up to 120 occupants, such that approximately 25% of a full 500-person High Holiday event may be accommodated on the deck, with the remainder of participants inside. Based on conversations with the Project applicant, it is understood that

[24] Noise levels as high as the PA system limits at both the Outdoor Gathering Deck and Outdoor Stage Area are not expected to be produced during typical functions.

these High Holiday events are typically deeply somber ceremonies of contemplation and prayer, with no dancing or drinking, and music consisting solely of prayerful songs.

Based on this understanding of how these Special Events would operate, noise levels for these High Holiday events have been modelled similarly to the more regularly scheduled events (such as performances, weddings, bar/bat mitzvahs, etc.) as presented above. However, because these High Holiday events are more prayerful and deeply somber, the overall average source noise levels at the noise source during High Holiday events were assumed at 5 dBA less than these other scheduled events. **Table 11** displays the predicted noise levels at each receptor during these High Holiday events

Table 11: Predicted Average Noise Levels for High Holiday Activities, at Nearest Sensitive Receptors

Outdoor Use Area	Description of Noise Source	Estimated Noise Level at Receptor Locations, Leq (dBA)									
		1	2	3	4	5	6	7	8	9	10
Outdoor Deck during Special High-Holiday Events	Approx. 25% of 500 Attendees (120 attendees) at the Deck *	50	50	50	40	39	31	50	39	52	43
Comparable L33 Threshold		55	55	55	55	55	55	55	55	60	55

Source: Wilson Ihrig, September 2024, Table 9

* The noise levels presented above for the Outdoor Gathering Deck are the modeled results of 120 persons on the deck, but with the overall average source noise levels during High Holiday events assumed at 5 dBA less than for other scheduled events. These predicted noise levels also rely on the same sound pressure limits for the PA system (as presented above) to maintain less than significant noise threshold levels when noise from that PA system is logarithmically added to noise from the Deck.

The noise levels presented in Table 11 above presume implementation of the noise attenuation measures for extended fencing at the outdoor gathering deck as described above. With this fencing plan and the PA system requirements as presented above for the more regularly scheduled events, outdoor operational noise generated by High Holiday events, including an extension of attendees onto the proposed outdoor deck at 6028 Claremont, would not exceed the City of Oakland's Noise Ordinance limits. The noise levels generated during High Holidays are not expected to result in significant impact on the surrounding environment.

Other Noise Topics

Permanent Traffic Noise

The City of Oakland threshold for permanent traffic-related noise establishes a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project as significant; or 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 and a 3 dBA permanent increase is attributable to the project. Due to the logarithmic nature of additive noise sources, an accepted acoustic "rule of thumb" is that a doubling of traffic volume results in an increased noise level of approximately 3 dBA.

- Based on data collected in October 2022, the average daily traffic volume on College Avenue north of Chabot Road is about 10,500 vehicles per day. The Project is expected to generate 1,362 total vehicle trips on a typical weekday during the summer months, with 53 percent of those trips (or 722 trips) using

College Avenue. This represents an approximately 7 percent increase of traffic on College Avenue, well below the 100 percent increase (or doubling) of traffic volume that could otherwise generate 3 dBA of increase in permanent traffic noise.

- Based on data collected in October 2022, the average daily traffic volume on Claremont Avenue north of Chabot Road is about 11,900 vehicles per day. The Project is expected to generate 1,362 total vehicle trips on a typical weekday during the summer months, with 45 percent of those trips (or 613 trips) using Claremont Avenue. This represents an approximately 5 percent increase of traffic on Claremont Avenue, well below the 100 percent increase (or doubling) of traffic volume that could otherwise generate 3 dBA of increase in permanent traffic noise.
- Based on data collected in May 2023, the average daily traffic volume on Chabot Road west of Claremont Avenue is about 1,740 vehicles per day. The Project is estimated to increase the average daily traffic volume on this segment of Chabot Road to about 2,220 vehicles per day (corresponding to an increase of about 27 percent) during the non-summer months, and to about 2,260 vehicles per day (corresponding to an increase of about 37 percent) during the summer months. This increase of traffic on Chabot Road is well below the 100 percent increase (or doubling) of traffic volume that could otherwise generate 3 dBA of increase in permanent traffic noise.

The Project's increase in traffic on surrounding roadways will not result in a significant increase in traffic noise on College Avenue, Claremont Avenue or Chabot Road.

<u>Noise Exposure of the Project</u>

Whereas the impacts of the surrounding environment on a project are not considered environmental impacts under CEQA, the City still maintains land use compatibility guidelines and interior noise exposure limits pursuant to state regulations and the Oakland General Plan. The City of Oakland's Land Use Compatibility Guidelines establish a community noise exposure level of between 60 and 65 dB CNEL for residential and church land uses, and a noise exposure level of between 65 and 75 dB CNEL for office buildings. According to the City of Oakland's Phase I 2045 General Plan Update DEIR, the Project site is subject to a community noise level of approximately 65 dB CNEL, which is within the acceptable range for the Project's proposed land use types.[25]

<u>Groundborne Vibration</u>

The Project's construction process does not involve pier drilling, pile driving or other types of extreme noise or intensive vibration-causing activities. The Project's operations do not include any activities that would generate groundborne vibration that might exceed applicable threshold criteria.

<u>Airport/Aircraft Noise Exposure</u>

The Project is not located within an airport land use plan area, and would not be exposed to excessive noise levels associated with an airport, a private airstrip or overhead aircraft.

f) Air Quality

Yes	No	
	■	Would approval of the Project result in any significant effects relating to air quality?

[25] City of Oakland, *Phase I 2045 General Plan Update DEIR*, March 2023, Figure 4.11-1

As demonstrated in the analyses below, and with implementation of all required City of Oakland SCAs, approval of the Project would not result in any significant effects relating to air quality. The Project qualifies under criteria f) as an Infill Development pursuant to CEQA Guidelines Section 15332.

Thresholds of Significance

The Project would result in a significant impact if it were to:

1. During project construction, result in average daily emissions of 54 pounds per day of ROG, NOx, or PM2.5 or 82 pounds per day of PM10
2. During project operation result in 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
3. Contribute to carbon monoxide (CO) concentrations exceeding the California Ambient Air Quality Standards (CAAQS) of nine parts per million (ppm) averaged over eight hours and 20 ppm for one hour
4. For new sources of Toxic Air Contaminants (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 one million, (b) a non-cancer risk (chronic or acute) hazard index greater than 1.0, or (c) an increase of annual average PM2.5 of greater than 0.3 micrograms per cubic meter; or, under cumulative conditions, 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 PM2.5 of greater than 0.8 micrograms per cubic meter
5. Expose new sensitive receptors to substantial ambient levels of Toxic Air Contaminants (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 PM2.5 of greater than 0.8 micrograms per cubic meter
6. Frequently and for a substantial duration, create or expose sensitive receptors to substantial objectionable odors affecting a substantial number of people

Construction-Period Criteria Pollutants

The Project's construction activity is limited to outdoor surface improvements (paving and landscape) and does not include construction of any new structures. Such limited construction activity likely falls within the Bay Area Air Quality Management District's screening thresholds for projects of smaller size that are unlikely to result in generation of construction-related criteria air pollutants or precursors that exceed the thresholds of significance. However, the Project is not adequately defined under any of the BAAQMD's land use sub-categories for screening assessment. Therefore, the Project's construction-period criteria pollutant emissions have been calculated using the CalEEMod emissions calculator (version 2022.1).

CalEEMod computes annual emissions from construction based on the project type, size and acreage, and provides emission estimates for both on-site and off-site construction activities. On-site activities are primarily construction equipment emissions, while off-site activity includes worker, hauling and vendor traffic. Project-specific information was entered into the CalEEMod calculator, including the following:

- the Project site's precise location
- demolition of an approximately 1,664 square-foot portion of the rear of the building at 6028 Claremont Avenue and demolition of the approximately 1,680 square-foot outdoor staircase at the internal façade of the building at 5901 College Avenue
- removal of 31,655 square feet of asphalt and concrete from the internal portions of the Project site
- minor site preparation work for re-grading the area where asphalt and concrete were removed

- minor new construction at the internal façade of the building at 5901 College Avenue, where the staircase was removed to create a new ground-level entrance
- placing approximately 22,020 square feet of new pavement, concrete and lithocrete; and adding approximately 24,700 square feet of new landscape area, and
- minor new coating and finishes

This construction work would produce traffic in the form of worker trips and truck traffic. Traffic-related emissions are based on worker and vendor trip estimates produced by CalEEMod and haul trips that were computed based on Project-specific information listed above. Deliveries were converted to total one-way trips, assuming two trips per delivery. On-site trip lengths for on-road vehicles were assumed at 1 mile per day.

CalEEMod default values were used for all calculations related to on-road vehicle emission factors, off-road equipment emission factors, worker and vendor trip length, and ROG emission values from architectural coatings.

The Project's construction emissions were calculated assuming an approximately 15-week construction period, conservatively assumed to begin in August of 2024 and ending in November 2024. It is also likely that the Project's construction activities will overlap with ongoing operational activities associated with the current Dreyer's/Nestle operations. Therefore, the combined construction emissions and overlapping operational "baseline" emissions attributable to the Dreyers/Nestle operations are conservatively assumed to be additive. The CalEEMod results for construction emissions, plus the overlapping Dreyer's/Nestle operations are included in **Appendix D** and summarized below in **Table 12**.

Table 12: Regional Criteria Air Pollutant Emissions during Construction

	Reactive Organic Gases	Nitrogen Oxides	PM10, Exhaust	PM2.5, Exhaust
Annual (tons/year)				
Annual Construction Emissions, 2024	0.03	0.30	0.01	0.01
Plus Dreyer's Operational Emissions	0.35	0.11	0.01	0.01
Overlapping Construction/Operations Emissions	**0.38**	**0.41**	**0.02**	**0.02**
Annual Threshold	10	10	15	10
Exceed Threshold?	**No**	**No**	**No**	**No**
Average Daily (pounds/day)				
Average Daily Construction Emissions [1]	0.95	9.52	0.32	0.32
Plus Dreyer's Avg. Daily Operational Emissions	1.91	0.61	0.03	0.03
Overlapping Construction/Operations Emissions	**2.86**	**10.13**	**0.35**	**0.35**
Average Daily Threshold	54	54	82	54
Exceed Threshold?	**No**	**No**	**No**	**No**

Source: CalEEMod results per Appendix D

1. Per BAAQMD guidance, average daily construction emissions are calculated based on annual emissions divided by the number of working days per year. Based on the CalEEMod emissions calculator, a 63-day construction period is assumed.

As shown, the Project's construction-period emissions of criteria pollutants, plus the overlapping Dreyer's/Nestle operational emissions would be below threshold levels, and this impact would be less than significant. This conclusion is reached prior to including any construction-period emission reductions per applicable SCAs, below.

Applicable Standard Conditions of Approval

The following City of Oakland SCAs provide an effective means for addressing criteria pollutant emissions from all construction projects within the City, and would apply to the Project:

- **SCA Air-1 (#22), Dust Controls – Construction Related**: 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 excavation, grading, and/or 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) Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.

  h) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.

- **SCA Air-2 (#23), Criteria Air Pollutant Controls - Construction and Operation Related**: The project applicant shall implement all of the following applicable basic and enhanced 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.

With implementation of these SCAs, the Project's emissions of criteria pollutants during construction would be further reduced, and these emissions would be less than significant.[26] [27]

Operational Criteria Pollutants

The Project's operational criteria pollutant emissions have been calculated using the CalEEMod emissions calculator (version 2022.1.1.22 (see **Appendix E**).

Project-specific information entered into the CalEEMod calculator includes the following:

- the Project site's precise location
- the square footage of 5901 College Avenue and 6028 Claremont Avenue, by type of use, as proposed (the other five structures on the Project site will remain as-is, with no change in baseline operational emissions other than for mobile sources)
- square footage of new landscaped area
- Project-specific trip generation and vehicle miles traveled (per Fehr & Peers' *JCCEB Transportation Impact Review and Transportation Demand Management Plan*, September 2024) – mobile source calculations include all operations-based trips as assumed for the entire Project, and prior to implementation of required TDM measures

CalEEMod default values were used for the assumed fleet mix, vehicle emission factors, operational sources, architectural coating re-application rate, total energy use, water and wastewater consumption, and solid waste generation.

The buildings at 5901 College Avenue and 6028 Claremont Avenue are currently partially used for office space by the Dreyer's/Nestle Corporation, and about 8,920 square feet of building space along the College Avenue frontage is occupied by five retail tenants that are expected to remain pursuant to the Project. These uses and their respective operational emissions are considered part of the "baseline" operations, including their respective mobile, area and energy source emissions.

The results of operational emissions modeling for the Project, less existing baseline operational emissions, are included in **Appendix E** and summarized below in **Table 13**.

26 Additional Enhanced Controls for construction-period dust emissions are not required because the Project does not involve extensive site preparation (i.e., the construction site is not four acres or more in size), or extensive soil transport (i.e., 10,000 or more cubic yards of soil import/export).

27 Additional Enhanced Controls for Criteria Air Pollution - Construction and Operation Related, are not required. Although the construction period will/may overlap with existing operations, these combined construction and operations emissions would not exceed the City's thresholds for criteria air pollutants.

Table 13: Project's Operational Emissions of Criteria Pollutants

	Criteria Air Pollutants (lbs/day)			
Category	**ROG**	**NOx**	**PM10 (exhaust)**	**PM2.5 (exhaust)**
Annual Project Emissions (tons/yr)				
Mobile Sources	0.56	0.68	0.01	0.01
Area Sources	0.38	0.00	0.00	0.00
Energy	0.01	0.10	0.01	0.01
Subtotal (tons per year)	***0.95***	***0.79***	***0.02***	***0.02***
Less Baseline Emissions	0.35	0.11	0.01	0.01
Net Increase in Annual Emissions:	**0.60**	**0.68**	**0.01**	**0.01**
Threshold (Exceed?)	10 (**No**)	10 (**No**)	15 (**No**)	10 (**No**)
Average Daily Emissions (ls/day)				
Project (total)	5.20	4.31	0.10	0.10
Less Baseline Emissions	1.91	0.61	0.03	0.03
Net Increase in Avg. Daily Emissions:	***3.29***	***3.70***	***0.07***	***0.07***
Threshold (Exceed?)	54 (**No**)	54 (**No**)	82 (**No**)	54 (**No**)

Source: CalEEMod (see Appendix E)

As demonstrated in Table 13, the Project's predicted annual and average daily operational-generated emissions of ROG, NOx, PM10 and PM2.5 are below the respective operational significance thresholds as recommended by the BAAQMD and adopted by the City of Oakland. The Project's operational air quality impacts related to cumulatively considerable net increases of these non-attainment criteria pollutants would be less than significant, and no additional mitigation is required.

Regardless of this finding, the Project will be subject to City SCAs pertaining to required TDM, energy efficiency, water conservation and waste generation. Implementation of these SCAs will further reduce the Project's operational criteria pollutant emissions.

Demolition / Asbestos

According to the Phase I ESA prepared for the Project site, "the subject site structures, except the three-story office over retail building at 5901 College Avenue, were constructed before 1979 (the year asbestos containing construction materials was banned) and asbestos may have been utilized in their construction. No previous asbestos reports are available, but no obvious evidence of friable or non-friable suspect asbestos-containing materials was observed within easily accessible areas of these structures. Visual observations of the easily accessible areas of the structures appeared to be in good condition with no obvious signs of significant health risk concerns." [28]

[28] Basics Environmental, *Phase I Environmental Site Assessment*, October 2019, page 2-24

The Project does include demolition of a rear portion of the building at 6028 Claremont Avenue, and it is possible that this portion of the building has asbestos-containing construction materials.

Applicable SCAs

The following SCA applies to all projects involving demolition of structures, or renovation of structures known to contain or that may contain asbestos:

- ❖ **SCA Air-3 (#28), Asbestos in Structures**: 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.

With implementation of this SCA, the Project would not expose sensitive receptors to substantial levels of airborne asbestos.

Other Air Quality Topics

Toxic Air Contaminants

The Project's construction effort is relatively small (less than the equivalent of 50 dwelling units or 25,000 square feet of non-residential floor area) and of a relatively short 15-week duration. As indicated above, the Project will be required to implement City of Oakland SCA Air-2 (#23), Criteria Air Pollutant Controls - Construction and Operation Related. The provisions of this SCA minimize the emission of toxic air contaminants (TACs) during the construction process by minimizing idling times on all diesel-fueled commercial vehicles and diesel-fueled off-road vehicles, requiring use of portable equipment that is powered by grid electricity, and by requiring use of construction equipment that complies with the requirements of the California Air Resources Board Off-Road Diesel Regulations. The Air Resources Board's goal for the Off-Road Diesel-Fueled Fleet Regulation is to reduce particulate matter (PM) and oxides of nitrogen (NOx) emissions from off-road heavy-duty diesel vehicles in California. These regulations impose additional limits on idling, requires construction equipment fleets to reduce their emissions by retiring, replacing or repowering older engines or by installing Verified Diesel Emission Control Strategies, requires phase-out of the oldest and dirties engines, and requires the procurement and use of renewable diesel. These regulations will reduce the emissions of TAC during construction, such that the Project would not expose nearby sensitive receptors to substantial levels of toxic air contaminants during construction.

The Project's operations do not involve any new or existing stationary pollutant sources requiring a permit from BAAQMD. None of the buildings within the Project site requires a back-up diesel generator for emergency power supply, and no back-up diesel generators are proposed. The Project does not involve any new truck loading docks or a truck fleet of any size. The Project would not expose sensitive receptors to substantial levels of toxic air contaminants during operations.

Carbon Monoxide

The Project would not contribute to carbon monoxide (CO) concentrations exceeding the California Ambient Air Quality Standards. Pursuant to BAAQMD CEQA Guidelines, localized CO concentrations should be estimated for projects that generate traffic that would conflict with an applicable congestion management program, or for projects that 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). The Project's traffic would not conflict with an applicable congestion management program. In Oakland, only the MacArthur Maze portion of Interstate 580 exceeds the 44,000 vehicles per hour screening criteria, and the Project's impacts at this location are minimal.

Odors

The Project does not have any operational characteristics that would create substantial objectionable odors, or that would expose nearby sensitive receptors to objectionable odors.

g) Water Quality

Yes	No	
	■	Would approval of the Project result in any significant effects relating to water quality?

As demonstrated in the analyses below, approval of the Project would not result in any significant effects relating to water quality, and the Project qualifies under criteria g) as an Infill Development pursuant to CEQA Guidelines Section 15332.

Thresholds of Significance

The Project would result in a significant water quality impact if it were to:

1. Violate any water quality standards or waste discharge requirements
2. Result in substantial erosion or siltation on- or off-site that would affect the quality of receiving waters
3. Create or contribute substantial runoff which would be an additional source of polluted runoff, or otherwise substantially degrade water quality
4. 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 off-site
5. Fundamentally conflict with the City of Oakland Creek Protection Ordinance

The Project site is located in a highly urbanized and developed portion of the City. The nearest locations of open water are the quarry lake near Broadway/Pleasant Valley (0.9 miles south), Lake Temescal (1.4 miles to the east), Lake Merritt (2.5 miles to the south) and the San Francisco Bay at Berkeley (2.5 miles to the west). The Project will have no direct effects on surface water or surface water quality. Runoff from the Project site is collected within the City's stormdrain system which eventually drains to the Bay.

Construction-Period Effects on Water Quality

Construction associated with the Project would involve ground-disturbing activities that may increase the potential for erosion and sedimentation. Construction equipment could contribute pollutants to stormwater runoff in the form of sediment and other pollutants such as fuels, oil, lubricants, hydraulic fluid or other contaminants. If mobilized during construction, sediment and silt could be transported to downstream receiving waters such as creeks, lakes or the Bay, and degradation of water quality could occur.

Applicable Standard Conditions of Approval

The following City of Oakland SCAs would apply to the Project to address water quality concerns during construction.

Grading, clearing or grubbing, or land disturbance activity that involves an area of one acre or more requires a grading permit. The Project's "Limit of Work", or the amount of surface area disturbed by Project-related construction involves approximately 43,850 square feet (or more than 1 acre) of land, and the Project will require a grading permit. The following condition applies to all projects that require a grading permit:

❖ **SCA Hydrology-1 (#55), Erosion and Sedimentation Control Plan for Construction**

a) *Erosion and Sedimentation Control Plan Required*: The project applicant shall submit an Erosion and Sedimentation Control Plan to the City for review and approval. The Erosion and Sedimentation Control Plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading and/or construction operations. The Plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the City. The Plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment.

b) *Erosion and Sedimentation Control during Construction*: The project applicant shall implement the approved Erosion and Sedimentation Control Plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Bureau of Building.

The following condition also applies to all projects that disturb one acre (43,560 square feet) or more of surface area:

❖ **SCA Hydrology-2 (#56), State Construction General Permit**: 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.

<u>Resulting Level of Significance</u>

The required Erosion and Sedimentation Control Plan would be subject to subsequent review and approval by the City prior to issuance of any grading permits, and the Project applicant is required to implement the Erosion and Sediment Control Plan during construction. The Project’s effects related to water pollution and sedimentation during construction will be fully addressed through implementation of City SCAs and existing regulations, and this impact would be less than significant.

Operation-Period Effects on Water Quality

During the life of the Project, employees and visitors may generate non-point source pollutants potentially including oil, grease and toxic chemicals from parking and driveway runoff, and litter. These non-point source pollutants can be washed by rainwater from roofs, landscape areas and parking areas into the downstream drainage network and directly into the Bay and other surface waters. Non-point source pollutants can have adverse effects on water quality, and can also infiltrate into groundwater and degrade the quality of groundwater resources.

The Project proposes to reduce the total number of parking spaces within the Project site from 140 existing parking spaces to 91 parking spaces, and to reduce the total area of impervious surfaces within the Limit of

Work from approximately 31,655 square feet to 21,830 square feet. The Project's reduction in nearly 10,000 square feet of impervious surfaces will have a corresponding nearly 10,000 square-foot increase in pervious (or permeable) surfaces such as landscape and permeable paving materials. The Project will result in a reduction of non-point source pollutants, a decrease in stormwater runoff and a commensurate decrease in contaminants washed by rainwater from impervious surfaces and into downstream receiving waters.

Applicable Standard Conditions of Approval

The following City of Oakland SCAs would apply to the Project to address water quality concerns during operations.

Projects that create or replace 5,000 square feet or more of new or existing impervious surface area within uncovered surface parking lots are considered Regulated Projects under the National Pollutant Discharge Elimination System (NPDES) c.3 requirements. The Project will have well over 5,000 square feet of land within the Project's Limit of Work that involves the replacement of existing impervious surface parking area with new impervious pavement, and the Project is therefore considered a Regulated Project. The following condition applies to all projects considered Regulated Projects under the NPDES C.3 requirements.

❖ **SCA Hydrology-3 (#60): NPDES C.3 Stormwater Requirements for Regulated Projects**

a. *Post-Construction Stormwater Management Plan Required*: 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*: 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 shall be provided for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region. The purpose of this access is to verify implementation, operation and maintenance of 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.

Project Plans Pursuant to SCAs

Consistent with SCA Hydrology-3, the Project includes a Preliminary Stormwater Management Plan for the site (see **Figure 17**). This Preliminary Stormwater Management Plan demonstrates the following;

- The location and size of new and replaced impervious surfaces, with a net reduction of 9,825 square feet of impervious surface (pavement)
- site design measures to reduce the amount of impervious surface area, including a net increase of 9,825 square feet of pervious surfaces (50% of the area within the Limit of Work)
- providing new landscape areas where stormwater runoff from replaced impervious surfaces can be provided with biofiltration prior to discharge into the storm drain system
- by replacing impervious surfaces with new pervious surface area, the Project is calculated to result in a reduction of approximately 0.45 cubic feet per second (CFS) form the existing 10-year design storm flow rate form the site, or a 16 percent reduction is peak stormwater flows from the site
- the Project would not change the current direction of surface flow of stormwater runoff, nor would it change the location of current on-site storm drain lines and inlets

Resulting Level of Significance

The required Stormwater Management Plan will be subject to subsequent review and approval by the City prior to issuance of any grading permits, and the Project applicant is required to implement the approved Stormwater Management Plan. The Project's effects related to non-point source water pollution will be fully addressed through implementation of City SCAs and existing regulations, and this impact would be less than significant.

Other Water Quality Concerns

The Project site is not a creekside property and is not subject to the requirements for a Creek Permit. The Project will not result in substantial degradation of water quality through direct discharge of a substantial amount of pollutants into a creek, and will not significantly modify the natural flow of water or the capacity of a creek. The Project will not deposit substantial amounts of new material into a creek or cause substantial creek bank erosion or instability. The Project will not fundamentally conflict with the City of Oakland Creek Protection Ordinance.

The Project will not substantially alter the existing drainage pattern of the Project site or the surrounding area. The Project will not alter the course or increase the rate or amount of flow in a creek, river or stream in a manner that would result in substantial erosion, siltation or flooding.

Figure 17
Preliminary Stormwater Management Plan

Source: BKF Engineers, *Stormwater Management Plan, Sheet C3.0S,* 9/9/2024

h): Utilities and Public Services

Yes	No	
■		Can the Project site be adequately served by all utilities and public services?

The Project site can be, and currently is adequately served by all utilities and public services, and the Project qualifies under criteria h) as an Infill Development pursuant to CEQA Guidelines Section 15332.

The Project site is located in an urbanized and developed portion of the City that is served by all utilities and public services. The Project proposes to utilize existing buildings that are already provided with all necessary utility services, and does not require or propose any new utility services for its operations.

V - Potential Exceptions to a CEQA Exemption

Pursuant to CEQA Guidelines Section 15300.2, a CEQA exemption would not apply to the Project if the Project would trigger any of the exceptions to categorical exemptions based on site-specific environmental criteria. According to these CEQA Guidelines, a categorical exemption shall not be used for a project under the following circumstances:

Exception Criteria:	Yes	No	Applicable Standard Conditions of Approval	Level of Significance
a) Is the Project a Classes 3, 4, 5, 6 or 11 exemption that may be qualified by consideration of where the project is to be located – i.e., in a particularly sensitive environment such that it may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies?	☐	■	-	Not applicable
b) Would the cumulative impact of successive projects of the same type in the same place, over time be significant?	☐	■	-	LTS
c) Is there a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances?	☐	■	-	No Impact-
d) Might the project result in damage to scenic resources, including but not limited to trees, historic buildings, rock outcroppings or similar resources, within a highway officially designated as a state scenic highway?	☐	■	-	LTS
e) Is the project located on a hazardous waste site that is included on any list compiled pursuant to Section 65962.5 of the Government Code?	☐	■	-	LTS
f) Would the project cause a substantial adverse change in the significance of a historical resource?	☐	■	-	LTS

a): Location

Per CEQA Guidelines Section 15300.2(a), classes 3, 4, 5, 6, and 11 CEQA exemptions are qualified by consideration of where the project is to be located--a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply in all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

The Project is not considered as or reviewed as a potential Class 3, 4, 5, 6 or 11 CEQA exemption and this exception does not apply. The Project site is in a typical urban location that is not of particular environmental sensitivity, and the Project will not impact an environmental resource of hazardous or critical concern that is designated, precisely mapped or officially adopted pursuant to law by federal, state or local agencies. Accordingly, the exception under CEQA Guidelines Section 15300.2(a) does not apply to the Project.

b): Cumulative Impact of Successive, Similar Projects

Per CEQA Guidelines Section 15300.2(b), all CEQA categorical exemptions are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.

As indicated in Chapter III of this document, the Project is consistent with the Land Use and Transportation Element (LUTE) of the General Plan and with all applicable zoning regulations. Consistent with CEQA Guidelines Section 15183, this CEQA document need not re-consider cumulative effects already addressed under the LUTE EIR. As fully analyzed in this document, the Project's impacts under the topics of historic resources, traffic, water quality, noise and air quality are assessed in relation to the combined cumulative effects of other approved, pending, and reasonably foreseeable future projects of generally the same type and in the same general vicinity as the Project. These Project effects have been found to be less than significant and would not make a considerable contribution to any cumulative effects. The Project would also be required to implement all applicable City of Oakland SCAs. These SCAs apply to all projects and serve to reduce an individual project's contribution to cumulative effects to less than significant.

Whereas the Project is individually unique and there are no successive projects of the same precise type in the same place, the Project is consistent with the development intensity as assumed in the LUTE EIR, and the Project's potential contribution to cumulatively significant effects has already been addressed in that EIR. There are no further cumulative effects associated with the Project. Accordingly, the exception under CEQA Guidelines Section 15300.2(b) does not apply to the Project.

c): Unusual Circumstances

Per CEQA Guidelines Section 15300.2(c), a categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

The Project site is an approximately 2.97-acre site located within the Rockridge neighborhood of the City of Oakland, proposed for reuse and redevelopment as the JCCEB project. The site is surrounded by other urban land uses and amenities including a church, retail and office buildings and residential properties, all proximate to major transit stops. The Project's size and location is typical of other proposals to reuse and redevelop existing commercial sites as urban infill development, and the Project is not distinguishable from other sites and projects that are similarly eligible for an Infill Development exemption. The preceding analysis has not identified any unusual environmental circumstances or unusual features of the Project that distinguish it from other exempt infill development projects, and the Project site presents no unusual environmental circumstances that indicate the Project may cause a significant effect on the environment.

The Project proposes reuse of existing on-site buildings, including those presently in use by the Dreyer's/ Nestle Corporation. Two of the primary on-site buildings (5901 College Avenue and 6048 Claremont Avenue) will retain their current use as administrative commercial office space to serve as JCCEB administrative staff. Other on-site buildings at 6012, 6016 and 6028 Claremont, 5941 Chabot and portions of the ground floor at 5901 College Avenue, will be repurposed into community assembly and education activities including JCCEB childcare services and non-profit service and assembly space. These civic-based land use activities include space for family events, Jewish holiday events, and cultural and arts events; a teen center, preschool, daycare and summer camp use; as well as adult education classes, health and wellness activities, mental health services and refugee services.

Based on a report prepared by Cushman and Wakefield, the overall vacancy rate in the East Bay/Oakland office market was 21.1% at the close of the fourth quarter of 2023.[29] Accordingly, the circumstances of vacated office space are not unusual. According to one comprehensive source, there are more than 250 non-profit organizations with office space in Oakland.[30] Having a non-profit organization reside in an Oakland office space is also not an unusual circumstance.

The Project's reuse of existing buildings and changing the use of those buildings is a common occurrence in urbanized areas such as the Rockridge neighborhood and within the larger City of Oakland. The Project's community education and assembly civic land use activities are conditionally permitted within the CN-1 zoning of the site, and the Project will subject to all City of Oakland SCAs that are applicable to these activities. The analyses presented in Chapter IV of this document does not identify any unusual circumstances where the Project would generate a significant effect on the environment (see analysis of habitat and species, transportation, noise, air quality ad water quality). Therefore, an exception under CEQA Guidelines Section 15300.2(c) does not apply to the Project.

d): Damage to Scenic Resources

Per CEQA Guidelines Section 15300.2(d), a categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway.

The Project would not result in damage to scenic resources (historic buildings, rock outcroppings or similar resources) within a highway officially designated as a State Scenic Highway. The Project involves a limited amount of physical changes to the site and its existing facilities. Alterations to existing on-site buildings are limited to the minor demolition of a breezeway at the rear of 6028 Claremont and addition of an exterior deck, and renovations at the interior portion of 5901 College Avenue to create an entry to the JCCEB's operations. These alterations will have limited visibility from any public street.

The only officially designated State Scenic Highway in the vicinity of the Project site is I-580 from San Leandro to SR 24. The nearest point along this Scenic Highway is at the interchange at SR 24, approximately 1.8 miles from the Project site, and the Project would not be visible from this location. Highway 13 from I-580 to SR 24 is "Eligible", but not officially designated for Scenic Highway status. The nearest point along Highway is where it meets SR 24, approximately 1.3 miles from the Project site, and the Project would not be distinctly visible from this location. Therefore, the Project does not result in any significant change or damage to scenic resources as seen from the surrounding area, and the exception under CEQA Guidelines Section 15300.2(d) does not apply to the Project.

e): Section 65962.5 of the Government Code (i.e., Cortese List)

Per CEQA Guidelines Section 15300.2(e), a categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.

Hazardous materials sites compiled pursuant to Government Code Section 65962.5 are known as the Cortese list. This list is comprised of identified sites with suspected and/or confirmed releases of hazardous materials to

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[29] Cushman and Wakefield, accessed at: https://www.cushmanwakefield.com/en/united-states/insights/us-marketbeats/oakland-marketbeats#:~:text=The%20overall%20vacancy%20rate%20in,and%20up%20260%20bps%20YOY

[30] The Non-Profit List, accessed at: https://www.nonprofitlist.org/CA/Oakland.html

the sub-surface soil and/or groundwater that may create a significant hazard to the public or the environment, and is a compilation of data from the following sources:

- the California Department of Toxic Substances Control (DTSC) portion of the Hazardous Waste and Substances Sites List, available on the DTSC EnviroStor database;
- the California State Water Resources Control Board (SWRCB)/or San Francisco Regional Water Quality Control Board (RWQCB) list of leaking underground storage tanks (LUSTs), underground storage tanks (UST), and Spills, Leaks, Investigations and Cleanup (SLIC) sites as listed on the SWRCB GeoTracker database;
- solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit;
- “Active” Cease and Desist Order (CDO) and Cleanup and Abatement Order (CAO) sites from the SWRCB, and
- hazardous waste facilities subject to corrective action pursuant to Section 25187.5 of the Health and Safety Code, as identified by DTSC and listed on the EnviroStor database

Based on a review of the DTSC EnviroStor database website, the Project site is not on the list of Hazardous Waste and Substances Sites, nor is it a hazardous waste facility subject to corrective action. Based on a review of the SWRCB GeoTracker database website, the Project site does not have an active Cease and Desist Order (CDO) or Cleanup and Abatement Order, and is not a solid waste disposal site. The Project site is not an “active” or “open case” on the SWRCB list of leaking underground storage tanks, underground storage tanks, or Spills, Leaks, Investigations and Cleanup sites.

The Project site is listed as a former leaking underground storage tank (LUST) site (Dreyer's Grand Ice Cream, LUST Cleanup Site with GeoTracker ID T0600100466). Remediation of that former leaking underground storage tank has been completed, and that case was closed in February of 2022. Corrective action at the Project site has been completed and any remaining petroleum constituents from that prior release are considered a low threat to human health, safety and the environment. A closure letter and other formal closure decision documents has been issued for the site, as summarized below.

Case History

Based on historical references cited in a Phase I Environmental Site Assessment (Phase I ESA) prepared for the Project (see **Appendix F**),[31] a gasoline service station occupied the corner of the Project site at College Avenue and Chabot Road from approximately 1938 to the mid 1970’s. As part of the gasoline service station operations, underground tanks and auto maintenance was conducted on that site (see **Figure 18**). Between December 1989 and February 1990, seven underground fuel and waste oil storage tanks and approximately 500 to 550 cubic yards of impacted soil were removed from the site.

[31] Basics Environmental, *Phase I Environmental Site Assessment, 5901-5929 College Avenue, 6012-6048 Claremont Avenue and 5941-5965 Chabot Road*, October 22, 2019

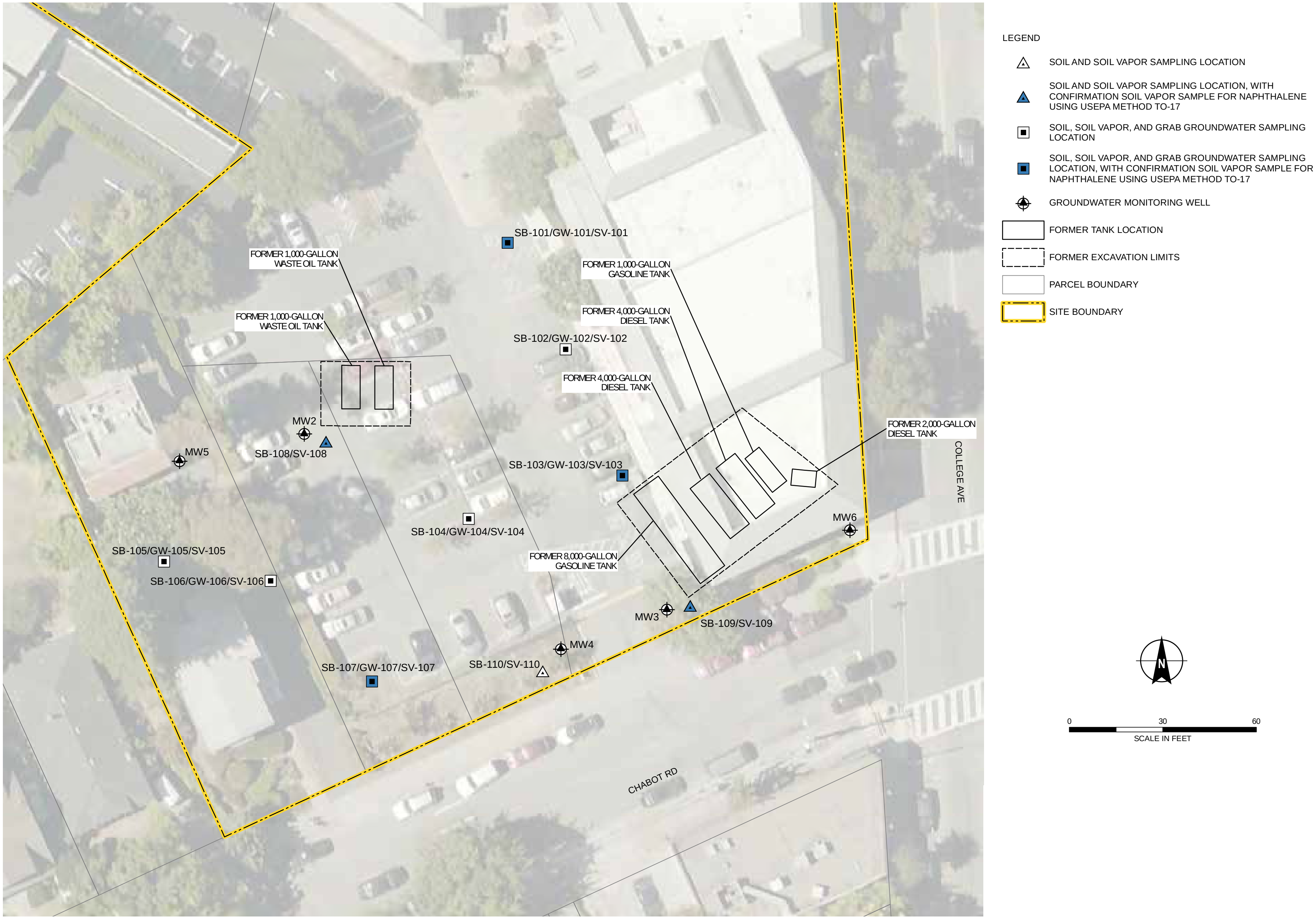

Figure 18
Location of Former Gasoline Service Station and Underground Tanks

Source: Haley Aldrich, *Additional Site Characterization Report,* Figure 3, October 2019

Since then, multiple soil and groundwater investigations have been conducted at the site. Three groundwater monitoring wells were installed in July 1991, and three additional wells were installed in 1993. The chemicals of concern (COCs) at the site are fuel-related compounds such as total petroleum hydrocarbons (TPH) quantified as gasoline and diesel (TPHg and TPHd, respectively), and benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX). Other fuel-related volatile organic compounds including naphthalene have also been detected, but generally at lower concentrations. The sources for these COCs in groundwater include leaks from the seven former USTs (gasoline, diesel, and waste oil), as well as other fuel releases from off-site and up-slope locations. According to the Phase I ESA, the prior excavation of the tanks and impacted soils is believed to have removed the primary source of impacts to the subsurface, and there has been no documented residual non-aqueous phase liquid to act as an ongoing source of COCs to groundwater.

In January of 2018 the Alameda County Department of Environmental Health (ACDEH) reviewed data from groundwater monitoring wells to assess whether this case met the California State Water Resources Control Board's (Water Board's) Low Threat Underground Storage Tank Closure Policy (LTCP). In 2018, ACDEH indicated that the site did not yet meet the LTCP criteria and identified several data gaps that needed to be addressed.

Additional information was compiled in 2018 to address ACDEH concerns, including additional soil, soil vapor and groundwater sampling at the site. Using the data and the results of on-going groundwater monitoring, the site was re-evaluated by Haley & Aldrich with respect to the requirements of the LTCP (see **Appendix G**). This re-evaluation concluded that the site now met the criteria specified in the LTCP and did not pose an unacceptable risk to human health and the environment. Haley & Aldrich therefore recommended that the site be re-considered for closure.[32]

Path to Closure

In 2019, the property was transferred from Nestle to Libitzky Holdings, LP (the Project applicant), and Libitzky Holdings LP became the Responsible Party for this case. In October 2020, ACDEH outlined the additional steps necessary to close the open fuel release case for the site. These steps included:

- verify the extent of petroleum in groundwater downgradient of the subject site
- verify that hazardous volatile organic compounds (VOCs) are not present in the groundwater monitoring wells, and
- verify that soil gas is not a concern (i.e., is below applicable Environmental Screening Levels) beneath the building where the gasoline station was historically located

Additional investigations were conducted to satisfy these remaining outstanding LTCP requirements. Additional groundwater samples showed that VOCs benzene and MTBE were not detected, and that the downgradient extent of petroleum (TPH-G and TPH-D) had been defined. An absence of VOCs from groundwater wells and a demonstrated reduction in TPH concentration by one to two orders of magnitude when compared with historical TPH concentrations was found to be consistent with LTCP guidance. Additional site investigations were conducted to evaluate chloroform in sub-slab soil gas. Chloroform was detected at a concentration less than the commercial chloroform soil gas Environmental Screening Level (ESL), which is consistent with acceptable risk for the current commercial land use. Based on the sample results, P&D Environmental recommended that no further investigation be performed and that the LTCP case be closed (see **Appendix H**).[33]

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32 Haley & Aldrich, Inc., *Additional Site Characterization Report - Dreyer's Grand Ice Cream, Oakland, California*, 21 October 2019

33 P&D Environmental, Inc., *Limited Subsurface Investigation Report*, September 23, 2021

In October 2021, ACDEH issued an Invitation to Comment-Potential Case Closure notice for the Dreyer's property. This notice indicated that site investigation and cleanup activities had been completed, that the site had been evaluated in accordance with the LTCP, and that the site appeared to meet the criteria of the LTCP. Therefore, ACDEH was considering closure of the fuel leak case. The public was invited to review and comment on the potential closure of the fuel leak case.[34]

Case Closure

In February of 2022, ACDEH issued a Case Closure Summary Form that provided a summary of information on the case and the basis for case closure (see **Appendix I**). Applying the LTCP for petroleum related contaminants, ACDEH determined that there is "a low threat to human health and safety and the environment at and in the vicinity of the site in its current land use as a mixed-use, multi-parcel property from residual subsurface contamination associated with the unauthorized release of petroleum related constituents from underground storage tank systems at the site." [35]

The ACDEH Case Closure Summary identified that the owners of the site are proposing to use the existing on-site structures as housing and as a Jewish Community Center that would allow for daycare, educational activities and recreational use. No engineering controls or institutional controls were found to be applicable. The analysis included in the Case Closure Summary concluded the following:

- *Groundwater*: Groundwater contains a short, stabilized contaminant plume of less than 100 feet in length, with more than 250 feet to nearest water supply well and/or surface water body. Groundwater contains no free product, the maximum Benzene concentrations and MTBE concentrations are less than 1,000 µg/l, and the groundwater plume has been defined to water quality objectives that pose a low threat to human health and the environment. Water wells are not likely to create significant exposure pathways for residents, workers or visitors, and no land use restrictions were required.
- *Vapor Intrusion*: The site was evaluated for vapor intrusion risk based on the current mixed-use of the property. The bio-attenuation zone appears to be at least five feet below ground surface (bgs) and soil vapor samples were collected at depths of five feet bgs. The detected concentrations of ethylbenzene and naphthalene are below both the residential and commercial low threat closure criteria. For benzene, all samples were below the commercial criteria, but one sample was above the residential criteria. This sample is located on the part of the site used for commercial purposes, so the commercial low-threat criteria are applicable. Soil vapor does not pose an unacceptable risk to off-site receptors via the vapor intrusion pathway because groundwater impacted with COCs does not extend off-site.
- *Direct Contact and Outdoor Air*: The current maximum concentrations of hydrocarbons in soil within the 0 to 10 foot interval are less than the Environmental Screening Level concentrations for residential, commercial and construction worker exposure. The petroleum hydrocarbon soil contamination does not appear to extend offsite.

ACDEH determined that the site met all the general criteria and media specific criteria of the Low-Threat Underground Storage Tank Closure Policy. Therefore, case closure was granted for the current mixed land use as a multi-parcel property that is developed with residential and commercial structures. If a change in land use to any residential, commercial (other than as a vacant lot with no structures or buildings) or conservation land use,

[34] ACDEH, *Invitation to Comment-Potential Case Closure Notice* for the Dreyers Grand Ice Cream Property, 5929 College Avenue, Oakland, Ca 94618 (Fuel Leak Case Ro0000153, Geotracker Global Id T0600100466), October 22, 2021

[35] ACDEH, *Leaking Underground Storage Tank Cleanup Site Case Closure Summary Form*, Dryer's Grand Ice Cream, 5929 College Avenue, Oakland, CA 94618 (Case No.RO0000153, GeoTracker ID T0600100466), February 16, 2022

or if any site redevelopment other than the currently proposed project is planned, ACDEH must be notified. Any below grade work requires further planning and implementation of appropriate health and safety procedures by the Responsible Party prior to and during excavation and construction activities. [36]

Non-Case Information

A separate Informational Item Case (GeoTracker ID T10000013666, at 5901 College Avenue) was been opened for the Project site. Informational cases are for sites where review of the site has been completed, most or all relevant information about the site record has been stored in GeoTracker, there does not appear to be a need for a regulatory case, and no significant additional work is required.

A preliminary site review application was received by ACDEH as part of the property transaction and proposed change in use of the existing commercial structures at the Project site. This case was opened as a repository for reports and data to evaluate potential risk from *non-LUST, non-petroleum contamination* of soil vapor, groundwater and soil. No further action is required at this time under the existing commercial land uses at the site. If redevelopment is proposed in the future, additional evaluation will be required. [37]

The Project poses a low threat to human health and safety, and to the environment. An exception under CEQA Guidelines Section 15300.2(e) does not apply to the Project.

f): Historic Resources

CEQA Thresholds

Per CEQA Guidelines Section 15300.2(f), a categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

Properties that are considered historical resources under CEQA include those that are listed in or determined eligible for listing in the National Register of Historic Places and/or the California Register of Historical Resources, and properties included in the City of Oakland's Local Register of Historical Resources. The following types of properties constitute the City of Oakland's Local Register of Historical Resources:

- Designated Historic Properties, which include Oakland Landmarks, Heritage Properties, Preservation Study List Properties
- Properties within an S-7 or S-20 Preservation Combining Zone (i.e., historic preservation zoning districts)
- Potential Designated Historic Properties (PDHPs) identified in the Oakland Cultural Heritage Survey (OCHS) as having an existing or contingency rating of A or B
- Potential Designated Historic Properties that are contributors or potential contributors to an Area of Primary Importance (API)

Other PDHPs and Areas of Secondary Importance (ASIs) warrant consideration for preservation, but do not necessarily meet the threshold for historical resources under CEQA.

Historic Off-Site Resources

There are two historic resources near the Project site.

- The College Avenue United Presbyterian Church of Oakland at 5951 College Avenue is adjacent to the Project site to the north. It is a Craftsman-Prairie style church and adjacent hall originally constructed in

[36] ACDEH, *Case Closure Summary Form*, February 16, 2022, E: Closure Evaluation

[37] SWRCB, GeoTracker website, accessed at: https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T10000013666

1917. The present use of these buildings remains as a church and associated hall. The buildings are in excellent condition, and their historic integrity is considered excellent. Together, the church and its associated hall building are considered an Area of Primary Importance (an API), are listed on the City of Oakland's Historic Register, and are rated under the OCHS as B+1+ as a building and property of major historical or architectural value and that appears eligible for the national Register of Historic Places as a historically-related complex.

- The private residence at 6079 Claremont Avenue is located diagonally and across the street from the Project to the northwest near the corner of Claremont and College. This building has an OCHS rating of B+3, indicating that it is a property of major historical or architectural value, and listed on the City of Oakland's Historic Register.

Both of these properties meet the definition of historical resources under CEQA. The Project will not result in any substantial adverse change to these historic resources. These properties are adjacent to or nearby the Project site, but the Project will not demolish, destruct, relocate or alter these historic resources in any way that might impair their significance or alter the physical characteristics that convey their historical significance. The existing fence that separates the Project site from the adjacent Church will remain, and portions of the fence may be raised in height to increase noise attenuation, but the Project will not make any significant physical changes at or adjacent to the Church.

There are also two Areas of Secondary Importance (ASIs) at and near the Project site – the Claremont Avenue and the Chabot Road ASIs. The Claremont Avenue ASI encompasses many of the surrounding properties to the north, west and south of the Project site (generally from Telegraph Avenue to College Avenue, and from Alcatraz Avenue to Highway 24). Three of the Project's parcels, including the property at 5939/5941 Chabot Road and two parcels containing current parking, are within this ASI. The Chabot Road ASI is generally located to the east of the Project site, from College Avenue to Pressley Way and from Chabot Road to Birch Court. These ASIs are not historic resources, and are not materially affected by the Project.

<u>Historic Evaluation of the Project Site</u>

Information presented in the following portion of this CEQA document is derived from the following primary source:

- Preservation Architecture, *Dreyer's HQ Sites Historic Resource Evaluation*, August 2, 2024, attached as **Appendix J**.

Previously Evaluated On-Site Resources

Five of the seven buildings on the Project site were preliminarily surveyed and rated by the City of Oakland for the OCHS. Individual inventory forms were not previously completed for any of these buildings, but rather their individual ratings were assigned based on general reconnaissance. These five buildings include the following:

- 6048 Claremont Avenue (APN 14-1268-39-00), a c1924 apartment-style building that currently serves as the main administrative offices of the Jewish Community Center of the East Bay
- 6016 Claremont Avenue (APN 14-1268-33-01), a 1923 residence-style building previously under Dreyer's ownership, converted to office us in the 1980s, and currently hosting a civic-type program known as Base Bay
- 6012 Claremont Avenue (APN 14-1268-30-00), a 1917 residence-style building previously converted to office use and now home to the Rockridge Moishe House, and

- 5939 and 5941 Chabot Road (APN 14-1268-13-00), two 1926 residential-style buildings also previously converted to office use and now providing office space for the Jewish Learning Works and the Jewish Community Federation

The three previously rated buildings along Claremont Avenue (6012, 6016 and 6048 Claremont Avenue) were rated as “C3.” Per Oakland’s historical rating system, the “C” indicates these properties are “secondary historic resources”, and the “3” indicates that these buildings are not located in a potential historic district.

The two previously rated buildings along Chabot Road (5939 and 5941 Chabot Road) were rated as “C2+.” Per Oakland’s historical rating system, the “C” indicates these properties are “secondary historic resources”, and the “2+” indicates that these buildings are within and contribute to an identified Area of Secondary Importance (ASI), the residential Claremont Avenue District.

Based on these prior OCHS ratings, these buildings do not meet the City of Oakland’s definition of CEQA historic resources. These previously surveyed buildings do not appear to have markedly changed since the time of their survey, so their previously assigned ratings remain pertinent. Further development of those prior records is not warranted pursuant to this analysis, as the Project does not propose any work at, or physical alteration to any of these five previously surveyed buildings.

5901 College Avenue

To be considered a potential historic resource a building must be of potential historical age, or greater than 45 years. The building at 5901 College Avenue was constructed in 1992, is just over 30 years of age and is therefore not eligible for consideration as a historic resource.

6028 Claremont Avenue

The 6028 Claremont building has not been previously rated per the OCHS.

No original permit records or historical documents have been located for 6028 Claremont and there is no visual evidence of its original or early appearance. A plan of the building first appeared in the 1911 Sanborn map with an address of 452-454 Claremont, the former identified as a plumber and the latter cleaning works. That 1911 building was a 1-story structure with an outbuilding at the very rear of the site. Based on this basic information, the original 6028 Claremont Avenue building (see **Figure 19**) is presumed to date to 1911.

In 1920, the lot at 452-454 Claremont was sold to Benjamin and Louise Parayre, and their family retained ownership until 1976. The Parayres operated a laundry from 1920 until 1926. In 1927, the laundry was operated by a new proprietor until 1935. Starting in 1936, the Mme. Louise French Laundry started up and remained in operation into the mid-1970s. At some time circa 1937, the front facade was clad in blue tile.

Beginning in 1972, the front of the building was altered, and additional alterations and additions were made through 1976. In 1978, the lot was deeded to Kazuo and Yoshie Kajimura and Hugh H. Hori, who opened the building as Yoshi’s Restaurant in 1979. Substantive building permits associated with Yoshi’s include a 1979 extension of the restaurant and a new side entrance to the south (see also Figure 19), a 1984 restaurant alterations and addition, and a 1991 new entryway. No permit plans for these projects are available, but several images from this period demonstrate that the structure was extensively altered, including enclosure of its front facade, the addition of its south side entryway, and the addition of a south wing. It is unclear when the second story at the rear half of the building occurred, but the existing full second story was not original or early to the building.

Plan view showing changes at 6028 Claremont over time

Front facade of 1911 building, with exposed and restored circa 1937 tilework

South facade (1979 addition)- Location of proposed new at-grade deck

Rear 2002 addition - proposed for removal

Figure 19
Images of Building at 6028 Claremont Avenue

Source: Preservation Architecture, March 2024

In 2002, the alterations that were made to the front of the building in 1972 were removed by then-owner Dreyer's, and the underlying 1937 tile façade was revealed and restored. At about that that same time (in 2004) the rest of the building was substantially altered, including new entry steps and railings, a recessed wall with tiled apron, storefront and transom windows and door at the front, plus substantial new additions above and behind (see Figure 19). The building's use was then converted to a conference facility and office space for Dreyers.

What remains of the early commercial building is the 1-story building-front's form and its circa-1937 tiled front facade. Other than the front, the remainder of the current building is of recent exterior construction and appearance. The building's restored tile façade and its former commercial front contribute to the overall historic appearance of the street, block and neighborhood, and warrant assignment of an historical rating of "C" (i.e., of secondary importance). The limited extent to which the original building remains, and the greater extent of its alterations and additions, precludes its consideration as having primary importance. The existing building at 6028 Claremont is without association to a historic district. Thus, per the City of Oakland's historical rating system, a rating of "C3" is recommended for the surviving, original commercial portion of the 6028 Claremont Avenue building. Based on this recommended rating per the City's criterion, this building is a C-rated Potentially Designated Historic Property (PDHP), and does not meet the threshold for historical resources under CEQA.

Conclusions

The Project does not propose any exterior changes or alterations to any of the five previously surveyed and rated buildings at 6012, 6016 and 6048 Claremont Avenue (previously rated as "C3"), or at 5939 and 5941 Chabot Road (previously rated as "C2+"). None of these buildings meets the City of Oakland's definition of a CEQA historic resource.

The Project predominantly involves site and landscape work, plus focused exterior alterations at the non-historic building at 5901 College Avenue. These changes would have no effect on historic resources.

The Project does propose to remove the rear addition of the building at 6028 Claremont Avenue, and to add new cladding and a window to this rear façade. The rear addition is a non-historic feature of this building. The Project also proposes to add an outdoor deck to the south-facing portion of 6028 Claremont. This south-facing portion of the building is a non-historic recent-era addition to this building. The Project does not propose to remove or alter the historic-era front façade of the building, or to alter the previously revealed and restored circa 1937 tile along Claremont Avenue. These features are not character-defining elements of an historic resource, but may otherwise warrant consideration of preservation as a positive contributor to the appearance of the street and the neighborhood.

The Project would not cause a substantial adverse change in the significance of a historical resource, and an exception under CEQA Guidelines Section 15300.2(f) does not apply to the Project.

VI - Section 15183 Community Plan Exemption

General Plan and Zoning Consistency

Public Resources Code Section 21083.3 and CEQA Guidelines Section 15183 (Projects Consistent with a Community Plan or Zoning) allow for streamlined environmental review of projects that are consistent with the development density established by existing zoning, community plan or general plan policies for which an EIR was certified, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site. Section 15183(c) specifies that "if an impact is not peculiar to the parcel or to the project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standards, then an EIR need not be prepared for the project solely on the basis of that impact."

Analysis of the Project's consistency with applicable General Plan policies is included in Chapter III of this document. That analysis concludes the following regarding the Project's consistency with the Oakland General Plan Land Use and Transportation Element (LUTE):

- The Project is fully consistent with the Structure and Identity policy direction of the LUTE pertaining to Neighborhood Activity Centers.
- The Project is fully consistent with the Structure and Identity policy direction of the LUTE pertaining to Transit-Oriented Districts.
- The Project is fully consistent with the land use intent of the applicable Neighborhood Center Mixed Use land use classification of the General Plan.
- The Project appears fully consistent with the land use intent of the applicable Mixed Housing Type Residential land use classification of the General Plan.
- The intensity of building space at the Project is fully within with the maximum intensity established for the Neighborhood Center Mixed Use land use classification.

Analysis of the Project's consistency with applicable zoning provisions is also included in Chapter III of this document. That analysis concludes the following regarding the Project's consistency with zoning:

- The land use types proposed by the Project are all either permitted or permitted with approval of a conditional use permit (CUP) within the Neighborhood Commercial-1 (CN-1) zoning of the Project site.
- The Project is fully consistent with all regulations and development standards of the Neighborhood Commercial-1 (CN-1) zone, including development standards pertaining to lot dimensions, building setbacks, building height, and floor-to-area ratios.
- The Project does not alter nonconforming building facilities in a way that creates a new nonconformity.

As such, the Project qualifies as a Project that is consistent with a Community Plan, General Plan and/or zoning, as required pursuant to CEQA Guidelines Section 15183.

Uniformly Applied Development Standards

When determining whether there are project-specific significant effects that are peculiar to a project, CEQA Guidelines Section 15183(f) provides that, "an effect of a project on the environment shall not be considered peculiar to the project or the parcel. . . if uniformly applied development policies or standards have been previously adopted by the city or county, with a finding that the development policies or standards will substantially mitigate that environmental effect when applied to future projects."

The City of Oakland first established Standard Conditions of Approval and Uniformly Applied Development Standards (SCAs) in 2008, and they have been amended and revised several times since. The most recent version of the City of Oakland's Standard Conditions of Approval (SCAs) are those as revised July 2024. These SCAs are incorporated into projects as conditions of approval, regardless of a project's environmental determination. These SCAs incorporate policies and standards from various adopted plans, policies and ordinances, and they have been found to mitigate environmental effects to a substantial degree. When a project is approved by the City, all applicable SCAs are adopted as conditions of approval and required, as applicable, to be implemented during project construction and operation.

The following portion of this CEQA analysis identifies all applicable City of Oakland Standard Conditions of Approval (SCAs) that the Project would be required to implement to avoid or reduce potential impacts. Accordingly, these impacts are not considered peculiar to the Project or the Project site because uniformly applied development policies (or SCAs) have been previously adopted by the City with a finding that these SCAs will substantially mitigate environmental effects when applied to future projects and will be applied as conditions of approval of the Project should it be approved.

Aesthetics and Scenic Resources

<u>LUTE EIR CEQA Conclusions</u>

The 1998 LUTE EIR identified impacts related to scenic resources as less than significant. The LUTE EIR identified potentially significant impacts to visual character by new development that could block views, cast shadows, or appear visually incongruous with adjacent low-rise development. Mitigation measures that recommended several zoning development standards were identified to reduce potential aesthetic effects to less than significant levels. A mitigation measure of the LUTE EIR requires site-specific studies and incorporation of specific design elements to reduce impacts related to wind hazards. The LUTE EIR's significant and unavoidable finding related to wind recognized that in some instances, wind impacts may not be reduced to a less than significant level, even with implementation of feasible wind reducing design elements.

The LUTE's zoning development standards identified to reduce potential aesthetic effects are now incorporated into the Planning Code. According to the most recent September 2023 City of Oakland Thresholds of Significance, wind is no longer considered a CEQA threshold topic.

<u>Project Analysis – No New or More Severe Impacts</u>

The limited extent of physical change as proposed pursuant to the Project will not have a substantial adverse effect on a public scenic vista, will not substantially damage scenic resources, and will not substantially degrade the existing visual character or quality of the site and its surroundings. The Project will not introduce landscape that would now or in the future cast substantial shadows on existing solar collectors or require an exception (variance) or a fundamental conflict with policies and regulations addressing the provision of adequate light related to appropriate uses.

Lighting

The Project proposes to install seven new pole-mounted lights in Parking Lot #2 (nearest Claremont Avenue), four new pole-mounted lights in Parking Lot #1 (nearest Chabot Road), and several new wall-mounted lights (sconces), and lights beneath the proposed trellis.

Applicable SCAs

The following SCA applies to all projects containing new exterior lighting:

- **SCA Aesthetics-1 (#21), Lighting**: 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.

With implementation of this SCA, 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.

Air Quality

LUTE EIR CEQA Conclusions

The 1998 LUTE EIR identified potentially significant impacts related to criteria pollutant emissions from construction equipment and stationary sources, but identified mitigation measures (which are now fully incorporated into City SCAs) to reduce these impacts to a less than significant level. The LUTE EIR found that increased criteria pollutant emissions from increased traffic, including reduced emissions after implementation of identified mitigation measures (which are also now incorporated into City SCAs) would result in a significant and unavoidable impact.

Project Analysis – No New or More Severe Impacts

The analysis presented in Chapter IV of this CEQA document demonstrates that the Project's construction activity would not result in emissions of criteria pollutants that would exceed applicable thresholds. Regardless of this conclusion, Chapter IV of this document also identifies applicable City of Oakland SCAs (**SCA Air-1** for dust controls and **SCA Air-2** for criteria pollutant controls) to further reduce cumulative air quality impacts. Chapter IV of this document also demonstrates that the Project's operations would not result in emissions of criteria pollutants that would exceed applicable thresholds, and that with implementation of **SCA Air-3** the Project's construction (specifically demolition) would not expose sensitive receptors to substantial levels of TAC emissions (i.e., air-borne asbestos).

The Project would not generate traffic at levels that would contribute to carbon monoxide concentrations exceeding the California Ambient Air Quality Standards, would not include any new stationary sources of toxic air contaminants, and would not create or expose sensitive receptors to objectionable odors affecting a substantial number of people.

Biological Resources

LUTE EIR CEQA Conclusions

The 1998 LUTE EIR found all potential biological resources impacts to be less than significant and therefore no mitigation measures or SCAs were required.

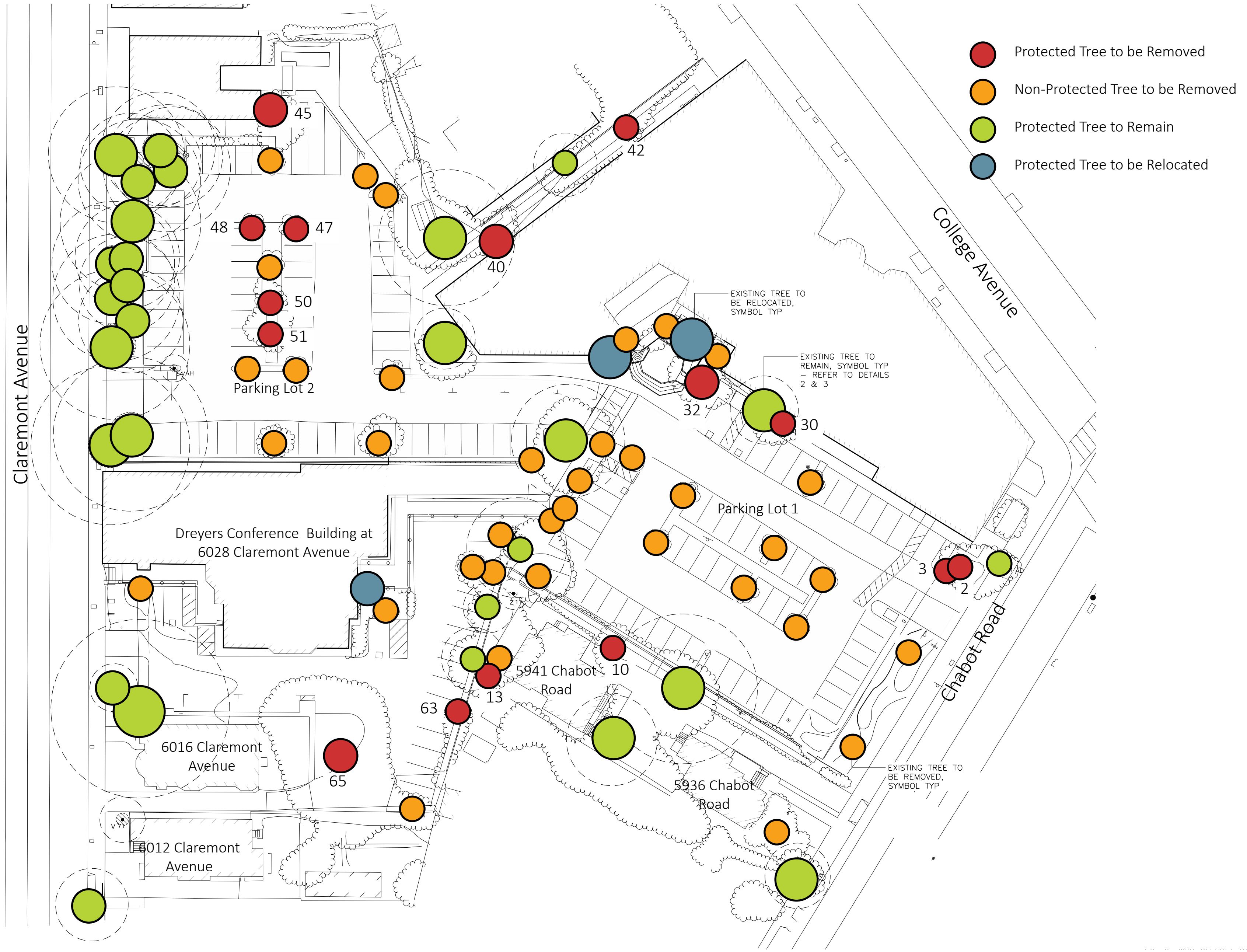
Project Analysis – No New or More Severe Impacts

The analysis presented in Chapter IV of this CEQA document demonstrates that the Project would not have a substantial adverse effect on any species identified as a candidate, sensitive, or special status species.

Based on the Project site's urban and developed condition, the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community, or have a substantial adverse effect on a federally protected wetland. The Project would not substantially interfere 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 (see SCAs related to nesting birds, below). There are no habitat conservation plan or natural community conservation plans applicable to the site.

Tree Removal

The Project proposes to remove52 trees from those portions of the site where existing landscape is adjacent to areas where existing asphalt parking areas will be removed. Among those 52 trees proposed for removal, 16 trees are identified as protected trees pursuant to the City's Tree Ordinance (see **Figure 20**).



Source: Siegel & Strain, et.al., Sheet G1.21S
Tree Protection Plan, 9/9/24

Figure 20
Proposed Tree Removal

The 16 protected trees to be removed include:

- 8 trees to be removed due to age, poor health and dieback conditions (Trees 2, 3, 10, 13, 32, 45, 63 and 68)
- 4 trees to be removed due to parking re-design (Trees #47, 48, 50 and 51)
- 4 trees to be removed to accommodate other Project design elements (Trees 30, 32, 40 and 42)

There are 3 trees proposed for removal and replacement back into the Project's landscape plan (Trees 34, 37 and 67). There are also 32 other trees (including 30 protected trees) that are not proposed for removal, but that are within 10 feet of proposed construction activity and potentially at risk of damage during construction.

Applicable SCAs

The following SCA applies to all projects that involve removal of a tree (either protected or unprotected tree):

❖ **SCA Bio-1 (#34), Tree Removal during Bird Breeding Season**: 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 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.

The following SCA applies to all projects requiring a tree permit per the City's Tree Protection Ordinance (OMC Chap. 12.36):

❖ **SCA Bio-2 (#35), Tree Permit**

a. *Tree Permit Required*: 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*: Adequate protection shall be provided during construction 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, filling, 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 resulting from 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 by 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.

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*: 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.

With implementation of these SCAs, the Project would not interfere with the nesting of migratory birds, and would not fundamentally conflict with the City of Oakland Tree Protection Ordinance.

Cultural Resources

LUTE EIR CEQA Conclusions

The 1998 LUTE EIR analyzed cultural and historic resources, and found that impacts under these topics could either be mitigatable to a less than significant impact, or a less than significant impact. The LUTE EIR found that impacts related to archeological resources and demolition of historic resources would be reduced to less than significant with implementation of mitigation measures that are now functionally equivalent to current SCAs.

<u>Project Analysis – No New or More Severe Impacts</u>

As demonstrated in Chapter V of this document, the Project would not cause a substantial adverse change in the significance of an historical resource.

The Project would not cause a substantial adverse change in the significance of a known archaeological resource, would not directly or indirectly destroy a known unique paleontological resource or site or unique geologic feature, and would not disturb any known human remains.

Unknown Archaeological and Paleontological Resources

According to Oakland Sanborn Fire Insurance Maps, portions of the Project site were developed as early as 1911, and the site has been developed and redeveloped multiple times since then. It is possible that previously undiscovered historic or prehistoric subsurface cultural resources are present below the surface.

The Project's construction efforts are primarily limited to removal of existing asphalt parking area, demolition of a small portion of 6028 Claremont Avenue, and removal of the staircase to the second-story entrance at the internal portion of the Main Building at 5901 College Avenue. Site disturbance is limited to surface grading, with no deep excavations. It is highly unlikely that this limited extent of site disturbance may result in discovery of previously unknown subsurface archaeological or paleontological resources.

Applicable SCAs

The following SCAs apply to all projects involving construction:

- **SCA Cultural-1 (#38), Archaeological and Paleontological Resources – Discovery During Construction**: 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 applicable to the expected resource, the data classes that the resource is expected to possess, and how the expected data class 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 Cultural-2 (#40), Human Remains – Discovery During Construction**: 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.

With implementation of these SCAs, the Project would not directly or indirectly destroy a unique archaeological or paleontological resource or site, or disturb human remains that may be interred outside of formal cemeteries.

Energy

<u>LUTE EIR CEQA Conclusions</u>

The 1998 LUTE EIR included an analysis of energy consumption, and found that impacts would be less than significant and would not require mitigation measures or SCAs.

<u>Project Analysis – No New or More Severe Impacts</u>

The Project involves establishment of new uses within several existing buildings, and does not involve any new construction or new building space requiring additional energy for lighting, heating or cooling. The Project would not violate any applicable federal, state or local statutes and regulations relating to energy standards, or result in a determination by the energy provider that it does not have adequate capacity to serve the Project's projected energy demands.

Oakland Municipal Code Chapter 18.02 provides Oakland's Sustainable Green Building Requirements for private development. Pursuant to Section 18.02.040 of that Code, Green Building requirements apply to non-residential additions/alterations of more than 5,000 square feet of contiguous or non-contiguous gross floor area. These provisions exclude fences, decks, arbors and pergolas, and exclude the repair or replacement of roof covering, fenestration and facade materials.

The Project includes alterations (defined by the Code as remodeling, renovations and tenant improvements) but no expansion in floor area, at both 5901 College Avenue and at 6028 Claremont Avenue. The alterations at 5901 College Avenue pertain to remodeling and tenant improvements associated with proposed pre-school classrooms, a café/deli and a new lobby. The total amount of building space for these alterations is within the range of applicability criteria for Green Building requirements for Small Projects (defined as projects of between 5,000 and 25,000 square feet). The alterations at 6028 Claremont Avenue are much smaller and pertain to remodeling and tenant improvements associated with a 1,650 square-foot conference room, which is less than the 5,000 square-foot applicability criteria for Green Building requirements. Accordingly, City of Oakland SCAs related to Green Building requirements, even for Small Projects (defined as projects of between 5,000 and 25,000 square feet) do not apply.

Applicable SCAs

The following SCAs apply to the building alterations at 5901 College Avenue for the proposed pre-school classrooms, the new café and the new lobby:

❖ **SCA Energy-1 (#93), Green Building Requirements – Small Projects**

a. *Compliance with Green Building Requirements during Plan-Check*: 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) for projects using the StopWaste.Org Small Commercial Checklist.

   i. The following information shall be submitted to the City for review and approval with 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 green building checklist approved during the review of a 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 (b) below.
      - Other documentation to prove compliance

   ii. The set of plans in subsection (a) shall demonstrate compliance with the following:

   iii. CALGreen mandatory measures

   iv. All applicable green building measures identified on the checklist approved during the review of a Planning and Zoning permit, or submittal of a Request for Revision Plan-check application that shows the previously approved points that will be eliminated or substituted

b. *Compliance with Green Building Requirements during Construction*: The project applicant shall comply with the applicable requirements of CALGreen and the Green Building Ordinance during construction. The following information shall be submitted to the City for review and approval:

   i. Completed copy of the green building checklists approved during review of the Planning and Zoning permit and during the review of the Building permit

   ii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance

With implementation of these SCA requirements of Green Building requirements for Small Projects, the Project would fully comply with applicable state and City regulations relating to energy standards, and impacts related to energy would be less than significant.

Geology and Soils

LUTE EIR CEQA Conclusions

The 1998 LUTE EIR included an analysis of geology, soils, and geologic hazards, and found that impacts under these topics would be less than significant and would not require mitigation measures or SCAs.

Project Analysis – No New or More Severe Impacts

The Project would not expose people or structures to substantial risk of loss, injury, or death involving rupture of a known earthquake fault or landslide. The Project is not located above a well, pit, swamp, mound, tank vault, or unmarked sewer line, is not located above a landfills for which there is no approved closure and post-closure plan. The Project will be served by a municipal sewer system and will not need soils capable of adequately supporting the use of septic tanks or alternative wastewater disposal systems.

The Project involves very little new building construction activity, limited primarily to

- removal of outdoor stairs at the site's internal entrance to 5901 College Avenue and replacing this outdoor area with an enclosed café with a rooftop patio
- construction of an open-air and generally at-grade deck of approximately 3,000 square feet at 6028 Claremont
- roof redesign at 5901 Claremont to remove the third floor cap roof and to provide a new parapet wall of the same height
- outdoor landscape, requiring removal of existing concrete and asphalt, requiring a grading permit

Applicable SCAs

The following condition applies to all projects requiring a construction-related permit:

❖ **SCA Geo-1 (#42), Construction-Related Permit(s)**: 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 (for Small Projects) and the Oakland Grading Regulations, to ensure structural integrity and safe construction.

The following condition applies to all projects involving a grading permit:

❖ **SCA Geo-2 (#43), Soils Report**: The project applicant shall submit a soils report prepared by a registered geotechnical engineer for City review and approval. The soils report shall contain, at a minimum, field test results and observations regarding the nature, distribution and strength of existing soils, and recommendations for appropriate grading practices and project design. The project applicant shall implement the recommendations contained in the approved report during project design and construction.

Greenhouse Gas Emissions

LUTE EIR CEQA Conclusions

Climate change and GHG emissions were not expressly addressed in the 1998 LUTE EIR. Since information on climate change and GHG emissions was known, or could have been known when the LUTE Program EIR was certified, it is not considered new information as specifically defined under CEQA.

Project Analysis – No New or More Severe Impacts

In 2018 and 2019, the Oakland City Council adopted several resolutions that formed the mandate and basis for the current 2030 Equitable Climate Action Plan (2030 ECAP). The 2030 ECAP sets forth a detailed, equitable path toward cost-effectively reducing Oakland's local GHG emissions by transitioning away from fossil fuel dependence, removing carbon from the atmosphere through local projects, and ensuring that all of Oakland's communities are resilient to the foreseeable impacts of climate change. The 2030 ECAP includes a major focus on building de-carbonization and energy resilience by fully removing natural gas from the built environment and installing energy storage systems where appropriate and feasible. The City's 2030 ECAP requires that every project applicant must demonstrate consistency with the 2030 ECAP.

Applicable SCAs

The following condition applies to all projects that submit an Equitable Climate Action Plan (ECAP) Consistency Checklist and that commit to all the measures in the ECAP Consistency Checklist:

- **SCA GHG-1 (#47), Project Compliance with the Equitable Climate Action Plan (ECAP) Consistency Checklist**: The project applicant shall implement all the measures in the Equitable Climate Action Plan (ECAP) Consistency Checklist that was submitted during the Planning entitlement phase.
  a. For physical ECAP Consistency Checklist measures to be incorporated into the design of the project, the measures shall be included on the drawings submitted for construction-related permits.
  b. For physical ECAP Consistency Checklist measures to be incorporated into the design of the project, the measures shall be implemented during construction.
  c. For ECAP Consistency Checklist measures that are operational but not otherwise covered by these SCAs, including but not limited to the requirement for transit passes or additional Transportation Demand Management measures, the applicant shall provide notice of these measures to employees and/or residents and post these requirements in a public place such as a lobby or work area accessible to the employees and/or residents.

The Project applicant has prepared an ECAP Consistency Checklist for the Project (see **Appendix K**), demonstrating a commitment to implement all applicable measures of the Equitable Climate Action Plan (ECAP) Consistency Checklist, thereby demonstrating that the Project does not exceed currently applicable thresholds for GHG emissions.

Hazardous Materials

LUTE EIR CEQA Conclusions

The 1998 LUTE EIR found that all impacts related to hazardous materials handling, potential release of hazardous materials, hazardous materials related to construction and demolition, and contamination of soils or groundwater would be less than significant and would not require mitigation measures or SCAs. The LUTE EIR also found that impacts related to exposure of construction workers to hazardous materials would be less than significant with implementation of mitigation measures that require preparation and implementation of site-specific health and safety plans as recommended by the Occupational Safety and Health Administration.

Project Analysis – No New or More Severe Impacts

As discussed in Chapter V of this document, the Project is not located on an "Open Case" site included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (i.e., the "Cortese List") and that creates a significant hazard to the public or the environment.

The Project would not create a significant hazard to the public through the storage or use of acutely hazardous materials near sensitive receptors, and 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. The Project would not result in less than two emergency access routes for streets exceeding 600 feet in length. The Project site is not located within an airport land use plan or within two miles of a public or private airport that could result in a significant safety hazard for people residing or working in the Project area. The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, or expose people or structures to a significant risk of loss, injury or death involving wildland fires.

Transport, Use or Disposal of Hazardous Materials during Construction

Construction activities pursuant to the Project will utilize hazardous chemicals such as fuels, oils and lubricants, paints and thinners, solvents, and other chemicals. These construction activities could generate chemical wastes that, if not properly managed, could flow into the storm drainage system or nearby surface water bodies including the San Francisco Bay.

Applicable SCAs

The following SCA applies to all projects involving construction activities:

- **SCA Hazards-1 (#49), Hazardous Materials Related to Construction**: 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.

The Project’s effects related to routine transport, use or disposal of hazardous materials during construction will be fully addressed through implementation of City SCAs and existing regulations, and this impact would be reduced to less than significant.

Hazardous Building Materials and Site Contamination

As addressed in detail in Chapter V of this CEQA document, the Project site is listed as a former leaking underground storage tank site. Remediation of that former leaking underground storage tank has been completed, and that case was closed in February of 2022. Corrective action at the Project site has been completed and any remaining petroleum constituents from the release are considered a low threat to human health, safety and the environment. The case closure was granted for the current mixed land use as a multi-parcel property that is developed with a mix of residential and commercial structures. If a change in land use to any residential, commercial (other than as a vacant lot with no structures or buildings) or conservative land use, or if any site redevelopment is planned, ACDEH must be notified. Any below grade work requires further planning and implementation of appropriate health and safety procedures by the Responsible Party prior to and during excavation and construction activities.

The Phase I ESA prepared for the Project site did not include a detailed asbestos survey or lead-based paint survey. However, the Phase I ESA does note that, “no obvious evidence of friable or non-friable suspect asbestos containing materials was observed” and that, “there is a low potential for on-site and former structures to have impacted the shallow soil with lead based paint.” The Phase I ESA did note that an asbestos inspection will be required prior to any renovation or demolition, and that proper lead-based paint abatement would be required for any lead-based paint that may be disturbed during renovation or demolition activities.

Applicable SCAs

The following condition applies to all projects involving redevelopment or a change of use of a historically industrial or commercial site, contaminated sites, and/or where site remediation activities are required based on an environmental site assessment.

❖ **SCA Hazards 2 (#50), Hazardous Building Materials and Site Contamination**

a. *Hazardous Building Materials Assessment*: 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*. 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*: 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 Sites*: 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.

The Project's effects related to hazardous building materials and site contamination will be fully addressed through implementation of City SCAs and existing regulations, and this impact would be reduced to less than significant.

Hydrology

<u>LUTE EIR CEQA Conclusions</u>

The 1998 LUTE EIR found all hydrology and water quality impacts to be less than significant and therefore no mitigation measures or SCAs were required.

<u>Project Analysis – No New or More Severe Impacts</u>

As demonstrated in Chapter IV of this document, with implementation of all applicable SCAs (**SCA Hydrology-1 and -2**), the Project's construction would not violate any water quality standards or waste discharge requirements, and would not result in substantial erosion or siltation that would affect the quality of receiving waters. As also demonstrated in Chapter IV of this document, with implementation of **SCA Hydrology-3**, long-term operation of the Project would not contribute substantial runoff that would exceed the capacity of existing or planned stormwater drainage systems or that would be an additional source of polluted runoff, or otherwise substantially degrade water quality.

The Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge. The Project would not result in substantial flooding, would not place housing or other structures within a 100-year flood hazard area, and would not expose people or structures to a substantial risk of loss, injury or death involving flooding or inundation by seiche, tsunami or mudflow.

Land Use

<u>LUTE EIR CEQA Conclusions</u>

The 1998 LUTE EIR analyzed land use compatibility between existing uses and zoning, and found that these impacts to be less than significant with implementation of several mitigation measures, which have now largely been incorporated into the City of Oakland Municipal Code or added as current SCAs. The LUTE EIR did find a significant and unavoidable effect associated with policy inconsistencies with the Clean Air Plan, which would result from significant and unavoidable increases in criteria pollutants from increases in regional traffic. The LUTE EIR identified mitigation measures that now align with current City of Oakland SCAs pertaining to TDM, which now apply to all projects within the City of Oakland.

<u>Project Analysis – No New or More Severe Impacts</u>

The Project would not physically divide an established community, and would not result in a fundamental conflict between adjacent or nearby land uses. As demonstrated in Chapter III of this document, the Project would not fundamentally conflict with any applicable land use plan, policy, or regulation, and the project would not fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.

Noise

LUTE EIR CEQA Conclusions

The 1998 LUTE EIR found that increased noise associated with increased traffic, changes in land use, mixed-use development and transportation improvements would be less than significant with implementation of mitigation measures. It also found that impact related to noise compatibility within residential areas and live-work developments would be less than significant with implementation of mitigation measures. The mitigation measures identified in the LUTE EIR are now functionally equivalent to the latest City SCAs. The LUTE EIR did conclude that impacts related to short-term increases in noise and vibration due to construction in the Downtown Showcase District and Coliseum Showcase District would be significant and unavoidable, even with implementation of mitigation.

Project Analysis – No New or More Severe Impacts

The analysis presented in Chapter IV of this CEQA document demonstrates that, with implementation of all applicable SCAs (**SCA Noise-1 through -4**), the Project's construction activity would not result in a violation of the City of Oakland Noise Ordinance regarding construction noise, or generate noise in violation of the City of Oakland Nuisance Standards regarding persistent construction-related noise.

The analysis presented in Chapter IV of this CEQA document also demonstrates that the Project's incorporation of physical design features for purposes of noise attenuation (pursuant to **SCA Noise-5**) would ensure that the Project would not generate operational noise in violation of the City of Oakland Noise Ordinance.

The Project would not generate traffic noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the Project. During construction or operation, the Project would not expose persons to or generate groundborne vibration that exceeds City of Oakland thresholds. The Project is not located within an airport land use plan in the vicinity of a private airstrip, and would not expose people residing or working in the project area to excessive aircraft noise levels.

Population and Housing

LUTE EIR CEQA Conclusions

The 1998 LUTE EIR found that impacts to housing capacity and potential housing displacement would be less than significant and would not require mitigation measures or SCAs. The LUTE EIR also found impacts related to increased employment growth potential would be reduced to less than significant levels with implementation of mitigation measures that require the City to maintain a database of underutilized parcels and to assist developers in locating sites for their developments.

Project Analysis – No New or More Severe Impacts

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. The Project would not displace any existing housing or displace substantial numbers of people that would necessitate construction of replacement housing.

Public Services, Parks and Recreation

LUTE EIR CEQA Conclusions

The 1998 LUTE EIR found impacts related to the increased demand for parks would be less than significant and would not require mitigation measures or SCAs. The LUTE EIR also found that impacts related to police services, fire protection and emergency medical services, schools and libraries would be reduced to a less than significant level with policies included in the General Plan or implementation of mitigation measures that are functionally equivalent to the City's current SCAs. The LUTE EIR did find that impacts related to firefighting and evacuation constraints would be significant and unavoidable, even with implementation of a mitigation measure that required construction of a fire station in the North Oakland Hills to address the increase in population and housing. This impact was found to be localized to the Oakland Hills and is therefore not relevant to projects located in or near downtown Oakland.

Project Analysis – No New or More Severe Impacts

The Project would not 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 Project would not cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection, police protection, schools or other public facilities. The project would not increase the use of existing neighborhood or regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur. Environmental effects attributed to new recreational facilities (i.e., play areas, court games and outdoor stage) are fully addressed in Chapter IV of this CEQA document under the topics of air quality and noise.

Transportation

LUTE EIR CEQA Conclusions

The 1998 LUTE EIR identified significant and unavoidable impacts related to level of service (LOS) on several roadway segments, including highways and arterial roadways.

In 2017, the City of Oakland adopted new Transportation Impact Review Guidelines for land use development projects consistent with Senate Bill 743, implementing a shift from traffic delay metrics to thresholds based on a vehicle miles traveled standard (VMT). The revised thresholds removed automobile delay as described by LOS or similar measures of vehicular capacity or traffic congestion as a significant impact on the environment pursuant to CEQA, and replaced them with the VMT standard. Accordingly, measures of the Project's impact on transportation delay are no longer a CEQA consideration.

Project Analysis – No New or More Severe Impacts

VMT

As demonstrated in Chapter IV of this document, the Project satisfies the City of Oakland's screening criterion as a low VMT area and its impact related to VMT is presumed to be less than significant impact. The Project would also have a less than significant impact on VMT because it would meet screening criteria as being located within one-half mile of an existing major transit stop and located along an existing high-quality transit corridor. Irrespective of this CEQA finding, City of Oakland SCAs provide an effective means for reducing single-occupant vehicle trips from all projects that generate 50 or more net new a.m. or p.m. peak hour vehicle trips. Accordingly and pursuant to **SCA Transportation-1**, a TDM Plan has been prepared for the project that includes those mandatory strategies required pursuant to Planning Code requirements, as well as additional features that would reduce the automobile trips generated by the Project to the required 20 percent reduction.

Temporary Transportation Interference during Construction

During construction activities, the Project will involve worker trips, materials deliveries and certain heavy equipment operations at the site. Construction activities at or near the public right-of-way (including City streets, sidewalks, bicycle facilities and bus stops) could temporarily interfere with pedestrian, bicycle and vehicle movement along adjacent streets.

The following SCA would apply to the Project:

- **SCA Transportation-2 (#82), Construction Activity in the Public Right-of-Way**

a. *Obstruction Permit Required*: 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*: 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*: 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.

The Project's temporary effects on transportation during the construction period will be fully addressed through implementation of City SCAs, and this impact would be reduced to less than significant.

Transportation Infrastructure

The City of Oakland has established a number of regulations, policies and SCAs that seek to ensure that each project contributes toward transportation improvements, and measures to reduce vehicle trips and reduce GHG emissions from transportation sources.

The following SCAs would apply to the Project:

❖ ***SCA Transportation-3 (#83), Bicycle Parking***: 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.

Based on Oakland Planning Code requirements, the Project should provide 18 short-term bicycle parking spaces. The Project proposes to accommodate this bicycle parking in bicycle racks located on the sidewalk along College Avenue. In addition to these short-term bike-parking requirements, the applicant is choosing to provide space for approximately 22 long-term bike stalls within the fenced area of the Campus just north of the Visitor parking lot.

The following SCAs also apply to the Project:

❖ ***SCA Transortation-4 (#84), Transportation Improvements***: 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.

- ***SCA Transportation-5 (86), Transportation Impact Fee***: 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).

- ***SCA Transportation-6 (#88), Plug-In Electric Vehicle (PEV) Charging Infrastructure***

  a. *PEV-Ready Parking Spaces*: 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*: 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*: 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).

Utility and Service Systems

<u>LUTE EIR CEQA Conclusions</u>

The 1998 LUTE EIR analyzed utilities and service systems, finding all potential impacts to be less than significant with implementation of mitigation measures, which are now functionally equivalent to the City’s current SCAs.

<u>Project Analysis – No New or More Severe Impacts</u>

The analysis presented in this CEQA document demonstrates that the Project can be adequately served by all utilities and public services.

The Project would not exceed wastewater treatment requirements, would not exceed the capacity of the City’s wastewater collection system or the capacity of EBMUD’s wastewater treatment capacity, and would not result in a need to construct of new wastewater treatment facilities or expand existing facilities. The Project would not require or result in construction of new stormwater drainage facilities or expansion of existing facilities. The Project would not exceed water supplies available to serve the Project from existing entitlements and resources, or require construction of water facilities or expansion of existing facilities. The Project will be served by a landfill with sufficient permitted capacity to accommodate the Project’s solid waste disposal needs, and the Project will not violate any applicable federal, state or local statutes and regulations related to solid waste.

Construction Waste

During the Project’s construction process the Project will generate construction waste from asphalt removal and from a limited extent of proposed demolition.

Applicable SCAs

The following SCA applies to all projects that include 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.

- **SCA Utilities-1 (#89), Construction and Demolition Waste Reduction and Recycling**: 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. 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.

The Project's temporary effects related to construction waste will be fully addressed through implementation of City SCAs, and this impact would be reduced to less than significant.

Water Demands

The Project will result in approximately 24,690 square feet of new landscaping (see **Figure 21**). This increased landscaped area will increase demand for irrigation water.

Figure 21
Proposed Landscape / Planting Plan

Source: Siegel & Strain, and Einwillerkuehl Landscape Architects
Planting Plan, Sheet L3.10S, 9/9/2024

Applicable SCAs

The following condition applies to rehabilitated or re-landscaped projects with an aggregate landscape area equal to or greater than 2,500 square feet:

- **SCA Utilities-2 (#97), Water Efficient Landscape Ordinance (WELO)**: The project applicant shall comply with California's Water Efficient Landscape Ordinance (WELO) in order to reduce landscape water usage. For the specific ordinance requirements, see the link below:

  http://www.water.ca.gov/wateruseefficiency/landscapeordinance/docs/Title%2023%20extract%20-%20Official%20CCR%20pages.pdf

  For any landscape project with an aggregate (total noncontiguous) landscape area over 2,500 sq. ft., the project applicant shall implement the Performance Measures in accordance with the WELO.

  a. *Prescriptive Measures*: Prior to construction, the project applicant shall submit the Project Information (detailed below) and documentation showing compliance with Appendix D of California's Model Water Efficient Landscape Ordinance (see page 38.14(g) in the link above).

  b. *Performance Measures*: Prior to construction, the project applicant shall prepare and submit a Landscape Documentation Package for review and approval, which includes the following

     i. Project Information (date, applicant and property owner name, project address, Total landscape area, project type, water supply type and water purveyor, Checklist of documents in the package, Project contacts, and applicant signature and date with the statement: "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package."

     ii. Water Efficient Landscape Worksheet, Hydrozone Information Table and Water Budget Calculations with Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use

  c. Soil Management Report

  d. Landscape Design Plan

  e. Irrigation Design Plan, and

  f. Grading Plan

  d. Upon installation of the landscaping and irrigation systems, and prior to the final of a construction-related permit, the Project applicant shall submit a Certificate of Completion (see page 38.6 in the link above) and landscape and irrigation maintenance schedule for review and approval by the City. The Certificate of Completion shall also be submitted to the local water purveyor and property owner or his or her designee.

Project Plans Pursuant to SCAs

The Project includes an Irrigation Concept Statement that provides for the following:

> "The irrigation design for the site shall comply with the State of California Model Water Efficient Landscape Ordinance (Title 23 - Division 2- Chapter 2.7) and the City of Oakland Water Efficient Landscape Standards. The irrigation systems will be automatically controlled by an ET irrigation controller capable of multiple programming and independent timing of individual irrigation systems. The controller will have a 24-hour clock to allow multiple start times and repeat cycles to adjust for soil percolation rates. The irrigation systems will consist primarily of low volume, low flow bubblers for trees, point source drip irrigation for shrubs and groundcovers, and low flow irrigation for turf plantings. Plants will be grouped onto separate valves according to sun exposure and water use to allow for irrigation application by hydrozone. The

irrigation scheduling will reflect the regional evapotranspiration rates. The entire site will be designed to run during nighttime hours when irrigation is most efficient."[38]

The Project's increased water demand related to new landscape will be fully addressed through implementation of City SCAs and as demonstrated by Project application information, and this impact would be reduced to less than significant.

[38] Project Application Materials, Planting Plan and Images, Sheet L3.01, October 2022

VII - CEQA Determination / Findings

Based on the information and analysis contained in this CEQA Analysis, the Project is consistent with the development density and land use characteristics established by existing zoning and General Plan policies for which an EIR was certified (i.e., the 1998 LUTE and its EIR).

The Project would be required to comply with all applicable SCAs, regulatory requirements and/or mitigation measures as cited in the LUTE EIR. With implementation of those SCAs, regulatory requirements and/or mitigation measures, the preceding CEQA Analysis concludes that the Project would not result in a substantial increase in the severity of any significant impacts and would not result in any new significant impacts that were not previously identified in that prior EIR.

In accordance with CEQA Guidelines Sections 15332, Section 15300.2, and Section 15183 and as set forth in this CEQA Analysis, the Project qualifies for CEQA exemptions and streamlining provisions, because the following findings can be made:

Infill Development (CEQA Guidelines Section 15332)

CEQA Guidelines Section 15300 to Section 15333 include a list of classes of projects that have been determined to not have a significant effect on the environment and are therefore exempt from further review under CEQA. Among the classes of exempt projects are those projects identified as Urban Infill Development. CEQA Guidelines Section 15332 (Class 32) Infill Development projects are characterized as infill development when meeting the following conditions:

- the project is consistent with the applicable zoning designation and regulations
- the proposed development occurs within city limits on a project site of no more than 5 acres substantially surrounded by urban uses
- the project site has no value as habitat for endangered, rare, or threatened species, and
- approval of the project would not result in any significant effects related to traffic, noise, air quality or water quality, and
- the site can be adequately served by all utilities and public.

The Project's consistency with these Class 32 exemption requirements has been fully assessed in this document, and the Project has been found consistent with these Class 32 Infill Development criteria.

<u>No Exceptions</u>

CEQA Guidelines Section 15300.2 identifies exceptions to an otherwise applicable CEQA exemption. These exceptions (as applicable to the Project) include:

- significant cumulative effects not otherwise addressed,
- significant effects due to unusual circumstances,
- projects that result in damage to scenic resources within a designated State Scenic Highway,
- projects located on a hazardous waste site, and
- projects that may cause a substantial adverse change in the significance of a historical resource.

As analyzed in this CEQA document, there are no significant effects peculiar to the Project or its site. No exceptions to a CEQA exemption pursuant to CEQA Guidelines Section 15300.2 apply.

Consistency with Community Plan or Zoning (CEQA Guidelines Section 15183)

CEQA Guidelines Section 15183 provides that, "projects that are consistent with the development density established by existing zoning, community plan, or general plan policies for which an EIR was certified shall not require additional environmental review, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site". These provisions of CEQA are intended to streamline the environmental review of certain types of projects, and to reduce the need to prepare repetitive environmental studies. These provisions of CEQA apply only to those projects that are consistent with a community plan adopted as part of a General Plan, a zoning action which zoned or designated the parcel on which the Project would be located to accommodate a particular density of development, or the General Plan of a local agency. Per CEQA Guidelines Section 15183 (i)(2), "consistent means that the density of the proposed project is the same or less than the standard expressed for the involved parcel in the general plan, community plan or zoning action for which an EIR has been certified, and that the project complies with the density-related standards contained in that plan or zoning. Where the zoning ordinance refers to the general plan or community plan for its density standard, the project shall be consistent with the applicable plan". An EIR must have been certified by the Lead Agency for the community plan, the zoning action or the General Plan, for these provisions to apply.

Section 15183(a) of the CEQA Guidelines provides that, in approving a project meeting these requirements, a public agency shall, "limit its examination of environmental effects to those impacts that the agency determines, in an Initial Study or other analysis:

- are peculiar to the project or the parcel on which the project would be located
- are not analyzed as significant effects in a prior EIR on the zoning action, General Plan or community plan
- are potentially significant off-site impacts and cumulative impacts that were not discussed in the prior EIR prepared for the general plan, community plan or zoning action, or
- are previously identified significant effects which, as a result of substantial new information which was not known at the time the prior EIR was certified, are determined to have a more severe adverse impact than discussed in the prior EIR"

When reviewing the environmental effects of the Project pursuant to these provisions, an effect of the Project on the environment shall not be considered peculiar to the Project if uniformly applied development policies or standards (i.e., SCAs) that have been previously adopted by the City, are applied to the project. A finding must have been made that the applicable development policies or standards will substantially mitigate environmental effects when applied to future projects, unless substantial new information shows that the policies or standards will not substantially mitigate the environmental effect. The finding shall be based on substantial evidence, which need not include an EIR.

This CEQA document includes information that demonstrates the Project is consistent with the development density established by existing zoning and the Oakland General Plan's Land Use and Transportation Element (LUTE). A Program EIR was prepared and certified by the City of Oakland for the Coliseum Area Specific Plan (the LUTE EIR). The Project is consistent with the development assumptions of that prior CASP EIR. The Project will not result in significant impacts that were not previously identified in the CASP EIR as significant project-level, cumulative or off-site effects. This document presents substantial evidence that the Project would not result in new or more severe environmental effects than those previously disclosed in the CASP EIR, or which may be peculiar to the Project or its site. The Project's potentially significant effects have already been addressed as such in the LUTE EIR and any potentially significant effects will be substantially mitigated by implementation of

City of Oakland Standard Conditions of Approval (SCAs) and/or the imposition of regulatory requirements, and Project plans prepared pursuant to those SCAs and regulations.

Therefore, the Project would meet the criteria of CEQA Guidelines Section 15183 and no further environmental review is required. Overall, based on an examination of the analysis, findings and conclusions of the 2015 CASP EIR, all of which are summarized in the CEQA Checklist of this document, the potential environmental impacts associated with the Project have been adequately analyzed and covered in that prior EIR. No further review or analysis under CEQA is required.

Reliance on a Prior Program EIR

Pursuant to CEQA Guidelines Section 15168, "a Program EIR is an EIR that has been prepared on a series of actions that can be characterized as one large project and that are related either geographically, as logical parts in a chain of contemplated actions, in connection with general criteria to govern the conduct of a continuing program, or as individual activities carried out under the same authorizing statute or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways". CEQA Guidelines Section 15168(c) provides that, "later activities in the program must be examined in the light of the Program EIR to determine whether an additional environmental document must be prepared (unless that project is determined to be eligible for a categorical exemption):

- If a later activity would have effects that were not examined in the program EIR, a new Initial Study would need to be prepared leading to either an EIR or a negative declaration. That later analysis may tier from the Program EIR as provided in Section 15152.
- If the lead agency finds, pursuant to Section 15162, that no subsequent EIR would be required, the lead agency can approve the activity as being within the scope of the project covered by the Program EIR, and no new environmental document would be required. Whether a later activity is within the scope of a Program EIR is a factual question that the lead agency determines based on substantial evidence in the record. Factors that an agency may consider in making that determination include but are not limited to consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed for environmental impacts, and covered infrastructure, as described in the program EIR.
- The Lead Agency shall incorporate feasible mitigation measures and alternatives developed in the Program EIR into later activities in the program.
- Where the later activities involve site-specific operations, the Lead Agency should use a written checklist or similar device to document the evaluation of the site and the activity, to determine whether the environmental effects of the operation are within the scope of the program EIR.

Based on information presented in this CEQA document, the Project would not have effects that were not examined in the LUTE EIR, the City may approve the Project as being within the scope of the project covered by the LUTE EIR, and no additional environmental document is required. This CEQA Checklist identifies City of Oakland SCAs that will be required of the Project as required conditions of approval. This CEQA Checklist documents the evaluation of the Project and its site and determines that the environmental effects of the Project are within the scope of the prior LUTE EIR. A finding of reliance on a prior program EIR may be made concurrently, and in addition to a finding for CEQA exemptions and streamlining pursuant to CEQA Guidelines Section 15332 and/or Section 15183.

Each of the above findings provides a separate and independent basis for CEQA compliance.

____ ______________

Date:

Environmental Review Officer

City of Oakland Planning and Building

Sources

Alameda County Department of Environmental Health, *Leaking Underground Storage Tank Cleanup Site Case Closure Summary Form*, February 16, 2022

Basics Environmental, *Phase I Environmental Site Assessment, 5901-5929 College Avenue, 6012-6048 Claremont Avenue and 5941-5965 Chabot Road*, October 22, 2019

Equity Community Builders, *ECAP Consistency Checklist*, August 28, 2024

Fehr & Peers, *Jewish Community Campus of the East Bay, Transportation Impact Review and Transportation Demand Management Plan*, September 2024

Haley & Aldrich, Inc., *Additional Site Characterization Report - Dreyer's Grand Ice Cream, Oakland*, California, 21 October 2019

Lamphier-Gregory, *CalEEMod Emissions Calculator Results*, Project Construction-Period Emissions, March 2024

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P&D Environmental, Inc., *Limited Subsurface Investigation Report*, September 23, 2021

Preservation Architecture, *Dreyers HQ Sites Historic Resource Evaluation*, August 2, 2024, 2024

Wilson Ihrig, *Jewish Community Campus Acoustical Study*, September 13, 2024

Attachment A

Applicable City of Oakland Standard Conditions of Approval and Monitoring Program, per City Revised SCAs of October/November 2023

Standard Conditions of Approval Measures	When Required	Implementation/Monitoring: Initial Approval	Implementation/Monitoring: Monitoring/ Inspection
Aesthetics			
SCA Aesthetics-1, Lighting [21]: 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.	Prior to building permit final	N/A	Bureau of Building
SCA Aesthetics-2:-Landscape Plan a. *Landscape Plan Required*: 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.	Prior to approval of construction-related permit	Bureau of Planning	N/A
b. *Landscape Installation*: 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.	Prior to building permit final	Bureau of Planning	Bureau of Building
c. *Landscape Maintenance*: 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.	Ongoing	N/A	Bureau of Building
Air Quality			
SCA Air-1, Dust Controls – Construction Related [22]: 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).	During construction	Bureau of Building	Bureau of Building

Standard Conditions of Approval Measures	When Required	Initial Approval	Monitoring/ Inspection
	Implementation/Monitoring		
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 excavation, grading, and/or 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) Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel. h) All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.			
SCA Air-2, Criteria Air Pollutant Controls - Construction and Operations Related [23 a-f]: 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 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 by shutting equipment off when not in use, or reducing the maximum idling time to two minutes. 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	During construction	N/A	Bureau of Building

Standard Conditions of Approval Measures	When Required	Implementation/Monitoring Initial Approval	Monitoring/ Inspection
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.			
SCA Air-3: Asbestos in Structures [28]: 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.	Prior to approval of construction-related permit	Applicable regulatory agency with jurisdiction	Applicable regulatory agency with jurisdiction
Biological Resources			
SCA Bio-1: Tree Removal during Bird Breeding Season [34]: 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 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.	Prior to removal of trees	Bureau of Planning	Bureau of Building
SCA Biology-2, Tree Permit [35]: 1. *Tree Permit Required*: 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.	Prior to approval of construction-related permit	Permit approval by Public Works Department, Tree Division; evidence of approval submitted to Bureau of Building	Bureau of Building

Standard Conditions of Approval Measures	Implementation/Monitoring: When Required	Implementation/Monitoring: Initial Approval	Implementation/Monitoring: Monitoring/ Inspection
2. *Tree Protection during Construction*: Adequate protection shall be provided during the construction period for any trees that are to remain standing, including the following, plus any recommendations of an arborist: a. Before the start of any clearing, excavation, construction or other work on the site, every protected tree deemed 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 that will avoid injury to any protected tree. b. 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, filling, 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. c. 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. d. 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. e. If any damage to a protected tree should occur during or from 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. f. All debris created from 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.	During construction	Public Works Department, Tree Division	Bureau of Building

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3. *Tree Replacement Plantings*: 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: a. 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. b 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. c.. 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. d. 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. e. 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. f. 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.			
Cultural Resources			
SCA Cultural-1: Archaeological and Paleontological Resources – Discovery during Construction [38]: 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. a) 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	During construction	N/A	Bureau of Building

Standard Conditions of Approval Measures	Implementation/Monitoring: When Required	Initial Approval	Monitoring/ Inspection
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. b) 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 applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. c) 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. d) 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 Cultural-2: Human Remains – Discovery during Construction [40]: 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. a) 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. b) 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	During construction	N/A	Bureau of Building

Standard Conditions of Approval Measures	Implementation/Monitoring: When Required	Initial Approval	Monitoring/ Inspection
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.			
Energy			
SCA Energy-1, Green Building Requirements – Small Projects (93): 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) for projects using the StopWaste.Org Small Commercial Checklist. a) The following information shall be submitted to the City for review and approval with application for a building permit: i. Documentation showing compliance with Title 24 of the current version of the California Building Energy Efficiency Standards ii. Completed copy of the green building checklist approved during the review of a Planning and Zoning permit iii. Permit plans that show in general notes, detailed design drawings and specifications as necessary compliance with the items listed in subsection (b) below iv. Other documentation to prove compliance b) The set of plans in subsection (a) shall demonstrate compliance with the following: i. CALGreen mandatory measures ii. All applicable green building measures identified on the checklist approved during the review of a Planning and Zoning permit, or submittal of a Request for Revision Plan-check application that shows the previously approved points that will be eliminated or substituted	Prior to approval of construction-related permit	Bureau of Building	N/A
c) The project applicant shall comply with the applicable requirements of CALGreen and the Green Building Ordinance during construction. The following information shall be submitted to the City for review and approval: i. Completed copy of the green building checklists approved during review of the Planning and Zoning permit and during the review of the Building permit ii. Other documentation as deemed necessary by the City to demonstrate compliance with the Green Building Ordinance	During construction	N/A	Bureau of Building
Geology and Soils			
SCA Geo-1: Construction-Related Permit(s) [42]: 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	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building

Standard Conditions of Approval Measures	Implementation/Monitoring When Required	 Initial Approval	 Monitoring/ Inspection
Oakland Building Code and the Oakland Grading Regulations, to ensure structural integrity and safe construction.			
SCA Geo-2: Soils Report [43]: The project applicant shall submit a soils report prepared by a registered geotechnical engineer for City review and approval. The soils report shall contain, at a minimum, field test results and observations regarding the nature, distribution and strength of existing soils, and recommendations for appropriate grading practices and project design. The project applicant shall implement the recommendations contained in the approved report during project design and construction.	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
Greenhouse Gas Emissions/Climate Change			
SCA GHG-1, Project Compliance with the Equitable Climate Action Plan (ECAP) Consistency Checklist [47]: The project applicant shall implement all the measures in the Equitable Climate Action Plan (ECAP) Consistency Checklist that was submitted during the Planning entitlement phase.			
a) For physical ECAP Consistency Checklist measures to be incorporated into the design of the project, the measures shall be included on the drawings submitted for construction- related permits.	Prior to approval of construction-related permit	Bureau of Planning	N/A
b) For physical ECAP Consistency Checklist measures to be incorporated into the design of the project, the measures shall be implemented during construction.	During construction	Bureau of Planning	Bureau of Building
c) For ECAP Consistency Checklist measures that are operational but not otherwise covered by these SCAs, including but not limited to the requirement for transit passes or additional Transportation Demand Management measures, the applicant shall provide notice of these measures to employees and/or residents and post these requirements in a public place such as a lobby or work area accessible to the employees and/or residents	Ongoing	Bureau of Planning	Bureau of Planning
Hazards and Hazardous Materials			
SCA Hazards-2: Hazardous Materials Related to Construction [49]: 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	During construction	N/A	Bureau of Building

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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 Fire Prevention Bureau, Alameda County Environmental Health, and other applicable regulatory agencies, and implementation of the actions described in these agencies' 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 Hazards-1, Hazardous Building Materials and Site Contamination [50] a) *Hazardous Building Materials Assessment*: 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.	Prior to approval of demolition, grading, or building permits	Bureau of Building	Bureau of Building
b) *Environmental Site Assessment Required*: The project applicant shall submit a Phase I Environmental Site Assessment report, and Phase II Environmental Site Assessment report if warranted by the Phase 1 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	Prior to approval of construction-related permit	Applicable regulatory agency with jurisdiction	Applicable regulatory agency with jurisdiction

Standard Conditions of Approval Measures	Implementation/Monitoring When Required	Initial Approval	Monitoring/ Inspection
c) *Health and Safety Plan Required*: 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.	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
d) *Best Management Practices (BMPs) Required for Contaminated Sites*: 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.	During construction	N/A	Bureau of Building
Hydrology and Water Quality			
SCA Hydro-1, Erosion and Sedimentation Control Plan for Construction [55]: a) Erosion and Sedimentation Control Plan Required: The project applicant shall submit an Erosion and Sedimentation Control Plan to the City for review and approval. The Erosion and Sedimentation Control Plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading and/or construction operations. The Plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the City. The Plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment. b) Erosion and Sedimentation Control during Construction: The project applicant shall implement the approved Erosion and Sedimentation Control Plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Bureau of Building.	Prior to approval of construction-related permit	Bureau of Building	N/A

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SCA Hydro-2, State Construction General Permit [56]: 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.	Prior to approval of construction-related permit	State Water Resources Control Board; evidence of compliance submitted to Bureau of Building	State Water Resources Control Board
SCA Hydro-3, NPDES C.3 Stormwater Requirements for Regulated Projects [60] a) *Post-Construction Stormwater Management Plan Required*: 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 hydro-modification management measures, if required by Provision C.3, so that post-project stormwater runoff flow and duration match pre-project runoff. vii. Hydromodification management measures, if required by Provision C.3, so that post-project stormwater runoff flow and duration match pre-project runoff.	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
b) *Maintenance Agreement Required*: 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	Prior to building permit final	Bureau of Building	Bureau of Building

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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. Access is for purposes of verifying implementation, operation and maintenance of the on-site stormwater treatment measures, taking corrective action if necessary. The maintenance agreement shall be recorded at the County Recorder's Office at the applicant's expense.			
Noise and Vibration			
SCA Noise-1, Construction Days/Hours [69]: 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.	During construction	N/A	Bureau of Building
SCA Noise-2, Construction Noise [70]: 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.	During construction	N/A	Bureau of Building

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b) 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. 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 Noise-3, Extreme Construction Noise [71]: Prior to any extreme noise generating construction activities (e.g., pier drilling, pile driving and other activities generating greater than 90dBA), 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: a) Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings; b) 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; c) Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; d) 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; e) Monitor the effectiveness of noise attenuation measures by taking noise measurements f) 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	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building

Standard Conditions of Approval Measures	Implementation/Monitoring When Required	Initial Approval	Monitoring/ Inspection
approval the proposed type and duration of extreme noise generating activities and the proposed public notice. The public notice shall provide the estimated start date and end date of the extreme noise generating activities and describe noise attenuation measures to be implemented.			
SCA Noise-4, Project-Specific Construction Noise Reduction Measures [72}: 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 sensitive receptors. The project applicant shall implement the approved Plan during construction.	Prior to approval of construction-related permit	Bureau of Building	Bureau of Building
SCA Noise-5, Operational Noise [75]: 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.	Ongoing	N/A	Bureau of Building
Transportation and Circulation			
SCA Transportation-1: Transportation and Parking Demand Management [85]: a) *Transportation and Parking Demand Management (TDM) Plan Required*: The project applicant shall submit a Transportation and Parking Demand Management (TDM) Plan for review and approval by the City. 1. The goals of the TDM Plan shall be the following: i. Reduce vehicle traffic and parking demand generated by the project to the maximum extent practicable. ii. For Projects generating 50-99 net new a.m. or p.m. peak hour vehicle trips, achieve a project vehicle trip reduction (VTR of 10%. For Projects generating 100 or more net new a.m. or p.m. peak hour vehicle trips, achieve a project vehicle trip reduction (VTR of 20% iii. Increase pedestrian, bicycle, transit, and carpool/vanpool modes of travel. All four modes of travel shall be considered, as appropriate. iv. Enhance the City's transportation system, consistent with City policies and programs. 2. The TDM Plan should include the following: i. 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. ii. Proposed TDM strategies to achieve VTR goals (see below).	Prior to approval of planning application	Bureau of Planning	N/A

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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. 3. The following TDM strategies must be incorporated into a TDM Plan based on a project location or other characteristics. When required by Code or when described below, these mandatory strategies should be identified as a credit toward a project's VTR. i. Bus boarding bulbs or islands, when 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 ii. Bus shelter, when 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 iii. Concrete bus pad, where a bus stop is located along the project frontage and a concrete bus pad does not already exist iv. Curb extensions or bulb-outs, where identified as an improvement within site analysis v. Implementation of a corridor-level bikeway improvement, where 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 vi. Implementation of a corridor-level transit capital improvement, where 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 vii. 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 viii. 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 ix. In-street bicycle corral, when a project includes more than 10,000 square feet of ground floor retail, is located along a Tier 1 bikeway, and onstreet where vehicle parking is provided along the project frontages. x. Intersection improvements, when identified as an improvement within site analysis xi. New sidewalk, curb ramps, curb and gutter meeting current City and ADA standards, always required xii. No monthly permits and establish minimum price floor for public parking, if proposed parking ratio exceeds 1:1000 sf. (commercial)			

Standard Conditions of Approval Measures	When Required	Implementation/Monitoring Initial Approval	Monitoring/ Inspection
xiii Parking garage is designed with retrofit capability, optional if proposed parking ratio exceeds 1:1.25 (residential), or 1:1000 sf. (commercial) xiv 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. xv. Paving, lane striping or restriping (vehicle and bicycle), and signs to midpoint of street section, typically required xvi. Pedestrian crossing improvements, when identified as an improvement within site analysis xvii Pedestrian-supportive signal changes, when identified as an improvement within operations analysis xviii Real-time transit information system, when 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 xix Relocating bus stops to far side, when a project is located within 0.10 mile of any active bus stop that is currently near-side xx. Signal upgrades, when 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 xxi. Transit queue jumps , when 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 xxii Trenching and placement of conduit for providing traffic signal interconnect, when a 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 xxiii Unbundled parking, if proposed parking ratio exceeds 1:1.25 (residential) 4. Other TDM strategies to consider include, but are not limited to, the following: i. 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. ii. Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority bikeways, on-site signage and bike lane striping			

Standard Conditions of Approval Measures	Implementation/Monitoring		
	When Required	Initial Approval	Monitoring/ Inspection

iii. 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.
iv. 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 and any applicable streetscape plan.
v. Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements.
vi. 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).
vii. 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.
viii 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).
ix. Guaranteed ride home program for employees, either through 511.org or through separate program.
x. Pre-tax commuter benefits (commuter checks) for employees
xi. 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.
xii. On-site carpooling and/or vanpool program that includes preferential (discounted or free) parking for carpools and vanpools
xiii. Distribution of information concerning alternative transportation options
xiv. 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.
xv. Parking management strategies, including attendant/valet parking and shared parking spaces
xvi. Requiring tenants to provide opportunities and the ability to work off-site
xvii 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).

Standard Conditions of Approval Measures	When Required	Initial Approval	Monitoring/ Inspection
	Implementation/Monitoring		
xviii 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. 5. 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.	Prior to building permit final	Bureau of Building	Bureau of Building
c) TDM Implementation – Operational Strategies: 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.	Ongoing	Department of Transportation	Department of Transportation
SCA Transportation-2, Construction Activity in the Public Right-of-Way [82] a) *Obstruction Permit Required*: 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.	Prior to approval of construction-related permit	Department of Transportation	Department of Transportation
b) *Traffic Control Plan Required*: 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	The project applicant shall implement the approved Plan during construction	Department of Transportation	Department of Transportation

Standard Conditions of Approval Measures	Implementation/Monitoring When Required	 Initial Approval	 Monitoring/ Inspection
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.			
c) *Repair of City Streets*: 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.	Prior to building permit final	N/A	Department of Transportation
SCA Transportation-3: Bicycle Parking [83]: 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.	Prior to approval of construction-related permit	Bureau of Planning	Bureau of Building
SCA Transportation-4, Transportation Improvements [84]: 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)	Prior to building permit final or as otherwise specified	Bureau of Building; Department of Transportation	Bureau of Building

Standard Conditions of Approval Measures	Implementation/Monitoring When Required	Initial Approval	Monitoring/ Inspection
i) Bicycle detection (full activation)) 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)			
SCA Transportation-5, Transportation Impact Fee [86]: 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).	Prior to issuance of building permit	Bureau of Building	N/A
SCA Transportation-6, Plug-In Electric Vehicle (PEV) Charging Infrastructure [88]: a) *PEV-Ready Parking Spaces*: 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*: 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*: 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).	Prior to Issuance of Building Permit	Bureau of Building	Bureau of Building
Utilities and Service Systems			
SCA Utilities-1, Construction and Demolition Waste Reduction and Recycling [89]: 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	Prior to approval of construction-related permit	Public Works Department, Environmental Services Division	Public Works Department, Environmental Services Division

Standard Conditions of Approval Measures	When Required	Initial Approval	Monitoring/ Inspection
	Implementation/Monitoring		
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 Utilities-2, Water Efficient Landscape Ordinance [97]: The project applicant shall comply with California's Water Efficient Landscape Ordinance (WELO) in order to reduce landscape water usage. For any landscape project with an aggregate (total noncontiguous) landscape area over 2,500 sq. ft., the project applicant shall implement the Performance Measures in accordance with the WELO. Prior to construction, the project applicant shall submit the Project Information (detailed below) and documentation showing compliance with Appendix D of California's Model Water Efficient Landscape Ordinance. *a) Performance Measures*: Prior to construction, the project applicant shall prepare and submit a Landscape Documentation Package for review and approval, including the following: i. Project information (date, applicant and property owner name, project address, total landscape area, project type (new, rehabilitated, cemetery, or home owner installed), water supply type and water purveyor, checklist of documents in the package, project contact information, and applicant signature and date with the statement: "I agree to comply with the requirements of the water efficient landscape ordinance and submit a complete Landscape Documentation Package." ii. Water Efficient Landscape Worksheet, including Hydro-zone Information Table and Water Budget Calculations with Maximum Applied Water Allowance (MAWA) and Estimated Total Water Use iii. Soil Management Report iv. Landscape Design Plan v. Irrigation Design Plan, and vi. Grading Plan b) Upon installation of the landscaping and irrigation systems, and prior to the final of a construction-related permit, the Project applicant shall submit a Certificate of Completion, and landscape and irrigation maintenance schedule, for review and approval by the City. The Certificate of Completion shall also be submitted to the local water purveyor and property owner or his or her designee.	Prior to approval of construction-related permit	Bureau of Planning	Bureau of Building

Appendix B

Jewish Community Campus of the East Bay, Transportation Impact Review and Transportation Demand Management Plan

Fehr & Peers, September 2024

Jewish Community Campus of the East Bay

Transportation Impact Review and Transportation Demand Management Plan

September 2024

Ok22-0496

FEHR PEERS

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Appendices

1. Introduction

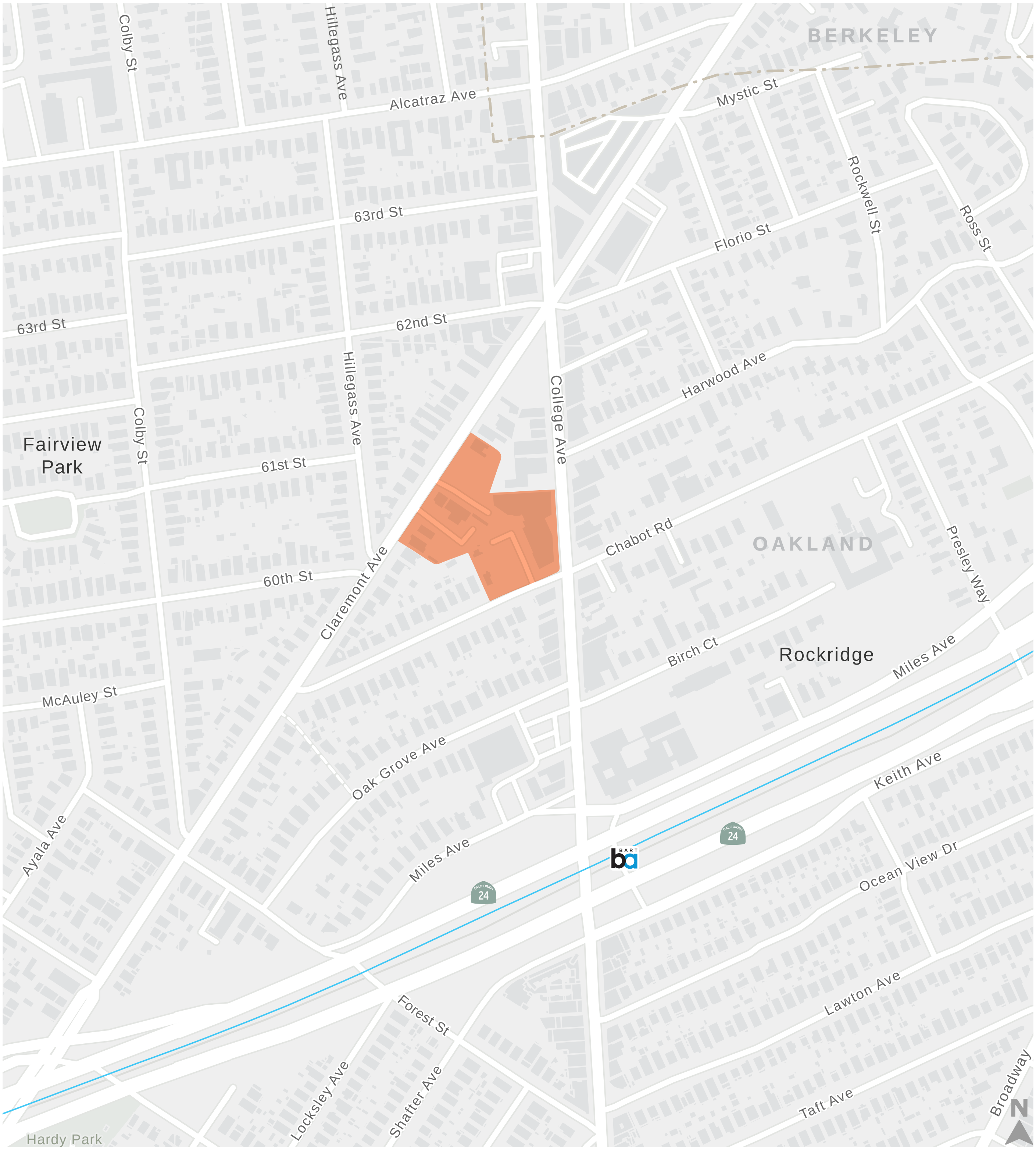
This report evaluates the effects of the proposed Jewish Community Campus (JJC) of the East Bay (referred to as the Project in this report) on transportation. The Project would consolidate multiple Jewish community services at the approximately three-acre site roughly bound by College Avenue to the east, Claremont Avenue to the west, and Chabot Road to the south. **Figure 1** shows the location of the Project site and the street network serving the Project site.

The analysis completed for the Project and presented in this document is based on the City of Oakland's *Transportation Impact Review Guidelines* (TIRG) published in April 2017. This document serves as both the Transportation Impact Review (TIR) and the Transportation Demand Management (TDM) Plan for the Project.

1.1 Report Organization

This report is divided into the following eight chapters:

- ***Chapter 1 – Introduction*** introduces the Project and outlines the chapters included in this report.
- ***Chapter 2 – Existing Setting*** provides an overview of the existing transportation network serving the Project area.
- ***Chapter 3 – Project Characteristics*** describes the Project and its components, the transportation characteristics of the various users, and the estimated number of trips generated by the Project.
- ***Chapter 4 – Vehicle Miles Traveled (VMT) Assessment*** describes the VMT assessment for the Project.
- ***Chapter 5 – Site Access and Circulation*** evaluates the multimodal access and circulation, and parking for the Project.
- ***Chapter 6 – Traffic Operation Analysis*** describes the effects of the Project on traffic operations, including estimated increase in traffic volumes, intersections operations, and the need for traffic signals.
- ***Chapter 7 – Collisions Analysis*** summarizes the reported multi-modal traffic collisions at the intersections and street segments adjacent to the Project site.
- ***Chapter 8 – Transportation Demand Management*** presents the mandatory TDM strategies that the Project would implement to reduce the vehicle trips generated by the Project and better manage the traffic and parking generated by the Project.



Project Site

Figure 1

Project Location

OK22-0496_1_StudyArea

2. Existing Setting

This section describes the street network serving the Project site, the overall transportation system serving the Project site, and the commute mode shares for residents and workers in the Project vicinity.

2.1 Street Network Serving the Project

Figure 1 shows the location of the Project in the Rockridge neighborhood of Oakland. The streets serving the Project site include:

- College Avenue is a north-south minor arterial that extends between the University of California, Berkeley campus in the north and Broadway in Oakland in the south. College Avenue borders the Project site to the east. Adjacent to the Project site, College Avenue provides one lane of motor vehicle traffic, one bicycle lane, and one parking lane in each direction. College Avenue has a posted speed limit of 25 miles per hour (mph). Based on data collected in October 2022, the average daily traffic volume on College Avenue north of Chabot Road is about 10,500 vehicles per day.

- Claremont Avenue is a northeast-southwest minor arterial that extends between Telegraph Avenue in Oakland in the southwest and Grizzly Peak Boulevard in Berkeley in the northeast. Claremont Avenue borders the Project site to the west. Adjacent to the Project site, Claremont Avenue provides two lanes of motor vehicle traffic and one parking lane in each direction. Claremont Avenue has a posted speed limit of 30 mph in the northeast bound direction and 35 mph in the southwest bound direction. Claremont Avenue is identified as a secondary local route for evacuations. Based on data collected in October 2022, the average daily traffic volume on Claremont Avenue north of Chabot Road is about 11,900 vehicles per day.

- Chabot Road is an east-west collector that extends between Claremont Avenue in the east and the Oakland Hills in the west. Chabot Road borders the Project site to the south. Adjacent to the Project, Chabot Road provides one lane of motor traffic and one parking lane in each direction. East of College Avenue, Chabot Road is designated as a Neighborhood Bike Route with sharrows. Between College and Claremont Avenues, Chabot Road provides speed humps. Commercial vehicles over four tons are prohibited on Chabot Road between College and Claremont Avenues. Based on data collected in May 2023, the average daily traffic volume on Chabot Road west of Claremont Avenue is about 1,740 vehicles per day.

2.2 Transportation System Serving the Project Site

The Rockridge neighborhood, where the Project is located, is a medium to high-density, mixed-use, transit-rich, pedestrian-friendly area. The Project is within 0.25 miles of the Rockridge BART Station, and within walking distance of several AC Transit bus lines, including trunk Line 51B (12-minute headways) and local Line 79 (30-minute headways) along College Avenue, and Transbay Line E (service to San Francisco during the morning commute period and from San Francisco during the evening commute period) along Claremont Avenue. The nearest bus stops to the Project site are on College and Claremont Avenues at the intersections with Chabot Road.

Existing bicycle facilities in the Project vicinity include bicycle lanes on College Avenue and sharrows on Chabot Road east of College Avenue. The City's 2019 Oakland Bike Plan (*Let's Bike Oakland*, May 2019) proposes bicycle lanes along Claremont Avenue. The nearest BayWheels Bike Share stations are on 62nd Street just west of Claremont and College Avenues about 0.25 miles north of the Project site, and at the Rockridge BART Station, about 0.25 miles south of the Project site.

The Project's location is expected to result in a relatively high rate of pedestrian, bicycle, and transit trips. As a result of the availability of various destinations within walking and biking distance of the site and the available walking and biking infrastructure and transit service in the Project area, the Project site has a WalkScore of 92/100 (Walker's Paradise), BikeScore of 91 (Biker's Paradise), and TransitScore of 63 (Good Transit).[1] This means that the Project is very accessible to various non-automobile modes of transportation that enable various groups to use non-automobile alternatives to the automobile in accessing the Project site.

The streets in the Project vicinity provide on-street parking on both sides of the street. The on-street parking along the commercial streets, such as College Avenue is generally metered and limited to two-hours or less during normal business hours. The on-street parking along the residential streets is generally controlled by residential parking permits (RPP), which limits parking by non-residents (i.e., vehicles without a permit) to two hours during weekday business hours.

2.3 Commute Mode Shares

The Project's location in the Rockridge neighborhood, a mixed-use area with local and regional transit service and limited parking, is expected to result in a relatively high rate of pedestrian, bicycle, and transit trips. This is evidenced in part by the travel patterns of the area's existing residents and workers per the US Census. **Table 1** compares the commute mode share data for both residents and workers in the

[1] https://www.walkscore.com. Scores for 5901 College Avenue, April 2023.

Rockridge area with the US average. About 32 percent of residents and about 55 percent of workers in the Rockridge area commute by single-occupant automobile, much lower than the US average of 73 percent.

Table 1: Census Data Commute Mode Shares

Modes	Rockridge Residents	Rockridge Workers	US Average
Automobile			
Drive Alone	32%	55%	73%
Carpool	6%	8%	9%
Subtotal	*38%*	*63%*	*82%*
Transit			
BART	23%	7%	2%
Bus	3%	6%	2%
Subtotal	*26%*	*13%*	*4%*
Bike	5%	3%	<1%
Walk	4%	5%	3%
Other	<1%	<1%	1%
Worked from Home	27%	16%	10%
Total	**100%**	**100%**	**100%**

Source: Based on commute mode share data for residents per US Census ACS 2021 5-year data and for workers per US Census CTPP (2012-2016) for Census Tracts 4002, 4003, and 4004, as summarized by Fehr & Peers, 2023.

3. Project Characteristics

This chapter describes the Project and its various components, and their transportation characteristics. It estimates the trip generation for the Project during non-summer and summer months as well as during special events.

3.1 Project Description

The Project would create the Jewish Community Campus (JCC) of the East Bay, to consolidate several non-profit educational and community services, which are currently located in various locations across the East Bay in one location. The Project would comprise about 86,000 square feet of space on approximately three acres; it would generally use the existing buildings within the site with minor modifications to the size or design of the buildings. **Appendix A** shows the Project site plan.

The Project is located in the Rockridge neighborhood of the City of Oakland in the area approximately bound by College Avenue to the east, Chabot Road to the south, and Claremont Avenue to the northwest. The site consists of several existing buildings that are primarily used by Nestle Corporation (formerly Dryer's Ice Cream) as office space.

Various programs and uses are expected at the Project site with each program having their own operating conditions. **Table 2** summarizes these programs with the estimated populations on opening day and at full occupancy and the expected days and times of operations. The Project is estimated to have different populations on opening day and at full occupancy to account for the student related activities not operating at full capacity on opening day because it takes time to reach the expected capacity of students, and staff for student-related activities is based on the expected student population.

The Project site would typically operate Monday-Friday from 8:00 AM to 6:00 PM with occasional uses weekday evening until 9:30 PM, on Saturday evenings after sunset, and on Sundays from 9:00 AM to 6:00 PM. The JCC would be closed with no activity from sunset on Fridays to sunset on Saturdays for the Jewish Sabath.

In addition, the following uses that currently operate at the Project site would continue to operate without modifications by the Project:

- Retail: Five tenants along the College Avenue frontage occupy about 8,920 square feet of space with a combined staffing count of about 20-25 staff.
- Community Assembly: Non-profit organizations occupy two buildings along Claremont Avenue (6012 and 6016 Claremont Avenue) with five occupants.

Table 2: Jewish Community Campus of the East Bay – Program Summary

Program	Estimated Population		Days and Hours of Operations	Time of Year
	Opening Day	Full Occupancy		
Business/Administrative Offices (5901 College Avenue, 6048 Claremont Avenue, and 5941 Chabot Road)				
Jewish Community Center	20 staff	20 staff	M-F: 8:00 AM – 6:00 PM	Year Round
Other Organizations	60 staff	60 staff	M-F: 8:00 AM – 6:00 PM	Year Round
Visitors	100 visitors	100 visitors	M-F: 8:00 AM – 5:00 PM	Year Round
Preschool, 2-4 years old (5901 College Avenue)				
Before Care	10 students	20 students	M-F: 8:15 AM – 9:00 AM	Year Round
Primary Program	60 students	120 students	M-F: 9:00 AM – 3:30 PM	Year Round
After Care	10 students	20 students	M-F: 3:30 PM – 5:00 PM	Year Round
Staff	20 staff	30 staff	M-F: 8:00 AM – 5:00 PM	Year Round
Afterschool, 5-12 years old (6028 Claremont Avenue)				
Afterschool Program	50 students	100 students	M-F: 2:30 PM – 6:00 PM	Non-Summer
Staff	13 staff	20 staff	M-F: 2:00 PM – 6:00 PM	Non-Summer
Summer Camp, 5-12 years old (6028 Claremont Avenue)				
Before Care	20 students	40 students	M-F: 8:00 AM – 9:00 AM	Summer Only
Primary Program	100 students	200 students	M-F: 9:00 AM – 3:00 PM	Summer Only
After Care	20 students	40 students	M-F: 3:00 PM – 6:00 PM	Summer Only
Staff	26 staff	40 staff	M-F: 8:00 AM – 6:00 PM	Summer Only
Community Events (6028 Claremont Avenue and 5901 College Avenue)				
Evening Programs	50-100 participants	50-100 participants	M-F: 6:15 PM – 9:30 PM	Year Round
Cultural Programs/ Event Rental[1]	50-250 participants plus staff	50-250 participants plus staff	Sa: Sunset – 9:30 PM Su: 9:00 AM – 9:30 PM	Year Round
High Holidays[1]	500 participants plus staff	500 participants plus staff	Varies (five events per year)	September and October

Notes:
1. No other JCC programs would occur at the same time as the special cultural programs/event rentals or high holidays.

Source: Fehr & Peers, 2024.

3.1.1 Parking and Access

The Project would reduce the total number of on-site parking spaces from 140 to about 90 spaces. Off-street parking would be provided in the following three parking lots:

- Visitor Parking Lot – This lot would provide 39 parking spaces and is located along the south side of the Project site. It would be accessed through one driveway on Chabot Road. The lot would primarily be used by visitors to the site, including visitors to the retail tenants along the College Avenue frontage who have access to this parking lot through their lease agreements. The lot would continue to be open to visitors during business hours for both JCC and retail tenants, including events at the JCC. The lot would also provide curbside passenger loading and accommodate the drop-offs and pick-ups for the Project, including the student-related activities.

- Staff Parking Lot – This lot would provide 49 parking spaces and would be located along the northwest side of the Project site. It would be accessed through one existing driveway on Claremont Avenue, which would continue to be gated. The lot would primarily be used by the Project staff who would have gate access. The Staff Parking Lot would also be connected to the Visitor Lot through an emergency vehicle accessway and may be used for overflow visitor parking for special events outside of regular business hours. However, during regular business hours, the emergency vehicle accessway would be closed to vehicular traffic. Some of the parking spaces in the Staff Parking Lot can be converted to pickleball courts. These pickleball courts would not be used during the weekday business hours or when there are community/cultural events at the JCC that rely on the staff lot for event parking (See Recommendation 4); the pickleball courts would only be used in evenings and/or weekends when there is no parking demand for these spaces.
- 5939 and 5941 Chabot Road – This parking lot just west of the Visitor Lot on Chabot Road would provide two parking spaces that would be used by staff only.

The buildings within the JCC would be fenced in with limited direct access to the adjacent streets. Primary access to the JCC buildings would be through the Visitor and Staff Parking Lots. Primary pedestrian access would be through a gate at the north side of the Visitor Parking Lot, which would be connected through a walkway on the east side of the Visitor Parking Lot to the sidewalk on Chabot Road. The pedestrian gate would be guarded during regular business hours. The Visitor Parking Lot driveway on Chabot Road would continue to have a security booth on the west side of the driveway, similar to the current conditions, with the existing security booth relocated closer to Chabot Road.

The Project would provide 40 bicycle parking spaces through a combination of 18 proposed short-term bicycle parking spaces along the project frontages and long-term bicycle parking spaces in form of covered bicycle racks for 22 bicycles within the fenced area just north of the Visitor Parking Lot, which would be accessed through the gate at the north side of the Visitor Parking Lot.

3.2 Transportation Characteristics

Each population group at the Project site has their own distinct transportation characteristics. This analysis assesses these transportation characteristics, such as travel mode and parking demand, based on the information provided by the Project Applicant, including the ones summarized in Table 2, publicly available information, and additional data collected by Fehr & Peers. The transportation characteristics for each population group is described below.

3.2.1 Staff

At full occupancy of the Project, the various uses combined would have about 130 staff during the non-summer months and 150 staff during the summer months on typical weekdays. Consistent with the TIRG's recommendation for areas within 0.5 miles of a BART station, this analysis assumes that about 53 percent of the Project staff would drive to and from the site.

3.2.2 Business/Administrative Offices Visitors

The Jewish Community Center and the other non-profit community service organizations that would occupy the site would have about 100 visitors on a typical weekday. Although the offices could be open from 8:00 AM to 5:00 PM, most office visits would be scheduled for between 9:30 AM and 3:00 PM to minimize conflicts with drop-offs and pick-ups for the other activities at the site. Typical office visits are estimated to be between 45 to 75 minutes long. This analysis assumes that the office visitors would have about 80 percent driving mode share.

3.2.3 Preschool (2-4 Years Old) Students

The preschool would operate from 9:00 AM to 3:30 PM on weekdays year-round, with extended care available from 8:15 AM to 5:00 PM. About 17 percent of the students are estimated to be in the extended care program. The proposed preschool would accommodate both curbside and parking drop offs and pick-ups within the Visitor Parking Lot. It is estimated that about 75 percent of the parents/guardians would choose to park their vehicle and walk to drop off or pick-up their students and about 25 percent would use the curbside loading area. The preschool check-in and check-out are expected to be outside the building and adjacent to the Visitor Parking Lot to expediate the drop-offs and pick-ups.

The transportation characteristics of the preschool students is generally based on data collected in October and November 2022 at the following two preschool facilities near the Project site:

- The Rockridge Little School at 5951 College Avenue, which is located adjacent to the Project site but is separate from the Project and does not utilize the Project parking.
- My Own Montessori at 5723 Oak Grove Avenue, one block south of the Project site.

Based on the observations at these two sites, it is estimated that about 81 percent of the students would be driven to the site with an average automobile occupancy of 1.1 students per vehicle. About 14 percent of the students would walk and about five percent of the students would bike to and from the site. It is also estimated that parents/guardians parking their vehicle to drop off or pick-up their students would typically take about four minutes for drop offs and five minutes for pick-ups.

The Project will monitor the drop-off and pick-up activities for the Project. If vehicle queues regularly spill back onto Chabot Road and/or interfere with parking lot operations, the Project is required to implement measures such as staggering drop-off and pick-up times (See Chapter 5 for additional detail on drop-off and pick-up operations including staggered hours for the various programs, and see Chapter 8 for the monitoring requirements).

3.2.4 Afterschool (5-12 Years Old) Students

The JCC of the East Bay would provide afterschool programing for elementary school students in Oakland and Berkeley during the school year. The program would be on weekdays and start after the end of the school day at between 2:20 and 3:00 PM depending on the elementary school that students attend and end at 6:00 PM. It is expected that students would arrive at the site by pre-arranged carpools with an estimated three students per car. The students would be picked up by their parents/guardians before 6:00 PM. Similar to the preschool students, it is estimated that about 81 percent of the afterschool students would be picked up by a private vehicle, with an average automobile occupancy of 1.5 students per vehicle to account for the higher potential for carpooling for older students. It is assumed that most of the afterschool drop offs and pick-ups would be at the curbside loading area.

3.2.5 Summer Camp (5-12 Years Old) Students

The summer camp would operate from 9:00 AM to 3:00 PM on weekdays during summer months only, with extended care available from 8:00 AM to 6:00 PM. About 20 percent of the students are estimated to be in the extended care program. Similar to the afterschool students, it is estimated that about 81 percent of the afterschool students would be picked up by a private vehicle, with an average automobile occupancy of 1.5 students per vehicle to account for the higher potential for carpooling for older students. It is assumed that most of the summer camp drop-offs and pick-ups would be at the curbside loading area.

3.2.6 Weekday Evening Programs

These would consist of cultural, community, and/or educational events on weekdays (Monday through Thursday) evenings starting after 6:00 PM and ending before 9:30 PM. Up to about 50 to 100 visitors are expected to attend these events. This analysis assumes that 100 percent of the attendees would drive with 1.5 persons per vehicle.

All other regular programs at the JCC would be closed during these events. Therefore, the Staff Parking Lot would be available for overflow visitor parking during these events. Access to the Staff Parking Lot would be through the emergency vehicle accessway that would connect to the Visitor Parking Lot.

3.2.7 Community/Cultural Events

The Project site would host various community and cultural events, which are described below:

- Cultural Programs/Event Rental – These would consist of cultural program, weddings, bar/bat mitzvahs, and/or other events on Saturdays between sunset and 9:30 PM and on Sundays between 9:00 AM and 9:30 PM. About 50 to 250 attendees are expected at these events.

- High Holidays – Up to five Jewish High Holiday are expected per year. The date and time of day for these events vary based on the Jewish calendar; most events are expected in September and October. Up to 500 attendees are expected at these events.

This analysis assumes that 80 percent of the attendees at these events would drive with about 2.5 persons per vehicle.

All other regular programs at the JCC would be closed on days with these events. Therefore, similar to the weekday evening programs described above, the Staff Parking Lot would be available for overflow visitor parking during these events.

3.3 Existing Site Characteristics

Currently, the Project site is partially used for office uses by the Nestle Corporation, which would be eliminated by the Project. About 8,920 square feet of space along the College Avenue frontage is occupied by five retail tenants, with operating hours ranging from 10:00 AM to 9:00 PM. The existing retail uses would remain at the site after the full occupancy of the Project. The Project parking facility is used by the Nestle employees and the retail employees and visitors.

Table 3 summarizes the existing trips at the Project site that would be eliminated by the Project based on traffic count data collected in May and July 2023 at the existing site driveway on Chabot Road. Since the parking lot is used both Nestle employees and retail uses at the site, the following assumptions are used to estimate the current trip generation by the Nestle employees:

Table 3: Existing Nestle Automobile Trip Generation

	Daily Trips	AM Peak Hour (8:00-9:00 AM)			PM Peak Hour (5:00-6:00 PM)		
		In	Out	Total	In	Out	Total
Nestle Employees[1]	70	20	1	21	1	20	21
Other Trips[2]	8	2	0	2	0	2	2
Total	***78***	***22***	***1***	***23***	***1***	***22***	***23***

Notes:

1. Based on the average traffic volume at the site driveway on Chabot Road collected in May and July 2023. Daily trips estimated by doubling the average morning peak period (7:00 to 9:00 AM), AM peak hour is the same as the average AM peak hour count at the driveway, and the PM peak hour is the opposite of the AM peak hour count.
2. Other trips include deliveries, site visitors, midday staff trips, ridesourcing trips (Uber, Lyft, Taxi), etc., assumed to be 10 percent of the Nestle employee trips.

Source: Fehr & Peers, 2024.

- All traffic entering and exiting the driveway during the morning peak period (7:00 to 9:00 AM) are generated by Nestle employees because the retail uses would not generate any trips during this period since they are not open. Thus, the daily trips generated by the Nestle employees are estimated by doubling the existing driveway volume during the morning peak period.
- All traffic using the driveway during the AM peak hour (8:00 to 9:00 AM) is generated by the Nestle employees.
- Since retail visitors use the driveway during the PM peak hour and the retail and Nestle trips cannot be separated, it is assumed that the PM peak hour trips generated by the Nestle employees is the same as the AM peak hour but in reverse direction.

The Nestle employee trip generation is increased by 10 percent to account for deliveries, site visitors, and midday staff trips. It is estimated that the Nestle employees currently generate about 78 daily trips, and 23 trips during the AM and PM peak hours on a typical weekday.

Trip Generation – Typical Weekdays

Considering the somewhat unique uses that would comprise the Project site, typical sources of trip generation data, such as the Institute of Transportation Engineers *Trip Generation Manual*, may not accurately estimate the trips generated by the Project. Thus, trip generation for the Project is estimated based on the Project transportation characteristics and assumptions described above.

Table 4 summarizes the daily as well as the peak hour trips during the morning and evening peak commute periods (AM and PM peak hours, respectively) for the Project at full occupancy for a typical weekday during non-summer and summer periods. The trip generation does not reflect the implementation of the mandatory TDM Plan, which is summarized in Chapter 8.

At full occupancy, the Project is estimated to generate about 1,060 vehicle trips on a typical weekday during the non-summer months and about 1,362 vehicle trips on a typical weekday during the summer months. It is estimated that about 12 to 13 percent of the trips are generated by Project site staff, while the remaining trips are generated by the various visitor groups.

During the non-summer months, the Project is estimated to generate about 218 trips during the AM peak hour and about 207 trips during the PM peak hour, which both correspond to about 20 percent of the daily trip generation. During the summer months, the Project is estimated to generate about 361 trips during the AM peak hour and about 141 trips during the PM peak hour, which correspond to about 26 percent and 10 percent of the daily trips generated by the site. The main difference between the non-summer and summer trip generation is due to the change from afterschool programs during the non-summer months which would serve about 100 students from 2:30 to 6:00 PM to summer camp during the summer months which would serve about 200 students mostly from 9:00 AM to 3:00 PM with about 40 students during extended care hours.

Table 4: Automobile Trip Generation at Full Occupancy on Typical Weekdays

Population	Size	Daily Trips	AM Peak Hour (8:00-9:00 AM)			PM Peak Hour (5:00-6:00 PM)		
			In	Out	Total	In	Out	Total
Non-Summer Months								
Staff[1]	130	138	26	0	26	0	21	21
Office Visitors[2]	100	160	4	0	4	0	5	5
Preschool Students[3]	120	356	89	79	168	31	31	62
Afterschool Students[4]	100	174	0	0	0	54	46	100
Evening Program Visitors[5]	100	134	0	0	0	0	0	0
Other Trips[6]		96	12	8	20	9	10	19
Non-Summer Total		***1,058***	***131***	***87***	***218***	***94***	***113***	***207***
Existing Trips[7]		*-78*	*-22*	*-1*	*-23*	*-1*	*-22*	*-23*
Non-Summer Net New		***980***	***109***	***86***	***195***	***93***	***91***	***184***
Summer Months								
Staff[1]	150	160	31	0	31	0	22	22
Office Visitors[2]	100	160	4	0	4	0	5	5
Preschool Students[3]	120	356	89	79	168	31	31	62
Summer Camp Students[7]	200	428	61	64	125	21	18	39
Evening Program Visitors[5]	100	134	0	0	0	0	0	0
Other Trips[8]		124	19	14	33	5	8	13
Summer Total		***1,362***	***204***	***157***	***361***	***57***	***84***	***141***
Existing Trips[7]		*-78*	*-22*	*-1*	*-23*	*-1*	*-22*	*-23*
Summer Net New		***1,284***	***182***	***156***	***338***	***56***	***62***	***118***

Notes:
1. Assumes 53 percent driving mode share consistent with the TIRG. No TDM assumed.
2. Assumes 80 percent driving mode share.
3. Based on observations at similar sites in the Rockridge area, about 81 percent driving mode share with 1.1 students per vehicle. Each student driven to/from the site would generate four trips per day as their parents/guardians would drive to and from the site for both the morning drop off and afternoon/evening pick-up.
4. Assumes all drop-offs by arranged carpool with three students per vehicle and 81 percent of pick-ups by private vehicle with 1.5 students per vehicle.
5. Assumes 100 percent driving mode share with 1.5 persons per vehicle.
6. Other trips include deliveries, other site visitors, midday staff trips, ridesourcing trips (Uber, Lyft, Taxi), etc., assumed to be 10 percent of the total automobile trips.
7. See Table 3 for details.
8. Assumes 81 percent driving mode share with 1.5 students per vehicle. Each student driven to/from the site would generate four trips per day as their parents/guardians would drive to and from the site for both the morning drop off and afternoon/evening pick-up.

Source: Fehr & Peers, 2024.

Table 4 also accounts for the existing trips generated by the Nestle Corporation that would be eliminated by the Project. These trips correspond to about seven percent of the daily and 11 percent of the AM and PM peak hours generated by the Project during the non-summer months and about six percent of the daily and AM peak hour and 16 percent of the PM peak hour trips generated by the Project during the summer months.

Figure 2 and **Figure 3** present the vehicle trips generated by a fully occupied Project by hour on a typical weekday during the non-summer and summer months, respectively. During non-summer months, trip generation typically peaks between 8:00 and 9:00 AM when most pre-school students are dropped off and between 3:00 and 4:00 PM when most pre-school students are picked up and between 5:00 and 6:00 PM when most afterschool students are picked-up. During summer months, the morning and afternoon peaks (8:00 to 9:00 AM and 3:00 to 4:00 PM) are estimated to be higher than during non-summer months because of some overlap between the preschool and summer camp pick-ups.

3.3.1 Trip Generation – Non-Automobile Trips

Table 5 presents the trip generation estimates for all travel modes for the Project based on the methodology described in the TIRG.

Figure 2: Trip Generation by Hour on a Typical non-Summer Weekday at Full Occupancy

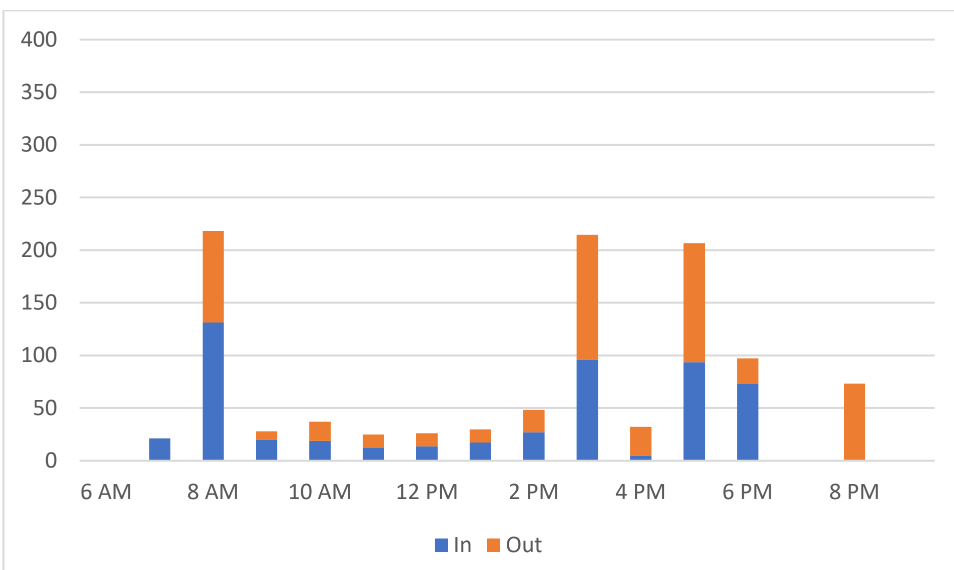


Figure 3: Trip Generation by Hour on a Typical Summer Weekday at Full Occupancy

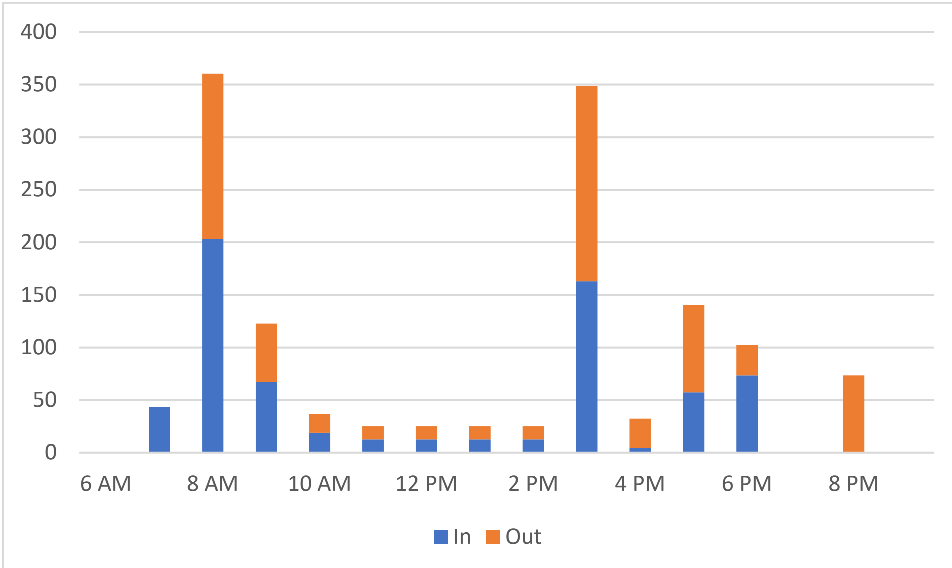


Table 5: Trip Generation by Travel Mode at Full Occupancy on Typical Weekdays

Travel Mode	Mode Share Adjustment Factors[1]	Daily	AM Peak Hour	PM Peak Hour
Non-Summer Months				
Automobile[2]	0.531	1,058	218	207
Transit	0.297	592	122	116
Bike	0.051	102	21	20
Walk	0.105	209	43	41
Non-Summer Total		***1,961***	***404***	***384***
Summer Months				
Automobile[2]	0.531	1,362	361	141
Transit	0.297	762	202	79
Bike	0.051	131	35	14
Walk	0.105	269	71	28
Summer Total		***2,524***	***669***	***262***

Notes:
1. Based on the City of Oakland's TIRG for areas within 0.5 mile of a BART station.
2. See Table 4 for details.

Source: Fehr & Peers, 2024.

3.4 Trip Generation – Special Events

In addition to typical operations described above, the Project site can also be used for special events, which would consist of performances, weddings, bar/bat mitzvahs, or other events, which would occur on weekdays after 6:00 PM, after sundown on Saturdays, or on Sundays. These events may be attended by between 50 and 250 attendees. The Project would also host services for up to five Jewish High Holidays, which may occur on any day of the week, with up to 500 attendees. All other JCC activities and programs would be closed during these special events and High Holidays. Attendees for these special events are estimated to have about 80 percent driving mode share (75 percent driving their own vehicle and five percent using ridesourcing vehicles) with 2.5 people per car. Thus, a capacity special event with 250 attendees would generate about 170 vehicle trips and a High Holiday capacity event with 500 attendees would generate about 340 vehicle trips.

4. Vehicle Miles Traveled (VMT) Assessment

This chapter assesses the impacts of the Project on VMT, in accordance with CEQA requirements and the adopted City of Oakland's TIRG. Since some land use development projects may have characteristics that are highly likely to meet thresholds for a less than significant impact on VMT, the City of Oakland, consistent with the guidance provided by the State Office of Planning and Research (OPR), has developed screening criteria to quickly identify these projects without doing extensive analysis. This chapter provides a background on VMT analysis, discusses CEQA Guidelines requirements and the City of Oakland's VMT screening criteria and their applicability to the Project.

4.1 Background

OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA* recommends evaluating VMT impacts using an efficiency-based version of the metric, such as VMT per resident for residential developments or VMT per worker for office or non-residential developments. Consistent with OPR's guidelines, City of Oakland uses the metric of home-work VMT per worker for evaluating the impacts of employment-based and most non-residential uses including childcare. The home-work VMT per worker measures all of the worker commute VMT by a motor vehicle on a typical weekday between homes and workplaces and divides that VMT by the number of workers.

The City of Oakland primarily uses the Alameda County Transportation Commission (Alameda CTC) Countywide Travel Demand Model to estimate VMT. The Alameda CTC Model, which covers the entire nine-county Bay Area, is a regional travel demand model that uses socio-economic data and roadway and transit network assumptions to forecast traffic volumes, transit ridership, and VMT using a four-step modeling process that includes trip generation, trip distribution, mode split, and trip assignment. This process accounts for changes in travel patterns due to future growth and expected changes in the transportation network. This analysis uses the latest version of the Alameda CTC Model, which was released in May 2019. The Model is based on the Metropolitan Transportation Commission (MTC) Plan Bay Area 2040 (i.e., Sustainable Communities Strategy) transportation network and land uses for 2020 and 2040.

As a regional planning tool, the Alameda CTC Model was developed through an extensive model validation process and is intended to replicate existing vehicular travel behavior. Therefore, it can provide a reasonable estimate of the VMT generated in various geographic areas on a typical weekday, as well as estimate future VMT that reflects planned local and regional land use and transportation system changes.

4.2 CEQA Guidelines Requirements

CEQA Guidelines Section 15064.3(b)(1) states that "Generally, projects within one-half mile of either an existing major transit stop or a stop along an existing high-quality transit corridor should be presumed to cause a less than significant transportation impact." Accordingly, a project's transportation impacts are presumed to be less than significant if it meets either of the following criteria:

1. The project is located within one-half mile of an existing major transit stop[2]
2. The project is located within one-half mile of a stop along an existing high-quality transit corridor[3]

The proposed Project meets both criteria:

1. It is located within 0.25 mile of the Rockridge BART Station, which is considered a major transit stop as defined in the CEQA Guidelines.
2. It is located adjacent to bus stops along College Avenue, which are served by AC Transit Line 51B. Since AC Transit Line 51B operates at 12-minute intervals during the weekday peak commute periods, College Avenue is considered a high-quality transit corridor.

Therefore, it can be presumed that the Project would cause a less than significant transportation impact.

4.3 City of Oakland VMT Screening

Although it can be presumed that the Project would cause a less than significant transportation impact per CEQA Guidelines as described above, this section applies the City of Oakland's VMT screening criteria to the Project. According to the City of Oakland's TIRG, VMT impacts would be less than significant for a development project if one or more of the identified screening criteria outlined below are met:

1. Small Projects: The project generates fewer than 100 vehicle trips per day
2. Low-VMT Areas: The project meets map-based screening criteria by being located in an area that exhibits below-threshold VMT, or 15 percent or more below the regional average
3. Near Transit Stations: The project is located in a Transit Priority Area[4] or within one-half mile of a Major Transit Stop and satisfies the following:
    - Has a Floor Area Ratio (FAR) of more than 0.75

[2] CEQA Guidelines Section 21064.3 defines major transit stop as a site containing an existing rail or bus rapid 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.

[3] CEQA Guidelines Section 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.

[4] According to the CEQA Guidelines, 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 (see footnotes 2 and 3 for definition).

- 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)

The applicability of these screening criteria to the Project are described below.

4.3.1 Criterion #1: Small Projects

The Project would generate more than 100 vehicle trips per day and therefore does not meet Criterion #1.

4.3.2 Criterion #2: Low-VMT Area

The City of Oakland uses the VMT maps developed by the Alameda CTC based on their Countywide Travel Demand Model to identify low-VMT areas. According to the TIRG, childcare and school uses should be treated as office (i.e., employment-based uses) for VMT screening purposes. Thus, this analysis uses home-work VMT per worker as estimated by the Alameda CTC Model to screen the childcare and school, as well as the office components of the Project. **Table 6** shows the estimated 2020 and 2040 household home-work VMT per worker for TAZ 134,[5] the TAZ in the Alameda CTC Travel Demand Model in which the Project is located, as well as the applicable VMT thresholds of 15 percent below the regional average. As shown in Table 6, the 2020 and 2040 estimated averages of home-work VMT per worker in the Project TAZ are less than the regional averages minus 15 percent, satisfying Criterion #2.

Table 6: Daily Vehicle Miles Traveled Summary

Metric	Home-Work VMT per Worker (2020)	Home-Work VMT per Worker (2040)
Project TAZ (Alameda CTC Model TAZ 134) [1]	14.0	14.4
Regional Average[1]	18.1	18.2
Regional Average minus 15% (i.e., screening criterion)	15.4	15.4
Meet Screening Criterion?	Yes	Yes

Notes:
1. Alameda CTC Travel Demand Model results (https://www.alamedactc.org/planning/sb743-vmt/) accessed in January 2024.
Source: Fehr & Peers, 2024.

[5] Transportation analysis zones, or TAZs, are used in transportation planning models to represents defined geographical areas ranging from a few city blocks in the downtown core, to multiple blocks in outer neighborhoods, to even larger geographic areas in lower-density neighborhoods for transportation analysis and other planning purposes.

The assembly space component of the Project can be considered a religious institution since it would primarily host religious activities. According to the TIRG, religious institutions can be treated as retail for VMT screening purposes and retail uses smaller than 80,000 square feet can be considered local serving. Since the assembly space component of the Project is smaller than 80,000 square feet, it is considered local serving and in a Low-VMT area. Thus, all Project components are in a Low-VMT area and the Project would satisfy Criterion #2.

4.3.3 Criterion #3: Near Transit Stations

The Project is located about 0.25 miles from the Rockridge BART station, which is considered a Major Transit Stop. The Project is also adjacent to frequent bus service along College Avenue (Line 51B with 12-minute headways during the peak commute period as of January 2024), which is considered a high-quality transit corridor. Thus, the Project is in a transit priority area. The Project would not satisfy Criterion #3 because it would not meet all three conditions for this criterion:

- The Project has a FAR of 0.70, which is less than 0.75.
- Consistent with the Section 21155 of the California Public Resources Code and as required by the California Assembly Bill 2097, City of Oakland Municipal Code (Sections 17.116.070 and 17.116.080) does not require parking minimums for developments within a 0.5-mile of a major transit stop. Since the Project is within 0.25 mile of the Rockridge BART Station, which is considered a major transit stop, no parking minimums apply to the Project. The Project would reduce the on-site parking supply from 140 to 90 parking spaces. However, as described in Section 5.2, the estimated parking demand at full Project occupancy would exceed the proposed parking supply. Thus, the Project would provide fewer parking spaces than other typical uses, and the Project would meet this condition.
- The Project is located within the North Oakland/Golden Gate Priority Development Area (PDA) as defined by Plan Bay Area and is therefore consistent with the region's Sustainable Communities Strategy.

4.3.4 VMT Screening Conclusion

The Project would satisfy the Low-VMT Area (#2) criterion and is therefore presumed to have a less than significant impact on VMT.

4.4 VMT Assessment Conclusion

The Project would have a less than significant impact on VMT because it would meet CEQA Guidelines Section 15064.3(b)(1) requirements for locating within one-half mile of an existing major transit stop and a stop along an existing high-quality transit corridor. The Project would also meet the City's screening criterion for locating in a Low-VMT area.

5. Site Access and Circulation

This chapter provides an evaluation of access and circulation for all travel modes, based on the site plan, dated September 9, 2024, and provided in **Appendix A**, and a review of existing conditions in the site vicinity is summarized below.

5.1 Automobile Access and Circulation

Primary automobile access to the Project would be through driveways on Claremont Avenue and Chabot Road, which are existing driveways serving the site. Both driveways are described below.

The driveway on Claremont Avenue would serve the 49-space Staff Parking Lot. It would be gated and closed to the public. Project staff that have access to the Staff Parking Lot would be able to open the gate to access the Staff Parking Lot. The gate would be offset from the adjacent sidewalk on Claremont Avenue by about 20 feet (approximately one car length), allowing an inbound vehicle waiting to enter the driveway to have space to wait for the gate to open without blocking the sidewalk. Considering the low traffic volume expected to use this driveway (estimated to be up to 31 vehicles per hour), minimal queuing and spillover into the adjacent sidewalk or travel lane is expected. The driveway would be about 20 feet wide and allow left and right turns into and out of the driveway. Exiting vehicles would have adequate sight distance of pedestrians on the adjacent sidewalk on both sides of the driveway.[6] Currently, on-street parking is provided on both sides of this driveway and parked vehicles may block sight lines between exiting vehicles and cyclists or vehicles on either direction of Claremont Avenue.

The driveway on Chabot Road would serve the 39-space Visitor Parking Lot. The driveway would be open during business hours and available for parking for Project visitors (including visitors to the retail tenants fronting College Avenue) and would accommodate a curbside passenger loading area. The driveway would be about 20 feet wide and allow left and right turns into and out of the driveway. Exiting vehicles would have adequate sight distance for pedestrians on the adjacent sidewalk on both sides of the driveway. Currently, on-street parking is provided on both sides of this driveway and parked vehicles may block sight lines between exiting vehicles and cyclists or vehicles on either direction of Chabot Road. The driveway on Chabot Road is located about 50 feet west of College Avenue. Thus, queues of two or more vehicles on the eastbound Chabot Road approach at the College Avenue/Chabot Road intersection can spill back and block the driveway.

The Project would continue to use one driveway on Chabot Road and three driveways on Claremont Avenue that provide access for the smaller buildings in the campus. The Project would not modify access

[6] 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.

for these driveways. The Project would eliminate one driveway on Claremont Avenue that currently provides access to the parking area for the 6028 Claremont Avenue Building.

> **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:
>
> - Provide 20 feet of red curb on both sides of the Staff Parking Lot driveway on Claremont Avenue
> - Provide 20 feet of red curb on both sides of the Visitor Parking Lot driveway on Chabot Road
> - Provide "KEEP CLEAR" pavement markings on Chabot Road at the Visitor Parking Lot driveway

The Staff Parking Lot would provide one-way counterclockwise circulation with angled parking spaces on both sides of the south aisle and perpendicular parking spaces on the other aisles. The width of the drive aisles would range between 15 feet for the aisle with angled parking and at least 23 feet for the aisles with perpendicular parking, which would provide adequate space for vehicles to maneuver into and out of the spaces.

The Visitor Parking Lot would provide one-way counterclockwise circulation with the east aisle accommodating angled parking on the west side and passenger loading on the east side, and the west aisle accommodating perpendicular parking on both sides. The east aisle would be 15 feet wide and accommodate vehicles maneuvering into and out of the angled parking spaces and the passenger loading spaces. The west aisle would be 23 feet wide, which would be adequate space for vehicles to maneuver into and out of the parking spaces.

An emergency vehicle accessway would connect the Staff and Visitor Parking Lots. The accessway would be closed during typical weekday business hours to be used by emergency vehicles only. However, the accessway would be open to allow overflow visitor parking in the Staff Lot for weekday evening programs or other special events. Vehicles parked in the Staff Parking Lot for evening programs or special events should exit through the gate on Claremont Avenue in order to minimize potential conflicts in the Visitor Parking Lot.

> **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:
>
> - During events where visitors would park in the Staff Parking Lot, allow visitors to exit through the Claremont Avenue driveway.

5.1.1 Passenger Vehicle Loading

The Visitor Parking Lot would provide a curbside passenger loading zone to accommodate most drop-offs and pick-ups for student-related activities, as well as site visitors that use ridesourcing. The curbside passenger loading would be located along the east and north sides of the Visitor Parking Lot, and provide about 120 feet of loading space which would accommodate passenger loading for up to about five vehicles. The Visitor Parking Lot would also provide about 60 feet of queueing space, corresponding to about three vehicles, before queues spill back onto the sidewalk on Chabot Road.

Project staff will be present at the passenger loading area to facilitate and expediate the drop-off and pick-up process. Most sign-ins during regular drop-offs and sign-outs during regular pick-ups would be at or near the passenger loading area, instead of inside the building, to further expediate the drop-off and pick-up process.

The Project would stagger the start and end times of the various activities to reduce the peak demand at the passenger loading area. Drop offs and pick-ups for the various student activities in the passenger loading area are described below:

- Preschool – Although curbside drop off and pick-up would be available for preschool students, light usage (about 25 percent) is expected because younger students generally take longer to load and unload, parents/guardians often need to assist their student in getting out of or into the vehicle, and although most sign-ins and sign-outs would be in the parking lots, some parents/ guardians may need to accompany the students to the classroom. Curbside drop off and pick-up for preschool would be available for regular drop-offs (approximately 8:45 to 9:00 AM), regular pick-ups (approximately 3:30 to 4:00 PM), and late pick-ups (approximately 5:00 to 5:15 PM).
- Afterschool – Most drop-offs would be at the passenger vehicle loading area by prearranged carpools and would be from approximately 2:45 to 3:15 PM. Most pick-ups would be at the passenger vehicle loading area by parents/guardians and would be scheduled from approximately 5:30 to 6:00 PM.
- Summer Camp – Most drop-offs and pick-ups would be at the passenger vehicle loading area with early drops-offs scheduled from approximately 8:00 to 8:15 AM, regular drop-offs from 8:30 to 8:45 AM and 9:00 to 9:15 AM, regular pick-ups from 3:00 to 3:30 PM, and late pick-ups from 5:45 to 6:00 PM.

As a result, the visitor parking lot is expected to generally accommodate vehicle queues with minimal spill back onto Chabot Road. **Table 7** presents one potential scenario for staggering the drop-offs and pick-ups for the various activities assuming full occupancy of all project components. Table 7 also presents the estimated demand and queues at the curbside passenger loading area during each activity. The approximately eight queuing spaces provided in the Visitor Parking Lot would accommodate the estimated queues for each student-related activity under typical operating conditions and with staggered drop-offs and pick-ups.

Table 7: Estimated Curbside Loading Activity under Typical Conditions

Project Use	Activity	Time Period	Percent Students using Curbside Loading	Average Dwell Time per Vehicle	Estimated Vehicle Demand	Estimated Queue
All Year						
Pre-School	Regular Drop-Off	8:45 to 9:00 AM	25%	2 minutes	18	6
Pre-School	Regular Pick-up 1	3:30 to 3:45 PM	25%	2.5 minutes	7	2
Pre-School	Regular Pick-Up 2	3:45 to 4:00 PM	25%	2.5 minutes	7	2
Pre-School	Late Pick-Up	5:00 to 5:15 PM	25%	2.5 minutes	8	3
Non-Summer Months Only						
Afterschool	Regular Drop-Off 1	2:45 to 3:00 PM	100%	1.5 minutes	10	2
Afterschool	Regular Drop-Off 2	3:00 to 3:15 PM	100%	1.5 minutes	30	5
Afterschool	Regular Pick-Up 1	5:30 to 5:45 PM	80%	2 minutes	21	6
Afterschool	Regular Pick-Up 2	5:45 to 6:00 PM	80%	2 minutes	21	6
Summer Months Only						
Summer Camp	Early Drop-Off	8:00 to 8:15 AM	80%	1.5 minutes	17	5
Summer Camp	Regular Drop-Off 1	8:30 to 8:45 AM	80%	1.5 minutes	34	7
Summer Camp	Regular Drop-Off 2	9:00 to 9:15 AM	80%	1.5 minutes	34	7
Summer Camp	Regular Pick-Up 1	3:00 to 3:15 PM	80%	2 minutes	23	6
Summer Camp	Regular Pick-Up 2	3:15 to 3:30 PM	80%	2 minutes	23	6
Summer Camp	Regular Pick-Up 3	3:30 to 3:45 PM	80%	2 minutes	23	6
Summer Camp	Late Pick-Up	5:45 to 6:00 PM	80%	2 minutes	17	6

Source: Fehr & Peers, 2024.

In addition to the student drop-offs and pick-ups, the passenger loading area would also accommodate other visitors, such as visitors to the business/administrative offices that would be dropped off or picked-up. Most of these visits are expected outside of the student drop-off and pick-up periods and would not interfere with the student drop-off and pick-up activities.

Strategy O in the TDM Program (page 59) requires the Project to monitor the drop off and pick-up operations at the passenger loading area as part of the required annual TDM Plan monitoring. If vehicle queues spill back onto Chabot Road and/or interfere with parking lot operations, the Project is required to implement additional measures such as further staggering drop off and pick-up times, using apps to facilitate drop offs and pick-ups, relocating some of the drop offs and/or pick-ups offsite, expanding carpool and ride-matching assistance (TDM Strategy J), and/or Afterschool/Camp Shuttles (TDM Strategy K).

5.2 Automobile Parking

This section addresses the automobile parking required by the City of Oakland, the estimated parking demand generated by the Project, and on-street parking.

5.2.1 Automobile Parking Requirements

The City of Oakland Municipal Code establishes minimum and maximum automobile parking requirements for various activities. Consistent with the Section 21155 of the California Public Resources Code and as required by the California Assembly Bill 2097, Municipal Code Sections 17.116.070 and 17.116.080 do not require parking minimums for civic or commercial developments located within a 0.5-mile of a major transit stop. Since the Project is within 0.25 mile of the Rockridge BART Station, which is considered a major transit stop, no parking minimums apply to the Project. In addition, the Municipal Code does not establish any parking maximums for the Project. Thus, the reduction in onsite parking spaces from 140 to 90 parking spaces as proposed by the Project is consistent with the City's requirements.

The 49-space Staff Parking Lot would provide two ADA-accessible parking spaces and the 39-space Visitor Parking Lot would provide three ADA-accessible parking spaces including one van-accessible parking space. Parking facilities with 25 to 49 parking spaces are required to provide at least two ADA accessible parking spaces and at least one of every six parking spaces must be van accessible. Thus, the Project would meet the minimum requirement for accessible and van accessible parking spaces.

5.2.2 Estimated Parking Demand

The parking demand for the Project is estimated using the same Project transportation characteristics and assumptions used to estimate the Project the trip generation presented in Chapter 3. Since Project staff and visitors would use separate parking facilities, the parking demand for each group is presented separately.

5.2.2.1 Staff Parking

The Project would provide 51 parking spaces for staff parking comprised of 49 spaces in the Staff Parking Lot and two spaces in the parking lot at 5939 and 5941 Chabot Road. **Figure 4** and **Figure 5** present the parking demand generated by staff at full occupancy by hour on a typical weekday during the non-summer and summer months, respectively. These estimates were developed based on the assumptions used to estimate the Project trip generation presented in Chapter 3. Similar to the trip generation estimates, the parking demand estimates in Figure 4 and Figure 5 do not account for the mandatory TDM Plan that the Project is required to implement.

Figure 4: Parking Demand at the Staff Parking Lot by Hour on a Typical non-Summer Weekday at Full Occupancy

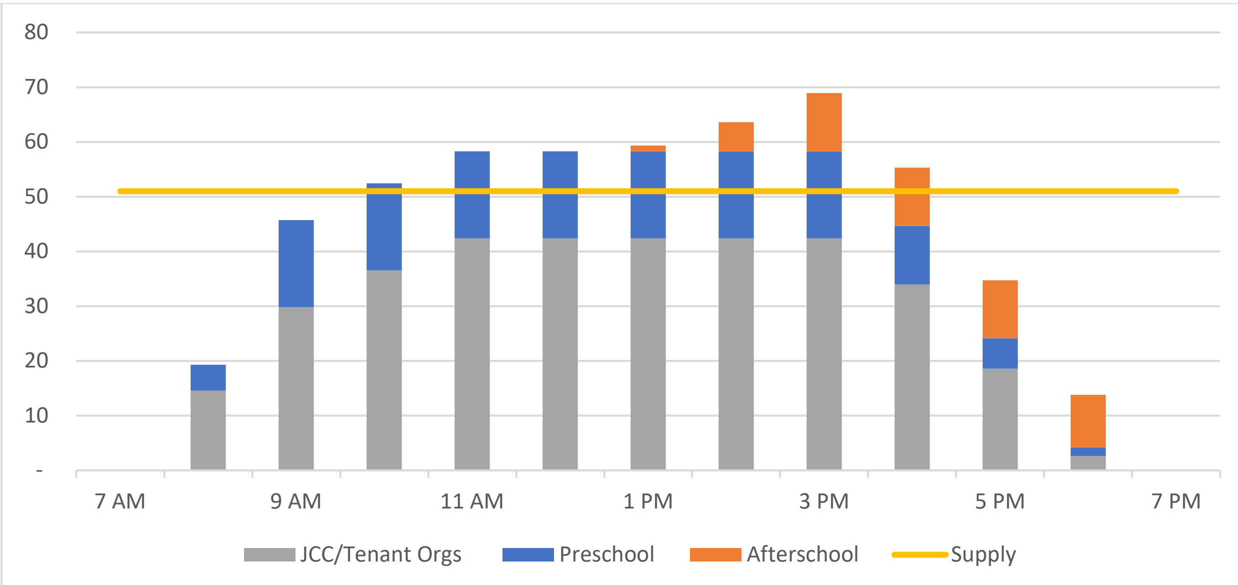
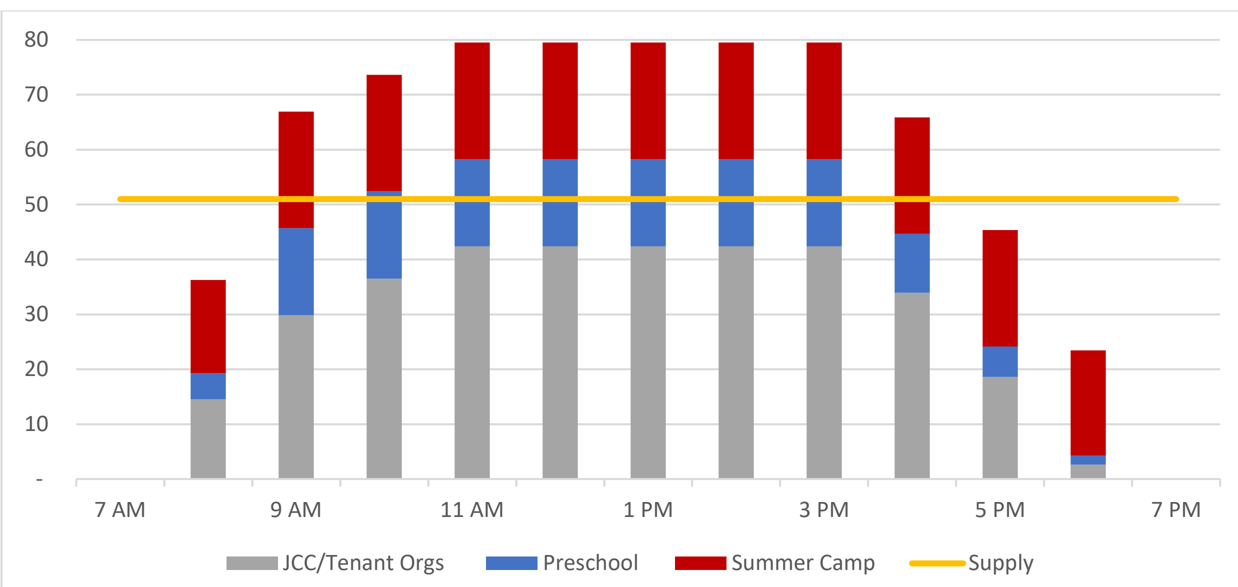


Figure 5: Parking Demand at the Staff Parking Lot by Hour on a Typical Summer Weekday at Full Occupancy



The various uses at the Project combined would have up to about 130 staff during the non-summer months and 150 staff during the summer months on typical weekdays. During both non-summer and summer months, the staff parking demand is estimated to be above the proposed parking supply of 52 parking spaces throughout most of a typical weekday without the implementation of a TDM Plan. The peak parking during non-summer months is estimated to be about 69 vehicles around 3:00 PM and about 80 vehicles from about 11:00 AM to 3:00 PM during the summer months.

As discussed in Chapter 8, the required TDM Plan is estimated to reduce the motor vehicle trips and the parking demand generated by the Project staff by between 22 to 39 percent. **Table 8** shows the peak parking demand for staff and the effectiveness of the TDM Plan in reducing parking demand on opening day and full occupancy of the Project during non-summer and summer months.

The implementation of the required TDM Plan would reduce the staff parking demand so that the Staff Parking Lot would generally meet the staff parking demand on opening day. However, as enrollment in the student activities would increase, the employment needed to support these activities would also increase. As a result, the peak parking demand at full occupancy may exceed the available parking supply after the implementation of the TDM Plan.

As described in the next subsection, the Visitor Parking Lot is estimated to operate below capacity on typical weekdays, with up to five parking spaces available during daytime peaks. These parking spaces may be available for staff that could not park in the Staff Parking Lot.

Table 8: TDM Effectiveness in Reducing Staff Parking Demand

	Opening Day		Full Occupancy	
	Non-Summer	Summer	Non-Summer	Summer
Staff Population	113	126	130	150
Peak Parking Demand without TDM	60	67	69	80
Reduction in Parking Demand due to TDM (22%-39%)[1]	-13 to -23	-15 to -26	-15 to -27	-18 to -31
Peak Parking Demand with TDM	37 to 47	41 to 52	42 to 54	49 to 62
Parking Supply	51	51	51	51
Surplus/Deficit	Surplus of 4 to 14	Surplus of 10 to deficit of 1	Surplus of 9 to deficit of 3	Surplus of 2 to deficit of 11

Notes

1. As summarized in Table 15, the required TDM Plan is estimated to reduce motor vehicle trips and parking generated by the Project staff by between 22 to 39 percent.

Source: Fehr & Peers, 2024.

Most Project staff would not be able to use on-street parking during weekday business hours because most on-street parking in the Project vicinity is controlled by meters or RPP and restricted to two hours or less. In addition, limited off-site public parking is available in the Project vicinity. Thus, the limited parking supply provided by the Project would encourage staff not to drive and instead use other travel modes to access the site, is consistent with the TDM Plan that the Project is required to implement.

> **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:

- Monitor the occupancy of the Staff Parking Lot and the staff parking permits issued.
- If needed, allow up to five staff to park in the Visitor Parking Lot with a special permit.

5.2.2.2 Visitor Parking

The 39-space Visitor Parking Lot would provide parking for site visitors including drop-off and pick-up for the various student activities (preschool year-round, afterschool during non-summer months, and summer camp during summer months), visitors to the business/administrative offices, attendees at evening and cultural programs, as well as the visitors to the retail tenants fronting College Avenue. To the extent feasible, the Project will stagger the start and end times of the student activities, as well as the visits to the business/administrative offices to minimize the peak parking demand in the Visitor Parking Lot. Parents/guardian parking their car are expected to be at the site for a short period of time (generally about five minutes) to drop off or pick-up their students since most of the signing in and out of students would occur outside of the building. Other visitors, such as visitors to the business/administrative offices and retail are expected to be at the site for less than two hours.

Figure 6 and **Figure 7** present the parking demand generated by visitors to each project component at full Project occupancy by hour on a typical weekday during the non-summer and summer months, respectively. These estimates were developed based on the same assumptions used to estimate the Project trip generation presented in Chapter 3.

On a typical weekday, parking demand in the Visitor Parking Lot during the daytime is estimated to peak in the afternoon (from about 3:00 to 5:00 PM) for both non-summer and summer months when the pick-up time for the student activities would coincide with high demand for retail, and up to 34 parking spaces are estimated to be occupied.

For evening program with capacity attendance, the visitor parking demand would be about 76 parking spaces. The Staff Parking Lot would be available for the overflow parking. The emergency vehicle accessway that would connect the staff and visitor parking lots and would be closed during the daytime would be opened to allow evening program attendees to park in the Staff Parking Lot.

Figure 6: Parking Demand at the Visitor Parking Lot by Hour on a Typical non-Summer Weekday at Full Occupancy

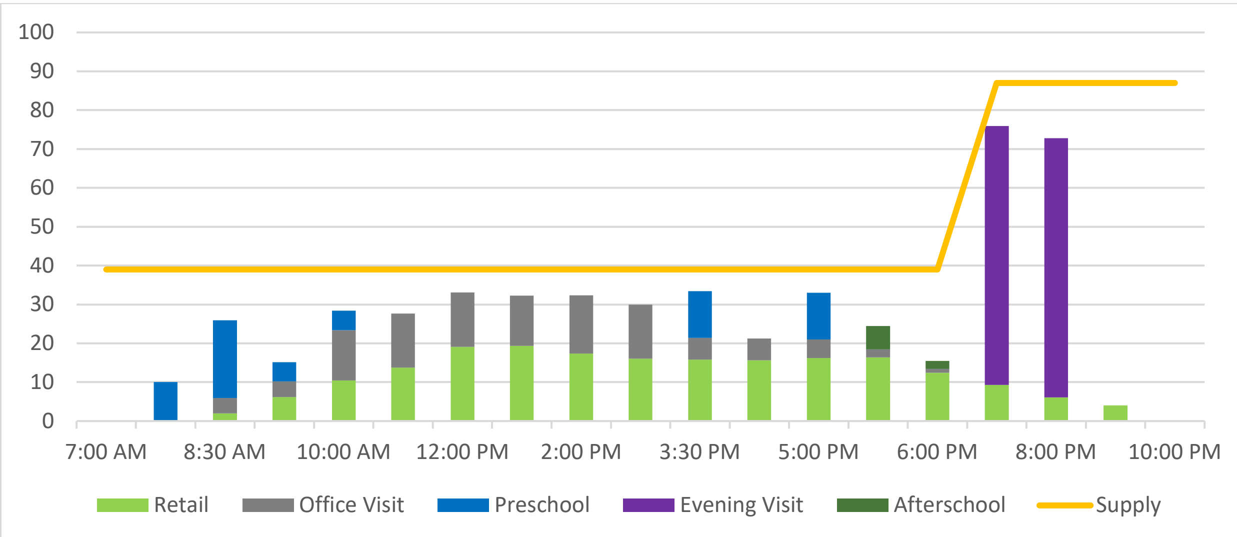
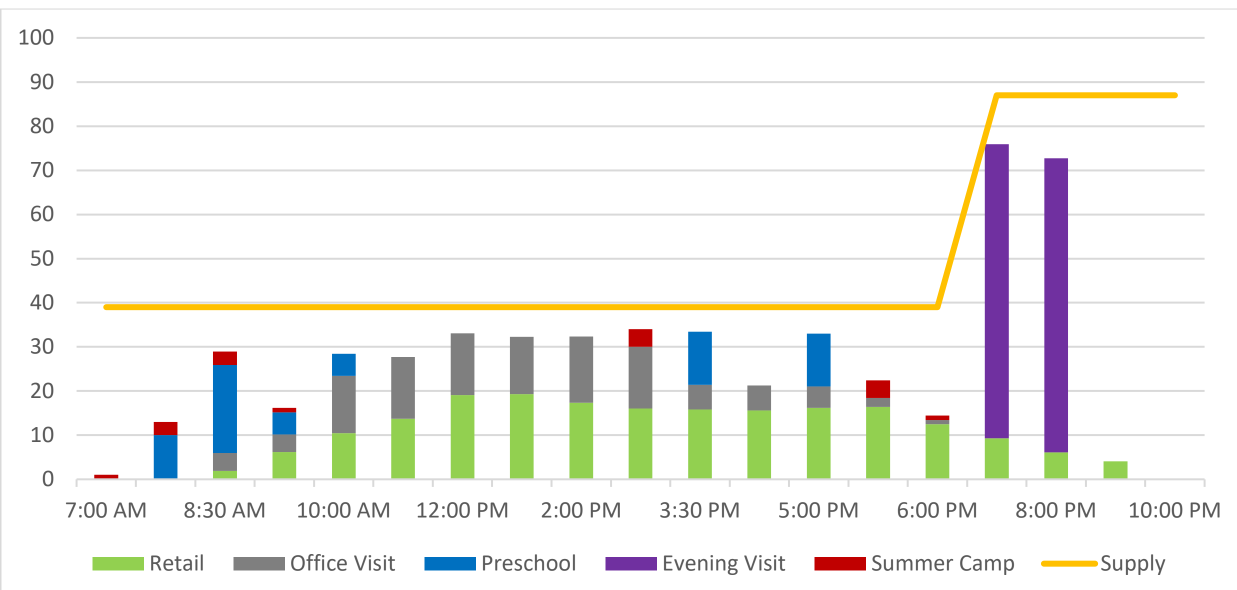


Figure 7: Parking Demand at the Visitor Parking Lot by Hour on a Typical Summer Weekday at Full Occupancy



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:

- Limit parking duration for 15 parking spaces in the Visitor Parking Lot to five minutes during peak drop off and pick-up times (approximately from 8:30 to 9:15 AM and from 3:15 to 3:45 PM on weekdays) to ensure availability for pre-school pick-ups and drop offs. Limit Parking duration in these spaces to two hours at all other times.
- Limit parking duration for other parking spaces in the Visitor Lot to two hours during weekday business hours.
- If the Staff Parking Lot is at capacity, allow a limited number of staff (maximum of five) to park in the Visitor Parking Lot with a special permit.
- Regularly monitor conditions in the Visitor Parking Lot and adjust operations if necessary.
- If necessary, provide staff to enforce parking time limit in the Visitor Parking Lot.

5.2.2.3 Parking for Special Events

The Project would host cultural programs, weddings, bar/bat mitzvahs, and/or other events on Saturdays between sunset and 9:30 PM and on Sundays between 9:00 AM and 9:30 PM with up to 250 attendees and five high holidays, which may occur on any day of the week, with up to 500 attendees. Based on the assumptions presented in Chapter 3, a cultural program/event rental with 250 attendees is estimated to have a parking demand of about 75 vehicles and a high holiday event with 500 attendees is estimated to have a parking demand of about 150 vehicles.

Since all other regular programs at the JCC, except the retail tenants along College Avenue, would be closed during the special events, about 67 spaces in both the Visitor and Staff Parking Lots combined would be available for event use. Thus, the on-site parking supply would not accommodate events with more than 220 attendees.

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:

- The staff lot will not be utilized for pickleball court use when it is required to be utilized to accommodate JCC staff and event parking
- Encourage the use of non-automobile travel modes by promoting the availability of these modes as part of the marketing for these events, including websites, direct emails, etc.
- For events with more than 220 attendees, implement one or more of the following:
    - Provide attendant parking within the Staff and/or Visitor Parking Lots
    - Lease off-site parking facilities to accommodate the estimated parking demand

- If the identified off-site parking is located more than 0.25 miles from the Project, provide a shuttle to transport attendees between the JCC and the parking facility
- Require event attendees to reserve their parking spaces in advance and/or as part of registering for the event to ensure that adequate parking is provided and minimize visitors driving to locate parking
- Communicate on-street parking restrictions and the limited off-street parking supply as part of the marketing for these events, including websites, direct emails, etc.

5.2.3 On-Street Parking

The streets in the vicinity of the Project provide on-street parking on both sides of the street. Most parking on College Avenue is controlled by parking meters and limited to two hours or less during business hours on weekdays and Saturdays. Most parking on Chabot Road and other residentials streets in the Project vicinity is controlled by residential parking permits (RPP) where on-street parking for non-residents without the appropriate permit is restricted to two hours on weekdays from 8:00 AM to 6:00 PM. On-street parking on Claremont Avenue along the Project frontage is not metered or controlled by RPP, however most parking along this segment of Claremont Avenue has a two-hour time limit on weekdays and Saturdays from 8:00 AM to 6:00 PM.

As a result of the time restrictions on on-street parking, Project staff who cannot park on-site would not be able to use on-street parking in the vicinity of the Project, and would need to shift to other travel modes, find alternative off-street parking locations, or use on-street parking several blocks from the site where it is not controlled.

Most Project visitors would be able to use on-street parking since they would be at the Project site for less than two hours. However, minimal usage of on-street parking by Project visitors is expected because, as described in the previous subsection, the Project would provide adequate parking in the Visitor Parking Lot to meet the estimated visitor parking demand. Most Project visitors are expected to use the Visitor Parking Lot because it would be free and conveniently located adjacent to the Project security entrance gate.

5.3 Bicycle Access and Bicycle Parking

Figure 8 shows the existing and planned bicycle facilities in the Project vicinity. Existing designated bicycle facilities serving the Project site consist of:

- Class 2 bicycle lanes on College Avenue adjacent to the Project site.
- Neighborhood Bike Route (sharrows) on Chabot Road east of College Avenue

The City's *Oakland Bike Plan (Let's Bike Oakland,* 2019*)* proposes the following facilities in the vicinity of the Project:

- Class 2 bicycle lanes on Claremont Avenue between SR 24 in the south and the Berkeley City border in the north. City of Oakland plans to explore the implementation of this modification as part of an upcoming repaving project on Claremont Avenue. This modification would be explored as part of a larger road-diet study along Claremont Avenue to improve bicycle and pedestrian safety. However, the feasibility of such a study, or what it may recommend, is dependent on variables including staff resources, funding availability, and design challenges identified during such a study.

Currently, no designated bicycle parking is provided within the Project site. The sidewalk on College Avenue along the Project frontage accommodates short-term bicycle parking spaces (i.e., bike racks) for six bicycles.

The following Bay Wheels bike-share stations are located within 0.25 miles walking distance of the Project:

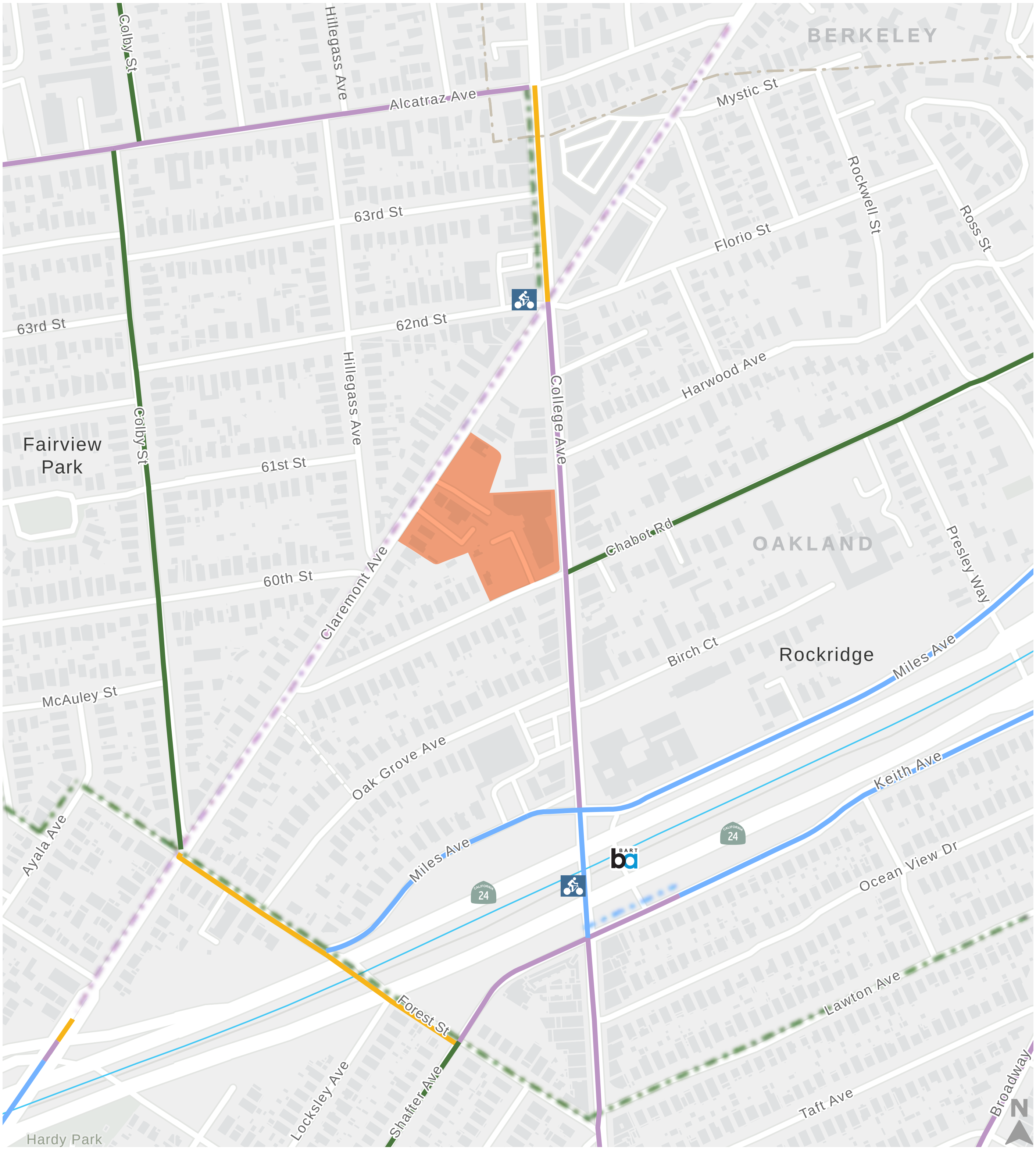
- On 62nd Street just west of Claremont and College Avenues
- On College Avenue adjacent to the Rockridge BART Station

5.3.1 Bicycle Parking

Chapter 17.117 of the *City of Oakland Planning Code* requires long-term and short-term bicycle parking for new buildings and reuse of existing buildings. According to Section 17.117.050 of the Code, long-term bicycle parking is meant to accommodate bicycle parking for bicycles that would generally park more than two hours such as employees and residents; it includes lockers or locked enclosures that provide protection from theft, vandalism, and weather. Short-term bicycle parking is intended to accommodate cyclists who park less than two hours, including visitors and customers; it includes bicycle racks, such as U-racks.

According to Section 17.117.020 of the Code, short-term bicycle parking is required for remodel projects that are over 10,000 square feet and have an estimated construction cost, excluding seismic retrofit costs, greater than $250,000, and long-term bicycle parking is required for remodel projects that are over 50,000 square feet and have an estimated construction cost, excluding seismic retrofit costs, greater than $1,000,000. Thus, the Project is required to provide short-term bicycle parking but no long-term bicycle parking. **Table 9** lists the short-term bicycle parking requirements for the Project per the City *Code*. The *Code* requires the Project to provide at least 18 new short-term bicycle parking spaces.

The Project proposes to accommodate new short-term bicycle parking for 18 bicycles on the sidewalk along the Project frontages on College Avenue near proposed improvements. The Project would also provide covered bicycle racks for 22 bicycles within the fenced area of the Campus just north of the Visitor Parking Lot, with primary access through the gate at the north side of the Visitor Parking Lot.



	Existing	Proposed	
Project Site			
			Neighborhood Bike Lane
			Buffered Bike Lane
			Bike Lane
			Bike Route

Bay Wheels Bike Share Station

Figure 8

Existing and Planned Bicycle Facilities

OK22-0496_2_BikeFac

Table 9: Bicycle Parking Requirements

Land Use	Size[1]	Short-Term Bicycle Parking	
		Spaces per Unit[1]	Spaces
Administrative Offices			0[2]
Retail[3]	8.9 KSF	1 space per 5 KSF	2
Community Education (preschool, after school, summer camp)[4]	320 students	1 space per 20 Students	16
Minimum Required Parking Facilities			*18*
Proposed Parking Facilities			*18*
Meets Code Requirements?			***Yes***

Notes:
1. KSF = 1,000 square-feet, Emp = employees
2. Existing use with no "remodel" so no new bicycle parking required.
3. Per Oakland Planning Code Section 17.117.110 – Required Bicycle Parking – commercial activities, retail uses.
4. Per Oakland Planning Code Section 17.117.100 – Required Bicycle Parking – civic activities, public, parochial, and private day-care centers for fifteen (15) or more children.

Source: Fehr & Peers, 2024.

The proposed bicycle parking also is expected to meet the bicycle parking demand for special events, such as cultural programs and High Holidays. All other components of the Project would be closed during these events and the bicycle parking within the fenced area would only be used for these special events. Since these events may have up to 500 attendees, the proposed 40 bicycle parking spaces would accommodate about eight percent of the attendees, which exceeds the current five percent bicycle mode share in the Project area, as shown in Table 1.

The required TDM Plan for the Project includes Strategy D (Bicycle Amenities and Monitoring, see page 61) that would allow parents/guardians to use the secure on-site bicycle parking during the weekday business hours to encourage them to use other travel modes, such as BART or AC Transit, to commute to and from their work while their students are at the Project site. The TDM Plan also includes monitoring the usage of the on-site bicycle parking and expanding the bicycle parking, if necessary.

The covered bicycle parking area within the fenced area would also include a Fixit station, which would provide the tools necessary to perform basic bicycle repairs and maintenance.

Since the Project would comprise less than 150,000 square feet of commercial space, the *City of Oakland Planning Code* section 17.117.130 does not require any shower or locker facilities.

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 some of the on-site bicycle parking spaces can accommodate non-standard bicycles such as cargo or recliner bikes.
- Ensure that the short-term bicycle parking provided by the Project can be accessed by the public and would meet the City Code requirements. Applicant shall coordinate with the City of Oakland Department of Transportation to locate eighteen (18) short-term bicycle parking spaces along the project frontages of College Avenue or Chabot Road.

5.4 Pedestrian Access and Circulation

Primary pedestrian access to the Campus would be through the security gate located at the north side of the Visitor Parking Lot. A sidewalk along the east side of the Visitor Parking Lot connects the security gate to Chabot Road. Staff and visitors can access the buildings within the Campus after going through the security gate. Secondary pedestrian gates would be provided along College Avenue just north of the 5901 College Avenue building and on Claremont Avenue at 6028 Claremont Avenue building; these secondary gates would be closed during typical operating hours and would primarily be used for emergency access. The 5901 College Avenue retail uses would continue to be accessed directly on College Avenue.

The streets in the Project vicinity provide sidewalks on both sides of the street. Currently, the sidewalks along the Project frontages on Claremont Avenue, College Avenue, and Chabot Road, are about 7, 10, and 8.5 feet wide, respectively. The Project would not modify any of these sidewalks.

Pedestrian facilities at the intersections near the Project site include:

- The signalized College Avenue/Claremont Avenue/62nd Street/Florio Street intersection is a six-legged intersection. It provides marked continental crosswalks across all six intersection approaches. The east crosswalk allows pedestrians to cross both westbound Claremont Avenue and Florio Street during the same phase. Pedestrian signal heads with countdown timers and push buttons are provided at each crosswalk. Four of the six corners provide two directional curb ramps per corner and two corners (the south corner between Claremont and College Avenues and the southeast corner between College Avenue and Florio Street) provide one diagonal curb ramp per corner. All curb ramps have truncated domes.
- The Claremont Avenue/Chabot Road intersection is a side-street stop-controlled T-intersection where westbound Chabot Road is controlled by a stop-sign and intersects Claremont Avenue at an angle. The intersection provides marked crosswalks across the south (ladder striping) and east (continental striping) approaches of the intersection. Both crosswalks provide directional curb ramps with truncated domes at both ends of the crosswalk. The north approach of the intersection does not provide a marked crosswalk or curb ramps. The southeast corner of the intersection provides access to a midblock pedestrian path that connects to Oak Grove Avenue.
- The College Avenue/Chabot Road intersection is a side-street stop-controlled intersection where the eastbound and westbound Chabot Road approaches are controlled by stop-signs. The

intersection provides marked continental crosswalks across all four intersection approaches. The northbound and southbound College Avenue approaches of the intersection provide advanced yield markings (shark teeth) in advance of the marked crosswalk, and the eastbound and westbound Chabot Road approaches of the intersection provide stop bars. The southeast and southwest corners of the intersection provide two directional curb ramps per corner with truncated domes, while the northeast and northwest corners of the intersection provide one diagonal curb ramp per corner with truncated domes.

- Claremont Avenue/Hillegass Avenue/60th Street intersection is a side-street stop-controlled intersection where the westbound 60th Street and southbound Hillegass Avenue approaches (both west of Claremont Avenue) are controlled by stop-signs. The intersection provides marked crosswalks across the Hillegass Avenue (standard striping) and the 60th Street (continental striping) approaches on the east side of Claremont Avenue and across Claremont Avenue (ladder striping) between the Hillegass Avenue and the 60th Street approaches. The City of Oakland's 2017 Pedestrian Master Plan Update (*Oakland Walks!)* does not list any planned improvements along the Project frontages. All corners except one provide directional curb ramps, the corner between Hillegass Avenue and the 60th Street provides a diagonal curb ramp for the crosswalks across 60th Street and Claremont Avenue. All curb ramps provide truncated domes.

About 100 pedestrians per hour cross College Avenue at Chabot Road. As described in Chapter 6, the College Avenue/Chabot Road intersection does not meet any of the evaluated signal warrants under current conditions, and the addition of the estimated Project generated traffic is not expected to trigger any of the evaluated signal warrants. The Project would increase both pedestrian activity and vehicular volumes at this intersection. Improvements at this location include relocating the existing bus stops on both directions of College Avenue, which are located just before Chabot Road in both directions, to after the intersection, to improve sight lines between pedestrians crossing College Avenue and vehicles on College Avenue, installing a bulb-out (curb-extension) on the Project frontage at the northwest corner of the intersection to shorten the pedestrian crossing distance and improve visibility for pedestrians crossing the north approach of College Avenue, and installing Rectangular Rapid-Flashing Beacon (RRFB)[7] for both crosswalks crossing College Avenue to ensure to increase motorists' awareness of pedestrians at the crosswalks

Recommendation 7: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered at the College Avenue/Chabot Road intersection:

- Relocate the bus stops on College Avenue from the near-side to the far-side of Chabot Road

[7] RRFBs are a type of traffic control device typically installed at crosswalks and consist of a rectangular sign with rapidly flashing LED lights arranged in a pattern that draws attention to the crosswalk. They are typically activated by pedestrians,

- Install a bulb-out (curb-extension) at the northwest corner of the intersection
- Install Rectangular Rapid-Flashing Beacons (RRFB) for both crosswalks crossing College Avenue

5.5 Transit Access

Figure 9 shows the existing transit service serving the Project site. Transit service providers include BART and AC Transit as described below.

5.5.1 Bay Area Rapid Transit (BART)

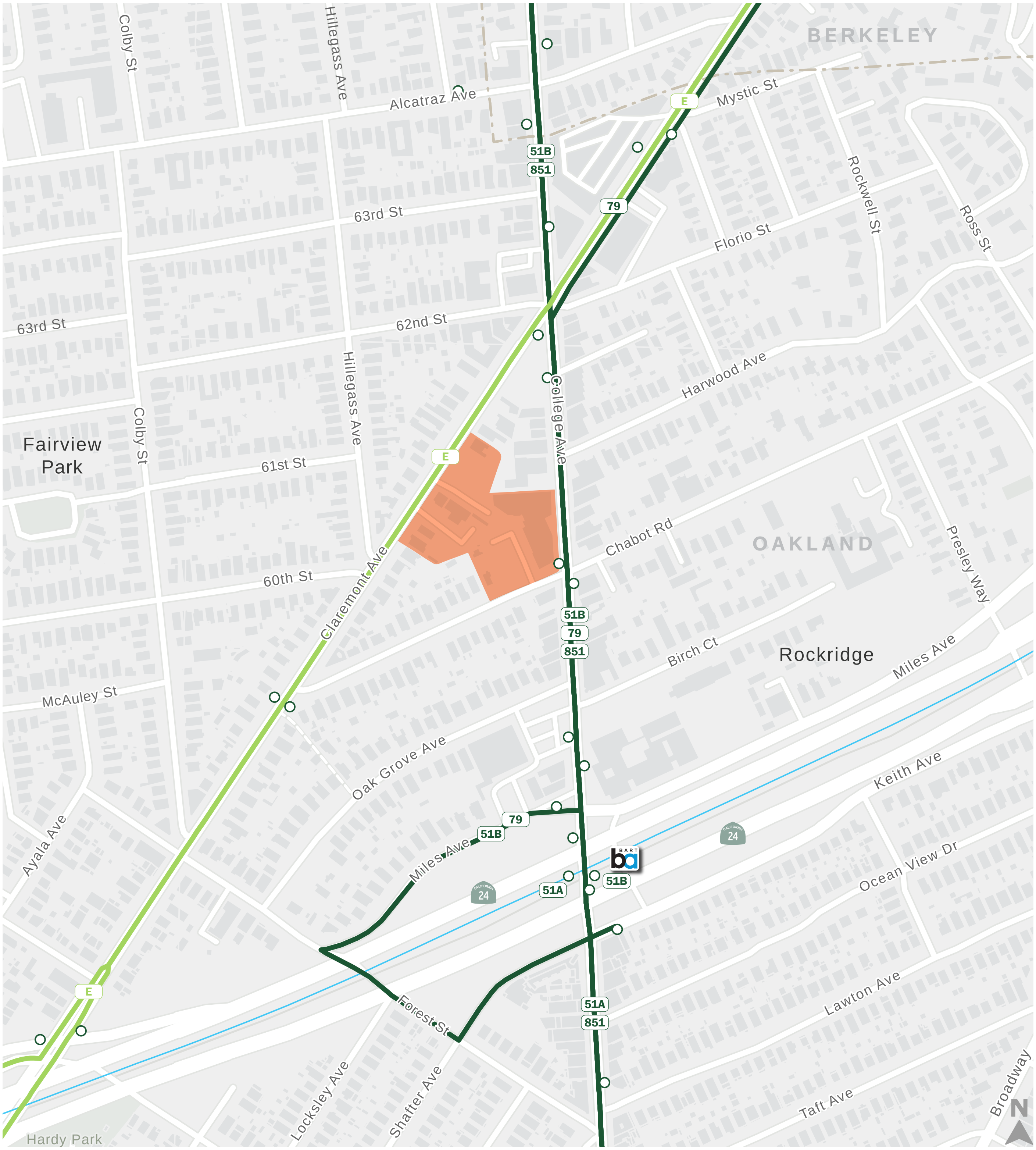
BART provides regional rail service throughout the East Bay and across the Bay. The Project is located approximately 0.25-mile (walking distance) north of the Rockridge BART Station, which is an above ground station with curbside pedestrian access and local transit connections. This station serves BART's Yellow Line (Antioch - SFO International Airport), which operates on weekdays and weekends with 20-minute headways. Project staff and visitors can access BART by walking along College Avenue.

5.5.2 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.

The nearest bus stops to the Project site are on College Avenue on the nearside of the intersection with Chabot Road (northbound stop is south of the intersection and the southbound stop is north of the intersection). The southbound bus stop can be accessed from the Project main entrance without crossing any streets; the northbound bus stop would require crossing both College Avenue and Chabot Road. The bus stops on College Avenue are served by Lines 51B (local service between Rockridge BART Station and West Berkeley with 12-minute headways during peak commuter periods), 79 (local service between Rockridge and El Cerrito Plaza BART stations with 30-minute headways during peak commuter periods), and 851 (late night service from midnight to 5:00 AM with 60-minute headways). Both bus stops provide benches and trash receptacles.

The Project site is also served by bus stops on Claremont Avenue just south of Chabot Road in both directions. Accessing the northbound bus stop on Claremont Avenue from the Project would require crossing Chabot Road and accessing the southbound bus stop would require crossing both Chabot Road and Claremont Avenue. These bus stops are served by Transbay Line E (Transbay service between Oakland and San Francisco during weekday peak commute periods only with three buses to San Francisco during the morning commute and five buses from San Francisco during the evening commute). Neither bus stop provides any amenities.



Project Site
AC Transit Local Service
AC Transit Transbay Service
Bus Stop
BART
BART Station

Figure 9

Existing Transit Service

OK22-0496_3_Transit

5.6 Emergency Vehicle Access

Emergency vehicles could access the Project site from multiple directions through College Avenue, Claremont Avenue, or Chabot Road. The 5901 College Avenue building would continue to be directly accessed from College Avenue. Emergency vehicles would also access the site through the existing driveways on Claremont Avenue and Chabot Road. The emergency vehicle accessway that would connect the staff and visitor parking lots would have retractable bollards to allow emergency vehicles to access the site though either driveway. Thus, all buildings within the Project site would be accessible from at least two directions and emergency vehicles would be able to access each building within the site if one direction is closed.

The nearest fire station to the Project site is Oakland Fire Station #19 at 5776 Miles Avenue, about 0.3 miles southeast of the Project.

6. Traffic Operations Analysis

Although automobile delay, level of service (LOS), and other similar measures of vehicular capacity or traffic congestion cannot be used to identify significant impacts under CEQA, this chapter evaluates the effects of the Project on traffic operations including traffic volumes on Chabot Road and local intersection operations at three intersections adjacent to the Project site during non-summer and summer period for informational purposes under the following scenarios.

- **Existing Conditions**: Represents existing traffic conditions based on multi-modal counts collected in 2022 and 2023.

- **Existing Plus Full Project Occupancy Conditions**: Represents the existing conditions plus traffic generated by the full occupancy of the Project as summarized during typical weekday conditions as presented in Table 4.

This chapter also presents the results of a signal warrant analysis for the Chabot Road/Claremont Avenue and Chabot Road/College Avenue intersections.

6.1 Trip Distribution and Assignment

The trip distribution and assignment process estimates how the vehicle trips generated by the Project would distribute across the roadway network. The following trip distribution primarily based on existing traffic patterns in the area and location of complimentary land uses is used to distribute the Project trip generation as presented in Table 4 across the roadway network:

- College Avenue North = 24%
- College Avenue South = 29%
- Claremont Avenue West = 36%
- Claremont Avenue East = 9%
- Chabot Road East = 2%

This analysis assumes that all Project staff would use the driveway on Claremont Avenue to travel to and from the Project site, and all visitors, including all student drop-offs and pick-ups, would use the driveway on Chabot Road.

6.2 Traffic Volume Data Collection

The following traffic data was collected for this analysis:

- ***Intersection Turn Movement Counts*** – Weekday morning and afternoon/evening period turn movement counts (vehicle, pedestrian, and bicycle) in 15-minute increments at the following four intersections on a midweek day:

    1. College Avenue/Claremont Avenue/62nd Street/Florio Street in October 2022
    2. Claremont Avenue/Chabot Road in October 2022 and May and July 2023
    3. College Avenue/Chabot Road in October 2022 and May and July 2023
    4. Chabot Road/Project Driveway in May and July 2023

    The October 2022 counts were collected from 7:00 to 10:00 AM, and from 2:30 to 6:30 PM, and the 2023 counts were collected from 7:00 to 9:00 AM and 4:00 to 6:00 PM.

- ***Street Segment Counts*** – Daily (24-hour) vehicle counts continuously collected in 15-minute increments by direction through pneumatic tube counts at the following locations:

    - Chabot Road between College Avenue and Project Driveway in May and July 2023
    - Chabot Road between Claremont Avenue and Project Driveway in October 2022 and May and July 2023
    - College Avenue between Claremont Avenue and Chabot Road in October 2022
    - Claremont Avenue between College Avenue and Chabot Road in October 2022

    The October 2022 counts were collected for five days from Wednesday to Sunday, and the 2023 counts were collected for two midweek days (Tuesday, Wednesday, and/or Thursday).

The October 2022 and May 2023 counts were collected while local schools were in regular session and the July 2023 counts were collected while local schools were closed due to summer vacation. **Appendix B** presents the detailed traffic volume data.

In general, the traffic volumes were the highest in May 2023 and the lowest in July 2023. This analysis uses the May 2023 traffic volume data to represent typical non-summer conditions and the July 2023 volumes to represent typical summer conditions.

Figure 10 and **Figure 11** compare the hourly volumes on Chabot Road between May and July 2023 for the segments west and east of the Project driveway (east of Claremont Avenue and west of College Avenue), respectively. In May 2023, the average daily traffic volume on Chabot Road was about 1,800 vehicles per day east of the Project driveway and 1,740 vehicles per day west of the Project driveway. In July 2023, the average daily traffic volume on Chabot Road was about 1,700 vehicles per day east of the Project driveway and 1,650 vehicles per day west of the Project driveway.

The total daily volume on both segments of Chabot Road in May 2023 was about five percent higher than in July 2023. On an hourly basis, most of the differences were around the school start and end times (8:00 to 9:00 AM and 5:00 to 6:00 PM), when the May 2023 volumes were generally higher. In addition, the traffic volumes east of the Project driveway were about three percent higher than the volumes west of the driveway.

Figure 10: Existing Hourly Volumes on Chabot Road west of Project Driveway

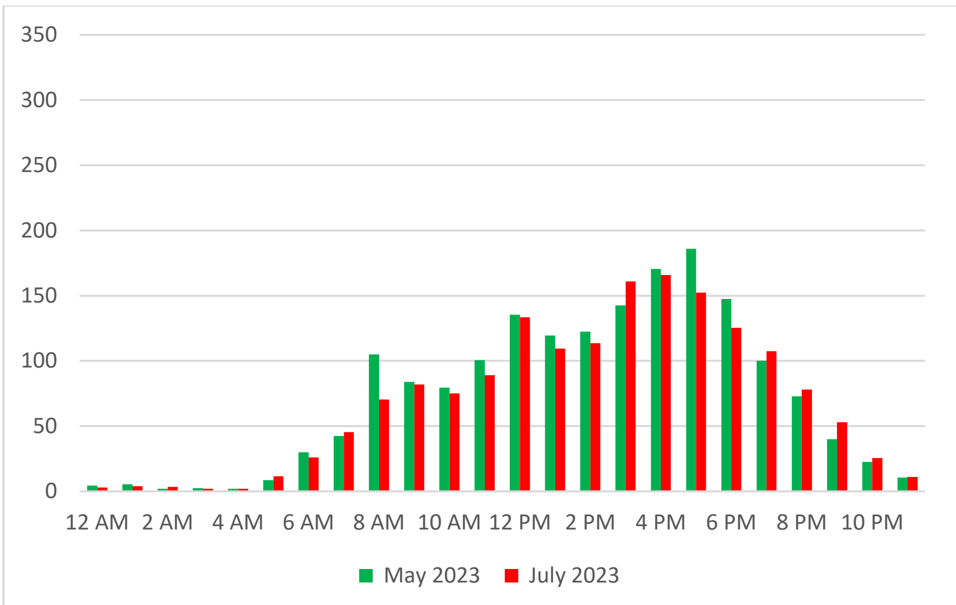
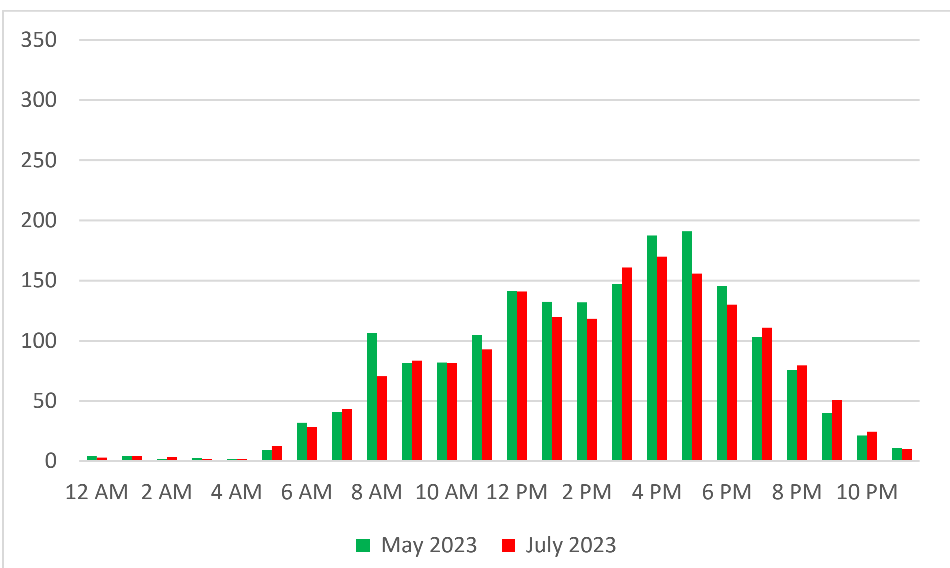


Figure 11: Existing Hourly Volumes on Chabot Road east of Project Driveway



6.3 Traffic Volumes on Chabot Road

Figure 12 and **Figure 13** show the estimated hourly traffic volumes on Chabot Road west of the Project driveway with full Project occupancy during non-summer and summer months, respectively. The full occupancy of the Project is estimated to increase the average daily traffic volume on this segment of Chabot Road from about 1,740 to about 2,220 vehicles per day (corresponding to an increase of about 27 percent) during the non-summer months and from about 1,650 to about 2,260 vehicles per day (corresponding to an increase of about 37 percent) during the summer months. It is estimated that student drop-offs and pick-ups (preschool and afterschool during non-summer months and preschool and summer camp during summer months) would comprise about 65 percent of the non-summer and 73 percent of the summer trips generated by the Project on Chabot Road. Since most of the traffic generated by the Project are related to student drop-offs and pick-ups, most of the additional traffic would be added during the start and end times of student programs (8:00 to 9:00 AM for drop-offs and 3:00 to 4:00 PM and 5:00 to 6:00 PM for pick-ups).

The implementation of the required TDM Plan (see Chapter 6), would reduce the overall motor vehicle trips generated by the Project and the traffic volumes on Chabot Road; however, the effectiveness of the TDM Plan on reducing the trips generated by the Project visitors cannot be quantified at this time (see page 60 for details).

Figure 12: Hourly Volumes on Chabot Road west of Project Driveway - Existing Plus Full Project Occupancy Conditions during non-Summer Months

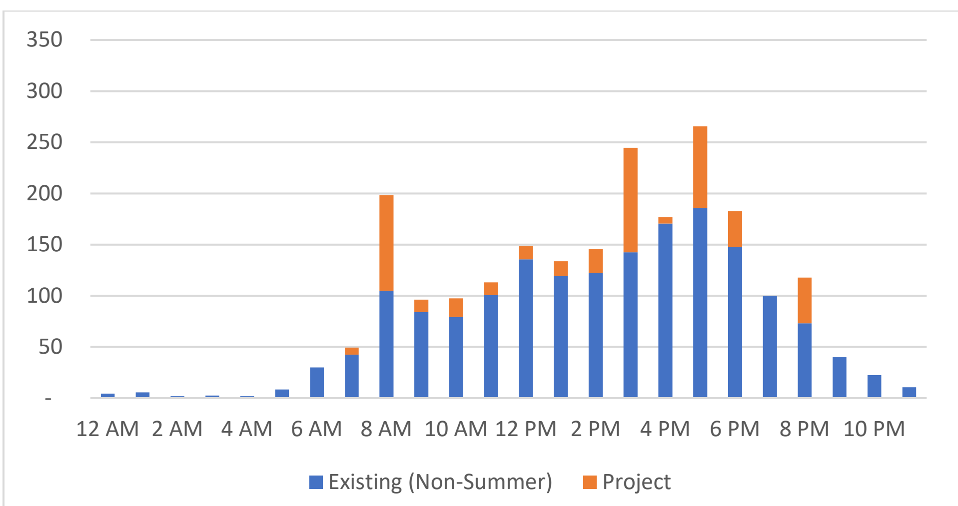
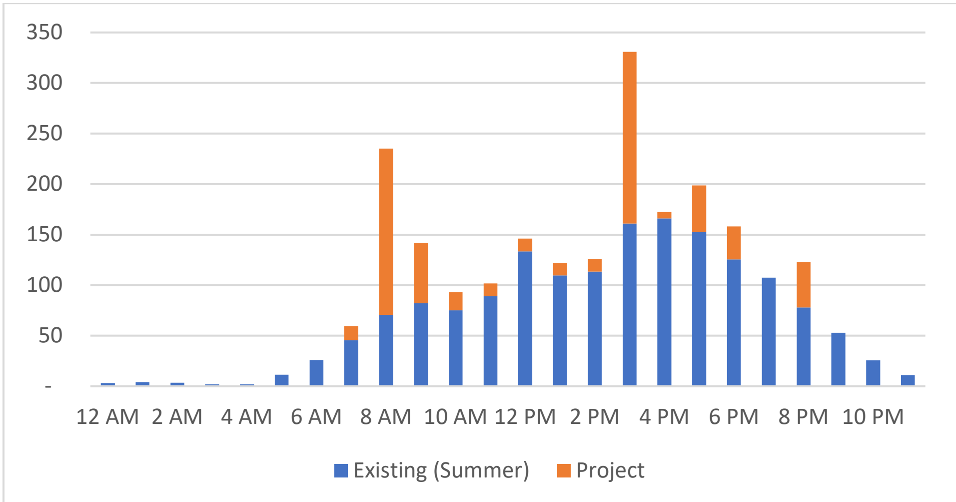


Figure 13: Hourly Volumes on Chabot Road west of Project Driveway - Existing Plus Full Project Occupancy Conditions during Summer Months



One option that may reduce the traffic volume on Chabot Road may be to relocate some or all of the Summer Camp drop offs and pick-ups from the Visitor Parking Lot to Claremont Avenue along the Project frontage (See TDM Strategy O on page 59), which could reduce the traffic volumes on Chabot Road by about 100 daily vehicles (corresponding to about 15 percent of the Project traffic on Chabot Road) during the summer months. This reduction accounts for the consideration that depending on the direction of approach and final destination, some parents/guardians would use Chabot Road to drive to/from the potential loading zone on Claremont Avenue to avoid U-turns on Claremont Avenue (additional modifications such as signage or hardened centerlines may also be considered to minimize U-turns on this segment of Claremont Avenue).

In addition, Recommendation 2, which would allow attendees at evening events at the Project to exit through the Claremont Avenue, would also reduce the estimated traffic increase on Chabot Road.

Modifications such as converting Chabot Road to one-way operations, prohibiting turn movements at Claremont Avenue/Chabot Road or College Avenue/Chabot Road intersections could reduce the traffic volumes on Chabot Road. However, they are not recommended at this time because they could result in longer and circuitous travel routes on adjacent and nearby streets for residents on Chabot Road and their visitors as well as Project staff and visitors, and cause an increase in overall VMT and cut-through traffic on other nearby residential streets.

6.4 Intersection Analysis Methodology

Intersection operations are described using the term "Level of Service" (LOS). LOS is a qualitative description of traffic operations from the vehicle driver perspective and consists of the delay experienced by the driver at the intersection. It ranges from LOS A, with no congestion and little delay, to LOS F, with excessive congestion and delays. Intersection operations are evaluated using the methods provided in the *Highway Capacity Manual 6th Edition* (HCM6, 2016). The methodologies use various intersection characteristics to estimate average control delay and then assign a LOS value.

Control delay is defined as the delay associated with deceleration, stopping, moving up in the queue, and acceleration experienced by all drivers. For signalized intersections, control delay is calculated for all drivers and presented as an average for the intersection. For side-street stop-controlled intersections, the movement or approach with the highest delay is reported, as well as average intersection delay.

Different methods are used to assess signalized and unsignalized intersections. **Table 10** provides descriptions of various LOS and the corresponding ranges of delays for signalized and unsignalized intersections. The delay ranges for unsignalized intersection LOS are lower than the delay ranges for signalized intersections because drivers generally tolerate less delay at unsignalized intersections.

The Synchro 11 Software is used to estimate the delay and LOS for all study intersections. Synchro uses the equations provided in the HCM6 to calculate control delay. These equations use intersection characteristics, such as vehicle and pedestrian volumes, lane geometry, and signal phasing, as inputs to estimate control delay.

6.5 Intersection Operations

This analysis evaluated intersection operations during the weekday AM and PM peak hours (8:00 to 9:00 AM and 5:00 to 6:00 PM respectively) at the following three intersections that provide the primary vehicular access to the site:

1. College Avenue/Claremont Avenue/62nd Street/Florio Street
2. Claremont Avenue/Chabot Road
3. College Avenue/Chabot Road

Traffic operations during the non-summer and summer periods under Existing and Existing Plus Full Project Occupancy were evaluated. Fehr & Peers calculated the LOS at the study intersection using the HCM methodologies as described earlier in this chapter. **Appendix C** provides the detailed LOS calculation sheets. **Table 11** summarizes the delay and corresponding LOS at the study intersections.

Under Existing conditions, the signalized College Avenue/Claremont Avenue/62nd Street/Florio Street intersection operates at LOS C during the AM peak hour and LOS D during the PM peak hour. The stop-controlled westbound Chabot Road approach at the Claremont Avenue/Chabot Road intersection operates at LOS C or better during both AM and PM peak hours under non-summer and summer conditions. The stop-controlled Chabot Road approaches at the College Avenue/Chabot Road intersection operates at LOS C or better during the AM peak hour under non-summer and summer conditions, LOS F during the PM peak hour under non-summer conditions, and LOS D under summer conditions.

Table 10: Intersection Level of Service Definitions

Unsignalized Intersections		Level of Service Grade	Signalized Intersections	
Description	Average Total Vehicle Delay (Seconds)		Average Control Vehicle Delay (Seconds)	Description
No delay for stop-controlled approaches.	≤10.0	A	≤10.0	Free Flow or Insignificant Delays: Operations with very low delay, when signal progression is extremely favorable, and most vehicles arrive during the green light phase. Most vehicles do not stop at all.
Operations with minor delay.	>10.0 and ≤15.0	B	>10.0 and ≤20.0	Stable Operation or Minimal Delays: Generally occurs with good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average delay. An occasional approach phase is fully utilized.
Operations with moderate delays.	>15.0 and ≤25.0	C	>20.0 and ≤35.0	Stable Operation or Acceptable Delays: Higher delays resulting from fair signal progression and/or longer cycle lengths. Drivers begin having to wait through more than one red light. Most drivers feel somewhat restricted.
Operations with increasingly unacceptable delays.	>25.0 and ≤35.0	D	>35.0 and ≤55.0	Approaching Unstable or Tolerable Delays: Influence of congestion becomes more noticeable. Longer delays result from unfavorable signal progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop. Drivers may have to wait through more than one red light. Queues may develop, but dissipate rapidly, without excessive delays.
Operations with high delays, and long queues.	>35.0 and ≤50.0	E	>55.0 and ≤80.0	Unstable Operation or Significant Delays: Considered to be the limit of acceptable delay. High delays indicate poor signal progression, long cycle lengths and high volume to capacity ratios. Individual cycle failures are frequent occurrences. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
Operations with extreme congestion, and with very high delays and long queues unacceptable to most drivers.	>50.0	F	>80.0	Forced Flow or Excessive Delays: Occurs with oversaturation when flows exceed the intersection capacity. Represents jammed conditions. Many cycle failures. Queues may block upstream intersections.

Source: *Highway Capacity Manual*, Transportation Research Board, 2016.

Table 11: Study Intersection LOS Summary

Intersection	Traffic Control	Peak Hour	Existing Conditions				Existing Plus Full Project Occupancy Conditions			
			Non-Summer		Summer		Non-Summer		Summer	
			Delay[1] (seconds)	LOS[2]	Delay[1] (seconds)	LOS[2]	Delay[1] (seconds)	LOS[2]	Delay[1] (seconds)	LOS[2]
1. College Avenue/ Claremont Avenue/62nd Street/Florio Street[3, 4]	Signalized	AM	29	C	29	C	30	C	31	C
		PM	37	D	37	D	39	D	39	D
2. Claremont Avenue/ Chabot Road	Side-Street Stop	AM	<1 (WB, 15)	A (C)	<1 (WB, 14)	A (B)	2 (WB, 17)	A (C)	2 (WB, 17)	A (C)
		PM	1 (WB, 18)	A (C)	<1 (WB, 17)	A (C)	2 (WB, 21)	A (C)	1 (WB, 18)	A (C)
3. College Avenue/ Chabot Road	Side-Street Stop	AM	4 (WB, 21)	A (C)	3 (WB, 15)	A (C)	6 (WB, 25)	A (D)	5 (WB, 18)	A (C)
		PM	11 **(EB, 59)**	A **(F)**	5 (EB, 28)	A (D)	19 **(EB, 96)**	C **(F)**	6 (EB, 33)	A (D)

Notes:
Bold indicates intersection operating at LOS F
1. Average intersection delay and LOS based on the HCM6 method as calculated by the Synchro software. Average delay is reported for signalized intersections. Average intersection and worst-approach delays, respectively, are reported for side-street stop-controlled intersections.
2. Based on HCM6 delay thresholds.
3. Based on HCM2000 results.
4. Existing conditions based on count data collected in October 2022.

Source: Fehr & Peers, 2024.

The addition of the Project generated traffic at full Project occupancy would increase the delay at the three study intersections. The signalized College Avenue/Claremont Avenue/62nd Street/Florio Street intersection would continue to operate at the same LOS. The stop-controlled westbound Chabot Road approach at the Claremont Avenue/Chabot Road intersection would operate at LOS C during both AM and PM peak hours under non-summer and summer conditions. The stop-controlled Chabot Road approaches at the College Avenue/Chabot Road intersection would operate at LOS D or better during the AM peak hour under non-summer and AM and PM peak hours under summer conditions, and LOS F during the PM peak hour under non-summer conditions.

As described in the next section, neither of the stop-controlled intersections would meet any of the signal warrants. Thus, no improvements that would reduce the traffic delay at either intersection are recommended at this time. However, the mandatory TDM Plan that the Project is required to implement would reduce the Project trip generation and the Project-added traffic and the delay at these intersections. In addition, Recommendation 7 would implement improvements at the College Avenue/ Chabot Road intersection that would improve pedestrian crossings across College Avenue.

6.6 Signal Warrant Analysis

To assess the need for signalization of stop-controlled intersections, the *California Manual on Uniform Traffic Control Devices* (MUTCD, 2014) includes nine signal warrants. These warrants correlate the need for a traffic signal at an intersection based on several factors including vehicular and pedestrian volumes, and the crash experience at the intersection. Generally, meeting one or more of the signal warrants could justify signalization of an intersection. However, meeting one or more of the signal warrants does not require the installation of a traffic signal at the intersection.

This analysis evaluates the applicable California MUTCD peak hour signal warrants for urban conditions to the side-street stop-controlled Claremont Avenue/Chabot Road and College Avenue/Chabot Road intersections under Existing and Existing Plus Full Project Occupancy Conditions during both non-summer and summer conditions based on estimated traffic volumes. **Appendix D** provides the detailed signal warrant worksheets.

The following five warrants were evaluated for the two intersections under Existing Conditions:

- Warrant 1 – Eight-Hour Vehicular Volume
- Warrant 2 – Four-Hour Vehicular Volume Warrant
- Warrant 3 – Peak Hour Warrant
- Warrant 4 – Pedestrian Volume Warrant
- Warrant 7 – Crash Experience Warrant

The warrants were evaluated based on estimated traffic volume developed using the traffic volume data collected in 2022 and 2023 for both non-summer and summer conditions. Neither intersection meets any of these five signal warrants under Existing Condition during non-summer and summer conditions.

The Project-generated traffic by hour, as shown in Figure 2 and Figure 3 for non-summer and summer conditions, respectively, were added to the Existing volumes to estimate traffic volumes under Existing Plus Full Project Occupancy Conditions, which were used to evaluate Warrants 1 through 3 for the two intersections under Existing Plus Full Project Occupancy conditions. Neither intersection would meet any of the three evaluated signal warrants under Existing Plus Full Project Occupancy Condition during non-summer and summer conditions.

7. Collision Analysis

This chapter presents a summary of the collisions in the Project vicinity, estimates the predicted collision frequencies, and compares the two.

7.1 Collision History

A four-year history (January 1, 2018 to December 31, 2019, and January 1, 2021 to December 31, 2022)[8] of collision data for the following locations was obtained from the Statewide Integrated Traffic Records System (SWITRS) and evaluated for this collision analysis:

- Intersections:
    1. College Avenue/Claremont Avenue
    2. Claremont Avenue/Chabot Road
    3. College Avenue/Chabot Road
- Roadway Segments:
    4. Claremont Avenue, between Chabot Road and College Avenue
    5. College Avenue, between Chabot Road and Claremont Avenue
    6. Chabot Road, between College and Claremont Avenues

Table 12 summarizes the collision data by type and location, and **Table 13** summarizes the collision data by severity and location.

A total of 16 collisions were reported during this time period at the study locations. The College Avenue/ Claremont Avenue intersection had the highest number of reported collisions (eight), followed by the College Avenue/Chabot Road (four) and Claremont Avenue/Chabot Road (two). One collision was reported for both the Claremont Avenue and College Avenue roadway segments; and none for the Chabot Road segment.

The most reported collision types at the study locations were pedestrian-involved (five collisions, 31 percent), sideswipe (four collisions, 25 percent), rear end (four collisions, 25 percent), and broadside (three collisions, 19 percent). Most of the collisions were due to drivers making improper turning movements (seven collisions, 44 percent), pedestrian right-of-way violation (four collisions, 25 percent), speeding (two collisions, 13 percent). Other collisions involved driving under the influence, pedestrian violations, and traffic signals and signs violations (each one collision, 6 percent).

[8] Collision data from 2020 was excluded due to the atypical travel patterns during the COVID-19 pandemic. However, based on SWTRS data, no collisions were reported in the study area in 2020.

Table 12: Summary of Collisions by Type

Location	Head-On	Sideswipe	Rear End	Broadside	Hit Object	Overturned	Pedestrian-Involved[2]	Other	Total
Intersection									
College Ave/Claremont Ave	0	2	1	1	0	0	4	0	8
Claremont Ave/Chabot Rd	0	1	1	0	0	0	0	0	2
College Ave/Chabot Rd	0	0	1	2	0	0	1	0	4
Subtotal	*0*	*3*	*3*	*3*	*0*	*0*	*5*	*0*	*14*
Roadway Segment									
Claremont Ave, between Chabot Rd and College Ave	0	1	0	0	0	0	0	0	1
College Ave, between Chabot Rd and Claremont Ave	0	0	1	0	0	0	0	0	1
Chabot Rd, between College Ave and Claremont Ave	0	0	0	0	0	0	0	0	0
Subtotal	*0*	*1*	*1*	*0*	*0*	*0*	*0*	*0*	*2*
Total	**0**	**4**	**4**	**3**	**0**	**0**	**5**	**0**	**16**

Notes:
1. Based on SWITRS four-year collision data reported from January 1, 2018 to December 31, 2019, and January 1, 2021 to December 31, 2022.
2. Based on SWITRS data coding collisions as "Vehicle/Pedestrian" collisions. One collision at the College Avenue/Claremont Avenue intersection was not reported as a Vehicle/Pedestrian collision but did involve a pedestrian and resulted in a Severity 4 (Complaint of Pain) pedestrian injury.

Source: Fehr & Peers, 2024.

Table 13: Summary of Collisions by Severity and Persons Involved

Location	Collision Severity[2]				Persons and Modes Involved			
	Property Damage Only (0)	Injury Collisions (2, 3, 4)	Fatal Collisions (1)	Total	Bicycle	Pedestrian	Driver/ Passenger	Total
Intersection								
College Ave/Claremont Ave	3	4	0	7	0	5	0	5
Claremont Ave/Chabot Rd	0	2	0	2	0	0	2	2
College Ave/Chabot Rd	2	1	1	4	0	1	3	4
Subtotal	*5*	*7*	*1*	*13*	*0*	*6*	*5*	*11*
Roadway Segment								
Claremont Ave, between Chabot Rd and College Ave	1	0	0	1	0	0	0	0
College Ave, between Chabot Rd and Claremont Ave	1	0	0	1	0	0	0	0
Chabot Rd, between College Ave and Claremont Ave	0	0	0	0	0	0	0	0
Subtotal	*2*	*0*	*0*	*2*	*0*	*0*	*0*	*0*
Total	**7**	**7**	**1**	**15**	**0**	**6**	**5**	**11**

Notes:
1. Based on SWITRS four-year collision data reported from January 1, 2018 to December 31, 2019, and January 1, 2021 to December 31, 2022.
2. Based on crash severity as reported in SWITRS: Property Damage Only Collisions consist of Severity 0 (PDO); Injury Collisions consists of Severity 2 (Injury (Severe)), Severity 3 (Injury (Other Visible)), and Severity 4 (Complaint of Pain); Fatality Collisions consists of Severity 1 (Fatal).

Source: Fehr & Peers, 2024

Pedestrians were involved in six (38 percent) of the reported collisions, with most of the pedestrian collisions (five out of six) occurring at the College Avenue/Claremont Avenue intersection. No collisions involved cyclists. There was one fatal collision (Severity 1), eight injury collisions (Severity 2, 3 or 4), and seven property damage only collisions (Severity 0). The collision that resulted in a fatality occurred in the early morning in July 2019 when a passenger vehicle on westbound Chabot Road approach to College Avenue failed to stop at the stop bar and was broadsided by a truck traveling on northbound College Avenue. The collision resulted in two fatalities.

7.2 Predicted Collision Frequencies

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 roadway and intersection characteristics like vehicle and pedestrian volumes, number of lanes, signal phasing, on-street parking, and number of driveways. **Table 14** presents the predicted collision frequencies for the three study intersections and three study segments using the HSM Predictive Method for urban and suburban intersections and roadway segments and compares the predicted collision frequencies to the reported collision frequencies. **Appendix E** provides detailed predicted collision frequency calculation sheets based on the HSM methodology. All study intersections and roadway segments have actual collision frequencies equal to or below predicted collision frequencies. Therefore, no modifications are recommended for these intersections and segments at this time.

Table 14: Predicted and Actual Collision Frequencies

Location	Predicted Collision Frequency[1] (per year)	Actual Collision Frequency[2] (per year)	Difference	Higher Than Predicted?
Intersection				
College Ave/Claremont Ave	2.5	2.0	0.5	No
Claremont Ave/Chabot Rd	0.7	0.5	0.2	No
College Ave/Chabot Rd	1.7	1.0	0.7	No
Roadway Segment				
Claremont Ave, between Chabot Rd and College Ave	2.4	0.3	2.1	No
College Ave, between Chabot Rd and Claremont Ave	1.9	0.3	1.6	No
Chabot Rd, between College Ave and Claremont Ave	0.5	0.0	0.5	No

Notes:
1. Based on the Highway Safety Manual Predictive Method (Volume 2, Part C)
2. Based on SWITRS four-year collision data reported from January 1, 2018 to December 31, 2019, and January 1, 2021 to December 31, 2022.

Source: Fehr & Peers, 2024.

8. Transportation Demand Management

The City of Oakland's Standard Conditions of Approval require preparation of a Transportation and Parking Demand Management (TDM) Plans for land use projects generating more than 50 net new peak hour vehicle trips. The primary goal of the TDM Plan is to reduce the automobile traffic and parking demand generated by the Project. City of Oakland's TIRG describes the various components and requirements of a TDM Plan. Since the Project is estimated to generate more than 100 net new peak hour trips as shown in Table 4, the goal of the TDM Plan is to achieve a 20 percent vehicle trip reduction (VTR) according to the TIRG. This TDM Plan has been prepared consistent with the TIRG requirements to achieve a 20 percent VTR for the Project.

This Chapter lists the mandatory TDM strategies that the Project shall implement, quantifies the effectiveness of these strategies in reducing automobile trips to the extent feasible, and describes the monitoring, evaluation, and enforcement of the TDM Plan.

8.1 Mandatory TDM Measures

This section describes the mandatory strategies that the Project will implement as well as the Project features that would reduce the automobile trips generated by the Project. The TDM strategies include both one-time physical improvements and on-going operational strategies. Physical improvements will be constructed as part of the Project and are therefore anticipated to have a one-time capital cost. Some level of ongoing maintenance cost may also be required for certain improvements.

Operational strategies provide on-going incentives and support for the use of non-auto transportation modes. These TDM measures generally 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. Therefore, the mandatory strategies presented in this memorandum are primarily targeted at the Project staff and the various student groups because they would commute to and from the site on a regular basis. Although most strategies do not directly target visitors to the Project, they would also benefit from many of these measures. In general, most visitors would visit the Project too infrequently to be aware of the TDM benefits or to make them cost-effective.

A detailed description of the TDM strategies that comprise the mandatory TDM Plan is provided below:

A. *Infrastructure Improvements* – the following infrastructure improvements in the Project vicinity, which were identified in the previous Chapters, would improve the bicycling, walking, and transit systems 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:

- Provide 20 feet of red curb on both sides of the Staff Parking Lot driveway on Claremont Avenue
- Provide 20 feet of red curb on both sides of the Visitor Parking Lot driveway on Chabot Road
- Provide "KEEP CLEAR" pavement markings on Chabot Road at the Visitor Parking Lot driveway

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:

- During events where visitors would park in the Staff Parking Lot, allow visitors to exit through the Claremont Avenue 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:

- Monitor the occupancy of the Staff Parking Lot and the staff parking permits issued.
- If needed, allow up to five staff to park in the Visitor Parking Lot with a special permit.

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:

- Limit parking duration for 15 parking spaces in the Visitor Parking Lot to five minutes during peak drop off and pick-up times (approximately from 8:30 to 9:15 AM and from 3:15 to 3:45 PM on weekdays) to ensure availability for pre-school pick-ups and drop offs. Limit Parking duration in these spaces to two hours at all other times.
- Limit parking duration for other parking spaces in the Visitor Lot to two hours during weekday business hours.
- If the Staff Parking Lot is at capacity, allow a limited number of staff (maximum of five) to park in the Visitor Parking Lot with a special permit.
- Regularly monitor conditions in the Visitor Parking Lot and adjust operations if necessary.
- If necessary, provide staff to enforce parking time limit in the Visitor Parking Lot.

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:

- The staff lot will not be utilized for pickleball court use when it is being utilized to accommodate JCC staff and event parking

- Encourage the use of non-automobile travel modes by promoting the availability of these modes as part of the marketing for these events, including websites, direct emails, etc.
- For events with more than 220 attendees, implement one or more of the following:
    - Provide attendant parking within the Staff and/or Visitor Parking Lots
    - Lease off-site parking facilities to accommodate the estimated parking demand
    - If the identified off-site parking is located more than 0.25 miles from the Project, provide a shuttle to transport attendees between the JCC and the parking facility
    - Require event attendees to reserve their parking spaces in advance and/or as part of registering for the event to ensure that adequate parking is provided and minimize visitors driving to locate parking
    - Communicate on-street parking restrictions and the limited off-street parking supply as part of the marketing for these events, including websites, direct emails, etc.

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 some of the on-site bicycle parking spaces can accommodate non-standard bicycles such as cargo or recliner bikes.
- Ensure that the short-term bicycle parking provided by the Project can be accessed by the public and would meet the City Code requirements. Applicant shall coordinate with City of Oakland Department of Transportation to locate eighteen (18) short-term bicycle parking spaces along the project frontages of College Avenue or Chabot Road.

Recommendation 7: While not required to address a CEQA impact, and at the discretion of City of Oakland staff, the following shall be considered at the College Avenue/Chabot Road intersection:

- Relocate the bus stops on College Avenue from the near-side to the far-side of Chabot Road
- Install a bulb-out (curb-extension) at the northwest corner of the intersection
- Install Rectangular Rapid-Flashing Beacons (RRFB) for both crosswalks crossing College Avenue

B. *Limited Staff Parking Supply* – Project estimates up to about 150 staff at the site and would designate 51 parking spaces for staff use. Considering that most on-street parking in the Project vicinity are limited to two hours or less during weekday business hours (most parking spaces are controlled by either RPP which limit parking for non-residents to two-hours or less, or parking meters with time limits), on-street parking is not an option for most staff who need to be on-site throughout the day. In addition, limited public parking facilities are available in the Project vicinity. Since the parking supply provided by the Project would be less than the estimated demand (see page 25 for details), the limited on-site parking would encourage some Project staff to commute by non-automobile modes.

C. *Parking Management* – Since the Project would provide fewer on-site parking spaces than the expected peak demand generated by staff and the Staff Parking Lot would be gated and only accessible by parking passes, consider the following:

- o Establish eligibility requirements to provide parking passes to only employees who carpool or demonstrate a need for a vehicle, such as disabled employees, employees not living within walking distance of public transit, employees with atypical working hours, and/or employees who need vehicle for other needs such as drop off and pick-up of children.
- o Limit parking duration for most parking spaces in the Visitor Parking Lot to two hours or less to discourage staff from parking in the Visitor Lot and ensure parking availability for site visitors (Also see Recommendations 3 and 4).

D. *Bicycle Amenities and Monitoring* – Provide the following to encourage bicycle use:

- o Long-term bicycle parking for staff in a secure covered area within the fenced area of the Project site
- o Short-term parking for visitors in the form of bike racks along the Project frontage on College Avenue and Chabot Road, and/or within the Visitor Parking Lot
- o Maintenance tools, such as a Fixit station, which will provide the tools necessary to perform basic bicycle repairs and maintenance
- o Consider allowing parents/guardians that drop off students at the site to use the long-term bicycle parking within the fenced area of the Project site during the weekday business hours. Providing secure on-site bicycle parking can encourage parents/guardians to bicycle to the site and use other modes such as BART or AC Transit to commute to and from their work.

The Project will monitor the usage of these facilities and provide additional bicycle parking, if necessary.

E. *TDM Coordinator* – Designate a staff person as TDM coordinator responsible for implementing, managing, monitoring, and publicizing the TDM Plan.

F. *Marketing and Education* – Provide staff, parents/guardians, visitors, and event attendees with information about transportation options. This information would be posted in a central location (e.g., main building lobby), on the JCC East Bay's website, and on promotional material for special events. The information would contain transportation information such as transit schedules, available transit discounts, bicycle maps, bicycle-share and car-share, and commuter materials, and be updated as necessary. Links to the transportation options would be provided as part of the regular communications with parents/guardians, visitors, and event attendees. In addition, new staff and preschool/afterschool/camp attendees shall receive this information as part of a "Welcome Packet" upon enrolling.

G. *Pre-Tax Commuter Benefits (Staff)* – Provide JCC staff and require tenants to provide the option to enroll in the pre-tax commuter benefits program, such as WageWorks. This measure allows employees to deduct monthly transit passes or other amount using up to $315 pre-tax dollars.[9] This can help to lower payroll taxes and allows employees to save on transit.

H. AC *Transit Passes (Staff)* – Participate in AC Transit's EasyPass program (www.actransit.org/easypass), which enables institutions to purchase annual bus passes for all their employees in bulk at a deep discount. The passes allow unlimited rides on all AC Transit buses for all participants.

I. *Carpool and Ride-Matching Assistance (Staff)* – Offer personalized ride-matching assistance to pair staff, including those working for different Project tenants, interested in forming commute carpools. The Project could use services such as 511.org Bay Area Carpool Program, Scoop, or Enterprise RideShare. (See 511.org/carpool, takescoop.zendesk.com, or commutewithenterprise.com for more information.)

J. *Carpool and Ride-Matching Assistance (Preschool/Afterschool/Camp Attendees)* – Employ a suite of strategies that facilitate parents/guardians to find other families to carpool with. Strategies could include:

- Promoting official ridematch apps (See carpool-kids.com, carpooltoschool.com, or gokid.mobi for more information)
- Using the preschool/camp parent portal and handbooks to encourage carpooling
- Distributing school/camp directories
- Providing a variety of social spaces where potential families can discuss ride sharing
- Hosting events that allow families to network and gain knowledge of each other
- For older afterschool and camp attendees, a formal partnership with child-centered transportation providers could assist in coordinating travel among parents who may not be able to commit to driving a carpool. Available apps can be used to support the use of third-party vehicles. (See hopskipdrive.com, kangoapp.co or ridezum.com for more information.)

K. *Afterschool/Camp Shuttles (Afterschool/Camp Attendees)* – Provide bus or shuttle service, potentially in partnership with neighboring schools or existing local commuter shuttles (to utilize vehicles not in use mid-day). Consider using a carpool/shuttle app (See gochapperone.com or pogorides.com for more information.)

[9] Department of the Treasury Internal Revenue Service, Publication 15-B, *Employer's Tax Guide to Fringe Benefits for use in 2024*, page 20 (https://www.irs.gov/pub/irs-pdf/p15b.pdf)

L. *Guaranteed Ride Home (Staff)* – Encourage staff 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. (See grh.alamedactc.org for more information.)

M. *Personalized Trip Planning (Staff and Preschool/Afterschool/Camp Attendees)* – In the form of in-person assistance or as a web tool, provide staff and parents/guardians 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 all population groups 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 staff, visitors, and/or parents/guardians, and connect those who are traveling from similar origins.

N. *Remote Work Option (Staff)* – Where feasible, offer JCC staff and encourage tenants to offer staff to work flexible hours or telecommute, which would reduce the trips generated by the Project or shift trips to non-peak periods. Since many Project staff, such as preschool teachers and summer camp counselors, cannot work remotely, this analysis assumes that up to 25 percent of staff would be able to work remotely on a typical weekday.

O. *Improved Drop off and Pick-Ups Activity (Preschool/Afterschool/Camp Attendees)* – Monitor the drop off and pick-up activities at the passenger loading area in the Visitor Lot to ensure that the loading area would accommodate the drop offs and pick-ups for the various student groups efficiently and with minimal queues spilling back onto Chabot Road or interfering with circulation in the parking lot.

- Ensure presence of Project staff at the passenger loading area and the Visitor Parking Lot to facilitate and expediate the drop-off and pick-up process.
- Ensure that most student sign-ins during regular drop-offs and sign-outs during regular pick-ups would be at or near the passenger loading area, instead of inside the building, to expediate the drop-off and pick-up process.

- Stagger the drop off and pick-up times for the preschool, afterschool, and/or summer camp or within each program with students assigned to 15-minute windows for drop-off or pick-up to ensure that the Visitor Parking Lot can accommodate these activities and minimize congestion with the Visitor Parking Lot and on the adjacent streets.
- Communicate drop-off and pick-up procedures and timings as part of regular communications with parents, such as through the program website, as part of parent orientation, and the regular communication with parents.

If needed, implement one or more of the following to improve the drop off and pick-up activities in the Visitor Lot:

- Relocate all or some drop offs and/or pick-ups for older students (afterschool or summer camp) off-site, such as along westbound Chabot Road adjacent to the Visitor Parking Lot or along eastbound Claremont Avenue adjacent to the Staff Parking Lot.
- Expand strategies J (Carpool and Ride-Matching Assistance) and K (Afterschool/Camp Shuttles) that would reduce the number of drop off and pick-up vehicles.

  Use apps that facilitate drop offs and pick-ups (Examples include FetchKids, PikMyKid, PickUp Patrol).

8.2 TDM Plan Effectiveness

Table 15 lists the mandatory TDM measures described above, and the effectiveness of each measure in VTR for Project staff primarily based on the Alameda County Transportation Commission VMT Reduction Calculator Tool,[10] which is a tool that accounts for the particular location of a development project and quantifies the effects of various strategies in reducing VMT based on 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. As shown in Table 15, the TDM Plan would achieve the 20 percent VTR goal for the Project staff.

Available research that quantifies the effectiveness of TDM measures in reducing automobile trips, including the CAPCOA report described above, primarily focus on residential developments and work-focused trips. As a result, limited data is available for other uses such as preschool, afterschool, or summer camps. As such, the effectiveness of this TDM Plan in reducing the automobile trips generated by the various student groups (preschool, afterschool, and summer camps) cannot be accurately quantified at this time. However, considering the measures focused on reducing the vehicle trips generated by these student groups as described in the previous section and the Project location in a high-density mixed-use neighborhood with local and regional transit service, it is likely that the student groups would also achieve the 20 percent VTR.

[10] See https://www.alamedactc.org/planning/sb743-vmt/ for more information.

Table 15: TDM Plan Effectiveness in Staff VTR

TDM Strategy	Description	Estimated Vehicle Trip Reduction[1]
A. Infrastructure Improvements	Various improvements including at the College Avenue/Chabot Road intersection (See Recommendation 7)	N/A[2]
B. Limited Staff Parking Supply	Project would provide 51 parking space for 150 staff	5-10%
C. Parking Management	Establish eligibility requirements for staff parking in the Staff Lot and establish time limits in the Visitor Lot	N/A[2]
D. Bicycle Amenities and Monitoring	Provide short-term and long-term bicycle parking and monitor usage	0-2%
E. TDM Coordinator	Designate a coordinator responsible for implementing and managing the TDM Plan	N/A[2]
F. Marketing and Education	Active marketing of carpooling, transit, bike sharing, and other non-auto modes	1-4%
G. Pre-Tax Commuter Benefit	Provide staff with pre-tax commuter benefits	1-2%
H. AC Transit Passes	Participate in AC Transit's EasyPass program	1-2%
I. Carpooling and Ride-Matching Assistance	Assist Project staff in forming carpools	0-1%
K. Guaranteed Ride Home	Encourage all staff to register for the Guaranteed Ride Home (GRH) program.	N/A[2]
L. Personalized Trip Planning	Provide staff with commute trip planning services	N/A[2]
N. Remote Work Options	Where feasible, allow staff to work flexible schedules and/or remotely	15-25%[3]
	Estimated Trip Reduction	**22-39%[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 15 to 25 percent of staff would work remotely on a typical weekday.
4. This total does not equal the sum of each individual estimated reduction since a multiplicative dampening effect is applied to account for the potential overlap between the measures.

Source: Fehr & Peers, 2024.

Similarly, the effectiveness of this TDM Plan in reducing the automobile trips generated by the site visitors cannot be quantified at this time. As described above, TDM strategies are most effective for individuals that commute to and from a site on a regular basis, such as employees and students. Most visitors would visit the Project too infrequently to be aware of the TDM benefits or to make them cost-effective. However, visitors would also benefit from many of the TDM measures. Although the visitors are not expected to achieve the 20 percent VTR, they are expected to have a lower driving rate than a typical suburban setting due to the Project location in Rockridge and the implemented TDM Plan.

8.3 Monitoring, Evaluation, and Enforcement

Since the Project would generate more than 100 peak hour trips and includes operational strategies, this TDM Plan requires regular periodic evaluation to determine if the Plan goals in reducing automobile trips are satisfied and to assess the effectiveness of the various measures implemented. The Project shall submit an annual compliance report for the first five years following Project completion for review and approval by the City. The annual report shall document the following:

- Summary of usage and population by Project component including staffing levels, student enrollments, and summary of events with number of events and attendees per event
- Summary of implemented TDM measures and their effectiveness for both regular operations (such as bicycle parking occupancy, number of staff working remotely, off-site parking leased, etc.)
- Results of an annual transportation survey to monitor the vehicle trip generation and mode share for Project staff, students enrolled in various programs, and visitors (including daytime and special event visitors)
- Weekday AM and PM peak period and daily traffic volume counts at the parking driveways
- On-site parking occupancy survey on a typical weekday and for one special event
- Observations at the visitor parking lot during the drop off and pick-up periods to document that the visitor parking lot accommodates the drop off and pick-up activities with minimal spill back onto Chabot Road

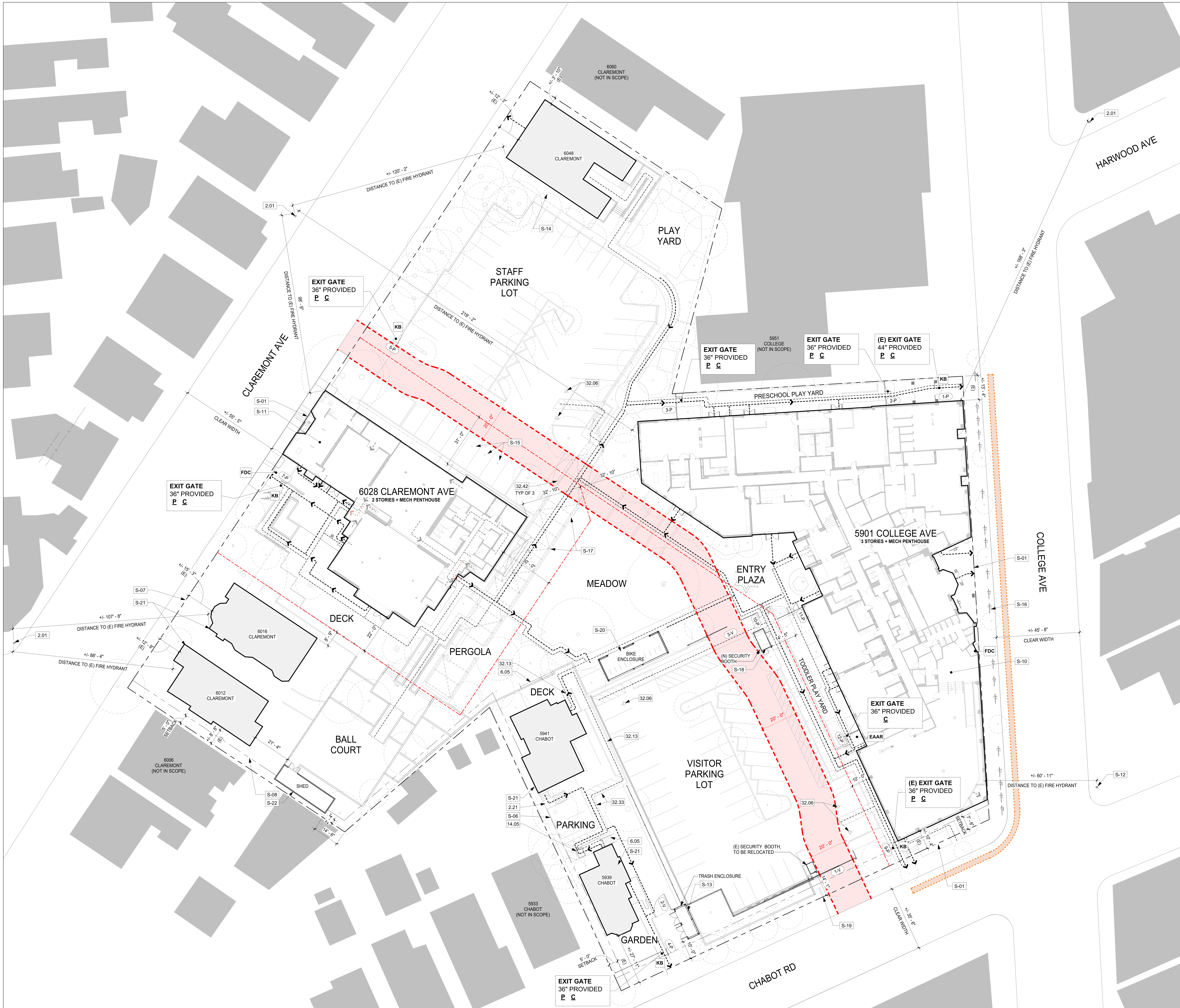
Based on the above results and accounting for the expected changes in Project operations in the coming year, the annual report would also include modifications to the TDM measures for the upcoming year to improve the overall performance of the TDM Plan.

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 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.

Appendix A
Project Site Plan



1 SITE CODE COMPLIANCE PLAN
G0.03S 1" = 20'-0"

KEYNOTES

NO.	DESCRIPTION
2.01	(E) FIRE HYDRANT TO REMAIN
2.21	(E) STAIR TO REMAIN
6.05	WOOD STAIR, SLD
14.05	EXTERIOR WHEELCHAIR LIFT
32.06	ACCESSIBLE PARKING STALL, SLD, SCD
32.13	ACCESSIBLE SLOPED WALKWAY, SLD, SCD
32.33	CROSS WALK, SCD
32.42	REMOVABLE BOLLARDS, SLD, SCD

PLANNING NOTES

NO.	DESCRIPTION
S-01	CN-I FRONT SETBACK = 0'-0" MIN. TO 10'-0" MAX. SET BACK. AND ADDITIONAL REGULATION FOR TABLE 17.33.03, CLAUSE 2 FOR COMMERCIAL/RESIDENTIAL FRONTAGE BLOCKS, WHERE SETBACK = 7'-6" D" OF RM-3 FRONT SETBACK)
S-06	RM-1 INTERIOR OR STREET SIDE SETBACK = 5'-0"
S-07	RM-3 FRONT SETBACK (<20% STREET-TO-SETBACK GRADIENT) = 15'-0"
S-08	RM-3 INTERIOR OR STREET SIDE SETBACK = 4'-0"
S-10	SEE A1.11A-A1.14A, A1.30B-A1.31B, A2.01A-A2.04A, A3.10B, AND A4.10B FOR EXTENT OF ARCHITECTURAL SCOPE FOR 5901 COLLEGE AVE BUILDING
S-11	SEE A1.11B, A1.12B, A2.01B, A2.02B, A1.31B, A3.10B, AND A4.10B FOR EXTENT OF ARCHITECTURAL SCOPE FOR ARCHITECTURAL SCOPE FOR 6028 CLAREMONT AVE
S-12	(E) FIRE HYDRANT
S-13	(N) TRASH & RECYCLING ENCLOSURE FOR COLLEGE AVE COMMERCIAL TENANTS: 2 - 3 CY RECYCLING 2 - 3 CY GARBAGE 4 - 96 GAL COMPOST
S-14	(E) TRASH & RECYCLING ENCLOSURE FOR JCC TO REMAIN: 4 - 96 GAL RECYCLING 4 - 96 GAL COMPOST 4 - 96 GAL GARBAGE
S-15	(E) ELECTRIC VEHICLE PARKING/CHARGING STATION
S-16	(E) BIKE RACK FOR COLLEGE AVE COMMERCIAL TENANTS; (2) TOTAL BIKE SPACES ON COLLEGE AVE
S-17	PERGOLA, SEE LANDSCAPE PLANS
S-18	(N) SECURITY BOOTH
S-19	REPLACE (E) MONUMENT SIGN IN KIND; SEE SIGNAGE DRAWINGS FOR ELEVATION
S-20	(N) COVERED BIKE ENCLOSURE WITHIN THE JCC FENCE: (22) TOTAL BIKE SPACES
S-21	(E) BUILDING TO REMAIN - NO WORK
S-22	(E) STORAGE SHED TO BE REPLACED IN KIND

SITE PLAN NOTES:

1. AN ENGINEERING PERMIT WILL BE REQUIRED FOR ANY WORK IN THE PUBLIC RIGHT-OF-WAY, INCLUDING BUT NOT LIMITED TO CONSTRUCTION STAGING, RESERVED CONSTRUCTION PARKING, SIDEWALK, DRAINAGE, OR SEWER WORK. APPROVAL OF THIS BUILDING PERMIT DOES NOT AUTHORIZE WORK IN THE PUBLIC RIGHT-OF-WAY.
2. SEE CIVIL DRAWINGS FOR UNDERGROUND UTILITIES, GRADING, ACCESSIBLE PARKING AND STRIPING DETAILS.
3. SEE LANDSCAPE DRAWINGS FOR PLANTING, PAVING, FENCES AND PEDESTRIAN GATES, NEW TREES AND EXISTING TREES TO BE REMOVED, SITE WALLS, AND OTHER SITE AMENITIES.
4. SEE ELECTRICAL DRAWINGS FOR DRY UTILITIES, POWER DISTRIBUTION, SITE LIGHTING, AND EXTERIOR BUILDING LIGHTING.
5. SEE ACCESSIBILITY DETAILS, G2 SERIES SHEETS FOR TYPICAL SIGNAGE AND STRIPING DETAILS.
6. WALKWAYS AND SIDEWALKS ON ACCESSIBLE ROUTES OF TRAVEL ARE CONTINUOUSLY ACCESSIBLE, HAVE MAX 1/2" CHANGES IN ELEVATION OR PROVIDE CURB RAMPS COMPLYING WITH CBC 11B-406, ARE MINIMUM 48" WIDE, WHERE NECESSARY TO CHANGE ELEVATION AT A SLOPE EXCEEDING 5% SHALL HAVE PEDESTRIAN RAMPS COMPLYING WITH CBC 11B-405.

LEGEND

(E) BUILDING TO REMAIN WITHIN PROPERTY BOUNDARIES, NO CHANGE
(E) NEIGHBORING BUILDING, NOT-IN-SCOPE
PROPERTY BOUNDARY
SETBACK
IMAGINARY PROPERTY LINE
1 - P PEDESTRIAN GATE
1 - V VEHICULAR GATE
EGRESS PATH OF TRAVEL
ACCESSIBLE PATH OF TRAVEL
EAAR EXTERIOR AREA OF ASSISTED RESCUE
FDC EXTERIOR AREA OF ASSISTED RESCUE
KB KNOX BOX

EGRESS GATE
0" PROVIDED
P C

EXIT GATE LABEL
PANIC HARDWARE PROVIDED
GATE CLOSER PROVIDED

EMERGENCY VEHICLE ACCESS, 20' MIN CLEAR WIDTH
AERIAL FIRE APPARATUS ACCESS, 26' MIN CLEAR ROAD WIDTH

Project Title:

JEWISH COMMUNITY CAMPUS

5901 College Ave; 5965 Chabot Rd; 5957 Chabot Rd; 5941 Chabot Rd; 5936 Chabot Rd
6048 Claremont Ave; 6046 Claremont Ave; 6036 Claremont Ave;
6028 Claremont Ave; 6016 Claremont Ave; 6012 Claremont Ave

APN#: 126803800; 014 126803600; 014 126803501; 014 126803201; 014 126803000014; 126800901; 014 126801101; 014 126801200; 014 126801300; 014 126803900

Design Firm:
SIEGEL & STRAIN Architects
6201 Doyle Street, Suite B
Emeryville, CA 94608
TEL 510 / 547-8092
info@siegelstrain.com

Consultant:

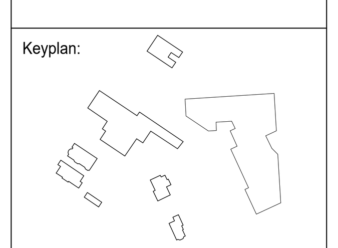
Stamp:

No.	Description	Date
1	CUP	4/25/23

Issue Note:

CONDITIONAL USE PERMIT REVISION 1
09/09/24

Keyplan:



Project ID:	JCC
Designed by:	Designer
Drawn by:	JBM
Checked by:	KR
Scale:	1" = 20'-0"

Sheet Title:

SITE CODE COMPLIANCE PLAN

Sheet No.:

G0.03S

9/9/2024 3:38:04 PM

Appendix B
Traffic Volume Data

National Data & Surveying Services Intersection Turning Movement Count

Location: College Ave & Chabot Rd
City: Oakland
Control: 2-Way Stop(EB/WB)

Project ID: 22-080309-001
Date: 10/27/2022

Data - Totals

NS/EW Streets:	College Ave				College Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	1	32	2	0	2	15	0	0	0	1	4	0	1	1	3	0	62
7:15 AM	4	40	1	0	4	33	0	0	0	2	3	0	0	4	4	0	95
7:30 AM	2	34	0	0	6	38	3	0	0	2	5	0	1	1	1	0	93
7:45 AM	7	53	4	0	6	45	1	0	1	3	4	0	2	0	12	0	138
8:00 AM	5	76	15	0	5	55	2	0	1	5	9	0	3	2	15	0	193
8:15 AM	1	79	17	0	14	64	1	0	3	13	9	0	7	4	15	0	227
8:30 AM	3	82	6	0	8	62	3	0	2	5	6	0	8	5	13	0	203
8:45 AM	6	73	5	0	8	56	10	0	2	2	9	0	3	3	18	0	195
9:00 AM	10	58	2	0	5	65	2	0	3	2	6	0	1	1	7	0	162
9:15 AM	4	55	5	0	5	71	2	0	1	4	6	0	1	2	11	0	167
9:30 AM	6	45	5	0	2	51	3	0	1	2	3	0	3	1	6	0	128
9:45 AM	2	65	4	0	0	53	2	0	1	2	4	0	0	3	14	0	150
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	51	692	66	0	65	608	29	0	15	43	68	0	30	27	119	0	1813
APPROACH %'s :	6.30%	85.54%	8.16%	0.00%	9.26%	86.61%	4.13%	0.00%	11.90%	34.13%	53.97%	0.00%	17.05%	15.34%	67.61%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	15	310	43	0	35	237	16	0	8	25	33	0	21	14	61	0	818
PEAK HR FACTOR :	0.625	0.945	0.632	0.000	0.625	0.926	0.400	0.000	0.667	0.481	0.917	0.000	0.656	0.700	0.847	0.000	0.901
	0.948				0.911				0.660				0.923				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:30 PM	4	73	12	0	13	87	9	0	2	4	8	0	5	1	7	0	225
2:45 PM	6	79	9	0	7	78	10	0	2	6	10	0	4	4	11	0	226
3:00 PM	9	88	4	0	13	82	8	0	3	3	14	0	5	4	11	0	244
3:15 PM	6	81	8	0	11	79	4	0	3	6	16	0	9	1	11	0	235
3:30 PM	9	83	10	0	10	96	5	0	2	5	15	0	2	6	10	0	253
3:45 PM	10	83	9	2	13	74	8	0	9	2	13	0	4	5	10	0	242
4:00 PM	3	72	10	0	11	99	3	0	2	8	14	0	2	2	12	0	238
4:15 PM	1	61	20	1	11	91	11	2	4	11	8	0	4	2	15	0	242
4:30 PM	6	98	6	0	8	84	10	0	4	6	19	0	1	1	15	0	258
4:45 PM	5	83	17	0	11	92	4	0	4	2	15	0	2	3	5	0	243
5:00 PM	13	104	12	0	10	113	7	0	1	4	9	0	4	1	5	0	283
5:15 PM	6	83	7	0	19	107	6	0	3	6	13	0	3	1	13	0	267
5:30 PM	4	78	11	0	13	84	3	0	1	3	17	0	5	2	14	0	235
5:45 PM	3	91	10	0	10	82	13	0	4	3	9	0	2	3	12	0	242
6:00 PM	9	87	8	0	8	83	7	0	2	7	13	0	5	5	8	0	242
6:15 PM	3	74	8	0	7	86	10	0	9	3	6	0	5	2	9	0	222
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	97	1318	161	3	175	1417	118	2	55	79	199	0	62	43	168	0	3897
APPROACH %'s :	6.14%	83.47%	10.20%	0.19%	10.22%	82.77%	6.89%	0.12%	16.52%	23.72%	59.76%	0.00%	22.71%	15.75%	61.54%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	30	368	42	0	48	396	27	0	12	18	56	0	10	6	38	0	1051
PEAK HR FACTOR :	0.577	0.885	0.618	0.000	0.632	0.876	0.675	0.000	0.750	0.750	0.737	0.000	0.625	0.500	0.633	0.000	0.928
	0.853				0.892				0.741				0.794				

National Data & Surveying Services Intersection Turning Movement Count

Location: College Ave & Chabot Rd
City: Oakland
Control: 2-Way Stop(EB/WB)

Project ID: 22-080309-001
Date: 10/27/2022

Data - Bikes

NS/EW Streets:	College Ave				College Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	2	0	0	0	0	0	0	0	1	0	0	0	0	0	0	3
7:15 AM	0	4	1	0	0	5	0	0	0	0	0	0	0	1	0	0	11
7:30 AM	0	7	0	0	0	4	0	0	0	0	0	0	1	0	1	0	13
7:45 AM	0	5	1	0	0	5	0	0	0	0	0	0	2	1	0	0	14
8:00 AM	0	6	1	0	1	3	0	0	0	1	0	0	0	0	6	0	18
8:15 AM	0	5	8	0	0	13	0	0	0	2	0	0	1	0	2	0	31
8:30 AM	0	12	1	0	1	2	0	0	0	1	0	0	3	2	2	0	24
8:45 AM	0	7	2	0	1	8	0	0	1	0	1	0	0	1	1	0	22
9:00 AM	0	6	0	0	0	4	0	0	0	0	0	0	0	1	2	0	13
9:15 AM	0	5	0	0	0	6	0	0	1	2	0	0	0	0	1	0	15
9:30 AM	0	5	0	0	1	3	1	0	0	0	0	0	2	0	0	0	12
9:45 AM	0	5	0	0	1	2	0	0	0	0	0	0	0	0	1	0	9
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	69	14	0	5	55	1	0	2	7	1	0	9	6	16	0	185
APPROACH %'s :	0.00%	83.13%	16.87%	0.00%	8.20%	90.16%	1.64%	0.00%	20.00%	70.00%	10.00%	0.00%	29.03%	19.35%	51.61%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	30	12	0	3	26	0	0	1	4	1	0	4	3	11	0	95
PEAK HR FACTOR :	0.000	0.625	0.375	0.000	0.750	0.500	0.000	0.000	0.250	0.500	0.250	0.000	0.333	0.375	0.458	0.000	0.766
	0.808				0.558				0.750				0.643				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:30 PM	0	2	1	0	0	5	0	0	0	1	0	0	0	0	0	0	9
2:45 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	1	0	0	8
3:00 PM	0	2	1	0	0	5	0	0	1	0	1	0	1	2	0	0	13
3:15 PM	0	8	0	0	0	6	1	0	0	0	0	0	0	0	0	0	15
3:30 PM	0	2	0	0	1	6	1	0	0	0	0	0	2	1	0	0	13
3:45 PM	0	8	2	0	0	7	0	0	0	0	0	0	1	0	1	0	19
4:00 PM	0	5	1	0	1	7	0	0	0	0	0	0	0	0	1	0	15
4:15 PM	0	6	1	0	0	11	0	0	0	0	0	0	2	0	0	0	20
4:30 PM	0	4	4	0	2	4	0	0	1	1	0	0	0	0	0	0	16
4:45 PM	0	2	2	0	0	5	0	0	0	0	1	0	0	0	1	0	11
5:00 PM	0	2	0	0	1	0	0	0	0	0	0	0	1	3	1	0	8
5:15 PM	0	8	2	0	2	9	0	0	0	0	0	0	1	0	2	0	24
5:30 PM	0	3	1	0	0	7	0	0	0	0	1	0	1	0	0	0	13
5:45 PM	0	5	1	0	2	7	0	0	0	0	0	0	1	0	0	0	16
6:00 PM	0	9	0	0	2	11	0	0	0	0	0	0	3	1	1	0	27
6:15 PM	1	3	1	0	1	16	1	0	0	0	0	0	1	0	0	0	24
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	73	17	0	12	109	3	0	2	2	3	0	14	8	7	0	251
APPROACH %'s :	1.10%	80.22%	18.68%	0.00%	9.68%	87.90%	2.42%	0.00%	28.57%	28.57%	42.86%	0.00%	48.28%	27.59%	24.14%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	16	8	0	5	18	0	0	1	1	1	0	2	3	4	0	59
PEAK HR FACTOR :	0.000	0.500	0.500	0.000	0.625	0.500	0.000	0.000	0.250	0.250	0.250	0.000	0.500	0.250	0.500	0.000	0.615
	0.600				0.523				0.375				0.450				

National Data & Surveying Services **Intersection Turning Movement Count**

Location: College Ave & Chabot Rd
City: Oakland

Project ID: 22-080309-001
Date: 10/27/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	College Ave		College Ave		Chabot Rd		Chabot Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	1	0	1	1	4	1	3	6	17
7:15 AM	1	0	2	1	3	6	2	0	15
7:30 AM	3	1	3	3	15	11	4	6	46
7:45 AM	2	0	1	3	7	13	1	11	38
8:00 AM	0	0	3	1	6	12	1	3	26
8:15 AM	2	1	7	1	5	21	4	11	52
8:30 AM	0	5	4	4	9	15	5	17	59
8:45 AM	0	3	3	4	6	7	11	14	48
9:00 AM	2	0	4	1	7	14	5	9	42
9:15 AM	4	0	5	3	10	6	10	11	49
9:30 AM	2	0	4	6	7	6	7	5	37
9:45 AM	2	0	1	0	11	7	8	4	33
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	19	10	38	28	90	119	61	97	462
APPROACH %'s :	65.52%	34.48%	57.58%	42.42%	43.06%	56.94%	38.61%	61.39%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	2	9	17	10	26	55	21	45	185
PEAK HR FACTOR :	0.250	0.450	0.607	0.625	0.722	0.655	0.477	0.662	0.784
	0.550		0.844		0.779		0.660		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
2:30 PM	2	5	6	4	13	20	14	21	85
2:45 PM	6	5	3	7	15	10	33	14	93
3:00 PM	3	5	5	10	12	15	15	31	96
3:15 PM	4	5	3	5	33	9	20	20	99
3:30 PM	2	7	1	4	15	14	29	18	90
3:45 PM	5	8	6	4	22	16	22	36	119
4:00 PM	11	5	7	4	13	15	19	13	87
4:15 PM	2	2	5	8	19	16	24	16	92
4:30 PM	6	3	7	2	23	16	13	23	93
4:45 PM	5	7	1	2	22	14	24	21	96
5:00 PM	4	4	10	2	33	11	18	20	102
5:15 PM	2	3	9	3	11	12	11	18	69
5:30 PM	5	11	5	4	24	18	23	28	118
5:45 PM	20	4	5	2	12	26	25	17	111
6:00 PM	7	8	8	4	23	16	14	18	98
6:15 PM	11	6	6	5	14	12	16	25	95
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	95	88	87	70	304	240	320	339	1543
APPROACH %'s :	51.91%	48.09%	55.41%	44.59%	55.88%	44.12%	48.56%	51.44%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	17	17	27	9	89	53	66	82	360
PEAK HR FACTOR :	0.708	0.607	0.675	0.750	0.674	0.828	0.688	0.891	0.882
	0.708		0.750		0.807		0.822		

National Data & Surveying Services Intersection Turning Movement Count

Location: Claremont Ave & Chabot Rd
City: Oakland
Control: 1-Way Stop(WB)

Project ID: 22-080309-002
Date: 10/27/2022

Data - Totals

NS/EW Streets:	Claremont Ave				Claremont Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	42	5	0	0	43	0	0	0	0	0	0	1	0	1	0	92
7:15 AM	0	75	3	0	2	44	0	0	0	0	0	0	5	0	0	0	129
7:30 AM	0	100	11	0	2	56	0	0	1	0	0	0	3	0	1	0	174
7:45 AM	0	116	10	0	1	74	0	1	0	0	0	0	4	0	1	0	207
8:00 AM	0	97	12	0	2	91	0	0	0	0	0	0	3	0	2	0	207
8:15 AM	0	126	26	0	2	97	0	0	0	0	0	0	4	0	3	0	258
8:30 AM	0	140	14	0	1	95	0	0	0	0	0	0	10	0	1	0	261
8:45 AM	0	140	14	0	3	121	0	0	0	0	0	0	8	0	3	0	289
9:00 AM	0	110	10	0	1	98	0	0	0	0	0	0	6	0	3	0	228
9:15 AM	0	126	10	0	2	90	0	0	0	0	0	0	1	0	4	0	233
9:30 AM	0	126	7	0	2	79	0	0	0	0	0	0	5	0	4	0	223
9:45 AM	0	130	7	0	1	86	0	0	0	0	0	0	4	0	4	0	232
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	1328	129	0	19	974	0	1	1	0	0	0	54	0	27	0	2533
APPROACH %'s :	0.00%	91.15%	8.85%	0.00%	1.91%	97.99%	0.00%	0.10%	100.00%	0.00%	0.00%	0.00%	66.67%	0.00%	33.33%	0.00%	
PEAK HR :	08:15 AM - 09:15 AM																TOTAL
PEAK HR VOL :	0	516	64	0	7	411	0	0	0	0	0	0	28	0	10	0	1036
PEAK HR FACTOR :	0.000	0.921	0.615	0.000	0.583	0.849	0.000	0.000	0.000	0.000	0.000	0.000	0.700	0.000	0.833	0.000	0.896
	0.942				0.843								0.864				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:30 PM	0	105	9	0	3	134	0	0	0	0	0	0	8	0	2	0	261
2:45 PM	0	112	15	0	2	121	0	0	0	0	0	0	15	0	4	0	269
3:00 PM	0	98	12	0	1	110	0	1	0	0	0	0	14	0	3	0	239
3:15 PM	1	109	14	1	3	130	0	0	0	0	0	0	9	0	1	0	268
3:30 PM	0	120	14	0	2	112	0	0	0	0	1	0	10	0	3	0	262
3:45 PM	0	134	19	0	5	148	0	0	0	0	0	0	15	0	5	0	326
4:00 PM	0	120	17	0	4	109	0	0	0	0	0	0	10	0	4	0	264
4:15 PM	0	129	16	0	2	131	0	0	0	0	0	0	13	0	0	0	291
4:30 PM	0	128	21	0	6	122	0	0	0	0	0	0	5	0	3	0	285
4:45 PM	0	128	13	0	3	120	0	0	1	0	0	0	8	0	6	0	279
5:00 PM	0	127	13	0	0	117	0	0	0	0	0	0	13	0	3	0	273
5:15 PM	0	129	14	0	3	115	0	0	0	0	0	0	7	0	3	0	271
5:30 PM	0	163	19	0	3	133	0	0	0	0	0	0	10	0	1	0	329
5:45 PM	0	142	10	0	4	127	0	0	0	0	0	0	12	0	4	0	299
6:00 PM	0	114	13	0	8	121	0	0	0	0	0	0	9	0	3	0	268
6:15 PM	0	117	19	0	2	120	0	0	0	0	0	0	16	0	0	0	274
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	1975	238	1	51	1970	0	1	1	0	1	0	174	0	45	0	4458
APPROACH %'s :	0.05%	89.16%	10.74%	0.05%	2.52%	97.43%	0.00%	0.05%	50.00%	0.00%	50.00%	0.00%	79.45%	0.00%	20.55%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	561	56	0	10	492	0	0	0	0	0	0	42	0	11	0	1172
PEAK HR FACTOR :	0.000	0.860	0.737	0.000	0.625	0.925	0.000	0.000	0.000	0.000	0.000	0.000	0.808	0.000	0.688	0.000	0.891
	0.848				0.923								0.828				

National Data & Surveying Services Intersection Turning Movement Count

Location: Claremont Ave & Chabot Rd
City: Oakland
Control: 1-Way Stop(WB)

Project ID: 22-080309-002
Date: 10/27/2022

Data - Bikes

NS/EW Streets:	Claremont Ave				Claremont Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	4
7:15 AM	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	3
7:30 AM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
7:45 AM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	3
8:00 AM	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	3
8:15 AM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
8:30 AM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
9:00 AM	0	2	0	0	0	1	0	0	0	0	0	0	1	0	0	0	4
9:15 AM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	2
9:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	8	3	0	2	13	0	0	0	0	0	0	3	0	1	0	30
APPROACH %'s :	0.00%	72.73%	27.27%	0.00%	13.33%	86.67%	0.00%	0.00%					75.00%	0.00%	25.00%	0.00%	
PEAK HR :	08:15 AM - 09:15 AM																TOTAL
PEAK HR VOL :	0	3	1	0	0	5	0	0	0	0	0	0	2	0	0	0	11
PEAK HR FACTOR :	0.000	0.375	0.250	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.688
	0.500				0.417								0.500				

	Claremont Ave				Claremont Ave				Chabot Rd				Chabot Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	3
3:00 PM	0	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	4
3:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	3
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
3:45 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
4:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	3	0	0	0	5
5:15 PM	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	3	0	0	0	7	0	0	0	0	0	0	0	0	0	0	10
6:00 PM	0	0	1	0	0	1	0	0	0	0	1	0	0	0	1	0	4
6:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	14	5	0	1	23	0	0	0	0	1	0	7	0	1	0	52
APPROACH %'s :	0.00%	73.68%	26.32%	0.00%	4.17%	95.83%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	87.50%	0.00%	12.50%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	5	3	0	0	9	0	0	0	0	0	0	3	0	0	0	20
PEAK HR FACTOR :	0.000	0.417	0.375	0.000	0.000	0.321	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.500
	0.667				0.321								0.250				

National Data & Surveying Services **Intersection Turning Movement Count**

Location: Claremont Ave & Chabot Rd   **Project ID:** 22-080309-002
City: Oakland   **Date:** 10/27/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Claremont Ave		Claremont Ave		Chabot Rd		Chabot Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	3	1	0	1	0	1	6
7:15 AM	0	0	0	0	0	5	1	0	6
7:30 AM	0	0	0	0	1	2	0	2	5
7:45 AM	0	1	0	1	0	0	0	3	5
8:00 AM	0	0	0	0	0	4	1	0	5
8:15 AM	0	0	0	0	2	2	3	1	8
8:30 AM	0	0	0	1	3	2	0	1	7
8:45 AM	0	0	0	1	3	2	0	0	6
9:00 AM	1	0	1	0	0	3	3	0	8
9:15 AM	0	0	0	0	1	2	0	0	3
9:30 AM	0	0	1	1	0	2	1	0	5
9:45 AM	0	0	0	0	0	2	1	1	4
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	1	5	5	10	27	10	9	68
APPROACH %'s :	50.00%	50.00%	50.00%	50.00%	27.03%	72.97%	52.63%	47.37%	
PEAK HR :	08:15 AM - 09:15 AM								TOTAL
PEAK HR VOL :	1	0	1	2	8	9	6	2	29
PEAK HR FACTOR :	0.250		0.250	0.500	0.667	0.750	0.500	0.500	0.906
	0.250		0.750		0.850		0.500		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
2:30 PM	0	0	0	0	2	2	1	0	5
2:45 PM	0	0	2	2	3	1	1	1	10
3:00 PM	0	0	0	1	1	1	0	0	3
3:15 PM	0	0	0	1	2	3	1	0	7
3:30 PM	0	0	2	1	2	4	3	2	14
3:45 PM	0	0	1	1	3	0	0	2	7
4:00 PM	0	0	0	4	0	0	1	2	7
4:15 PM	0	0	0	0	0	1	0	0	1
4:30 PM	0	0	1	2	0	4	4	0	11
4:45 PM	0	0	1	0	0	2	1	1	5
5:00 PM	0	0	1	1	2	1	2	0	7
5:15 PM	0	0	4	0	8	0	1	1	14
5:30 PM	0	0	3	2	2	7	2	4	20
5:45 PM	0	0	0	1	2	1	4	1	9
6:00 PM	0	0	2	6	2	5	3	2	20
6:15 PM	0	0	4	2	2	3	1	4	16
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	21	24	31	35	25	20	156
APPROACH %'s :			46.67%	53.33%	46.97%	53.03%	55.56%	44.44%	
PEAK HR :	05:00 PM - 06:00 PM								TOTAL
PEAK HR VOL :	0	0	8	4	14	9	9	6	50
PEAK HR FACTOR :			0.500	0.500	0.438	0.321	0.563	0.375	0.625
			0.600		0.639		0.625		

National Data & Surveying Services Intersection Turning Movement Count

Location: College Ave & Claremont Ave/62nd St/Florio St
City: Oakland
Control: Signalized

Project ID: 22-080309-003
Date: 10/27/2022

Data - Totals

AM

NS/EW Streets:	College Ave						College Ave						Claremont Ave/62nd St/Florio St					
AM	NORTHBOUND						SOUTHBOUND						EASTBOUND					
	1	1	0	0	0	0	0.5	0.5	1	0	0	0	0	2	0	0	0	0
	NL	NT	NR	NU	NL2	NR2	SL	ST	SR	SU	SL2	SR2	EL	ET	ER	EU	ET2	EU2
7:00 AM	0	27	10	0	1	0	0	13	9	0	1	1	21	18	0	0	0	0
7:15 AM	1	31	15	0	0	1	3	28	11	0	0	0	30	34	2	0	2	1
7:30 AM	1	27	8	0	0	1	1	33	24	0	0	1	45	37	1	0	0	0
7:45 AM	6	44	12	0	3	1	1	35	29	1	0	0	54	50	2	0	1	0
8:00 AM	8	62	14	0	3	1	2	32	18	1	0	0	37	45	3	0	1	0
8:15 AM	6	66	16	0	2	1	2	49	32	0	0	1	55	50	4	0	1	0
8:30 AM	5	70	22	0	1	2	4	49	21	0	0	0	48	75	1	0	0	0
8:45 AM	5	70	9	0	2	0	3	45	29	0	1	0	59	68	4	0	1	0
9:00 AM	3	46	18	0	2	0	2	44	30	1	0	2	40	51	9	0	4	0
9:15 AM	2	53	13	0	4	2	2	57	21	0	0	0	42	51	6	0	1	0
9:30 AM	2	32	21	0	2	1	2	36	18	0	0	1	57	66	5	0	0	0
9:45 AM	3	54	21	0	3	0	2	44	31	0	0	1	53	62	6	0	5	1
	NL	NT	NR	NU	NL2	NR2	SL	ST	SR	SU	SL2	SR2	EL	ET	ER	EU	ET2	EU2
TOTAL VOLUMES :	42	582	179	0	23	10	24	465	273	3	2	7	541	607	43	0	16	2
APPROACH %'s :	5.02%	69.62%	21.41%	0.00%	2.75%	1.20%	3.10%	60.08%	35.27%	0.39%	0.26%	0.90%	44.75%	50.21%	3.56%	0.00%	1.32%	0.17%
PEAK HR :	08:15 AM - 09:15 AM																	
PEAK HR VOL :	19	252	65	0	7	3	11	187	112	1	1	3	202	244	18	0	6	0
PEAK HR FACTOR :	0.792	0.900	0.739	0.000	0.875	0.375	0.688	0.954	0.875	0.250	0.250	0.375	0.856	0.813	0.500	0.000	0.375	0.000
	0.865						0.938						0.890					

NS/EW Streets:	Claremont Ave/62nd St/Florio St														
AM	WESTBOUND						EASTBOUND2					WESTBOUND2			
	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
	WL	WT	WR	WU	WT2	WU2	E2T	E2L2	E2T2	E2R2	E2U2	W2U	W2T2	W2R2	TOTAL
7:00 AM	4	22	0	0	0	0	0	0	1	0	0	0	0	0	128
7:15 AM	7	19	1	0	0	0	0	0	0	0	1	0	0	0	187
7:30 AM	10	26	3	0	0	0	0	0	0	0	0	0	1	0	219
7:45 AM	17	25	3	0	1	0	0	0	1	3	0	0	0	1	290
8:00 AM	27	42	3	0	1	0	1	1	1	2	3	0	0	0	308
8:15 AM	15	43	1	0	0	1	0	1	0	5	1	0	0	0	352
8:30 AM	24	53	4	0	0	0	0	2	1	5	1	0	0	0	388
8:45 AM	24	58	2	0	1	0	0	1	2	0	2	0	0	0	386
9:00 AM	21	51	0	0	0	0	1	2	0	2	0	0	0	0	329
9:15 AM	20	38	3	0	1	1	0	0	1	4	1	0	0	0	323
9:30 AM	20	39	2	0	3	0	1	0	2	3	1	0	0	0	314
9:45 AM	17	45	4	0	1	0	1	0	2	1	2	0	0	0	359
	WL	WT	WR	WU	WT2	WU2	E2T	E2L2	E2T2	E2R2	E2U2	W2U	W2T2	W2R2	TOTAL
TOTAL VOLUMES :	206	461	26	0	8	2	4	7	11	25	12	0	1	1	3583
APPROACH %'s :	29.30%	65.58%	3.70%	0.00%	1.14%	0.28%	6.78%	11.86%	18.64%	42.37%	20.34%	0.00%	50.00%	50.00%	
PEAK HR :															TOTAL
PEAK HR VOL :	84	205	7	0	1	1	1	6	3	12	4	0	0	0	1455
PEAK HR FACTOR :	0.875	0.884	0.438	0.000	0.250	0.250	0.250	0.750	0.375	0.600	0.500	0.000	0.000	0.000	0.938
	0.876														

PM

	NORTHBOUND						SOUTHBOUND						EASTBOUND					
PM	1	1	0	0	0	0	0.5	0.5	1	0	0	0	0	2	0	0	0	0
	NL	NT	NR	NU	NL2	NR2	SL	ST	SR	SU	SL2	SR2	EL	ET	ER	EU	ET2	EU2
2:30 PM	10	56	22	0	0	0	2	55	34	0	0	2	25	40	12	0	1	1
2:45 PM	8	67	9	0	3	5	3	57	27	0	1	0	44	56	9	0	2	1
3:00 PM	9	62	22	0	2	2	2	44	26	0	0	3	30	47	8	0	3	0
3:15 PM	3	71	19	0	1	2	1	65	37	0	0	2	33	45	7	0	2	0
3:30 PM	8	60	26	0	3	1	1	67	41	0	0	0	45	62	16	0	2	0
3:45 PM	8	59	25	0	3	4	2	57	40	0	0	0	43	56	9	0	1	0
4:00 PM	6	69	15	0	0	3	3	65	36	0	0	1	38	55	4	0	1	1
4:15 PM	7	59	16	0	1	1	4	67	35	0	0	0	33	69	6	0	2	1
4:30 PM	7	61	33	0	0	1	3	66	38	0	0	3	36	66	11	0	5	0
4:45 PM	3	69	25	0	2	2	4	62	23	0	3	1	42	52	14	0	4	2
5:00 PM	5	76	23	0	2	2	1	78	38	1	0	0	43	49	8	0	2	0
5:15 PM	5	75	20	0	0	1	1	72	40	0	0	0	46	73	13	0	1	0
5:30 PM	3	66	25	0	1	3	1	56	44	0	1	0	41	71	11	0	4	0
5:45 PM	5	62	33	0	3	3	2	70	41	0	2	2	43	69	7	0	5	0
6:00 PM	4	63	21	1	3	3	6	56	32	0	1	1	35	51	7	0	1	1
6:15 PM	5	65	19	0	0	1	2	62	36	0	0	0	47	52	3	0	2	0
	NL	NT	NR	NU	NL2	NR2	SL	ST	SR	SU	SL2	SR2	EL	ET	ER	EU	ET2	EU2
TOTAL VOLUMES :	96	1040	353	1	24	34	38	999	568	1	8	15	624	913	145	0	38	7
APPROACH %'s :	6.20%	67.18%	22.80%	0.06%	1.55%	2.20%	2.33%	61.33%	34.87%	0.06%	0.49%	0.92%	36.13%	52.87%	8.40%	0.00%	2.20%	0.41%
PEAK HR :	05:00 PM - 06:00 PM																	
PEAK HR VOL :	18	279	101	0	6	9	5	276	163	1	3	2	173	262	39	0	12	0
PEAK HR FACTOR :	0.900	0.918	0.765	0.000	0.500	0.750	0.625	0.885	0.926	0.250	0.375	0.250	0.940	0.897	0.750	0.000	0.600	0.000
	0.956						0.953						0.914					

	WESTBOUND														
PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
	WL	WT	WR	WU	WT2	WU2	E2T	E2L2	E2T2	E2R2	E2U2	W2U	W2T2	W2R2	TOTAL
2:30 PM	33	68	6	0	1	0	0	0	0	8	2	0	0	0	378
2:45 PM	26	60	6	0	2	0	1	2	3	10	1	0	0	0	403
3:00 PM	37	57	5	0	5	0	0	2	4	5	7	0	0	0	382
3:15 PM	21	55	5	0	2	0	0	3	1	5	1	0	0	0	381
3:30 PM	24	51	3	0	1	0	0	2	1	7	1	0	0	0	422
3:45 PM	18	64	6	0	0	0	2	1	1	6	1	0	0	0	406
4:00 PM	35	47	4	0	0	0	0	1	0	12	1	0	1	0	398
4:15 PM	29	48	3	0	5	0	1	1	3	3	1	0	0	0	395
4:30 PM	26	57	3	0	1	0	3	0	4	4	1	0	0	0	429
4:45 PM	30	65	6	0	0	0	1	1	3	2	0	0	0	1	417
5:00 PM	27	46	3	0	1	0	0	1	2	8	2	0	0	0	418
5:15 PM	29	50	2	0	0	0	0	0	0	6	2	0	0	0	436
5:30 PM	25	64	5	1	3	0	2	2	1	7	3	1	0	0	441
5:45 PM	17	57	2	0	0	0	1	0	2	12	3	1	0	0	442
6:00 PM	28	52	4	0	4	0	0	0	1	6	4	0	0	0	385
6:15 PM	26	61	5	0	4	0	2	0	2	3	2	0	0	0	399
	WL	WT	WR	WU	WT2	WU2	E2T	E2L2	E2T2	E2R2	E2U2	W2U	W2T2	W2R2	TOTAL
TOTAL VOLUMES :	431	902	68	1	29	0	13	16	28	104	32	2	1	1	6532
APPROACH %'s :	30.12%	63.03%	4.75%	0.07%	2.03%	0.00%	6.74%	8.29%	14.51%	53.89%	16.58%	50.00%	25.00%	25.00%	
PEAK HR :															TOTAL
PEAK HR VOL :	98	217	12	1	4	0	3	3	5	33	10	2	0	0	1737
PEAK HR FACTOR :	0.845	0.848	0.600	0.250	0.333	0.000	0.375	0.375	0.625	0.688	0.833	0.500	0.000	0.000	0.982
	0.847														

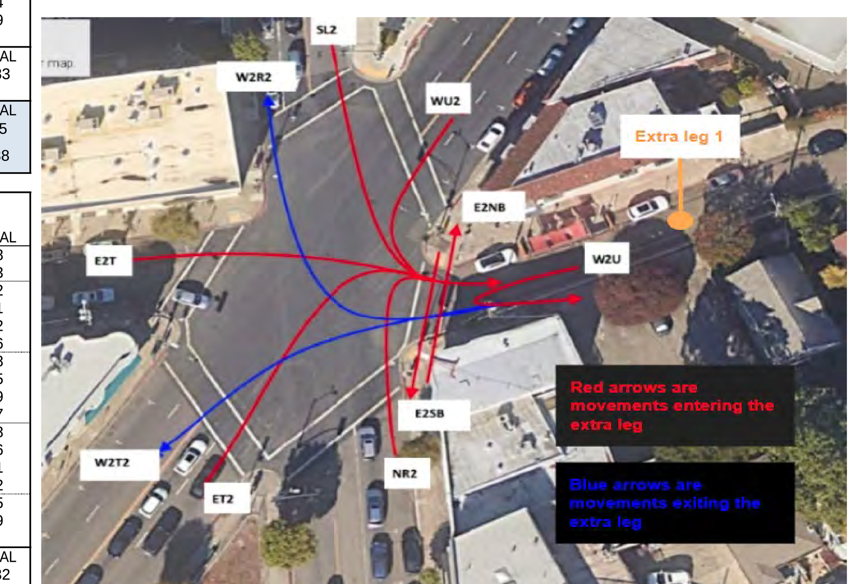
Explanation for extra leg 1 movements

Movements entering the extra leg

NR2	Movements coming from NB on College Ave entering into the Extra Leg 1 (Florio St)
SL2	Movements coming from SB on College Ave entering into the Extra Leg 1 (Florio St)
E2T	Movements coming from EB on 62nd St entering into the Extra Leg 1 (Florio St)
ET2	Movements coming from EB on Claremont Ave entering into the Extra Leg 1 (Florio St)
WU2	Movements coming from WB on Claremont Ave entering into the Extra Leg 1 (Florio St)
W2U	Movements coming from WB on Florio St entering into the Extra Leg 1 (Florio St)

Movemnts exiting the extra leg

W2T2	Movements exiting from Extra Leg 1 (Florio St) entering into Claremont Ave heading SB
W2R2	Movements exiting from Extra Leg 1 (Florio St) entering into College Ave heading NB



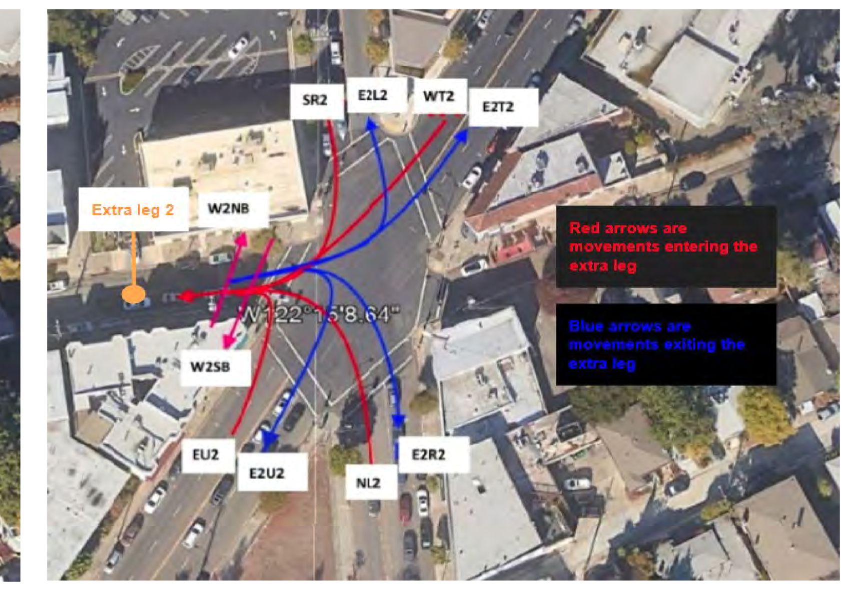
Explanation for extra leg 2 movements

Movements entering the extra leg

NL2	Movements coming from NB on College Ave entering into Extra Leg 2 (62nd St)
SR2	Movements coming from SB on College Ave entering into Extra Leg 2 (62nd St)
EU2	Movements coming from EB on Claremont Ave entering into Extra Leg 2 (62nd St)
WT2	Movements coming from WB on Claremont Ave entering into Extra Leg 2 (62nd St)

Movements exiting the extra leg

E2T2	Movements exiting from Extra Leg 2 (62nd St) entering into Claremont Ave heading EB
E2L2	Movements exiting from Extra Leg 2 (62nd St) entering into College Ave heading NB
E2R2	Movements exiting from Extra Leg 2 (62nd St) entering into College Ave heading SB
E2U2	Movements exitiing from Extra Leg 2 (62nd St) entering into Claremont Ave heading WB



National Data & Surveying Services Intersection Turning Movement Count

Location: College Ave & Claremont Ave/62nd St/Florio St
City: Oakland
Control: Signalized

Project ID: 22-080309-003
Date: 10/27/2022

Data - Bikes

NS/EW Streets:	College Ave						College Ave						Claremont Ave/62nd St/Florio St						Claremont Ave/62nd St/Florio St														
AM	NORTHBOUND						SOUTHBOUND						EASTBOUND						WESTBOUND						EASTBOUND2					WESTBOUND2			
	1	1	0	0	0	0	0.5	0.5	1	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	NL2	NR2	SL	ST	SR	SU	SL2	SR2	EL	ET	ER	EU	ET2	EU2	WL	WT	WR	WU	WT2	WU2	E2T	E2L2	E2T2	E2R2	E2U2	W2U	W2T2	W2R2	TOTAL
7:00 AM	0	2	1	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	7
7:15 AM	0	3	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	0	10
7:30 AM	0	6	2	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	14
7:45 AM	0	1	0	0	0	0	0	5	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
8:00 AM	0	13	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	1	0	0	0	0	19
8:15 AM	0	7	1	0	0	0	0	8	0	0	2	0	1	0	0	0	0	0	2	2	0	0	0	0	0	0	0	4	0	0	0	0	27
8:30 AM	0	9	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	14
8:45 AM	0	10	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	18
9:00 AM	0	11	0	0	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	16
9:15 AM	0	6	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	12
9:30 AM	0	5	0	0	1	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
9:45 AM	0	5	0	0	1	0	0	3	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	10
	NL	NT	NR	NU	NL2	NR2	SL	ST	SR	SU	SL2	SR2	EL	ET	ER	EU	ET2	EU2	WL	WT	WR	WU	WT2	WU2	E2T	E2L2	E2T2	E2R2	E2U2	W2U	W2T2	W2R2	TOTAL
TOTAL VOLUMES :	0	78	6	0	2	0	0	41	1	0	3	0	1	5	1	0	0	0	9	9	0	0	0	0	0	0	0	7	0	0	0	2	165
APPROACH %'s :	0.00%	90.70%	6.98%	0.00%	2.33%	0.00%	0.00%	91.11%	2.22%	0.00%	6.67%	0.00%	14.29%	71.43%	14.29%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	
PEAK HR :	08:15 AM - 09:15 AM																																TOTAL
PEAK HR VOL :	0	37	2	0	0	0	0	17	0	0	3	0	1	1	1	0	0	0	4	3	0	0	0	0	0	0	0	5	0	0	0	1	75
PEAK HR FACTOR :	0.000	0.841	0.500	0.000	0.000	0.000	0.000	0.531	0.000	0.000	0.375	0.000	0.250	0.250	0.250	0.000	0.000	0.000	0.500	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.313	0.000	0.000	0.000	0.250	0.694
			0.886						0.500						0.375						0.438												

PM	NORTHBOUND						SOUTHBOUND						EASTBOUND						WESTBOUND														
	1	1	0	0	0	0	0.5	0.5	1	0	0	0	0	2	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	NL2	NR2	SL	ST	SR	SU	SL2	SR2	EL	ET	ER	EU	ET2	EU2	WL	WT	WR	WU	WT2	WU2	E2T	E2L2	E2T2	E2R2	E2U2	W2U	W2T2	W2R2	TOTAL
2:30 PM	0	4	0	0	0	0	0	5	1	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	13
2:45 PM	0	2	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	8
3:00 PM	0	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9
3:15 PM	0	7	0	0	0	0	0	5	0	0	0	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	15
3:30 PM	0	1	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
3:45 PM	0	9	0	0	0	0	0	6	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	17
4:00 PM	0	5	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	14
4:15 PM	0	7	0	0	0	0	0	4	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	16
4:30 PM	0	4	1	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	15
4:45 PM	0	3	0	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
5:00 PM	0	8	1	0	0	0	0	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
5:15 PM	0	7	0	0	0	1	0	8	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	19
5:30 PM	0	6	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	15
5:45 PM	0	2	3	0	0	0	0	6	1	0	0	2	0	0	1	0	0	0	2	3	1	0	2	0	0	0	0	0	0	0	0	0	23
6:00 PM	0	6	2	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	21
6:15 PM	0	3	0	0	0	0	0	11	2	0	0	0	0	1	0	0	0	0	4	2	0	0	0	0	0	0	0	2	0	0	0	0	25
	NL	NT	NR	NU	NL2	NR2	SL	ST	SR	SU	SL2	SR2	EL	ET	ER	EU	ET2	EU2	WL	WT	WR	WU	WT2	WU2	E2T	E2L2	E2T2	E2R2	E2U2	W2U	W2T2	W2R2	TOTAL
TOTAL VOLUMES :	0	78	7	0	0	1	0	97	5	0	1	3	3	5	1	0	0	0	16	9	1	0	2	0	0	2	0	8	0	0	0	0	239
APPROACH %'s :	0.00%	90.70%	8.14%	0.00%	0.00%	1.16%	0.00%	91.51%	4.72%	0.00%	0.94%	2.83%	33.33%	55.56%	11.11%	0.00%	0.00%	0.00%	57.14%	32.14%	3.57%	0.00%	7.14%	0.00%	0.00%	20.00%	0.00%	80.00%	0.00%				
PEAK HR :	05:00 PM - 06:00 PM																																TOTAL
PEAK HR VOL :	0	23	4	0	0	1	0	25	2	0	0	2	0	2	1	0	0	0	3	3	1	0	2	0	0	0	0	2	0	0	0	0	71
PEAK HR FACTOR :	0.000	0.719	0.333	0.000	0.000	0.250	0.000	0.781	0.500	0.000	0.000	0.250	0.000	0.500	0.250	0.000	0.000	0.000	0.375	0.250	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.772
			0.778						0.806						0.750						0.281												

National Data & Surveying Services Intersection Turning Movement Count

Location: College Ave & Claremont Ave/62nd St/Florio St
City: Oakland

Project ID: 22-080309-003
Date: 10/27/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	College Ave		College Ave		Claremont Ave/62nd St/Florio St		Claremont Ave/62nd St/Florio St						
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		EAST LEG 2		WEST LEG 2		
	EB	WB	EB	WB	NB	SB	NB	SB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	1	1	6	4	4	7	4	1	4	11	43
7:15 AM	0	0	0	0	4	5	0	1	4	9	1	0	24
7:30 AM	1	0	0	0	8	9	4	6	9	8	4	5	54
7:45 AM	3	2	1	0	12	8	0	9	7	8	1	12	63
8:00 AM	2	0	1	0	4	8	1	6	8	10	2	3	45
8:15 AM	6	0	0	2	5	13	2	12	6	15	7	7	75
8:30 AM	4	1	0	0	5	6	6	11	8	7	4	9	61
8:45 AM	0	1	0	2	5	6	6	12	12	5	4	9	62
9:00 AM	7	2	0	1	7	10	7	5	7	10	10	5	71
9:15 AM	0	1	0	0	11	7	4	12	9	8	4	11	67
9:30 AM	0	1	1	0	3	7	8	6	8	10	12	6	62
9:45 AM	9	2	0	0	7	6	7	5	9	6	10	8	69
	EB	WB	EB	WB	NB	SB	NB	SB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	32	10	4	6	77	89	49	92	91	97	63	86	696
APPROACH %'s :	76.19%	23.81%	40.00%	60.00%	46.39%	53.61%	34.75%	65.25%	48.40%	51.60%	42.28%	57.72%	
PEAK HR :	08:15 AM - 09:15 AM												TOTAL
PEAK HR VOL :	17	4	0	5	22	35	21	40	33	37	25	30	269
PEAK HR FACTOR :	0.607	0.500		0.625	0.786	0.673	0.750	0.833	0.688	0.617	0.625	0.833	0.897
	0.583		0.625		0.792		0.847		0.833		0.917		
PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		EAST LEG 2		WEST LEG 2		
	EB	WB	EB	WB	NB	SB	NB	SB	NB	SB	NB	SB	TOTAL
2:30 PM	2	5	0	0	18	20	4	13	19	19	5	10	115
2:45 PM	3	3	6	2	13	6	18	12	20	10	15	9	117
3:00 PM	3	5	0	1	10	12	11	20	8	14	11	17	112
3:15 PM	5	3	1	1	17	14	17	12	20	12	13	11	126
3:30 PM	3	2	10	7	30	15	18	10	43	19	8	9	174
3:45 PM	3	6	4	1	19	20	17	21	22	22	11	19	165
4:00 PM	2	2	1	3	13	19	11	13	15	16	10	11	116
4:15 PM	2	4	2	3	9	17	15	14	10	22	14	15	127
4:30 PM	4	1	2	0	13	13	20	14	22	12	18	8	127
4:45 PM	3	0	0	0	26	16	9	16	21	19	11	13	134
5:00 PM	4	2	3	2	11	12	19	13	18	11	14	10	119
5:15 PM	4	6	1	2	21	13	12	10	24	12	9	13	127
5:30 PM	0	3	12	0	12	15	9	23	13	13	10	20	130
5:45 PM	1	2	2	4	12	13	16	12	19	20	14	4	119
6:00 PM	2	7	5	4	17	9	9	14	23	14	7	17	128
6:15 PM	0	2	4	4	11	8	8	15	11	10	9	16	98
	EB	WB	EB	WB	NB	SB	NB	SB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	41	53	53	34	252	222	213	232	308	245	179	202	2034
APPROACH %'s :	43.62%	56.38%	60.92%	39.08%	53.16%	46.84%	47.87%	52.13%	55.70%	44.30%	46.98%	53.02%	
PEAK HR :	05:00 PM - 06:00 PM												TOTAL
PEAK HR VOL :	9	13	18	8	56	53	56	58	74	56	47	47	495
PEAK HR FACTOR :	0.563	0.542	0.375	0.500	0.667	0.883	0.737	0.630	0.771	0.700	0.839	0.588	0.952
	0.550		0.542		0.801		0.891		0.833		0.783		

Prepared by National Data & Surveying Services

VOLUME

Chabot Rd Bet. Claremont Ave & College Ave

Day: Wednesday
Date: 10/26/2022

City: Oakland
Project #: CA22_080310_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	877	678	1,555

AM Period	NB		SB		EB		WB		TOTAL	
0:00					0		0		0	
0:15					1		0		1	
0:30					0		2		2	
0:45					0	1	0	2	0	3
1:00					0		0		0	
1:15					0		0		0	
1:30					0		0		0	
1:45					0		1	1	1	1
2:00					0		1		1	
2:15					0		0		0	
2:30					1		0		1	
2:45					0	1	0	1	0	2
3:00					0		0		0	
3:15					0		0		0	
3:30					0		0		0	
3:45					0		0		0	
4:00					0		0		0	
4:15					0		0		0	
4:30					2		1		3	
4:45					0	2	1	2	1	4
5:00					0		0		0	
5:15					1		1		2	
5:30					2		0		2	
5:45					3	6	3	4	6	10
6:00					3		0		3	
6:15					2		0		2	
6:30					3		0		3	
6:45					5	13	1	1	6	14
7:00					4		3		7	
7:15					5		3		8	
7:30					6		4		10	
7:45					7	22	2	12	9	34
8:00					9		8		17	
8:15					17		4		21	
8:30					9		9		18	
8:45					12	47	5	26	17	73
9:00					7		7		14	
9:15					11		10		21	
9:30					9		10		19	
9:45					16	43	7	34	23	77
10:00					7		5		12	
10:15					9		6		15	
10:30					14		7		21	
10:45					11	41	7	25	18	66
11:00					14		10		24	
11:15					15		3		18	
11:30					8		10		18	
11:45					12	49	8	31	20	80
TOTALS						225		139		**364**
SPLIT %						61.8%		38.2%		**23.4%**

PM Period	NB		SB		EB		WB		TOTAL	
12:00					10		9		19	
12:15					8		13		21	
12:30					22		11		33	
12:45					25	65	21	54	46	119
13:00					17		22		39	
13:15					19		9		28	
13:30					13		13		26	
13:45					24	73	10	54	34	127
14:00					23		18		41	
14:15					14		12		26	
14:30					12		11		23	
14:45					17	66	22	63	39	129
15:00					26		20		46	
15:15					25		12		37	
15:30					17		18		35	
15:45					23	91	19	69	42	160
16:00					19		12		31	
16:15					15		12		27	
16:30					21		17		38	
16:45					25	80	13	54	38	134
17:00					20		18		38	
17:15					21		10		31	
17:30					20		14		34	
17:45					19	80	10	52	29	132
18:00					26		14		40	
18:15					14		13		27	
18:30					13		13		26	
18:45					23	76	15	55	38	131
19:00					16		12		28	
19:15					7		6		13	
19:30					19		16		35	
19:45					17	59	10	44	27	103
20:00					11		5		16	
20:15					8		11		19	
20:30					2		6		8	
20:45					6	27	10	32	16	59
21:00					4		7		11	
21:15					8		8		16	
21:30					3		6		9	
21:45					3	18	9	30	12	48
22:00					1		8		9	
22:15					5		8		13	
22:30					3		5		8	
22:45					2	11	3	24	5	35
23:00					1		1		2	
23:15					1		1		2	
23:30					2		6		8	
23:45					2	6	0	8	2	14
TOTALS						652		539		**1191**
SPLIT %						54.7%		45.3%		**76.6%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	877	678	1,555

	NB	SB	EB	WB	Total
AM Peak Hour			10:30	11:45	**11:45**
AM Pk Volume			54	41	**93**
Pk Hr Factor			0.900	0.788	**0.705**
7 - 9 Volume	0	0	69	38	**107**
7 - 9 Peak Hour			8:00	8:00	**8:00**
7 - 9 Pk Volume	0	0	47	26	**73**
Pk Hr Factor	0.000	0.000	0.691	0.722	**0.869**

	NB	SB	EB	WB	Total
PM Peak Hour			15:00	14:45	**15:00**
PM Pk Volume			91	72	**160**
Pk Hr Factor			0.875	0.818	**0.870**
4 - 6 Volume	0	0	160	106	**266**
4 - 6 Peak Hour			16:30	16:15	**16:30**
4 - 6 Pk Volume	0	0	87	60	**145**
Pk Hr Factor	0.000	0.000	0.870	0.833	**0.954**

Prepared by National Data & Surveying Services

VOLUME

Chabot Rd Bet. Claremont Ave & College Ave

Day: Thursday
Date: 10/27/2022

City: Oakland
Project #: CA22_080310_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	855	667	1,522

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
0:00					0		0		0		12:00					16		12		28	
0:15					0		1		1		12:15					11		12		23	
0:30					0		0		0		12:30					16		15		31	
0:45					1	1	0	1	1	2	12:45					16	59	12	51	28	110
1:00					1		0		1		13:00					12		10		22	
1:15					0		1		1		13:15					19		19		38	
1:30					1		0		1		13:30					15		17		32	
1:45					0	2	1	2	1	4	13:45					16	62	16	62	32	124
2:00					0		0		0		14:00					17		13		30	
2:15					0		2		2		14:15					13		9		22	
2:30					1		0		1		14:30					12		8		20	
2:45					1	2	0	2	1	4	14:45					16	58	17	47	33	105
3:00					0		0		0		15:00					13		17		30	
3:15					0		0		0		15:15					19		12		31	
3:30					0		1		1		15:30					16		15		31	
3:45					0		0	1	0	1	15:45					23	71	21	65	44	136
4:00					0		1		1		16:00					20		10		30	
4:15					0		1		1		16:15					20		12		32	
4:30					0		0		0		16:30					22		10		32	
4:45					4	4	1	3	5	7	16:45					18	80	13	45	31	125
5:00					0		1		1		17:00					11		12		23	
5:15					1		1		2		17:15					17		11		28	
5:30					1		0		1		17:30					19		8		27	
5:45					1	3	0	2	1	5	17:45					15	62	15	46	30	108
6:00					6		0		6		18:00					18		17		35	
6:15					2		0		2		18:15					21		13		34	
6:30					2		2		4		18:30					12		18		30	
6:45					10	20	3	5	13	25	18:45					10	61	8	56	18	117
7:00					5		1		6		19:00					11		9		20	
7:15					5		5		10		19:15					17		15		32	
7:30					12		5		17		19:30					8		12		20	
7:45					11	33	6	17	17	50	19:45					12	48	13	49	25	97
8:00					15		4		19		20:00					8		9		17	
8:15					29		4		33		20:15					10		6		16	
8:30					14		10		24		20:30					12		5		17	
8:45					18	76	10	28	28	104	20:45					7	37	8	28	15	65
9:00					10		9		19		21:00					6		5		11	
9:15					13		4		17		21:15					5		13		18	
9:30					7		10		17		21:30					1		10		11	
9:45					10	40	5	28	15	68	21:45					0	12	5	33	5	45
10:00					11		7		18		22:00					2		2		4	
10:15					10		11		21		22:15					4		6		10	
10:30					8		5		13		22:30					1		6		7	
10:45					17	46	3	26	20	72	22:45					4	11	4	18	8	29
11:00					15		9		24		23:00					0		7		7	
11:15					17		9		26		23:15					0		4		4	
11:30					19		11		30		23:30					0		1		1	
11:45					15	66	9	38	24	104	23:45					1	1	2	14	3	15
TOTALS						293		153		**446**	**TOTALS**						562		514		**1076**
SPLIT %						65.7%		34.3%		**29.3%**	**SPLIT %**						52.2%		47.8%		**70.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	855	667	1,522

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour			8:00	11:45	**11:15**	**PM Peak Hour**			15:45	13:15	**15:45**
AM Pk Volume			76	48	**108**	**PM Pk Volume**			85	65	**138**
Pk Hr Factor			0.655	0.800	**0.900**	**Pk Hr Factor**			0.924	0.855	**0.784**
7 - 9 Volume	0	0	109	45	**154**	**4 - 6 Volume**	0	0	142	91	**233**
7 - 9 Peak Hour			8:00	8:00	**8:00**	**4 - 6 Peak Hour**			16:00	16:15	**16:00**
7 - 9 Pk Volume	0	0	76	28	**104**	**4 - 6 Pk Volume**	0	0	80	47	**125**
Pk Hr Factor	0.000	0.000	0.655	0.700	**0.788**	**Pk Hr Factor**	0.000	0.000	0.909	0.904	**0.977**

Prepared by National Data & Surveying Services

VOLUME

Chabot Rd Bet. Claremont Ave & College Ave

Day: Friday
Date: 10/28/2022

City: Oakland
Project #: CA22_080310_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	903	681	1,584

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			0		0		0		12:00			20		7		27	
0:15			1		0		1		12:15			22		17		39	
0:30			0		0		0		12:30			15		16		31	
0:45			0	1	0		0	1	12:45			19	76	18	58	37	134
1:00			0		0		0		13:00			11		10		21	
1:15			1		1		2		13:15			11		9		20	
1:30			0		0		0		13:30			8		7		15	
1:45			1	2	0	1	1	3	13:45			13	43	5	31	18	74
2:00			1		0		1		14:00			20		16		36	
2:15			0		0		0		14:15			13		17		30	
2:30			0		0		0		14:30			16		5		21	
2:45			0	1	0		0	1	14:45			18	67	11	49	29	116
3:00			0		0		0		15:00			17		15		32	
3:15			0		0		0		15:15			19		21		40	
3:30			0		0		0		15:30			25		18		43	
3:45			1	1	0		1	1	15:45			23	84	15	69	38	153
4:00			2		0		2		16:00			19		20		39	
4:15			0		1		1		16:15			24		12		36	
4:30			0		0		0		16:30			23		24		47	
4:45			1	3	0	1	1	4	16:45			21	87	13	69	34	156
5:00			2		0		2		17:00			17		18		35	
5:15			2		1		3		17:15			23		15		38	
5:30			1		0		1		17:30			23		13		36	
5:45			2	7	1	2	3	9	17:45			17	80	15	61	32	141
6:00			1		0		1		18:00			25		18		43	
6:15			1		0		1		18:15			11		10		21	
6:30			3		1		4		18:30			14		9		23	
6:45			6	11	4	5	10	16	18:45			19	69	13	50	32	119
7:00			2		0		2		19:00			17		21		38	
7:15			7		5		12		19:15			13		13		26	
7:30			8		1		9		19:30			14		5		19	
7:45			10	27	6	12	16	39	19:45			11	55	8	47	19	102
8:00			12		4		16		20:00			10		10		20	
8:15			18		8		26		20:15			10		4		14	
8:30			12		7		19		20:30			7		11		18	
8:45			18	60	7	26	25	86	20:45			5	32	9	34	14	66
9:00			8		4		12		21:00			6		8		14	
9:15			18		5		23		21:15			3		12		15	
9:30			14		9		23		21:30			4		4		8	
9:45			15	55	8	26	23	81	21:45			5	18	10	34	15	52
10:00			7		11		18		22:00			2		5		7	
10:15			9		4		13		22:15			4		2		6	
10:30			16		11		27		22:30			7		5		12	
10:45			11	43	7	33	18	76	22:45			0	13	0	12	0	25
11:00			11		10		21		23:00			6		4		10	
11:15			20		9		29		23:15			3		6		9	
11:30			8		12		20		23:30			0		5		5	
11:45			19	58	11	42	30	100	23:45			1	10	4	19	5	29
TOTALS				269		148		**417**	TOTALS				634		533		**1167**
SPLIT %				64.5%		35.5%		**26.3%**	SPLIT %				54.3%		45.7%		**73.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	903	681	1,584

	NB	SB	EB	WB	TOTAL		NB	SB	EB	WB	TOTAL
AM Peak Hour			11:45	11:45	**11:45**	PM Peak Hour			15:30	15:15	**15:15**
AM Pk Volume			76	51	**127**	PM Pk Volume			91	74	**160**
Pk Hr Factor			0.864	0.750	**0.814**	Pk Hr Factor			0.910	0.881	**0.930**
7 - 9 Volume	0	0	87	38	**125**	4 - 6 Volume	0	0	167	130	**297**
7 - 9 Peak Hour			8:00	8:00	**8:00**	4 - 6 Peak Hour			16:00	16:30	**16:00**
7 - 9 Pk Volume	0	0	60	26	**86**	4 - 6 Pk Volume	0	0	87	70	**156**
Pk Hr Factor	0.000	0.000	0.833	0.813	**0.827**	Pk Hr Factor	0.000	0.000	0.906	0.729	**0.830**

Prepared by National Data & Surveying Services

VOLUME

Chabot Rd Bet. Claremont Ave & College Ave

Day: Saturday **City:** Oakland

Date: 10/29/2022 **Project #:** CA22_080310_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	879	670	1,549

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			0		0		0		12:00			13		18		31	
0:15			2		3		5		12:15			13		12		25	
0:30			1		2		3		12:30			18		13		31	
0:45			2	5	3	8	5	13	12:45			22	66	9	52	31	118
1:00			4		0		4		13:00			24		24		48	
1:15			1		1		2		13:15			22		14		36	
1:30			1		1		2		13:30			21		11		32	
1:45			1	7	0	2	1	9	13:45			18	85	16	65	34	150
2:00			2		0		2		14:00			18		15		33	
2:15			0		2		2		14:15			17		16		33	
2:30			0		0		0		14:30			20		11		31	
2:45			1	3	0	2	1	5	14:45			14	69	18	60	32	129
3:00			0		0		0		15:00			19		29		48	
3:15			0		2		2		15:15			19		12		31	
3:30			0		0		0		15:30			11		14		25	
3:45			0		1	3	1	3	15:45			22	71	17	72	39	143
4:00			0		0		0		16:00			21		15		36	
4:15			0		0		0		16:15			16		14		30	
4:30			0		0		0		16:30			14		19		33	
4:45			2	2	0		2	2	16:45			22	73	9	57	31	130
5:00			1		0		1		17:00			22		15		37	
5:15			0		0		0		17:15			25		15		40	
5:30			2		0		2		17:30			16		13		29	
5:45			2	5	0		2	5	17:45			21	84	14	57	35	141
6:00			3		0		3		18:00			24		12		36	
6:15			1		0		1		18:15			10		11		21	
6:30			3		0		3		18:30			15		18		33	
6:45			3	10	2	2	5	12	18:45			15	64	13	54	28	118
7:00			2		0		2		19:00			13		13		26	
7:15			3		3		6		19:15			18		11		29	
7:30			7		0		7		19:30			12		9		21	
7:45			4	16	2	5	6	21	19:45			14	57	8	41	22	98
8:00			3		4		7		20:00			14		7		21	
8:15			3		2		5		20:15			6		11		17	
8:30			2		0		2		20:30			12		10		22	
8:45			11	19	2	8	13	27	20:45			3	35	7	35	10	70
9:00			8		4		12		21:00			6		5		11	
9:15			9		3		12		21:15			5		6		11	
9:30			10		5		15		21:30			5		10		15	
9:45			12	39	2	14	14	53	21:45			1	17	7	28	8	45
10:00			20		3		23		22:00			4		11		15	
10:15			26		6		32		22:15			3		1		4	
10:30			19		8		27		22:30			0		3		3	
10:45			16	81	11	28	27	109	22:45			4	11	4	19	8	30
11:00			14		8		22		23:00			2		6		8	
11:15			11		13		24		23:15			2		3		5	
11:30			12		14		26		23:30			2		2		4	
11:45			17	54	9	44	26	98	23:45			0	6	3	14	3	20
TOTALS				241		116		**357**	**TOTALS**				638		554		**1192**
SPLIT %				67.5%		32.5%		**23.0%**	**SPLIT %**				53.5%		46.5%		**77.0%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	879	670	1,549

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour			10:00	11:15	**11:45**	**PM Peak Hour**			12:45	14:15	**13:00**
AM Pk Volume			81	54	**113**	**PM Pk Volume**			89	74	**150**
Pk Hr Factor			0.779	0.750	**0.911**	**Pk Hr Factor**			0.927	0.638	**0.781**
7 - 9 Volume	0	0	35	13	**48**	**4 - 6 Volume**	0	0	157	114	**271**
7 - 9 Peak Hour			8:00	7:15	**8:00**	**4 - 6 Peak Hour**			16:45	16:30	**16:30**
7 - 9 Pk Volume	0	0	19	9	**27**	**4 - 6 Pk Volume**	0	0	85	58	**141**
Pk Hr Factor	0.000	0.000	0.432	0.563	**0.519**	**Pk Hr Factor**	0.000	0.000	0.850	0.763	**0.881**

Prepared by National Data & Surveying Services

VOLUME

Chabot Rd Bet. Claremont Ave & College Ave

Day: Sunday **City:** Oakland
Date: 10/30/2022 **Project #:** CA22_080310_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	794	633	1,427

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			3		2		5		12:00			15		19		34	
0:15			2		4		6		12:15			21		19		40	
0:30			4		0		4		12:30			25		20		45	
0:45			0	9	1	7	1	16	12:45			19	80	12	70	31	150
1:00			0		0		0		13:00			27		18		45	
1:15			0		1		1		13:15			15		19		34	
1:30			2		0		2		13:30			16		18		34	
1:45			1	3	1	2	2	5	13:45			21	79	16	71	37	150
2:00			0		1		1		14:00			15		8		23	
2:15			2		4		6		14:15			17		22		39	
2:30			1		0		1		14:30			23		18		41	
2:45			0	3	0	5	0	8	14:45			13	68	14	62	27	130
3:00			0		0		0		15:00			14		14		28	
3:15			0		0		0		15:15			13		19		32	
3:30			0		0		0		15:30			13		11		24	
3:45			0		0		0		15:45			18	58	13	57	31	115
4:00			0		3		3		16:00			10		10		20	
4:15			0		1		1		16:15			13		10		23	
4:30			1		0		1		16:30			15		15		30	
4:45			0	1	1	5	1	6	16:45			19	57	11	46	30	103
5:00			2		1		3		17:00			17		15		32	
5:15			1		0		1		17:15			15		10		25	
5:30			0		0		0		17:30			15		15		30	
5:45			0	3	0	1	0	4	17:45			14	61	11	51	25	112
6:00			1		0		1		18:00			15		8		23	
6:15			1		0		1		18:15			9		14		23	
6:30			3		1		4		18:30			14		9		23	
6:45			1	6	1	2	2	8	18:45			12	50	8	39	20	89
7:00			0		0		0		19:00			9		9		18	
7:15			0		0		0		19:15			6		13		19	
7:30			3		1		4		19:30			6		7		13	
7:45			1	4	1	2	2	6	19:45			9	30	7	36	16	66
8:00			3		1		4		20:00			7		9		16	
8:15			6		0		6		20:15			2		5		7	
8:30			9		1		10		20:30			4		7		11	
8:45			9	27	5	7	14	34	20:45			5	18	4	25	9	43
9:00			9		2		11		21:00			4		2		6	
9:15			7		3		10		21:15			2		4		6	
9:30			11		11		22		21:30			1		4		5	
9:45			14	41	2	18	16	59	21:45			1	8	2	12	3	20
10:00			14		9		23		22:00			2		5		7	
10:15			19		4		23		22:15			1		3		4	
10:30			20		10		30		22:30			0		3		3	
10:45			31	84	10	33	41	117	22:45			2	5	3	14	5	19
11:00			29		16		45		23:00			0		0		0	
11:15			22		17		39		23:15			0		0		0	
11:30			27		14		41		23:30			0		1		1	
11:45			21	99	20	67	41	166	23:45			0		0	1	0	1
TOTALS				280		149		**429**	**TOTALS**				514		484		**998**
SPLIT %				65.3%		34.7%		**30.1%**	**SPLIT %**				51.5%		48.5%		**69.9%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	794	633	1,427

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour			10:45	11:45	**10:45**	**PM Peak Hour**			12:15	13:00	**12:15**
AM Pk Volume			109	78	**166**	**PM Pk Volume**			92	71	**161**
Pk Hr Factor			0.879	0.975	**0.922**	**Pk Hr Factor**			0.852	0.934	**0.894**
7 - 9 Volume	0	0	31	9	**40**	**4 - 6 Volume**	0	0	118	97	**215**
7 - 9 Peak Hour			8:00	8:00	**8:00**	**4 - 6 Peak Hour**			16:30	16:15	**16:30**
7 - 9 Pk Volume	0	0	27	7	**34**	**4 - 6 Pk Volume**	0	0	66	51	**117**
Pk Hr Factor	0.000	0.000	0.750	0.350	**0.607**	**Pk Hr Factor**	0.000	0.000	0.868	0.850	**0.914**

Prepared by National Data & Surveying Services

VOLUME

College Ave Bet. Claremont Ave & Chabot Rd

Day: Wednesday
Date: 10/26/2022

City: Oakland
Project #: CA22_080310_002

DAILY TOTALS	NB	SB	EB	WB	Total
	4,940	5,237	0	0	10,177

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
0:00	2		8				10		12:00	80		108				188	
0:15	5		6				11		12:15	88		90				178	
0:30	2		6				8		12:30	83		105				188	
0:45	6	15	3	23			9	38	12:45	92	343	108	411			200	754
1:00	1		3				4		13:00	100		103				203	
1:15	1		5				6		13:15	98		98				196	
1:30	3		1				4		13:30	94		107				201	
1:45	3	8	1	10			4	18	13:45	82	374	109	417			191	791
2:00	4		1				5		14:00	89		117				206	
2:15	3		2				5		14:15	83		103				186	
2:30	3		1				4		14:30	85		82				167	
2:45	1	11	2	6			3	17	14:45	102	359	113	415			215	774
3:00	3		3				6		15:00	90		111				201	
3:15	0		3				3		15:15	95		108				203	
3:30	3		1				4		15:30	99		101				200	
3:45	4	10	0	7			4	17	15:45	92	376	110	430			202	806
4:00	2		7				9		16:00	90		122				212	
4:15	3		3				6		16:15	102		104				206	
4:30	3		4				7		16:30	106		130				236	
4:45	2	10	5	19			7	29	16:45	94	392	107	463			201	855
5:00	3		1				4		17:00	95		120				215	
5:15	9		7				16		17:15	93		114				207	
5:30	10		6				16		17:30	101		103				204	
5:45	15	37	14	28			29	65	17:45	86	375	112	449			198	824
6:00	12		14				26		18:00	99		140				239	
6:15	18		11				29		18:15	90		119				209	
6:30	23		18				41		18:30	76		102				178	
6:45	29	82	19	62			48	144	18:45	76	341	80	441			156	782
7:00	36		20				56		19:00	89		66				155	
7:15	47		45				92		19:15	67		80				147	
7:30	67		48				115		19:30	70		73				143	
7:45	60	210	56	169			116	379	19:45	61	287	52	271			113	558
8:00	65		56				121		20:00	48		44				92	
8:15	100		78				178		20:15	44		62				106	
8:30	106		72				178		20:30	67		51				118	
8:45	84	355	75	281			159	636	20:45	49	208	48	205			97	413
9:00	78		67				145		21:00	41		29				70	
9:15	65		73				138		21:15	36		21				57	
9:30	65		82				147		21:30	21		33				54	
9:45	71	279	62	284			133	563	21:45	31	129	27	110			58	239
10:00	71		70				141		22:00	31		20				51	
10:15	55		63				118		22:15	33		25				58	
10:30	86		74				160		22:30	14		10				24	
10:45	90	302	74	281			164	583	22:45	16	94	19	74			35	168
11:00	64		77				141		23:00	8		8				16	
11:15	73		86				159		23:15	13		10				23	
11:30	93		88				181		23:30	15		14				29	
11:45	73	303	91	342			164	645	23:45	4	40	7	39			11	79
TOTALS		1622		1512				**3134**	**TOTALS**		3318		3725				**7043**
SPLIT %		51.8%		48.2%				**30.8%**	**SPLIT %**		47.1%		52.9%				**69.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	4,940	5,237	0	0	10,177

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour	8:15	11:45			**11:45**	**PM Peak Hour**	16:15	17:30			**16:30**
AM Pk Volume	368	394			**718**	**PM Pk Volume**	397	474			**859**
Pk Hr Factor	0.868	0.912			**0.955**	**Pk Hr Factor**	0.936	0.846			**0.910**
7 - 9 Volume	565	450	0	0	**1015**	**4 - 6 Volume**	767	912	0	0	**1679**
7 - 9 Peak Hour	8:00	8:00			**8:00**	**4 - 6 Peak Hour**	16:15	16:30			**16:30**
7 - 9 Pk Volume	355	281	0	0	**636**	**4 - 6 Pk Volume**	397	471	0	0	**859**
Pk Hr Factor	0.837	0.901	0.000	0.000	**0.893**	**Pk Hr Factor**	0.936	0.906	0.000	0.000	**0.910**

Prepared by National Data & Surveying Services

VOLUME

College Ave Bet. Claremont Ave & Chabot Rd

Day: Thursday
Date: 10/27/2022

City: Oakland
Project #: CA22_080310_002

DAILY TOTALS	NB	SB	EB	WB	Total
	5,485	5,242	0	0	10,727

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
0:00	5		9				14		12:00	96		95				191	
0:15	3		7				10		12:15	88		93				181	
0:30	4		6				10		12:30	92		40				132	
0:45	4	16	3	25			7	41	12:45	79	355	93	321			172	676
1:00	1		5				6		13:00	88		96				184	
1:15	3		2				5		13:15	90		103				193	
1:30	2		2				4		13:30	89		77				166	
1:45	10	16	2	11			12	27	13:45	88	355	96	372			184	727
2:00	5		2				7		14:00	64		102				166	
2:15	4		5				9		14:15	90		97				187	
2:30	1		1				2		14:30	87		106				193	
2:45	1	11	3	11			4	22	14:45	90	331	114	419			204	750
3:00	2		4				6		15:00	99		98				197	
3:15	1		3				4		15:15	94		96				190	
3:30	3		1				4		15:30	96		120				216	
3:45	5	11	2	10			7	21	15:45	89	378	99	413			188	791
4:00	5		5				10		16:00	89		117				206	
4:15	4		1				5		16:15	84		117				201	
4:30	4		1				5		16:30	102		106				208	
4:45	4	17	8	15			12	32	16:45	93	368	114	454			207	822
5:00	9		3				12		17:00	104		121				225	
5:15	9		4				13		17:15	101		130				231	
5:30	14		6				20		17:30	92		109				201	
5:45	15	47	7	20			22	67	17:45	106	403	114	474			220	877
6:00	11		16				27		18:00	88		101				189	
6:15	14		15				29		18:15	87		118				205	
6:30	19		21				40		18:30	78		97				175	
6:45	30	74	18	70			48	144	18:45	83	336	97	413			180	749
7:00	33		17				50		19:00	68		71				139	
7:15	36		35				71		19:15	72		91				163	
7:30	53		51				104		19:30	64		64				128	
7:45	60	182	56	159			116	341	19:45	74	278	62	288			136	566
8:00	68		63				131		20:00	56		55				111	
8:15	106		82				188		20:15	48		66				114	
8:30	93		79				172		20:30	47		42				89	
8:45	115	382	75	299			190	681	20:45	48	199	54	217			102	416
9:00	149		82				231		21:00	51		39				90	
9:15	126		91				217		21:15	36		28				64	
9:30	119		66				185		21:30	31		34				65	
9:45	116	510	70	309			186	819	21:45	17	135	17	118			34	253
10:00	124		81				205		22:00	42		20				62	
10:15	113		62				175		22:15	26		27				53	
10:30	113		86				199		22:30	23		15				38	
10:45	118	468	76	305			194	773	22:45	25	116	21	83			46	199
11:00	122		89				211		23:00	21		16				37	
11:15	113		112				225		23:15	13		12				25	
11:30	111		93				204		23:30	17		10				27	
11:45	89	435	93	387			182	822	23:45	11	62	11	49			22	111
TOTALS		2169		1621				**3790**	**TOTALS**		3316		3621				**6937**
SPLIT %		57.2%		42.8%				**35.3%**	**SPLIT %**		47.8%		52.2%				**64.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	5,485	5,242	0	0	10,727

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour	9:00	11:15			**10:45**	**PM Peak Hour**	17:00	16:45			**17:00**
AM Pk Volume	510	393			**834**	**PM Pk Volume**	403	474			**877**
Pk Hr Factor	0.856	0.877			**0.927**	**Pk Hr Factor**	0.950	0.912			**0.949**
7 - 9 Volume	564	458	0	0	**1022**	**4 - 6 Volume**	771	928	0	0	**1699**
7 - 9 Peak Hour	8:00	8:00			**8:00**	**4 - 6 Peak Hour**	17:00	16:45			**17:00**
7 - 9 Pk Volume	382	299	0	0	**681**	**4 - 6 Pk Volume**	403	474	0	0	**877**
Pk Hr Factor	0.830	0.912	0.000	0.000	**0.896**	**Pk Hr Factor**	0.950	0.912	0.000	0.000	**0.949**

Prepared by National Data & Surveying Services

VOLUME

College Ave Bet. Claremont Ave & Chabot Rd

Day: Friday **City:** Oakland
Date: 10/28/2022 **Project #:** CA22_080310_002

DAILY TOTALS	NB	SB	EB	WB	Total
	5,437	5,784	0	0	11,221

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
0:00	8		10				18		12:00	100		116				216	
0:15	11		8				19		12:15	102		111				213	
0:30	7		8				15		12:30	108		121				229	
0:45	7	33	7	33			14	66	12:45	110	420	105	453			215	873
1:00	5		7				12		13:00	84		120				204	
1:15	3		5				8		13:15	101		122				223	
1:30	8		3				11		13:30	101		128				229	
1:45	5	21	5	20			10	41	13:45	119	405	139	509			258	914
2:00	1		4				5		14:00	84		129				213	
2:15	2		2				4		14:15	110		104				214	
2:30	0		2				2		14:30	98		117				215	
2:45	5	8	8	16			13	24	14:45	94	386	115	465			209	851
3:00	1		1				2		15:00	111		128				239	
3:15	0		6				6		15:15	98		110				208	
3:30	2		3				5		15:30	101		101				202	
3:45	8	11	6	16			14	27	15:45	93	403	110	449			203	852
4:00	2		1				3		16:00	102		117				219	
4:15	3		2				5		16:15	87		113				200	
4:30	0		3				3		16:30	100		119				219	
4:45	5	10	6	12			11	22	16:45	109	398	107	456			216	854
5:00	5		0				5		17:00	98		99				197	
5:15	9		8				17		17:15	102		114				216	
5:30	14		5				19		17:30	89		123				212	
5:45	19	47	10	23			29	70	17:45	108	397	121	457			229	854
6:00	22		17				39		18:00	83		134				217	
6:15	25		13				38		18:15	100		127				227	
6:30	22		14				36		18:30	78		91				169	
6:45	34	103	24	68			58	171	18:45	85	346	93	445			178	791
7:00	32		22				54		19:00	79		112				191	
7:15	32		40				72		19:15	71		76				147	
7:30	48		42				90		19:30	70		74				144	
7:45	72	184	58	162			130	346	19:45	68	288	63	325			131	613
8:00	86		53				139		20:00	72		46				118	
8:15	111		92				203		20:15	47		65				112	
8:30	84		77				161		20:30	45		46				91	
8:45	102	383	76	298			178	681	20:45	56	220	45	202			101	422
9:00	85		61				146		21:00	39		37				76	
9:15	64		84				148		21:15	42		36				78	
9:30	80		62				142		21:30	41		25				66	
9:45	97	326	66	273			163	599	21:45	33	155	38	136			71	291
10:00	81		76				157		22:00	41		35				76	
10:15	72		84				156		22:15	35		25				60	
10:30	81		100				181		22:30	32		23				55	
10:45	84	318	93	353			177	671	22:45	26	134	25	108			51	242
11:00	86		97				183		23:00	21		19				40	
11:15	85		93				178		23:15	24		27				51	
11:30	89		113				202		23:30	20		24				44	
11:45	101	361	110	413			211	774	23:45	15	80	22	92			37	172
TOTALS		1805		1687				**3492**	**TOTALS**		3632		4097				**7729**
SPLIT %		51.7%		48.3%				**31.1%**	**SPLIT %**		47.0%		53.0%				**68.9%**

DAILY TOTALS	NB	SB	EB	WB	Total
	5,437	5,784	0	0	11,221

	NB	SB	EB	WB	TOTAL		NB	SB	EB	WB	TOTAL
AM Peak Hour	11:45	11:45			**11:45**	PM Peak Hour	12:00	13:15			**13:15**
AM Pk Volume	411	458			**869**	PM Pk Volume	420	518			**923**
Pk Hr Factor	0.951	0.946			**0.949**	Pk Hr Factor	0.955	0.932			**0.894**
7 - 9 Volume	567	460	0	0	**1027**	4 - 6 Volume	795	913	0	0	**1708**
7 - 9 Peak Hour	8:00	8:00			**8:00**	4 - 6 Peak Hour	16:30	17:00			**16:00**
7 - 9 Pk Volume	383	298	0	0	**681**	4 - 6 Pk Volume	409	457	0	0	**854**
Pk Hr Factor	0.863	0.810	0.000	0.000	**0.839**	Pk Hr Factor	0.938	0.929	0.000	0.000	**0.975**

Prepared by National Data & Surveying Services

VOLUME

College Ave Bet. Claremont Ave & Chabot Rd

Day: Saturday
Date: 10/29/2022

City: Oakland
Project #: CA22_080310_002

DAILY TOTALS	NB	SB	EB	WB	Total
	4,951	5,313	0	0	10,264

AM Period	NB		SB		EB	WB	TOTAL	
0:00	17		18				35	
0:15	21		10				31	
0:30	14		12				26	
0:45	9	61	10	50			19	111
1:00	10		11				21	
1:15	15		8				23	
1:30	1		7				8	
1:45	10	36	9	35			19	71
2:00	9		6				15	
2:15	3		9				12	
2:30	5		5				10	
2:45	4	21	5	25			9	46
3:00	3		5				8	
3:15	4		6				10	
3:30	3		5				8	
3:45	2	12	5	21			7	33
4:00	2		2				4	
4:15	5		2				7	
4:30	4		3				7	
4:45	4	15	1	8			5	23
5:00	3		3				6	
5:15	7		3				10	
5:30	9		8				17	
5:45	4	23	4	18			8	41
6:00	12		6				18	
6:15	11		9				20	
6:30	12		5				17	
6:45	15	50	14	34			29	84
7:00	21		9				30	
7:15	15		18				33	
7:30	30		21				51	
7:45	28	94	30	78			58	172
8:00	39		40				79	
8:15	39		42				81	
8:30	51		40				91	
8:45	46	175	59	181			105	356
9:00	65		56				121	
9:15	68		59				127	
9:30	88		64				152	
9:45	71	292	81	260			152	552
10:00	84		68				152	
10:15	96		95				191	
10:30	92		94				186	
10:45	105	377	101	358			206	735
11:00	115		118				233	
11:15	97		104				201	
11:30	95		115				210	
11:45	101	408	90	427			191	835
TOTALS		1564		1495				3059
SPLIT %		51.1%		48.9%				29.8%

PM Period	NB		SB		EB	WB	TOTAL	
12:00	97		98				195	
12:15	88		113				201	
12:30	93		107				200	
12:45	101	379	123	441			224	820
13:00	108		108				216	
13:15	92		107				199	
13:30	92		128				220	
13:45	83	375	98	441			181	816
14:00	106		109				215	
14:15	95		117				212	
14:30	102		117				219	
14:45	78	381	126	469			204	850
15:00	85		105				190	
15:15	83		104				187	
15:30	92		123				215	
15:45	105	365	104	436			209	801
16:00	89		115				204	
16:15	86		110				196	
16:30	103		128				231	
16:45	85	363	124	477			209	840
17:00	93		99				192	
17:15	102		115				217	
17:30	85		104				189	
17:45	86	366	108	426			194	792
18:00	79		125				204	
18:15	93		98				191	
18:30	81		90				171	
18:45	75	328	81	394			156	722
19:00	79		71				150	
19:15	70		81				151	
19:30	59		64				123	
19:45	70	278	51	267			121	545
20:00	55		50				105	
20:15	66		60				126	
20:30	44		43				87	
20:45	36	201	29	182			65	383
21:00	46		41				87	
21:15	41		33				74	
21:30	44		32				76	
21:45	41	172	31	137			72	309
22:00	31		35				66	
22:15	27		21				48	
22:30	22		20				42	
22:45	25	105	17	93			42	198
23:00	20		17				37	
23:15	19		14				33	
23:30	20		17				37	
23:45	15	74	7	55			22	129
TOTALS		3387		3818				7205
SPLIT %		47.0%		53.0%				70.2%

DAILY TOTALS	NB	SB	EB	WB	Total
	4,951	5,313	0	0	10,264

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour	10:45	10:45			10:45	PM Peak Hour	12:30	16:00			12:45
AM Pk Volume	412	438			850	PM Pk Volume	394	477			859
Pk Hr Factor	0.896	0.928			0.912	Pk Hr Factor	0.912	0.932			0.959
7 - 9 Volume	269	259	0	0	528	4 - 6 Volume	729	903	0	0	1632
7 - 9 Peak Hour	8:00	8:00			8:00	4 - 6 Peak Hour	16:30	16:00			16:30
7 - 9 Pk Volume	175	181	0	0	356	4 - 6 Pk Volume	383	477	0	0	849
Pk Hr Factor	0.858	0.767	0.000	0.000	0.848	Pk Hr Factor	0.930	0.932	0.000	0.000	0.919

Prepared by National Data & Surveying Services

VOLUME

College Ave Bet. Claremont Ave & Chabot Rd

Day: Sunday
Date: 10/30/2022

City: Oakland
Project #: CA22_080310_002

DAILY TOTALS	NB	SB	EB	WB	Total
	4,219	4,934	0	0	9,153

AM Period	NB		SB		EB	WB	TOTAL	
0:00	9		14				23	
0:15	14		13				27	
0:30	11		11				22	
0:45	17	51	7	45			24	96
1:00	10		6				16	
1:15	13		9				22	
1:30	13		10				23	
1:45	10	46	9	34			19	80
2:00	10		5				15	
2:15	7		10				17	
2:30	6		5				11	
2:45	4	27	9	29			13	56
3:00	8		8				16	
3:15	5		8				13	
3:30	2		3				5	
3:45	2	17	1	20			3	37
4:00	2		7				9	
4:15	2		7				9	
4:30	1		4				5	
4:45	5	10	2	20			7	30
5:00	2		1				3	
5:15	7		5				12	
5:30	7		5				12	
5:45	5	21	2	13			7	34
6:00	13		7				20	
6:15	10		7				17	
6:30	13		5				18	
6:45	7	43	14	33			21	76
7:00	18		10				28	
7:15	15		15				30	
7:30	19		18				37	
7:45	26	78	23	66			49	144
8:00	35		27				62	
8:15	39		36				75	
8:30	51		51				102	
8:45	48	173	39	153			87	326
9:00	51		51				102	
9:15	54		57				111	
9:30	63		62				125	
9:45	51	219	70	240			121	459
10:00	73		67				140	
10:15	0		83				83	
10:30	73		103				176	
10:45	73	219	101	354			174	573
11:00	75		103				178	
11:15	77		109				186	
11:30	74		103				177	
11:45	94	320	113	428			207	748
TOTALS		1224		1435				2659
SPLIT %		46.0%		54.0%				29.1%

PM Period	NB		SB		EB	WB	TOTAL	
12:00	85		105				190	
12:15	70		116				186	
12:30	84		118				202	
12:45	98	337	118	457			216	794
13:00	89		136				225	
13:15	80		115				195	
13:30	89		109				198	
13:45	91	349	108	468			199	817
14:00	87		113				200	
14:15	95		103				198	
14:30	96		122				218	
14:45	77	355	100	438			177	793
15:00	91		105				196	
15:15	81		108				189	
15:30	75		92				167	
15:45	83	330	112	417			195	747
16:00	84		82				166	
16:15	76		86				162	
16:30	87		103				190	
16:45	90	337	101	372			191	709
17:00	89		124				213	
17:15	82		98				180	
17:30	78		122				200	
17:45	80	329	106	450			186	779
18:00	74		82				156	
18:15	71		91				162	
18:30	88		90				178	
18:45	76	309	84	347			160	656
19:00	75		89				164	
19:15	63		68				131	
19:30	60		61				121	
19:45	50	248	44	262			94	510
20:00	59		42				101	
20:15	50		24				74	
20:30	43		25				68	
20:45	45	197	24	115			69	312
21:00	40		19				59	
21:15	28		18				46	
21:30	25		19				44	
21:45	23	116	18	74			41	190
22:00	23		25				48	
22:15	15		14				29	
22:30	15		14				29	
22:45	10	63	8	61			18	124
23:00	7		7				14	
23:15	7		12				19	
23:30	7		9				16	
23:45	4	25	10	38			14	63
TOTALS		2995		3499				6494
SPLIT %		46.1%		53.9%				70.9%

DAILY TOTALS	NB	SB	EB	WB	Total
	4,219	4,934	0	0	9,153

	NB	SB	EB	WB	Total
AM Peak Hour	11:45	11:45			11:45
AM Pk Volume	333	452			785
Pk Hr Factor	0.886	0.958			0.948
7 - 9 Volume	251	219	0	0	470
7 - 9 Peak Hour	8:00	8:00			8:00
7 - 9 Pk Volume	173	153	0	0	326
Pk Hr Factor	0.848	0.750	0.000	0.000	0.799

	NB	SB	EB	WB	Total
PM Peak Hour	13:45	12:15			12:30
PM Pk Volume	369	488			838
Pk Hr Factor	0.961	0.897			0.931
4 - 6 Volume	666	822	0	0	1488
4 - 6 Peak Hour	16:30	17:00			16:45
4 - 6 Pk Volume	348	450	0	0	784
Pk Hr Factor	0.967	0.907	0.000	0.000	0.920

Prepared by National Data & Surveying Services

VOLUME

Claremont Ave Bet. College Ave & Chabot Rd

Day: Wednesday
Date: 10/26/2022

City: Oakland
Project #: CA22_080310_003

DAILY TOTALS	NB	SB	EB	WB	Total
	6,009	5,617	0	0	11,626

AM Period	NB		SB		EB	WB	TOTAL	
0:00	17		21				38	
0:15	15		16				31	
0:30	7		15				22	
0:45	3	42	9	61			12	103
1:00	10		6				16	
1:15	10		8				18	
1:30	6		5				11	
1:45	3	29	10	29			13	58
2:00	4		9				13	
2:15	4		11				15	
2:30	4		8				12	
2:45	2	14	4	32			6	46
3:00	1		6				7	
3:15	3		4				7	
3:30	7		3				10	
3:45	1	12	2	15			3	27
4:00	3		6				9	
4:15	7		6				13	
4:30	7		9				16	
4:45	11	28	11	32			22	60
5:00	17		10				27	
5:15	17		20				37	
5:30	16		18				34	
5:45	38	88	15	63			53	151
6:00	22		21				43	
6:15	36		25				61	
6:30	18		18				36	
6:45	45	121	29	93			74	214
7:00	58		34				92	
7:15	65		40				105	
7:30	80		46				126	
7:45	97	300	56	176			153	476
8:00	96		82				178	
8:15	100		74				174	
8:30	106		68				174	
8:45	152	454	87	311			239	765
9:00	95		82				177	
9:15	86		66				152	
9:30	90		70				160	
9:45	114	385	67	285			181	670
10:00	83		62				145	
10:15	78		73				151	
10:30	79		86				165	
10:45	111	351	60	281			171	632
11:00	90		80				170	
11:15	85		90				175	
11:30	95		80				175	
11:45	94	364	62	312			156	676
TOTALS		2188		1690				3878
SPLIT %		56.4%		43.6%				33.4%

PM Period	NB		SB		EB	WB	TOTAL	
12:00	92		86				178	
12:15	113		74				187	
12:30	105		93				198	
12:45	99	409	92	345			191	754
13:00	104		96				200	
13:15	96		91				187	
13:30	99		90				189	
13:45	97	396	77	354			174	750
14:00	110		71				181	
14:15	81		97				178	
14:30	91		115				206	
14:45	81	363	80	363			161	726
15:00	85		88				173	
15:15	95		97				192	
15:30	118		75				193	
15:45	117	415	97	357			214	772
16:00	106		88				194	
16:15	105		93				198	
16:30	105		108				213	
16:45	119	435	75	364			194	799
17:00	107		93				200	
17:15	142		91				233	
17:30	123		102				225	
17:45	139	511	107	393			246	904
18:00	110		108				218	
18:15	102		114				216	
18:30	93		104				197	
18:45	85	390	113	439			198	829
19:00	77		119				196	
19:15	84		72				156	
19:30	69		86				155	
19:45	64	294	107	384			171	678
20:00	54		86				140	
20:15	35		90				125	
20:30	38		77				115	
20:45	49	176	67	320			116	496
21:00	41		76				117	
21:15	38		79				117	
21:30	52		62				114	
21:45	44	175	69	286			113	461
22:00	48		74				122	
22:15	40		61				101	
22:30	34		44				78	
22:45	28	150	42	221			70	371
23:00	40		28				68	
23:15	25		26				51	
23:30	18		23				41	
23:45	24	107	24	101			48	208
TOTALS		3821		3927				7748
SPLIT %		49.3%		50.7%				66.6%

DAILY TOTALS	NB	SB	EB	WB	Total
	6,009	5,617	0	0	11,626

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour	8:00	11:15			8:00	PM Peak Hour	17:15	18:15			17:15
AM Pk Volume	454	318			765	PM Pk Volume	514	450			922
Pk Hr Factor	0.747	0.883			0.800	Pk Hr Factor	0.905	0.945			0.937
7 - 9 Volume	754	487	0	0	1241	4 - 6 Volume	946	757	0	0	1703
7 - 9 Peak Hour	8:00	8:00			8:00	4 - 6 Peak Hour	17:00	17:00			17:00
7 - 9 Pk Volume	454	311	0	0	765	4 - 6 Pk Volume	511	393	0	0	904
Pk Hr Factor	0.747	0.894	0.000	0.000	0.800	Pk Hr Factor	0.900	0.918	0.000	0.000	0.919

Prepared by National Data & Surveying Services

VOLUME

Claremont Ave Bet. College Ave & Chabot Rd

Day: Thursday
Date: 10/27/2022

City: Oakland
Project #: CA22_080310_003

DAILY TOTALS	NB	SB	EB	WB	Total
	6,243	5,941	0	0	12,184

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
0:00	24		20				44		12:00	91		90				181	
0:15	14		11				25		12:15	86		85				171	
0:30	8		13				21		12:30	105		97				202	
0:45	9	55	9	53			18	108	12:45	92	374	99	371			191	745
1:00	6		14				20		13:00	111		93				204	
1:15	10		8				18		13:15	92		110				202	
1:30	4		11				15		13:30	92		84				176	
1:45	6	26	5	38			11	64	13:45	106	401	101	388			207	789
2:00	4		9				13		14:00	93		97				190	
2:15	5		3				8		14:15	100		102				202	
2:30	4		8				12		14:30	87		111				198	
2:45	4	17	4	24			8	41	14:45	103	383	89	399			192	782
3:00	4		4				8		15:00	92		100				192	
3:15	3		10				13		15:15	94		97				191	
3:30	4		6				10		15:30	116		104				220	
3:45	2	13	4	24			6	37	15:45	120	422	116	417			236	839
4:00	5		9				14		16:00	100		88				188	
4:15	4		3				7		16:15	118		96				214	
4:30	6		6				12		16:30	112		106				218	
4:45	16	31	15	33			31	64	16:45	121	451	93	383			214	834
5:00	14		9				23		17:00	115		91				206	
5:15	19		27				46		17:15	112		101				213	
5:30	23		19				42		17:30	144		114				258	
5:45	33	89	19	74			52	163	17:45	123	494	106	412			229	906
6:00	20		19				39		18:00	93		94				187	
6:15	38		24				62		18:15	92		108				200	
6:30	26		24				50		18:30	96		99				195	
6:45	46	130	27	94			73	224	18:45	86	367	119	420			205	787
7:00	43		32				75		19:00	75		107				182	
7:15	68		34				102		19:15	71		101				172	
7:30	84		49				133		19:30	64		88				152	
7:45	110	305	64	179			174	484	19:45	67	277	81	377			148	654
8:00	91		71				162		20:00	56		76				132	
8:15	105		82				187		20:15	66		76				142	
8:30	122		77				199		20:30	60		99				159	
8:45	126	444	99	329			225	773	20:45	60	242	69	320			129	562
9:00	97		86				183		21:00	48		77				125	
9:15	110		60				170		21:15	57		75				132	
9:30	118		64				182		21:30	46		77				123	
9:45	123	448	76	286			199	734	21:45	51	202	82	311			133	513
10:00	103		85				188		22:00	51		78				129	
10:15	89		83				172		22:15	50		60				110	
10:30	92		62				154		22:30	47		53				100	
10:45	97	381	55	285			152	666	22:45	49	197	52	243			101	440
11:00	82		85				167		23:00	42		44				86	
11:15	87		88				175		23:15	34		42				76	
11:30	101		73				174		23:30	27		32				59	
11:45	91	361	88	334			179	695	23:45	30	133	29	147			59	280
TOTALS	2300		1753					**4053**	**TOTALS**	3943		4188					**8131**
SPLIT %	56.7%		43.3%					**33.3%**	**SPLIT %**	48.5%		51.5%					**66.7%**

DAILY TOTALS	NB	SB	EB	WB	Total
	6,243	5,941	0	0	12,184

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour	8:30	11:45			**8:15**	**PM Peak Hour**	17:00	18:15			**17:00**
AM Pk Volume	455	360			**794**	**PM Pk Volume**	494	433			**906**
Pk Hr Factor	0.903	0.928			**0.882**	**Pk Hr Factor**	0.858	0.910			**0.878**
7 - 9 Volume	749	508	0	0	**1257**	**4 - 6 Volume**	945	795	0	0	**1740**
7 - 9 Peak Hour	8:00	8:00			**8:00**	**4 - 6 Peak Hour**	17:00	17:00			**17:00**
7 - 9 Pk Volume	444	329	0	0	**773**	**4 - 6 Pk Volume**	494	412	0	0	**906**
Pk Hr Factor	0.881	0.831	0.000	0.000	**0.859**	**Pk Hr Factor**	0.858	0.904	0.000	0.000	**0.878**

Prepared by National Data & Surveying Services

VOLUME

Claremont Ave Bet. College Ave & Chabot Rd

Day: Friday
Date: 10/28/2022

City: Oakland
Project #: CA22_080310_003

DAILY TOTALS	NB	SB	EB	WB	Total
	6,901	6,698	0	0	13,599

AM Period	NB		SB		EB	WB	TOTAL	
0:00	16		31				47	
0:15	30		21				51	
0:30	21		29				50	
0:45	26	93	17	98			43	191
1:00	22		16				38	
1:15	15		18				33	
1:30	12		20				32	
1:45	8	57	11	65			19	122
2:00	14		12				26	
2:15	7		10				17	
2:30	3		10				13	
2:45	5	29	8	40			13	69
3:00	6		5				11	
3:15	7		10				17	
3:30	5		7				12	
3:45	6	24	6	28			12	52
4:00	6		12				18	
4:15	7		11				18	
4:30	10		13				23	
4:45	10	33	13	49			23	82
5:00	11		14				25	
5:15	22		13				35	
5:30	24		22				46	
5:45	42	99	20	69			62	168
6:00	24		21				45	
6:15	39		29				68	
6:30	36		31				67	
6:45	44	143	27	108			71	251
7:00	46		33				79	
7:15	51		50				101	
7:30	58		39				97	
7:45	85	240	47	169			132	409
8:00	93		72				165	
8:15	105		91				196	
8:30	107		82				189	
8:45	123	428	78	323			201	751
9:00	93		59				152	
9:15	88		71				159	
9:30	112		64				176	
9:45	115	408	76	270			191	678
10:00	100		85				185	
10:15	78		99				177	
10:30	101		82				183	
10:45	102	381	85	351			187	732
11:00	114		92				206	
11:15	107		100				207	
11:30	115		115				230	
11:45	99	435	91	398			190	833
TOTALS		2370		1968				**4338**
SPLIT %		54.6%		45.4%				**31.9%**

PM Period	NB		SB		EB	WB	TOTAL	
12:00	101		94				195	
12:15	125		112				237	
12:30	109		81				190	
12:45	100	435	103	390			203	825
13:00	98		94				192	
13:15	113		98				211	
13:30	97		100				197	
13:45	102	410	95	387			197	797
14:00	100		112				212	
14:15	102		71				173	
14:30	115		106				221	
14:45	115	432	92	381			207	813
15:00	126		108				234	
15:15	109		109				218	
15:30	112		107				219	
15:45	103	450	93	417			196	867
16:00	114		115				229	
16:15	100		91				191	
16:30	119		111				230	
16:45	141	474	102	419			243	893
17:00	108		100				208	
17:15	121		102				223	
17:30	99		109				208	
17:45	110	438	107	418			217	856
18:00	122		110				232	
18:15	122		102				224	
18:30	108		105				213	
18:45	114	466	95	412			209	878
19:00	121		99				220	
19:15	122		115				237	
19:30	98		104				202	
19:45	90	431	81	399			171	830
20:00	82		102				184	
20:15	76		77				153	
20:30	75		92				167	
20:45	92	325	88	359			180	684
21:00	60		76				136	
21:15	62		85				147	
21:30	62		82				144	
21:45	63	247	69	312			132	559
22:00	61		80				141	
22:15	60		76				136	
22:30	56		76				132	
22:45	42	219	72	304			114	523
23:00	46		108				154	
23:15	55		154				209	
23:30	61		173				234	
23:45	42	204	97	532			139	736
TOTALS		4531		4730				**9261**
SPLIT %		48.9%		51.1%				**68.1%**

DAILY TOTALS	NB	SB	EB	WB	Total
	6,901	6,698	0	0	13,599

	NB	SB	EB	WB	TOTAL		NB	SB	EB	WB	TOTAL
AM Peak Hour	11:30	11:30			**11:30**	**PM Peak Hour**	16:30	23:00			**16:30**
AM Pk Volume	440	412			**852**	**PM Pk Volume**	489	532			**904**
Pk Hr Factor	0.880	0.896			**0.899**	**Pk Hr Factor**	0.867	0.769			**0.930**
7 - 9 Volume	668	492	0	0	**1160**	**4 - 6 Volume**	912	837	0	0	**1749**
7 - 9 Peak Hour	8:00	8:00			**8:00**	**4 - 6 Peak Hour**	16:30	16:00			**16:30**
7 - 9 Pk Volume	428	323	0	0	**751**	**4 - 6 Pk Volume**	489	419	0	0	**904**
Pk Hr Factor	0.870	0.887	0.000	0.000	**0.934**	**Pk Hr Factor**	0.867	0.911	0.000	0.000	**0.930**

Prepared by National Data & Surveying Services

VOLUME

Claremont Ave Bet. College Ave & Chabot Rd

Day: Saturday **City:** Oakland

Date: 10/29/2022 **Project #:** CA22_080310_003

DAILY TOTALS	NB	SB	EB	WB	Total
	6,301	6,158	0	0	12,459

AM Period	NB		SB		EB	WB	TOTAL		PM Period	NB		SB		EB	WB	TOTAL	
0:00	26		69				95		12:00	117		92				209	
0:15	40		39				79		12:15	116		105				221	
0:30	37		62				99		12:30	119		99				218	
0:45	35	138	36	206			71	344	12:45	99	451	101	397			200	848
1:00	28		45				73		13:00	107		98				205	
1:15	24		43				67		13:15	109		101				210	
1:30	29		34				63		13:30	103		76				179	
1:45	20	101	31	153			51	254	13:45	95	414	99	374			194	788
2:00	23		31				54		14:00	93		83				176	
2:15	24		33				57		14:15	96		78				174	
2:30	21		29				50		14:30	93		106				199	
2:45	15	83	15	108			30	191	14:45	98	380	75	342			173	722
3:00	9		14				23		15:00	64		98				162	
3:15	7		12				19		15:15	76		98				174	
3:30	12		16				28		15:30	127		104				231	
3:45	10	38	14	56			24	94	15:45	89	356	93	393			182	749
4:00	7		8				15		16:00	100		119				219	
4:15	9		13				22		16:15	88		112				200	
4:30	12		8				20		16:30	84		117				201	
4:45	9	37	6	35			15	72	16:45	87	359	142	490			229	849
5:00	18		16				34		17:00	99		121				220	
5:15	20		13				33		17:15	77		124				201	
5:30	14		12				26		17:30	84		104				188	
5:45	22	74	9	50			31	124	17:45	87	347	113	462			200	809
6:00	20		17				37		18:00	81		118				199	
6:15	25		11				36		18:15	82		104				186	
6:30	22		24				46		18:30	83		94				177	
6:45	31	98	13	65			44	163	18:45	95	341	85	401			180	742
7:00	31		32				63		19:00	49		94				143	
7:15	32		29				61		19:15	83		69				152	
7:30	44		28				72		19:30	84		86				170	
7:45	61	168	37	126			98	294	19:45	66	282	81	330			147	612
8:00	56		46				102		20:00	53		79				132	
8:15	70		36				106		20:15	58		84				142	
8:30	105		53				158		20:30	58		77				135	
8:45	96	327	61	196			157	523	20:45	59	228	59	299			118	527
9:00	78		64				142		21:00	49		69				118	
9:15	95		74				169		21:15	55		58				113	
9:30	98		62				160		21:30	78		78				156	
9:45	126	397	85	285			211	682	21:45	72	254	67	272			139	526
10:00	143		83				226		22:00	53		68				121	
10:15	115		72				187		22:15	62		69				131	
10:30	118		91				209		22:30	59		59				118	
10:45	140	516	85	331			225	847	22:45	62	236	44	240			106	476
11:00	116		79				195		23:00	64		49				113	
11:15	105		100				205		23:15	46		47				93	
11:30	104		94				198		23:30	54		52				106	
11:45	133	458	92	365			225	823	23:45	54	218	34	182			88	400
TOTALS		2435		1976				**4411**	**TOTALS**		3866		4182				**8048**
SPLIT %		55.2%		44.8%				**35.4%**	**SPLIT %**		48.0%		52.0%				**64.6%**

DAILY TOTALS	NB	SB	EB	WB	Total
	6,301	6,158	0	0	12,459

	NB	SB	EB	WB	TOTAL		NB	SB	EB	WB	TOTAL
AM Peak Hour	10:00	11:45			**11:45**	**PM Peak Hour**	12:00	16:30			**16:30**
AM Pk Volume	516	388			**873**	**PM Pk Volume**	451	504			**851**
Pk Hr Factor	0.902	0.924			**0.970**	**Pk Hr Factor**	0.947	0.887			**0.929**
7 - 9 Volume	495	322	0	0	**817**	**4 - 6 Volume**	706	952	0	0	**1658**
7 - 9 Peak Hour	8:00	8:00			**8:00**	**4 - 6 Peak Hour**	16:00	16:30			**16:30**
7 - 9 Pk Volume	327	196	0	0	**523**	**4 - 6 Pk Volume**	359	504	0	0	**851**
Pk Hr Factor	0.779	0.803	0.000	0.000	**0.828**	**Pk Hr Factor**	0.898	0.887	0.000	0.000	**0.929**

Prepared by National Data & Surveying Services

VOLUME

Claremont Ave Bet. College Ave & Chabot Rd

Day: Sunday
Date: 10/30/2022

City: Oakland
Project #: CA22_080310_003

DAILY TOTALS	NB	SB	EB	WB	Total
	6,002	6,048	0	0	12,050

AM Period	NB		SB		EB	WB	TOTAL	
0:00	21		46				67	
0:15	41		26				67	
0:30	30		41				71	
0:45	36	128	36	149			72	277
1:00	16		36				52	
1:15	29		44				73	
1:30	28		38				66	
1:45	20	93	33	151			53	244
2:00	24		34				58	
2:15	25		31				56	
2:30	19		26				45	
2:45	21	89	15	106			36	195
3:00	18		28				46	
3:15	16		22				38	
3:30	11		24				35	
3:45	16	61	19	93			35	154
4:00	12		14				26	
4:15	4		8				12	
4:30	10		12				22	
4:45	11	37	6	40			17	77
5:00	12		15				27	
5:15	9		12				21	
5:30	7		13				20	
5:45	16	44	7	47			23	91
6:00	15		11				26	
6:15	21		17				38	
6:30	18		6				24	
6:45	24	78	15	49			39	127
7:00	26		20				46	
7:15	16		17				33	
7:30	27		15				42	
7:45	39	108	35	87			74	195
8:00	46		22				68	
8:15	57		30				87	
8:30	69		53				122	
8:45	85	257	57	162			142	419
9:00	54		56				110	
9:15	76		63				139	
9:30	85		77				162	
9:45	109	324	81	277			190	601
10:00	102		64				166	
10:15	106		89				195	
10:30	107		83				190	
10:45	113	428	97	333			210	761
11:00	102		92				194	
11:15	111		89				200	
11:30	102		101				203	
11:45	99	414	114	396			213	810
TOTALS		2061		1890				**3951**
SPLIT %		52.2%		47.8%				**32.8%**

PM Period	NB		SB		EB	WB	TOTAL	
12:00	115		81				196	
12:15	130		100				230	
12:30	127		112				239	
12:45	97	469	116	409			213	878
13:00	125		117				242	
13:15	107		97				204	
13:30	121		87				208	
13:45	125	478	103	404			228	882
14:00	110		98				208	
14:15	107		103				210	
14:30	122		117				239	
14:45	129	468	100	418			229	886
15:00	83		96				179	
15:15	111		94				205	
15:30	106		104				210	
15:45	118	418	101	395			219	813
16:00	101		111				212	
16:15	90		101				191	
16:30	93		104				197	
16:45	92	376	110	426			202	802
17:00	92		102				194	
17:15	93		128				221	
17:30	84		108				192	
17:45	94	363	103	441			197	804
18:00	95		97				192	
18:15	87		104				191	
18:30	78		102				180	
18:45	80	340	106	409			186	749
19:00	72		84				156	
19:15	79		86				165	
19:30	69		75				144	
19:45	68	288	83	328			151	616
20:00	70		73				143	
20:15	65		89				154	
20:30	52		73				125	
20:45	55	242	63	298			118	540
21:00	62		69				131	
21:15	51		66				117	
21:30	50		60				110	
21:45	44	207	68	263			112	470
22:00	59		64				123	
22:15	44		60				104	
22:30	35		60				95	
22:45	39	177	44	228			83	405
23:00	40		43				83	
23:15	30		30				60	
23:30	25		39				64	
23:45	20	115	27	139			47	254
TOTALS		3941		4158				**8099**
SPLIT %		48.7%		51.3%				**67.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	6,002	6,048	0	0	12,050

	NB	SB	EB	WB	TOTAL
AM Peak Hour	11:45	11:45			**11:45**
AM Pk Volume	471	407			**878**
Pk Hr Factor	0.906	0.893			**0.918**
7 - 9 Volume	365	249	0	0	**614**
7 - 9 Peak Hour	8:00	8:00			**8:00**
7 - 9 Pk Volume	257	162	0	0	**419**
Pk Hr Factor	0.756	0.711	0.000	0.000	**0.738**

	NB	SB	EB	WB	TOTAL
PM Peak Hour	12:15	16:45			**12:15**
PM Pk Volume	479	448			**924**
Pk Hr Factor	0.921	0.875			**0.955**
4 - 6 Volume	739	867	0	0	**1606**
4 - 6 Peak Hour	16:00	16:45			**16:30**
4 - 6 Pk Volume	376	448	0	0	**814**
Pk Hr Factor	0.931	0.875	0.000	0.000	**0.921**

National Data & Surveying Services Intersection Turning Movement Count

Location: College Ave & Chabot Rd
City: Oakland
Control: 2-Way Stop(EB/WB)

Project ID: 23-080180-001
Date: 5/23/2023

Data - Total

NS/EW Streets:	College Ave				College Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	33	2	0	2	18	1	0	1	1	1	0	2	1	5	0	69
7:15 AM	2	46	2	0	5	33	0	1	0	1	3	0	0	2	2	0	97
7:30 AM	2	38	4	0	4	48	2	0	0	3	3	0	1	2	1	0	108
7:45 AM	5	56	5	0	3	51	1	0	2	2	4	0	2	2	6	0	139
8:00 AM	4	61	11	0	10	44	4	0	0	5	8	0	6	2	13	0	168
8:15 AM	5	85	13	0	13	69	1	0	1	5	11	0	9	11	17	0	240
8:30 AM	5	102	5	0	8	72	4	0	2	7	3	0	12	8	16	0	244
8:45 AM	5	79	7	0	7	70	7	0	2	5	7	0	3	2	11	0	205
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	30	500	49	0	52	405	20	1	8	29	40	0	35	30	71	0	1270
APPROACH %'s :	5.18%	86.36%	8.46%	0.00%	10.88%	84.73%	4.18%	0.21%	10.39%	37.66%	51.95%	0.00%	25.74%	22.06%	52.21%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	19	327	36	0	38	255	16	0	5	22	29	0	30	23	57	0	857
PEAK HR FACTOR :	0.950	0.801	0.692	0.000	0.731	0.885	0.571	0.000	0.625	0.786	0.659	0.000	0.625	0.523	0.838	0.000	0.878
	0.853				0.920				0.824				0.743				

NS/EW Streets:	College Ave				College Ave				Chabot Rd				Chabot Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	7	95	11	0	12	94	4	0	1	13	10	0	3	2	11	0	263
4:15 PM	9	92	6	0	10	81	4	0	3	18	12	0	1	0	9	0	245
4:30 PM	11	98	10	0	12	86	11	0	1	7	19	0	4	3	11	0	273
4:45 PM	5	86	12	0	16	100	10	2	2	15	12	0	6	0	16	0	282
5:00 PM	5	85	9	1	9	79	8	0	4	16	18	0	11	2	13	0	260
5:15 PM	6	66	5	0	11	94	4	0	5	16	10	0	4	4	18	0	243
5:30 PM	7	84	11	0	7	96	4	1	6	10	8	0	3	2	11	0	250
5:45 PM	6	85	6	0	7	81	6	0	4	6	18	0	8	3	7	0	237
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	56	691	70	1	84	711	51	3	26	101	107	0	40	16	96	0	2053
APPROACH %'s :	6.85%	84.47%	8.56%	0.12%	9.89%	83.75%	6.01%	0.35%	11.11%	43.16%	45.73%	0.00%	26.32%	10.53%	63.16%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	32	371	39	0	50	361	29	2	7	53	53	0	14	5	47	0	1063
PEAK HR FACTOR :	0.727	0.946	0.813	0.000	0.781	0.903	0.659	0.250	0.583	0.736	0.697	0.000	0.583	0.417	0.734	0.000	0.942
	0.929				0.863				0.856				0.750				

National Data & Surveying Services Intersection Turning Movement Count

Location: College Ave & Chabot Rd
City: Oakland
Control: 2-Way Stop(EB/WB)

Project ID: 23-080180-001
Date: 5/23/2023

Data - Cars

NS/EW Streets:	College Ave				College Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	29	2	0	2	12	1	0	1	1	1	0	2	1	5	0	59
7:15 AM	2	43	2	0	4	31	0	1	0	1	1	0	0	2	2	0	89
7:30 AM	2	35	4	0	4	44	2	0	0	2	3	0	1	2	1	0	100
7:45 AM	5	51	5	0	3	48	1	0	2	2	4	0	2	2	5	0	130
8:00 AM	4	60	11	0	10	41	4	0	0	4	8	0	6	2	13	0	163
8:15 AM	5	81	13	0	13	65	1	0	1	5	11	0	9	11	16	0	231
8:30 AM	5	98	5	0	7	70	4	0	2	7	3	0	12	8	16	0	237
8:45 AM	4	76	7	0	7	67	7	0	2	5	7	0	3	2	11	0	198
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	29	473	49	0	50	378	20	1	8	27	38	0	35	30	69	0	1207
APPROACH %'s :	5.26%	85.84%	8.89%	0.00%	11.14%	84.19%	4.45%	0.22%	10.96%	36.99%	52.05%	0.00%	26.12%	22.39%	51.49%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	18	315	36	0	37	243	16	0	5	21	29	0	30	23	56	0	829
PEAK HR FACTOR :	0.900	0.804	0.692	0.000	0.712	0.868	0.571	0.000	0.625	0.750	0.659	0.000	0.625	0.523	0.875	0.000	0.874
	0.854				0.914				0.809				0.757				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	7	91	11	0	12	90	4	0	1	13	10	0	3	1	10	0	253
4:15 PM	6	87	6	0	10	79	4	0	3	18	12	0	1	0	9	0	235
4:30 PM	11	94	9	0	12	82	11	0	1	7	19	0	4	3	11	0	264
4:45 PM	5	83	12	0	16	99	10	2	2	15	12	0	6	0	15	0	277
5:00 PM	5	83	9	1	8	75	8	0	4	16	17	0	11	2	13	0	252
5:15 PM	6	65	5	0	11	93	4	0	5	16	10	0	4	3	18	0	240
5:30 PM	7	82	11	0	7	92	4	1	6	10	8	0	3	2	11	0	244
5:45 PM	6	80	6	0	7	78	5	0	4	6	18	0	8	3	7	0	228
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	53	665	69	1	83	688	50	3	26	101	106	0	40	14	94	0	1993
APPROACH %'s :	6.73%	84.39%	8.76%	0.13%	10.07%	83.50%	6.07%	0.36%	11.16%	43.35%	45.49%	0.00%	27.03%	9.46%	63.51%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	29	355	38	0	50	350	29	2	7	53	53	0	14	4	45	0	1029
PEAK HR FACTOR :	0.659	0.944	0.792	0.000	0.781	0.884	0.659	0.250	0.583	0.736	0.697	0.000	0.583	0.333	0.750	0.000	0.929
	0.925				0.848				0.856				0.750				

National Data & Surveying Services Intersection Turning Movement Count

Location: College Ave & Chabot Rd
City: Oakland
Control: 2-Way Stop(EB/WB)

Project ID: 23-080180-001
Date: 5/23/2023

Data - HT

NS/EW Streets: College Ave (Northbound), College Ave (Southbound), Chabot Rd (Eastbound), Chabot Rd (Westbound)

AM

AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	4	0	0	0	6	0	0	0	0	0	0	0	0	0	0	10
7:15 AM	0	3	0	0	1	2	0	0	0	0	2	0	0	0	0	0	8
7:30 AM	0	3	0	0	0	4	0	0	0	1	0	0	0	0	0	0	8
7:45 AM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	1	0	9
8:00 AM	0	1	0	0	0	3	0	0	0	1	0	0	0	0	0	0	5
8:15 AM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	1	0	9
8:30 AM	0	4	0	0	1	2	0	0	0	0	0	0	0	0	0	0	7
8:45 AM	1	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	27	0	0	2	27	0	0	0	2	2	0	0	0	2	0	63
APPROACH %'s :	3.57%	96.43%	0.00%	0.00%	6.90%	93.10%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	1	12	0	0	1	12	0	0	0	1	0	0	0	0	1	0	28
PEAK HR FACTOR :	0.250	0.750	0.000	0.000	0.250	0.750	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.778
	0.813				0.813				0.250				0.250				

PM

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	1	1	0	10
4:15 PM	3	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	10
4:30 PM	0	4	1	0	0	4	0	0	0	0	0	0	0	0	0	0	9
4:45 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	1	0	5
5:00 PM	0	2	0	0	1	4	0	0	0	0	1	0	0	0	0	0	8
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	1	0	0	3
5:30 PM	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	6
5:45 PM	0	5	0	0	0	3	1	0	0	0	0	0	0	0	0	0	9
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	3	26	1	0	1	23	1	0	0	0	1	0	0	2	2	0	60
APPROACH %'s :	10.00%	86.67%	3.33%	0.00%	4.00%	92.00%	4.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	50.00%	50.00%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	3	16	1	0	0	11	0	0	0	0	0	0	0	1	2	0	34
PEAK HR FACTOR :	0.250	0.800	0.250	0.000	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.500	0.000	0.850
	0.625				0.688								0.375				

National Data & Surveying Services Intersection Turning Movement Count

Location: College Ave & Chabot Rd
City: Oakland
Control: 2-Way Stop(EB/WB)

Project ID: 23-080180-001
Date: 5/23/2023

Data - Bikes

NS/EW Streets:	College Ave				College Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	1	0	4
7:15 AM	0	1	1	0	0	3	0	0	0	0	0	0	0	0	2	0	7
7:30 AM	0	5	0	0	0	4	0	0	0	0	0	0	1	1	0	0	11
7:45 AM	0	3	3	0	0	5	0	0	0	0	0	0	2	0	3	0	16
8:00 AM	0	5	5	0	0	4	0	0	0	1	0	0	0	0	1	0	16
8:15 AM	0	8	6	0	1	6	0	0	0	0	0	0	1	1	1	0	24
8:30 AM	0	8	0	0	0	5	0	0	0	0	0	0	1	0	0	0	14
8:45 AM	0	5	0	0	1	8	0	0	0	1	0	0	2	0	2	0	19
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	37	15	0	2	36	0	0	0	2	0	0	7	2	10	0	111
APPROACH %'s :	0.00%	71.15%	28.85%	0.00%	5.26%	94.74%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	36.84%	10.53%	52.63%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	26	11	0	2	23	0	0	0	2	0	0	4	1	4	0	73
PEAK HR FACTOR :	0.000	0.813	0.458	0.000	0.500	0.719	0.000	0.000	0.000	0.500	0.000	0.000	0.500	0.250	0.500	0.000	0.760
	0.661				0.694				0.500				0.563				

	College Ave				College Ave				Chabot Rd				Chabot Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	4	1	0	0	3	0	0	0	0	0	0	0	0	0	0	8
4:15 PM	0	4	1	0	1	6	0	0	0	0	0	0	2	0	1	0	15
4:30 PM	0	4	0	0	2	6	0	0	0	0	0	0	1	0	0	0	13
4:45 PM	0	3	4	0	5	7	0	0	0	0	0	0	2	0	1	0	22
5:00 PM	0	7	1	0	2	10	1	0	0	0	1	0	1	0	0	0	23
5:15 PM	0	6	4	0	1	3	0	0	0	0	0	0	2	0	1	0	17
5:30 PM	0	7	0	0	1	10	2	0	0	1	0	0	1	0	0	0	22
5:45 PM	0	3	0	0	0	13	0	0	0	0	0	0	1	0	0	0	17
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	38	11	0	12	58	3	0	0	1	1	0	10	0	3	0	137
APPROACH %'s :	0.00%	77.55%	22.45%	0.00%	16.44%	79.45%	4.11%	0.00%	0.00%	50.00%	50.00%	0.00%	76.92%	0.00%	23.08%	0.00%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	15	6	0	8	22	0	0	0	0	0	0	5	0	2	0	58
PEAK HR FACTOR :	0.000	0.938	0.375	0.000	0.400	0.786	0.000	0.000	0.000	0.000	0.000	0.000	0.625	0.000	0.500	0.000	0.659
	0.750				0.625				0.000				0.583				

National Data & Surveying Services Intersection Turning Movement Count

Location: College Ave & Chabot Rd
City: Oakland

Project ID: 23-080180-001
Date: 5/23/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	College Ave		College Ave		Chabot Rd		Chabot Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	1	0	1	2	2	7	2	3	18
7:15 AM	1	1	2	2	9	9	2	7	33
7:30 AM	4	2	2	1	1	8	5	5	28
7:45 AM	1	2	3	2	6	11	6	11	42
8:00 AM	2	2	4	1	10	9	6	16	50
8:15 AM	5	0	12	0	6	13	1	10	47
8:30 AM	2	0	1	5	3	14	9	10	44
8:45 AM	0	0	2	6	5	5	9	7	34
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	16	7	27	19	42	76	40	69	296
APPROACH %'s :	69.57%	30.43%	58.70%	41.30%	35.59%	64.41%	36.70%	63.30%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	9	2	19	12	24	41	25	43	175
PEAK HR FACTOR :	0.450	0.250	0.396	0.500	0.600	0.732	0.694	0.672	0.875
	0.550		0.646		0.855		0.773		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	7	3	6	3	18	20	18	30	105
4:15 PM	8	11	8	5	22	19	19	30	122
4:30 PM	3	5	6	3	7	13	23	21	81
4:45 PM	8	4	8	7	28	18	41	30	144
5:00 PM	9	4	3	8	19	25	20	28	116
5:15 PM	16	11	7	3	31	9	24	13	114
5:30 PM	18	9	9	4	35	17	34	17	143
5:45 PM	8	9	6	6	17	18	23	20	107
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	77	56	53	39	177	139	202	189	932
APPROACH %'s :	57.89%	42.11%	57.61%	42.39%	56.01%	43.99%	51.66%	48.34%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	26	23	28	18	75	70	101	111	452
PEAK HR FACTOR :	0.813	0.523	0.875	0.643	0.670	0.875	0.616	0.925	0.785
	0.645		0.767		0.788		0.746		

National Data & Surveying Services # Intersection Turning Movement Count

Location: Dreyers Dwy & Chabot Rd
City: Oakland
Control: No Control

Project ID: 23-080180-002
Date: 5/23/2023

Data - Total

NS/EW Streets:	Dreyers Dwy				Dreyers Dwy				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	1	0	2	3	0	0	0	1	3	0	10
7:15 AM	0	0	0	0	0	0	0	0	1	5	0	0	0	2	2	0	10
7:30 AM	0	0	0	0	0	0	1	0	3	5	0	0	0	5	1	0	15
7:45 AM	0	0	0	0	1	0	0	0	1	8	0	0	0	5	3	0	18
8:00 AM	0	0	0	0	0	0	0	0	1	12	0	0	0	8	2	0	23
8:15 AM	0	0	0	0	1	0	0	0	3	16	0	0	0	12	5	0	37
8:30 AM	0	0	0	0	0	0	0	0	1	12	0	0	0	14	2	1	30
8:45 AM	0	0	0	0	0	0	0	0	7	13	0	0	0	9	5	0	34
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	2	0	2	0	19	74	0	0	0	56	23	1	177
APPROACH %'s :					50.00%	0.00%	50.00%	0.00%	20.43%	79.57%	0.00%	0.00%	0.00%	70.00%	28.75%	1.25%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	12	53	0	0	0	43	14	1	124
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.429	0.828	0.000	0.000	0.000	0.768	0.700	0.250	0.838
					0.250				0.813				0.853				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	4	0	2	0	1	21	0	0	0	11	2	0	41
4:15 PM	0	0	0	0	5	0	2	0	1	30	0	0	0	10	3	0	51
4:30 PM	0	0	0	0	5	0	3	0	3	19	0	0	0	19	5	0	54
4:45 PM	0	0	0	0	7	0	1	0	0	22	0	0	0	9	7	0	46
5:00 PM	0	0	0	0	5	0	4	0	4	32	0	0	0	11	3	0	59
5:15 PM	0	0	0	0	4	0	4	0	1	28	0	1	0	11	4	0	53
5:30 PM	0	0	0	0	5	0	4	0	0	18	0	0	0	10	3	0	40
5:45 PM	0	0	0	0	4	0	2	0	0	25	0	0	0	13	1	0	45
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	39	0	22	0	10	195	0	1	0	94	28	0	389
APPROACH %'s :					63.93%	0.00%	36.07%	0.00%	4.85%	94.66%	0.00%	0.49%	0.00%	77.05%	22.95%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	21	0	12	0	8	101	0	1	0	50	19	0	212
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.000	0.500	0.789	0.000	0.250	0.000	0.658	0.679	0.000	0.898
					0.917				0.764				0.719				

National Data & Surveying Services Intersection Turning Movement Count

Location: Dreyers Dwy & Chabot Rd
City: Oakland
Control: No Control

Project ID: 23-080180-002
Date: 5/23/2023

Data - Cars

NS/EW Streets:	Dreyers Dwy				Dreyers Dwy				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	1	0	2	3	0	0	0	1	3	0	10
7:15 AM	0	0	0	0	0	0	0	0	1	3	0	0	0	2	2	0	8
7:30 AM	0	0	0	0	0	0	1	0	3	4	0	0	0	5	1	0	14
7:45 AM	0	0	0	0	1	0	0	0	1	8	0	0	0	5	3	0	18
8:00 AM	0	0	0	0	0	0	0	0	1	11	0	0	0	8	2	0	22
8:15 AM	0	0	0	0	1	0	0	0	3	16	0	0	0	12	5	0	37
8:30 AM	0	0	0	0	0	0	0	0	1	12	0	0	0	14	2	1	30
8:45 AM	0	0	0	0	0	0	0	0	7	13	0	0	0	8	5	0	33
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	2	0	2	0	19	70	0	0	0	55	23	1	172
APPROACH %'s :					50.00%	0.00%	50.00%	0.00%	21.35%	78.65%	0.00%	0.00%	0.00%	69.62%	29.11%	1.27%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	12	52	0	0	0	42	14	1	122
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.429	0.813	0.000	0.000	0.000	0.750	0.700	0.250	0.824
					0.250				0.800				0.838				

	Dreyers Dwy				Dreyers Dwy				Chabot Rd				Chabot Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	4	0	2	0	1	21	0	0	0	10	2	0	40
4:15 PM	0	0	0	0	5	0	2	0	1	30	0	0	0	7	3	0	48
4:30 PM	0	0	0	0	5	0	3	0	3	19	0	0	0	19	5	0	54
4:45 PM	0	0	0	0	7	0	1	0	0	22	0	0	0	9	7	0	46
5:00 PM	0	0	0	0	5	0	4	0	4	32	0	0	0	11	3	0	59
5:15 PM	0	0	0	0	4	0	4	0	1	28	0	1	0	10	4	0	52
5:30 PM	0	0	0	0	5	0	4	0	0	18	0	0	0	10	3	0	40
5:45 PM	0	0	0	0	4	0	2	0	0	25	0	0	0	12	1	0	44
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	39	0	22	0	10	195	0	1	0	88	28	0	383
APPROACH %'s :					63.93%	0.00%	36.07%	0.00%	4.85%	94.66%	0.00%	0.49%	0.00%	75.86%	24.14%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	21	0	12	0	8	101	0	1	0	49	19	0	211
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.750	0.000	0.750	0.000	0.500	0.789	0.000	0.250	0.000	0.645	0.679	0.000	0.894
					0.917				0.764				0.708				

National Data & Surveying Services Intersection Turning Movement Count

Location: Dreyers Dwy & Chabot Rd
City: Oakland
Control: No Control

Project ID: 23-080180-002
Date: 5/23/2023

Data - HT

NS/EW Streets:	Dreyers Dwy				Dreyers Dwy				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0	5
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.500
									0.250				0.250				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0	0	6
APPROACH %'s :													0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.250
													0.250				

National Data & Surveying Services Intersection Turning Movement Count

Location: Dreyers Dwy & Chabot Rd
City: Oakland
Control: No Control

Project ID: 23-080180-002
Date: 5/23/2023

Data - Bikes

NS/EW Streets:	Dreyers Dwy				Dreyers Dwy				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	4
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.750
									0.500				0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	3
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	5
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.250
									0.250				0.250				

National Data & Surveying Services Intersection Turning Movement Count

Location: Dreyers Dwy & Chabot Rd **Project ID:** 23-080180-002
City: Oakland **Date:** 5/23/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Dreyers Dwy		Dreyers Dwy		Chabot Rd		Chabot Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	3	0	0	0	0	0	0	0	3
7:15 AM	1	0	0	0	0	0	0	0	1
7:30 AM	1	3	0	0	0	0	0	1	5
7:45 AM	1	0	0	0	0	0	0	0	1
8:00 AM	1	1	0	0	0	2	0	1	5
8:15 AM	5	2	0	0	0	0	0	0	7
8:30 AM	2	1	0	0	1	1	0	0	5
8:45 AM	1	2	0	0	1	0	1	0	5
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	15	9	0	0	2	3	1	2	32
APPROACH %'s :	62.50%	37.50%			40.00%	60.00%	33.33%	66.67%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	9	6	0	0	2	3	1	1	22
PEAK HR FACTOR :	0.450	0.750			0.500	0.375	0.250	0.250	0.786
	0.536				0.625		0.500		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	6	5	0	0	0	0	0	0	11
4:15 PM	3	1	0	0	0	1	2	0	7
4:30 PM	4	3	0	0	0	0	0	0	7
4:45 PM	7	7	0	0	1	0	0	0	15
5:00 PM	7	5	0	0	0	0	0	0	12
5:15 PM	7	8	0	0	1	0	0	0	16
5:30 PM	7	6	0	0	1	1	1	0	16
5:45 PM	2	6	0	0	0	0	0	0	8
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	43	41	0	0	3	2	3	0	92
APPROACH %'s :	51.19%	48.81%			60.00%	40.00%	100.00%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM								TOTAL
PEAK HR VOL :	25	23	0	0	2	0	0	0	50
PEAK HR FACTOR :	0.893	0.719			0.500				0.781
	0.800				0.500				

National Data & Surveying Services **Intersection Turning Movement Count**

Location: Claremont Ave & Chabot Rd
City: Oakland
Control: 1-Way Stop(WB)

Project ID: 23-080180-003
Date: 5/23/2023

Data - Total

NS/EW Streets: Claremont Ave (Northbound) | Claremont Ave (Southbound) | Chabot Rd (Eastbound) | Chabot Rd (Westbound)

AM

AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	55	5	0	0	45	0	0	0	0	0	0	2	0	0	0	107
7:15 AM	0	75	8	0	0	59	0	0	0	0	0	0	2	0	1	0	145
7:30 AM	0	73	6	0	1	48	0	0	0	0	1	0	5	0	1	0	135
7:45 AM	0	97	4	0	3	87	0	0	0	0	0	0	4	0	0	0	195
8:00 AM	0	96	8	0	3	103	0	0	0	0	1	0	4	0	3	0	218
8:15 AM	0	118	17	0	6	97	0	0	0	0	0	0	8	0	3	0	249
8:30 AM	0	136	12	0	0	97	0	0	0	0	0	0	15	0	2	0	262
8:45 AM	0	130	20	0	3	118	0	0	0	0	0	0	6	0	4	0	281
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	780	80	0	16	654	0	0	0	0	2	0	46	0	14	0	1592
APPROACH %'s :	0.00%	90.70%	9.30%	0.00%	2.39%	97.61%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	76.67%	0.00%	23.33%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	480	57	0	12	415	0	0	0	0	1	0	33	0	12	0	1010
PEAK HR FACTOR :	0.000	0.882	0.713	0.000	0.500	0.879	0.000	0.000	0.000	0.000	0.250	0.000	0.550	0.000	0.750	0.000	0.899
	0.895				0.882				0.250				0.662				

PM

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	131	16	0	3	95	0	1	0	0	0	0	7	0	5	0	258
4:15 PM	0	109	31	0	0	123	0	0	0	0	0	0	9	0	0	0	272
4:30 PM	1	115	21	0	5	103	0	0	0	0	0	0	12	0	5	0	262
4:45 PM	0	117	23	0	3	102	0	0	1	0	0	0	5	0	4	0	255
5:00 PM	0	130	23	0	3	112	0	1	0	0	0	0	8	0	5	0	282
5:15 PM	0	124	27	0	3	129	0	0	0	0	0	0	10	0	1	1	295
5:30 PM	0	164	18	0	1	113	0	0	0	0	0	0	10	0	2	0	308
5:45 PM	1	148	24	0	3	85	0	0	0	0	0	0	12	0	6	0	279
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	1038	183	0	21	862	0	2	1	0	0	0	73	0	28	1	2211
APPROACH %'s :	0.16%	84.87%	14.96%	0.00%	2.37%	97.40%	0.00%	0.23%	100.00%	0.00%	0.00%	0.00%	71.57%	0.00%	27.45%	0.98%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	1	566	92	0	10	439	0	1	0	0	0	0	40	0	14	1	1164
PEAK HR FACTOR :	0.250	0.863	0.852	0.000	0.833	0.851	0.000	0.250	0.000	0.000	0.000	0.000	0.833	0.000	0.583	0.250	0.945
	0.905				0.852								0.764				

National Data & Surveying Services Intersection Turning Movement Count

Location: Claremont Ave & Chabot Rd
City: Oakland
Control: 1-Way Stop(WB)

Project ID: 23-080180-003
Date: 5/23/2023

Data - Cars

NS/EW Streets: Claremont Ave (Northbound) | Claremont Ave (Southbound) | Chabot Rd (Eastbound) | Chabot Rd (Westbound)

AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	52	5	0	0	43	0	0	0	0	0	0	2	0	0	0	102
7:15 AM	0	73	6	0	0	58	0	0	0	0	0	0	2	0	1	0	140
7:30 AM	0	68	5	0	1	45	0	0	0	0	1	0	5	0	1	0	126
7:45 AM	0	95	4	0	3	86	0	0	0	0	0	0	4	0	0	0	192
8:00 AM	0	95	7	0	3	101	0	0	0	0	1	0	4	0	3	0	214
8:15 AM	0	115	17	0	5	95	0	0	0	0	0	0	8	0	3	0	243
8:30 AM	0	132	12	0	0	97	0	0	0	0	0	0	15	0	2	0	258
8:45 AM	0	128	20	0	3	116	0	0	0	0	0	0	6	0	3	0	276
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	758	76	0	15	641	0	0	0	0	2	0	46	0	13	0	1551
APPROACH %'s :	0.00%	90.89%	9.11%	0.00%	2.29%	97.71%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	77.97%	0.00%	22.03%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	470	56	0	11	409	0	0	0	0	1	0	33	0	11	0	991
PEAK HR FACTOR :	0.000	0.890	0.700	0.000	0.550	0.881	0.000	0.000	0.000	0.000	0.250	0.000	0.550	0.000	0.917	0.000	0.898
	0.889				0.882				0.250				0.647				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	130	16	0	3	95	0	1	0	0	0	0	6	0	5	0	256
4:15 PM	0	109	31	0	0	122	0	0	0	0	0	0	6	0	0	0	268
4:30 PM	1	114	21	0	5	101	0	0	0	0	0	0	12	0	5	0	259
4:45 PM	0	115	23	0	3	101	0	0	1	0	0	0	5	0	4	0	252
5:00 PM	0	130	23	0	3	110	0	1	0	0	0	0	8	0	5	0	280
5:15 PM	0	123	27	0	3	129	0	0	0	0	0	0	9	0	1	1	293
5:30 PM	0	163	18	0	1	113	0	0	0	0	0	0	10	0	2	0	307
5:45 PM	1	147	24	0	3	85	0	0	0	0	0	0	11	0	6	0	277
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	1031	183	0	21	856	0	2	1	0	0	0	67	0	28	1	2192
APPROACH %'s :	0.16%	84.79%	15.05%	0.00%	2.39%	97.38%	0.00%	0.23%	100.00%	0.00%	0.00%	0.00%	69.79%	0.00%	29.17%	1.04%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	1	563	92	0	10	437	0	1	0	0	0	0	38	0	14	1	1157
PEAK HR FACTOR :	0.250	0.863	0.852	0.000	0.833	0.847	0.000	0.250	0.000	0.000	0.000	0.000	0.864	0.000	0.583	0.250	0.942
	0.906				0.848								0.779				

National Data & Surveying Services Intersection Turning Movement Count

Location: Claremont Ave & Chabot Rd
City: Oakland
Control: 1-Way Stop(WB)

Project ID: 23-080180-003
Date: 5/23/2023

Data - HT

NS/EW Streets:	Claremont Ave				Claremont Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
7:15 AM	0	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	5
7:30 AM	0	5	1	0	0	3	0	0	0	0	0	0	0	0	0	0	9
7:45 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	4
8:15 AM	0	3	0	0	1	2	0	0	0	0	0	0	0	0	0	0	6
8:30 AM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
8:45 AM	0	2	0	0	0	2	0	0	0	0	0	0	0	0	1	0	5
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	22	4	0	1	13	0	0	0	0	0	0	0	0	1	0	41
APPROACH %'s :	0.00%	84.62%	15.38%	0.00%	7.14%	92.86%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	10	1	0	1	6	0	0	0	0	0	0	0	0	1	0	19
PEAK HR FACTOR :	0.000	0.625	0.250	0.000	0.250	0.750	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.792
	0.688				0.583								0.250				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
4:15 PM	0	0	0	0	0	1	0	0	0	0	0	0	3	0	0	0	4
4:30 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
5:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	7	0	0	0	6	0	0	0	0	0	0	6	0	0	0	19
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	3	0	0	0	2	0	0	0	0	0	0	2	0	0	0	7
PEAK HR FACTOR :	0.000	0.750	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.875
	0.750				0.250								0.500				

National Data & Surveying Services Intersection Turning Movement Count

Location: Claremont Ave & Chabot Rd
City: Oakland
Control: 1-Way Stop(WB)

Project ID: 23-080180-003
Date: 5/23/2023

Data - Bikes

NS/EW Streets:	Claremont Ave				Claremont Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
7:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2
8:00 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	3
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	1	0	1	7	0	0	0	0	0	0	2	0	0	0	13
APPROACH %'s :	0.00%	66.67%	33.33%	0.00%	12.50%	87.50%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	1	1	0	1	3	0	0	0	0	0	0	1	0	0	0	7
PEAK HR FACTOR :	0.000	0.250	0.250	0.000	0.250	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.583
	0.500				0.500								0.250				

	Claremont Ave				Claremont Ave				Chabot Rd				Chabot Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	2	0	0	0	0	0	0	0	0	0	0	1	0	0	0	3
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:45 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	1	1	0	0	3	0	0	0	0	0	0	1	0	0	0	6
5:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:30 PM	0	1	1	0	0	1	0	0	0	0	0	0	0	0	2	0	5
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	9	3	0	0	6	0	0	0	0	0	0	3	0	2	0	23
APPROACH %'s :	0.00%	75.00%	25.00%	0.00%	0.00%	100.00%	0.00%	0.00%					60.00%	0.00%	40.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	3	2	0	0	6	0	0	0	0	0	0	2	0	2	0	15
PEAK HR FACTOR :	0.000	0.750	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.250	0.000	0.625
	0.625				0.500								0.500				

National Data & Surveying Services Intersection Turning Movement Count

Location: Claremont Ave & Chabot Rd **Project ID:** 23-080180-003
City: Oakland **Date:** 5/23/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Claremont Ave		Claremont Ave		Chabot Rd		Chabot Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	2	0	1	1	1	0	5
7:15 AM	0	2	1	2	0	2	0	0	7
7:30 AM	0	0	0	3	0	0	1	2	6
7:45 AM	0	0	3	1	0	1	1	1	7
8:00 AM	0	0	1	1	1	0	2	2	7
8:15 AM	0	0	2	2	0	2	2	1	9
8:30 AM	0	0	1	0	0	1	1	0	3
8:45 AM	0	0	2	1	2	2	0	2	9
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	2	12	10	4	9	8	8	53
APPROACH %'s :	0.00%	100.00%	54.55%	45.45%	30.77%	69.23%	50.00%	50.00%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	0	0	6	4	3	5	5	5	28
PEAK HR FACTOR :			0.750	0.500	0.375	0.625	0.625	0.625	0.778
			0.625		0.500		0.625		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	2	1	1	4
4:15 PM	0	0	0	0	0	2	0	0	2
4:30 PM	0	0	0	0	1	4	1	0	6
4:45 PM	0	0	0	0	6	4	3	2	15
5:00 PM	0	0	0	0	2	1	3	1	7
5:15 PM	0	0	0	0	2	2	2	0	6
5:30 PM	0	0	0	0	2	1	4	2	9
5:45 PM	0	0	0	2	1	6	3	3	15
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	2	14	22	17	9	64
APPROACH %'s :			0.00%	100.00%	38.89%	61.11%	65.38%	34.62%	
PEAK HR :	05:00 PM - 06:00 PM								TOTAL
PEAK HR VOL :	0	0	0	2	7	10	12	6	37
PEAK HR FACTOR :				0.250	0.875	0.417	0.750	0.500	0.617
			0.250		0.607		0.750		

Prepared by NDS/ATD

VOLUME

Chabot Rd E/O Dreyers Dwy

Day: Tuesday
Date: 5/23/2023

City: Oakland
Project #: CA23_080181_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,033	791	1,824

AM Period	NB	SB	EB		WB		TOTAL	
0:00			0		1		1	
0:15			0		1		1	
0:30			3		0		3	
0:45			0	3	0	2	0	5
1:00			0		0		0	
1:15			1		1		2	
1:30			0		1		1	
1:45			1	2	1	3	2	5
2:00			0		0		0	
2:15			0		1		1	
2:30			0		0		0	
2:45			1	1	1	2	2	3
3:00			0		0		0	
3:15			0		0		0	
3:30			1		0		1	
3:45			1	2	0		1	2
4:00			0		0		0	
4:15			1		0		1	
4:30			0		1		1	
4:45			0	1	0	1	0	2
5:00			0		0		0	
5:15			2		1		3	
5:30			0		0		0	
5:45			3	5	3	4	6	9
6:00			6		4		10	
6:15			4		3		7	
6:30			5		2		7	
6:45			5	20	6	15	11	35
7:00			3		4		7	
7:15			5		4		9	
7:30			5		6		11	
7:45			9	22	8	22	17	44
8:00			12		10		22	
8:15			17		18		35	
8:30			13		17		30	
8:45			13	55	14	59	27	114
9:00			12		13		25	
9:15			13		9		22	
9:30			12		5		17	
9:45			12	49	9	36	21	85
10:00			8		6		14	
10:15			6		10		16	
10:30			10		8		18	
10:45			15	39	17	41	32	80
11:00			16		10		26	
11:15			8		12		20	
11:30			15		16		31	
11:45			18	57	10	48	28	105
TOTALS				256		233		**489**
SPLIT %				52.4%		47.6%		**26.8%**

PM Period	NB	SB	EB		WB		TOTAL	
12:00			9		20		29	
12:15			21		14		35	
12:30			20		12		32	
12:45			22	72	18	64	40	136
13:00			20		9		29	
13:15			15		13		28	
13:30			15		11		26	
13:45			22	72	16	49	38	121
14:00			16		20		36	
14:15			15		17		32	
14:30			16		19		35	
14:45			16	63	16	72	32	135
15:00			24		10		34	
15:15			25		10		35	
15:30			26		20		46	
15:45			23	98	17	57	40	155
16:00			25		13		38	
16:15			33		13		46	
16:30			25		23		48	
16:45			28	111	16	65	44	176
17:00			37		13		50	
17:15			31		15		46	
17:30			24		13		37	
17:45			29	121	14	55	43	176
18:00			26		14		40	
18:15			20		15		35	
18:30			25		18		43	
18:45			24	95	13	60	37	155
19:00			20		18		38	
19:15			19		9		28	
19:30			10		15		25	
19:45			9	58	14	56	23	114
20:00			14		10		24	
20:15			12		8		20	
20:30			13		12		25	
20:45			9	48	10	40	19	88
21:00			5		5		10	
21:15			3		1		4	
21:30			9		8		17	
21:45			5	22	6	20	11	42
22:00			5		3		8	
22:15			1		4		5	
22:30			4		3		7	
22:45			2	12	3	13	5	25
23:00			3		0		3	
23:15			1		4		5	
23:30			1		1		2	
23:45			0	5	2	7	2	12
TOTALS				777		558		**1335**
SPLIT %				58.2%		41.8%		**73.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,033	791	1,824

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour			11:45	8:15	**11:45**	**PM Peak Hour**			16:15	13:45	**16:15**
AM Pk Volume			68	62	**124**	**PM Pk Volume**			123	72	**188**
Pk Hr Factor			0.810	0.861	**0.886**	**Pk Hr Factor**			0.831	0.900	**0.940**
7 - 9 Volume	0	0	77	81	**158**	**4 - 6 Volume**	0	0	232	120	**352**
7 - 9 Peak Hour			8:00	8:00	**8:00**	**4 - 6 Peak Hour**			16:15	16:30	**16:15**
7 - 9 Pk Volume	0	0	55	59	**114**	**4 - 6 Pk Volume**	0	0	123	67	**188**
Pk Hr Factor	0.000	0.000	0.809	0.819	**0.814**	**Pk Hr Factor**	0.000	0.000	0.831	0.728	**0.940**

Prepared by NDS/ATD

VOLUME

Chabot Rd E/O Dreyers Dwy

Day: Wednesday **City:** Oakland
Date: 5/24/2023 **Project #:** CA23_080181_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,084	696	1,780

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			0		0		0		12:00			21		13		34	
0:15			0		0		0		12:15			18		14		32	
0:30			2		0		2		12:30			21		13		34	
0:45			2	4	0		2	4	12:45			32	92	15	55	47	147
1:00			1		0		1		13:00			18		18		36	
1:15			1		0		1		13:15			20		18		38	
1:30			1		0		1		13:30			22		14		36	
1:45			1	4	0		1	4	13:45			20	80	14	64	34	144
2:00			0		1		1		14:00			16		15		31	
2:15			0		0		0		14:15			11		10		21	
2:30			0		0		0		14:30			17		20		37	
2:45			0		0	1	0	1	14:45			25	69	15	60	40	129
3:00			1		0		1		15:00			19		16		35	
3:15			0		0		0		15:15			22		17		39	
3:30			1		0		1		15:30			18		11		29	
3:45			1	3	0		1	3	15:45			25	84	12	56	37	140
4:00			0		0		0		16:00			22		10		32	
4:15			0		0		0		16:15			49		10		59	
4:30			0		1		1		16:30			40		16		56	
4:45			0		1	2	1	2	16:45			35	146	17	53	52	199
5:00			1		0		1		17:00			29		7		36	
5:15			1		1		2		17:15			44		14		58	
5:30			3		0		3		17:30			56		17		73	
5:45			3	8	1	2	4	10	17:45			27	156	12	50	39	206
6:00			2		2		4		18:00			22		12		34	
6:15			4		0		4		18:15			25		16		41	
6:30			7		2		9		18:30			16		22		38	
6:45			8	21	4	8	12	29	18:45			13	76	10	60	23	136
7:00			4		2		6		19:00			11		13		24	
7:15			8		3		11		19:15			18		10		28	
7:30			4		6		10		19:30			13		14		27	
7:45			6	22	5	16	11	38	19:45			6	48	7	44	13	92
8:00			12		8		20		20:00			10		8		18	
8:15			22		6		28		20:15			12		10		22	
8:30			14		16		30		20:30			9		10		19	
8:45			11	59	10	40	21	99	20:45			2	33	3	31	5	64
9:00			9		9		18		21:00			11		7		18	
9:15			11		8		19		21:15			2		4		6	
9:30			16		7		23		21:30			6		4		10	
9:45			10	46	8	32	18	78	21:45			2	21	2	17	4	38
10:00			12		11		23		22:00			3		3		6	
10:15			12		13		25		22:15			2		1		3	
10:30			8		7		15		22:30			2		2		4	
10:45			13	45	8	39	21	84	22:45			4	11	1	7	5	18
11:00			13		12		25		23:00			1		2		3	
11:15			12		12		24		23:15			0		2		2	
11:30			10		12		22		23:30			1		3		4	
11:45			19	54	15	51	34	105	23:45			0	2	1	8	1	10
TOTALS				266		191		**457**	**TOTALS**				818		505		**1323**
SPLIT %				58.2%		41.8%		**25.7%**	**SPLIT %**				61.8%		38.2%		**74.3%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,084	696	1,780

	NB	SB	EB	WB	TOTAL		NB	SB	EB	WB	TOTAL
AM Peak Hour			11:45	11:45	**11:45**	PM Peak Hour			16:45	14:30	**16:45**
AM Pk Volume			79	55	**134**	PM Pk Volume			164	68	**219**
Pk Hr Factor			0.940	0.917	**0.985**	Pk Hr Factor			0.732	0.850	**0.750**
7 - 9 Volume	0	0	81	56	**137**	4 - 6 Volume	0	0	302	103	**405**
7 - 9 Peak Hour			8:00	8:00	**8:00**	4 - 6 Peak Hour			16:45	16:45	**16:45**
7 - 9 Pk Volume	0	0	59	40	**99**	4 - 6 Pk Volume	0	0	164	55	**219**
Pk Hr Factor	0.000	0.000	0.670	0.625	**0.825**	Pk Hr Factor	0.000	0.000	0.732	0.809	**0.750**

Prepared by NDS/ATD

VOLUME

Chabot Rd W/O Dreyers Dwy

Day: Tuesday **City:** Oakland
Date: 5/23/2023 **Project #:** CA23_080181_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,018	732	1,750

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			0		1		1		12:00			8		18		26	
0:15			0		1		1		12:15			20		13		33	
0:30			3		0		3		12:30			21		11		32	
0:45			0	3	0	2	0	5	12:45			21	70	16	58	37	128
1:00			1		1		2		13:00			22		10		32	
1:15			1		1		2		13:15			16		12		28	
1:30			0		1		1		13:30			13		8		21	
1:45			1	3	1	4	2	7	13:45			23	74	13	43	36	117
2:00			0		0		0		14:00			12		20		32	
2:15			0		1		1		14:15			13		17		30	
2:30			0		0		0		14:30			14		14		28	
2:45			1	1	1	2	2	3	14:45			17	56	16	67	33	123
3:00			0		0		0		15:00			23		12		35	
3:15			0		0		0		15:15			22		13		35	
3:30			1		0		1		15:30			23		20		43	
3:45			1	2	0		1	2	15:45			20	88	11	56	31	144
4:00			0		0		0		16:00			22		13		35	
4:15			1		0		1		16:15			29		12		41	
4:30			0		1		1		16:30			23		22		45	
4:45			0	1	0	1	0	2	16:45			21	95	11	58	32	153
5:00			0		0		0		17:00			37		16		53	
5:15			2		1		3		17:15			29		16		45	
5:30			0		0		0		17:30			19		14		33	
5:45			3	5	1	2	4	7	17:45			25	110	15	61	40	171
6:00			6		1		7		18:00			28		14		42	
6:15			4		3		7		18:15			19		14		33	
6:30			5		1		6		18:30			26		18		44	
6:45			8	23	3	8	11	31	18:45			22	95	13	59	35	154
7:00			5		2		7		19:00			17		18		35	
7:15			6		2		8		19:15			21		10		31	
7:30			8		6		14		19:30			12		16		28	
7:45			10	29	6	16	16	45	19:45			7	57	13	57	20	114
8:00			13		8		21		20:00			13		12		25	
8:15			19		13		32		20:15			12		8		20	
8:30			13		14		27		20:30			12		12		24	
8:45			20	65	9	44	29	109	20:45			8	45	9	41	17	86
9:00			15		9		24		21:00			5		5		10	
9:15			15		10		25		21:15			3		1		4	
9:30			15		4		19		21:30			9		8		17	
9:45			14	59	9	32	23	91	21:45			5	22	6	20	11	42
10:00			9		4		13		22:00			5		4		9	
10:15			5		10		15		22:15			1		4		5	
10:30			12		6		18		22:30			3		3		6	
10:45			16	42	17	37	33	79	22:45			3	12	3	14	6	26
11:00			17		8		25		23:00			3		1		4	
11:15			11		10		21		23:15			0		3		3	
11:30			15		15		30		23:30			1		1		2	
11:45			14	57	10	43	24	100	23:45			0	4	2	7	2	11
TOTALS				290		191		**481**	**TOTALS**				728		541		**1269**
SPLIT %				60.3%		39.7%		**27.5%**	**SPLIT %**				57.4%		42.6%		**72.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,018	732	1,750

AM Peak Hour			8:15	11:30	**11:45**	**PM Peak Hour**			16:15	14:00	**16:30**
AM Pk Volume			67	56	**115**	**PM Pk Volume**			110	67	**175**
Pk Hr Factor			0.838	0.778	**0.871**	**Pk Hr Factor**			0.743	0.838	**0.825**
7 - 9 Volume	0	0	94	60	**154**	**4 - 6 Volume**	0	0	205	119	**324**
7 - 9 Peak Hour			8:00	8:00	**8:00**	**4 - 6 Peak Hour**			16:15	16:30	**16:30**
7 - 9 Pk Volume	0	0	65	44	**109**	**4 - 6 Pk Volume**	0	0	110	65	**175**
Pk Hr Factor	0.000	0.000	0.813	0.786	**0.852**	**Pk Hr Factor**	0.000	0.000	0.743	0.739	**0.825**

Prepared by NDS/ATD

VOLUME

Chabot Rd W/O Dreyers Dwy

Day: Wednesday
Date: 5/24/2023

City: Oakland
Project #: CA23_080181_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,064	659	1,723

AM Period	NB	SB	EB		WB		TOTAL		PM Period	NB	SB	EB		WB		TOTAL	
0:00			0		0		0		12:00			19		13		32	
0:15			0		0		0		12:15			17		11		28	
0:30			2		0		2		12:30			21		13		34	
0:45			2	4	0		2	4	12:45			33	90	16	53	49	143
1:00			1		0		1		13:00			14		16		30	
1:15			1		0		1		13:15			19		12		31	
1:30			1		0		1		13:30			18		10		28	
1:45			1	4	0		1	4	13:45			21	72	12	50	33	122
2:00			0		1		1		14:00			13		18		31	
2:15			0		0		0		14:15			12		10		22	
2:30			0		0		0		14:30			16		15		31	
2:45			0		0	1	0	1	14:45			23	64	15	58	38	122
3:00			1		0		1		15:00			18		15		33	
3:15			0		0		0		15:15			22		16		38	
3:30			1		0		1		15:30			21		12		33	
3:45			1	3	0		1	3	15:45			25	86	12	55	37	141
4:00			0		0		0		16:00			21		8		29	
4:15			0		0		0		16:15			46		11		57	
4:30			0		1		1		16:30			40		17		57	
4:45			0		1	2	1	2	16:45			32	139	13	49	45	188
5:00			1		0		1		17:00			27		8		35	
5:15			1		1		2		17:15			44		11		55	
5:30			3		0		3		17:30			55		17		72	
5:45			3	8	1	2	4	10	17:45			27	153	12	48	39	201
6:00			2		2		4		18:00			20		12		32	
6:15			4		0		4		18:15			27		17		44	
6:30			7		2		9		18:30			16		25		41	
6:45			8	21	4	8	12	29	18:45			13	76	11	65	24	141
7:00			4		2		6		19:00			12		13		25	
7:15			9		3		12		19:15			16		9		25	
7:30			5		6		11		19:30			11		13		24	
7:45			6	24	5	16	11	40	19:45			5	44	7	42	12	86
8:00			12		9		21		20:00			9		9		18	
8:15			23		6		29		20:15			11		8		19	
8:30			14		16		30		20:30			7		11		18	
8:45			12	61	9	40	21	101	20:45			2	29	3	31	5	60
9:00			9		8		17		21:00			11		7		18	
9:15			11		8		19		21:15			2		4		6	
9:30			16		5		21		21:30			5		4		9	
9:45			12	48	8	29	20	77	21:45			2	20	3	18	5	38
10:00			12		7		19		22:00			2		3		5	
10:15			13		12		25		22:15			2		1		3	
10:30			10		6		16		22:30			2		2		4	
10:45			13	48	7	32	20	80	22:45			5	11	2	8	7	19
11:00			16		9		25		23:00			1		2		3	
11:15			13		12		25		23:15			0		2		2	
11:30			11		11		22		23:30			1		3		4	
11:45			17	57	12	44	29	101	23:45			0	2	1	8	1	10
TOTALS				278		174		**452**	**TOTALS**				786		485		**1271**
SPLIT %				61.5%		38.5%		**26.2%**	**SPLIT %**				61.8%		38.2%		**73.8%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,064	659	1,723

	NB	SB	EB	WB	Total		NB	SB	EB	WB	Total
AM Peak Hour			11:45	11:45	**11:45**	**PM Peak Hour**			16:45	17:45	**16:45**
AM Pk Volume			74	49	**123**	**PM Pk Volume**			158	66	**207**
Pk Hr Factor			0.881	0.942	**0.904**	**Pk Hr Factor**			0.718	0.660	**0.719**
7 - 9 Volume	0	0	85	56	**141**	**4 - 6 Volume**	0	0	292	97	**389**
7 - 9 Peak Hour			8:00	8:00	**8:00**	**4 - 6 Peak Hour**			16:45	16:00	**16:45**
7 - 9 Pk Volume	0	0	61	40	**101**	**4 - 6 Pk Volume**	0	0	158	49	**207**
Pk Hr Factor	0.000	0.000	0.663	0.625	**0.842**	**Pk Hr Factor**	0.000	0.000	0.718	0.721	**0.719**

National Data & Surveying Services Intersection Turning Movement Count

Location: Collage Ave & Chabot Rd
City: Oakland
Control: 2-Way Stop(EB/WB)

Project ID: 23-080216-001
Date: 7/13/2023

Data - Total

NS/EW Streets:	Collage Ave				Collage Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	2	37	1	0	0	18	1	0	0	1	3	0	0	2	2	0	67
7:15 AM	2	25	5	0	6	35	1	0	0	2	7	0	3	0	4	0	90
7:30 AM	4	44	1	1	4	38	1	0	0	0	1	0	1	1	7	0	103
7:45 AM	3	50	2	0	3	44	1	0	0	3	4	0	1	5	2	0	118
8:00 AM	4	66	5	0	2	45	3	0	0	0	8	0	2	3	7	0	145
8:15 AM	4	56	2	0	6	57	1	0	0	4	4	0	2	3	10	0	149
8:30 AM	6	83	5	0	7	60	5	0	2	2	5	0	4	2	14	0	195
8:45 AM	3	65	4	0	11	52	4	0	2	3	4	0	6	1	22	0	177
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	28	426	25	1	39	349	17	0	4	15	36	0	19	17	68	0	1044
APPROACH %'s :	5.83%	88.75%	5.21%	0.21%	9.63%	86.17%	4.20%	0.00%	7.27%	27.27%	65.45%	0.00%	18.27%	16.35%	65.38%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	17	270	16	0	26	214	13	0	4	9	21	0	14	9	53	0	666
PEAK HR FACTOR :	0.708	0.813	0.800	0.000	0.591	0.892	0.650	0.000	0.500	0.563	0.656	0.000	0.583	0.750	0.602	0.000	0.854
	0.806				0.878				0.944				0.655				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	6	86	8	0	8	82	13	1	5	17	12	0	3	2	7	0	250
4:15 PM	6	89	6	0	4	92	8	0	1	5	10	0	5	1	13	0	240
4:30 PM	4	85	11	0	8	93	6	0	2	6	14	0	4	4	10	0	247
4:45 PM	6	105	12	0	11	85	7	1	6	7	13	0	2	1	8	0	264
5:00 PM	5	87	7	0	7	97	6	0	2	4	18	0	3	4	10	0	250
5:15 PM	1	75	10	0	6	109	6	0	1	4	14	0	1	2	8	0	237
5:30 PM	7	76	5	1	5	82	4	0	1	2	19	0	5	5	8	0	220
5:45 PM	5	107	13	0	8	75	6	0	4	6	11	0	8	3	13	0	259
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	40	710	72	1	57	715	56	2	22	51	111	0	31	22	77	0	1967
APPROACH %'s :	4.86%	86.27%	8.75%	0.12%	6.87%	86.14%	6.75%	0.24%	11.96%	27.72%	60.33%	0.00%	23.85%	16.92%	59.23%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	21	366	36	0	30	367	27	1	11	22	55	0	14	10	41	0	1001
PEAK HR FACTOR :	0.875	0.871	0.750	0.000	0.682	0.946	0.844	0.250	0.458	0.786	0.764	0.000	0.700	0.625	0.788	0.000	0.948
	0.860				0.966				0.846				0.855				

National Data & Surveying Services Intersection Turning Movement Count

Location: Collage Ave & Chabot Rd
City: Oakland
Control: 2-Way Stop(EB/WB)

Project ID: 23-080216-001
Date: 7/13/2023

Data - HT

NS/EW Streets:	Collage Ave				Collage Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	7	0	0	0	2	0	0	0	0	0	0	0	0	0	0	9
7:15 AM	1	3	0	0	0	5	0	0	0	1	2	0	0	0	0	0	12
7:30 AM	0	4	1	0	0	4	0	0	0	0	0	0	0	0	1	0	10
7:45 AM	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0	0	10
8:00 AM	0	5	1	0	0	4	0	0	0	0	0	0	0	0	0	0	10
8:15 AM	0	2	0	0	0	3	0	0	0	0	1	0	0	0	1	0	7
8:30 AM	0	4	1	0	1	5	0	0	0	0	0	0	0	0	0	0	11
8:45 AM	0	4	0	0	0	2	0	0	0	0	1	0	0	1	0	0	8
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	35	3	0	1	29	0	0	0	1	4	0	0	1	2	0	77
APPROACH %'s :	2.56%	89.74%	7.69%	0.00%	3.33%	96.67%	0.00%	0.00%	0.00%	20.00%	80.00%	0.00%	0.00%	33.33%	66.67%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	15	2	0	1	14	0	0	0	0	2	0	0	1	1	0	36
PEAK HR FACTOR :	0.000	0.750	0.500	0.000	0.250	0.700	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.250	0.250	0.000	0.818
	0.708				0.625				0.500				0.500				

NS/EW Streets:	Collage Ave				Collage Ave				Chabot Rd				Chabot Rd				
PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	5	0	0	0	0	0	0	0	0	1	0	7
4:15 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
4:30 PM	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	7
4:45 PM	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	9
5:00 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	5
5:45 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	19	0	0	0	23	0	0	0	0	0	0	0	0	1	0	43
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	22
PEAK HR FACTOR :	0.000	0.688	0.000	0.000	0.000	0.550	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.611
	0.688				0.550												

National Data & Surveying Services Intersection Turning Movement Count

Location: Collage Ave & Chabot Rd
City: Oakland
Control: 2-Way Stop(EB/WB)

Project ID: 23-080216-001
Date: 7/13/2023

Data - Bikes

NS/EW Streets:	Collage Ave				Collage Ave				Chabot Rd				Chabot Rd				
	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
AM	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	1	0	0	0	3	0	0	0	0	0	0	0	1	0	0	5
7:15 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	3
7:30 AM	0	4	1	0	1	2	0	0	0	0	0	0	2	0	0	0	10
7:45 AM	0	2	0	0	0	3	0	0	0	0	0	0	0	0	1	0	6
8:00 AM	0	2	0	0	1	2	0	0	0	0	0	0	0	0	0	0	5
8:15 AM	0	5	1	0	0	7	0	0	0	0	0	0	0	0	1	0	14
8:30 AM	0	5	0	0	1	8	0	0	0	0	0	0	0	0	0	0	14
8:45 AM	0	5	3	0	2	3	0	0	0	0	1	0	0	0	0	0	14
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	24	5	0	5	30	0	0	0	0	1	0	2	1	3	0	71
APPROACH %'s :	0.00%	82.76%	17.24%	0.00%	14.29%	85.71%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	33.33%	16.67%	50.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	17	4	0	4	20	0	0	0	0	1	0	0	0	1	0	47
PEAK HR FACTOR :	0.000	0.850	0.333	0.000	0.500	0.625	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.839
	0.656				0.667				0.250				0.250				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	1	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	3	3	0	0	3	0	0	0	0	0	0	0	0	0	0	9
4:15 PM	0	7	0	0	0	14	0	0	0	0	0	0	0	0	0	0	21
4:30 PM	0	11	0	0	0	2	0	0	0	0	0	0	0	0	1	0	14
4:45 PM	0	3	2	0	1	4	0	0	0	0	0	0	0	0	2	0	12
5:00 PM	0	5	0	0	0	5	0	0	0	0	0	0	1	0	0	0	11
5:15 PM	0	2	0	0	1	8	0	0	0	0	1	0	0	0	1	0	13
5:30 PM	0	5	1	0	0	11	0	0	0	0	0	0	0	0	0	0	17
5:45 PM	0	5	0	0	1	7	0	0	1	0	0	0	2	0	0	0	16
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	41	6	0	3	54	0	0	1	0	1	0	3	0	4	0	113
APPROACH %'s :	0.00%	87.23%	12.77%	0.00%	5.26%	94.74%	0.00%	0.00%	50.00%	0.00%	50.00%	0.00%	42.86%	0.00%	57.14%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	0	26	2	0	1	25	0	0	0	0	0	0	1	0	3	0	58
PEAK HR FACTOR :	0.000	0.591	0.250	0.000	0.250	0.446	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.375	0.000	0.690
	0.636				0.464								0.500				

National Data & Surveying Services Intersection Turning Movement Count

Location: Collage Ave & Chabot Rd
City: Oakland
Project ID: 23-080216-001
Date: 7/13/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Collage Ave		Collage Ave		Chabot Rd		Chabot Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	1	0	1	1	3	11	2	7	26
7:15 AM	1	0	6	1	6	4	6	5	29
7:30 AM	1	2	2	1	7	4	3	11	31
7:45 AM	1	3	5	5	6	13	4	9	46
8:00 AM	0	0	0	1	9	17	1	11	39
8:15 AM	0	0	5	3	14	17	5	12	56
8:30 AM	5	3	3	3	8	13	9	12	56
8:45 AM	0	2	8	0	12	17	7	9	55
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	9	10	30	15	65	96	37	76	338
APPROACH %'s :	47.37%	52.63%	66.67%	33.33%	40.37%	59.63%	32.74%	67.26%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	5	5	16	7	43	64	22	44	206
PEAK HR FACTOR :	0.250	0.417	0.500	0.583	0.768	0.941	0.611	0.917	0.920
	0.313		0.719		0.863		0.786		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	5	6	7	8	13	13	13	21	86
4:15 PM	10	10	6	2	22	17	13	14	94
4:30 PM	9	12	9	2	21	5	15	23	96
4:45 PM	8	5	3	1	26	10	22	22	97
5:00 PM	1	2	5	7	17	14	17	23	86
5:15 PM	12	5	3	7	19	15	14	21	96
5:30 PM	4	6	2	1	18	13	23	21	88
5:45 PM	8	4	7	9	26	15	37	19	125
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	57	50	42	37	162	102	154	164	768
APPROACH %'s :	53.27%	46.73%	53.16%	46.84%	61.36%	38.64%	48.43%	51.57%	
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	28	29	23	12	86	46	67	82	373
PEAK HR FACTOR :	0.700	0.604	0.639	0.429	0.827	0.676	0.761	0.891	0.961
	0.679		0.729		0.846		0.847		

National Data & Surveying Services Intersection Turning Movement Count

Location: Dreyer's Dwy & Chabot Rd
City: Oakland
Control: No Control

Project ID: 23-080216-002
Date: 7/13/2023

Data - Total

NS/EW Streets:	Dreyer's Dwy				Dreyer's Dwy				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	1	0	1	4	0	0	0	3	2	0	11
7:15 AM	0	0	0	0	0	0	0	0	2	9	0	1	0	3	0	0	15
7:30 AM	0	0	0	0	0	0	0	0	2	1	0	0	0	4	2	0	9
7:45 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	8	1	0	16
8:00 AM	0	0	0	0	0	0	0	0	2	9	0	0	0	8	2	0	21
8:15 AM	0	0	0	0	0	0	0	0	0	10	0	0	0	6	2	0	18
8:30 AM	0	0	0	0	0	0	0	0	4	7	0	0	0	8	3	0	22
8:45 AM	0	0	0	0	0	0	0	0	0	8	0	0	0	9	1	0	18
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	1	0	11	55	0	1	0	49	13	0	130
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	16.42%	82.09%	0.00%	1.49%	0.00%	79.03%	20.97%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	6	34	0	0	0	31	8	0	79
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.850	0.000	0.000	0.000	0.861	0.667	0.000	0.898
									0.909				0.886				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	3	0	3	0	3	29	0	1	0	20	1	0	60
4:15 PM	0	0	0	0	2	0	6	0	1	14	0	1	0	10	4	1	39
4:30 PM	0	0	0	0	2	0	2	0	1	21	0	0	0	10	4	0	40
4:45 PM	0	0	0	0	6	0	1	0	2	18	0	0	0	8	4	1	40
5:00 PM	0	0	0	0	4	0	3	0	1	19	0	0	0	13	3	0	43
5:15 PM	0	0	0	0	4	0	2	0	0	17	0	0	0	9	0	0	32
5:30 PM	0	0	0	0	1	0	1	0	2	18	0	0	0	13	2	1	38
5:45 PM	0	0	0	0	3	0	2	0	1	19	0	0	0	10	3	0	38
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	25	0	20	0	11	155	0	2	0	93	21	3	330
APPROACH %'s :					55.56%	0.00%	44.44%	0.00%	6.55%	92.26%	0.00%	1.19%	0.00%	79.49%	17.95%	2.56%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	13	0	12	0	7	82	0	2	0	48	13	2	179
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.542	0.000	0.500	0.000	0.583	0.707	0.000	0.500	0.000	0.600	0.813	0.500	0.746
					0.781				0.689				0.750				

National Data & Surveying Services # Intersection Turning Movement Count

Location: Dreyer's Dwy & Chabot Rd
City: Oakland
Control: No Control

Project ID: 23-080216-002
Date: 7/13/2023

Data - Cars

NS/EW Streets: Dreyer's Dwy (Northbound) | Dreyer's Dwy (Southbound) | Chabot Rd (Eastbound) | Chabot Rd (Westbound)

AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	1	0	1	4	0	0	0	3	2	0	11
7:15 AM	0	0	0	0	0	0	0	0	2	6	0	1	0	2	0	0	11
7:30 AM	0	0	0	0	0	0	0	0	2	1	0	0	0	4	2	0	9
7:45 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	8	1	0	16
8:00 AM	0	0	0	0	0	0	0	0	2	9	0	0	0	8	2	0	21
8:15 AM	0	0	0	0	0	0	0	0	0	9	0	0	0	6	2	0	17
8:30 AM	0	0	0	0	0	0	0	0	4	7	0	0	0	8	3	0	22
8:45 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	8	1	0	16
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	1	0	11	50	0	1	0	47	13	0	123
APPROACH %'s :					0.00%	0.00%	100.00%	0.00%	17.74%	80.65%	0.00%	1.61%	0.00%	78.33%	21.67%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	6	32	0	0	0	30	8	0	76
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.375	0.889	0.000	0.000	0.000	0.938	0.667	0.000	0.864
									0.864				0.864				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	3	0	3	0	3	29	0	1	0	20	1	0	60
4:15 PM	0	0	0	0	2	0	6	0	1	14	0	1	0	10	4	1	39
4:30 PM	0	0	0	0	2	0	2	0	1	21	0	0	0	10	4	0	40
4:45 PM	0	0	0	0	6	0	1	0	2	18	0	0	0	8	4	1	40
5:00 PM	0	0	0	0	4	0	3	0	1	19	0	0	0	13	3	0	43
5:15 PM	0	0	0	0	4	0	2	0	0	17	0	0	0	9	0	0	32
5:30 PM	0	0	0	0	1	0	1	0	2	18	0	0	0	13	2	1	38
5:45 PM	0	0	0	0	3	0	2	0	1	19	0	0	0	10	3	0	38
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	25	0	20	0	11	155	0	2	0	93	21	3	330
APPROACH %'s :					55.56%	0.00%	44.44%	0.00%	6.55%	92.26%	0.00%	1.19%	0.00%	79.49%	17.95%	2.56%	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	13	0	12	0	7	82	0	2	0	48	13	2	179
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.542	0.000	0.500	0.000	0.583	0.707	0.000	0.500	0.000	0.600	0.813	0.500	0.746
					0.781				0.689				0.750				

National Data & Surveying Services Intersection Turning Movement Count

Location: Dreyer's Dwy & Chabot Rd
City: Oakland
Control: No Control

Project ID: 23-080216-002
Date: 7/13/2023

Data - HT

NS/EW Streets:	Dreyer's Dwy				Dreyer's Dwy				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	5	0	0	0	2	0	0	7
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.250	0.000	0.000	0.375
									0.500				0.250				

	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
PM	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: Dreyer's Dwy & Chabot Rd
City: Oakland
Control: No Control

Project ID: 23-080216-002
Date: 7/13/2023

Data - Bikes

NS/EW Streets:	Dreyer's Dwy				Dreyer's Dwy				Chabot Rd				Chabot Rd				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250
									0.250								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	1	0	0	0	1	0	0	0	1	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%					
PEAK HR :	04:00 PM - 05:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services Intersection Turning Movement Count

Location: Dreyer's Dwy & Chabot Rd
City: Oakland
Project ID: 23-080216-002
Date: 7/13/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Dreyer's Dwy		Dreyer's Dwy		Chabot Rd		Chabot Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	1	1	0	0	0	0	1	0	3
7:15 AM	2	0	0	0	0	0	0	1	3
7:30 AM	1	2	0	0	1	0	0	0	4
7:45 AM	0	1	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	1	0	0	1
8:15 AM	0	0	0	0	0	2	0	0	2
8:30 AM	0	1	0	0	1	0	0	0	2
8:45 AM	0	1	0	0	0	0	0	1	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	4	6	0	0	2	3	1	2	18
APPROACH %'s :	40.00%	60.00%			40.00%	60.00%	33.33%	66.67%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	0	2	0	0	1	3	0	1	7
PEAK HR FACTOR :		0.500			0.250	0.375		0.250	0.875
	0.500				0.500		0.250		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	8	3	0	0	0	0	0	0	11
4:15 PM	8	3	0	0	0	3	0	0	14
4:30 PM	3	5	0	0	0	0	0	0	8
4:45 PM	3	9	0	0	0	0	0	0	12
5:00 PM	2	5	0	0	0	0	1	0	8
5:15 PM	4	4	0	0	1	0	1	0	10
5:30 PM	2	7	0	0	0	0	0	1	10
5:45 PM	4	3	0	0	0	0	0	0	7
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	34	39	0	0	1	3	2	1	80
APPROACH %'s :	46.58%	53.42%			25.00%	75.00%	66.67%	33.33%	
PEAK HR :	04:00 PM - 05:00 PM								TOTAL
PEAK HR VOL :	22	20	0	0	0	3	0	0	45
PEAK HR FACTOR :	0.688	0.556				0.250			0.804
	0.875				0.250				

National Data & Surveying Services Intersection Turning Movement Count

Location: Claremont Ave & Chabot Rd
City: Oakland
Control: 1-Way Stop(WB)

Project ID: 23-080216-003
Date: 7/13/2023

Data - Total

NS/EW Streets:	Claremont Ave					Claremont Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	50	4	0	0	0	47	0	0	0	0	0	0	6	0	0	0	107
7:15 AM	0	82	12	0	0	1	65	0	0	0	0	0	0	2	0	0	0	162
7:30 AM	0	86	5	0	0	1	50	0	0	0	0	0	0	5	0	0	0	147
7:45 AM	0	95	10	0	0	0	89	0	0	0	0	1	0	5	0	2	0	202
8:00 AM	0	91	8	0	0	2	81	0	0	0	0	0	0	9	0	0	0	191
8:15 AM	0	114	10	0	0	1	89	0	0	0	0	0	0	5	0	3	0	222
8:30 AM	0	115	8	1	0	4	96	0	0	0	0	0	0	6	0	4	0	234
8:45 AM	0	106	12	0	0	4	115	0	0	0	0	0	0	5	0	4	0	246
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	739	69	1	0	13	632	0	0	0	0	1	0	43	0	13	0	1511
APPROACH %'s :	0.00%	91.35%	8.53%	0.12%	0.00%	2.02%	97.98%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	76.79%	0.00%	23.21%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																	TOTAL
PEAK HR VOL :	0	426	38	1	0	11	381	0	0	0	0	0	0	25	0	11	0	893
PEAK HR FACTOR :	0.000	0.926	0.792	0.250	0.000	0.688	0.828	0.000	0.000	0.000	0.000	0.000	0.000	0.694	0.000	0.688	0.000	0.908
			0.938				0.824								0.900			

PM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	110	22	0	0	4	104	0	0	0	0	0	0	7	0	8	0	255
4:15 PM	0	138	16	0	0	0	103	0	0	0	0	0	0	11	0	4	0	272
4:30 PM	0	130	26	0	0	1	135	0	0	0	0	0	0	12	0	1	0	305
4:45 PM	0	129	17	0	0	2	117	0	0	0	0	1	0	4	0	8	0	278
5:00 PM	0	124	19	1	0	1	118	0	0	0	0	0	0	12	0	4	0	279
5:15 PM	0	115	11	0	0	6	107	0	0	0	0	0	0	10	0	5	0	254
5:30 PM	0	130	15	1	0	3	108	0	0	0	0	0	0	8	0	2	0	267
5:45 PM	0	89	12	0	0	5	114	0	0	0	0	0	0	5	0	5	0	230
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	965	138	2	0	22	906	0	0	0	0	1	0	69	0	37	0	2140
APPROACH %'s :	0.00%	87.33%	12.49%	0.18%	0.00%	2.37%	97.63%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	65.09%	0.00%	34.91%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																	TOTAL
PEAK HR VOL :	0	521	78	1	0	4	473	0	0	0	0	1	0	39	0	17	0	1134
PEAK HR FACTOR :	0.000	0.944	0.750	0.250	0.000	0.500	0.876	0.000	0.000	0.000	0.000	0.250	0.000	0.813	0.000	0.531	0.000	0.930
			0.962				0.877					0.250			0.875			

National Data & Surveying Services Intersection Turning Movement Count

Location: Claremont Ave & Chabot Rd
City: Oakland
Control: 1-Way Stop(WB)

Project ID: 23-080216-003
Date: 7/13/2023

Data - HT

NS/EW Streets:	Claremont Ave					Claremont Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	2	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	6
7:15 AM	0	3	3	0	0	0	5	0	0	0	0	0	0	1	0	0	0	12
7:30 AM	0	6	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	8
7:45 AM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
8:00 AM	0	6	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	13
8:15 AM	0	3	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	7
8:30 AM	0	1	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	7
8:45 AM	0	1	1	0	0	0	3	0	0	0	0	0	0	1	0	0	0	6
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	27	5	0	0	0	30	0	0	0	0	0	0	2	0	0	0	64
APPROACH %'s :	0.00%	84.38%	15.63%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																	TOTAL
PEAK HR VOL :	0	11	2	0	0	0	19	0	0	0	0	0	0	1	0	0	0	33
PEAK HR FACTOR :	0.000	0.458	0.500	0.000	0.000	0.000	0.679	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.635
			0.542				0.679								0.250			

PM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7
4:15 PM	0	1	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
4:30 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
5:45 PM	0	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	8	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	22
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:15 PM - 05:15 PM																	TOTAL
PEAK HR VOL :	0	3	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	8
PEAK HR FACTOR :	0.000	0.750	0.000	0.000	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
			0.750				0.417											

National Data & Surveying Services Intersection Turning Movement Count

Location: Claremont Ave & Chabot Rd
City: Oakland
Control: 1-Way Stop(WB)

Project ID: 23-080216-003
Date: 7/13/2023

Data - Bikes

NS/EW Streets:	Claremont Ave					Claremont Ave				Chabot Rd				Chabot Rd				
AM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1
7:15 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	1	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	2	2	0	1	0	3	0	0	0	0	0	0	1	0	0	0	9
APPROACH %'s :	0.00%	40.00%	40.00%	0.00%	20.00%	0.00%	100.00%	0.00%	0.00%					100.00%	0.00%	0.00%	0.00%	
PEAK HR :	08:00 AM - 09:00 AM																	TOTAL
PEAK HR VOL :	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2
PEAK HR FACTOR :	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500
			0.500															

PM	NORTHBOUND					SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	2	0	0	0	0	2	0	0	0	0	0	0	0	1	0	0	
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:15 PM	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
4:45 PM	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
5:00 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
5:15 PM	0	2	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	6
5:30 PM	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
5:45 PM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	NR2	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	7	1	0	0	0	12	0	0	0	0	0	0	0	0	0	0	20
APPROACH %'s :	0.00%	87.50%	12.50%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:15 PM - 05:15 PM																	TOTAL
PEAK HR VOL :	0	3	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	8
PEAK HR FACTOR :	0.000	0.375	0.000	0.000	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.667
			0.375				0.625											

National Data & Surveying Services Intersection Turning Movement Count

Location: Claremont Ave & Chabot Rd
City: Oakland
Project ID: 23-080216-003
Date: 7/13/2023

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Claremont Ave		Claremont Ave		Chabot Rd		Chabot Rd		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	2	0	0	1	0	1	4
7:15 AM	0	0	1	0	3	11	0	1	16
7:30 AM	0	0	0	0	1	0	0	2	3
7:45 AM	0	0	1	1	1	2	2	1	8
8:00 AM	0	0	0	0	0	3	0	1	4
8:15 AM	0	0	0	1	1	0	0	4	6
8:30 AM	0	0	0	1	1	1	0	2	5
8:45 AM	0	0	1	0	1	1	0	0	3
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	5	3	8	19	2	12	49
APPROACH %'s :			62.50%	37.50%	29.63%	70.37%	14.29%	85.71%	
PEAK HR :	08:00 AM - 09:00 AM								TOTAL
PEAK HR VOL :	0	0	1	2	3	5	0	7	18
PEAK HR FACTOR :			0.250	0.500	0.750	0.417		0.438	0.750
			0.750		0.667		0.438		

	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
PM	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	1	2	3	3	1	2	12
4:15 PM	0	0	0	1	4	3	2	1	11
4:30 PM	0	0	1	0	2	2	0	4	9
4:45 PM	0	0	1	0	1	0	1	3	6
5:00 PM	0	0	0	0	1	2	0	0	3
5:15 PM	0	0	3	3	3	4	5	2	20
5:30 PM	0	0	4	2	3	0	3	5	17
5:45 PM	0	0	0	1	2	0	2	2	7
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	10	9	19	14	14	19	85
APPROACH %'s :			52.63%	47.37%	57.58%	42.42%	42.42%	57.58%	
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	0	2	1	8	7	3	8	29
PEAK HR FACTOR :			0.500	0.250	0.500	0.583	0.375	0.500	0.659
			0.750		0.536		0.688		

Prepared by National Data & Surveying Services

VOLUME

Chabot Rd E/O Dreyer's Dwy

Day: Wednesday
Date: 7/12/2023

City: Oakland
Project #: CA23_080217_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	998	694	1,692

AM Period	NB		SB		EB		WB		TOTAL		PM Period	NB		SB		EB		WB		TOTAL	
00:00					1		1		2		12:00					16		16		32	
00:15					0		0		0		12:15					14		18		32	
00:30					0		0		0		12:30					16		13		29	
00:45					1	2	2	3	3	5	12:45					12	58	20	67	32	125
01:00					2		0		2		13:00					18		10		28	
01:15					0		0		0		13:15					23		10		33	
01:30					1		0		1		13:30					12		16		28	
01:45					0	3	0		0	3	13:45					14	67	12	48	26	115
02:00					0		0		0		14:00					13		13		26	
02:15					0		0		0		14:15					16		9		25	
02:30					0		0		0		14:30					12		9		21	
02:45					3	3	0		3	3	14:45					12	53	15	46	27	99
03:00					0		1		1		15:00					20		19		39	
03:15					0		0		0		15:15					17		16		33	
03:30					0		0		0		15:30					19		12		31	
03:45					1	1	0	1	1	2	15:45					29	85	18	65	47	150
04:00					0		0		0		16:00					28		17		45	
04:15					1		0		1		16:15					42		13		55	
04:30					1		1		2		16:30					24		13		37	
04:45					0	2	0	1	0	3	16:45					28	122	16	59	44	181
05:00					0		0		0		17:00					26		8		34	
05:15					1		1		2		17:15					27		11		38	
05:30					3		3		6		17:30					25		13		38	
05:45					4	8	3	7	7	15	17:45					42	120	15	47	57	167
06:00					3		3		6		18:00					49		15		64	
06:15					5		1		6		18:15					23		12		35	
06:30					5		1		6		18:30					17		16		33	
06:45					5	18	2	7	7	25	18:45					17	106	9	52	26	158
07:00					6		5		11		19:00					13		13		26	
07:15					3		2		5		19:15					15		12		27	
07:30					6		3		9		19:30					17		15		32	
07:45					9	24	8	18	17	42	19:45					13	58	9	49	22	107
08:00					6		11		17		20:00					17		10		27	
08:15					8		5		13		20:15					7		8		15	
08:30					12		8		20		20:30					11		17		28	
08:45					9	35	10	34	19	69	20:45					8	43	5	40	13	83
09:00					15		16		31		21:00					10		7		17	
09:15					12		3		15		21:15					6		6		12	
09:30					7		10		17		21:30					6		7		13	
09:45					9	43	9	38	18	81	21:45					4	26	8	28	12	54
10:00					24		8		32		22:00					1		4		5	
10:15					7		5		12		22:15					5		3		8	
10:30					12		5		17		22:30					2		5		7	
10:45					11	54	7	25	18	79	22:45					2	10	1	13	3	23
11:00					7		8		15		23:00					1		2		3	
11:15					14		9		23		23:15					1		1		2	
11:30					18		12		30		23:30					2		0		2	
11:45					14	53	11	40	25	93	23:45					0	4	3	6	3	10
TOTALS						246		174		**420**	**TOTALS**						752		520		**1272**
SPLIT %						58.6%		41.4%		**24.8%**	**SPLIT %**						59.1%		40.9%		**75.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	998	694	1,692

	NB	SB	EB	WB	TOTAL		NB	SB	EB	WB	TOTAL
AM Peak Hour			11:15	11:45	**11:30**	PM Peak Hour			17:15	12:00	**17:15**
AM Pk Volume			62	58	**119**	PM Pk Volume			143	67	**197**
Pk Hr Factor			0.861	0.806	**0.930**	Pk Hr Factor			0.730	0.838	**0.770**
7 - 9 Volume	0	0	59	52	**111**	4 - 6 Volume	0	0	242	106	**348**
7 - 9 Peak Hour			07:45	08:00	**08:00**	4 - 6 Peak Hour			16:00	16:00	**16:00**
7 - 9 Pk Volume	0	0	35	34	**69**	4 - 6 Pk Volume	0	0	122	59	**181**
Pk Hr Factor	0.000	0.000	0.729	0.773	**0.863**	Pk Hr Factor	0.000	0.000	0.726	0.868	**0.823**

Prepared by National Data & Surveying Services

VOLUME

Chabot Rd E/O Dreyer's Dwy

Day: Thursday
Date: 7/13/2023

City: Oakland
Project #: CA23_080217_001

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	944	765	1,709

AM Period	NB	SB	EB		WB		TOTAL	
00:00			0		0		0	
00:15			0		1		1	
00:30			0		0		0	
00:45			0		0	1	0	1
01:00			1		2		3	
01:15			2		0		2	
01:30			0		1		1	
01:45			0	3	0	3	0	6
02:00			0		0		0	
02:15			2		0		2	
02:30			0		0		0	
02:45			2	4	0		2	4
03:00			0		1		1	
03:15			0		0		0	
03:30			0		0		0	
03:45			1	1	0	1	1	2
04:00			1		0		1	
04:15			0		0		0	
04:30			0		0		0	
04:45			0	1	0		0	1
05:00			0		0		0	
05:15			0		2		2	
05:30			0		1		1	
05:45			4	4	3	6	7	10
06:00			4		5		9	
06:15			4		4		8	
06:30			4		1		5	
06:45			3	15	7	17	10	32
07:00			4		5		9	
07:15			9		3		12	
07:30			2		6		8	
07:45			7	22	9	23	16	45
08:00			8		10		18	
08:15			8		7		15	
08:30			9		14		23	
08:45			8	33	8	39	16	72
09:00			15		10		25	
09:15			6		8		14	
09:30			10		15		25	
09:45			13	44	9	42	22	86
10:00			13		12		25	
10:15			12		7		19	
10:30			11		10		21	
10:45			11	47	8	37	19	84
11:00			7		9		16	
11:15			13		6		19	
11:30			15		14		29	
11:45			15	50	14	43	29	93
TOTALS				224		212		**436**
SPLIT %				51.4%		48.6%		**25.5%**

PM Period	NB	SB	EB		WB		TOTAL	
12:00			11		15		26	
12:15			28		19		47	
12:30			24		17		41	
12:45			22	85	21	72	43	157
13:00			14		16		30	
13:15			16		15		31	
13:30			18		14		32	
13:45			20	68	12	57	32	125
14:00			18		19		37	
14:15			14		13		27	
14:30			16		24		40	
14:45			17	65	17	73	34	138
15:00			24		22		46	
15:15			27		17		44	
15:30			19		13		32	
15:45			28	98	22	74	50	172
16:00			34		21		55	
16:15			17		11		28	
16:30			23		14		37	
16:45			25	99	14	60	39	159
17:00			24		14		38	
17:15			19		15		34	
17:30			22		16		38	
17:45			21	86	14	59	35	145
18:00			23		13		36	
18:15			14		7		21	
18:30			10		8		18	
18:45			15	62	12	40	27	102
19:00			24		12		36	
19:15			21		13		34	
19:30			17		12		29	
19:45			8	70	8	45	16	115
20:00			19		11		30	
20:15			12		10		22	
20:30			7		8		15	
20:45			6	44	3	32	9	76
21:00			10		8		18	
21:15			7		5		12	
21:30			3		4		7	
21:45			6	26	5	22	11	48
22:00			7		7		14	
22:15			1		3		4	
22:30			2		1		3	
22:45			3	13	2	13	5	26
23:00			1		3		4	
23:15			1		1		2	
23:30			0		2		2	
23:45			2	4	0	6	2	10
TOTALS				720		553		**1273**
SPLIT %				56.6%		43.4%		**74.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	944	765	1,709

	NB	SB	EB	WB	TOTAL
AM Peak Hour			11:45	11:45	**11:45**
AM Pk Volume			78	65	**143**
Pk Hr Factor			0.696	0.855	**0.761**
7 - 9 Volume	0	0	55	62	**117**
7 - 9 Peak Hour			08:00	07:45	**07:45**
7 - 9 Pk Volume	0	0	33	40	**72**
Pk Hr Factor	0.000	0.000	0.917	0.714	**0.783**

	NB	SB	EB	WB	TOTAL
PM Peak Hour			15:15	14:30	**15:15**
PM Pk Volume			108	80	**181**
Pk Hr Factor			0.794	0.833	**0.823**
4 - 6 Volume	0	0	185	119	**304**
4 - 6 Peak Hour			16:00	16:00	**16:00**
4 - 6 Pk Volume	0	0	99	60	**159**
Pk Hr Factor	0.000	0.000	0.728	0.714	**0.723**

Prepared by National Data & Surveying Services

VOLUME

Chabot Rd W/O Dreyer's Dwy

Day: Wednesday **City:** Oakland
Date: 7/12/2023 **Project #:** CA23_080217_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,004	680	1,684

AM Period	NB		SB		EB		WB		TOTAL	
00:00					1		1		2	
00:15					0		0		0	
00:30					0		0		0	
00:45					1	2	2	3	3	5
01:00					2		0		2	
01:15					0		0		0	
01:30					1		0		1	
01:45					0	3	0		0	3
02:00					0		0		0	
02:15					0		0		0	
02:30					0		0		0	
02:45					3	3	0		3	3
03:00					0		1		1	
03:15					0		0		0	
03:30					0		0		0	
03:45					1	1	0	1	1	2
04:00					0		0		0	
04:15					1		0		1	
04:30					1		1		2	
04:45					0	2	0	1	0	3
05:00					0		0		0	
05:15					1		1		2	
05:30					3		2		5	
05:45					6	10	2	5	8	15
06:00					3		4		7	
06:15					5		0		5	
06:30					5		1		6	
06:45					5	18	2	7	7	25
07:00					7		4		11	
07:15					4		3		7	
07:30					6		3		9	
07:45					8	25	7	17	15	42
08:00					4		11		15	
08:15					8		5		13	
08:30					13		8		21	
08:45					12	37	10	34	22	71
09:00					15		14		29	
09:15					8		4		12	
09:30					5		10		15	
09:45					10	38	8	36	18	74
10:00					27		8		35	
10:15					8		5		13	
10:30					14		5		19	
10:45					2	51	2	20	4	71
11:00					3		5		8	
11:15					15		9		24	
11:30					18		14		32	
11:45					14	50	8	36	22	86
TOTALS						240		160		**400**
SPLIT %						60.0%		40.0%		**23.8%**

PM Period	NB		SB		EB		WB		TOTAL	
12:00					18		17		35	
12:15					17		13		30	
12:30					16		10		26	
12:45					12	63	21	61	33	124
13:00					16		12		28	
13:15					20		12		32	
13:30					14		15		29	
13:45					12	62	7	46	19	108
14:00					13		15		28	
14:15					16		7		23	
14:30					17		9		26	
14:45					13	59	15	46	28	105
15:00					21		20		41	
15:15					20		18		38	
15:30					20		11		31	
15:45					30	91	15	64	45	155
16:00					30		16		46	
16:15					39		15		54	
16:30					24		14		38	
16:45					30	123	15	60	45	183
17:00					25		8		33	
17:15					26		11		37	
17:30					27		14		41	
17:45					44	122	15	48	59	170
18:00					52		17		69	
18:15					22		13		35	
18:30					17		17		34	
18:45					16	107	7	54	23	161
19:00					13		14		27	
19:15					15		10		25	
19:30					14		14		28	
19:45					15	57	8	46	23	103
20:00					13		10		23	
20:15					6		10		16	
20:30					15		18		33	
20:45					7	41	3	41	10	82
21:00					9		9		18	
21:15					6		8		14	
21:30					5		7		12	
21:45					4	24	9	33	13	57
22:00					1		5		6	
22:15					5		3		8	
22:30					2		5		7	
22:45					3	11	1	14	4	25
23:00					1		3		4	
23:15					1		1		2	
23:30					2		0		2	
23:45					0	4	3	7	3	11
TOTALS						764		520		**1284**
SPLIT %						59.5%		40.5%		**76.2%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	1,004	680	1,684

	NB	SB	EB	WB	TOTAL
AM Peak Hour			11:30	11:30	**11:30**
AM Pk Volume			67	52	**119**
Pk Hr Factor			0.931	0.765	**0.850**
7 - 9 Volume	0	0	62	51	**113**
7 - 9 Peak Hour			08:00	08:00	**08:00**
7 - 9 Pk Volume	0	0	37	34	**71**
Pk Hr Factor	0.000	0.000	0.712	0.773	**0.807**

	NB	SB	EB	WB	TOTAL
PM Peak Hour			17:15	14:45	**17:15**
PM Pk Volume			149	64	**206**
Pk Hr Factor			0.716	0.800	**0.746**
4 - 6 Volume	0	0	245	108	**353**
4 - 6 Peak Hour			16:00	16:00	**16:00**
4 - 6 Pk Volume	0	0	123	60	**183**
Pk Hr Factor	0.000	0.000	0.788	0.938	**0.847**

Prepared by National Data & Surveying Services

VOLUME

Chabot Rd W/O Dreyer's Dwy

Day: Thursday **City:** Oakland
Date: 7/13/2023 **Project #:** CA23_080217_002

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	909	708	1,617

AM Period	NB		SB		EB		WB		TOTAL	
00:00					0		0		0	
00:15					0		1		1	
00:30					0		0		0	
00:45					0		0	1	0	1
01:00					0		2		2	
01:15					2		0		2	
01:30					0		1		1	
01:45					0	2	0	3	0	5
02:00					0		0		0	
02:15					2		0		2	
02:30					0		0		0	
02:45					2	4	0		2	4
03:00					0		1		1	
03:15					0		0		0	
03:30					0		0		0	
03:45					1	1	0	1	1	2
04:00					1		0		1	
04:15					0		0		0	
04:30					0		0		0	
04:45					0	1	0		0	1
05:00					0		0		0	
05:15					0		2		2	
05:30					1		0		1	
05:45					5	6	0	2	5	8
06:00					4		4		8	
06:15					4		3		7	
06:30					4		1		5	
06:45					4	16	3	11	7	27
07:00					5		6		11	
07:15					12		4		16	
07:30					3		4		7	
07:45					7	27	8	22	15	49
08:00					11		8		19	
08:15					8		6		14	
08:30					9		9		18	
08:45					13	41	6	29	19	70
09:00					20		10		30	
09:15					7		6		13	
09:30					13		14		27	
09:45					15	55	5	35	20	90
10:00					12		10		22	
10:15					11		6		17	
10:30					11		10		21	
10:45					13	47	6	32	19	79
11:00					10		5		15	
11:15					16		8		24	
11:30					14		13		27	
11:45					14	54	12	38	26	92
TOTALS						254		174		**428**
SPLIT %						59.3%		40.7%		**26.5%**

PM Period	NB		SB		EB		WB		TOTAL	
12:00					10		14		24	
12:15					23		20		43	
12:30					22		13		35	
12:45					22	77	19	66	41	143
13:00					14		10		24	
13:15					14		14		28	
13:30					14		15		29	
13:45					18	60	12	51	30	111
14:00					14		21		35	
14:15					11		11		22	
14:30					15		18		33	
14:45					16	56	16	66	32	122
15:00					18		22		40	
15:15					25		18		43	
15:30					20		13		33	
15:45					31	94	20	73	51	167
16:00					28		23		51	
16:15					16		15		31	
16:30					24		12		36	
16:45					20	88	11	61	31	149
17:00					20		14		34	
17:15					20		13		33	
17:30					21		15		36	
17:45					19	80	13	55	32	135
18:00					22		12		34	
18:15					12		7		19	
18:30					8		4		12	
18:45					14	56	11	34	25	90
19:00					20		13		33	
19:15					21		13		34	
19:30					17		12		29	
19:45					6	64	10	48	16	112
20:00					14		10		24	
20:15					12		11		23	
20:30					8		8		16	
20:45					7	41	4	33	11	74
21:00					9		9		18	
21:15					7		5		12	
21:30					1		6		7	
21:45					6	23	6	26	12	49
22:00					6		7		13	
22:15					1		3		4	
22:30					2		1		3	
22:45					3	12	3	14	6	26
23:00					1		4		5	
23:15					1		1		2	
23:30					0		2		2	
23:45					2	4	0	7	2	11
TOTALS						655		534		**1189**
SPLIT %						55.1%		44.9%		**73.5%**

DAILY TOTALS	NB	SB	EB	WB	Total
	0	0	909	708	1,617

	NB	SB	EB	WB	Total
AM Peak Hour			11:45	11:30	**11:45**
AM Pk Volume			69	59	**128**
Pk Hr Factor			0.750	0.738	**0.744**
7 - 9 Volume	0	0	68	51	**119**
7 - 9 Peak Hour			08:00	07:45	**08:00**
7 - 9 Pk Volume	0	0	41	31	**70**
Pk Hr Factor	0.000	0.000	0.788	0.861	**0.921**

	NB	SB	EB	WB	Total
PM Peak Hour			15:15	14:30	**15:15**
PM Pk Volume			104	74	**178**
Pk Hr Factor			0.839	0.841	**0.873**
4 - 6 Volume	0	0	168	116	**284**
4 - 6 Peak Hour			16:00	16:00	**16:00**
4 - 6 Pk Volume	0	0	88	61	**149**
Pk Hr Factor	0.000	0.000	0.786	0.663	**0.730**

Appendix C
Intersection Level of Service Calculations

Movement	EBL2	EBL	EBT	EBR	EBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2	SBL
Lane Configurations												
Traffic Volume (vph)	6	3	1	12	4	19	7	252	65	3	11	1
Future Volume (vph)	6	3	1	12	4	19	7	252	65	3	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	11	11	11	11	11	11	11
Total Lost time (s)			3.0				5.0	5.0				
Lane Util. Factor			1.00				1.00	1.00				
Frpb, ped/bikes			1.00				1.00	0.95				
Flpb, ped/bikes			1.00				0.90	1.00				
Frt			0.92				1.00	0.97				
Flt Protected			0.98				0.95	1.00				
Satd. Flow (prot)			1567				1537	1462				
Flt Permitted			0.98				0.59	1.00				
Satd. Flow (perm)			1567				951	1462				
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)	6	3	1	12	4	19	7	252	65	3	11	1
RTOR Reduction (vph)	0	0	4	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	22	0	0	0	26	320	0	0	0	0
Confl. Peds. (#/hr)						61	61		57	57	57	57
Confl. Bikes (#/hr)									37	37		
Parking (#/hr)								4				
Turn Type	Split	Split	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	7	7	7					2				
Permitted Phases						2	2				5 6	5 6
Actuated Green, G (s)			4.1				26.0	26.0				
Effective Green, g (s)			4.1				26.0	26.0				
Actuated g/C Ratio			0.05				0.31	0.31				
Clearance Time (s)			3.0				5.0	5.0				
Vehicle Extension (s)			3.0				3.0	3.0				
Lane Grp Cap (vph)			77				297	456				
v/s Ratio Prot			c0.01					c0.22				
v/s Ratio Perm							0.03					
v/c Ratio			0.29				0.09	0.70				
Uniform Delay, d1			38.1				20.2	25.2				
Progression Factor			1.00				1.00	1.00				
Incremental Delay, d2			2.1				0.1	4.8				
Delay (s)			40.2				20.3	30.0				
Level of Service			D				C	C				
Approach Delay (s)			40.2					29.3				
Approach LOS			D					C				

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	83.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR	SBR2	NEL	NET	NER	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	187	112	3	202	244	6	18	1	84	205	1	7
Future Volume (vph)	187	112	3	202	244	6	18	1	84	205	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10	10
Total Lost time (s)	5.0	5.0			4.5					4.5		
Lane Util. Factor	1.00	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	1.00	0.85			0.99					1.00		
Flt Protected	1.00	1.00			0.98					0.99		
Satd. Flow (prot)	1787	1531			3026					3054		
Flt Permitted	0.97	1.00			0.98					0.99		
Satd. Flow (perm)	1746	1531			3026					3054		
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)	187	112	3	202	244	6	18	1	84	205	1	7
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	2	0	0
Lane Group Flow (vph)	199	115	0	0	469	0	0	0	0	296	0	0
Confl. Peds. (#/hr)				21		5	5	5	5		21	21
Confl. Bikes (#/hr)						1	1				3	3
Parking (#/hr)					2					2		
Turn Type	NA	custom		Split	NA			Split	Split	NA		
Protected Phases	5 6	5		3	3			8	8	8		
Permitted Phases												
Actuated Green, G (s)	28.0	13.3			20.8					15.3		
Effective Green, g (s)	28.0	13.3			20.8					15.3		
Actuated g/C Ratio	0.34	0.16			0.25					0.18		
Clearance Time (s)		5.0			4.5					4.5		
Vehicle Extension (s)		3.0			3.0					3.0		
Lane Grp Cap (vph)	587	244			756					561		
v/s Ratio Prot		0.08			c0.15					c0.10		
v/s Ratio Perm	0.11											
v/c Ratio	0.34	0.47			0.62					0.53		
Uniform Delay, d1	20.7	31.8			27.7					30.7		
Progression Factor	1.00	1.00			1.00					1.00		
Incremental Delay, d2	0.3	1.4			1.5					0.9		
Delay (s)	21.0	33.2			29.2					31.6		
Level of Service	C	C			C					C		
Approach Delay (s)	25.5				29.2					31.6		
Approach LOS	C				C					C		

Intersection Summary

Intersection	
Int Delay, s/veh	0.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	33	12	480	57	12	415
Future Vol, veh/h	33	12	480	57	12	415
Conflicting Peds, #/hr	10	0	0	8	8	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	33	12	480	57	12	415

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	759	277	0	0	545	0
Stage 1	517	-	-	-	-	-
Stage 2	242	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	343	720	-	-	1020	-
Stage 1	563	-	-	-	-	-
Stage 2	776	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	333	715	-	-	1014	-
Mov Cap-2 Maneuver	333	-	-	-	-	-
Stage 1	560	-	-	-	-	-
Stage 2	758	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	15.5	0	0.3
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	388	1014	-
HCM Lane V/C Ratio	-	-	0.116	0.012	-
HCM Control Delay (s)	-	-	15.5	8.6	0.1
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	22	29	30	23	57	19	327	46	38	255	16
Future Vol, veh/h	5	22	29	30	23	57	19	327	46	38	255	16
Conflicting Peds, #/hr	11	0	31	31	0	11	68	0	65	65	0	68
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	22	29	30	23	57	19	327	46	38	255	16

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	846	883	362	849	868	426	339	0	0	438	0	0
Stage 1	407	407	-	453	453	-	-	-	-	-	-	-
Stage 2	439	476	-	396	415	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	282	285	683	281	290	628	1220	-	-	1122	-	-
Stage 1	621	597	-	586	570	-	-	-	-	-	-	-
Stage 2	597	557	-	629	592	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	211	240	629	219	244	590	1154	-	-	1064	-	-
Mov Cap-2 Maneuver	211	240	-	219	244	-	-	-	-	-	-	-
Stage 1	575	541	-	544	529	-	-	-	-	-	-	-
Stage 2	500	517	-	537	536	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	17.4	20.8	0.4	1
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1154	-	-	347	336	1064	-	-
HCM Lane V/C Ratio	0.016	-	-	0.161	0.327	0.036	-	-
HCM Control Delay (s)	8.2	0	-	17.4	20.8	8.5	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	1.4	0.1	-	-

Movement	EBL2	EBL	EBT	EBR	EBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2	SBL
Lane Configurations												
Traffic Volume (vph)	3	5	3	33	10	18	6	279	101	9	5	3
Future Volume (vph)	3	5	3	33	10	18	6	279	101	9	5	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	11	11	11	11	11	11	11
Total Lost time (s)			3.0				5.0	5.0				
Lane Util. Factor			1.00				1.00	1.00				
Frpb, ped/bikes			1.00				1.00	0.90				
Flpb, ped/bikes			1.00				0.81	1.00				
Frt			0.89				1.00	0.96				
Flt Protected			0.99				0.95	1.00				
Satd. Flow (prot)			1540				1381	1368				
Flt Permitted			0.99				0.48	1.00				
Satd. Flow (perm)			1540				694	1368				
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)	3	5	3	33	10	18	6	279	101	9	5	3
RTOR Reduction (vph)	0	0	6	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	48	0	0	0	24	389	0	0	0	0
Confl. Peds. (#/hr)						114	114		109	109	109	109
Confl. Bikes (#/hr)									23	23		
Parking (#/hr)								4				
Turn Type	Perm	Split	NA			Perm	Perm	NA			Perm	Perm
Protected Phases		7	7					2				
Permitted Phases	7					2	2				5 6	5 6
Actuated Green, G (s)			7.3				36.9	36.9				
Effective Green, g (s)			7.3				36.9	36.9				
Actuated g/C Ratio			0.07				0.36	0.36				
Clearance Time (s)			3.0				5.0	5.0				
Vehicle Extension (s)			3.0				3.0	3.0				
Lane Grp Cap (vph)			110				250	494				
v/s Ratio Prot			c0.03					c0.28				
v/s Ratio Perm							0.03					
v/c Ratio			0.43				0.10	0.79				
Uniform Delay, d1			45.4				21.6	29.1				
Progression Factor			1.00				1.00	1.00				
Incremental Delay, d2			2.7				0.2	8.1				
Delay (s)			48.1				21.7	37.2				
Level of Service			D				C	D				
Approach Delay (s)			48.1					36.3				
Approach LOS			D					D				

Intersection Summary			
HCM 2000 Control Delay	37.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	102.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR	SBR2	NEL	NET	NER	NER2	SWL	SWT	SWR	SWR2
Lane Configurations											
Traffic Volume (vph)	276	163	2	173	262	12	39	98	217	4	12
Future Volume (vph)	276	163	2	173	262	12	39	98	217	4	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10
Total Lost time (s)	5.0	5.0			4.5				4.5		
Lane Util. Factor	1.00	1.00			0.95				0.95		
Frpb, ped/bikes	1.00	1.00			0.98				0.99		
Flpb, ped/bikes	1.00	1.00			1.00				1.00		
Frt	1.00	0.85			0.98				0.99		
Flt Protected	1.00	1.00			0.98				0.99		
Satd. Flow (prot)	1791	1531			2969				3030		
Flt Permitted	0.99	1.00			0.98				0.99		
Satd. Flow (perm)	1772	1531			2969				3030		
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)	276	163	2	173	262	12	39	98	217	4	12
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	2	0	0
Lane Group Flow (vph)	284	165	0	0	481	0	0	0	329	0	0
Confl. Peds. (#/hr)				22		26	26	26		22	22
Confl. Bikes (#/hr)						2	2			3	3
Parking (#/hr)					2				2		
Turn Type	NA	custom		Split	NA			Split	NA		
Protected Phases	5 6	5		3	3			8	8		
Permitted Phases											
Actuated Green, G (s)	38.9	17.1			23.2				17.7		
Effective Green, g (s)	38.9	17.1			23.2				17.7		
Actuated g/C Ratio	0.38	0.17			0.23				0.17		
Clearance Time (s)		5.0			4.5				4.5		
Vehicle Extension (s)		3.0			3.0				3.0		
Lane Grp Cap (vph)	675	256			674				525		
v/s Ratio Prot		0.11			c0.16				c0.11		
v/s Ratio Perm	0.16										
v/c Ratio	0.42	0.64			0.71				0.63		
Uniform Delay, d1	23.3	39.7			36.4				39.1		
Progression Factor	1.00	1.00			1.00				1.00		
Incremental Delay, d2	0.4	5.5			3.6				2.3		
Delay (s)	23.7	45.1			40.0				41.5		
Level of Service	C	D			D				D		
Approach Delay (s)	31.6				40.0				41.5		
Approach LOS	C				D				D		

Intersection Summary

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	14	566	92	11	439
Future Vol, veh/h	41	14	566	92	11	439
Conflicting Peds, #/hr	2	0	0	17	17	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	41	14	566	92	11	439

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	873	346	0	0	675	0
Stage 1	629	-	-	-	-	-
Stage 2	244	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	289	650	-	-	912	-
Stage 1	494	-	-	-	-	-
Stage 2	774	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	280	641	-	-	900	-
Mov Cap-2 Maneuver	280	-	-	-	-	-
Stage 1	488	-	-	-	-	-
Stage 2	760	-	-	-	-	-

Approach	WB		NB		SB	
HCM Control Delay, s	18.2		0		0.3	
HCM LOS	C					

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	327	900	-
HCM Lane V/C Ratio	-	-	0.168	0.012	-
HCM Control Delay (s)	-	-	18.2	9	0.1
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	11.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	19	48	54	26	11	49	25	320	31	35	350	22
Future Vol, veh/h	19	48	54	26	11	49	25	320	31	35	350	22
Conflicting Peds, #/hr	49	0	46	46	0	49	212	0	145	145	0	212
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	1	1	1	2	2	2	2	2	2	2	2	2
Mvmt Flow	19	48	54	26	11	49	25	320	31	35	350	22

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1108	1189	619	1059	1185	530	584	0	0	496	0	0
Stage 1	643	643	-	531	531	-	-	-	-	-	-	-
Stage 2	465	546	-	528	654	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	188	189	490	202	189	549	991	-	-	1068	-	-
Stage 1	464	470	-	532	526	-	-	-	-	-	-	-
Stage 2	580	520	-	534	463	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	117	128	391	99	128	465	824	-	-	945	-	-
Mov Cap-2 Maneuver	117	128	-	99	128	-	-	-	-	-	-	-
Stage 1	371	373	-	453	448	-	-	-	-	-	-	-
Stage 2	466	443	-	367	367	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	59.1	39	0.6	0.8
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	824	-	-	179	189	945	-	-
HCM Lane V/C Ratio	0.03	-	-	0.676	0.455	0.037	-	-
HCM Control Delay (s)	9.5	0	-	59.1	39	9	0	-
HCM Lane LOS	A	A	-	F	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4	2.1	0.1	-	-

HCM Signalized Intersection Capacity Analysis
1: Claremont Ave & College Ave

03/08/2024

Movement	EBL2	EBL	EBT	EBR	EBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2	SBL
Lane Configurations												
Traffic Volume (vph)	6	3	1	12	4	19	7	252	65	3	11	1
Future Volume (vph)	6	3	1	12	4	19	7	252	65	3	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	11	11	11	11	11	11	11
Total Lost time (s)			3.0				5.0	5.0				
Lane Util. Factor			1.00				1.00	1.00				
Frpb, ped/bikes			1.00				1.00	0.95				
Flpb, ped/bikes			1.00				0.90	1.00				
Frt			0.92				1.00	0.97				
Flt Protected			0.98				0.95	1.00				
Satd. Flow (prot)			1567				1537	1462				
Flt Permitted			0.98				0.59	1.00				
Satd. Flow (perm)			1567				951	1462				
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)	6	3	1	12	4	19	7	252	65	3	11	1
RTOR Reduction (vph)	0	0	4	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	22	0	0	0	26	320	0	0	0	0
Confl. Peds. (#/hr)						61	61		57	57	57	57
Confl. Bikes (#/hr)									37	37		
Parking (#/hr)								4				
Turn Type	Split	Split	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	7	7	7					2				
Permitted Phases						2	2				5 6	5 6
Actuated Green, G (s)			4.1				26.0	26.0				
Effective Green, g (s)			4.1				26.0	26.0				
Actuated g/C Ratio			0.05				0.31	0.31				
Clearance Time (s)			3.0				5.0	5.0				
Vehicle Extension (s)			3.0				3.0	3.0				
Lane Grp Cap (vph)			77				297	456				
v/s Ratio Prot			c0.01					c0.22				
v/s Ratio Perm							0.03					
v/c Ratio			0.29				0.09	0.70				
Uniform Delay, d1			38.1				20.2	25.2				
Progression Factor			1.00				1.00	1.00				
Incremental Delay, d2			2.1				0.1	4.8				
Delay (s)			40.2				20.3	30.0				
Level of Service			D				C	C				
Approach Delay (s)			40.2					29.3				
Approach LOS			D					C				

Intersection Summary			
HCM 2000 Control Delay	29.1	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.64		
Actuated Cycle Length (s)	83.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	75.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR	SBR2	NEL	NET	NER	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	187	112	3	202	244	6	18	1	84	205	1	7
Future Volume (vph)	187	112	3	202	244	6	18	1	84	205	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10	10
Total Lost time (s)	5.0	5.0			4.5					4.5		
Lane Util. Factor	1.00	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	1.00	0.85			0.99					1.00		
Flt Protected	1.00	1.00			0.98					0.99		
Satd. Flow (prot)	1787	1531			3026					3054		
Flt Permitted	0.97	1.00			0.98					0.99		
Satd. Flow (perm)	1746	1531			3026					3054		
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)	187	112	3	202	244	6	18	1	84	205	1	7
RTOR Reduction (vph)	0	0	0	0	2	0	0	0	0	2	0	0
Lane Group Flow (vph)	199	115	0	0	469	0	0	0	0	296	0	0
Confl. Peds. (#/hr)				21		5	5	5	5		21	21
Confl. Bikes (#/hr)						1	1				3	3
Parking (#/hr)					2					2		
Turn Type	NA	custom		Split	NA			Split	Split	NA		
Protected Phases	5 6	5		3	3			8	8	8		
Permitted Phases												
Actuated Green, G (s)	28.0	13.3			20.8					15.3		
Effective Green, g (s)	28.0	13.3			20.8					15.3		
Actuated g/C Ratio	0.34	0.16			0.25					0.18		
Clearance Time (s)		5.0			4.5					4.5		
Vehicle Extension (s)		3.0			3.0					3.0		
Lane Grp Cap (vph)	587	244			756					561		
v/s Ratio Prot		0.08			c0.15					c0.10		
v/s Ratio Perm	0.11											
v/c Ratio	0.34	0.47			0.62					0.53		
Uniform Delay, d1	20.7	31.8			27.7					30.7		
Progression Factor	1.00	1.00			1.00					1.00		
Incremental Delay, d2	0.3	1.4			1.5					0.9		
Delay (s)	21.0	33.2			29.2					31.6		
Level of Service	C	C			C					C		
Approach Delay (s)	25.5				29.2					31.6		
Approach LOS	C				C					C		

Intersection Summary

Intersection	
Int Delay, s/veh	0.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	25	11	426	38	11	381
Future Vol, veh/h	25	11	426	38	11	381
Conflicting Peds, #/hr	3	0	0	8	8	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	25	11	426	38	11	381

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	669	240	0	0	472	0
Stage 1	453	-	-	-	-	-
Stage 2	216	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	391	761	-	-	1086	-
Stage 1	607	-	-	-	-	-
Stage 2	799	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	383	756	-	-	1079	-
Mov Cap-2 Maneuver	383	-	-	-	-	-
Stage 1	603	-	-	-	-	-
Stage 2	787	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.7	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	451	1079	-
HCM Lane V/C Ratio	-	-	0.08	0.01	-
HCM Control Delay (s)	-	-	13.7	8.4	0.1
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.3	0	-

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	9	21	14	9	53	17	270	16	26	214	13
Future Vol, veh/h	4	9	21	14	9	53	17	270	16	26	214	13
Conflicting Peds, #/hr	10	0	23	10	0	23	66	0	107	107	0	66
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	4	9	21	14	9	53	17	270	16	26	214	13

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	705	766	310	730	764	408	293	0	0	393	0	0
Stage 1	339	339	-	419	419	-	-	-	-	-	-	-
Stage 2	366	427	-	311	345	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	351	333	730	338	334	643	1269	-	-	1166	-	-
Stage 1	676	640	-	612	590	-	-	-	-	-	-	-
Stage 2	653	585	-	699	636	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	279	276	678	277	277	577	1203	-	-	1067	-	-
Mov Cap-2 Maneuver	279	276	-	277	277	-	-	-	-	-	-	-
Stage 1	630	589	-	551	530	-	-	-	-	-	-	-
Stage 2	562	526	-	635	586	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	14	15	0.5	0.9
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1203	-	-	436	435	1067	-	-
HCM Lane V/C Ratio	0.014	-	-	0.078	0.175	0.024	-	-
HCM Control Delay (s)	8	0	-	14	15	8.5	0	-
HCM Lane LOS	A	A	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.6	0.1	-	-

Movement	EBL2	EBL	EBT	EBR	EBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2	SBL
Lane Configurations												
Traffic Volume (vph)	3	5	3	33	10	18	6	279	101	9	5	3
Future Volume (vph)	3	5	3	33	10	18	6	279	101	9	5	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	11	11	11	11	11	11	11
Total Lost time (s)			3.0				5.0	5.0				
Lane Util. Factor			1.00				1.00	1.00				
Frpb, ped/bikes			1.00				1.00	0.90				
Flpb, ped/bikes			1.00				0.81	1.00				
Frt			0.89				1.00	0.96				
Flt Protected			0.99				0.95	1.00				
Satd. Flow (prot)			1540				1381	1368				
Flt Permitted			0.99				0.48	1.00				
Satd. Flow (perm)			1540				694	1368				
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)	3	5	3	33	10	18	6	279	101	9	5	3
RTOR Reduction (vph)	0	0	6	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	48	0	0	0	24	389	0	0	0	0
Confl. Peds. (#/hr)						114	114		109	109	109	109
Confl. Bikes (#/hr)									23	23		
Parking (#/hr)								4				
Turn Type	Perm	Split	NA			Perm	Perm	NA			Perm	Perm
Protected Phases		7	7					2				
Permitted Phases	7					2	2				5 6	5 6
Actuated Green, G (s)			7.3				36.9	36.9				
Effective Green, g (s)			7.3				36.9	36.9				
Actuated g/C Ratio			0.07				0.36	0.36				
Clearance Time (s)			3.0				5.0	5.0				
Vehicle Extension (s)			3.0				3.0	3.0				
Lane Grp Cap (vph)			110				250	494				
v/s Ratio Prot			c0.03					c0.28				
v/s Ratio Perm							0.03					
v/c Ratio			0.43				0.10	0.79				
Uniform Delay, d1			45.4				21.6	29.1				
Progression Factor			1.00				1.00	1.00				
Incremental Delay, d2			2.7				0.2	8.1				
Delay (s)			48.1				21.7	37.2				
Level of Service			D				C	D				
Approach Delay (s)			48.1					36.3				
Approach LOS			D					D				

Intersection Summary			
HCM 2000 Control Delay	37.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.73		
Actuated Cycle Length (s)	102.1	Sum of lost time (s)	20.0
Intersection Capacity Utilization	79.0%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR	SBR2	NEL	NET	NER	NER2	SWL	SWT	SWR	SWR2
Lane Configurations											
Traffic Volume (vph)	276	163	2	173	262	12	39	98	217	4	12
Future Volume (vph)	276	163	2	173	262	12	39	98	217	4	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10
Total Lost time (s)	5.0	5.0			4.5				4.5		
Lane Util. Factor	1.00	1.00			0.95				0.95		
Frpb, ped/bikes	1.00	1.00			0.98				0.99		
Flpb, ped/bikes	1.00	1.00			1.00				1.00		
Frt	1.00	0.85			0.98				0.99		
Flt Protected	1.00	1.00			0.98				0.99		
Satd. Flow (prot)	1791	1531			2969				3030		
Flt Permitted	0.99	1.00			0.98				0.99		
Satd. Flow (perm)	1772	1531			2969				3030		
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)	276	163	2	173	262	12	39	98	217	4	12
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	2	0	0
Lane Group Flow (vph)	284	165	0	0	481	0	0	0	329	0	0
Confl. Peds. (#/hr)				22		26	26	26		22	22
Confl. Bikes (#/hr)						2	2			3	3
Parking (#/hr)					2				2		
Turn Type	NA	custom		Split	NA			Split	NA		
Protected Phases	5 6	5		3	3			8	8		
Permitted Phases											
Actuated Green, G (s)	38.9	17.1			23.2				17.7		
Effective Green, g (s)	38.9	17.1			23.2				17.7		
Actuated g/C Ratio	0.38	0.17			0.23				0.17		
Clearance Time (s)		5.0			4.5				4.5		
Vehicle Extension (s)		3.0			3.0				3.0		
Lane Grp Cap (vph)	675	256			674				525		
v/s Ratio Prot		0.11			c0.16				c0.11		
v/s Ratio Perm	0.16										
v/c Ratio	0.42	0.64			0.71				0.63		
Uniform Delay, d1	23.3	39.7			36.4				39.1		
Progression Factor	1.00	1.00			1.00				1.00		
Incremental Delay, d2	0.4	5.5			3.6				2.3		
Delay (s)	23.7	45.1			40.0				41.5		
Level of Service	C	D			D				D		
Approach Delay (s)	31.6				40.0				41.5		
Approach LOS	C				D				D		

Intersection Summary

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	39	17	521	78	4	473
Future Vol, veh/h	39	17	521	78	4	473
Conflicting Peds, #/hr	2	0	0	15	15	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	39	17	521	78	4	473

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	822	315	0	0	614	0
Stage 1	575	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	312	681	-	-	961	-
Stage 1	526	-	-	-	-	-
Stage 2	771	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	306	673	-	-	950	-
Mov Cap-2 Maneuver	306	-	-	-	-	-
Stage 1	520	-	-	-	-	-
Stage 2	765	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.6	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	367	950	-
HCM Lane V/C Ratio	-	-	0.153	0.004	-
HCM Control Delay (s)	-	-	16.6	8.8	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	4.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	11	22	55	14	10	41	21	366	36	31	367	27
Future Vol, veh/h	11	22	55	14	10	41	21	366	36	31	367	27
Conflicting Peds, #/hr	57	0	35	35	0	57	149	0	132	132	0	149
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	11	22	55	14	10	41	21	366	36	31	367	27

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1101	1168	565	1074	1163	573	543	0	0	534	0	0
Stage 1	592	592	-	558	558	-	-	-	-	-	-	-
Stage 2	509	576	-	516	605	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	189	193	524	198	195	519	1026	-	-	1034	-	-
Stage 1	493	494	-	514	512	-	-	-	-	-	-	-
Stage 2	547	502	-	542	487	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	129	141	448	126	143	442	905	-	-	926	-	-
Mov Cap-2 Maneuver	129	141	-	126	143	-	-	-	-	-	-	-
Stage 1	422	417	-	446	444	-	-	-	-	-	-	-
Stage 2	447	436	-	418	411	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	28.1	25.8	0.5	0.7
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	905	-	-	242	237	926	-	-
HCM Lane V/C Ratio	0.023	-	-	0.364	0.274	0.033	-	-
HCM Control Delay (s)	9.1	0	-	28.1	25.8	9	0	-
HCM Lane LOS	A	A	-	D	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.6	1.1	0.1	-	-

Movement	EBL2	EBL	EBT	EBR	EBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2	SBL
Lane Configurations												
Traffic Volume (vph)	6	3	1	12	4	19	7	259	65	3	11	1
Future Volume (vph)	6	3	1	12	4	19	7	259	65	3	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	11	11	11	11	11	11	11
Total Lost time (s)			3.0				5.0	5.0				
Lane Util. Factor			1.00				1.00	1.00				
Frpb, ped/bikes			1.00				1.00	0.95				
Flpb, ped/bikes			1.00				0.90	1.00				
Frt			0.92				1.00	0.97				
Flt Protected			0.98				0.95	1.00				
Satd. Flow (prot)			1567				1540	1463				
Flt Permitted			0.98				0.55	1.00				
Satd. Flow (perm)			1567				899	1463				
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)	6	3	1	12	4	19	7	259	65	3	11	1
RTOR Reduction (vph)	0	0	4	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	22	0	0	0	26	327	0	0	0	0
Confl. Peds. (#/hr)						61	61		57	57	57	57
Confl. Bikes (#/hr)									37	37		
Parking (#/hr)								4				
Turn Type	Split	Split	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	7	7	7					2				
Permitted Phases						2	2				5 6	5 6
Actuated Green, G (s)			4.1				26.7	26.7				
Effective Green, g (s)			4.1				26.7	26.7				
Actuated g/C Ratio			0.05				0.31	0.31				
Clearance Time (s)			3.0				5.0	5.0				
Vehicle Extension (s)			3.0				3.0	3.0				
Lane Grp Cap (vph)			75				281	457				
v/s Ratio Prot			c0.01					c0.22				
v/s Ratio Perm							0.03					
v/c Ratio			0.30				0.09	0.72				
Uniform Delay, d1			39.3				20.8	26.0				
Progression Factor			1.00				1.00	1.00				
Incremental Delay, d2			2.2				0.1	5.3				
Delay (s)			41.5				20.9	31.3				
Level of Service			D				C	C				
Approach Delay (s)			41.5					30.5				
Approach LOS			D					C				

Intersection Summary			
HCM 2000 Control Delay	29.9	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.65		
Actuated Cycle Length (s)	85.4	Sum of lost time (s)	20.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR	SBR2	NEL	NET	NER	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	207	118	3	216	252	6	18	1	88	210	1	7
Future Volume (vph)	207	118	3	216	252	6	18	1	88	210	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10	10
Total Lost time (s)	5.0	5.0			4.5					4.5		
Lane Util. Factor	1.00	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	1.00	0.85			0.99					1.00		
Flt Protected	1.00	1.00			0.98					0.99		
Satd. Flow (prot)	1788	1531			3026					3054		
Flt Permitted	0.98	1.00			0.98					0.99		
Satd. Flow (perm)	1750	1531			3026					3054		
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)	207	118	3	216	252	6	18	1	88	210	1	7
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	1	0	0
Lane Group Flow (vph)	219	121	0	0	491	0	0	0	0	306	0	0
Confl. Peds. (#/hr)				21		5	5	5	5		21	21
Confl. Bikes (#/hr)						1	1				3	3
Parking (#/hr)					2					2		
Turn Type	NA	custom		Split	NA			Split	Split	NA		
Protected Phases	5 6	5		3	3			8	8	8		
Permitted Phases												
Actuated Green, G (s)	28.7	14.0			22.0					15.6		
Effective Green, g (s)	28.7	14.0			22.0					15.6		
Actuated g/C Ratio	0.34	0.16			0.26					0.18		
Clearance Time (s)		5.0			4.5					4.5		
Vehicle Extension (s)		3.0			3.0					3.0		
Lane Grp Cap (vph)	588	250			779					557		
v/s Ratio Prot		0.08			c0.16					c0.10		
v/s Ratio Perm	0.13											
v/c Ratio	0.37	0.48			0.63					0.55		
Uniform Delay, d1	21.5	32.4			28.1					31.7		
Progression Factor	1.00	1.00			1.00					1.00		
Incremental Delay, d2	0.4	1.5			1.6					1.1		
Delay (s)	21.9	33.9			29.7					32.8		
Level of Service	C	C			C					C		
Approach Delay (s)	26.2				29.7					32.8		
Approach LOS	C				C					C		

Intersection Summary

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	64	42	489	87	15	415
Future Vol, veh/h	64	42	489	87	15	415
Conflicting Peds, #/hr	10	0	0	8	8	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	64	42	489	87	15	415

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	789	296	0	0	584	0
Stage 1	541	-	-	-	-	-
Stage 2	248	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	328	700	-	-	987	-
Stage 1	548	-	-	-	-	-
Stage 2	770	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	317	696	-	-	981	-
Mov Cap-2 Maneuver	317	-	-	-	-	-
Stage 1	545	-	-	-	-	-
Stage 2	748	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.1	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	404	981	-
HCM Lane V/C Ratio	-	-	0.262	0.015	-
HCM Control Delay (s)	-	-	17.1	8.7	0.1
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1	0	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	12	24	54	30	25	57	51	327	46	38	255	40
Future Vol, veh/h	12	24	54	30	25	57	51	327	46	38	255	40
Conflicting Peds, #/hr	11	0	31	31	0	11	68	0	65	65	0	68
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	12	24	54	30	25	57	51	327	46	38	255	40

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	923	959	374	938	956	426	363	0	0	438	0	0
Stage 1	419	419	-	517	517	-	-	-	-	-	-	-
Stage 2	504	540	-	421	439	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	250	257	672	244	258	628	1196	-	-	1122	-	-
Stage 1	612	590	-	541	534	-	-	-	-	-	-	-
Stage 2	550	521	-	610	578	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	178	208	619	174	209	590	1131	-	-	1064	-	-
Mov Cap-2 Maneuver	178	208	-	174	209	-	-	-	-	-	-	-
Stage 1	546	534	-	484	477	-	-	-	-	-	-	-
Stage 2	440	466	-	495	523	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	19.8	25.2	1	1
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1131	-	-	333	288	1064	-	-
HCM Lane V/C Ratio	0.045	-	-	0.27	0.389	0.036	-	-
HCM Control Delay (s)	8.3	0	-	19.8	25.2	8.5	0	-
HCM Lane LOS	A	A	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	1.1	1.8	0.1	-	-

Movement	EBL2	EBL	EBT	EBR	EBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2	SBL
Lane Configurations												
Traffic Volume (vph)	3	5	3	33	10	18	6	285	101	9	5	3
Future Volume (vph)	3	5	3	33	10	18	6	285	101	9	5	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	11	11	11	11	11	11	11
Total Lost time (s)			3.0				5.0	5.0				
Lane Util. Factor			1.00				1.00	1.00				
Frpb, ped/bikes			1.00				1.00	0.90				
Flpb, ped/bikes			1.00				0.80	1.00				
Frt			0.89				1.00	0.96				
Flt Protected			0.99				0.95	1.00				
Satd. Flow (prot)			1540				1374	1368				
Flt Permitted			0.99				0.47	1.00				
Satd. Flow (perm)			1540				683	1368				
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)	3	5	3	33	10	18	6	285	101	9	5	3
RTOR Reduction (vph)	0	0	7	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	47	0	0	0	24	395	0	0	0	0
Confl. Peds. (#/hr)						114	114		109	109	109	109
Confl. Bikes (#/hr)									23	23		
Parking (#/hr)								4				
Turn Type	Perm	Split	NA			Perm	Perm	NA			Perm	Perm
Protected Phases		7	7					2				
Permitted Phases	7					2	2				5 6	5 6
Actuated Green, G (s)			7.3				37.5	37.5				
Effective Green, g (s)			7.3				37.5	37.5				
Actuated g/C Ratio			0.07				0.36	0.36				
Clearance Time (s)			3.0				5.0	5.0				
Vehicle Extension (s)			3.0				3.0	3.0				
Lane Grp Cap (vph)			107				244	489				
v/s Ratio Prot			c0.03					c0.29				
v/s Ratio Perm							0.04					
v/c Ratio			0.44				0.10	0.81				
Uniform Delay, d1			46.9				22.4	30.4				
Progression Factor			1.00				1.00	1.00				
Incremental Delay, d2			2.9				0.2	9.5				
Delay (s)			49.8				22.6	39.9				
Level of Service			D				C	D				
Approach Delay (s)			49.8					38.9				
Approach LOS			D					D				

Intersection Summary			
HCM 2000 Control Delay	39.0	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	104.9	Sum of lost time (s)	20.0
Intersection Capacity Utilization	79.5%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis
1: Claremont Ave & College Ave 03/18/2024

Movement	SBT	SBR	SBR2	NEL	NET	NER	NER2	SWL	SWT	SWR	SWR2
Lane Configurations											
Traffic Volume (vph)	276	163	2	189	270	12	46	103	220	4	12
Future Volume (vph)	276	163	2	189	270	12	46	103	220	4	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10
Total Lost time (s)	5.0	5.0			4.5				4.5		
Lane Util. Factor	1.00	1.00			0.95				0.95		
Frpb, ped/bikes	1.00	1.00			0.98				0.99		
Flpb, ped/bikes	1.00	1.00			1.00				1.00		
Frt	1.00	0.85			0.98				0.99		
Flt Protected	1.00	1.00			0.98				0.99		
Satd. Flow (prot)	1791	1531			2960				3029		
Flt Permitted	0.99	1.00			0.98				0.99		
Satd. Flow (perm)	1771	1531			2960				3029		
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)	276	163	2	189	270	12	46	103	220	4	12
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	2	0	0
Lane Group Flow (vph)	284	165	0	0	512	0	0	0	337	0	0
Confl. Peds. (#/hr)				22		26	26	26		22	22
Confl. Bikes (#/hr)						2	2			3	3
Parking (#/hr)					2				2		
Turn Type	NA	custom		Split	NA			Split	NA		
Protected Phases	5 6	5		3	3			8	8		
Permitted Phases											
Actuated Green, G (s)	39.5	17.2			25.2				17.9		
Effective Green, g (s)	39.5	17.2			25.2				17.9		
Actuated g/C Ratio	0.38	0.16			0.24				0.17		
Clearance Time (s)		5.0			4.5				4.5		
Vehicle Extension (s)		3.0			3.0				3.0		
Lane Grp Cap (vph)	666	251			711				516		
v/s Ratio Prot		0.11			c0.17				c0.11		
v/s Ratio Perm	0.16										
v/c Ratio	0.43	0.66			0.72				0.65		
Uniform Delay, d1	24.3	41.1			36.6				40.6		
Progression Factor	1.00	1.00			1.00				1.00		
Incremental Delay, d2	0.4	6.1			3.6				3.0		
Delay (s)	24.7	47.2			40.2				43.6		
Level of Service	C	D			D				D		
Approach Delay (s)	33.0				40.2				43.6		
Approach LOS	C				D				D		

Intersection Summary

Intersection	
Int Delay, s/veh	1.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	66	32	566	125	14	447
Future Vol, veh/h	66	32	566	125	14	447
Conflicting Peds, #/hr	2	0	0	17	17	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	66	32	566	125	14	447

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	900	363	0	0	708	0
Stage 1	646	-	-	-	-	-
Stage 2	254	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	278	634	-	-	887	-
Stage 1	484	-	-	-	-	-
Stage 2	765	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	268	625	-	-	875	-
Mov Cap-2 Maneuver	268	-	-	-	-	-
Stage 1	478	-	-	-	-	-
Stage 2	747	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	20.5	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	329	875	-
HCM Lane V/C Ratio	-	-	0.298	0.016	-
HCM Control Delay (s)	-	-	20.5	9.2	0.1
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0	-

Intersection	
Int Delay, s/veh	18.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	24	49	74	26	13	49	51	320	31	34	356	49
Future Vol, veh/h	24	49	74	26	13	49	51	320	31	34	356	49
Conflicting Peds, #/hr	49	0	46	46	0	49	212	0	145	145	0	212
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	1	1	1	2	2	2	2	2	2	2	2	2
Mvmt Flow	24	49	74	26	13	49	51	320	31	34	356	49

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1179	1259	639	1139	1268	530	617	0	0	496	0	0
Stage 1	661	661	-	583	583	-	-	-	-	-	-	-
Stage 2	518	598	-	556	685	-	-	-	-	-	-	-
Critical Hdwy	7.11	6.51	6.21	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.11	5.51	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.11	5.51	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.509	4.009	3.309	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	168	171	478	178	168	549	963	-	-	1068	-	-
Stage 1	453	461	-	498	499	-	-	-	-	-	-	-
Stage 2	542	492	-	515	448	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	99	110	382	73	109	465	801	-	-	945	-	-
Mov Cap-2 Maneuver	99	110	-	73	109	-	-	-	-	-	-	-
Stage 1	347	366	-	406	407	-	-	-	-	-	-	-
Stage 2	414	401	-	329	355	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	95.9	57	1.2	0.7
HCM LOS	F	F		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	801	-	-	167	152	945	-	-
HCM Lane V/C Ratio	0.064	-	-	0.88	0.579	0.036	-	-
HCM Control Delay (s)	9.8	0	-	95.9	57	9	0	-
HCM Lane LOS	A	A	-	F	F	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	6.3	3	0.1	-	-

Movement	EBL2	EBL	EBT	EBR	EBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2	SBL
Lane Configurations												
Traffic Volume (vph)	6	3	1	12	4	19	7	264	65	3	11	1
Future Volume (vph)	6	3	1	12	4	19	7	264	65	3	11	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	11	11	11	11	11	11	11
Total Lost time (s)			3.0				5.0	5.0				
Lane Util. Factor			1.00				1.00	1.00				
Frpb, ped/bikes			1.00				1.00	0.95				
Flpb, ped/bikes			1.00				0.90	1.00				
Frt			0.92				1.00	0.97				
Flt Protected			0.98				0.95	1.00				
Satd. Flow (prot)			1567				1541	1464				
Flt Permitted			0.98				0.53	1.00				
Satd. Flow (perm)			1567				858	1464				
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)	6	3	1	12	4	19	7	264	65	3	11	1
RTOR Reduction (vph)	0	0	4	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	22	0	0	0	26	332	0	0	0	0
Confl. Peds. (#/hr)						61	61		57	57	57	57
Confl. Bikes (#/hr)									37	37		
Parking (#/hr)								4				
Turn Type	Split	Split	NA			Perm	Perm	NA			Perm	Perm
Protected Phases	7	7	7					2				
Permitted Phases						2	2				5 6	5 6
Actuated Green, G (s)			4.2				27.4	27.4				
Effective Green, g (s)			4.2				27.4	27.4				
Actuated g/C Ratio			0.05				0.31	0.31				
Clearance Time (s)			3.0				5.0	5.0				
Vehicle Extension (s)			3.0				3.0	3.0				
Lane Grp Cap (vph)			75				268	457				
v/s Ratio Prot			c0.01					c0.23				
v/s Ratio Perm							0.03					
v/c Ratio			0.30				0.10	0.73				
Uniform Delay, d1			40.3				21.3	26.8				
Progression Factor			1.00				1.00	1.00				
Incremental Delay, d2			2.2				0.2	5.7				
Delay (s)			42.5				21.5	32.4				
Level of Service			D				C	C				
Approach Delay (s)			42.5					31.7				
Approach LOS			D					C				

Intersection Summary			
HCM 2000 Control Delay	30.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.66		
Actuated Cycle Length (s)	87.6	Sum of lost time (s)	20.0
Intersection Capacity Utilization	76.7%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR	SBR2	NEL	NET	NER	NER2	SWL2	SWL	SWT	SWR	SWR2
Lane Configurations												
Traffic Volume (vph)	223	119	3	227	258	6	18	1	92	213	1	7
Future Volume (vph)	223	119	3	227	258	6	18	1	92	213	1	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10	10
Total Lost time (s)	5.0	5.0			4.5					4.5		
Lane Util. Factor	1.00	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	1.00	0.85			0.99					1.00		
Flt Protected	1.00	1.00			0.98					0.99		
Satd. Flow (prot)	1789	1531			3026					3054		
Flt Permitted	0.98	1.00			0.98					0.99		
Satd. Flow (perm)	1753	1531			3026					3054		
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)	223	119	3	227	258	6	18	1	92	213	1	7
RTOR Reduction (vph)	0	0	0	0	1	0	0	0	0	1	0	0
Lane Group Flow (vph)	235	122	0	0	508	0	0	0	0	313	0	0
Confl. Peds. (#/hr)				21		5	5	5	5		21	21
Confl. Bikes (#/hr)						1	1				3	3
Parking (#/hr)					2					2		
Turn Type	NA	custom		Split	NA			Split	Split	NA		
Protected Phases	5 6	5		3	3			8	8	8		
Permitted Phases												
Actuated Green, G (s)	29.4	14.7			23.1					15.9		
Effective Green, g (s)	29.4	14.7			23.1					15.9		
Actuated g/C Ratio	0.34	0.17			0.26					0.18		
Clearance Time (s)		5.0			4.5					4.5		
Vehicle Extension (s)		3.0			3.0					3.0		
Lane Grp Cap (vph)	588	256			797					554		
v/s Ratio Prot		0.08			c0.17					c0.10		
v/s Ratio Perm	0.13											
v/c Ratio	0.40	0.48			0.64					0.57		
Uniform Delay, d1	22.3	33.0			28.5					32.7		
Progression Factor	1.00	1.00			1.00					1.00		
Incremental Delay, d2	0.4	1.4			1.7					1.3		
Delay (s)	22.8	34.4			30.2					34.0		
Level of Service	C	C			C					C		
Approach Delay (s)	26.7				30.2					34.0		
Approach LOS	C				C					C		

Intersection Summary

Intersection	
Int Delay, s/veh	2.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	81	60	437	92	16	381
Future Vol, veh/h	81	60	437	92	16	381
Conflicting Peds, #/hr	3	0	0	8	8	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	81	60	437	92	16	381

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	717	273	0	0	537	0
Stage 1	491	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	364	725	-	-	1027	-
Stage 1	581	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	354	720	-	-	1020	-
Mov Cap-2 Maneuver	354	-	-	-	-	-
Stage 1	578	-	-	-	-	-
Stage 2	773	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	16.5	0	0.4
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	452	1020	-
HCM Lane V/C Ratio	-	-	0.312	0.016	-
HCM Control Delay (s)	-	-	16.5	8.6	0.1
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	1.3	0	-

Intersection	
Int Delay, s/veh	4.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	16	12	66	14	13	53	70	270	16	26	214	57
Future Vol, veh/h	16	12	66	14	13	53	70	270	16	26	214	57
Conflicting Peds, #/hr	10	0	23	10	0	23	66	0	107	107	0	66
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	12	66	14	13	53	70	270	16	26	214	57

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	835	894	332	882	914	408	337	0	0	393	0	0
Stage 1	361	361	-	525	525	-	-	-	-	-	-	-
Stage 2	474	533	-	357	389	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	287	280	710	267	273	643	1222	-	-	1166	-	-
Stage 1	657	626	-	536	529	-	-	-	-	-	-	-
Stage 2	571	525	-	661	608	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	214	219	659	191	213	577	1158	-	-	1067	-	-
Mov Cap-2 Maneuver	214	219	-	191	213	-	-	-	-	-	-	-
Stage 1	578	577	-	455	449	-	-	-	-	-	-	-
Stage 2	458	446	-	554	560	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	16.4	18.1	1.6	0.7
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1158	-	-	409	354	1067	-	-
HCM Lane V/C Ratio	0.06	-	-	0.23	0.226	0.024	-	-
HCM Control Delay (s)	8.3	0	-	16.4	18.1	8.5	0	-
HCM Lane LOS	A	A	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.9	0.9	0.1	-	-

Movement	EBL2	EBL	EBT	EBR	EBR2	NBL2	NBL	NBT	NBR	NBR2	SBL2	SBL
Lane Configurations												
Traffic Volume (vph)	3	5	3	33	10	18	6	282	101	9	5	3
Future Volume (vph)	3	5	3	33	10	18	6	282	101	9	5	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	10	10	10	10	10	11	11	11	11	11	11	11
Total Lost time (s)			3.0				5.0	5.0				
Lane Util. Factor			1.00				1.00	1.00				
Frpb, ped/bikes			1.00				1.00	0.90				
Flpb, ped/bikes			1.00				0.81	1.00				
Frt			0.89				1.00	0.96				
Flt Protected			0.99				0.95	1.00				
Satd. Flow (prot)			1540				1386	1367				
Flt Permitted			0.99				0.46	1.00				
Satd. Flow (perm)			1540				666	1367				
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)	3	5	3	33	10	18	6	282	101	9	5	3
RTOR Reduction (vph)	0	0	7	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	0	0	47	0	0	0	24	392	0	0	0	0
Confl. Peds. (#/hr)						114	114		109	109	109	109
Confl. Bikes (#/hr)									23	23		
Parking (#/hr)								4				
Turn Type	Perm	Split	NA			Perm	Perm	NA			Perm	Perm
Protected Phases		7	7					2				
Permitted Phases	7					2	2				5 6	5 6
Actuated Green, G (s)			7.3				37.2	37.2				
Effective Green, g (s)			7.3				37.2	37.2				
Actuated g/C Ratio			0.07				0.36	0.36				
Clearance Time (s)			3.0				5.0	5.0				
Vehicle Extension (s)			3.0				3.0	3.0				
Lane Grp Cap (vph)			107				237	488				
v/s Ratio Prot			c0.03					c0.29				
v/s Ratio Perm							0.04					
v/c Ratio			0.44				0.10	0.80				
Uniform Delay, d1			46.5				22.3	30.2				
Progression Factor			1.00				1.00	1.00				
Incremental Delay, d2			2.9				0.2	9.3				
Delay (s)			49.4				22.5	39.5				
Level of Service			D				C	D				
Approach Delay (s)			49.4					38.5				
Approach LOS			D					D				

Intersection Summary			
HCM 2000 Control Delay	38.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.74		
Actuated Cycle Length (s)	104.2	Sum of lost time (s)	20.0
Intersection Capacity Utilization	79.4%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

Movement	SBT	SBR	SBR2	NEL	NET	NER	NER2	SWL	SWT	SWR	SWR2
Lane Configurations											
Traffic Volume (vph)	289	163	2	185	268	12	46	101	219	4	12
Future Volume (vph)	289	163	2	185	268	12	46	101	219	4	12
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	11	11	11	10	10	10	10	10	10	10	10
Total Lost time (s)	5.0	5.0			4.5				4.5		
Lane Util. Factor	1.00	1.00			0.95				0.95		
Frpb, ped/bikes	1.00	1.00			0.98				0.99		
Flpb, ped/bikes	1.00	1.00			1.00				1.00		
Frt	1.00	0.85			0.98				0.99		
Flt Protected	1.00	1.00			0.98				0.99		
Satd. Flow (prot)	1791	1531			2960				3030		
Flt Permitted	0.99	1.00			0.98				0.99		
Satd. Flow (perm)	1773	1531			2960				3030		
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)	289	163	2	185	268	12	46	101	219	4	12
RTOR Reduction (vph)	0	0	0	0	5	0	0	0	2	0	0
Lane Group Flow (vph)	297	165	0	0	506	0	0	0	334	0	0
Confl. Peds. (#/hr)				22		26	26	26		22	22
Confl. Bikes (#/hr)						2	2			3	3
Parking (#/hr)					2				2		
Turn Type	NA	custom		Split	NA			Split	NA		
Protected Phases	5 6	5		3	3			8	8		
Permitted Phases											
Actuated Green, G (s)	39.2	17.4			24.9				17.8		
Effective Green, g (s)	39.2	17.4			24.9				17.8		
Actuated g/C Ratio	0.38	0.17			0.24				0.17		
Clearance Time (s)		5.0			4.5				4.5		
Vehicle Extension (s)		3.0			3.0				3.0		
Lane Grp Cap (vph)	667	255			707				517		
v/s Ratio Prot		0.11			c0.17				c0.11		
v/s Ratio Perm	0.17										
v/c Ratio	0.45	0.65			0.72				0.65		
Uniform Delay, d1	24.4	40.5			36.4				40.3		
Progression Factor	1.00	1.00			1.00				1.00		
Incremental Delay, d2	0.5	5.6			3.5				2.8		
Delay (s)	24.8	46.1			39.9				43.0		
Level of Service	C	D			D				D		
Approach Delay (s)	32.4				39.9				43.0		
Approach LOS	C				D				D		

Intersection Summary

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	53	27	521	98	6	481
Future Vol, veh/h	53	27	521	98	6	481
Conflicting Peds, #/hr	2	0	0	15	15	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	53	27	521	98	6	481

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	840	325	0	0	634	0
Stage 1	585	-	-	-	-	-
Stage 2	255	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	304	671	-	-	945	-
Stage 1	520	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	297	663	-	-	934	-
Mov Cap-2 Maneuver	297	-	-	-	-	-
Stage 1	514	-	-	-	-	-
Stage 2	756	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	17.6	0	0.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	365	934	-
HCM Lane V/C Ratio	-	-	0.219	0.006	-
HCM Control Delay (s)	-	-	17.6	8.9	0
HCM Lane LOS	-	-	C	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	14	23	67	14	11	41	37	366	36	31	373	43
Future Vol, veh/h	14	23	67	14	11	41	37	366	36	31	373	43
Conflicting Peds, #/hr	57	0	35	35	0	57	149	0	132	132	0	149
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	14	23	67	14	11	41	37	366	36	31	373	43

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1147	1214	579	1127	1217	573	565	0	0	534	0	0
Stage 1	606	606	-	590	590	-	-	-	-	-	-	-
Stage 2	541	608	-	537	627	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	176	182	515	182	181	519	1007	-	-	1034	-	-
Stage 1	484	487	-	494	495	-	-	-	-	-	-	-
Stage 2	525	486	-	528	476	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	116	130	440	108	129	442	888	-	-	926	-	-
Mov Cap-2 Maneuver	116	130	-	108	129	-	-	-	-	-	-	-
Stage 1	404	411	-	418	419	-	-	-	-	-	-	-
Stage 2	417	412	-	392	401	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	32.7	29	0.8	0.6
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	888	-	-	231	215	926	-	-
HCM Lane V/C Ratio	0.042	-	-	0.45	0.307	0.033	-	-
HCM Control Delay (s)	9.2	0	-	32.7	29	9	0	-
HCM Lane LOS	A	A	-	D	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	2.2	1.2	0.1	-	-

Appendix D
Signal Warrant Calculations

Warrant Summary (Claremont Ave/Chabot Rd, Existing, non Summer)

Warrant 1: 8-Hour Vehicular Volume	**Not Met**
Warrant 1A: Minimum Vehicular Volume	Not Met
OR	
Warrant 1B: Interruption of Continuous Traffic	Not Met
OR	
Warrant 1C: 80% of Warrant 1A and 1B	Not Met
Warrant 2: 4-Hour Vehicular Volume	**Not Met**
Warrant 3: Peak Hour Vehicular Volume	**Not Met**
Warrant 3A: Peak Hour Delay	Not Met
OR	
Warrant 3B: Peak Hour Volume	Not Met
Warrant 4: Pedestrian Volume	**Not Met**
Warrant 4A: 4 Hours Pedestrian Volume	Not Met
OR	
Warrant 4B: Peak Hour Pedestrian Volume	Not Met
AND	
Warrant 4C: Gap Analysis	N/A
Warrant 7: Crash Experience	**Not Met**
Warrant 7A: Five or more reported crashes	Not Met
AND ONE OF	
Warrant 7B: 80% of Warrant 1A Met?	Not Met
OR	
Warrant 7C: 80% of Warrant 1B Met?	Not Met
OR	
Warrant 7D: 80% of Warrant 4 Met?	Not Met

Warrant 1A: Minimum Vehicular Volume

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection.

Number of lanes for moving traffic on each approach — Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	500	150
2 or more	1	600	150
2 or more	2 or more	600	200
1	2 or more	500	200

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Minimum Vehicular Volume warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major street (total of both approaches)	Major Street: Threshhold URBAN 600	Minor Street: Veh/hour on higher volume minor street (one direction only)	Minor Street: Threshhold URBAN 150	Warrants MET/NOT
12:00 PM	750		56		NOT MET
1:00 PM	770		47		NOT MET
2:00 PM	754		63		NOT MET
3:00 PM	997		56		NOT MET
4:00 PM	626		54		NOT MET
5:00 PM	1,108		55		NOT MET
6:00 PM	795		62		NOT MET
7:00 PM	614		50		NOT MET

Number of hours for which warrant met	0
Percentage by which warrant met	0.0%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major street (total of both	Major Street: Threshhold URBAN 480	Minor Street: Veh/hour on higher volume minor street	Minor Street: Threshhold URBAN 120	Warrants MET/NOT
12:00 PM	750		56		NOT MET
1:00 PM	770		47		NOT MET
2:00 PM	754		63		NOT MET
3:00 PM	997		56		NOT MET
4:00 PM	626		54		NOT MET
5:00 PM	1,108		55		NOT MET
6:00 PM	795		62		NOT MET
7:00 PM	614		50		NOT MET

Number of hours for which warrant met	0
Percentage by which warrant met	0.0%

Warrant	Not Met

Warrant 1B: Interruption of Continuous Traffic

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection, and signal installation will not seriously disrupt progressive traffic flow.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	750	75
2 or more	1	900	75
2 or more	2 or more	900	100
1	2 or more	750	100

The major-street and minor -street volumes are for the same 8 hours. During those 8 hours, the direction of higher volume on the minor street may be on one approach during some hours and on the opposite approach during other hours.

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Interruption of Continuous Traffic warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major (total of both approaches)	Major Street: Threshhold URBAN 900	Minor Street: Veh/hour on higher volume minor (one direction only)	Minor Street: Threshhold URBAN 75	Warrants MET/NOT
12:00 PM	750		56		NOT MET
1:00 PM	770		47		NOT MET
2:00 PM	754		63		NOT MET
3:00 PM	997		56		NOT MET
4:00 PM	626		54		NOT MET
5:00 PM	1,108		55		NOT MET
6:00 PM	795		62		NOT MET
7:00 PM	614		50		NOT MET

Number of hours for which warrant met	0
Percentage by which warrant met	0.0%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major (total of both	Major Street: Threshhold URBAN 720	Minor Street: Veh/hour on higher volume minor (one	Minor Street: Threshhold URBAN 60	Warrants MET/NOT
12:00 PM	750		56		NOT MET
1:00 PM	770		47		NOT MET
2:00 PM	754		63		MET
3:00 PM	997		56		NOT MET
4:00 PM	626		54		NOT MET
5:00 PM	1,108		55		NOT MET
6:00 PM	795		62		MET
7:00 PM	614		50		NOT MET

Number of hours for which warrant met	2
Percentage by which warrant met	25.0%

Warrant	Not Met

Warrant 1C: Combination of Warrants

In exceptional cases, signals occasionally may be justified where no single warrant is satisfied but where Warrants 1A and 1B are satisfied to the extent of 80% or more of the stated values.

Analysis

80% of Warrant 1A Met	NO
80% of Warrant 1B Met	NO

Warrant	Not Met

Warrant 2: Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) all fall above the curve in Figure 4C-1 for the existing combination of approach lanes.

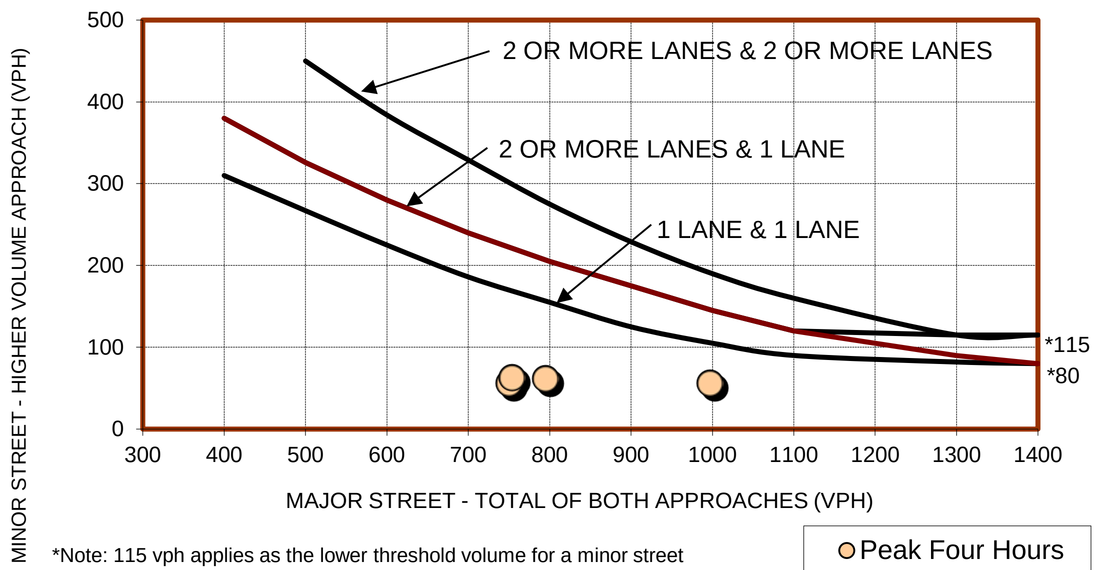
Analysis

	No of lanes
Major Street	2
Minor Street	1

Peak Four Hours

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
12:00 PM	750	56
2:00 PM	754	63
3:00 PM	997	56
6:00 PM	795	62

FIGURE 4C-1. FOUR HOUR VOLUME WARRANT



*Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor street approach with one or lane.

Warrant	Not Met

Warrant 3A: Peak Hour Delay

The peak hour delay warrant is intended for application where traffic conditions are such that for one hour of the day minor street traffic suffers undue delay in entering or crossing the major street. The peak hour delay warrant is satisfied when the conditions given below exist for one hour (any four consecutive 15-minute periods) of an average weekday.

The peak hour delay warrant is met when:

1. The total delay experienced by the traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach, and

2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes, and

3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four (or more) approaches or 650 vph for intersections with three approaches.

Analysis

Minor Street Lanes	1
Total Approaches	3
Time	5:00 PM

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced for the Intersection (vph)
Existing	0.3	54	1,153
Limiting Value	4	100	650
Met/ Not Met	Not Met	Not Met	Met

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

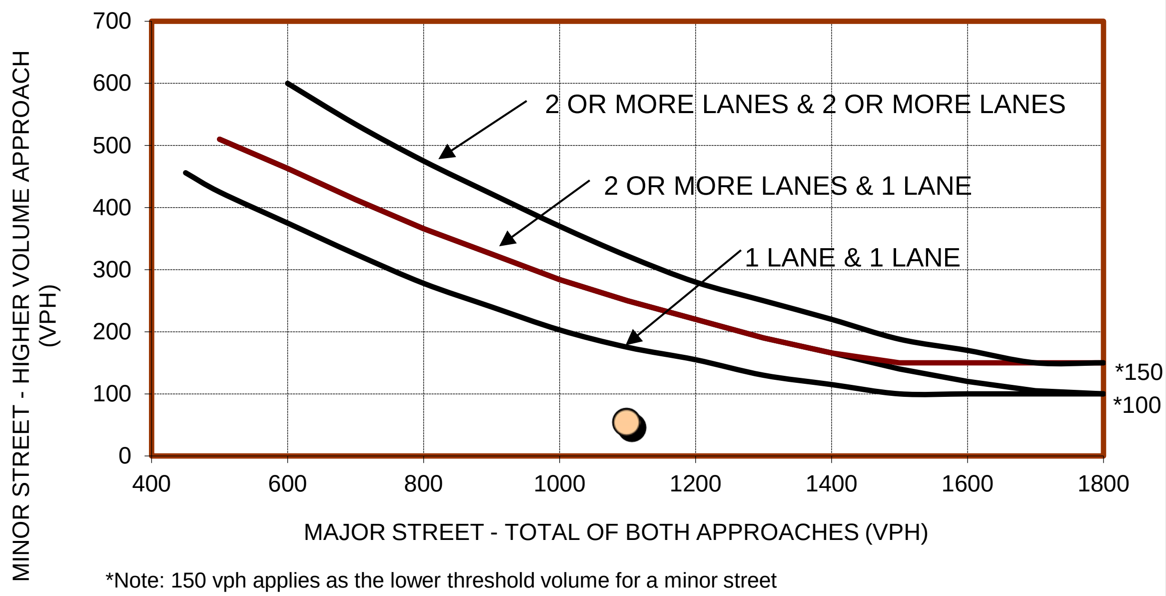
Analysis

	No of lanes
Major Street	2
Minor Street	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
5:00 PM	1,099	54

FIGURE 4C-3. PEAK HOUR VOLUME WARRANT



*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 or lane.

Warrant	Not Met

Warrant 4: Pedestrian Volumes

The Pedestrian Volume signal warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street.

Standard: The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that both of the following criteria are met:
A. The pedestrian volume crossing the major street at an intersection or midblock location during an average day is 100 or more for each of any 4 hours or 190 or more during any 1 hour; and
B. There are fewer than 60 gaps per hour in the traffic stream of adequate length to allow pedestrians to cross during the same period when the pedestrian volume criterion is satisfied. Where there is a divided street having a median of sufficient width for pedestrians to wait, the requirement applies separately to each direction of vehicular traffic.

Analysis

Warrant 4A - 4 Hours Pedestrian Volume

	Pedestrian Volume	Greater than 100?
7:00 AM	14	No
8:00 AM	10	No
4:00 PM	0	No
5:00 PM	2	No

Sub-Warrant	Not Met

Warrant 4B - Peak Hour Pedestrian Volume

Hour	Pedestrian Volume	Greater than 190?
7:00 AM	14	No

Sub-Warrant	Not Met

Warrant 4C - Gap Analysis

Hour	Gaps per Hour	Less than 60?
	N/A	N/A
	N/A	N/A
	N/A	N/A
	N/A	N/A

Sub-Warrant	N/A

Warrant	Not Met

Warrant 7: Crash Experience

The Crash Experience signal warrant conditions are intended for application where severity and frequency of crashes are the principal reasons to consider installing a traffic control signal.

Standard:

A. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occured within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

B. Warrant 1A or Warrant 1B or 80% of the pedestrian volume warrant is met

Warrant 7A - Five or more reported crashes

	Number	**5 or more?**
Number of crashes within a 12-month period, of types susceptible to correction by a traffic signal, each involving personal injury or property damage (reportable)	1	N

Plus at least one of the following:	**Yes**	**No**
Warrant 7B - 80% Warrant 1A		
Warrant 1A: 80% threshold met?		X
Warrant 7C - 80% Warrant 1B		
Warrant 1B: 80% threshold met?		X
Warrant 7D - 80% Warrant 4		
Warrant 4: 80% threshold met (152 or more peds for any hour, and 80 or more peds for any 4 hours)?		X

Warrant	Not Met

Warrant Summary (Claremont Ave/Chabot Rd, Existing, Summer)

Warrant	Result
Warrant 1: 8-Hour Vehicular Volume	Not Met
Warrant 1A: Minimum Vehicular Volume	**Not Met**
OR	
Warrant 1B: Interruption of Continuous Traffic	**Not Met**
OR	
Warrant 1C: 80% of Warrant 1A and 1B	**Not Met**
Warrant 2: 4-Hour Vehicular Volume	Not Met
Warrant 3: Peak Hour Vehicular Volume	Not Met
Warrant 3A: Peak Hour Delay	**Not Met**
OR	
Warrant 3B: Peak Hour Volume	**Not Met**
Warrant 4: Pedestrian Volume	Not Met
Warrant 4A: 4 Hours Pedestrian Volume	**Not Met**
OR	
Warrant 4B: Peak Hour Pedestrian Volume	**Not Met**
AND	
Warrant 4C: Gap Analysis	**N/A**
Warrant 7: Crash Experience	Not Met
Warrant 7A: Five or more reported crashes	**Not Met**
AND ONE OF	
Warrant 7B: 80% of Warrant 1A Met?	**Not Met**
OR	
Warrant 7C: 80% of Warrant 1B Met?	**Not Met**
OR	
Warrant 7D: 80% of Warrant 4 Met?	**Not Met**

Warrant 1A: Minimum Vehicular Volume

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	500	150
2 or more	1	600	150
2 or more	2 or more	600	200
1	2 or more	500	200

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Minimum Vehicular Volume warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major street (total of both approaches)	Major Street: Threshhold URBAN 600	Minor Street: Veh/hour on higher volume minor street (one direction only)	Minor Street: Threshhold URBAN 150	Warrants MET/NOT
12:00 PM	750		64		NOT MET
1:00 PM	770		49		NOT MET
2:00 PM	754		56		NOT MET
3:00 PM	997		69		NOT MET
4:00 PM	626		61		NOT MET
5:00 PM	1,108		52		NOT MET
6:00 PM	795		44		NOT MET
7:00 PM	614		47		NOT MET

Number of hours for which warrant met	0
Percentage by which warrant met	0.0%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major street (total of both	Major Street: Threshhold URBAN 480	Minor Street: Veh/hour on higher volume minor street	Minor Street: Threshhold URBAN 120	Warrants MET/NOT
12:00 PM	750		64		NOT MET
1:00 PM	770		49		NOT MET
2:00 PM	754		56		NOT MET
3:00 PM	997		69		NOT MET
4:00 PM	626		61		NOT MET
5:00 PM	1,108		52		NOT MET
6:00 PM	795		44		NOT MET
7:00 PM	614		47		NOT MET

Number of hours for which warrant met	0
Percentage by which warrant met	0.0%

Warrant	Not Met

Warrant 1B: Interruption of Continuous Traffic

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection, and signal installation will not seriously disrupt progressive traffic flow.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	750	75
2 or more	1	900	75
2 or more	2 or more	900	100
1	2 or more	750	100

The major-street and minor -street volumes are for the same 8 hours. During those 8 hours, the direction of higher volume on the minor street may be on one approach during some hours and on the opposite approach during other hours.

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Interruption of Continuous Traffic warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major (total of both approaches)	Major Street: Threshhold URBAN 900	Minor Street: Veh/hour on higher volume minor (one direction only)	Minor Street: Threshhold URBAN 75	Warrants MET/NOT
12:00 PM	750		64		NOT MET
1:00 PM	770		49		NOT MET
2:00 PM	754		56		NOT MET
3:00 PM	997		69		NOT MET
4:00 PM	626		61		NOT MET
5:00 PM	1,108		52		NOT MET
6:00 PM	795		44		NOT MET
7:00 PM	614		47		NOT MET

Number of hours for which warrant met	0
Percentage by which warrant met	0.0%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major (total of both	Major Street: Threshhold URBAN 720	Minor Street: Veh/hour on higher volume minor (one	Minor Street: Threshhold URBAN 60	Warrants MET/NOT
12:00 PM	750		64		MET
1:00 PM	770		49		NOT MET
2:00 PM	754		56		NOT MET
3:00 PM	997		69		MET
4:00 PM	626		61		NOT MET
5:00 PM	1,108		52		NOT MET
6:00 PM	795		44		NOT MET
7:00 PM	614		47		NOT MET

Number of hours for which warrant met	2
Percentage by which warrant met	25.0%

Warrant	Not Met

Warrant 1C: Combination of Warrants

In exceptional cases, signals occasionally may be justified where no single warrant is satisfied but where Warrants 1A and 1B are satisfied to the extent of 80% or more of the stated values.

Analysis

80% of Warrant 1A Met	NO
80% of Warrant 1B Met	NO

Warrant	Not Met

Warrant 2: Four-Hour Vehicular Volumes

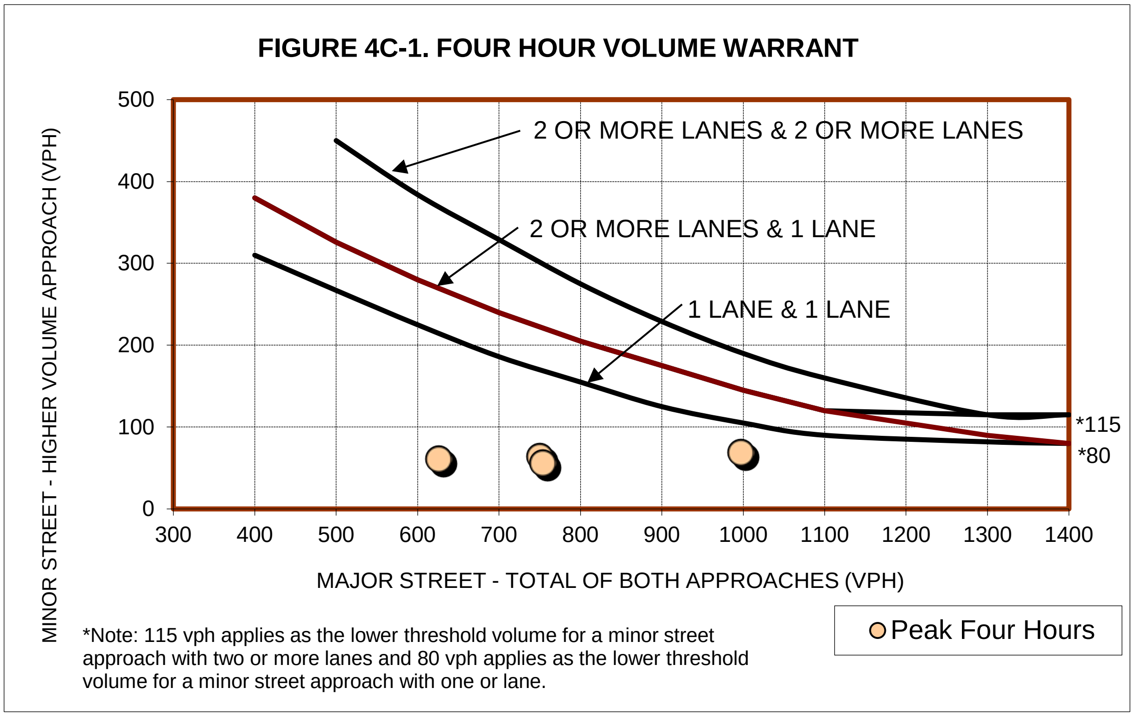
The Four Hour Volume Warrant is satisfied when each of any four hours of an average day the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) all fall above the curve in Figure 4C-1 for the existing combination of approach lanes.

Analysis

	No of lanes
Major Street	2
Minor Street	1

Peak Four Hours

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
12:00 PM	750	64
2:00 PM	754	56
3:00 PM	997	69
4:00 PM	626	61



Warrant	Not Met

Warrant 3A: Peak Hour Delay

The peak hour delay warrant is intended for application where traffic conditions are such that for one hour of the day minor street traffic suffers undue delay in entering or crossing the major street. The peak hour delay warrant is satisfied when the conditions given below exist for one hour (any four consecutive 15-minute periods) of an average weekday.

The peak hour delay warrant is met when:

1. The total delay experienced by the traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach, and

2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes, and

3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four (or more) approaches or 650 vph for intersections with three approaches.

Analysis

Minor Street Lanes	1
Total Approaches	3
Time	5:00 PM

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced for the Intersection (vph)
Existing	0.3	56	1,132
Limiting Value	4	100	650
Met/ Not Met	Not Met	Not Met	Met

Warrant	Not Met

Warrant 3B: Peak Hour Volume

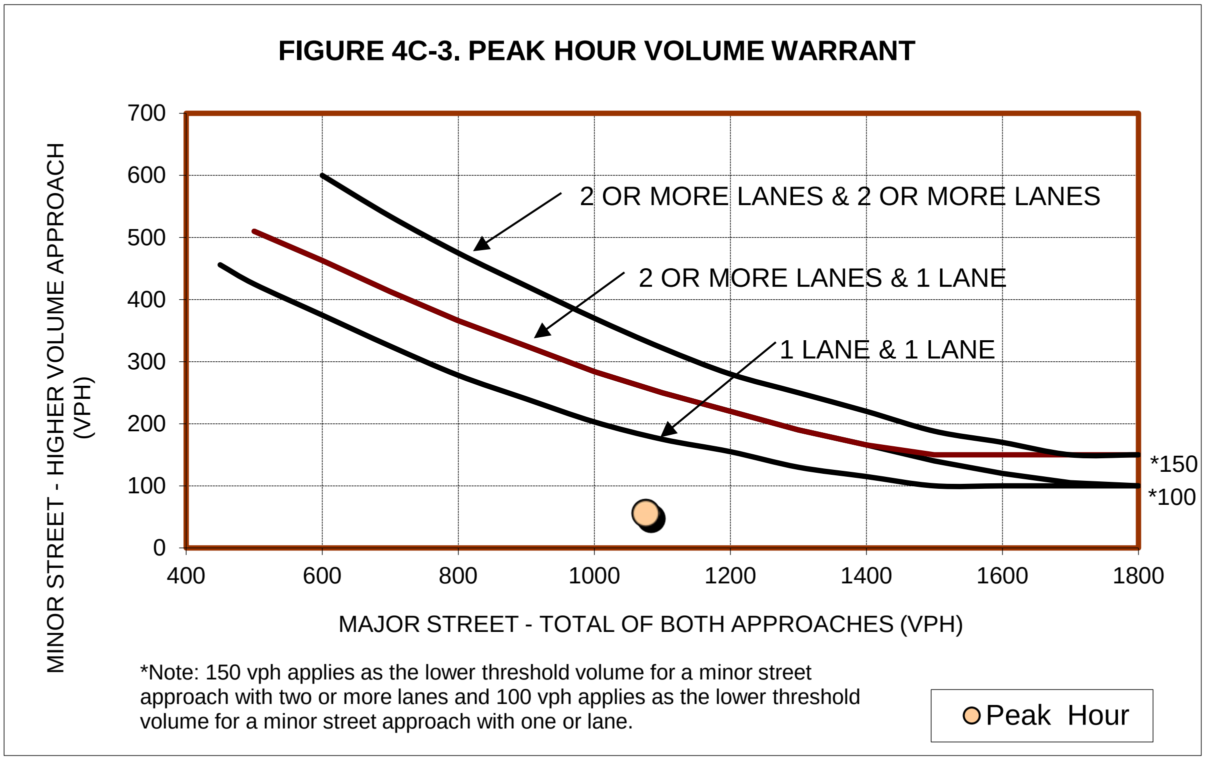
The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

	No of lanes
Major Street	2
Minor Street	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
4:15 PM	1,076	56



Warrant	Not Met

Warrant 4: Pedestrian Volumes

The Pedestrian Volume signal warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street.

Standard: The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that both of the following criteria are met:
A. The pedestrian volume crossing the major street at an intersection or midblock location during an average day is 100 or more for each of any 4 hours or 190 or more during any 1 hour; and
B. There are fewer than 60 gaps per hour in the traffic stream of adequate length to allow pedestrians to cross during the same period when the pedestrian volume criterion is satisfied. Where there is a divided street having a median of sufficient width for pedestrians to wait, the requirement applies separately to each direction of vehicular traffic.

Analysis

Warrant 4A - 4 Hours Pedestrian Volume

	Pedestrian Volume	Greater than 100?
7:00 AM	5	No
8:00 AM	3	No
4:00 PM	6	No
5:00 PM	13	No

Sub-Warrant	Not Met

Warrant 4B - Peak Hour Pedestrian Volume

Hour	Pedestrian Volume	Greater than 190?
5:00 PM	13	No

Sub-Warrant	Not Met

Warrant 4C - Gap Analysis

Hour	Gaps per Hour	Less than 60?
	N/A	N/A
	N/A	N/A
	N/A	N/A
	N/A	N/A

Sub-Warrant	N/A

Warrant	Not Met

Warrant 7: Crash Experience

The Crash Experience signal warrant conditions are intended for application where severity and frequency of crashes are the principal reasons to consider installing a traffic control signal.

Standard:

A. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occured within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

B. Warrant 1A or Warrant 1B or 80% of the pedestrian volume warrant is met

Warrant 7A - Five or more reported crashes

	Number	**5 or more?**
Number of crashes within a 12-month period, of types susceptible to correction by a traffic signal, each involving personal injury or property damage (reportable)	1	N

Plus at least one of the following:	**Yes**	**No**
Warrant 7B - 80% Warrant 1A		
Warrant 1A: 80% threshold met?		X
Warrant 7C - 80% Warrant 1B		
Warrant 1B: 80% threshold met?		X
Warrant 7D - 80% Warrant 4		
Warrant 4: 80% threshold met (152 or more peds for any hour, and 80 or more peds for any 4 hours)?		X

Warrant	Not Met

Warrant Summary (College Ave/Chabot Rd, Existing, non Summer)

Warrant	Result
Warrant 1: 8-Hour Vehicular Volume	Not Met
Warrant 1A: Minimum Vehicular Volume	Not Met
OR	
Warrant 1B: Interruption of Continuous Traffic	Not Met
OR	
Warrant 1C: 80% of Warrant 1A and 1B	Not Met
Warrant 2: 4-Hour Vehicular Volume	Not Met
Warrant 3: Peak Hour Vehicular Volume	Not Met
Warrant 3A: Peak Hour Delay	Not Met
OR	
Warrant 3B: Peak Hour Volume	Not Met
Warrant 4: Pedestrian Volume	Not Met
Warrant 4A: 4 Hours Pedestrian Volume	Not Met
OR	
Warrant 4B: Peak Hour Pedestrian Volume	Not Met
AND	
Warrant 4C: Gap Analysis	N/A
Warrant 7: Crash Experience	Not Met
Warrant 7A: Five or more reported crashes	Not Met
AND ONE OF	
Warrant 7B: 80% of Warrant 1A Met?	Not Met
OR	
Warrant 7C: 80% of Warrant 1B Met?	Not Met
OR	
Warrant 7D: 80% of Warrant 4 Met?	Not Met

Warrant 1A: Minimum Vehicular Volume

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	500	150
2 or more	1	600	150
2 or more	2 or more	600	200
1	2 or more	500	200

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Minimum Vehicular Volume warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	1
Minor Street	1

Time	Major Street: Volume on major street (total of both approaches)	Major Street: Threshhold URBAN 500	Minor Street: Veh/hour on higher volume minor street (one direction only)	Minor Street: Threshhold URBAN 150	Warrants MET/NOT
8:00 AM	659		57		NOT MET
12:00 PM	715		82		NOT MET
1:00 PM	760		76		NOT MET
2:00 PM	762		66		NOT MET
3:00 PM	1,008		91		NOT MET
4:00 PM	630		129		NOT MET
5:00 PM	1,065		139		NOT MET
6:00 PM	699		86		NOT MET

Number of hours for which warrant met	0
Percentage by which warrant met	0.0%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	1
Minor Street	1

Time	Major Street: Volume on major street (total of both	Major Street: Threshhold URBAN 400	Minor Street: Veh/hour on higher volume minor street	Minor Street: Threshhold URBAN 120	Warrants MET/NOT
8:00 AM	659		57		NOT MET
12:00 PM	715		82		NOT MET
1:00 PM	760		76		NOT MET
2:00 PM	762		66		NOT MET
3:00 PM	1,008		91		NOT MET
4:00 PM	630		129		MET
5:00 PM	1,065		139		MET
6:00 PM	699		86		NOT MET

Number of hours for which warrant met	2
Percentage by which warrant met	25.0%

Warrant	Not Met

Warrant 1B: Interruption of Continuous Traffic

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection, and signal installation will not seriously disrupt progressive traffic flow.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	750	75
2 or more	1	900	75
2 or more	2 or more	900	100
1	2 or more	750	100

The major-street and minor -street volumes are for the same 8 hours. During those 8 hours, the direction of higher volume on the minor street may be on one approach during some hours and on the opposite approach during other hours.

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Interruption of Continuous Traffic warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	1
Minor Street	1

Time	Major Street: Volume on major (total of both approaches)	Major Street: Threshhold URBAN 750	Minor Street: Veh/hour on higher volume minor (one direction only)	Minor Street: Threshhold URBAN 75	Warrants MET/NOT
8:00 AM	659		57		NOT MET
12:00 PM	715		82		NOT MET
1:00 PM	760		76		MET
2:00 PM	762		66		NOT MET
3:00 PM	1,008		91		MET
4:00 PM	630		129		NOT MET
5:00 PM	1,065		139		MET
6:00 PM	699		86		NOT MET

Number of hours for which warrant met	3
Percentage by which warrant met	37.5%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major (total of both	Major Street: Threshhold URBAN 600	Minor Street: Veh/hour on higher volume minor (one	Minor Street: Threshhold URBAN 60	Warrants MET/NOT
8:00 AM	659		57		NOT MET
12:00 PM	715		82		MET
1:00 PM	760		76		MET
2:00 PM	762		66		MET
3:00 PM	1,008		91		MET
4:00 PM	630		129		MET
5:00 PM	1,065		139		MET
6:00 PM	699		86		MET

Number of hours for which warrant met	7
Percentage by which warrant met	87.5%

Warrant	Not Met

Warrant 1C: Combination of Warrants

In exceptional cases, signals occasionally may be justified where no single warrant is satisfied but where Warrants 1A and 1B are satisfied to the extent of 80% or more of the stated values.

Analysis

80% of Warrant 1A Met	NO
80% of Warrant 1B Met	NO

Warrant	Not Met

Warrant 2: Four-Hour Vehicular Volumes

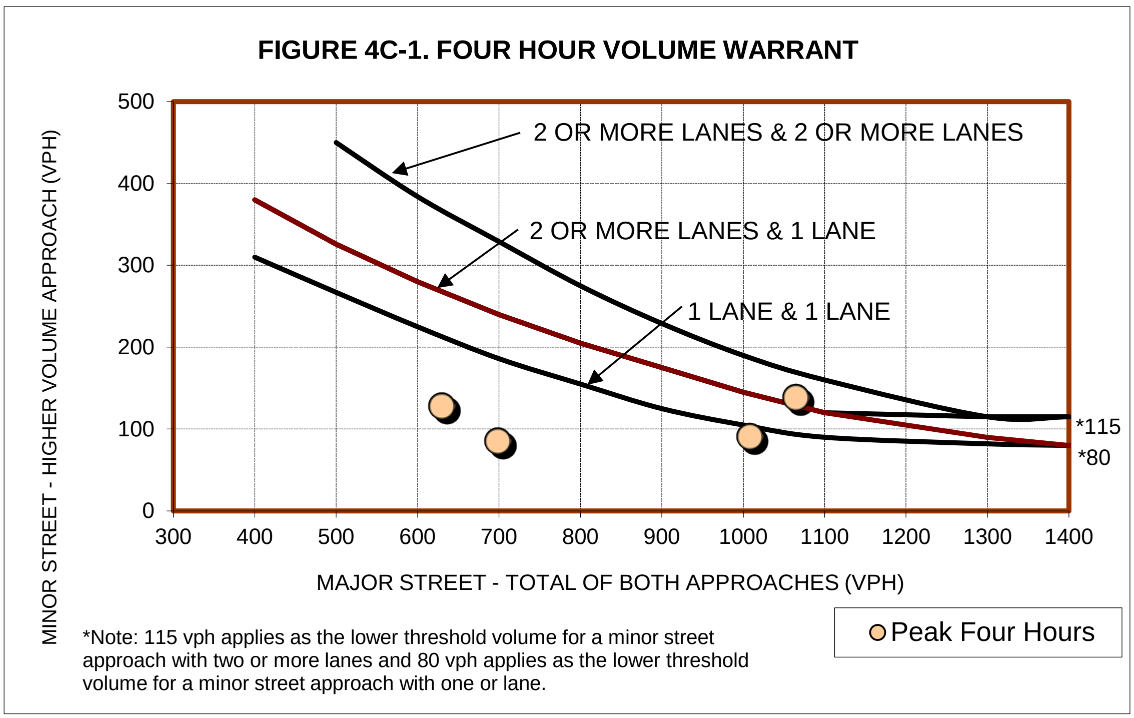
The Four Hour Volume Warrant is satisfied when each of any four hours of an average day the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) all fall above the curve in Figure 4C-1 for the existing combination of approach lanes.

Analysis

	No of lanes
Major Street	1
Minor Street	1

Peak Four Hours

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
3:00 PM	1,008	91
4:00 PM	630	129
5:00 PM	1,065	139
6:00 PM	699	86



Warrant	Not Met

Warrant 3A: Peak Hour Delay

The peak hour delay warrant is intended for application where traffic conditions are such that for one hour of the day minor street traffic suffers undue delay in entering or crossing the major street. The peak hour delay warrant is satisfied when the conditions given below exist for one hour (any four consecutive 15-minute periods) of an average weekday.

The peak hour delay warrant is met when:

1. The total delay experienced by the traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach, and

2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes, and

3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four (or more) approaches or 650 vph for intersections with three approaches.

Analysis

Minor Street Lanes	1
Total Approaches	4
Time	5:00 PM

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced for the Intersection (vph)
Existing	2.0	121	968
Limiting Value	4	100	800
Met/ Not Met	Not Met	Met	Met

Warrant	Not Met

Warrant 3B: Peak Hour Volume

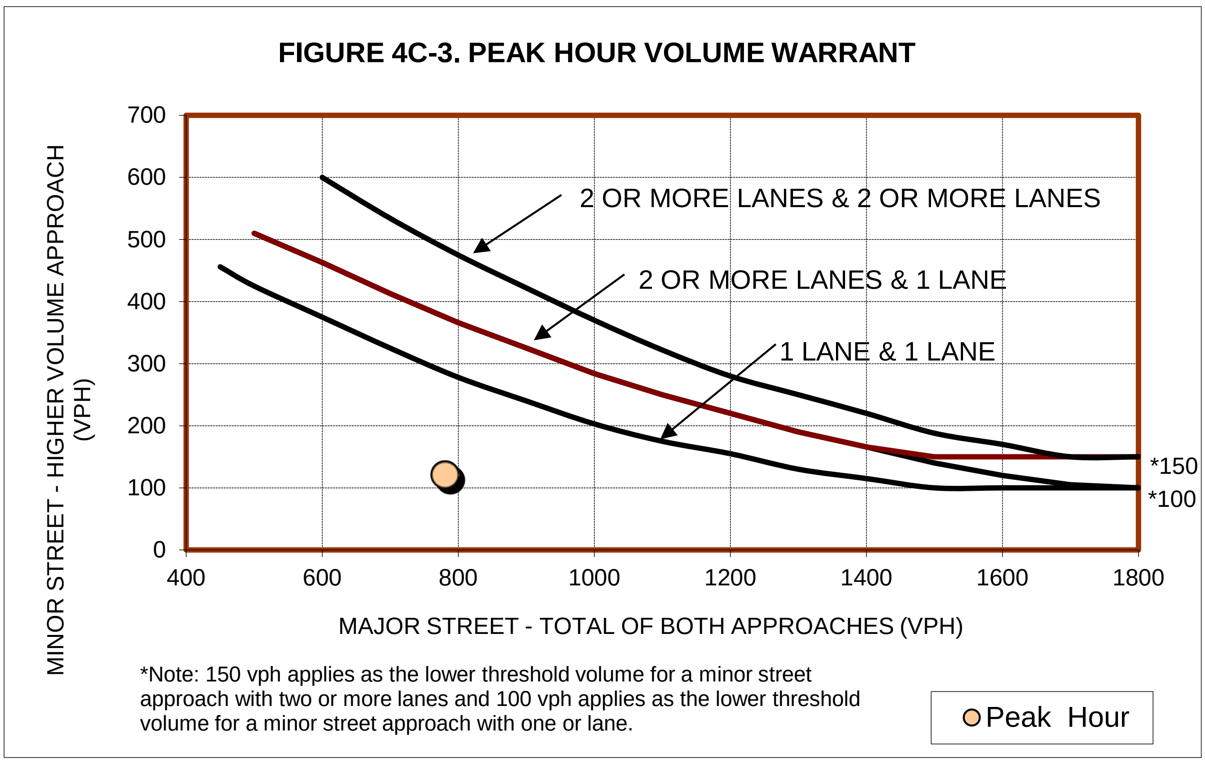
The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

	No of lanes
Major Street	1
Minor Street	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
5:00 PM	781	121



Warrant	Not Met

Warrant 4: Pedestrian Volumes

The Pedestrian Volume signal warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street.

Standard: The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that both of the following criteria are met:
A. The pedestrian volume crossing the major street at an intersection or midblock location during an average day is 100 or more for each of any 4 hours or 190 or more during any 1 hour; and
B. There are fewer than 60 gaps per hour in the traffic stream of adequate length to allow pedestrians to cross during the same period when the pedestrian volume criterion is satisfied. Where there is a divided street having a median of sufficient width for pedestrians to wait, the requirement applies separately to each direction of vehicular traffic.

Analysis

Warrant 4A - 4 Hours Pedestrian Volume

	Pedestrian Volume	Greater than 100?
7:00 AM	27	No
8:00 AM	42	No
4:00 PM	95	No
5:00 PM	130	Yes

Sub-Warrant	Not Met

Warrant 4B - Peak Hour Pedestrian Volume

Hour	Pedestrian Volume	Greater than 190?
5:00 PM	130	No

Sub-Warrant	Not Met

Warrant 4C - Gap Analysis

Hour	Gaps per Hour	Less than 60?
	N/A	N/A
	N/A	N/A
	N/A	N/A
	N/A	N/A

Sub-Warrant	N/A

Warrant	Not Met

Warrant 7: Crash Experience

The Crash Experience signal warrant conditions are intended for application where severity and frequency of crashes are the principal reasons to consider installing a traffic control signal.

Standard:

A. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occured within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

B. Warrant 1A or Warrant 1B or 80% of the pedestrian volume warrant is met

Warrant 7A - Five or more reported crashes

	Number	**5 or more?**
Number of crashes within a 12-month period, of types susceptible to correction by a traffic signal, each involving personal injury or property damage (reportable)	1	N

Plus at least one of the following:	**Yes**	**No**
Warrant 7B - 80% Warrant 1A		
Warrant 1A: 80% threshold met?		X
Warrant 7C - 80% Warrant 1B		
Warrant 1B: 80% threshold met?		X
Warrant 7D - 80% Warrant 4		
Warrant 4: 80% threshold met (152 or more peds for any hour, and 80 or more peds for any 4 hours)?		X

Warrant	Not Met

Warrant Summary (College Ave/Chabot Rd, Existing, Summer)

Warrant 1: 8-Hour Vehicular Volume	**Not Met**
Warrant 1A: Minimum Vehicular Volume	Not Met
OR	
Warrant 1B: Interruption of Continuous Traffic	Not Met
OR	
Warrant 1C: 80% of Warrant 1A and 1B	Not Met
Warrant 2: 4-Hour Vehicular Volume	**Not Met**
Warrant 3: Peak Hour Vehicular Volume	**Not Met**
Warrant 3A: Peak Hour Delay	Not Met
OR	
Warrant 3B: Peak Hour Volume	Not Met
Warrant 4: Pedestrian Volume	**Not Met**
Warrant 4A: 4 Hours Pedestrian Volume	Not Met
OR	
Warrant 4B: Peak Hour Pedestrian Volume	Not Met
AND	
Warrant 4C: Gap Analysis	N/A
Warrant 7: Crash Experience	**Not Met**
Warrant 7A: Five or more reported crashes	Not Met
AND ONE OF	
Warrant 7B: 80% of Warrant 1A Met?	Not Met
OR	
Warrant 7C: 80% of Warrant 1B Met?	Not Met
OR	
Warrant 7D: 80% of Warrant 4 Met?	Not Met

Warrant 1A: Minimum Vehicular Volume

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	500	150
2 or more	1	600	150
2 or more	2 or more	600	200
1	2 or more	500	200

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Minimum Vehicular Volume warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	1
Minor Street	1

Time	Major Street: Volume on major street (total of both approaches)	Threshhold URBAN 500	Minor Street: Veh/hour on higher volume minor street (one direction only)	Threshhold URBAN 150	Warrants MET/NOT
12:00 PM	715		72		NOT MET
1:00 PM	760		68		NOT MET
2:00 PM	762		59		NOT MET
3:00 PM	1,008		92		NOT MET
4:00 PM	630		111		NOT MET
5:00 PM	1,065		103		NOT MET
6:00 PM	699		84		NOT MET
7:00 PM	517		64		NOT MET

Number of hours for which warrant met	0
Percentage by which warrant met	0.0%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	1
Minor Street	1

Time	Major Street: Volume on major street (total of both	Threshhold URBAN 400	Minor Street: Veh/hour on higher volume minor street	Threshhold URBAN 120	Warrants MET/NOT
12:00 PM	715		72		NOT MET
1:00 PM	760		68		NOT MET
2:00 PM	762		59		NOT MET
3:00 PM	1,008		92		NOT MET
4:00 PM	630		111		NOT MET
5:00 PM	1,065		103		NOT MET
6:00 PM	699		84		NOT MET
7:00 PM	517		64		NOT MET

Number of hours for which warrant met	0
Percentage by which warrant met	0.0%

Warrant	Not Met

Warrant 1B: Interruption of Continuous Traffic

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection, and signal installation will not seriously disrupt progressive traffic flow.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	750	75
2 or more	1	900	75
2 or more	2 or more	900	100
1	2 or more	750	100

The major-street and minor -street volumes are for the same 8 hours. During those 8 hours, the direction of higher volume on the minor street may be on one approach during some hours and on the opposite approach during other hours.

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Interruption of Continuous Traffic warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	1
Minor Street	1

Time	Major Street: Volume on major (total of both approaches)	Major Street: Threshhold URBAN 750	Minor Street: Veh/hour on higher volume minor (one direction only)	Minor Street: Threshhold URBAN 75	Warrants MET/NOT
12:00 PM	715		72		NOT MET
1:00 PM	760		68		NOT MET
2:00 PM	762		59		NOT MET
3:00 PM	1,008		92		MET
4:00 PM	630		111		NOT MET
5:00 PM	1,065		103		MET
6:00 PM	699		84		NOT MET
7:00 PM	517		64		NOT MET

Number of hours for which warrant met	2
Percentage by which warrant met	25.0%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major (total of both	Major Street: Threshhold URBAN 600	Minor Street: Veh/hour on higher volume minor (one	Minor Street: Threshhold URBAN 60	Warrants MET/NOT
12:00 PM	715		72		MET
1:00 PM	760		68		MET
2:00 PM	762		59		NOT MET
3:00 PM	1,008		92		MET
4:00 PM	630		111		MET
5:00 PM	1,065		103		MET
6:00 PM	699		84		MET
7:00 PM	517		64		NOT MET

Number of hours for which warrant met	6
Percentage by which warrant met	75.0%

Warrant	Not Met

Warrant 1C: Combination of Warrants

In exceptional cases, signals occasionally may be justified where no single warrant is satisfied but where Warrants 1A and 1B are satisfied to the extent of 80% or more of the stated values.

Analysis

80% of Warrant 1A Met	NO
80% of Warrant 1B Met	NO

Warrant	Not Met

Warrant 2: Four-Hour Vehicular Volumes

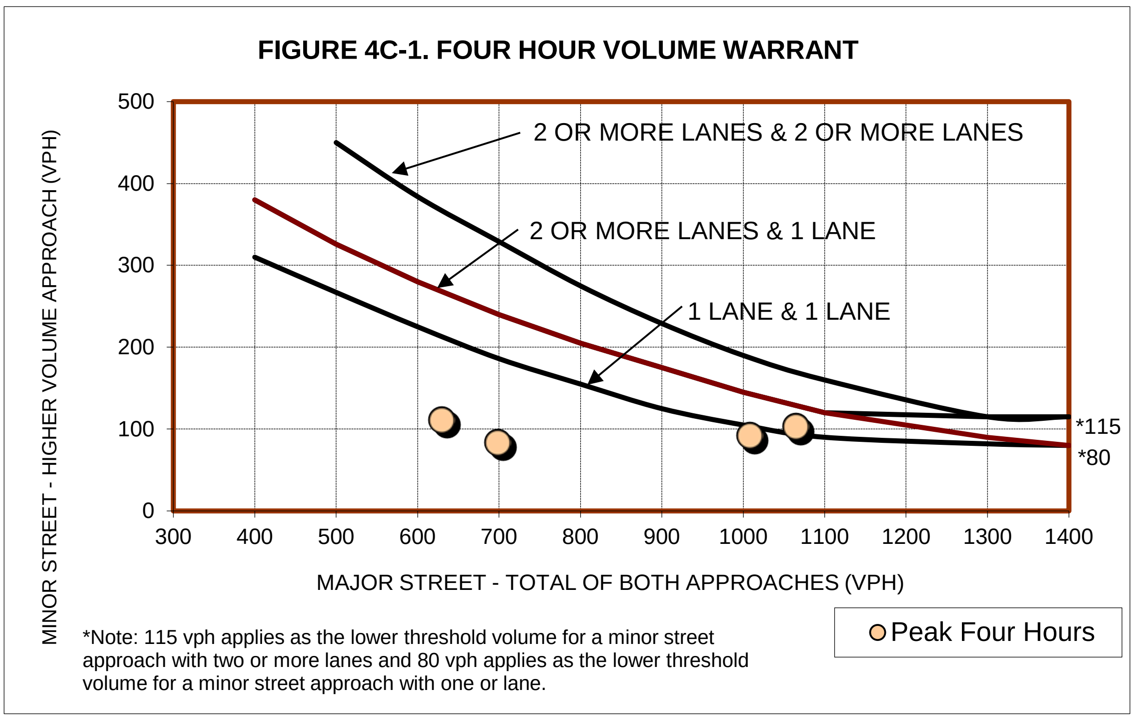
The Four Hour Volume Warrant is satisfied when each of any four hours of an average day the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) all fall above the curve in Figure 4C-1 for the existing combination of approach lanes.

Analysis

	No of lanes
Major Street	1
Minor Street	1

Peak Four Hours

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
3:00 PM	1,008	92
4:00 PM	630	111
5:00 PM	1,065	103
6:00 PM	699	84



Warrant	Not Met

Warrant 3A: Peak Hour Delay

The peak hour delay warrant is intended for application where traffic conditions are such that for one hour of the day minor street traffic suffers undue delay in entering or crossing the major street. The peak hour delay warrant is satisfied when the conditions given below exist for one hour (any four consecutive 15-minute periods) of an average weekday.

The peak hour delay warrant is met when:

1. The total delay experienced by the traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach, and

2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes, and

3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four (or more) approaches or 650 vph for intersections with three approaches.

Analysis

Minor Street Lanes	1
Total Approaches	4
Time	5:00 PM

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced for the Intersection (vph)
Existing	0.7	88	1,001
Limiting Value	4	100	800
Met/ Not Met	Not Met	Not Met	Met

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

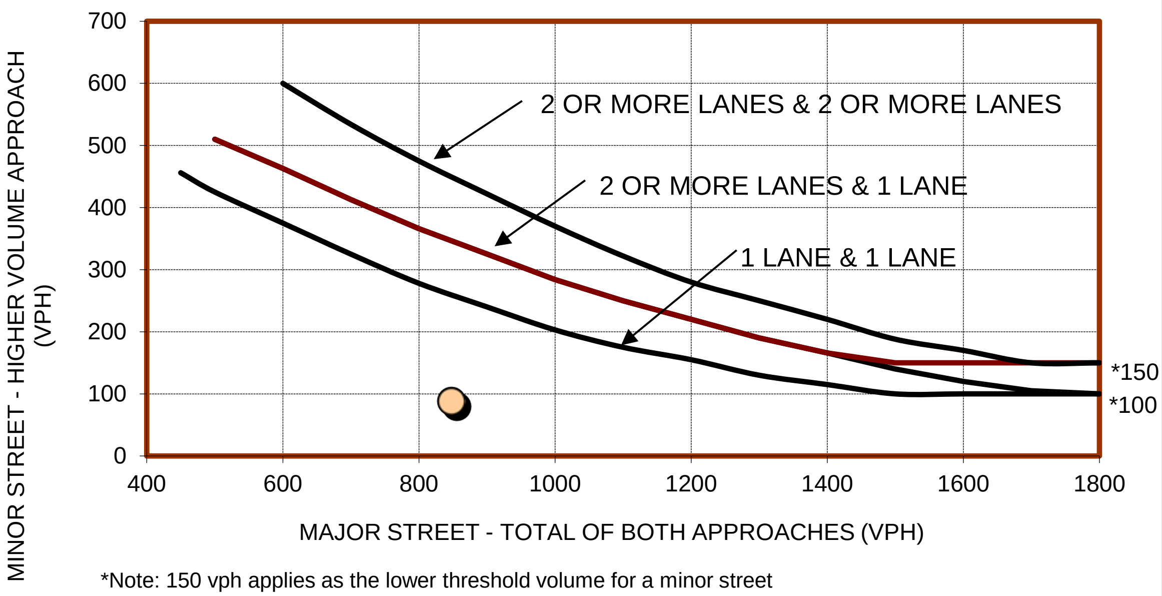
Analysis

	No of lanes
Major Street	1
Minor Street	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
4:15 PM	848	88

FIGURE 4C-3. PEAK HOUR VOLUME WARRANT



*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 or lane.

Warrant	Not Met

Warrant 4: Pedestrian Volumes

The Pedestrian Volume signal warrant is intended for application where the traffic volume on a major street is so heavy that pedestrians experience excessive delay in crossing the major street.

Standard: The need for a traffic control signal at an intersection or midblock crossing shall be considered if an engineering study finds that both of the following criteria are met:
A. The pedestrian volume crossing the major street at an intersection or midblock location during an average day is 100 or more for each of any 4 hours or 190 or more during any 1 hour; and
B. There are fewer than 60 gaps per hour in the traffic stream of adequate length to allow pedestrians to cross during the same period when the pedestrian volume criterion is satisfied. Where there is a divided street having a median of sufficient width for pedestrians to wait, the requirement applies separately to each direction of vehicular traffic.

Analysis

Warrant 4A - 4 Hours Pedestrian Volume

	Pedestrian Volume	Greater than 100?
7:00 AM	31	No
8:00 AM	33	No
4:00 PM	103	Yes
5:00 PM	83	No

Sub-Warrant	Not Met

Warrant 4B - Peak Hour Pedestrian Volume

Hour	Pedestrian Volume	Greater than 190?
4:15 PM	92	No

Sub-Warrant	Not Met

Warrant 4C - Gap Analysis

Hour	Gaps per Hour	Less than 60?
	N/A	N/A
	N/A	N/A
	N/A	N/A
	N/A	N/A

Sub-Warrant	N/A

Warrant	Not Met

Warrant 7: Crash Experience

The Crash Experience signal warrant conditions are intended for application where severity and frequency of crashes are the principal reasons to consider installing a traffic control signal.

Standard:

A. Five or more reported crashes, of types susceptible to correction by a traffic control signal, have occured within a 12-month period, each crash involving personal injury or property damage apparently exceeding the applicable requirements for a reportable crash; and

B. Warrant 1A or Warrant 1B or 80% of the pedestrian volume warrant is met

Warrant 7A - Five or more reported crashes

	Number	5 or more?
Number of crashes within a 12-month period, of types susceptible to correction by a traffic signal, each involving personal injury or property damage (reportable)	1	N

Plus at least one of the following:	Yes	No
Warrant 7B - 80% Warrant 1A		
Warrant 1A: 80% threshold met?		X
Warrant 7C - 80% Warrant 1B		
Warrant 1B: 80% threshold met?		X
Warrant 7D - 80% Warrant 4		
Warrant 4: 80% threshold met (152 or more peds for any hour, and 80 or more peds for any 4 hours)?		X

Warrant	Not Met

Warrant Summary (Claremont Ave/Chabot Rd, Existing Plus Project, non Sum

Warrant 1: 8-Hour Vehicular Volume	**Not Met**
Warrant 1A: Minimum Vehicular Volume	Not Met
OR	
Warrant 1B: Interruption of Continuous Traffic	Not Met
OR	
Warrant 1C: 80% of Warrant 1A and 1B	Not Met
Warrant 2: 4-Hour Vehicular Volume	**Not Met**
Warrant 3: Peak Hour Vehicular Volume	**Not Met**
Warrant 3A: Peak Hour Delay	Not Met
OR	
Warrant 3B: Peak Hour Volume	Not Met
Warrant 4: Pedestrian Volume	**N/A**
Warrant 4A: 4 Hours Pedestrian Volume	N/A
OR	
Warrant 4B: Peak Hour Pedestrian Volume	N/A
AND	
Warrant 4C: Gap Analysis	N/A
Warrant 7: Crash Experience	**N/A**
Warrant 7A: Five or more reported crashes	N/A
AND ONE OF	
Warrant 7B: 80% of Warrant 1A Met?	N/A
OR	
Warrant 7C: 80% of Warrant 1B Met?	N/A
OR	
Warrant 7D: 80% of Warrant 4 Met?	N/A

Warrant 1A: Minimum Vehicular Volume

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	500	150
2 or more	1	600	150
2 or more	2 or more	600	200
1	2 or more	500	200

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Minimum Vehicular Volume warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major street (total of both approaches)	Major Street: Threshhold URBAN 600	Minor Street: Veh/hour on higher volume minor street (one direction only)	Minor Street: Threshhold URBAN 150	Warrants MET/NOT
8:00 AM	811		103		NOT MET
9:00 AM	710		38		NOT MET
12:00 PM	755		63		NOT MET
2:00 PM	765		77		NOT MET
3:00 PM	1,039		120		NOT MET
4:00 PM	636		58		NOT MET
5:00 PM	1,152		97		NOT MET
6:00 PM	829		68		NOT MET

Number of hours for which warrant met	0
Percentage by which warrant met	0.0%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major street (total of both	Major Street: Threshhold URBAN 480	Minor Street: Veh/hour on higher volume minor street	Minor Street: Threshhold URBAN 120	Warrants MET/NOT
8:00 AM	811		103		NOT MET
9:00 AM	710		38		NOT MET
12:00 PM	755		63		NOT MET
2:00 PM	765		77		NOT MET
3:00 PM	1,039		120		MET
4:00 PM	636		58		NOT MET
5:00 PM	1,152		97		NOT MET
6:00 PM	829		68		NOT MET

Number of hours for which warrant met	1
Percentage by which warrant met	12.5%

Warrant	Not Met

Warrant 1B: Interruption of Continuous Traffic

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection, and signal installation will not seriously disrupt progressive traffic flow.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	750	75
2 or more	1	900	75
2 or more	2 or more	900	100
1	2 or more	750	100

The major-street and minor -street volumes are for the same 8 hours. During those 8 hours, the direction of higher volume on the minor street may be on one approach during some hours and on the opposite approach during other hours.

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Interruption of Continuous Traffic warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street		Minor Street		Warrants MET/NOT
	Volume on major (total of both approaches)	Threshhold URBAN 900	Veh/hour on higher volume minor (one direction only)	Threshhold URBAN 75	
8:00 AM	811		103		NOT MET
9:00 AM	710		38		NOT MET
12:00 PM	755		63		NOT MET
2:00 PM	765		77		NOT MET
3:00 PM	1,039		120		MET
4:00 PM	636		58		NOT MET
5:00 PM	1,152		97		MET
6:00 PM	829		68		NOT MET

Number of hours for which warrant met	2
Percentage by which warrant met	25.0%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street		Minor Street		Warrants MET/NOT
	Volume on major (total of both	Threshhold URBAN 720	Veh/hour on higher volume minor (one	Threshhold URBAN 60	
8:00 AM	811		103		MET
9:00 AM	710		38		NOT MET
12:00 PM	755		63		MET
2:00 PM	765		77		MET
3:00 PM	1,039		120		MET
4:00 PM	636		58		NOT MET
5:00 PM	1,152		97		MET
6:00 PM	829		68		MET

Number of hours for which warrant met	6
Percentage by which warrant met	75.0%

Warrant	Not Met

Warrant 1C: Combination of Warrants

In exceptional cases, signals occasionally may be justified where no single warrant is satisfied but where Warrants 1A and 1B are satisfied to the extent of 80% or more of the stated values.

Analysis

80% of Warrant 1A Met	NO
80% of Warrant 1B Met	NO

Warrant	Not Met

Warrant 2: Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) all fall above the curve in Figure 4C-1 for the existing combination of approach lanes.

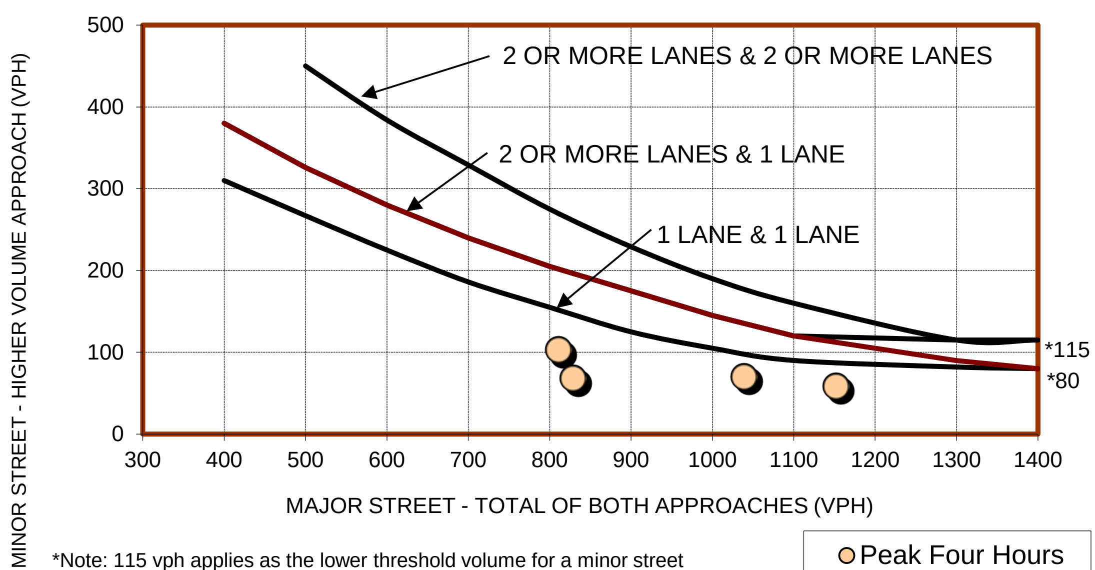
Analysis

	No of lanes
Major Street	2
Minor Street	1

Peak Four Hours

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
8:00 AM	811	103
3:00 PM	1,039	70
5:00 PM	1,152	59
6:00 PM	829	68

FIGURE 4C-1. FOUR HOUR VOLUME WARRANT



*Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor street approach with one or lane.

Warrant	Not Met

Warrant 3A: Peak Hour Delay

The peak hour delay warrant is intended for application where traffic conditions are such that for one hour of the day minor street traffic suffers undue delay in entering or crossing the major street. The peak hour delay warrant is satisfied when the conditions given below exist for one hour (any four consecutive 15-minute periods) of an average weekday.

The peak hour delay warrant is met when:

1. The total delay experienced by the traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach, and

2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes, and

3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four (or more) approaches or 650 vph for intersections with three approaches.

Analysis

Minor Street Lanes	1
Total Approaches	3
Time	5:00 PM

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced for the Intersection (vph)
Existing	0.6	98	1,250
Limiting Value	4	100	650
Met/ Not Met	Not Met	Not Met	Met

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

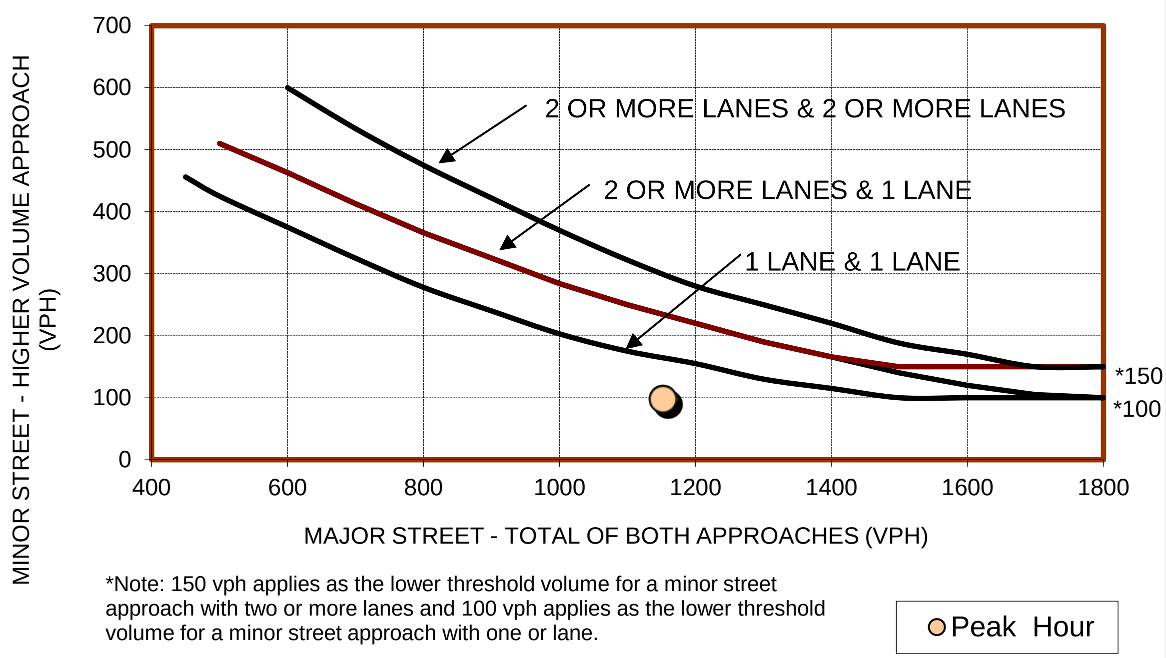
Analysis

	No of lanes
Major Street	2
Minor Street	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
5:00 PM	1,152	98

FIGURE 4C-3. PEAK HOUR VOLUME WARRANT



*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 or lane.

Warrant	Not Met

Warrant Summary (Claremont Ave/Chabot Rd, Existing Plus Project, Summer

Warrant 1: 8-Hour Vehicular Volume	**Not Met**
Warrant 1A: Minimum Vehicular Volume	Not Met
OR	
Warrant 1B: Interruption of Continuous Traffic	Not Met
OR	
Warrant 1C: 80% of Warrant 1A and 1B	Not Met
Warrant 2: 4-Hour Vehicular Volume	**Not Met**
Warrant 3: Peak Hour Vehicular Volume	**Not Met**
Warrant 3A: Peak Hour Delay	Not Met
OR	
Warrant 3B: Peak Hour Volume	Not Met
Warrant 4: Pedestrian Volume	**N/A**
Warrant 4A: 4 Hours Pedestrian Volume	N/A
OR	
Warrant 4B: Peak Hour Pedestrian Volume	N/A
AND	
Warrant 4C: Gap Analysis	N/A
Warrant 7: Crash Experience	**N/A**
Warrant 7A: Five or more reported crashes	N/A
AND ONE OF	
Warrant 7B: 80% of Warrant 1A Met?	N/A
OR	
Warrant 7C: 80% of Warrant 1B Met?	N/A
OR	
Warrant 7D: 80% of Warrant 4 Met?	N/A

Warrant 1A: Minimum Vehicular Volume

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	500	150
2 or more	1	600	150
2 or more	2 or more	600	200
1	2 or more	500	200

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Minimum Vehicular Volume warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major street (total of both approaches)	Major Street: Threshhold URBAN 600	Minor Street: Veh/hour on higher volume minor street (one direction only)	Minor Street: Threshhold URBAN 150	Warrants MET/NOT
8:00 AM	840		147		NOT MET
9:00 AM	729		66		NOT MET
12:00 PM	755		63		NOT MET
2:00 PM	759		70		NOT MET
3:00 PM	1,066		161		MET
4:00 PM	635		58		NOT MET
5:00 PM	1,138		79		NOT MET
6:00 PM	832		65		NOT MET

Number of hours for which warrant met	1
Percentage by which warrant met	12.5%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major street (total of both	Major Street: Threshhold URBAN 480	Minor Street: Veh/hour on higher volume minor street	Minor Street: Threshhold URBAN 120	Warrants MET/NOT
8:00 AM	840		147		MET
9:00 AM	729		66		NOT MET
12:00 PM	755		63		NOT MET
2:00 PM	759		70		NOT MET
3:00 PM	1,066		161		MET
4:00 PM	635		58		NOT MET
5:00 PM	1,138		79		NOT MET
6:00 PM	832		65		NOT MET

Number of hours for which warrant met	2
Percentage by which warrant met	25.0%

Warrant	Not Met

Warrant 1B: Interruption of Continuous Traffic

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection, and signal installation will not seriously disrupt progressive traffic flow.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	750	75
2 or more	1	900	75
2 or more	2 or more	900	100
1	2 or more	750	100

The major-street and minor -street volumes are for the same 8 hours. During those 8 hours, the direction of higher volume on the minor street may be on one approach during some hours and on the opposite approach during other hours.

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Interruption of Continuous Traffic warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major (total of both approaches)	Major Street: Threshhold URBAN 900	Minor Street: Veh/hour on higher volume minor (one direction only)	Minor Street: Threshhold URBAN 75	Warrants MET/NOT
8:00 AM	840		147		NOT MET
9:00 AM	729		66		NOT MET
12:00 PM	755		63		NOT MET
2:00 PM	759		70		NOT MET
3:00 PM	1,066		161		MET
4:00 PM	635		58		NOT MET
5:00 PM	1,138		79		MET
6:00 PM	832		65		NOT MET

Number of hours for which warrant met	2
Percentage by which warrant met	25.0%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major (total of both	Major Street: Threshhold URBAN 720	Minor Street: Veh/hour on higher volume minor (one	Minor Street: Threshhold URBAN 60	Warrants MET/NOT
8:00 AM	840		147		MET
9:00 AM	729		66		MET
12:00 PM	755		63		MET
2:00 PM	759		70		MET
3:00 PM	1,066		161		MET
4:00 PM	635		58		NOT MET
5:00 PM	1,138		79		MET
6:00 PM	832		65		MET

Number of hours for which warrant met	7
Percentage by which warrant met	87.5%

Warrant	Not Met

Warrant 1C: Combination of Warrants

In exceptional cases, signals occasionally may be justified where no single warrant is satisfied but where Warrants 1A and 1B are satisfied to the extent of 80% or more of the stated values.

Analysis

80% of Warrant 1A Met	NO
80% of Warrant 1B Met	NO

Warrant	Not Met

Warrant 2: Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) all fall above the curve in Figure 4C-1 for the existing combination of approach lanes.

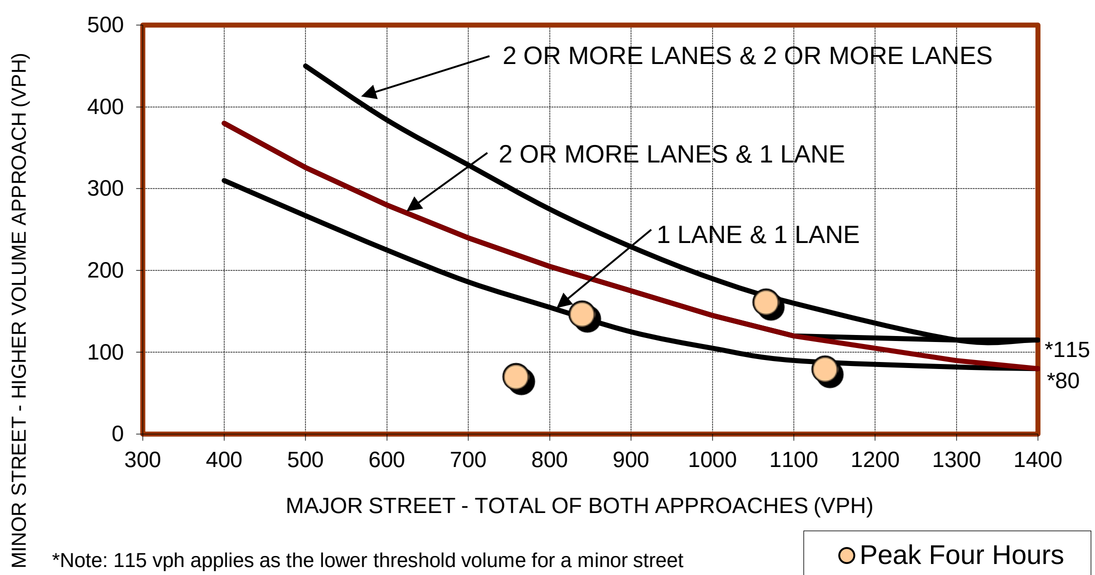
Analysis

	No of lanes
Major Street	2
Minor Street	1

Peak Four Hours

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
8:00 AM	840	147
2:00 PM	759	70
3:00 PM	1,066	161
5:00 PM	1,138	79

FIGURE 4C-1. FOUR HOUR VOLUME WARRANT



*Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor street approach with one or lane.

Warrant	Not Met

Warrant 3A: Peak Hour Delay

The peak hour delay warrant is intended for application where traffic conditions are such that for one hour of the day minor street traffic suffers undue delay in entering or crossing the major street. The peak hour delay warrant is satisfied when the conditions given below exist for one hour (any four consecutive 15-minute periods) of an average weekday.

The peak hour delay warrant is met when:

1. The total delay experienced by the traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach, and

2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes, and

3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four (or more) approaches or 650 vph for intersections with three approaches.

Analysis

Minor Street Lanes	1
Total Approaches	3
Time	5:00 PM

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced for the Intersection (vph)
Existing	0.5	80	1,186
Limiting Value	4	100	650
Met/ Not Met	Not Met	Not Met	Met

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

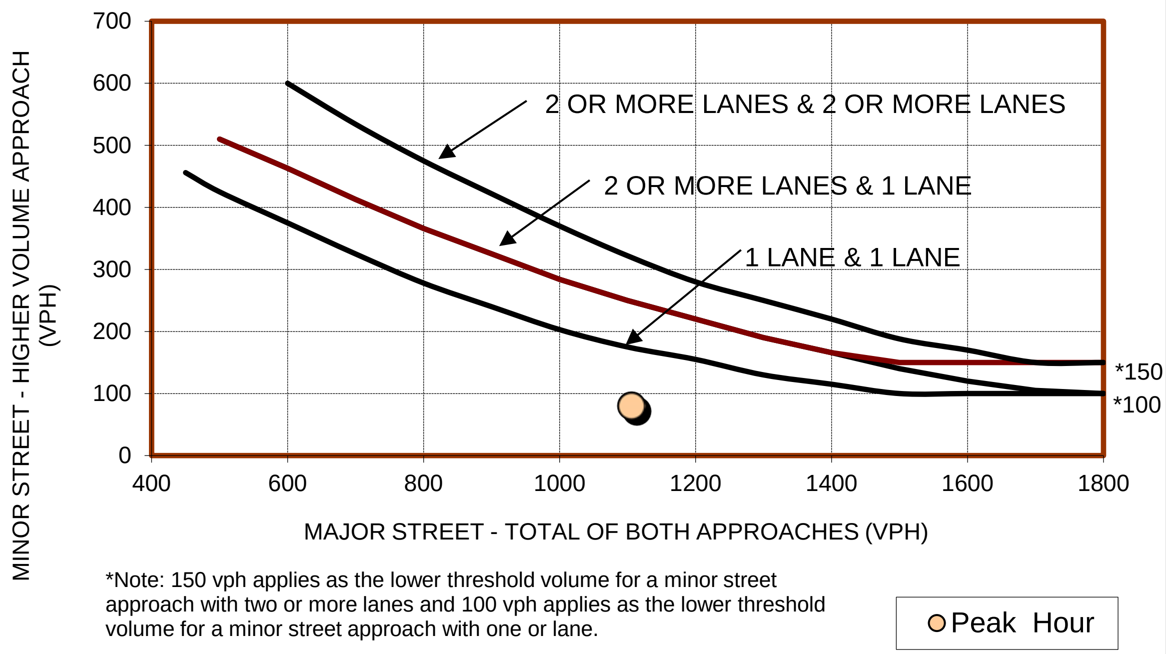
Analysis

	No of lanes
Major Street	2
Minor Street	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
4:15 PM	1,106	80

FIGURE 4C-3. PEAK HOUR VOLUME WARRANT



*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 or lane.

Warrant	Not Met

Warrant Summary (College Ave/Chabot Rd, Existing Plus Project, non Summe	
Warrant 1: 8-Hour Vehicular Volume	Not Met
Warrant 1A: Minimum Vehicular Volume	**Not Met**
OR	
Warrant 1B: Interruption of Continuous Traffic	**Not Met**
OR	
Warrant 1C: 80% of Warrant 1A and 1B	**Not Met**
Warrant 2: 4-Hour Vehicular Volume	Not Met
Warrant 3: Peak Hour Vehicular Volume	Not Met
Warrant 3A: Peak Hour Delay	**Not Met**
OR	
Warrant 3B: Peak Hour Volume	**Not Met**
Warrant 4: Pedestrian Volume	N/A
Warrant 4A: 4 Hours Pedestrian Volume	**N/A**
OR	
Warrant 4B: Peak Hour Pedestrian Volume	**N/A**
AND	
Warrant 4C: Gap Analysis	**N/A**
Warrant 7: Crash Experience	N/A
Warrant 7A: Five or more reported crashes	**N/A**
AND ONE OF	
Warrant 7B: 80% of Warrant 1A Met?	**N/A**
OR	
Warrant 7C: 80% of Warrant 1B Met?	**N/A**
OR	
Warrant 7D: 80% of Warrant 4 Met?	**N/A**

Warrant 1A: Minimum Vehicular Volume

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	500	150
2 or more	1	600	150
2 or more	2 or more	600	200
1	2 or more	500	200

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Minimum Vehicular Volume warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	1
Minor Street	1

Time	Major Street: Volume on major street (total of both approaches)	Major Street: Threshhold URBAN 500	Minor Street: Veh/hour on higher volume minor street (one direction only)	Minor Street: Threshhold URBAN 150	Warrants MET/NOT
8:00 AM	715		90		NOT MET
12:00 PM	723		87		NOT MET
1:00 PM	769		81		NOT MET
2:00 PM	776		74		NOT MET
3:00 PM	1,068		132		NOT MET
4:00 PM	639		131		NOT MET
5:00 PM	1,125		166		MET
6:00 PM	746		89		NOT MET

Number of hours for which warrant met	1
Percentage by which warrant met	12.5%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	1
Minor Street	1

Time	Major Street: Volume on major street (total of both	Major Street: Threshhold URBAN 400	Minor Street: Veh/hour on higher volume minor street	Minor Street: Threshhold URBAN 120	Warrants MET/NOT
8:00 AM	715		90		NOT MET
12:00 PM	723		87		NOT MET
1:00 PM	769		81		NOT MET
2:00 PM	776		74		NOT MET
3:00 PM	1,068		132		MET
4:00 PM	639		131		MET
5:00 PM	1,125		166		MET
6:00 PM	746		89		NOT MET

Number of hours for which warrant met	3
Percentage by which warrant met	37.5%

Warrant	Not Met

Warrant 1B: Interruption of Continuous Traffic

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection, and signal installation will not seriously disrupt progressive traffic flow.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	750	75
2 or more	1	900	75
2 or more	2 or more	900	100
1	2 or more	750	100

The major-street and minor -street volumes are for the same 8 hours. During those 8 hours, the direction of higher volume on the minor street may be on one approach during some hours and on the opposite approach during other hours.

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Interruption of Continuous Traffic warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	1
Minor Street	1

Time	Major Street: Volume on major (total of both approaches)	Major Street: Threshhold URBAN 750	Minor Street: Veh/hour on higher volume minor (one direction only)	Minor Street: Threshhold URBAN 75	Warrants MET/NOT
8:00 AM	715		90		NOT MET
12:00 PM	723		87		NOT MET
1:00 PM	769		81		MET
2:00 PM	776		74		NOT MET
3:00 PM	1,068		132		MET
4:00 PM	639		131		NOT MET
5:00 PM	1,125		166		MET
6:00 PM	746		89		NOT MET

Number of hours for which warrant met	3
Percentage by which warrant met	37.5%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street: Volume on major (total of both	Major Street: Threshhold URBAN 600	Minor Street: Veh/hour on higher volume minor (one	Minor Street: Threshhold URBAN 60	Warrants MET/NOT
8:00 AM	715		90		MET
12:00 PM	723		87		MET
1:00 PM	769		81		MET
2:00 PM	776		74		MET
3:00 PM	1,068		132		MET
4:00 PM	639		131		MET
5:00 PM	1,125		166		MET
6:00 PM	746		89		MET

Number of hours for which warrant met	8
Percentage by which warrant met	100.0%

Warrant	Met

Warrant 1C: Combination of Warrants

In exceptional cases, signals occasionally may be justified where no single warrant is satisfied but where Warrants 1A and 1B are satisfied to the extent of 80% or more of the stated values.

Analysis

80% of Warrant 1A Met	NO
80% of Warrant 1B Met	YES

Warrant	Not Met

Warrant 2: Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) all fall above the curve in Figure 4C-1 for the existing combination of approach lanes.

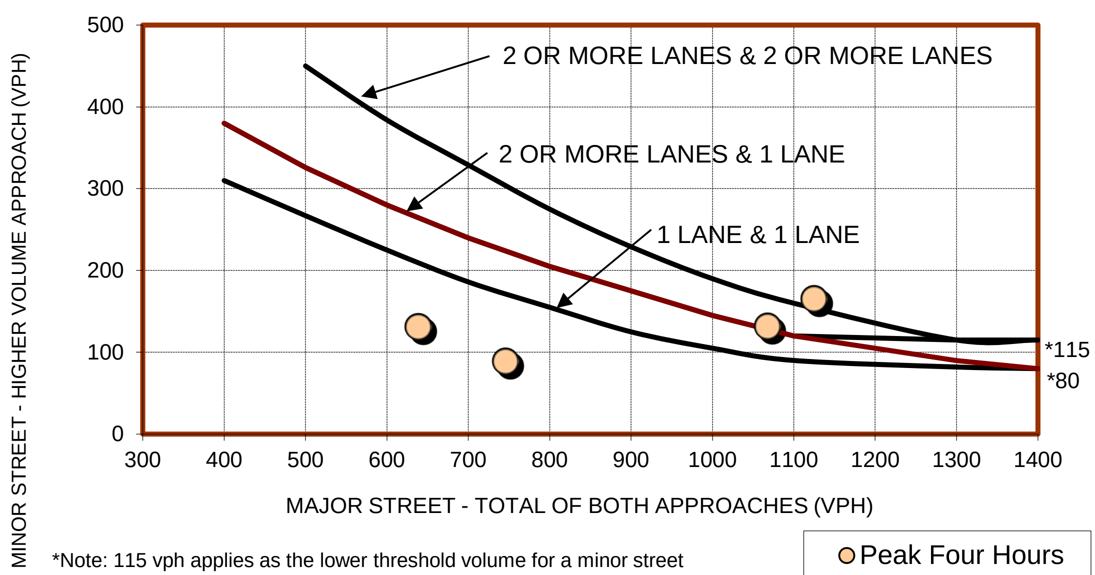
Analysis

	No of lanes
Major Street	1
Minor Street	1

Peak Four Hours

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
3:00 PM	1,068	132
4:00 PM	639	131
5:00 PM	1,125	166
6:00 PM	746	89

FIGURE 4C-1. FOUR HOUR VOLUME WARRANT



*Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor street approach with one or lane.

Warrant	Not Met

Warrant 3A: Peak Hour Delay

The peak hour delay warrant is intended for application where traffic conditions are such that for one hour of the day minor street traffic suffers undue delay in entering or crossing the major street. The peak hour delay warrant is satisfied when the conditions given below exist for one hour (any four consecutive 15-minute periods) of an average weekday.

The peak hour delay warrant is met when:

1. The total delay experienced by the traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach, and

2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes, and

3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four (or more) approaches or 650 vph for intersections with three approaches.

Analysis

Minor Street Lanes	1
Total Approaches	4
Time	5:00 PM

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced for the Intersection (vph)
Existing	3.9	148	1,055
Limiting Value	4	100	800
Met/ Not Met	Not Met	Met	Met

Warrant	Not Met

Warrant 3B: Peak Hour Volume

The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

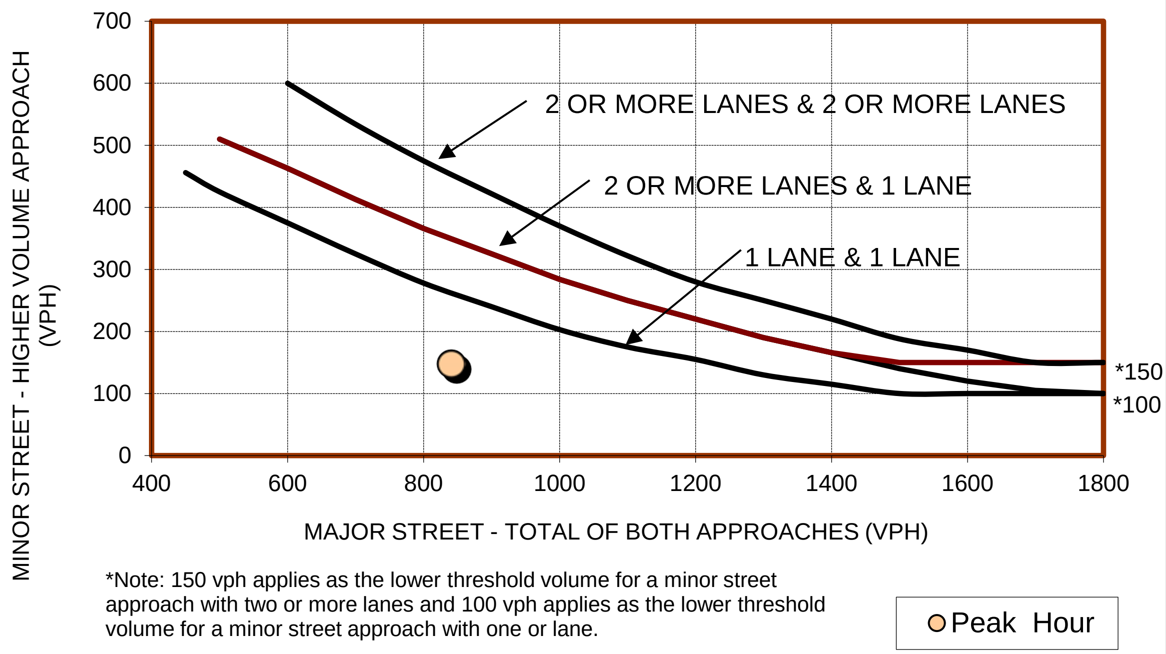
Analysis

	No of lanes
Major Street	1
Minor Street	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
5:00 PM	841	148

FIGURE 4C-3. PEAK HOUR VOLUME WARRANT



*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 or lane.

Warrant	Not Met

Warrant Summary (College Ave/Chabot Rd, Existing Plus Project, Summer)

Warrant 1: 8-Hour Vehicular Volume	Not Met
Warrant 1A: Minimum Vehicular Volume	**Not Met**
OR	
Warrant 1B: Interruption of Continuous Traffic	**Not Met**
OR	
Warrant 1C: 80% of Warrant 1A and 1B	**Not Met**
Warrant 2: 4-Hour Vehicular Volume	Not Met
Warrant 3: Peak Hour Vehicular Volume	Not Met
Warrant 3A: Peak Hour Delay	**Not Met**
OR	
Warrant 3B: Peak Hour Volume	**Not Met**
Warrant 4: Pedestrian Volume	N/A
Warrant 4A: 4 Hours Pedestrian Volume	**N/A**
OR	
Warrant 4B: Peak Hour Pedestrian Volume	**N/A**
AND	
Warrant 4C: Gap Analysis	**N/A**
Warrant 7: Crash Experience	N/A
Warrant 7A: Five or more reported crashes	**N/A**
AND ONE OF	
Warrant 7B: 80% of Warrant 1A Met?	**N/A**
OR	
Warrant 7C: 80% of Warrant 1B Met?	**N/A**
OR	
Warrant 7D: 80% of Warrant 4 Met?	**N/A**

Warrant 1A: Minimum Vehicular Volume

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection.

Number of lanes for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	500	150
2 or more	1	600	150
2 or more	2 or more	600	200
1	2 or more	500	200

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Minimum Vehicular Volume warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	1
Minor Street	1

Time	Major Street: Volume on major street (total of both approaches)	Major Street Threshhold: URBAN 500	Minor Street: Veh/hour on higher volume minor street (one direction only)	Minor Street Threshhold: URBAN 150	Warrants MET/NOT
8:00 AM	756		118		NOT MET
12:00 PM	722		87		NOT MET
1:00 PM	767		81		NOT MET
2:00 PM	769		71		NOT MET
3:00 PM	1,107		158		MET
4:00 PM	639		131		NOT MET
5:00 PM	1,104		154		MET
6:00 PM	749		88		NOT MET

Number of hours for which warrant met	2
Percentage by which warrant met	25.0%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	1
Minor Street	1

Time	Major Street: Volume on major street (total of both	Major Street Threshhold: URBAN 400	Minor Street: Veh/hour on higher volume minor street	Minor Street Threshhold: URBAN 120	Warrants MET/NOT
8:00 AM	756		118		NOT MET
12:00 PM	722		87		NOT MET
1:00 PM	767		81		NOT MET
2:00 PM	769		71		NOT MET
3:00 PM	1,107		158		MET
4:00 PM	639		131		MET
5:00 PM	1,104		154		MET
6:00 PM	749		88		NOT MET

Number of hours for which warrant met	3
Percentage by which warrant met	37.5%

Warrant	Not Met

Warrant 1B: Interruption of Continuous Traffic

The warrant is satisfied when, for each of any 8 hours of an average day, the traffic volumes given in the table below exist on the major street and on the higher-volume minor street approach to the intersection, and signal installation will not seriously disrupt progressive traffic flow.

Number of lines for moving traffic on each approach: Major Street	Minor Street	Vehicles per hour on major street (total ofboth approaches)	Vehicles per hour on higher-volume minor-street approach (one direction only)
1	1	750	75
2 or more	1	900	75
2 or more	2 or more	900	100
1	2 or more	750	100

The major-street and minor -street volumes are for the same 8 hours. During those 8 hours, the direction of higher volume on the minor street may be on one approach during some hours and on the opposite approach during other hours.

When the 85-percentile speed of major-street exceeds 40 mph in either an urban or rural area, or when the intersection lies within the built-up area of an isolated community having a population of less than 10,000, the Interruption of Continuous Traffic warrant is 70 percent of the requirements above.

Analysis

	No of lanes
Major Street	1
Minor Street	1

Time	Major Street		Minor Street		Warrants MET/NOT
	Volume on major (total of both approaches)	Threshhold URBAN 750	Veh/hour on higher volume minor (one direction only)	Threshhold URBAN 75	
8:00 AM	756		118		MET
12:00 PM	722		87		NOT MET
1:00 PM	767		81		MET
2:00 PM	769		71		NOT MET
3:00 PM	1,107		158		MET
4:00 PM	639		131		NOT MET
5:00 PM	1,104		154		MET
6:00 PM	749		88		NOT MET

Number of hours for which warrant met	4
Percentage by which warrant met	50.0%

Warrant	Not Met

80% Warrant

	No of lanes
Major Street	2
Minor Street	1

Time	Major Street		Minor Street		Warrants MET/NOT
	Volume on major (total of both	Threshhold URBAN 600	Veh/hour on higher volume minor (one	Threshhold URBAN 60	
8:00 AM	756		118		MET
12:00 PM	722		87		MET
1:00 PM	767		81		MET
2:00 PM	769		71		MET
3:00 PM	1,107		158		MET
4:00 PM	639		131		MET
5:00 PM	1,104		154		MET
6:00 PM	749		88		MET

Number of hours for which warrant met	8
Percentage by which warrant met	100.0%

Warrant	Met

Warrant 1C: Combination of Warrants

In exceptional cases, signals occasionally may be justified where no single warrant is satisfied but where Warrants 1A and 1B are satisfied to the extent of 80% or more of the stated values.

Analysis

80% of Warrant 1A Met	NO
80% of Warrant 1B Met	YES

Warrant	Not Met

Warrant 2: Four-Hour Vehicular Volumes

The Four Hour Volume Warrant is satisfied when each of any four hours of an average day the plotted points representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour on the higher volume minor street approach (one direction only) all fall above the curve in Figure 4C-1 for the existing combination of approach lanes.

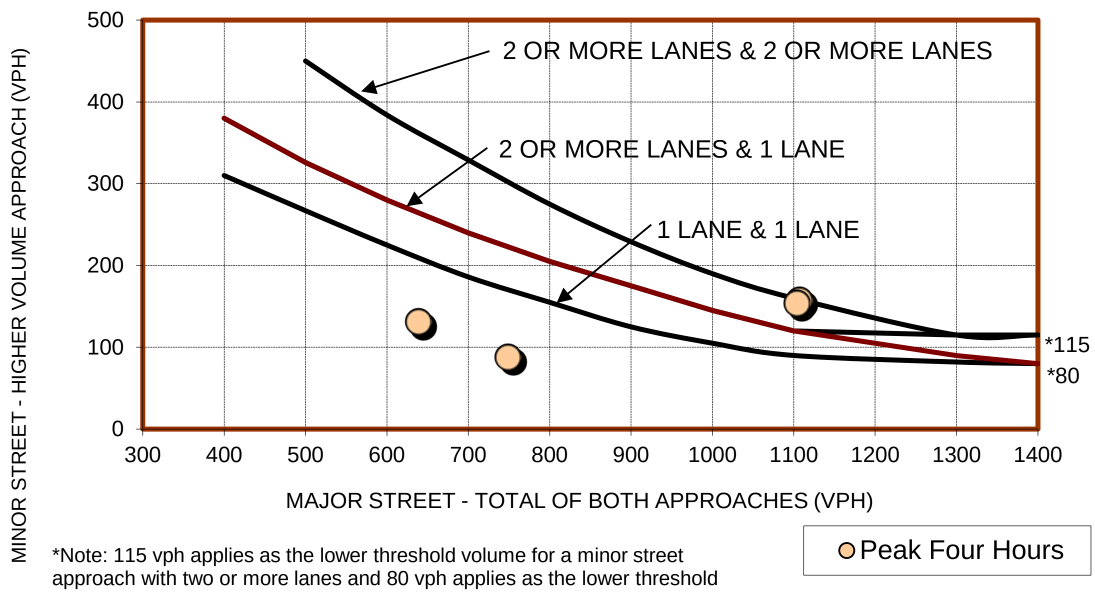
Analysis

	No of lanes
Major Street	1
Minor Street	1

Peak Four Hours

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
3:00 PM	1,107	158
4:00 PM	639	131
5:00 PM	1,104	154
6:00 PM	749	88

FIGURE 4C-1. FOUR HOUR VOLUME WARRANT



*Note: 115 vph applies as the lower threshold volume for a minor street approach with two or more lanes and 80 vph applies as the lower threshold volume for a minor street approach with one or lane.

Warrant	Not Met

Warrant 3A: Peak Hour Delay

The peak hour delay warrant is intended for application where traffic conditions are such that for one hour of the day minor street traffic suffers undue delay in entering or crossing the major street. The peak hour delay warrant is satisfied when the conditions given below exist for one hour (any four consecutive 15-minute periods) of an average weekday.

The peak hour delay warrant is met when:

1. The total delay experienced by the traffic on one minor street approach (one direction only) controlled by a STOP sign equals or exceeds four vehicle-hours for a one-lane approach and five vehicle-hours for a two-lane approach, and

2. The volume on the same minor street approach (one direction only) equals or exceeds 100 vph for one moving lane of traffic or 150 vph for two moving lanes, and

3. The total entering volume serviced during the hour equals or exceeds 800 vph for intersections with four (or more) approaches or 650 vph for intersections with three approaches.

Analysis

Minor Street Lanes	1
Total Approaches	4
Time	5:00 PM

	Peak Hour Delay on Minor Approach (vehicle-hours)	Peak Hour Volume on Minor Approach (vph)	Peak Hour Entering Volume Serviced for the Intersection (vph)
Existing	1.0	104	1,055
Limiting Value	4	100	800
Met/ Not Met	Not Met	Met	Met

Warrant	Not Met

Warrant 3B: Peak Hour Volume

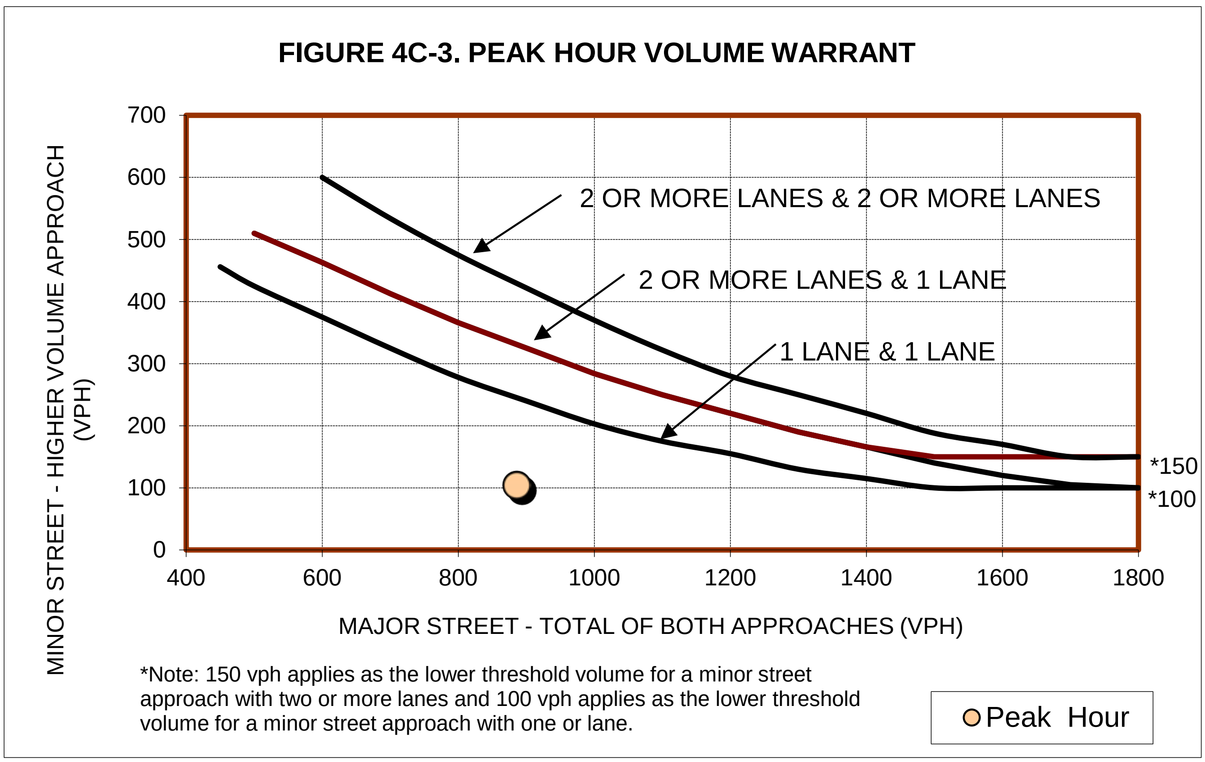
The peak hour volume warrant is satisfied when the plotted point representing the vehicles per hour on the major street (total of both approaches) and the corresponding vehicles per hour of the higher volume minor street approach (one direction only) for one hour (any four consecutive 15-minute periods) of an average day falls above the curve in Figure 4-5 for the existing combination of approach lanes.

Analysis

	No of lanes
Major Street	1
Minor Street	1

Peak Hour

Time	Vehicles Per Hour	
	Major Street (Sum of both approaches)	Minor street (High volume approach)
4:15 PM	886	104



Warrant	Not Met

Appendix E
Predicted Crash Frequency Calculations

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		**Location Information**	
Analyst	Molly Riddle	Roadway	College Avenue
Agency or Company	Fehr & Peers	Intersection	Claremont Avenue
Date Performed	01/23/24	Jurisdiction	City of Oakland, CA
		Analysis Year	2024

Input Data		**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ = 67,700 (veh/day)	--	8,430
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ = 33,400 (veh/day)	--	8,020
Intersection lighting (present/not present)		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	1
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]		0	2
Type of left-turn signal phasing for Leg #1		--	Protected
Type of left-turn signal phasing for Leg #2		--	Permissive
Type of left-turn signal phasing for Leg #3		--	Protected
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Permissive
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	1
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			2,710
Maximum number of lanes crossed by a pedestrian (n_{lanesx})		--	4
Number of bus stops within 300 m (1,000 ft) of the intersection		--	11
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	15

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	0.94	0.96	0.98	0.91	1.00	0.65

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	2.117	1.000	2.117	0.65	1.00	1.381
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	0.609	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.299	0.632	0.65	1.00	0.413
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	1.430	$(5)_{TOTAL}-(5)_{FI}$ 0.701	1.485	0.65	1.00	0.968

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	0.413	1.000	0.968	1.381
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.450	0.186	0.483	0.468	0.653
Head-on collision	0.049	0.020	0.030	0.029	0.049
Angle collision	0.347	0.143	0.244	0.236	0.379
Sideswipe	0.099	0.041	0.032	0.031	0.072
Other multiple-vehicle collision	0.055	0.023	0.211	0.204	0.227

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	0.195	1.000	0.195	0.65	1.00	0.127
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.064	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.329	0.064	0.65	1.00	0.042
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.130	$(5)_{TOTAL}-(5)_{FI}$ 0.671	0.131	0.65	1.00	0.085

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	0.042	1.000	0.085	0.127
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(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	0.031	0.870	0.074	0.105
Collision with other object	0.072	0.003	0.070	0.006	0.009
Other single-vehicle collision	0.040	0.002	0.023	0.002	0.004
Single-vehicle noncollision	0.141	0.006	0.034	0.003	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	--	--	--	--	--
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)
4.15	1.00	1.56	6.47

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	0.143	6.47	1.00	0.928
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.928

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	1.381	0.127	1.508	0.015	0.023
Fatal and injury (FI)	--	--	--	--	0.023

* 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)	0.186	0.468	0.653
Head-on collisions (from Worksheet 2D)	0.020	0.029	0.049
Angle collisions (from Worksheet 2D)	0.143	0.236	0.379
Sideswipe (from Worksheet 2D)	0.041	0.031	0.072
Other multiple-vehicle collision (from Worksheet 2D)	0.023	0.204	0.227
Subtotal	0.413	0.968	1.381
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)	0.031	0.074	0.105
Collision with other object (from Worksheet 2F)	0.003	0.006	0.009
Other single-vehicle collision (from Worksheet 2F)	0.002	0.002	0.004
Single-vehicle noncollision (from Worksheet 2F)	0.006	0.003	0.009
Collision with pedestrian (from Worksheet 2G or 2I)	0.928	0.000	0.928
Collision with bicycle (from Worksheet 2J)	0.023	0.000	0.023
Subtotal	0.992	0.085	1.078
Total	1.405	1.054	2.459

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	2.5
Fatal and injury (FI)	1.4
Property damage only (PDO)	1.1

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		**Location Information**	
Analyst	Molly Riddle	Roadway	Claremont Avenue
Agency or Company	Fehr & Peers	Intersection	Chabot Road
Date Performed	01/23/24	Jurisdiction	City of Oakland, CA
		Analysis Year	2024

Input Data		**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)		--	3ST
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ = 45,700 (veh/day)	--	11,090
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ = 9,300 (veh/day)	--	540
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	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})		--	4
Number of bus stops within 300 m (1,000 ft) of the intersection		0	4
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	1

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)
1.00	1.00	1.00	1.00	0.91	1.00	0.91

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	0.643	1.000	0.643	0.91	1.00	0.585
Fatal and Injury (FI)	-14.01	1.16	0.30	0.69	0.268	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.420	0.270	0.91	1.00	0.245
Property Damage Only (PDO)	-15.38	1.20	0.51	0.77	0.370	$(5)_{TOTAL}-(5)_{FI}$ 0.580	0.373	0.91	1.00	0.339

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	0.245	1.000	0.339	0.585
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.421	0.103	0.440	0.149	0.253
Head-on collision	0.045	0.011	0.023	0.008	0.019
Angle collision	0.343	0.084	0.262	0.089	0.173
Sideswipe	0.126	0.031	0.040	0.014	0.044
Other multiple-vehicle collision	0.065	0.016	0.235	0.080	0.096

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	0.121	1.000	0.121	0.91	1.00	0.110
Fatal and Injury (FI)	--	--	--	--	0.038	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.329	0.040	0.91	1.00	0.036
Property Damage Only (PDO)	-8.36	0.25	0.55	1.29	0.076	$(5)_{TOTAL}-(5)_{FI}$ 0.671	0.081	0.91	1.00	0.074

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	0.036	1.000	0.074	0.110
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(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	0.001	0.001
Collision with fixed object	0.762	0.028	0.834	0.062	0.089
Collision with other object	0.090	0.003	0.092	0.007	0.010
Other single-vehicle collision	0.039	0.001	0.023	0.002	0.003
Single-vehicle noncollision	0.105	0.004	0.030	0.002	0.006

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	0.585	0.110	0.695	0.021	0.015
Fatal and injury (FI)	--	--	--	--	0.015

* 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	0.585	0.110	0.695	0.016	0.011
Fatal and injury (FI)	--	--	--	--	0.011

* 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)	0.103	0.149	0.253
Head-on collisions (from Worksheet 2D)	0.011	0.008	0.019
Angle collisions (from Worksheet 2D)	0.084	0.089	0.173
Sideswipe (from Worksheet 2D)	0.031	0.014	0.044
Other multiple-vehicle collision (from Worksheet 2D)	0.016	0.080	0.096
Subtotal	0.245	0.339	0.585
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)	0.028	0.062	0.089
Collision with other object (from Worksheet 2F)	0.003	0.007	0.010
Other single-vehicle collision (from Worksheet 2F)	0.001	0.002	0.003
Single-vehicle noncollision (from Worksheet 2F)	0.004	0.002	0.006
Collision with pedestrian (from Worksheet 2G or 2I)	0.015	0.000	0.015
Collision with bicycle (from Worksheet 2J)	0.011	0.000	0.011
Subtotal	0.062	0.074	0.136
Total	0.307	0.413	0.720

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	0.7
Fatal and injury (FI)	0.3
Property damage only (PDO)	0.4

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		**Location Information**	
Analyst	Molly Riddle	Roadway	College Avenue
Agency or Company	Fehr & Peers	Intersection	Chabot Road
Date Performed	01/23/24	Jurisdiction	City of Oakland, CA
		Analysis Year	2024

Input Data		**Base Conditions**	**Site Conditions**
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4ST
AADT $_{major}$ (veh/day)	$AADT_{MAX}$ = 46,800 (veh/day)	--	8,840
AADT $_{minor}$ (veh/day)	$AADT_{MAX}$ = 5,900 (veh/day)	--	1,790
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	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		--	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})		--	2
Number of bus stops within 300 m (1,000 ft) of the intersection		0	10
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	11

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)
1.00	1.00	1.00	1.00	0.91	1.00	0.91

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	-8.90	0.82	0.25	0.40	1.528	1.000		1.528	0.91	1.00	1.395
Fatal and Injury (FI)	-11.13	0.93	0.28	0.48	0.559	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$	0.363	0.555	0.91	1.00	0.507
Property Damage Only (PDO)	-8.74	0.77	0.23	0.40	0.980	$(5)_{TOTAL}-(5)_{FI}$	0.637	0.973	0.91	1.00	0.888

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	0.507	1.000	0.888	1.395
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.338	0.171	0.374	0.332	0.503
Head-on collision	0.041	0.021	0.030	0.027	0.047
Angle collision	0.440	0.223	0.335	0.298	0.520
Sideswipe	0.121	0.061	0.044	0.039	0.100
Other multiple-vehicle collision	0.060	0.030	0.217	0.193	0.223

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	-5.33	0.33	0.12	0.65	0.239	1.000		0.239	0.91	1.00	0.218
Fatal and Injury (FI)	--	--	--	--	0.067	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$	0.308	0.074	0.91	1.00	0.067
Property Damage Only (PDO)	-7.04	0.36	0.25	0.54	0.150	$(5)_{TOTAL}-(5)_{FI}$	0.692	0.165	0.91	1.00	0.151

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	0.067	1.000	0.151	0.218
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.001	0.000	0.026	0.004	0.004
Collision with fixed object	0.679	0.046	0.847	0.128	0.173
Collision with other object	0.089	0.006	0.070	0.011	0.017
Other single-vehicle collision	0.051	0.003	0.007	0.001	0.004
Single-vehicle noncollision	0.179	0.012	0.049	0.007	0.019

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	1.395	0.218	1.613	0.022	0.035
Fatal and injury (FI)	--	--	--	--	0.035

* 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	1.395	0.218	1.613	0.018	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)	0.171	0.332	0.503
Head-on collisions (from Worksheet 2D)	0.021	0.027	0.047
Angle collisions (from Worksheet 2D)	0.223	0.298	0.520
Sideswipe (from Worksheet 2D)	0.061	0.039	0.100
Other multiple-vehicle collision (from Worksheet 2D)	0.030	0.193	0.223
Subtotal	0.507	0.888	1.395
SINGLE-VEHICLE			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.004	0.004
Collision with fixed object (from Worksheet 2F)	0.046	0.128	0.173
Collision with other object (from Worksheet 2F)	0.006	0.011	0.017
Other single-vehicle collision (from Worksheet 2F)	0.003	0.001	0.004
Single-vehicle noncollision (from Worksheet 2F)	0.012	0.007	0.019
Collision with pedestrian (from Worksheet 2G or 2I)	0.035	0.000	0.035
Collision with bicycle (from Worksheet 2J)	0.029	0.000	0.029
Subtotal	0.132	0.151	0.282
Total	0.638	1.039	1.677

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	1.7
Fatal and injury (FI)	0.6
Property damage only (PDO)	1.0

Worksheet 1A -- General Information and Input Data for Urban and Suburban Roadway Segments

General Information		Location Information	
Analyst	Molly Riddle	Roadway	Claremont Avenue
Agency or Company	Fehr & Peers	Roadway Section	Chabot Road to College Avenue
Date Performed	01/23/24	Jurisdiction	City of Oakland, CA
		Analysis Year	2024

Input Data		Base Conditions	Site Conditions
Roadway type (2U, 3T, 4U, 4D, ST)		--	4U
Length of segment, L (mi)		--	0.26
AADT (veh/day)	$AADT_{MAX}$ = 40,100 (veh/day)	--	11,900
Type of on-street parking (none/parallel/angle)		None	Parallel (Residential)
Proportion of curb length with on-street parking		--	0.8
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)		--	4
Major industrial / institutional driveways (number)		--	0
Minor industrial / institutional driveways (number)		--	0
Major residential driveways (number)		--	2
Minor residential driveways (number)		--	25
Other driveways (number)		--	0
Speed Category		--	Posted Speed 30 mph or Lower
Roadside fixed object density (fixed objects / mi)		0	230
Offset to roadside fixed objects (ft) [If greater than 30 or Not Present, input 30]		30	12
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)
1.08	1.62	1.00	0.92	1.00	1.61

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	-11.63	1.33	1.01	0.609	1.000	0.609	1.61	1.00	0.979
Fatal and Injury (FI)	-12.08	1.25	0.99	0.183	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.316	0.193	1.61	1.00	0.310
Property Damage Only (PDO)	-12.53	1.38	1.08	0.396	$(5)_{TOTAL}-(5)_{FI}$	0.416	1.61	1.00	0.669

Property Damage Only (PDO)	[illegible]	[illegible]	[illegible]	[illegible]	0.684	[illegible]	[illegible]	[illegible]	[illegible]

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	0.310	1.000	0.669	0.979
		(2)*(3)$_{FI}$		(4)*(5)$_{PDO}$	(3)+(5)
Rear-end collision	0.511	0.158	0.506	0.339	0.497
Head-on collision	0.077	0.024	0.004	0.003	0.027
Angle collision	0.181	0.056	0.130	0.087	0.143
Sideswipe, same direction	0.093	0.029	0.249	0.167	0.195
Sideswipe, opposite direction	0.082	0.025	0.031	0.021	0.046
Other multiple-vehicle collision	0.056	0.017	0.080	0.054	0.071

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	-7.99	0.81	0.91	0.176	1.000	0.176	1.61	1.00	0.283
Fatal and Injury (FI)	-7.37	0.61	0.54	0.050	(4)$_{FI}$/((4)$_{FI}$+(4)$_{PDO}$) 0.263	0.046	1.61	1.00	0.075
Property Damage Only (PDO)	-8.50	0.84	0.97	0.140	(5)$_{TOTAL}$-(5)$_{FI}$ 0.737	0.130	1.61	1.00	0.209

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	0.075	1.000	0.209	0.283
		(2)*(3)$_{FI}$		(4)*(5)$_{PDO}$	(3)+(5)
Collision with animal	0.001	0.000	0.001	0.000	0.000
Collision with fixed object	0.612	0.046	0.809	0.169	0.215
Collision with other object	0.020	0.001	0.029	0.006	0.008
Other single-vehicle collision	0.367	0.027	0.161	0.034	0.061

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	0.182	1.172	0.000	--
Minor commercial	4	0.058	1.172	0.177	
Major industrial/institutional	0	0.198	1.172	0.000	
Minor industrial/institutional	0	0.026	1.172	0.000	
Major residential	2	0.096	1.172	0.146	
Minor residential	25	0.018	1.172	0.343	
Other	0	0.029	1.172	0.000	
Total	--	--	--	0.666	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	0.666	1.000	0.666	1.61	1.00	1.071
Fatal and injury (FI)	--	0.342	0.228	1.61	1.00	0.366
Property damage only (PDO)	--	0.658	0.438	1.61	1.00	0.705

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	0.979	0.283	1.071	2.334	0.022	0.051
Fatal and injury (FI)	--	--	--	--	--	0.051

* 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	0.979	0.283	1.071	2.334	0.011	0.026
Fatal and injury (FI)	--	--	--	--	--	0.026

* 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)	0.158	0.339	0.497
Head-on collisions (from Worksheet 1D)	0.024	0.003	0.027
Angle collisions (from Worksheet 1D)	0.056	0.087	0.143
Sideswipe, same direction (from Worksheet 1D)	0.029	0.167	0.195
Sideswipe, opposite direction (from Worksheet 1D)	0.025	0.021	0.046
Driveway-related collisions (from Worksheet 1H)	0.366	0.705	1.071
Other multiple-vehicle collision (from Worksheet 1D)	0.017	0.054	0.071
Subtotal	0.676	1.374	2.050
SINGLE-VEHICLE			
Collision with animal (from Worksheet 1F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 1F)	0.046	0.169	0.215
Collision with other object (from Worksheet 1F)	0.001	0.006	0.008
Other single-vehicle collision (from Worksheet 1F)	0.027	0.034	0.061
Collision with pedestrian (from Worksheet 1I)	0.051	0.000	0.051
Collision with bicycle (from Worksheet 1J)	0.026	0.000	0.026
Subtotal	0.152	0.209	0.360
Total	0.828	1.583	2.411

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	2.4	0.26	9.3
Fatal and injury (FI)	0.8	0.26	3.2
Property damage only (PDO)	1.6	0.26	6.1

Worksheet 1A -- General Information and Input Data for Urban and Suburban Roadway Segments			
General Information		**Location Information**	
Analyst	Molly Riddle	Roadway	College Avenue
Agency or Company	Fehr & Peers	Roadway Section	Chabot Road to Claremont Avenue
Date Performed	01/23/24	Jurisdiction	City of Oakland, CA
		Analysis Year	2024

Input Data		**Base Conditions**	**Site Conditions**
Roadway type (2U, 3T, 4U, 4D, ST)		--	2U
Length of segment, L (mi)		--	0.14
AADT (veh/day)	$AADT_{MAX}$ = 32,600 (veh/day)	--	10,500
Type of on-street parking (none/parallel/angle)		None	Parallel (Comm/Ind)
Proportion of curb length with on-street parking		--	0.7
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)		--	1
Major industrial / institutional driveways (number)		--	0
Minor industrial / institutional driveways (number)		--	0
Major residential driveways (number)		--	0
Minor residential driveways (number)		--	3
Other driveways (number)		--	0
Speed Category		--	Posted Speed 30 mph or Lower
Roadside fixed object density (fixed objects / mi)		0	500
Offset to roadside fixed objects (ft) [If greater than 30 or Not Present, input 30]		30	14
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)
1.75	3.02	1.00	0.93	1.00	4.93

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	0.196	1.000	0.196	4.93	1.00	0.965
Fatal and Injury (FI)	-16.22	1.66	0.65	0.060	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.294	0.057	4.93	1.00	0.284
Property Damage Only (PDO)	-15.62	1.69	0.87	0.144	$(5)_{TOTAL}-(5)_{FI}$	0.138	4.93	1.00	0.682

Property Damage Only (PDO)	[illegible]	[illegible]	[illegible]	[illegible]	0.706	[illegible]	[illegible]	[illegible]

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	0.284	1.000	0.682	0.965
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Rear-end collision	0.730	0.207	0.778	0.531	0.738
Head-on collision	0.068	0.019	0.004	0.003	0.022
Angle collision	0.085	0.024	0.079	0.054	0.078
Sideswipe, same direction	0.015	0.004	0.031	0.021	0.025
Sideswipe, opposite direction	0.073	0.021	0.055	0.038	0.058
Other multiple-vehicle collision	0.029	0.008	0.053	0.036	0.044

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	0.105	1.000	0.105	4.93	1.00	0.519
Fatal and Injury (FI)	-3.96	0.23	0.50	0.022	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.223	0.024	4.93	1.00	0.116
Property Damage Only (PDO)	-6.51	0.64	0.87	0.078	$(5)_{TOTAL}-(5)_{FI}$ 0.777	0.082	4.93	1.00	0.403

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	0.116	1.000	0.403	0.519
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	(3)+(5)
Collision with animal	0.026	0.003	0.066	0.027	0.030
Collision with fixed object	0.723	0.084	0.759	0.306	0.390
Collision with other object	0.010	0.001	0.013	0.005	0.006
Other single-vehicle collision	0.241	0.028	0.162	0.065	0.093

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	1	0.050	1.000	0.035	
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	3	0.016	1.000	0.034	
Other	0	0.025	1.000	0.000	
Total	--	--	--	0.069	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	0.069	1.000	0.069	4.93	1.00	0.338
Fatal and injury (FI)	--	0.323	0.022	4.93	1.00	0.109
Property damage only (PDO)	--	0.677	0.046	4.93	1.00	0.229

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	0.965	0.519	0.338	1.823	0.036	0.066
Fatal and injury (FI)	--	--	--	--	--	0.066

* 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	0.965	0.519	0.338	1.823	0.018	0.033
Fatal and injury (FI)	--	--	--	--	--	0.033

* 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)	0.207	0.531	0.738
Head-on collisions (from Worksheet 1D)	0.019	0.003	0.022
Angle collisions (from Worksheet 1D)	0.024	0.054	0.078
Sideswipe, same direction (from Worksheet 1D)	0.004	0.021	0.025
Sideswipe, opposite direction (from Worksheet 1D)	0.021	0.038	0.058
Driveway-related collisions (from Worksheet 1H)	0.109	0.229	0.338
Other multiple-vehicle collision (from Worksheet 1D)	0.008	0.036	0.044
Subtotal	0.393	0.911	1.304
SINGLE-VEHICLE			
Collision with animal (from Worksheet 1F)	0.003	0.027	0.030
Collision with fixed object (from Worksheet 1F)	0.084	0.306	0.390
Collision with other object (from Worksheet 1F)	0.001	0.005	0.006
Other single-vehicle collision (from Worksheet 1F)	0.028	0.065	0.093
Collision with pedestrian (from Worksheet 1I)	0.066	0.000	0.066
Collision with bicycle (from Worksheet 1J)	0.033	0.000	0.033
Subtotal	0.214	0.403	0.618
Total	0.607	1.314	1.922

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	1.9	0.14	13.7
Fatal and injury (FI)	0.6	0.14	4.3
Property damage only (PDO)	1.3	0.14	9.4

Worksheet 1A -- General Information and Input Data for Urban and Suburban Roadway Segments			
General Information		**Location Information**	
Analyst	Molly Riddle	Roadway	Chabot Road
Agency or Company	Fehr & Peers	Roadway Section	College Avenue to Claremont Avenue
Date Performed	01/23/24	Jurisdiction	City of Oakland, CA
		Analysis Year	2024

Input Data		**Base Conditions**	**Site Conditions**
Roadway type (2U, 3T, 4U, 4D, ST)		--	2U
Length of segment, L (mi)		--	0.18
AADT (veh/day)	$AADT_{MAX}$ = 32,600 (veh/day)	--	1,800
Type of on-street parking (none/parallel/angle)		None	Parallel (Residential)
Proportion of curb length with on-street parking		--	0.9
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)		--	1
Minor commercial driveways (number)		--	1
Major industrial / institutional driveways (number)		--	0
Minor industrial / institutional driveways (number)		--	0
Major residential driveways (number)		--	0
Minor residential driveways (number)		--	28
Other driveways (number)		--	0
Speed Category		--	Posted Speed 30 mph or Lower
Roadside fixed object density (fixed objects / mi)		0	350
Offset to roadside fixed objects (ft) [If greater than 30 or Not Present, input 30]		30	11
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)
1.42	2.63	1.00	0.93	1.00	3.48

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	0.013	1.000	0.013	3.48	1.00	0.045
Fatal and Injury (FI)	-16.22	1.66	0.65	0.004	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.305	0.004	3.48	1.00	0.014
Property Damage Only (PDO)	-15.62	1.69	0.87	0.009	$(5)_{TOTAL}-(5)_{FI}$	0.009	3.48	1.00	0.031

Property Damage Only (PDO)	[illegible]	[illegible]	[illegible]	[illegible]	0.695	[illegible]	[illegible]	[illegible]	[illegible]

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	0.014	1.000	0.031	0.045
		(2)*(3)$_{FI}$		(4)*(5)$_{PDO}$	(3)+(5)
Rear-end collision	0.730	0.010	0.778	0.024	0.035
Head-on collision	0.068	0.001	0.004	0.000	0.001
Angle collision	0.085	0.001	0.079	0.002	0.004
Sideswipe, same direction	0.015	0.000	0.031	0.001	0.001
Sideswipe, opposite direction	0.073	0.001	0.055	0.002	0.003
Other multiple-vehicle collision	0.029	0.000	0.053	0.002	0.002

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	0.050	1.000	0.050	3.48	1.00	0.175
Fatal and Injury (FI)	-3.96	0.23	0.50	0.019	(4)$_{FI}$/((4)$_{FI}$+(4)$_{PDO}$) 0.372	0.019	3.48	1.00	0.065
Property Damage Only (PDO)	-6.51	0.64	0.87	0.032	(5)$_{TOTAL}$-(5)$_{FI}$ 0.628	0.032	3.48	1.00	0.110

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	0.065	1.000	0.110	0.175
		(2)*(3)$_{FI}$		(4)*(5)$_{PDO}$	(3)+(5)
Collision with animal	0.026	0.002	0.066	0.007	0.009
Collision with fixed object	0.723	0.047	0.759	0.084	0.131
Collision with other object	0.010	0.001	0.013	0.001	0.002
Other single-vehicle collision	0.241	0.016	0.162	0.018	0.034

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	1	0.158	1.000	0.019	
Minor commercial	1	0.050	1.000	0.006	
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	28	0.016	1.000	0.054	
Other	0	0.025	1.000	0.000	
Total	--	--	--	0.079	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	0.079	1.000	0.079	3.48	1.00	0.274
Fatal and injury (FI)	--	0.323	0.025	3.48	1.00	0.088
Property damage only (PDO)	--	0.677	0.053	3.48	1.00	0.185

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	0.045	0.175	0.274	0.494	0.036	0.018
Fatal and injury (FI)	--	--	--	--	--	0.018

* 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	0.045	0.175	0.274	0.494	0.018	0.009
Fatal and injury (FI)	--	--	--	--	--	0.009

* 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)	0.010	0.024	0.035
Head-on collisions (from Worksheet 1D)	0.001	0.000	0.001
Angle collisions (from Worksheet 1D)	0.001	0.002	0.004
Sideswipe, same direction (from Worksheet 1D)	0.000	0.001	0.001
Sideswipe, opposite direction (from Worksheet 1D)	0.001	0.002	0.003
Driveway-related collisions (from Worksheet 1H)	0.088	0.185	0.274
Other multiple-vehicle collision (from Worksheet 1D)	0.000	0.002	0.002
Subtotal	0.102	0.217	0.319
SINGLE-VEHICLE			
Collision with animal (from Worksheet 1F)	0.002	0.007	0.009
Collision with fixed object (from Worksheet 1F)	0.047	0.084	0.131
Collision with other object (from Worksheet 1F)	0.001	0.001	0.002
Other single-vehicle collision (from Worksheet 1F)	0.016	0.018	0.034
Collision with pedestrian (from Worksheet 1I)	0.018	0.000	0.018
Collision with bicycle (from Worksheet 1J)	0.009	0.000	0.009
Subtotal	0.092	0.110	0.202
Total	0.194	0.327	0.521

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	0.5	0.18	2.9
Fatal and injury (FI)	0.2	0.18	1.1
Property damage only (PDO)	0.3	0.18	1.8

Appendix C

Jewish Community Campus Acoustical Study

Wilson Ihrig, September 13, 2024

WILSON IHRIG
ACOUSTICS, NOISE & VIBRATION

CALIFORNIA
WASHINGTON
NEW YORK

Jewish Community Campus

Acoustical Study

September 13, 2024

Prepared for:

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WI #23-122

Contents

1 Executive Summary of Findings and Recommendations

The following summarizes our findings and noise abatement recommendations.

- Worst-Case Noise-Generating Events. The predicted noise levels at each receptor during worst-case noise-generating events in each outdoor use area indicate limited areas of non-compliance with the City's noise level limits for the proposed design. Noise abatement measures are required for full compliance, which include a 14 ft. lengthwise extension of the solid wood fencing at the Outdoor Gathering Deck, a 5 ft. shift in the placement of the Ball Court, and a 0.5 ft. height extension of a segment of the solid wood fencing at Daycare Play Area C. These recommended abatement measures are detailed in Section 7.4. Additional recommendations for PA System usage limits with these abatement measures implemented are detailed in Section 7.5. With all recommendations followed, the project is expected to result in a less than significant noise impact on the surrounding environment.
- High Holiday Events. High Holiday events will include up to 500 people and will utilize both indoor and outdoor areas. Given the information detailed in Section 8.1, as provided by the Jewish Community Center, for the specific outdoor area used, the maximum number of occupants in the outdoor area, and the type of events the High Holidays will entail (somber, prayerful), we do not expect the noise levels generated by these events to exceed the City's noise level limits. Therefore, these isolated High Holiday events are expected to result in a less than significant noise impact on the surrounding environment.

2 Project Description

The Project, located at 5901 College Avenue in Oakland, will create a Jewish Community Campus – a place for the non-profit Jewish Community Center of the East Bay to expand their educational and community services while creating a hub for non-profit Jewish organizations. The existing property consists of 10 parcels that all currently operate as the Dreyer's Headquarters campus. The existing zoning of the parcels is a mix of commercial and residential. The surrounding land uses consist primarily of residential parcels and one church, as presented by the City of Oakland's Zoning Map[1].

Use of 5901 College Avenue will include Preschool, Administrative offices, Kosher café serving light food and beverages, and continued use of Retail spaces on College Ave. Use of 6028 Claremont will include Afterschool/Camp, Adult Education Classes, Health and Wellness activities (yoga, meditation, dance), Family events, Jewish holiday events, Cultural and Arts events, Mental health services, and Refugee services. Occasionally the Preschool and Afterschool/Camp will use each other's primary spaces, and both will use the outdoor playground and open space.

The Project will utilize the existing buildings and parking on the Property and would not change the location, size, or design of the buildings, except for some minor demolition at the rear of 6028 Claremont described below. The project retains all existing ground level retail facilities and replaces existing office use with preschool, after school, summer camp, and community class use.

The existing site will be modified to increase the outdoor space by removal of a small portion of the 6028 Claremont building and demolition of portions of existing at-grade parking lot paving to create outdoor play and assembly space at the center portion of the site.

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[1] https://www.oaklandca.gov/resources/zoning-map

We understand that the City of Oakland requires, as part of a Conditional Use Application, a noise study to show that the average noise will comply with City guidelines. In the case that the noise levels are too high, recommendations are required to identify some noise abatement strategies.

This study focuses on the noise generated by future activities in the outdoor use areas. Table 1 shows the outdoor use areas proposed with anticipated maximum quantities of students/people based on the Jewish Community Campus Site Program Schedule, dated April 5th, 2024.

Table 1: Anticipated Maximum Quantity of People in the Proposed Outdoor Use Areas

Outdoor Use Area	Anticipated Maximum Quantity of People
Daycare Play Area A	22
Daycare Play Area B	22
Daycare Play Area C	22
Outdoor Gathering Deck	120
Patio	10
Outdoor Stage	5
The Meadow	100
Pickleball Courts	12
Ball Court	10
Garden	6

Figure 1 shows the site plan of the proposed design indicating the locations of the outdoor use areas and the proposed perimeter fencing/walls.

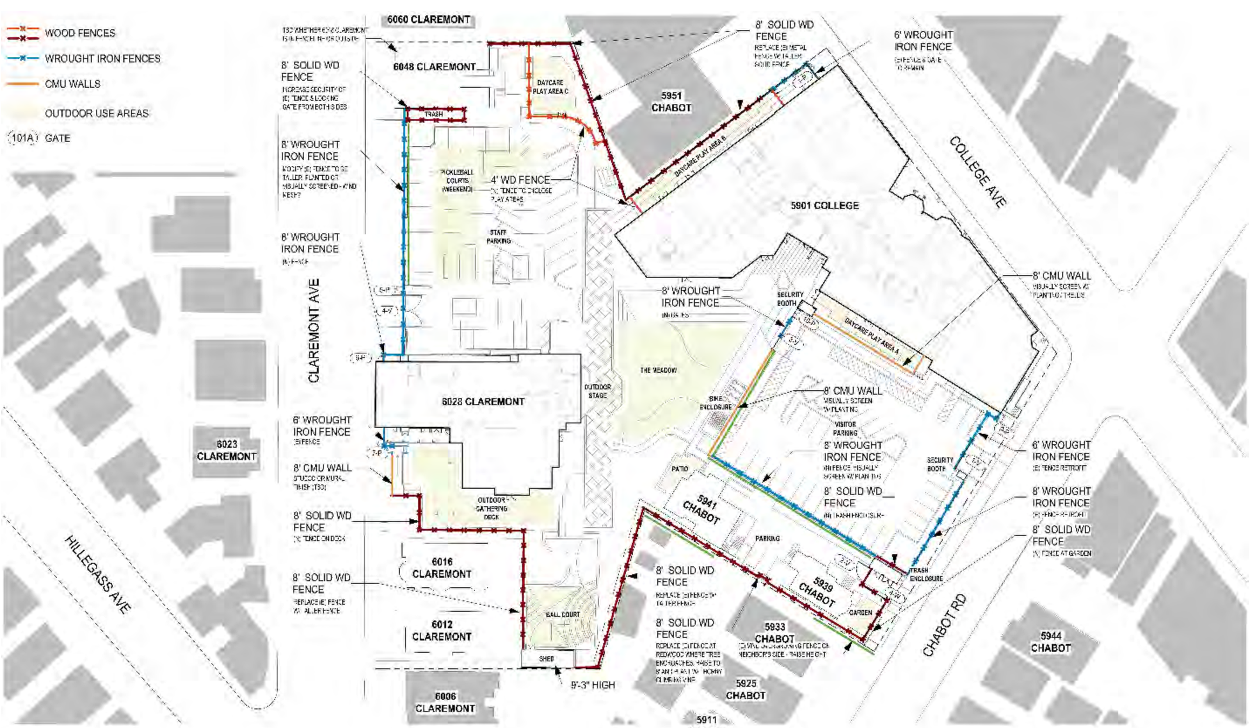

Figure 1: Jewish Community Campus Site Plan Showing Outdoor Use Areas

Wilson Ihrig conducted a noise propagation study by creating computer models of the future options to:

- Determine compliance with the City's property line noise limits.
- Develop noise abatement recommendations for the proposed design to comply with the City's property line noise limits.

3 Fundamentals of Noise

The following is a brief discussion of fundamental environmental noise concepts.

3.1 Sound, Noise and Acoustics

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound. In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver determines the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

3.2 Frequency

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low-frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

3.3 Sound Pressure Levels and Decibels

The amplitude of pressure waves generated by a sound source determines the loudness of that source. Sound pressure amplitude is measured in micro-Pascals (μPa). One μPa is approximately one hundred billionths (0.00000000001) of normal atmospheric pressure. Sound pressure amplitudes for different kinds of noise environments can range from less than 100 to 100,000,000 μPa. Because of this huge range of values, sound is rarely expressed in terms of μPa. Instead, a logarithmic scale is used to describe sound pressure level (SPL) in terms of decibels (dB). The threshold of hearing for young people is approximately about 0 dB, which corresponds to 20 μPa.

3.4 Addition of Decibels

Because decibels are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one automobile produces an SPL of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB—rather, they would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together produce a sound level 5 dB louder than one source.

3.5 A-Weighted Decibels

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear. Human hearing is limited in the range of audible frequencies as well as in the way it perceives the SPL in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies. Then, an “A-weighted” sound level (expressed in units of dBA) can be computed based on this information. The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgments correlate well with the A-scale sound levels of those sounds. Other weighting networks have been devised to address high noise levels or other special problems (e.g., B-, C-, and D-scales), but these scales are rarely used in conjunction with typical environmental noise. Figure 2 describes typical A-weighted noise levels for various noise sources.

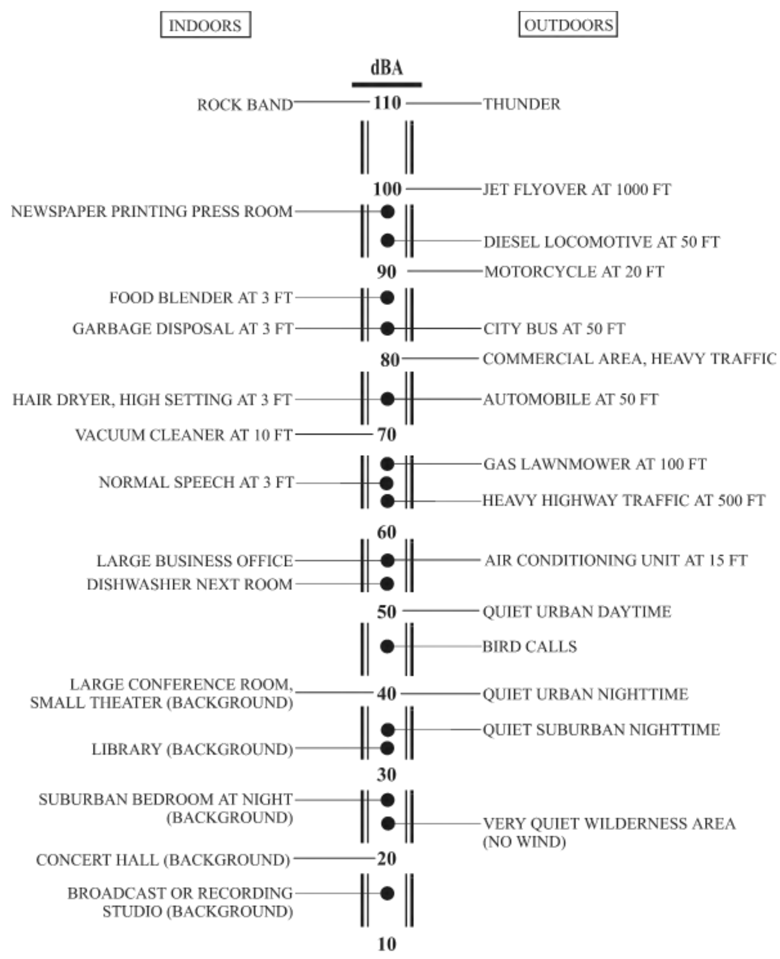

Figure 2: Decibel Scale and Common Noise Sources

3.6 Human Response to Changes in Noise Levels

As discussed above, doubling sound energy results in a 3-dB increase in sound. However, given a sound level change measured with precise instrumentation, the subjective human perception of a doubling of loudness will usually be different than what is measured.

Under controlled conditions in an acoustical laboratory, the trained, healthy human ear is able to discern 1-dB changes in sound levels, when exposed to steady, single-frequency ("pure-tone") signals in the mid frequency (1,000 Hz–8,000 Hz) range. In typical noisy environments, changes in noise of 1 to 2 dB are generally not perceptible. However, it is widely accepted that people are able to begin to detect sound level increases of 3 dB in typical noisy environments. Furthermore, a 5-dB increase is generally perceived as a distinctly noticeable increase, and a 10-dB increase is generally perceived as a doubling of loudness. Therefore, a doubling of sound energy (e.g., doubling the volume of traffic on a highway) that would result in a 3-dB increase in sound, would generally be perceived as barely detectable.

Table 2: Approximate Relationship between Increases in Environmental Noise Level and Human Perception

Noise Level Increase (dB)	Human Perception (typical)
up to about 3	not perceptible
about 3	barely perceptible
about 5	distinctly noticeable
about 10	twice as loud
about 20	four times as loud

3.7 Noise Sensitive Land Uses

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Noise-sensitive land uses typically include residences, hospitals, schools, guest lodging, libraries, and certain types of recreational uses. Noise-sensitive receptors are found throughout the action area. Receptors such as residential areas, schools, and hospitals are typically most concentrated in developed areas, but residences and other sensitive uses also occur in sparser distribution in rural/agricultural areas such as those surrounding the project.

3.8 Noise Descriptors

Noise in our daily environment fluctuates over time. Some fluctuations are minor, but some are substantial. Some noise levels occur in regular patterns, but others are random. Some noise levels fluctuate rapidly, but others slowly. Some noise levels vary widely, but others are relatively constant. Various noise descriptors have been developed to describe time-varying noise levels. The following are the noise descriptors most commonly used in environmental noise analysis:

- **Equivalent Sound Level (Leq):** Leq represents an average of the sound energy occurring over a specified period. In effect, Leq is the steady-state sound level containing the same acoustical energy as the time-varying sound that actually occurs during the same period. The 1-hour A-weighted equivalent sound level (Leq[h]) is the energy average of A-weighted sound levels occurring during a one-hour period, and is the basis for noise abatement criteria (NAC) used by Caltrans and FHWA.

- **Percentile-Exceeded Sound Level (Lxx):** Lxx represents the sound level exceeded for a given percentage of a specified period (e.g., L10 is the sound level exceeded 10% of the time, and L90 is the sound level exceeded 90% of the time).
- **Maximum Sound Level (Lmax):** Lmax is the highest instantaneous sound level measured during a specified period.

4 Regulatory Setting

The City of Oakland regulates noise created by facilities such as the proposed Community Campus through two Ordinances. The first one, *Chapter 8.18 of the Municipal Code – Nuisances* – is primarily a subjective nuisance Ordinance which lists several activities as potential causes of excessive or annoying noise but does not provide any quantitative decibel thresholds to determine what levels can be considered a nuisance.

The second one, *Title 17, Chapter 120 of the Planning Code* does provide decibel standards which, if exceeded, constitute a violation. For this project, the applicable criteria or thresholds of significance are shown in Figure 3.

A. Residential and Civic Noise Level Standards. The noise level received by any legal residential activity, school, child care, health care or nursing home, public open space, and similarly sensitive land use shall not exceed the following:

MAXIMUM ALLOWABLE RECEIVING NOISE LEVEL STANDARDS, dBA

Cumulative Number of Minutes in Either the Daytime or Night time One Hour Time Period	Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.
20	60	45
10	65	50
5	70	55
1	75	60
0	80	65

Figure 3: Residential and Civic Noise Level Limits per Oakland's Noise Ordinance

However, if the measured ambient noise level near the property line is higher than those listed in the table above, then such ambient level becomes the standard, per Subsection D:

D. In the event the measured ambient noise level exceeds the applicable noise level standard in any category above, the stated applicable noise level shall be adjusted so as to equal the ambient noise level.

Finally, if the type of noise contains speech, then a downwards adjustment will have to be made to the criteria, as per Subsection E:

E. Each of the noise level standards specified above in subsections A, B, and C shall be reduced by five dBA for a simple tone noise such as a whine, screech, or hum, noise consisting primarily of speech or music, or for recurring impulse noise such as hammering or riveting.

5 Environmental Setting

5.1 Ambient Noise Survey

The ambient noise survey consisted of long-term noise measurements conducted at four points along the project boundaries by means of four precision, calibrated Type I logging sound level meters left unattended for over seven days from January 12 to January 18, 2024. All long-term meters were positioned at a height of approximately 10 to 12 ft above grade. The sound meters monitored noise levels continuously for several 24-hour periods, providing hourly-averaged and statistical noise levels throughout the survey duration. Figure 4 shows the location of the long-term noise monitors and Table 3 presents a summary of the ambient noise measurement results.

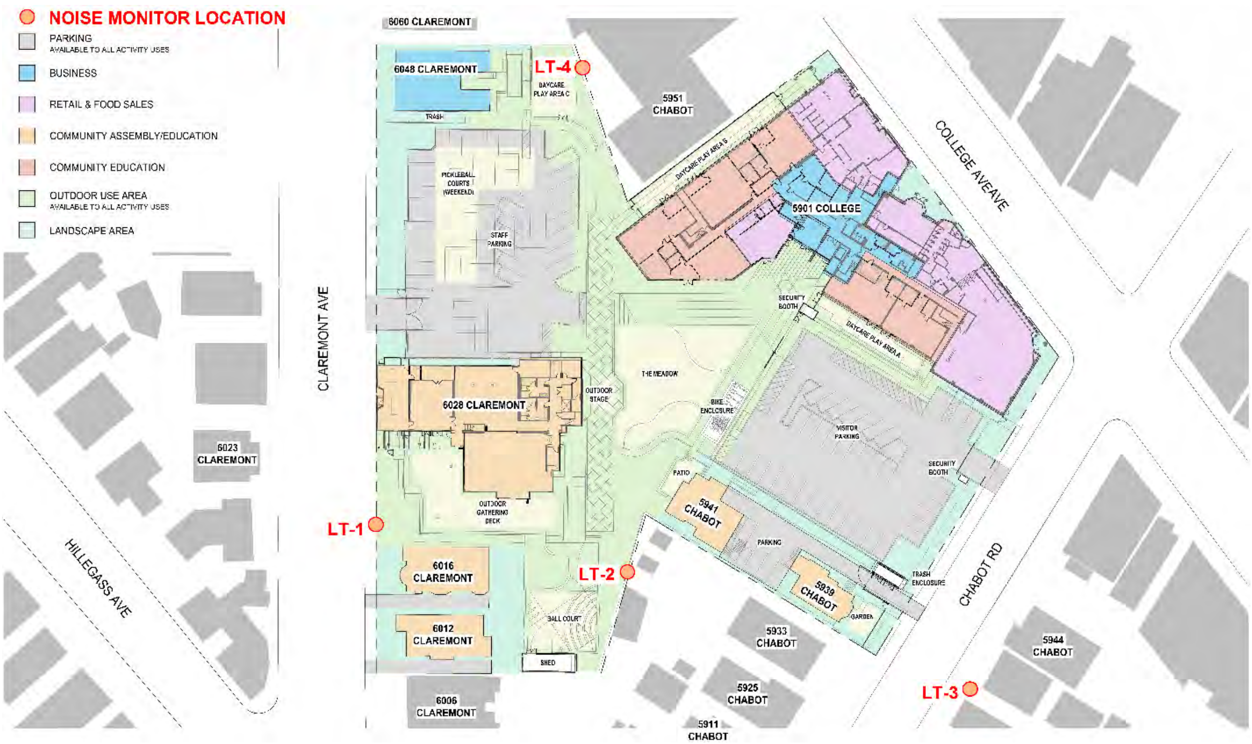

Figure 4: Site Plan Showing Noise Monitor Locations

Table 3: Ambient Noise Survey Results Relative to Oakland's Daytime Maximum Allowable Receiving Noise Level Standards

Cumulative number of minutes in either the daytime or nighttime one hour time period	Equivalent Ln Statistic	Daytime Limit (7 AM to 10 PM)	LT-1 6028 Claremont Ave	LT-2 Behind 6016 Claremont Ave	LT-3 Chabot Rd	LT-4 Behind 6048 Claremont Ave
20	L33	60	**65-70**	52-55	53-60	53-**65**
10	L17	65	**68-72**	54-58	57-63	55-**68**
5	L08	70	70-**73**	56-59	60-65	57-70
1	L02	75	73-**76**	58-61	63-70	58-72
0	Lmax	80	80-**90**	65-80	72-**88**	65-**84**
Bold values indicate locations that exceeded Oakland's maximum noise level standards as observed during the noise survey. See Section 4 above.						

6 Thresholds of Significance

6.1 CEQA Appendix G Thresholds for Noise

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would typically have a significant effect on the environment if the project would result in:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.
e) For a project 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, expose people residing or working in the project area to excessive noise levels.
f) For a project within the vicinity of a private airstrip, expose people residing or working in the project area to excessive noise levels.

6.2 Outdoor Use Area Thresholds

Based on the collected noise data, the Jewish Community Campus Program Schedule dated April 5th, 2024, and the Oakland Noise Ordinance, the property line noise level limits at most areas surrounding the project site, apart from front yards of homes along Claremont Avenue, are 60 dBA for 20+ minutes and 75 dBA for 1 minute before applying the 5-decibel penalty for sounds containing speech (see Section 4). Once this applicable penalty is applied, the noise limit is reduced to 55 dBA for events lasting 20+ minutes and 70 dBA for short-duration events lasting no more than 1 minute.

Noise levels at the front yards of homes along Claremont Avenue were observed to be higher than those shown in the Noise Standards table in Title 17, Chapter 120 of the Oakland Planning Code, hence in those areas, the threshold is 65 dBA for 20+ minutes and 75 dBA for 1 minute. After applying the applicable 5 dB penalty as noted above, the noise limit at the front yards of those homes becomes 60 dBA for 20+ minutes and 70 dBA for short-duration events lasting no more than 1 minute.

A potentially significant impact will occur if the project causes an exceedance of these established property line thresholds.

7 Noise Analysis

7.1 Park and Playground Sound Source Characteristics and Levels

Table 4 summarizes park and playground noise data from other projects studied by Wilson Ihrig that was referenced and used as applicable to the Jewish Community Campus noise study. This data is presented in terms of the energy-equivalent noise level (Leq), and the statistical descriptor L02.

The Leq is the sum of sound energy produced for the duration of an activity or event. For the types of noise sources indicated in Table 4, the Leq is typically found to be 0.5 to 1 dB higher than the L33. Since most of this noise data taken from previous projects had Leq as a more readily available and accurate statistic than L33, we deemed it appropriate to consider Leq as a conservative estimate of the L33 for each noise source. Therefore, in the subsequent sections and tables in this report, we evaluate Leq as the representative statistic for L33 (as shown in Table 3) to satisfy the regulatory criteria.

L02 is the noise level that is exceeded 2% of the time and is representative of the occasional, isolated maximum or peak level which occurs in an area of the measurement location. L02 is usually strongly influenced by the maximum level of sound produced by short-duration noise events which occur during the measurement period such as people shouting or ball impacts in the case of a playground. The L02 is representative of approximately a 1-minute duration out of 60 minutes, as shown in Table 3.

The average noise levels (Leq) generated by activities in outdoor use areas are determined to a large degree by simply the number of people (students/staff/participants) in the area. The majority of park uses such as picnicking, basketball, soccer, frisbee, etc. involve group activity in which relatively constant speech communication is inherent. The speech may include normal conversation, or the exchanges necessary in team activities which may include raised voices or shouting. Speech is expected to be a primary contributor to the average noise level measured in the vicinity of the campus. Activities involving, for example, a single person "shooting baskets", walking a dog, or skating do not involve speech, and will generally have negligible effect on the average noise level.

Another noise source of concern is associated with amplified music, which is anticipated during Outdoor Stage events.

Table 4: Summary of Noise Level Data used as a reference for Park and Playground Activities

Description of Activities	Leq, dBA	L02, dBA	Source of Data
10 teen boys playing half-court basketball at 80-100 ft.	55	65	20-minute sample at Albany Memorial Park, Albany HS
50-60 elementary school children at recess, ~ 30 playing soccer, on grass at 50-80 ft	64	75	15-minute sample at day school playground, Palo Alto
40-50 college students playing soccer on artificial turf within 200 ft	58	67	20-minute sample at practice field, UC Berkeley
50 people, all ages, picnics and playground, on grass within 200 ft	57	72	10-minute sample at Codornices Park, Berkeley
15-20 kindergartners in play area at ~ 80 ft on grass	58	66	15-minute sample at day school playground, Palo Alto
Playground recess, 100-500 children	68-77	--	*Handbook of Environmental Acoustics*, J.P. Cowan, p. 233
24 people, all ages, playing pickleball, on 6 (2x3) courts, in-between 4 courts	69	78	40-minute sample at tennis/pickleball courts, Bushrod Recreation Center, Oakland
15 preschool children in play area at ~ 20 ft on grass	66	77	2-hour 15-minute sample at preschool playground, Wild Child Daycare, Oakland

Infrequent or intermittent maximum noise levels produced by various outdoor use areas will vary considerably depending on the activity. Impulsive noise induced by impact with a ball is distinctly associated with pickleball, soccer, and the dribbling of a basketball. This type of noise, along with short-duration high-level speech events, occur intermittently, and is generally associated with the L02 or 1-minute noise levels.

7.2 Outdoor Noise Prediction Methodology

To calculate the expected future noise levels at the adjacent residential and church land uses during noise generating activities in the outdoor use areas for the proposed Jewish Community Campus, we used a state-of-the-art three-dimensional noise modeling software package (SoundPLAN[2]). The model incorporates the geometry of the Jewish Community Campus, including proposed walls/fences and surrounding residential structures, and accounts for site-specific acoustical characteristics.

- Acoustic Calculation Settings:
    - Calculations are based on the ISO 9613-2 method[3].
    - Includes attenuation due to sound propagation through air.
    - No meteorological correction.
    - Ground attenuation factor included.
    - Three orders of reflections.
    - All structures in the acoustic model are acoustically reflective.
    - Maximum barrier attenuation is 20 dB.
    - All receptors are located at 5 feet above grade.
    - Noise sources containing children only are at 4 feet above grade or finished floor.
    - All other noise sources are 5 feet above grade or finished floor, except as noted below.

The model's noise sources were outlined to match the outdoor use areas as depicted on the Jewish Community Campus Program Schedule, dated April 5th, 2024 (reference Figure 1 and Figure 4), except for the Outdoor Gathering Deck, which had its noise source area modeled per the pink outlined area in Figure 5. This is per clarification from Equity Community Builders (ECBSF) and Jewish Community Center of the East Bay's Executive Director (JCC East Bay).

[2]SoundPLAN is an outdoor noise prediction modeling program that integrates three-dimensional geometry and topography and includes various attenuation factors for outdoor noise propagation.
[3] ISO (International Organization for Standardization) 9613-2 describes a method for calculating the attenuation of sound propagation outdoors in order to predict the levels of environmental noise at a distance from a variety of sources.

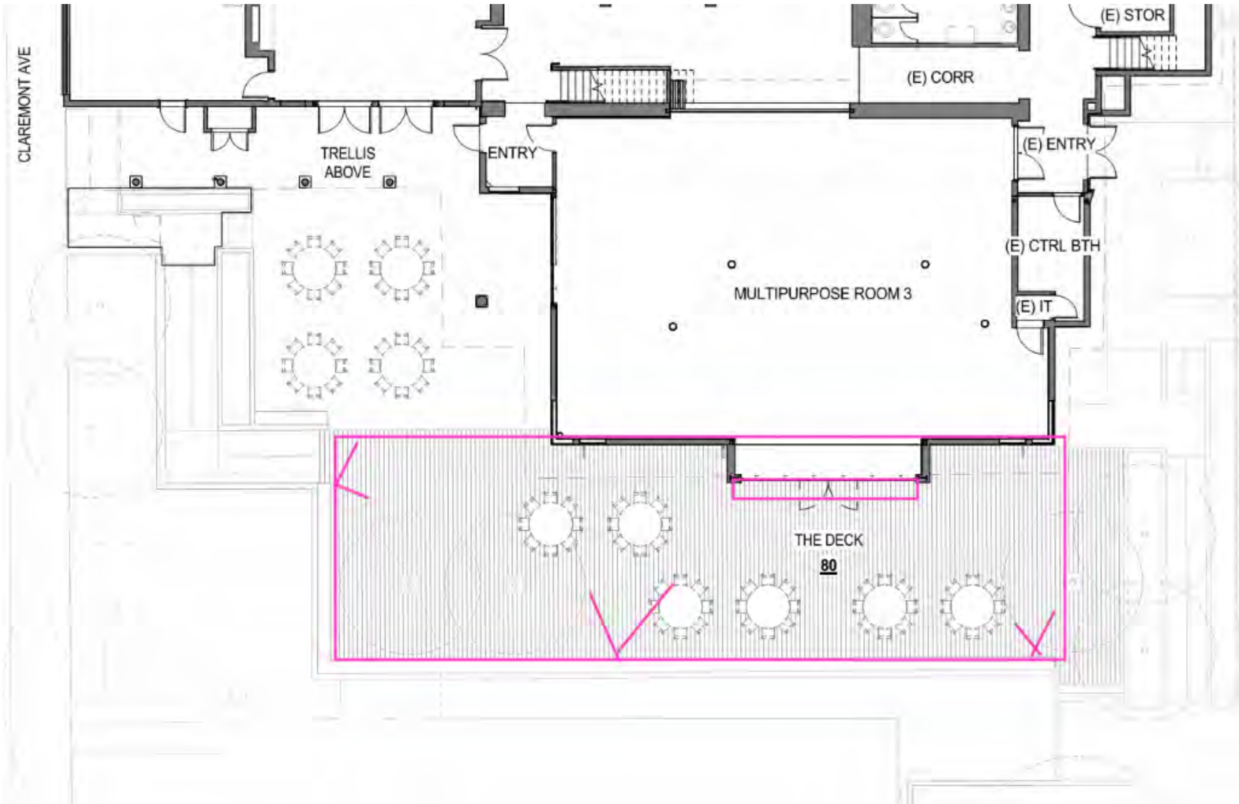

Figure 5: Outdoor Gathering Deck Concentrated Noise Source Area

Figure 5 also depicts three pink "V" shaped markings, which were clarified by ECBSF and JCC East Bay to be the approximate locations and orientations of three speakers as part of a PA system envisioned for the Outdoor Gathering Deck. In order to advise on the implementation of this PA system to avoid any resultant exceedances of the City noise level thresholds from these new sources, the following specifications and parameters were utilized to model in PA speakers:

- JBL AW266 High Power 2-Way Loudspeaker with 1 x 12" LF – one speaker per location
- Directionality as shown in Figure 5 (one speaker facing east, two facing north), no vertical tilt
- Approximate speaker locations as shown in Figure 5, placed in front of solid wood fencing
- Maximum height of 7 feet above grade or finished floor for each speaker

With the acoustic calculation settings, specifications and parameters noted above, the speakers on the Outdoor Gathering Deck were placed in the model, independently from all other noise sources. Similarly, a PA system was simulated at the Outdoor Stage Area, with speaker directionality pointed towards the center of The Meadow, and the same height and tilt as specified above. Both were evaluated to determine PA system's levels required to avoid exceedances at adjacent properties.

7.3 Noise Prediction Results

Figure 6 shows the site plan with locations of the outdoor use areas, noise receptors and proposed fencing/walls assumed in the model. Figure 7 shows a 3D rendering of the acoustic model.

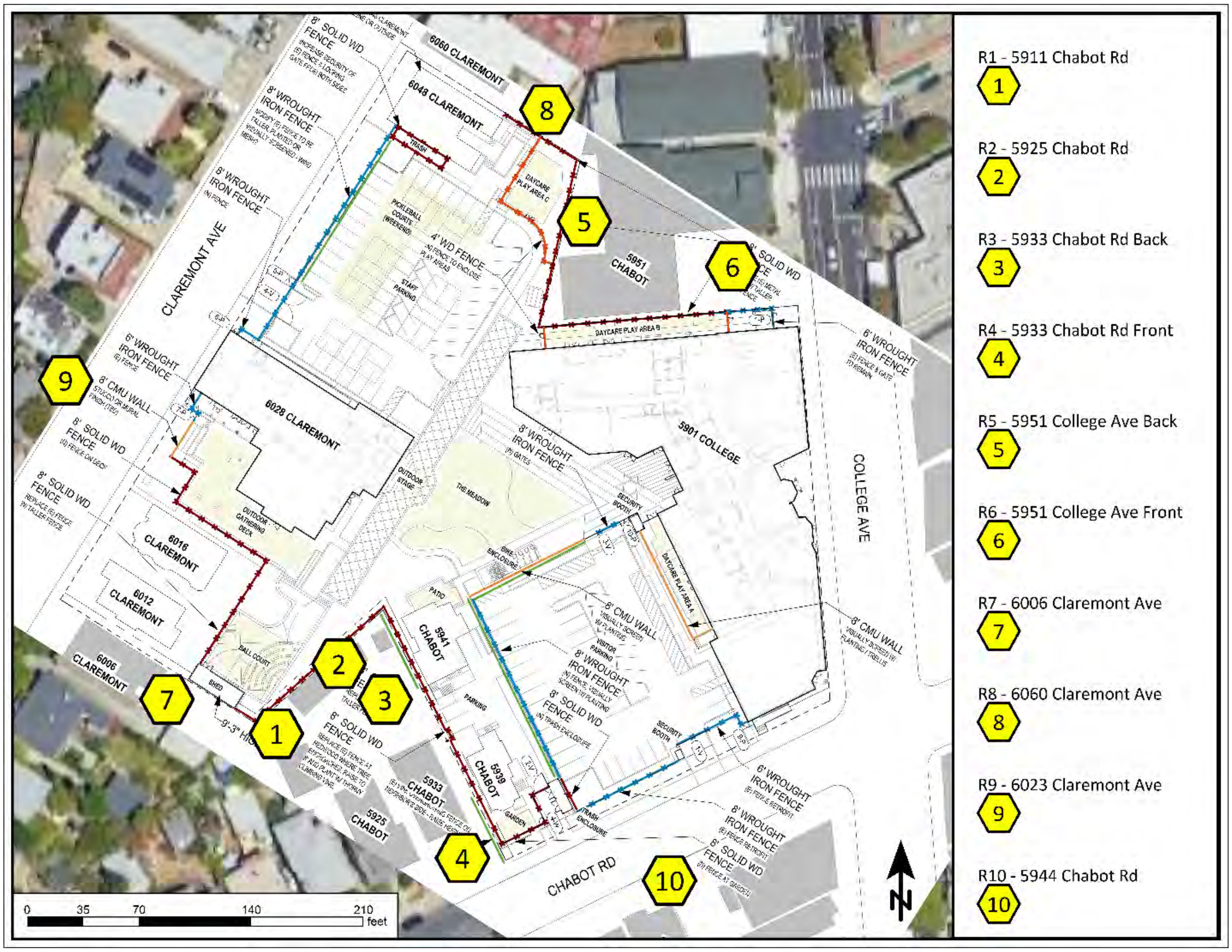

Figure 6: Proposed Site Plan Showing Fences/Walls with Nearest Receptors

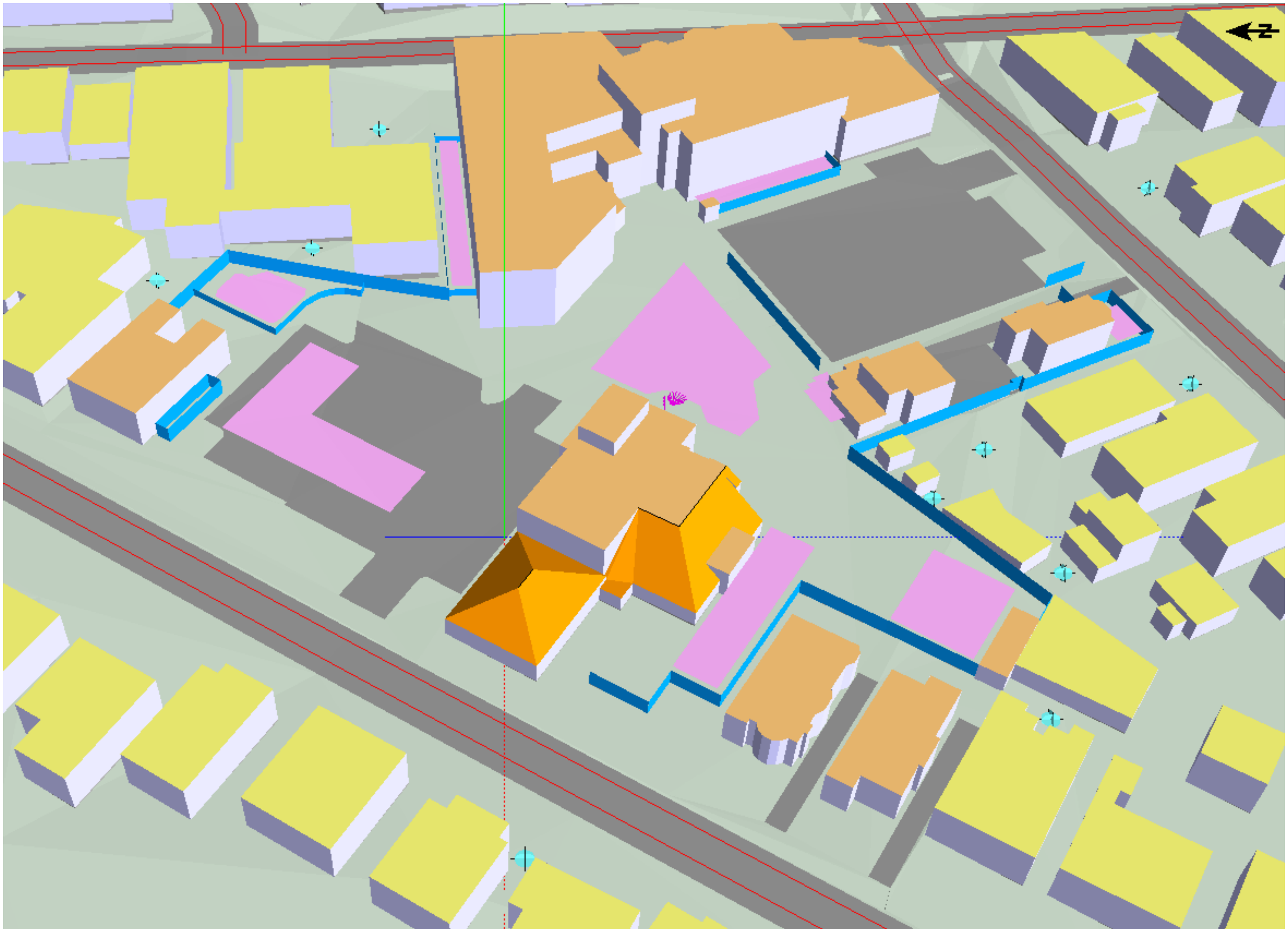

Figure 7: 3D Rendering of Acoustic Model for Showing Proposed Design and Surrounding Structures

Table 5 presents the predicted noise levels at each receptor during worst-case noise-generating events in each outdoor use area. A description of the noise sources in each area is shown, which is correlated to the anticipated maximum quantity of students/staff/participants based on the Jewish Community Campus Site Program Schedule, dated April 5th, 2024. All fences and walls were assumed to provide 100% screening, meaning they contain no gaps or openings.

Table 5: Predicted Average (Leq) Noise Levels at Nearest Residential Receptors with Description of Noise Sources at Each Outdoor Use Area, Before Abatement

Outdoor Use Area	Description of Noise Source	Estimated Noise Level at Receiver Locations, Leq (dBA)									
		1	2	3	4	5	6	7	8	9	10
		5911 Chabot Rd	5925 Chabot Rd	5933 Chabot Rd - Rear	5933 Chabot Rd - Front	5951 College Ave - Rear	5951 College Ave - Front	6006 Claremont Ave	6060 Claremont Ave	6023 Claremont Ave	5944 Chabot Rd
Ball Court	10 Students Playing Basketball	56	55	48	39	28	27	50	30	37	34
Daycare Play Area A	22 Children	34	36	36	37	27	29	34	24	31	44
Daycare Play Area B	22 Children	26	30	34	29	41	55	30	38	38	29
Daycare Play Area C	22 Children	35	39	41	28	56	33	33	55	43	29
Garden	6 Participants/Staff	38	42	42	51	21	26	34	27	30	46
Outdoor Gathering Deck	120 Participants/ Students/Visitors	57	56	56	45	45	36	56	44	57	48
Outdoor Stage	Amplified Music, 5 Students/Staff	40	46	49	45	31	31	42	41	36	54
Patio	10 Participants/Staff	36	44	41	35	28	26	39	40	43	44
Pickleball Courts	12 Participants Playing Pickleball	30	30	33	30	46	30	29	46	44	33
The Meadow	100 Students/ Staff/Visitors	47	52	54	48	43	37	51	50	46	54

As shown per the red highlighted cells in Table 5, five receptors exceed the City of Oakland's average noise level limits for events lasting 20+ minutes. This indicates that abatement is required for compliance at these receptors.

Table 6: Predicted 1-Minute (L02) Noise Levels at Nearest Residential Receptors with Description of Noise Sources at Each Outdoor Use Area Before Abatement

Outdoor Use Area	Description of Noise Source	Estimated Noise Level at Receiver Locations, L02 (dBA)									
		1	2	3	4	5	6	7	8	9	10
		5911 Chabot Rd	5925 Chabot Rd	5933 Chabot Rd - Rear	5933 Chabot Rd - Front	5951 College Ave - Rear	5951 College Ave - Front	6006 Claremont Ave	6060 Claremont Ave	6023 Claremont Ave	5944 Chabot Rd
Ball Court	10 Students Playing Basketball	66	65	58	49	38	37	60	40	47	44
Daycare Play Area A	22 Children	43	45	45	46	36	38	43	33	40	53
Daycare Play Area B	22 Children	35	39	43	38	50	64	39	47	47	38
Daycare Play Area C	22 Children	44	48	50	37	65	42	42	64	52	38
Garden	6 Participants/Staff	55	59	59	68	38	43	51	44	47	63
Outdoor Gathering Deck	120 Participants/ Students/Visitors	65	64	64	53	53	44	65	52	65	56
Outdoor Stage	Amplified Music, 5 Students/Staff	48	54	57	53	39	39	50	49	44	62
Patio	10 Participants/Staff	55	63	60	54	47	45	58	59	62	63
Pickleball Courts	12 Participants Playing Pickleball	39	39	42	39	55	39	38	55	53	42
The Meadow	100 Students/ Staff/Visitors	56	61	63	57	52	46	60	59	55	63

As shown in Table 6, no receptors exceed the City of Oakland's noise level limits for events with a duration of 1 minute.

7.4 Noise Abatement Recommendations

To comply with the City of Oakland noise level limits, we recommend the following noise abatement measures.

1) **Fencing at Outdoor Gathering Deck:** For the span of 8' solid wood fencing immediately to the south of the Outdoor Gathering Deck, a lengthwise extension of at least 14 feet of fencing should be added past the fence's current easternmost point, covering as much of the south-eastern side of the Outdoor Gathering Deck as possible. This length extension to this segment of solid wood fencing has been determined by computer modeling to properly abate threshold exceedances at Receivers 1, 2, 3 and 7.
2) **Location of Ball Court:** The Ball Court's location should be moved 5 feet further away from the shed. This modification in location of the Ball Court has been calculated to result in threshold compliance at Receiver 1.
3) **Fencing at Daycare Play Area C:** For the approximate 65 feet segment of 8' solid wood fencing separating Daycare Play Area C from the 5951 College Ave property, an additional half foot or more of solid wood fencing material should be added to its height. This extension to 8.5' or taller solid wood fencing for this segment has been calculated to result in threshold compliance at Receiver 5.

For sound barriers/walls to be effective, they can be constructed of typical construction materials such as concrete block, wood studs and stucco, etc. The selected material or assembly should have a minimum surface mass of 2 pounds per square foot (PSF) and the sound wall should contain no gaps or openings.

Typical wood fencing construction inherently has small gaps or openings that can severely degrade its acoustical effectiveness, so these must be avoided.

Figure 8 shows an annotated site plan describing the recommended noise abatement measures.

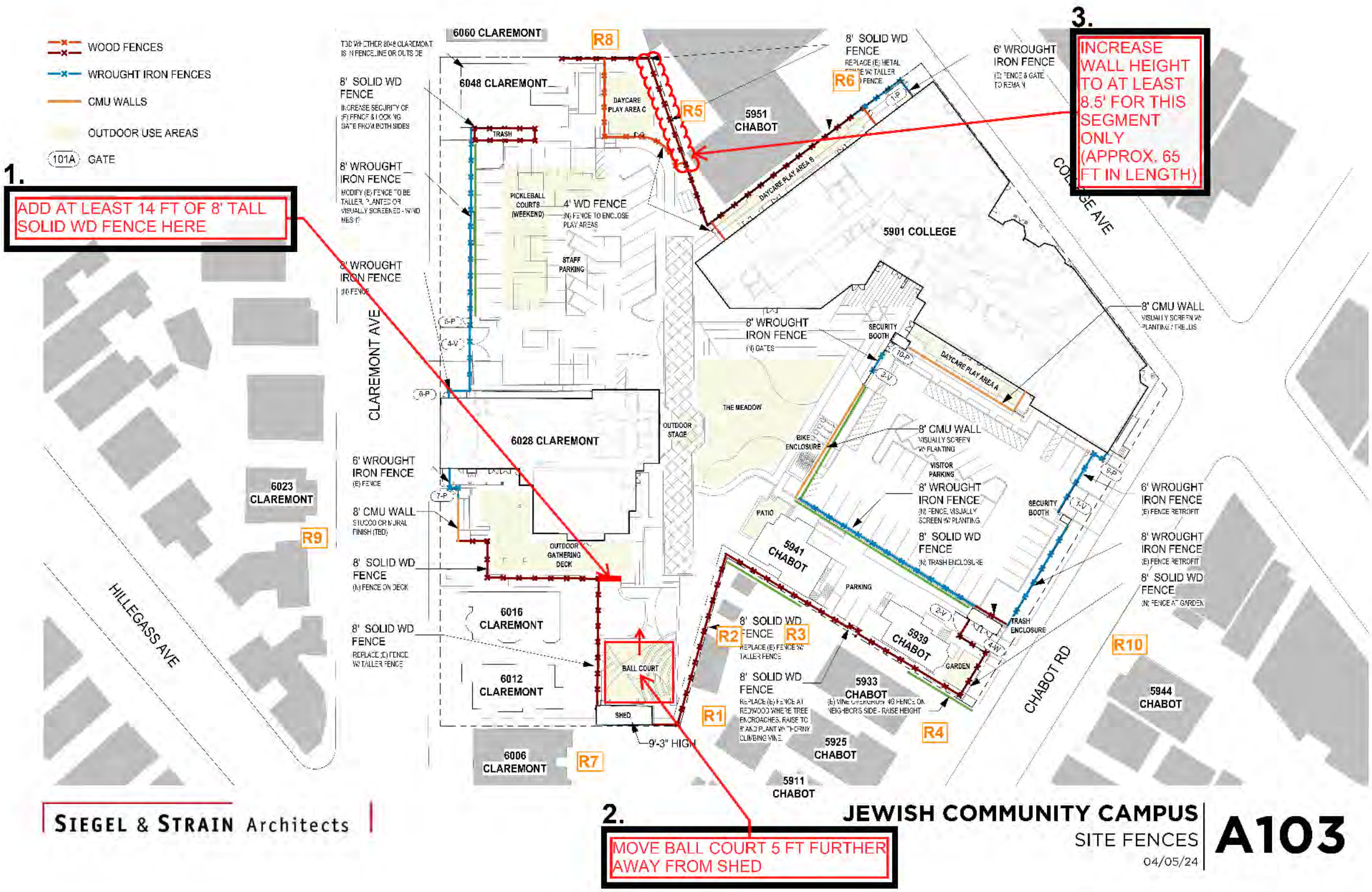

Figure 8: Site Plan with Recommended Abatement Measures

Table 7 presents the predicted noise results with the implemented noise abatement measures.

Table 7: Predicted Average Noise Levels at Nearest Residential Receptors with Description of Noise Sources at Each Outdoor Use Area, After Abatement

Outdoor Use Area	Description of Noise Source	Estimated Noise Level at Receiver Locations, Leq (dBA)									
		1	2	3	4	5	6	7	8	9	10
		5911 Chabot Rd	5925 Chabot Rd	5933 Chabot Rd - Rear	5933 Chabot Rd - Front	5951 College Ave - Rear	5951 College Ave - Front	6006 Claremont Ave	6060 Claremont Ave	6023 Claremont Ave	5944 Chabot Rd
Ball Court	10 Students Playing Basketball	55	55	48	39	28	27	50	30	37	34
Daycare Play Area A	22 Children	34	36	36	37	27	29	34	24	31	44
Daycare Play Area B	22 Children	26	30	34	29	41	55	30	38	38	29
Daycare Play Area C	22 Children	34	39	41	28	55	33	33	55	43	29
Garden	6 Participants/Staff	38	42	42	51	21	26	34	27	30	46
Outdoor Gathering Deck	120 Participants/ Students/Visitors	55	55	55	45	44	36	55	44	57	48
Outdoor Stage	Amplified Music, 5 Students/Staff	40	46	49	45	31	31	42	41	36	54
Patio	10 Participants/Staff	36	44	41	35	28	26	39	40	43	44
Pickleball Courts	12 Participants Playing Pickleball	29	30	33	30	46	30	29	46	44	33
The Meadow	100 Students/ Staff/Visitors	47	52	54	48	42	37	51	50	46	54

As shown in Table 7, all receptors comply with the City of Oakland's average noise level limits with abatement measures from Figure 8 implemented. This is expected to result in a less than significant impact on the surrounding environment.

Table 8: Predicted 1-Minute Noise Levels at Nearest Residential Receptors with Description of Noise Sources at Each Outdoor Use Area, After Abatement

		Estimated Noise Level at Receiver Locations, L02 (dBA)									
		1	2	3	4	5	6	7	8	9	10
Outdoor Use Area	**Description of Noise Source**	**5911 Chabot Rd**	**5925 Chabot Rd**	**5933 Chabot Rd - Rear**	**5933 Chabot Rd - Front**	**5951 College Ave - Rear**	**5951 College Ave - Front**	**6006 Claremont Ave**	**6060 Claremont Ave**	**6023 Claremont Ave**	**5944 Chabot Rd**
Ball Court	10 Students Playing Basketball	65	65	58	49	38	37	60	40	47	44
Daycare Play Area A	22 Children	43	45	45	46	36	38	43	33	40	53
Daycare Play Area B	22 Children	35	39	43	38	50	64	39	47	47	38
Daycare Play Area C	22 Children	43	48	50	37	64	42	42	64	52	38
Garden	6 Participants/Staff	55	59	59	68	38	43	51	44	47	63
Outdoor Gathering Deck	120 Participants/ Students/Visitors	63	63	63	53	52	44	63	51	65	56
Outdoor Stage	Amplified Music, 5 Students/Staff	48	54	57	53	39	39	50	49	44	62
Patio	10 Participants/Staff	55	63	60	54	47	45	58	59	62	63
Pickleball Courts	12 Participants Playing Pickleball	38	39	42	39	55	39	38	55	53	42
The Meadow	100 Students/ Staff/Visitors	56	61	63	57	51	46	60	59	55	63

As shown in Table 8, all receptors comply with the City of Oakland's 1-minute noise level limits with abatement measures from Figure 8 implemented. This is expected to result in a less than significant impact on the surrounding environment.

7.5 PA System Recommendations

To comply with the City of Oakland's property line noise level limits at all receiver locations studied, the Outdoor Gathering Deck PA system's maximum allowable sound pressure levels, when measured at approximately the center of the Outdoor Gathering Deck's event area and 5 feet above grade or finished floor, shall not exceed an average (Leq) level of 81 dBA for 20+ minutes and a maximum level of 96 dBA.

Likewise, the Outdoor Stage Area's PA system maximum allowable sound pressure levels shall not exceed 94 dBA Leq for 20+ minutes and a maximum of 102 dBA, when measured approximately 5 feet in front of the speakers and 5 feet above grade or finished floor.

Noise levels as high as indicated above for the PA system, at both the Outdoor Gathering Deck and Outdoor Stage Area, are not expected to be produced by the activities expected in those areas during typical functions.

Please note that this evaluation is with the noise abatement recommendations in Section 7.4 implemented, and conditions as noted in Section 7.2.

8 Evaluation of High Holiday Events

8.1 Analysis and Assumptions

The Jewish Community Campus Site Program Schedule, dated April 5th, 2024, indicates that there would typically be 4 to 5 High Holiday events with a total of 500 people in attendance during the months of September and October. We understand that for these events, the Outdoor Use Areas will only include the Outdoor Gathering Deck.

Given The Jewish Community Campus' maximum established number of 120 occupants on the Outdoor Gathering Deck (as noted in Section 2, Table 1), we deduce that only approximately 25% of a full 500-person High Holiday event would be concentrated on the Outdoor Gathering Deck, with the remainder of participants inside. Furthermore, it is understood that these High Holiday events are typically deeply somber days of contemplation and prayer, with no dancing, drinking or music other than some prayer songs.

Given the information above, we evaluated the Outdoor Gathering Deck noise levels for these High Holiday events similarly regarding the quantity of participants that were used for Worst-Case Noise-Generating events. However, in consideration of these High Holiday events being prayerful and deeply somber (i.e. Rosh Hashanah, Yom Kippur) in comparison to Worst-Case Noise-Generating events (i.e. educational events, lectures, weddings, birthday celebrations), overall source noise level averages for High Holiday events were assumed to be 5 dBA less than Worst-Case Noise-Generating events with the same number of attendants.

Table 9 and Table 10 display the predicted noise levels at each receptor during High Holiday events with the noise abatement recommendations in Section 7.4 implemented.

Table 9: Predicted Average Noise Levels at Nearest Residential Receptors with Description of Noise Sources for High Holiday Events, After Abatement

Outdoor Use Area	Description of Noise Source	Estimated Noise Level at Receiver Locations, Leq (dBA)									
		1	2	3	4	5	6	7	8	9	10
		5911 Chabot Rd	5925 Chabot Rd	5933 Chabot Rd - Rear	5933 Chabot Rd - Front	5951 College Ave - Rear	5951 College Ave - Front	6006 Claremont Ave	6060 Claremont Ave	6023 Claremont Ave	5944 Chabot Rd
Outdoor Gathering Deck	25% of 500 Participants	50	50	50	40	39	31	50	39	52	43

Table 10: Predicted 1-Minute Noise Levels at Nearest Residential Receptors with Description of Noise Sources for High Holiday Events, After Abatement

Outdoor Use Area	Description of Noise Source	Estimated Noise Level at Receiver Locations, L02 (dBA)									
		1	2	3	4	5	6	7	8	9	10
		5911 Chabot Rd	5925 Chabot Rd	5933 Chabot Rd - Rear	5933 Chabot Rd - Front	5951 College Ave - Rear	5951 College Ave - Front	6006 Claremont Ave	6060 Claremont Ave	6023 Claremont Ave	5944 Chabot Rd
Outdoor Gathering Deck	25% of 500 Participants	63	63	63	53	52	44	63	51	65	56

As shown, with abatement recommendations in Section 7.4 implemented, noise levels will meet the City of Oakland limits for both the average 20+ minute Leq levels and the 1-minute L02 levels. This is expected to result in a less than significant impact on the surrounding environment.

9 Conclusion

Worst-Case Noise-Generating Events

Based on the anticipated programming for the outdoor use areas during Worst-Case Noise-Generating events, our acoustical analysis has determined that additional noise abatement is required for compliance with the City's noise level limits, due to some slight exceedances in predicted average noise levels at five different receptor areas.

With the implementation of a 14 ft. lengthwise extension of the solid wood fencing at the Outdoor Gathering Deck, a 5 ft. shift in the placement of the Ball Court, and a 0.5 ft. height extension of a segment of the solid wood fencing at Daycare Play Area C, as detailed in Section 7.4 and Figure 8, these exceedances are predicted to be resolved, resulting in compliance within the noise level thresholds determined in Section 6.2.

Furthermore, with these abatement measures implemented, PA system recommendations are provided in Section 7.5 for the Outdoor Gathering Deck and Outdoor Stage areas.

By following all recommendations above, the project is expected to result in a less than significant noise impact on the surrounding environment during Worst-Case Noise-Generating events.

High Holiday Events

Based on the anticipated programming for the outdoor use areas during High Holiday events, our acoustical analysis has determined that, with the recommended noise abatement measures implemented per Section 7.4, noise levels from these isolated events are predicted to comply with the City's noise level limits.

As provided by the Jewish Community Center and detailed in Section 8.1, the Outdoor Gathering Deck is considered as the only outdoor area used during these events, and the maximum capacity of this area is 120 participants, or approximately 25% of the anticipated 500 participants in a High Holiday event, with the remainder of participants considered to be inside.

Additionally, with the understanding that these High Holiday events are deeply somber events that involve prayer and reflection rather than raised voice and music levels (which would be expected from other events falling under the Worst-Case Noise-Generating Events category), a reduction in 5 dBA average sound level for the High Holiday events, as compared to the Worst-Case Noise-Generating Events, was factored into the analysis.

Considering all factors noted and implemented above, the project is expected to result in a less than significant noise impact on the surrounding environment during High Holiday events.

Appendix D

CalEEMod Emissions Calculator Results, Project Construction-Period Emissions

Lamphier-Gregory, March 2024

JCCEB const Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	JCCEB const
Construction Start Date	8/1/2024
Lead Agency	City of Oakland
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.90
Precipitation (days)	44.0
Location	37.847735823056695, -122.25298695440227
County	Alameda
City	Oakland
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1521
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Office Park	0.00	1000sqft	1.01	0.00	24,690	0.00	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Unmit.	1.66	17.6	0.70	11.1	11.8	0.65	3.84	4.50
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Unmit.	1.13	9.44	0.37	0.12	0.37	0.34	0.03	0.34
Average Daily (Max)	—	—	—	—	—	—	—	—
Unmit.	0.19	1.67	0.07	0.08	0.15	0.06	0.03	0.09
Annual (Max)	—	—	—	—	—	—	—	—
Unmit.	0.03	0.30	0.01	0.01	0.03	0.01	< 0.005	0.02

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily - Summer (Max)	—	—	—	—	—	—	—	—
2024	1.66	17.6	0.70	11.1	11.8	0.65	3.84	4.50
Daily - Winter (Max)	—	—	—	—	—	—	—	—
2024	1.13	9.44	0.37	0.12	0.37	0.34	0.03	0.34
Average Daily	—	—	—	—	—	—	—	—
2024	0.19	1.67	0.07	0.08	0.15	0.06	0.03	0.09

Annual	—	—	—	—	—	—	—	—
2024	0.03	0.30	0.01	0.01	0.03	0.01	< 0.005	0.02

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.61	15.6	0.67	—	0.67	0.62	—	0.62
Demolition	—	—	—	0.17	0.17	—	0.03	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.85	0.04	—	0.04	0.03	—	0.03
Demolition	—	—	—	0.01	0.01	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.01	—	0.01	0.01	—	0.01
Demolition	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.05	0.03	0.00	0.12	0.12	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.17	< 0.005	0.04	0.04	< 0.005	0.01	0.01

Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	0.01	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

3.3. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.43	13.7	0.65	—	0.65	0.59	—	0.59
Dust From Material Movement	—	—	—	6.26	6.26	—	3.00	3.00
Demolition	—	—	—	3.96	3.96	—	0.60	0.60
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.07	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	0.03	0.03	—	0.02	0.02
Demolition	—	—	—	0.02	0.02	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.01	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Dust From Material Movement	—	—	—	0.01	0.01	—	< 0.005	< 0.005
Demolition	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.00	0.07	0.07	0.00	0.02	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	3.85	0.06	0.82	0.87	0.06	0.22	0.28
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

3.5. Building Construction (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.44	0.37	—	0.37	0.34	—	0.34
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	9.44	0.37	—	0.37	0.34	—	0.34
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.54	0.02	—	0.02	0.02	—	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.7. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.53	4.90	0.23	—	0.23	0.21	—	0.21
Paving	0.13	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.01	—	0.01	0.01	—	0.01
Paving	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Paving	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.00	0.12	0.12	0.00	0.03	0.03
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Onsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.91	0.03	—	0.03	0.03	—	0.03
Architectural Coatings	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005
Architectural Coatings	0.00	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—

—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	8/1/2024	8/29/2024	5.00	20.0	—
Site Preparation	Site Preparation	8/30/2024	9/1/2024	5.00	2.00	—
Building Construction	Building Construction	9/3/2024	10/1/2024	5.00	21.0	—
Paving	Paving	10/2/2024	10/15/2024	5.00	10.0	—
Architectural Coating	Architectural Coating	10/16/2024	10/29/2024	5.00	10.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Demolition	Tractors/Loaders/Backh	Diesel	Average	3.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Site Preparation	Rubber Tired Dozers	Diesel	Average	1.00	7.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	6.00	367	0.29
Building Construction	Forklifts	Diesel	Average	1.00	6.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	1.00	6.00	84.0	0.37
Building Construction	Welders	Diesel	Average	3.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	1.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	6.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	1.00	7.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	12.5	13.8	LDA,LDT1,LDT2
Demolition	Vendor	—	7.30	HHDT,MHDT
Demolition	Hauling	1.95	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT

Site Preparation	—	—	—	—
Site Preparation	Worker	7.50	13.8	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.30	HHDT,MHDT
Site Preparation	Hauling	44.0	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	12.5	13.8	LDA,LDT1,LDT2
Paving	Vendor	—	7.30	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	13.8	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.30	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	0.00	13.8	LDA,LDT1,LDT2
Building Construction	Vendor	0.00	7.30	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	0.00	0.00	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (Cubic Yards)	Material Exported (Cubic Yards)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	3,350	—
Site Preparation	0.00	0.00	1.88	350	—
Paving	0.00	0.00	0.00	0.00	0.50

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Office Park	0.50	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	204	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	7.10	annual days of extreme heat
Extreme Precipitation	7.50	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	0.00	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	0	0	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	2	1	1	3
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	3.12
AQ-PM	42.0
AQ-DPM	92.7
Drinking Water	4.21
Lead Risk Housing	68.2
Pesticides	0.00
Toxic Releases	55.4
Traffic	37.5
Effect Indicators	—
CleanUp Sites	0.00
Groundwater	87.9
Haz Waste Facilities/Generators	28.5
Impaired Water Bodies	0.00

Solid Waste	0.00
Sensitive Population	—
Asthma	9.80
Cardio-vascular	14.5
Low Birth Weights	27.9
Socioeconomic Factor Indicators	—
Education	0.42
Housing	0.67
Linguistic	0.00
Poverty	11.4
Unemployment	17.1

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	90.96625176
Employed	99.17875016
Median HI	96.6508405
Education	—
Bachelor's or higher	99.44822276
High school enrollment	100
Preschool enrollment	67.79160785
Transportation	—
Auto Access	46.0284871
Active commuting	96.79199281
Social	—

2-parent households	77.9930707
Voting	97.80572308
Neighborhood	—
Alcohol availability	26.8317721
Park access	50.26305659
Retail density	82.65109714
Supermarket access	94.25125112
Tree canopy	92.46759913
Housing	—
Homeownership	59.50211728
Housing habitability	96.8304889
Low-inc homeowner severe housing cost burden	94.18709098
Low-inc renter severe housing cost burden	97.89554729
Uncrowded housing	96.93314513
Health Outcomes	—
Insured adults	83.98562813
Arthritis	47.0
Asthma ER Admissions	85.2
High Blood Pressure	72.3
Cancer (excluding skin)	13.2
Asthma	83.3
Coronary Heart Disease	72.1
Chronic Obstructive Pulmonary Disease	91.4
Diagnosed Diabetes	91.9
Life Expectancy at Birth	96.5
Cognitively Disabled	91.4
Physically Disabled	43.7

Heart Attack ER Admissions	95.3
Mental Health Not Good	96.9
Chronic Kidney Disease	79.8
Obesity	88.0
Pedestrian Injuries	19.6
Physical Health Not Good	96.7
Stroke	88.3
Health Risk Behaviors	—
Binge Drinking	22.7
Current Smoker	97.4
No Leisure Time for Physical Activity	99.2
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	82.0
Elderly	9.0
English Speaking	98.1
Foreign-born	15.0
Outdoor Workers	67.1
Climate Change Adaptive Capacity	—
Impervious Surface Cover	56.0
Traffic Density	80.4
Traffic Access	72.0
Other Indices	—
Hardship	1.5
Other Decision Support	—
2016 Voting	95.2

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	3.00
Healthy Places Index Score for Project Location (b)	100
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	43,847 sf (1.01 acre) Limit of Work per Sheet C3.0 24,690 sf new landscape per Sheet L3.00 no new building construction - reuse of existing buildings only
Construction: Construction Phases	No grading required. Building Construction limited to new facade at demo-d Claremont, and new entry at 5901 College
Construction: Paving	paved area = 22,017 sf (0.50 acres) per Sheet C3.0 of Project Description
Construction: Demolition	Demo = 1,664 sf at 6028 Claremont, plus 1,680 staircase at 5901 College = 3,360 sf building demo Asphalt and concrete removal = 31,655 sf / 90 sf per ton = 350 tons of debris removal

Appendix E

CalEEMod Emissions Calculator Results, Project Operational Emissions

Lamphier-Gregory, March 2024

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	JCCEB operations
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.90
Precipitation (days)	44.0
Location	37.84782417495883, -122.25325129759327
County	Alameda
City	Oakland
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1521
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.22

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
General Office Building	41.2	1000sqft	0.95	41,204	24,690	—	—	—

Day-Care Center	10.2	1000sqft	0.23	10,197	—	—	—	—
Strip Mall	10.0	1000sqft	0.23	10,002	—	—	—	—
Place of Worship	13.5	1000sqft	0.31	13,469	—	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Unmit.	6.79	5.17	0.13	11.2	0.12	2.94	14,521
Daily, Winter (Max)	—	—	—	—	—	—	—
Unmit.	6.09	5.93	0.12	11.2	0.12	2.94	13,749
Average Daily (Max)	—	—	—	—	—	—	—
Unmit.	5.20	4.31	0.10	8.08	0.10	2.12	10,649
Annual (Max)	—	—	—	—	—	—	—
Unmit.	0.95	0.79	0.02	1.47	0.02	0.39	1,763

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Mobile	4.40	4.59	0.08	11.2	0.08	2.89	12,833
Area	2.35	0.03	0.01	0.01	< 0.005	< 0.005	13.4

Energy	0.03	0.55	0.04	0.04	0.04	0.04	1,306
Water	—	—	—	—	—	—	107
Waste	—	—	—	—	—	—	262
Refrig.	—	—	—	—	—	—	0.25
Total	6.79	5.17	0.13	11.2	0.12	2.94	14,521
Daily, Winter (Max)	—	—	—	—	—	—	—
Mobile	4.25	5.38	0.08	11.2	0.08	2.89	12,074
Area	1.82	—	—	—	—	—	—
Energy	0.03	0.55	0.04	0.04	0.04	0.04	1,306
Water	—	—	—	—	—	—	107
Waste	—	—	—	—	—	—	262
Refrig.	—	—	—	—	—	—	0.25
Total	6.09	5.93	0.12	11.2	0.12	2.94	13,749
Average Daily	—	—	—	—	—	—	—
Mobile	3.09	3.75	0.06	8.03	0.06	2.08	8,968
Area	2.08	0.01	< 0.005	< 0.005	< 0.005	< 0.005	6.63
Energy	0.03	0.55	0.04	0.04	0.04	0.04	1,306
Water	—	—	—	—	—	—	107
Waste	—	—	—	—	—	—	262
Refrig.	—	—	—	—	—	—	0.25
Total	5.20	4.31	0.10	8.08	0.10	2.12	10,649
Annual	—	—	—	—	—	—	—
Mobile	0.56	0.68	0.01	1.47	0.01	0.38	1,485
Area	0.38	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.10
Energy	0.01	0.10	0.01	0.01	0.01	0.01	216
Water	—	—	—	—	—	—	17.7
Waste	—	—	—	—	—	—	43.3

Refrig.	—	—	—	—	—	—	0.04
Total	0.95	0.79	0.02	1.47	0.02	0.39	1,763

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Mobile source emissions results are presented in Sections 2.6. No further detailed breakdown of emissions is available.

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	492
Day-Care Center	—	—	—	—	—	—	25.5
Strip Mall	—	—	—	—	—	—	48.2
Place of Worship	—	—	—	—	—	—	82.9
Total	—	—	—	—	—	—	649
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	492
Day-Care Center	—	—	—	—	—	—	25.5
Strip Mall	—	—	—	—	—	—	48.2
Place of Worship	—	—	—	—	—	—	82.9
Total	—	—	—	—	—	—	649
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	81.5

Day-Care Center	—	—	—	—	—	—	4.23
Strip Mall	—	—	—	—	—	—	7.99
Place of Worship	—	—	—	—	—	—	13.7
Total	—	—	—	—	—	—	107

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	0.01	0.26	0.02	0.02	0.02	0.02	314
Day-Care Center	0.01	0.11	0.01	0.01	0.01	0.01	135
Strip Mall	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	18.3
Place of Worship	0.01	0.16	0.01	0.01	0.01	0.01	190
Total	0.03	0.55	0.04	0.04	0.04	0.04	657
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	0.01	0.26	0.02	0.02	0.02	0.02	314
Day-Care Center	0.01	0.11	0.01	0.01	0.01	0.01	135
Strip Mall	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	18.3
Place of Worship	0.01	0.16	0.01	0.01	0.01	0.01	190
Total	0.03	0.55	0.04	0.04	0.04	0.04	657
Annual	—	—	—	—	—	—	—
General Office Building	< 0.005	0.05	< 0.005	< 0.005	< 0.005	< 0.005	52.1
Day-Care Center	< 0.005	0.02	< 0.005	< 0.005	< 0.005	< 0.005	22.3
Strip Mall	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.03
Place of Worship	< 0.005	0.03	< 0.005	< 0.005	< 0.005	< 0.005	31.4
Total	0.01	0.10	0.01	0.01	0.01	0.01	109

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Consumer Products	1.60	—	—	—	—	—	—
Architectural Coatings	0.21	—	—	—	—	—	—
Landscape Equipment	0.53	0.03	0.01	0.01	< 0.005	< 0.005	13.4
Total	2.35	0.03	0.01	0.01	< 0.005	< 0.005	13.4
Daily, Winter (Max)	—	—	—	—	—	—	—
Consumer Products	1.60	—	—	—	—	—	—
Architectural Coatings	0.21	—	—	—	—	—	—
Total	1.82	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Consumer Products	0.29	—	—	—	—	—	—
Architectural Coatings	0.04	—	—	—	—	—	—
Landscape Equipment	0.05	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.10
Total	0.38	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.10

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	87.7

Day-Care Center	—	—	—	—	—	—	5.19
Strip Mall	—	—	—	—	—	—	8.80
Place of Worship	—	—	—	—	—	—	5.00
Total	—	—	—	—	—	—	107
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	87.7
Day-Care Center	—	—	—	—	—	—	5.19
Strip Mall	—	—	—	—	—	—	8.80
Place of Worship	—	—	—	—	—	—	5.00
Total	—	—	—	—	—	—	107
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	14.5
Day-Care Center	—	—	—	—	—	—	0.86
Strip Mall	—	—	—	—	—	—	1.46
Place of Worship	—	—	—	—	—	—	0.83
Total	—	—	—	—	—	—	17.7

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	72.3
Day-Care Center	—	—	—	—	—	—	25.0
Strip Mall	—	—	—	—	—	—	19.8
Place of Worship	—	—	—	—	—	—	145

Total	—	—	—	—	—	—	262
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	72.3
Day-Care Center	—	—	—	—	—	—	25.0
Strip Mall	—	—	—	—	—	—	19.8
Place of Worship	—	—	—	—	—	—	145
Total	—	—	—	—	—	—	262
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	12.0
Day-Care Center	—	—	—	—	—	—	4.14
Strip Mall	—	—	—	—	—	—	3.28
Place of Worship	—	—	—	—	—	—	24.0
Total	—	—	—	—	—	—	43.3

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	0.10
Day-Care Center	—	—	—	—	—	—	0.04
Strip Mall	—	—	—	—	—	—	0.06
Place of Worship	—	—	—	—	—	—	0.05
Total	—	—	—	—	—	—	0.25
Daily, Winter (Max)	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	0.10

Day-Care Center	—	—	—	—	—	—	0.04
Strip Mall	—	—	—	—	—	—	0.06
Place of Worship	—	—	—	—	—	—	0.05
Total	—	—	—	—	—	—	0.25
Annual	—	—	—	—	—	—	—
General Office Building	—	—	—	—	—	—	0.02
Day-Care Center	—	—	—	—	—	—	0.01
Strip Mall	—	—	—	—	—	—	0.01
Place of Worship	—	—	—	—	—	—	0.01
Total	—	—	—	—	—	—	0.04

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	PM10E	PM10T	PM2.5E	PM2.5T	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—

Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Total all Land Uses	1,125	170	34.0	303,140	15,755	2,380	476	4,243,960

5.10. Operational Area Sources

5.10.1. Hearths

JCCEB CalEEMod Input Data

Building Space, by CalEEMod Use Type

	Existing (sf):			*Proposed (sf):*			
5901 College Avenu	Office	retail	5901 College Ave	Office	Retail	Pre-school	Place of Worship
	14,324	8,920		3,971	8,920	10,197	
	21,712			21,642	1,082		
	15,591			15,591			
	51,627			41,204	10,002	10,197	
Total:	**60,547**		**Total:**	**61,403**			
6028 Claremont	8,971		6028 Claremont				8,071
	5,669						4,771
	627						627
Total:	**15,267**		**Total:**	**13,469**			**13,469**
6048 Claremont	4,170		6048 Claremont	4,170			
6012 Claremont	1,360		6012 Claremont	1,360			
6016 Claremont	1,490		6016 Claremont	1,490			
5941 Chabot	3,375		5941 Chabot	3,375			
5939 Chabot	3,375		5939 Chabot	3,375			
	13,770			**13,770**			
Total:	**89,584**			**88,642**			

Trip Generation and VMT (Proposed Project, Only)

	Daily Trips	# of Weekdays/Yr	Annual Trips	VMT/Trip	Avg. Weekday VMT	Annual Trips	VMT/trip	Annual VMT
Typical Weekday	924	220	203,280			203,280	14	2,845,920
Summer (June and July)	1,362	40	54,480			54,480	14	762,720
Evening Programs [1]	134	260	34,840			34,840	14	487,760
			292,600			292,600		**4,096,400**
		weekdays/yr	260					
		avg weekday trips	**1,125**	14	**15,755**			
		# of Wkends/Yr			Avg. Wend Day VMT			
Cultural Prog (250 attend) [2]	170	52	8,840			8,840	14	123,760
High Holiday (500 attend)	340	5	1,700			1,700	14	23,800
			10,540			10,540		**147,560**
		Wends/yr	52			303,140	Total:	**4,243,960**
		avg w/end trips	203					
		Avg Sat trips	170	14	2,380			
		Avg Sun trips	34	14	476			

Notes:

1. Conservatively assumes Evening Programs every weekday night
2. Assumes 1 Cultural Program every weekend

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	112,308	37,436	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
General Office Building	872,232	204	0.0330	0.0040	978,607
Day-Care Center	45,248	204	0.0330	0.0040	418,698
Strip Mall	85,467	204	0.0330	0.0040	56,997
Place of Worship	146,949	204	0.0330	0.0040	589,795

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
General Office Building	7,323,341	280,511

Day-Care Center	437,345	0.00
Strip Mall	740,873	0.00
Place of Worship	421,430	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
General Office Building	38.3	—
Day-Care Center	13.3	—
Strip Mall	10.5	—
Place of Worship	76.8	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
General Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
General Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Day-Care Center	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Day-Care Center	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Day-Care Center	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Day-Care Center	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

Strip Mall	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Strip Mall	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00
Strip Mall	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Place of Worship	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Place of Worship	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Place of Worship	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Place of Worship	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

Appendix F

Phase I Environmental Site Assessment, 5901-5929 College Avenue, 6012-6048 Claremont Avenue and 5941-5965 Chabot Road

Basics Environmental, October 22, 2019

PHASE I
ENVIRONMENTAL
SITE ASSESSMENT

5901-5929 College Avenue, 6012-6048 Claremont Avenue and 5941-5965 Chabot Road
Oakland
California

FOR

Libitzky Holdings, LP
1475 Powell Street, Suite 201
Emeryville, CA 94608

October 22, 2019
19-ENV5582

655 12TH STREET, #126 • OAKLAND, CA • 94607 • TEL / FAX 510-834-9099 / 9098

October 22, 2019
19-ENV5582

Libitzky Holdings, LP
1475 Powell Street, Suite 201
Emeryville, CA 94608

Attention: Mr. Nathan Petrowsky

Subject: Phase I Environmental Site Assessment Report
5901-5929 College Avenue, 6012-6048 Claremont Avenue and 5941-5965 Chabot Road
Oakland, California 94618

Dear Mr. Petrowsky:

We have performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E 1527-13/AAI of 5901-5929 College Avenue, 6012-6048 Claremont Avenue and 5941-5965 Chabot Road in Oakland, California, the property. Any exceptions to, or deletions from, this practice are described in Section 1 of this report. This assessment has revealed obvious evidence of recognized environmental conditions in connection with the property that warrants further investigation and/or documentation at this time.

Should you have any questions regarding this report, please contact the undersigned.

Sincerely,

Basics Environmental, Inc.

Donavan G. Tom, M.B.A., E.P., R.E.P.A.
Principal Consultant

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PROFESSIONAL CERTIFICATION

PHASE I ENVIRONMENTAL SITE ASSESSMENT
5901-5929 College Avenue, 6012-6048 Claremont Avenue and 5941-5965 Chabot Road
Oakland, California
For
Libitzky Holdings, LP
19-ENV5582
October 22, 2019

I declare that, to the best of my professional knowledge and belief, 1 meet the definition of “Environmental Professional” as defined by the Environmental Protection Agency's Final Rule (40 CFR 312.21). I have the specific qualifications based on education, training and experience to assess a property of the nature, history and setting. In performing Phase I Environmental Site Assessments, I develop and perform the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

The findings, interpretations of data, recommendations, specifications or professional opinions are presented within the limits prescribed by available information at the time the report was prepared, in accordance with generally accepted professional environmental practice and within the requirements by the Client. There is no other warranty, either expressed or implied. The data and findings of this report are based on the readily available data and information obtained from numerous public and private agencies regarding the subject site and its immediate vicinity. Additional search (at greater cost) may or may not disclose information which may significantly modify the findings of this report. We accept no liability on completeness or accuracy of the information presented and or provided to us, or any conclusions and decisions which may be made by the Client or others regarding the subject site.

This report was prepared solely for the benefit of Basic's Client. Basics consents to the release of this report to third parties involved in the transaction for which the report was prepared, including without limitation, lenders, title companies, public institutions, attorneys, and other consultants. However, any use of or reliance upon this report shall be solely at the risk of such party and without legal recourse against Basics, or its subcontractors, affiliates, or their respective employees, officers, or directors, regardless of whether the action in which recovery of damage is sought is based upon contract, tort (including the sole, concurrent or other negligence and strict liability of Basics), statute or otherwise. This report shall not be used or relied upon by a party that does not agree to be bound by the above statements.

Donavan G. Tom, M.B.A., E.P., R.E.P.A.
Principal Consultant

1.0 INTRODUCTION

1.1 Purpose of Investigation

Basics Environmental, Inc. (Basics) has performed this Phase I Environmental Site Assessment (ESA) for Libitzky Holdings, LP pursuant to our signed agreement on October 7, 2019. The "subject site" is at 5901-5929 College Avenue, 6012-6048 Claremont Avenue and 5941-5965 Chabot Road, Oakland, California (APNs 014-1268-009-01, 014-1268-030-00, 014-1268-032-01, 014-1268-035-01, 014-1268-036-00, 014-1268-038-00, 014-1268-039-00, 014-1268-013-00, 014-1268-012-00 and 014-1268-011-01). The purpose of this ESA is to:

- Observe site conditions at the property in accordance with the protocols set forth by the *American Society for Testing and Materials (ASTM) Standard E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* and *U.S. Environmental Protection Agency's All Appropriate Inquiry (AAI) Final Rule 40 CFR Part 312*, except where modified by the proposal;

- Identify to the extent feasible recognized environmental conditions in connection with the subject site. The ESA is intended to evaluate the potential for the presence of hazardous or toxic chemicals in the soil and/or groundwater resulting from past and present land use activities. To the extent possible, potential sources of hazardous or toxic chemicals from adjacent off-site operations will also be evaluated; and

- Render findings and professional opinion regarding the potential for adverse environmental impacts on or adjacent to the site.

1.2 Scope of Work

The scope of work performed for this ESA consisted of the following tasks:

- Field reconnaissance and personal interviews to evaluate environmental land-use conditions on the subject site and view adjacent properties;

- Aerial photograph, City Directory and/or Fire Insurance/Topographic Map review (typically back to 1940 or first developed use of the property) to evaluate former environmental land-use conditions on the subject site and adjacent properties;

- Review of federal, state and county files and environmental database search report obtained from a commercial service providing up to date and current information;

- Evaluation of the physical setting (geomorphic, geologic and hydrogeologic) of the subject site property; and

- Preparation of this ESA report to present the findings and professional opinions regarding potential recognized environmental conditions on the site.

The work for this ESA was performed within the client approved scope of work and budget for the investigation.

1.3 Special Terms and Conditions

The goal of this ESA is to identify recognized environmental conditions indicating the presence or likely presence of any hazardous substances or petroleum hydrocarbons in structures, ground, groundwater, or surface water of the property. Recognized environmental conditions are not intended to include *de minimis* conditions that do not present risks to public health or environment and that would not be subject to enforcement actions by government agencies.

1.4 Limitations and Exceptions

This ESA only includes a visual evaluation of the presence of asbestos, lead paint, radon, or mold, if applicable. In addition, this ESA does not include the results of any sampling, monitoring, or other types of field and/or laboratory testing or investigation.

1.5 User Responsibilities

The user of this ESA will be responsible for: (1) determining the relationship of the purchase price to the value of the property; (2) disclosure of specialized knowledge, experience or information which may affect the environmental condition of the subject site; and (3) disclosure of any environmental cleanup liens against the property within recorded land title records, if applicable. None of the above was provided by the client for our review.

2.0 SITE DESCRIPTION AND RECONNAISSANCE

2.1 Site Description and Uses

2.1.1 Interviews

A Basics representative (Mr. Donavan Tom) visited the subject site on October 11, 2019. Basics observed the various facilities and operations conducted at the site and also noted the land-use in the vicinity of the site. Ms. Katherine Kelleher, representing broker with CBRE Commercial, provided access with Mr. Paul Gentry, facilities coordinator with Nestlé USA Workplace Solutions to available areas. Ms. Kelleher and Mr. Gentry were also briefly interviewed during the site visit. A standard environmental questionnaire was provided by Mr. Sven Vetter, Corporate Environmental Sustainability Manager at Nestle USA, to obtain disclosure of specialized knowledge, experience or information that may affect the environmental condition of the subject site.

Information from Mr. Vetter indicated the subject site buildings are primarily utilized as administrative offices for Nestlé Direct Store Delivery operations. Mr. Vetter reported no underground storage tanks, hazardous materials or hazardous wastes are utilized or generated onsite.

Discussions with Ms. Kelleher indicated to her knowledge no hazardous materials or underground storage tanks are currently utilized onsite, however she indicated previous underground storage tanks were utilized as part of past ice cream truck delivery operations onsite. Ms. Kelleher indicated that, for purposes of this assessment, she has no other specialized knowledge or experience pertaining to the site or the adjacent properties that is material to RECs in connection with the subject property.

Discussions with Mr. Gentry indicated the subject site buildings are primarily utilized as administrative and conference offices for Nestlé Direct Store Delivery operations, the two residential dwellings were utilized as rental properties and the storefronts along College Avenue are leased to various retail businesses. Mr. Gentry stated no hazardous materials or underground storage tanks are currently utilized onsite, however he also indicated environmental cleanup is currently being performed to address previous underground storage tanks utilized as part of past ice cream truck delivery operations onsite. Mr. Gentry indicated that, for purposes of this assessment, he has no other specialized knowledge or experience pertaining to the site or the adjacent properties that is material to RECs in connection with the subject property.

Additional information obtained from interviews of onsite representatives is incorporated within the appropriate sections of this report.

2.1.2 Site Description and Uses

The subject site is located within the "Rockridge neighborhood" in the City of Oakland, at the northwest corner of College Avenue and Chabot Road, and approximately 2.5-miles to the east of the San Francisco Bay (See Drawings 1 & 2). The subject site consists of ten contiguous parcels of land shaped parcels of land (totaling approximately 52,707 + 5,960 + 4,050 + 24,373 + 9,367 + 7,591 + 6,888 + 8,937 + 5,130 + 4,538 = 129,541-square feet) forming a combined "irregular" shaped area of land (See Photo 1).

APN 014-1268-009-01 (5901-5929 College Avenue) is a located on the east portion of the subject site and is zoned CN-1. The parcel is improved with an approximately 61,270-square foot three-story commercial office over retail building and associated paved and landscaped areas (See Photos 2 - 6). The three-story commercial office over retail building is constructed of steel framing on a concrete slab on grade foundation with perimeter and interior footings and concrete masonry exterior walls. Interior building materials include sheet rock interior walls and concrete floors with high "high" ceilings. An HVAC system is on the roof.

APN 014-1268-030-00 (6012 Claremont Avenue) is a located on the southwest portion of the subject site and is zoned RM-3. The parcel is improved with an approximately 1,361-square foot two-story residential dwelling, one-story residential in-law unit and associated paved and landscaped areas (See Photos 35 - 42). The two-story residential dwelling is constructed of wood framing on a concrete perimeter foundation and concrete masonry exterior walls. Interior building materials include plaster and sheet rock interior walls and concrete floors with high "high" ceilings.

APN 014-1268-032-01 (6016 Claremont Avenue) is a located on the southwest portion of the subject site and is zoned RM-3. The parcel is improved with an approximately 1,492-square foot two-story residential dwelling and associated paved and landscaped areas (See Photos 43 -

48). The two-story residential dwelling is constructed of wood framing on a concrete perimeter foundation and concrete masonry exterior walls. Interior building materials include plaster and sheet rock interior walls and concrete floors with high “high” ceilings.

APN 014-1268-035-01 (6028 Claremont Avenue) is a located on the west portion of the subject site and is zoned RM-3. The parcel is improved with an approximately 13,164-square foot three-story office building and associated paved and landscaped areas (See Photos 49 - 62). The three-story commercial office building is constructed of wood framing on a concrete slab on grade foundation with perimeter and interior footings and concrete masonry exterior walls. Interior building materials include sheet rock interior walls and concrete floors with high “high” ceilings. An HVAC system is on the roof.

APN 014-1268-036-00 (6036 Claremont Avenue) is a located on the west portion of the subject site and is zoned CN-1. The parcel is improved with associated paved and landscaped areas (See Photo 80).

APN 014-1268-038-00 (6046 Claremont Avenue) is a located on the northwest portion of the subject site and is zoned CN-1. The parcel is improved with associated paved and landscaped areas (See Photo 80).

APN 014-1268-039-00 (6048 Claremont Avenue) is a located on the northwest portion of the subject site and is zoned CN-1. The parcel is improved with an approximately 4,069-square foot two-story office building with associated paved and landscaped areas (See Photos 63 - 68). The two-story office building is constructed of wood framing on a concrete perimeter foundation and concrete masonry exterior walls. Interior building materials include sheet rock interior walls and concrete floors with high “high” ceilings.

APN 014-1268-013-00 (5941 Chabot Road) is a located on the south portion of the subject site and is zoned RM-3. The parcel is improved with two (2) two-story residential dwellings (totaling approximately 3,373-square feet) and associated paved and landscaped areas (See Photos 69 - 78). The (2) two-story residential dwellings are constructed of wood framing on a concrete perimeter foundations and concrete masonry exterior walls. Interior building materials include plaster and sheet rock interior walls and concrete floors with high “high” ceilings.

APN 014-1268-012-00 (5957 Chabot Road) is a located on the south portion of the subject site and is zoned RM-1. The parcel is improved with associated paved and landscaped areas (See Photo 79).

APN 014-1268-011-01 (5965 Chabot Road) is a located on the south portion of the subject site and is zoned RM-1. The parcel is improved with associated paved and landscaped areas (See Photo 79).

Utilities including water, electric, natural gas and sewage service are publicly supplied. Underground services for natural gas, water, and sanitary sewers traverse the sidewalk and streets along the south, east and west sides of the subject site. A concrete pad mounted electrical transformer, owned and operated by PG&E was noted along Claremont Avenue (See Photo 83). In addition, utility vaults owned and operated by PG&E were also noted below the sidewalk along Claremont Avenue and College Avenue. A concrete pad mounted electrical panel was also located within the associated landscaped areas along the north perimeter of the subject site (See Photo 82). Such units are notable because they may be polychlorinated biphenyl (PCB) sources. PCB units may subject the owner/operator to various requirements. The release of PCB fluids or their combustion products (in the event of a fire) is a potential environmental liability and may require remediation. Observations of the area surrounding these units did not reveal any obvious signs of hazardous material stains and/or spills. In addition, the units appeared to fairly new with no labels identifying PCBs. Due to the age of the units and lack of PCB labels the probability of PCBs is low.

The general area surrounding the property is developed industrial and residential. A site plan illustrating the site and adjacent properties is shown in Drawing 3.

The subject site is primarily occupied by Nestlé Direct Store Delivery as part of Nestlé USA, which is owned by Nestlé S.A. of Vevey, Switzerland — the world's largest food company with a focus on Nutrition, Health & Wellness.

Nestlé Direct Store Delivery Headquarters is primarily in the three-story office over retail building (5901-5937 College Avenue) under the address of 5929 College Avenue and manages direct store delivery operations for Nestlé's frozen pizza and ice cream brands. Nestlé Direct Store Delivery distributes the DIGIORNO®, CALIFORNIA PIZZA KITCHEN®, TOMBSTONE® and JACK'S® pizza brands and the Dreyer's Grand Ice Cream brands that include DREYER'S/EDY'S®, HÄAGEN-DAZS®, THE SKINNY COWTM and NESTLÉ® DRUMSTICK®.

Nestlé Direct Store Delivery leases the first floor retail business units within the three-story office over retail building along College Avenue to: Crossroads Trading Company (new and used clothing store) (5901 College Avenue); Dryer's Ice Cream Parlor & Café (currently vacant) (5925 College Avenue); Katrina Rozelle Pastries and Desserts (bakery) (5931 College Avenue); Shoes on Solano (shoe store) (5933 College Avenue); and In Full Swing (women' clothing) (5937 College Avenue).

Nestlé Direct Store Delivery has historically rented the two-story residential dwelling (6012 Claremont Avenue) and the two-story residential dwelling (6016 Claremont Avenue) to private residences, however these two dwellings are currently vacant.

Nestlé Direct Store Delivery utilizes three-story commercial office building aka Nestlé Dryer's Cronk Center (6028 Claremont Avenue) as a corporate events facility.

Nestlé Direct Store Delivery utilizes two-story commercial office building (6048 Claremont Avenue) as additional office space.

Nestlé Direct Store Delivery utilizes the two (2) two-story residential dwellings (5941 & 5941B Chabot Road) as a women's and men's fitness center, respectively.

2.1.3 Environmental Land-Use Conditions

The subject site was evaluated for the use and storage of hazardous substances and petroleum products; use of aboveground and underground storage tanks, storage and disposal of hazardous wastes; evidence of releases from hazardous materials, and identification of conduits to the subsurface.

Three-Story Commercial Office over Multi-Tenant Retail Building (5901-5937 College Avenue) (circa 1992) - The three-story commercial office over multi-tenant retail building is located on the east portion of the subject site. The building consists of three floors of office space with five business units on the first floor. Discussions with representatives of the subject site stated to their knowledge no hazardous materials, underground tanks, sumps or hazardous materials are currently utilized within the building.

First Floor - The east portion of the first floor consists of five business units (5901-5937 College Avenue). 5901 College Avenue is located on the south side of the building, 5937 College Avenue is located on the north side of the building, with each of the corresponding units in between. The west portion of the first floor is currently utilized as office space.

Crossroads Trading Company (5901 College Avenue) – 5901 College Avenue is currently segregated into a retail area and office/storage area (See Photo 6). The main entrance to the business unit is along the southeast side providing access to the retail area. An alternate entrance is located along the southwest side of the business unit providing additional access to the retail area.

The retail area occupies the majority of the business unit. Located within the retail area are typical retail furnishings, shelves and displays of clothing (See Photo 7). Visual observations of the retail area did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the floor of the retail area did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

The office/storage area is located on the northwest portion of the business unit and consists of a back office, storage areas and restroom facilities (See Photo 8). Located within the back office, storage areas and restroom facilities are typical office furnishings and supplies. Visual observations of the back office, storage areas and restroom facilities did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the back office, storage areas and restroom facilities did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

Dryer's Grand Ice Parlor and Cafe (5925 College Avenue) – 5925 College Avenue is currently segregated into a cafe area and kitchen area (See Photos 9 - 10). The main entrance to the business unit is along the east side providing access to the café area. This business unit is currently vacant.

The cafe area occupies the majority of the business unit. Located within the cafe area are typical cafe furnishings, shelves and retail counter areas (See Photos 11 - 12). Visual observations of the cafe area did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the floor of the cafe area did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

Kitchen – The kitchen area is located at the northwest portion of the business unit and consists of a kitchen area, an office, storage areas and restroom facilities. Located in the kitchen area, an office, storage areas and restroom facilities are typical office furnishings and commercial grade cafe equipment. Visual observations of the kitchen area, an office, storage areas and restroom facilities did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the kitchen area, an office, storage areas and restroom facilities did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

Katrina Rozelle Pastries and Desserts (5925 College Avenue) – 5931 College Avenue is currently segregated into a cafe area and kitchen area (See Photos 13 - 14). The main entrance to the business unit is along the east side providing access to the café area.

The cafe area occupies the east portion the business unit. Located within the cafe area are typical cafe furnishings, shelves and retail counter areas (See Photo 15). Visual observations of the cafe area did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the floor of the cafe area did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

Kitchen – The kitchen area is located at the west portion of the business unit and consists of a kitchen area, an office, storage areas and restroom facilities. Located in the kitchen area, an office, storage areas and restroom facilities are typical office furnishings and commercial grade cafe equipment (See Photo 16). Visual observations of the kitchen area, an office, storage areas and restroom facilities did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the kitchen area, an office, storage areas and restroom facilities did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

Shoes on Solano (5937 College Avenue) – 5937 College Avenue is currently segregated into a retail area and office/storage area (See Photo 17). The main entrance to the business unit is along the east side providing access to the retail area.

The retail area occupies the majority of the business unit. Located within the retail area are typical retail furnishings, shelves and displays of clothing (See Photo 18). Visual observations of the retail area did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the floor of the retail area did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

The office/storage area is located on the southwest portion of the business unit and consists of a back office, storage areas and restroom facilities. Located within the back office, storage areas and restroom facilities are typical office furnishings and supplies. Visual observations of the back office, storage areas and restroom facilities did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the back office, storage areas and restroom facilities did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

In Full Swing (5933 College Avenue) – 5933 College Avenue is currently segregated into a retail area and office/storage area (See Photo 19). The main entrance to the business unit is along the east side providing access to the retail area.

The retail area occupies the majority of the business unit. Located within the retail area are typical retail furnishings, shelves and displays of shoes (See Photo 20). Visual observations of the retail area did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the floor of the retail area did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

The office/storage area is located on the southwest portion of the business unit and consists of a back office, storage areas and restroom facilities. Located within the back office, storage areas and restroom facilities are typical office furnishings and supplies. Visual observations of the back office, storage areas and restroom facilities did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the back office, storage areas and restroom facilities did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

Nestlé Direct Store Delivery (5929 College Avenue) – 5929 College Avenue occupies the west portion of the first floor and is currently segregated into individual offices, common areas, storage rooms and restroom facilities (See Photo 21). The main entrance to the first floor is via the second floor main lobby along the east side of the building. Additional personnel doors are located along the east and west sides of the first floor providing employee access to the business unit.

Located within the first floor individual offices, common areas, storage rooms and restroom facilities are typical office furnishings and supplies (See Photo 22). Hallways bisect the first floor running north to south and east and west. A passenger elevator is located in the lobby area providing access to the upper levels. Additional internal stairwells are also located within the building providing access to the upper floors. A permit within the elevator indicated the elevator had been recently been inspected. Four additional rooms (server, utility, janitorial and elevator motor unit rooms) are located along the east side of the first floor. Located within the server room are the computer servers and back up batteries (See Photo 23). Located within the utility room are the utility panels and switches (See Photo 24). Located within the elevator motor unit room is the elevator motor unit (See Photo 25). Located within the janitorial room are household cleaning supplies and a mop sink (See Photo 26). The restrooms have drains on the tiled floor and sinks. Visual observations of the individual offices, common areas, storage rooms and restroom facilities did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the individual offices, common areas, storage rooms and restroom facilities did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

Second-Third Floors - - The second and third floors are occupied by Nestlé Direct Store Delivery. The main entrance to the second floor is via the second floor main lobby along the east side of the building (See Photo 21). Additional personnel doors are located along the west sides of the second floor providing employee access to the business unit. Access to the upper and lower floors is via a passenger elevator located within the central lobby area. Additional internal stairwells are also located within the building providing access to the upper and lower floors.

The main lobby and employee café are located on the west portion of the second floor (See Photos 27 - 30). Located within the second and third floor individual offices, common areas, storage rooms and restroom facilities are typical office furnishings and supplies (See Photos 31 - 34). Hallways bisect the second and third floors running north to south and east and west. A passenger elevator is located in the lobby area providing access to the upper levels. Visual observations of the main lobby, employee café, individual offices, common areas, storage rooms and restroom facilities did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the main lobby, employee café, individual offices, common areas, storage rooms and restroom facilities did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

Two-Story Residential Dwelling (6012 Claremont Avenue) (circa 1917) - The two-story residential dwelling is located on the southwest portion of the subject site. The building consists of a three bedroom one bath single-family dwelling. The main entrance to the building is via the main floor along the west side of the building (See Photo 35). Additional personnel doors are located along the east side of the building providing access to the main floor and basement area (See Photo 36). Access to the upper and lower floors is via internal stairwells. The dwelling is currently vacant. Discussions with Mr. Gentry indicated this unit was utilized as rental housing and to his knowledge no hazardous materials, underground tanks, sumps or hazardous materials are currently utilized within the building.

Located within the building are typical household fixtures (See Photos 37 - 38). Located within the basement area is a concrete vault with central furnace (See Photo 39). In addition, a water heater tank and maintenance sink are located within the basement area (See Photo 39 - 40). The furnace is currently natural gas fueled, however appears to have been added later. No obvious evidence of a former boiler and/or associated underground heating oil tank was noted in this area. Visual observations of the three bedroom one bath single-family dwelling did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the three bedroom one bath single-family dwelling did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

One-Story Residential In-Law Unit (6012B Claremont Avenue) (circa 1917) - The one-story residential in-law unit is located on the southwest portion of the subject site. The building consists of a studio apartment. The main entrance to the building is located along the north side of the building (See Photo 41). The unit is currently vacant. Discussions with Mr. Gentry indicated this unit was utilized as rental housing and to his knowledge no hazardous materials, underground tanks, sumps or hazardous materials are currently utilized within the building.

Located within the building are typical household fixtures (See Photo 42). Visual observations of the one-story residential in-law unit did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the one-story residential in-law unit did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

Two-Story Residential Dwelling (6016 Claremont Avenue) (circa 1923) - The two-story residential dwelling is located on the southwest portion of the subject site. The building consists of a two bedroom two bath single-family dwelling. The main entrance to the building is via the main floor along the west side of the building (See Photo 43). Additional personnel doors are located along the east side of the building providing access to the main floor and basement area (See Photo 44). Access to the upper and lower floors is via internal stairwells. The dwelling is currently vacant. Discussions with Mr. Gentry indicated this unit was utilized as rental housing and to his knowledge no hazardous materials, underground tanks, sumps or hazardous materials are currently utilized within the building.

Located within the building are typical household fixtures (See Photos 45 - 46). Located within the basement area is a water heater tank and maintenance sink (See Photo 47 - 48). The furnace is currently natural gas fueled, however appears to have been added later. No obvious evidence of a former boiler and/or associated underground heating oil tank was noted in this area. Visual observations of the two bedroom two bath single-family dwelling did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the two bedroom two bath single-family dwelling did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

Three-Story Commercial Office Building "Cronk Center" (6028 Claremont Avenue) (circa 19--) - The three-story commercial office building is located on the west portion of the subject site (See Photos 49 - 50). The building is occupied by Nestlé Direct Store Delivery and consists of three floors of office space and special event rooms. The main entrance to the building is along the south side of the building. Additional personnel doors are located along the east and west sides of the first floor providing employee access to the building. A passenger elevator is located in the main entrance providing access to the upper levels. Internal stairwells are located within the building providing access to the upper floors. Located Discussions with representatives of the subject site stated to their knowledge no hazardous materials, underground tanks, sumps or hazardous materials are currently utilized within the building.

First Floor - The first floor consists of special event rooms, kitchen, common areas, storage rooms and restroom facilities. Located within the first floor special event rooms (lecture/meeting hall, meeting rooms, tasting rooms), kitchen, common areas, storage rooms and restroom facilities are typical office furnishings and supplies (See Photos 51-54). Located within the tasting room and kitchen are typical commercial grade equipment (See Photo 55). Two additional rooms (janitorial and elevator motor unit rooms) are located within the center portion of the first floor. Located within the janitorial room are household cleaning supplies and a mop sink (See Photo 56). Located within the elevator motor unit room is the elevator motor unit (See Photo 57). A permit within the elevator indicated the elevator had been recently been inspected. The restrooms have drains on the tiled floor and sinks. Visual observations of the first floor special event rooms (lecture/meeting hall, meeting rooms, tasting rooms), kitchen, common areas, storage rooms and restroom facilities did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the first floor special event rooms (lecture/meeting hall, meeting rooms, tasting rooms), kitchen, common areas, storage rooms and restroom facilities did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

<u>*Second-Third Floors*</u> - The second (mezzanine) and third (penthouse) floors of individual offices, common areas, meeting room and restroom facilities. Located within the second (mezzanine) and third (penthouse) floors are typical office furnishings and supplies (See Photos 58 - 60). Visual observations of the second (mezzanine) and third (penthouse) floors did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the second (mezzanine) and third (penthouse) floors did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

<u>Two-Story Converted Office Building "The Outpost" (6048 Claremont Avenue) (circa 1926/1953)</u> - The two-story converted office building is located on the northwest portion of the subject site. The building consists of a four (4) two bedroom two bath residential apartments which have been converted into one interconnecting office space. The main entrance to the building is via the main floor along the west side of the building (See Photos 63 - 64). An additional personnel door is located along the east side of the building providing access to the main floor (See Photo 65). Access to the upper and lower floors is via internal and external stairwells. The building is currently vacant. Discussions with Mr. Gentry indicated the building was utilized as additional office space and to his knowledge no hazardous materials, underground tanks, sumps or hazardous materials are currently utilized within the building.

Located within the building are typical household fixtures (See Photos 66 - 67). Located below the building is a crawl space. Due to limited access visual observations were not conducted of the crawl space. No obvious evidence of a former boiler and/or associated underground heating oil tank was noted in this area. Visual observations of the interconnecting office space did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the interconnecting office space did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

<u>Two-Story Residential Dwelling (5941 Chabot Road) (circa 1926)</u> - The two-story residential dwelling is located on the south portion of the subject site. The building consists of a four bedroom two bath single-family dwelling. The main entrance to the building is via the main floor along the south side of the building (See Photo 69). An additional personnel door is located along the east side of the building providing access to the main floor (See Photo 44). Access to the upper and lower floors is via an internal stairwell. The dwelling is currently vacant.

Discussions with Mr. Gentry indicated this unit was utilized as a women's fitness and locker room and to his knowledge no hazardous materials, underground tanks, sumps or hazardous materials are currently utilized within the building.

Located within the building are typical household fixtures (See Photos 71 - 72). Located below the building is a crawl space. Due to limited access visual observations were not conducted of the crawl space. No obvious evidence of a former boiler and/or associated underground heating oil tank was noted in this area. Visual observations of the four bedroom two bath single-family dwelling did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the four bedroom two bath single-family dwelling did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

<u>Two-Story Residential Dwelling (5941B Chabot Road) (circa 1926)</u> - The two-story residential dwelling is located on the south portion of the subject site. The building consists of two (2) one bedroom one bath residential apartments (originally two bedroom two bath single-family dwelling). The main entrance to the building is via the main floor along the south side of the building (See Photo 75). An additional personnel door is located along the east side of the building providing access to the main floor (See Photo 76). Access to the upper unit is via an external internal stairwell along the south side of the building. Both apartment units are currently vacant. Discussions with Mr. Gentry indicated both units were utilized as a men's fitness and locker room and to his knowledge no hazardous materials, underground tanks, sumps or hazardous materials are currently utilized within the building.

Located within the building are typical household fixtures (See Photos 77 - 78). Located below the building is a crawl space. Due to limited access visual observations were not conducted of the crawl space. No obvious evidence of a former boiler and/or associated underground heating oil tank was noted in this area. Visual observations of the four bedroom two bath single-family dwelling did not reveal any obvious evidence of hazardous materials, stains or spills. Visual observations of the floor of the four bedroom two bath single-family dwelling did not reveal any obvious evidence of collection drains, sumps or other conduits to the subsurface.

Associated Paved and Landscaped Areas - The associated paved area is primarily located on the south and west portions of the subject site (See Photos 79 & 80). Additional associated paved areas (walkways, patios, etc.) are interspersed between the subject site structures and parcel perimeters (See Photo 81). The associated paved parking area is utilized as a common parking/storage zone for the subject site building and is enclosed by an iron fence and gate. The associated landscaped areas are interspersed between the subject site structures and parcel perimeters,

Located adjacent to the three-story office building (6048 Claremont Avenue) is a covered storage area utilized for garbage bins and miscellaneous storage (See Photo 61). An associated storage room is located in this area for additional dry miscellaneous storage (See Photo 62). Associated garbage bin areas are also located adjacent to the residential dwellings and two-story converted office building (See Photo 68). Visual observations of the garbage bin/storage areas did not reveal any obvious evidence of hazardous materials, stains or spills.

Storm water runoff drains are located within the associated paved parking areas. Visual observations of the storm drains did not reveal any obvious evidence of hazardous materials (odors, floating product, stains, etc.).

Visual observations of the associated paved and outside areas did not reveal any obvious signs of hazardous materials, stains, or spills other than minor oil stains common to all parking lots. No obvious evidence of underground storage tanks, distressed vegetation, or other surface impoundments were observed throughout the site during the inspection.

2.2 Adjacent Properties

2.2.1 Immediate Adjacent Properties

Sites in the vicinity of the subject site were observed during the sites reconnaissance to evaluate conditions or businesses indicative of hazardous or potentially toxic materials use.

The following are the uses of the adjoining properties.

North - Residential Apartments (6060 Claremont Avenue) and College Avenue Presbyterian Church (5951 College Avenue)

South - Residential Apartments (6006 Claremont Avenue), Residential Dwellings (5911-5933 Chabot Road) and Chabot Road followed by Takara Sushi Restaurant (5897 College Avenue)

East - College Avenue followed by Beer Baron Restaurant (5900 College Avenue), Shoshin Restaurant (5912 College Avenue), Millenium Restaurant (5914 College Avenue), Residential Apartments over Brow Lounge Restaurant (5916-5920 College Avenue), Stauder Automotive (5930 College Avenue) and The Golden Squirrel Restaurant (5940 College Avenue),

West - Claremont Avenue followed by Residential Dwellings (6009-6057 Claremont Avenue)

Visual observations of Stauder Automotive (5930 College Avenue) indicated obvious business activity indicative to the use, storage and/or treatment of hazardous materials. However, no obvious evidence was noted at the immediate adjacent properties that would represent a significant environmental concern to the subject site.

2.2.2 Wells

Obvious evidence of ground water monitoring wells were noted in the south and southeast portions of the subject site. Discussions with Mr. Gentry indicated these wells are associated with an ongoing investigation of former underground storage tanks that were previously located at the subject site. No other obvious evidence of other wells, such as water supply wells and/or groundwater monitoring wells, were noted on or nearby the subject site.

2.3 Non-ASTM E1527 Considerations

2.3.1 Asbestos Containing Construction Materials

An asbestos survey was not conducted at the property as part of this assessment. However, the subject site structures, excluding the three-story office over retail building (5901-5937 College Avenue) were confirmed to have been constructed before 1979, the year asbestos containing construction materials was banned, thus, asbestos may have been utilized in its construction. Discussions with Mr. Gentry indicated major renovations were completed within the three-story office building (6028 Claremont Avenue) and two-story office building (6048 Claremont Avenue) in the 1990s. No previous asbestos reports were available for our review. No obvious evidence of friable or non-friable suspect asbestos containing materials was observed within easily accessible areas of the structures. Visual observations of the easily accessible areas of the structures appeared to be in good condition with no obvious signs of significant health risk concerns.

Asbestos is a mineral fiber that occurs in rock and soil. Because of its fiber strength and heat resistance asbestos has been used in a variety of building construction materials for insulation and as a fire retardant. Original building materials not easily accessible including, but not limited to, flooring and masting materials, sheet rock muds and taping compounds, ceiling and roofing materials, and ducting and surfacing materials may contain ACCMs. To confirm if any asbestos materials are contained within the structures on the subject site, an asbestos survey should be performed by an AHERA trained asbestos professional. If the property buildings are slated for renovation or demolition, an asbestos inspection will be required, pursuant to the National Emission Standards for Hazardous Air Pollutant (NESHAPs).

2.3.2 Lead-Based Paint

A lead-based paint survey was not conducted at the property as a part of this assessment. However, the subject site structures, excluding the three-story office over retail building (5901-5937 College Avenue) were confirmed to have been constructed before the ban on lead-based paints in 1978, thus, lead-based paints may have been utilized in their construction. Discussions with Mr. Gentry indicated major renovations were completed within the three-story office building (6028 Claremont Avenue) and two-story office building (6048 Claremont Avenue) in the 1990s. No previous lead based paint reports were available for our review. Visual observations of the painted surfaces of the subject site structures appeared to be in good condition with no obvious signs of chipping, cracking, and/or significant health risk concerns.

Lead-based paint is any paint, varnish, stain, or other applied coating that has 1 mg per square cm (or 5,000 µg/g by dry weight) or more of lead. In Section 1017 of the Housing and Urban Development Guidelines, Residential Lead-Based Paint Hazard Reduction Act of 1992, otherwise known as " Title X", states that a lead-based paint hazard is "any condition that causes exposure to lead that would result in adverse human health effects" resulting from lead-contaminated dust, bare, lead-contaminated soil, and/or lead-contaminated paint that is deteriorated or present on accessible, friction, or impact surfaces. Therefore, under Title X, intact lead-based paint on most walls and ceilings would not be considered a "hazard," although the paint should be maintained and its condition monitored to ensure that it does not deteriorate and become a hazard.

Common renovation activities like repairing, sanding, cutting, and demolition can create hazardous lead dust and chips by disturbing lead-based paint, which can be harmful to adults and children. If these materials are to be disturbed during renovation or demolition activities, proper lead based paint abatement will be required, pursuant to CAL/OSHA's Lead Construction Safety Orders, Title 8, Section 1532.1. One of the items (among several others) stated within these regulations is requirements to conduct personal air monitoring for airborne lead particulates of employees engaged in disturbance of lead-containing materials. The purpose of the air monitoring is to determine whether employee exposure to lead dust will exceed OSHA's established airborne lead Action Level (AL) and/or airborne Permissible Exposure Limit (PEL). Should personal air monitoring results reveal airborne lead exposure levels at or above CAL/OSHA's AL or PEL, additional requirements in the form of employee lead training, medical surveillance, record keeping, engineering controls, etc. are emphasized.

All potential waste with lead paint attached must be sampled and analyzed (characterized) for lead content prior to disposal as construction debris. If the total lead levels in the waste product are above 1,000 parts per million under TTLC (Total Threshold Limit Concentration) conditions then the waste is classified as a hazardous lead-containing waste

(RCRA waste). If the total lead levels are determined to be below 1,000 ppm under TTLC conditions then the waste samples must be analyzed per STLC (Soluble Threshold Limit Concentration) conditions (California Waste Extraction Test (WET)) to confirm whether they should be classified as hazardous or non hazardous waste.

Property owners who renovate, repair, or prepare surfaces for painting in pre-1978 rental housing or space rented by child-care facilities must, before beginning work, provide tenants with a copy of EPA's lead hazard information pamphlet Renovate Right: Important Lead Hazard Information for Families, Child Care Providers, and Schools. Owners of these rental properties must document compliance with this requirement — EPA's sample pre-renovation disclosure form may be used for this purpose. Under the rule, child-occupied facilities are defined as residential, public or commercial buildings where children under age six are present on a regular basis. The requirements apply to renovation, repair or painting activities. The rule does not apply to minor maintenance or repair activities where less than six square feet of lead-based paint is disturbed in a room or where less then 20 square feet of lead-based paint is disturbed on the exterior. Window replacement is not minor maintenance or repair.

Note: It is our understanding that the subject site parcels are under consideration of redevelopment. Due to (Pre-1978) structures on site, there is a low potential for these former structures to have impacted the shallow soil with lead based paint. However, the construction contractor for the site should be prepared to deal with the possible discovery and removal of lead impacted soil (and/or associated contamination, if any) in accordance with local and state regulations.

2.3.3 Radon

Radon testing was not conducted at the property as a part of this assessment. However, based on the Map of Radon Zones provided by the United States Environmental Protection Agency (EPA), there is a moderate potential that radon concentrations at, or above, 4 picocuries per liter (pCi/l) are present at the site. Concentrations at, or above, 4 pCi/l are considered to be concentrations of concern per Cal-EPA and EPA. Based on the map, radon has been detected in Alameda County at average levels between 2 pCi/l and 4 pCi/l. Additional information can also be obtained from the California Department of Public Health's Radon Program, which provides a list of radon test results from throughout the state that are sorted by zip code.

Radon is a naturally occurring radioactive gas that is odorless, invisible, and without taste. It is released during the natural decay of uranium, which is present in most rock, soil and water. Its occurrence in the state is influenced primarily by geology. Radon can be found throughout California because uranium exists in all rock and soil. Although certain areas of the state are more likely to contain higher radon levels than others, radon is a house-to-house issue. You may live in an area of low radon potential yet your house can have elevated radon but your neighbor's house has a low radon level. Radon, in its natural state cannot be detected with the human senses. To confirm if any radon is contained within the structure on the subject site, testing should be performed by an EPA-authorized state certified radon testing professional.

2.3.4 Mold

A mold survey was not conducted at the property as a part of this assessment. However, evidence of moisture was observed throughout on the underside of the roof sheathing although no obvious evidence of mold was observed within easily accessible areas of the structures.

In general, mold is a subset of the fungi family. Fungi are common and found in most ecosystems. Fungi is needed to help recycle organic material to sustain plant and animal life. In order to reproduce, mold release tiny spores into the air, which eventually attach onto surfaces favorable for growth. A class of fungi, molds have been found to cause a variety of health problems in humans, including allergic, toxicological, and infectious responses. Molds are decomposers of organic materials, and thrive in humid environments, and produce spores to reproduce as plants produce seeds. When mold spores land on a damp spot indoors, they may begin growing and digesting whatever they are growing on in order to survive. When excessive moisture or water accumulates indoors, mold growth will often occur, particularly if the moisture problems remain undiscovered or not addressed.

Currently, there are no established "sound, science-based Permissible Exposure Limits (PELs) for indoor molds at this time". As mold becomes a more prevalent issue, building owners will need to stay informed on the subject. There are dozens of Internet web sites geared to the topic, and increased litigation in this area is also fueling increased interest. With any new trend there often is misinformation, incorrect conclusions, and conflicting information. Those involved in the building industry should consider the source and weight of information carefully before drawing conclusions and making decisions.

To confirm if any mold is present within the structure on the subject site, laboratory test and sampling can be performed by a qualified industrial hygienist for various species of fungi such as Aspergillus, Cladosporium, Stachybotris and other mycotoxyns, and bacteria families such as Legionella, etc. However, the only types of evidence that have been related consistently to adverse health effects are the presence of current or past water damage, damp materials, visible mold, and mold odor, *not* the number or type of mold spores nor the presence of other markers of mold in indoor air or dust.

3.0 PHYSICAL SITE SETTING

3.1 Geomorphic Description

The subject site is within the Coast Ranges geomorphic province of California within the East Bay Plain, on the eastern flank of the San Francisco Bay structural trough. The property site is situated approximately 2.5-miles east of the San Francisco Bay. In general, the site is on a relatively flat topography approximately 185-190 feet above mean sea level. The late Cenozoic continental and marine sediments of the Alameda Formation unconformably overlay the Franciscan bedrock and are composed of gravel, sand, silt, and clay which is locally organic rich and fossiliferous. Consolidation of the sediments increases with depth, and maximum known thickness is about 1,500 feet.

3.2 Geologic Setting

The subject site is located in the San Francisco Bay Region, which lies near the margin of the Pacific and North American crustal plates. Because these crustal plates are moving relative to each other, the region is tectonically active and experiences numerous and frequent earthquakes. The structure of the San Francisco Bay trough is controlled by interaction between the San Andreas and Calaveras/Hayward fault zones. The active trace of the San Andreas fault zone is located about 16 miles west of the site. The active trace of the Calaveras/Hayward fault zone is located about 4,800 feet east of the site (USGS 2006). The subject site has been, and could in the future, be affected by seismic activity. The alluvial and marine sediments filling the structural basin underlying the San Francisco Bay have been sub-divided based on their dominant modes of deposition and geologic age. In general, these sediments include Bay Mud, the Merritt Sand, and Younger and Older Alluvium. However, fluvially deposited sediments predominate at on the upper portions of the East Bay Plain, and are generally characterized by thin sheets of younger, Holocene fluvial and interfluvial basin deposits underlain by older alluvium of Pleistocene age.

Information regarding oil and gas fields was researched at the California Department of Conservations website. Based on the well finder produced by the Division of Oil, Gas, and Geothermal Resources (http://maps.conservation.ca.gov/doggr/), the subject site does not fall within a known active gas field. In addition, no oil or gas wells, plugged and abandoned dry holes were noted on or nearby the subject site.

Information regarding soil lithology was researched at the California Water Resources Control Board's website at https://geotracker.waterboards.ca.gov/. According to previous subsurface investigation at the *Dryer's Grand Ice Cream site (located at 5929 College Avenue at the subject site)*, the subject site is generally underlain by fine-grained soils (silt and clay) to at least 30 feet below ground surface (bgs), with occasional saturated lenses of sand and/or gravel present at depths below 10 feet (bgs) (Haley & Aldrich 2019).

3.3 Hydrogeologic Setting

Information regarding first depth to groundwater and flow direction were researched at the California Water Resources Control Board's website at https://geotracker.waterboards.ca.gov The East Bay Plain is regionally divided into two major ground water basins: the San Pablo and the San Francisco Basin. These basins are tectonic depressions that are filled primarily with a sequence of coalescing alluvial fans. The Oakland sub-area contains a sequence of alluvial fans, up to 700 feet thick, overlying Franciscan bedrock (Figuers, 1998). Groundwater yields are low in this upland area due to low recharge potential (RWQCB, 1999). Regionally, the ground water flow direction is to the west in the direction of the San Francisco Bay. Harwood Creek runs in an engineered drainage beneath College Avenue east of the subject siite, and south of the subject site along Chabot Road (Sowers, 2000). Locally, topography slopes southwesterly roughly illustrating the direction of the ground water flow direction. Flow direction and velocity are also influenced by buried stream channels that typically are oriented from east to west.

According to previous subsurface investigation at the *Dryer's Grand Ice Cream site (located at 5929 College Avenue at the subject site)*, depth to water in groundwater monitoring wells has historically ranged from between 6 to 14 feet bgs (CET, 1999). The direction of the horizontal hydraulic gradient has often been shown as towards the southwest and west, but has also reported to have been to the northwest (ATT, 1992; CET, 1999). Groundwater monitoring results from a nearby upgradient fuel release site at 5930 College Avenue also indicate a predominantly southerly hydraulic gradient, with occasional westerly and northwesterly direction (GGTR, 2016). Seasonal variations, hillside runoff, aquifer pumping, tidal fluctuations or other factors may influence ground water levels. Seasonal variations should also be anticipated.

4.0 HISTORICAL REVIEW

Site historical information was obtained from a review of Sanborn Fire Insurance Maps, United States Geological Survey (U.S.G.S.) Topographic Maps, aerial photographs, Pacific Telephone & Telegraph and Haines City Directories. In addition, local building and newspaper records were also reviewed. The following Sanborn maps, topographic maps, and city directories were reviewed on October 10, 2018, within the libraries maintained by the University of California in Berkeley, California and City of Oakland, in Oakland, California. The aerial photographs were reviewed online within the sites maintained by National Environmental Title Research, LLC, TerraServer, and Google Earth. In addition, Sanborn Fire Insurance Maps and additional aerials and city directories were obtained from Environmental Data Resources, Inc. (EDR).

Note: Copies of supporting aerials, city directories and maps are not typically included in the report. The historical references are reviewed within local public libraries and are copyright protected and cannot be reproduced without the consent of the owner. As such, our reports properly cite and reference the historical reference in accordance with ASTM E1527-13/AAI protocols. Any incorporation of these documents without the permission of the owner would be against the law.

Reference	Date
Sanborn Fire Insurance Map	1889
U.S.G.S. Topographic Map	1895
U.S.G.S. Topographic Map	1899
Sanborn Fire Insurance Map	1903
Sanborn Fire Insurance Map	1911
U.S.G.S. Topographic Map	1915
Pacific Telephone & Telegraph Co.	1938
Aerial Photograph	1939
Aerial Photograph	1940
Pacific Telephone & Telegraph Co.	1940
Pacific Telephone & Telegraph Co.	1944
Aerial Photograph	1946
U.S.G.S. Topographic Map	1949
Aerial Photograph	1950
Sanborn Fire Insurance Map	1951

Sanborn Fire Insurance Map	1952
Pacific Telephone & Telegraph Co.	1953
Aerial Photograph	1958
Sanborn Fire Insurance Map	1959
U.S.G.S. Topographic Map	1959
Pacific Telephone & Telegraph Co.	1961
Aerial Photograph	1963
Pacific Telephone & Telegraph Co.	1965
Sanborn Fire Insurance Map	1966
Sanborn Fire Insurance Map	1967
Polk City Directory	1967
Aerial Photograph	1968
U.S.G.S. Topographic Map	1968
Sanborn Fire Insurance Map	1969
Polk City Directory	1969
Pacific Telephone & Telegraph Co.	1970
U.S.G.S. Topographic Map	1973
Haines City Directory	1973
Aerial Photograph	1974
Haines City Directory	1976
U.S.G.S. Topographic Map	1980
Aerial Photograph	1980
Haines City Directory	1981
Aerial Photograph	1982
Haines City Directory	1986
Aerial Photograph	1988
Haines City Directory	1990
U.S.G.S. Topographic Map	1993
Aerial Photograph	1993
Haines City Directory	1995
Aerial Photograph	1998
Haines City Directory	2000
Aerial Photograph	2002
Aerial Photograph	2005
Haines City Directory	2005
Aerial Photograph	2009
Aerial Photograph	2010
Haines City Directory	2010
Aerial Photograph	2012
Aerial Photograph	2014
Haines City Directory	2015
Haines City Directory	2018

According to Oakland Localwiki, the “Rockridge neighborhood” is a residential and commercial neighborhood of North Oakland, also known as Lower Rockridge per the map above. The first homes were built in the 1880s (a few still remain), with most of the housing built after 1906 through the 1920s. It spans from 51st Street to Claremont Avenue to Alcatraz, the Berkeley Boarder, and back to Broadway.

In the Oakland Sanborn Fire Insurance Map of 1889, the subject site falls within Volume II. However, the Volume II is not available within the library maintained by the University of California in Berkeley.

In the USGS topographic maps of 1895, 1899 and 1915, the subject site is shown primarily undeveloped. A few small non-descript structures are shown on the southeast and south portions of the subject site. During that time, bordering the site are undeveloped lots to the north; a paved road (current Chabot Road) to the south; a paved road (current College Avenue) to the east; a paved road (current Claremont Avenue) to the west.

In the Oakland Sanborn Fire Insurance Map of 1903, the subject site falls beyond the area of coverage and no-site specific map is available. However, the index map shows College Avenue to the east; Claremont Avenue to the west; and Vernon Street (current Chabot Road) to the south.

In the Oakland Sanborn Fire Insurance Map of 1911, the north portion of the subject site is shown undeveloped. The south and southeast portions of the subject site are shown with a one-story commercial building occupied by a saloon and non-descript retail storefront (300-302 59th Street (current Chabot Road)/5901 College Avenue), two (2) one-story residential dwellings (306-310 59th Street (current Chabot Road) and a two-story structure with associated elevated water tank and sheds utilized as a feed and fuel facility (314 59th Street (current Chabot Road). The west portion of the subject site is shown with two (2) one-story structures with associated shed/barn utilized as a plumber and cleaning works facility (452 & 454 Claremont Avenue). During that time, bordering the site are undeveloped lots to the north; undeveloped lots and 59th Street (current Chabot Road) to the south; College Avenue to the east; and Claremont Avenue to the west.

According to a classified ad within the Oakland Tribune dated July 4, 1915, 6030 Claremont Avenue was occupied by Antiseptic French Laundry.

According to an advertisement within the Oakland Tribune dated December 19, 1921, 6040 Claremont Avenue was occupied by The Lyon Warehouse (fire proof storage facility).

According to an advertisement within the Oakland Tribune dated August 19, 1928, 5921 College Avenue was occupied by Birrell Electric (electronic repair).

According to an advertisement within the Oakland Tribune dated January 1, 1931, 6028 Claremont Avenue was occupied by Antiseptic French Laundry. The ad indicated all work was done by hand.

According to an advertisement within the Oakland Tribune dated April 2, 1933, 5925 College Avenue was occupied by College Avenue Cyclery.

According to an advertisement within the Oakland Tribune dated December 17, 1933, 592-5931 College Avenue was occupied by The Harold D. Knudsen Company. The ad announced their new location which sells and services Chevrolet cars and trucks.

In the city directory of 1938, the subject site is listed as being occupied by WM Perkins Texaco Certified Service Station (5901 College Avenue), Mary Etta James (5919 College Avenue), College Ave Cyclery (5925 College Avenue), Claremont Badminton Courts (5929 College Avenue), Paul Schnoer (6016 Claremont Avenue), Marie Louise French Laundry (6030 Claremont Avenue), Antiseptic French Laundry (6046 Claremont Avenue), W.E. Greenfell (6048 Claremont Avenue), and G.W. Haines (5939 Chabot Road).

In the aerial photographs of 1939, 1940 and 1946, the northeast portion of the subject site appears with a two commercial structures and associated parking along College Avenue. The northwest portion of the subject site appears with four commercial structures. The south and southeast portions of the subject site appear with gasoline service station and four residential structures. The southwest and west portions of the subject site appear with two residential structures and two commercial structures. During that time, bordering the site is a large commercial structure and small commercial structure to the north; residential structures and Chabot Road followed by commercial structure to the south; College Avenue followed by gasoline service station, two commercial structures, vacant lot and gasoline service station to the east; and Claremont Avenue followed by residential structures to the west. Note: due to the resolution of the image, the details of the aerial photographs are difficult to assess.

In the city directory of 1940, the subject site is listed as being occupied by WM Perkins Texaco Certified Service Station (5901 College Avenue), Mary Etta James (5919 College Avenue), F.J. Ridone (5925 College Avenue), Claremont Badminton Courts 5929 College Avenue), Schnoer Bros (6016 Claremont Avenue), Marie Louise French Laundry (6030 Claremont Avenue), J.F. Williams Claremont Garage (6036 Claremont Ave), Antiseptic French Laundry (6046 Claremont Avenue), Leslie Olson (6048 Claremont Avenue), Aaron Oliver E.R. Kline (6052 Claremont Avenue), and Mrs. Reed Patterson (5963 Chabot Road).

In the city directory of 1944, the subject site is listed as being occupied by Perkins Service Station (5901 College Avenue), Mrs. Mary O'Neill Wilson (5919 College Avenue), Edy's Grand Ice Cream Company (5929 College Avenue), Schnoer Bros (6016 Claremont Avenue), Lahon S Mme Hand Laundry and Marie Louise French Laundry (6030 Claremont Avenue), Antiseptic French Laundry (6046 Claremont Avenue), Thomas Roberts (6048 Claremont Avenue), Aaron Oliver E.R. Kline (6052 Claremont Avenue), and S. Delporto (5963 Chabot Road).

According to an advertisement within the Oakland Tribune dated May 7, 1947, 5925 College Avenue was occupied by Robert S. Miller (grand pianos).

According to Dryer's Ice Cream web site, William Dreyer built a state-of-the-art ice cream plant at 5929 College Avenue in 1948, and renamed the company Dreyer's Grand Ice Cream, Inc.

In the USGS topographic maps of 1949, 1959, 1968, 1973, 1980 and 1993, the subject site and all adjacent sites fall within the shaded region designated as "urban developed" with no site-specific details.

In the Oakland Sanborn Fire Insurance Maps of 1951 and 1952, the northeast portion of the subject site is shown with a one-story commercial building with mezzanine and associated parking lot occupied by an ice cream factory (including non-descript retail storefront, warehouse, cold storage and boiler room) (5929 College Avenue) and two-story commercial building occupied by two non-descript retail storefronts and a restaurant (5919-5925 College Avenue). The northwest portion of the subject site is shown with a three-story commercial building with elevator utilized as a warehouse (6040 Claremont Avenue), a one-story residential dwelling (6044 Claremont Avenue), a two-story commercial building with elevator, elevated water tower, boiler room and steam mangles fueled by “gas” utilized as a French laundry (6046 Claremont Avenue) and two-story 4-unit residential flat building (6048-6054 Claremont Avenue). The south and southeast portions of the subject site are shown with an “oil and gas” station and associated auto repair building occupied by a service station (5901-5911 College Avenue) and four (4) one-story residential dwellings with associated garages (5939-5965 Chabot Road). The southwest and west portions of the subject site are shown with two (2) one-story residential dwellings (6012-6016 Claremont Avenue), a contractor’s storage yard with associated storage sheds (6016 1/2 Claremont Avenue), a two-story commercial building with elevated water tower and boiler room utilized as a French laundry (6028-6030 Claremont Avenue) and two-story commercial building occupied by the Lyon Storage & Moving company utilized for “A’s & Stge” (6030 Claremont Avenue). During that time, bordering the site is the First United Presbyterian Church (5951 College Avenue) and two-story 7-unit residential flat building (6060 Claremont Avenue) to the north; two-story residential apartment building (6006 Claremont Avenue), residential dwellings (5911-5933 Chabot Road) and Chabot Road followed by one-story commercial building utilized as two non-descript retail storefronts (5897-5899 College Avenue) to the south; College Avenue followed by gas and oil station with associate auto service building (5902 College Avenue), one-story commercial building utilized as three non-descript retail storefronts (5910-5914 College Avenue), three-story residential apartment building (5920 College Avenue), vacant lot (5930 College Avenue) and gas and oil station (5942 College Avenue) to the east; and Claremont Avenue and Key Route electrical railway and tracks followed by residential dwellings (6009-6057 Claremont Avenue) to the west. Note: Another gas and oil station is located several parcels to the north (6039 College Avenue).

In the city directory of 1953, the subject site is listed as being occupied by Yager’s Texaco Service (5901 College Avenue), General Auto Supply (5919 College Avenue), Linoleum Specialty Co. (5925 College Avenue), Boone-Sandner Co., and Dreyer’s Grand Ice Cream Inc. (5929 College Avenue), John N. Miller (6012 Claremont Avenue), Paul Schnoer (6016 Claremont Avenue), Lahon S Mme Hand Laundry and Marie Louise French Laundry (6030 Claremont Avenue), Alt L.C., Alt Ray K, Bentley Moving & Storage, Palace Van & Storage Co., Palace Van & Storage Co. main entrance (6040 Claremont Avenue), Antiseptic French Laundry (6046 Claremont Avenue), Mrs. Frank Belloco (6048 Claremont Avenue), Walter Woodward

(6050 Claremont Avenue), Bert Reed (6052 Claremont Avenue), Beatrice Rheinstrom (6054 Claremont Avenue), Will Galaway (5939 Chabot Road), and Peter J. Anderson (5957 Chabot Road).

In the aerial photographs of 1958 and 1963, the northeast portion of the subject site appears with a two commercial structures and associated parking along College Avenue. The northwest portion of the subject site appears with four commercial structures. The south and southeast portions of the subject site appear with gasoline service station and four residential structures. The southwest and west portions of the subject site appear with two residential structures and two commercial structures. During that time, bordering the site is a large commercial structure and small commercial structure to the north; residential structures and Chabot Road followed by commercial structure to the south; College Avenue followed by gasoline service station, three commercial structures and gasoline service station to the east; and Claremont Avenue followed by residential structures to the west. Note: due to the resolution of the image, the details of the aerial photographs are difficult to assess.

In the Oakland Sanborn Fire Insurance Map of 1959, the northeast portion of the subject site is shown with a one-story commercial building with mezzanine and associated parking lot occupied by an ice cream factory (including non-descript retail storefront, warehouse, cold storage and boiler room) (5929 College Avenue) and two-story commercial building occupied by one non-descript retail storefront, furniture refinisher and a restaurant (5919-5925 College Avenue). The northwest portion of the subject site is shown with a three-story commercial building with elevator utilized as a warehouse (6040 Claremont Avenue), a one-story residential dwelling (6044 Claremont Avenue), a two-story commercial building with elevator, elevated water tower, boiler room and steam mangles fueled by “gas” utilized as a French laundry (6046 Claremont Avenue) and two-story 4-unit residential flat building (6048-6054 Claremont Avenue). The south and southeast portions of the subject site are shown with a new “oil and gas” station (5901 College Avenue) and four (4) one-story residential dwellings with associated garages (5939-5965 Chabot Road). The southwest and west portions of the subject site are shown with two (2) one-story residential dwellings (6012-6016 Claremont Avenue), a contractor’s storage yard with associated storage sheds (6016 1/2 Claremont Avenue), a two-story commercial building with elevated water tower and boiler room utilized as a French laundry (6028-6030 Claremont Avenue) and two-story commercial building utilized as an auto service facility (6030 Claremont Avenue). During that time, bordering the site is the First United Presbyterian Church (5951 College Avenue) and two-story 7-unit residential flat building (6060 Claremont Avenue) to the north; two-story residential apartment building (6006 Claremont Avenue), residential dwellings (5911-5933 Chabot Road) and Chabot Road followed by one-story commercial building utilized as two non-descript retail storefronts (5897-5899 College Avenue) to the south; College Avenue followed by gas and oil station with associate auto service building (5902 College Avenue), one-story commercial building utilized as three non-descript retail storefronts (5910-5914 College Avenue), three-story residential apartment building (5920 College Avenue), one-story commercial building utilized for auto repairing (5930 College Avenue) and gas and oil station (5942 College Avenue) to the east; and Claremont Avenue and Key Route electrical railway and tracks followed by residential dwellings (6009-6057 Claremont Avenue) to the west. Note: Another gas and oil station is located several parcels to the north (6039 College Avenue).

According to an advertisement within the Oakland Tribune dated January 14, 1960, 5919 College Avenue was occupied by Chimes TV (new and used TVs).

In the city directory of 1961, the subject site is listed as being occupied by Yager's Texaco Service (5901 College Avenue), Sam Vick Laundry (5919 College Avenue), R.W. Roberts (5925 College Avenue), Dreyer's Ice Cream (5929 College Avenue), L. Sommelce 6012 Claremont Avenue), Mrs. Schnoer (6016 Claremont Avenue), Marie Louise French Laundry (6030 Claremont Avenue), Antiseptic French Laundry (6046 Claremont Avenue), Mrs. Belloco (6048 Claremont Avenue), H. Houck (5939 Chabot Road), and Mrs. M.M. Hawe (5963 Chabot Road).

In the city directory of 1965, the subject site is listed as being occupied by Nibbs & CH Kern (5901 College Avenue), Sam Vick Laundry (5919 College Avenue), Leland Stallcup (5925 College Avenue), Dreyer's Ice Cream (5929 College Avenue), L. Sommelce (6012 Claremont Avenue), Mrs. Schnoer (6016 Claremont Avenue), Marie Louise French Laundry (6030 Claremont Avenue), Lakeshore Equipment Co. (6036 Claremont Avenue), Nevel Storage Co. (6040 Claremont Avenue), Antiseptic French Laundry (6046 Claremont Avenue), Mrs. Belloco (6048 Claremont Avenue), Walter Woodward (6050 Claremont Avenue), Bert Reed (6052

Claremont Avenue), J.J. Clouse (5939 Chabot Road), and J.T. Mulm (5941 Chabot Road).

In the Oakland Sanborn Fire Insurance Maps of 1966 and 1967, the northeast portion of the subject site is shown with a one-story commercial building with mezzanine and associated parking lot occupied by an ice cream factory (including non-descript retail storefront, warehouse, cold storage and boiler room) (5929 College Avenue) and two-story commercial building occupied by two non-descript retail storefronts and furniture refinisher (5919-5925 College Avenue). The northwest portion of the subject site is shown with a three-story commercial building with elevator utilized as a transfer warehouse (6040 Claremont Avenue), a one-story residential dwelling (6044 Claremont Avenue), a two-story commercial building with elevator, elevated water tower, boiler room and steam mangles fueled by "gas" utilized as a French laundry (6046 Claremont Avenue) and two-story 4-unit residential flat building (6048-6054 Claremont Avenue). The south and southeast portions of the subject site are shown with an "oil and gas" station (5901 College Avenue) and four (4) one-story residential dwellings with associated garages (5939-5965 Chabot Road). The southwest and west portions of the subject site are shown with two (2) one-story residential dwellings (6012-6016 Claremont Avenue), a vacant storage yard with associated vacant storage sheds (6016 1/2 Claremont Avenue), a two-story commercial building with elevated water tower and boiler room utilized as a French laundry (6028-6030 Claremont Avenue) and two-story commercial building utilized as an educational materials warehouse (6036 Claremont Avenue). During that time, bordering the site is the First United Presbyterian Church (5951 College Avenue) and two-story 7-unit residential flat building (6060 Claremont Avenue) to the north; two-story residential apartment building (6006 Claremont Avenue), residential dwellings (5911-5933 Chabot Road) and Chabot Road followed by one-story commercial building utilized as two non-descript retail storefronts (5897-5899 College Avenue) to the south; College Avenue followed by contractors storage building and associated yard (5902 College Avenue), one-story commercial building utilized as three non-descript retail storefronts (5910-5914 College Avenue), three-story residential apartment building (5920 College Avenue), one-story commercial building utilized for auto repairing (5930 College Avenue) and gas and oil station (5942 College Avenue) to the east; and Claremont Avenue and Key Route electrical railway and tracks followed by residential dwellings (6009-6057 Claremont Avenue) to the west. Note: Another gas and oil station is located several parcels to the north (6039 College Avenue).

In the aerial photograph of 1968, the northeast portion of the subject site appears with a two commercial structures and associated parking along College Avenue. The northwest portion of the subject site appears with four commercial structures. The south and southeast portions of the subject site appear with gasoline service station and four residential structures. The southwest and west portions of the subject site appear with two residential structures and two commercial structures. During that time, bordering the site is a large commercial structure and small commercial structure to the north; residential structures and Chabot Road followed by commercial structure to the south; College Avenue followed by a vacant lot, three commercial structures and gasoline service station to the east; and Claremont Avenue followed by residential structures to the west. Note: due to the resolution of the image, the details of the aerial photographs are difficult to assess.

In the Oakland Sanborn Fire Insurance Map of 1969, the northeast portion of the subject site is shown with a one-story commercial building with mezzanine and associated parking lot occupied by an ice cream factory (including non-descript retail storefront, warehouse, cold storage and boiler room) (5929 College Avenue) and two-story commercial building occupied by two non-descript retail storefront and furniture refinisher (5919-5925 College Avenue). The northwest portion of the subject site is shown with a three-story commercial building with elevator utilized as a transfer warehouse (6040 Claremont Avenue), a one-story residential dwelling (6044 Claremont Avenue), a two-story commercial building with elevator, elevated water tower, boiler room and steam mangles fueled by “gas” utilized as a French laundry (6046 Claremont Avenue) and two-story 4-unit residential flat building (6048-6054 Claremont Avenue). The south and southeast portions of the subject site are shown with an “oil and gas” station (5901 College Avenue) and four (4) one-story residential dwellings with associated garages (5939-5965 Chabot Road). The southwest and west portions of the subject site are shown with two (2) one-story residential dwellings (6012-6016 Claremont Avenue), a vacant storage yard with associated vacant storage sheds (6016 1/2 Claremont Avenue), a two-story commercial building with elevated water tower and boiler room utilized as a French laundry (6028-6030 Claremont Avenue) and two-story commercial building utilized as an educational materials warehouse (6036 Claremont Avenue). During that time, bordering the site is the First

United Presbyterian Church (5951 College Avenue) and two-story 7-unit residential flat building (6060 Claremont Avenue) to the north; two-story residential apartment building (6006 Claremont Avenue), residential dwellings (5911-5933 Chabot Road) and Chabot Road followed by one-story commercial building utilized as two non-descript retail storefronts (5897-5899 College Avenue) to the south; College Avenue followed by contractors storage building and associated yard (5902 College Avenue), one-story commercial building utilized as three non-descript retail storefronts (5910-5914 College Avenue), three-story residential apartment building (5920 College Avenue), one-story commercial building utilized for auto repairing (5930 College Avenue) and parking lot (5942 College Avenue) to the east; and Claremont Avenue and Key Route electrical railway and tracks followed by residential dwellings (6009-6057 Claremont Avenue) to the west. Note: Another gas and oil station is located several parcels to the north (6039 College Avenue).

In the city directory of 1970, the subject site is listed as being occupied by Johnson & Andrews Texaco (5901 College Avenue), Sam Vick Laundry (5919 College Avenue), Leland Stallcup (5925 College Avenue), Dreyer's Ice Cream Grand Ice Cream Company (5929 College Avenue), John Yager (6012 Claremont Avenue), A.M. Dowdall (6016 Claremont Avenue), Marie Louise French Laundry (6030 Claremont Avenue), Berens Associates (6046 Claremont Avenue), and Susanne Weininger (5939 Chabot Road).

In the city directory of 1973, the subject site is listed as being occupied by Sam Vick Laundry (5919 College Avenue), Dianne's Antiques (5925 College Avenue), Dreyer's Ice Cream Grand Ice Cream Company (5929 College Avenue), Dale Gorman (6016 Claremont Avenue), Marie Louise French Laundry (6030 Claremont Avenue), Tom Coroneos and F.N. Telek (6044 Claremont Ave), Berens Associates (6046 Claremont Avenue), Cynthia Oliver (5941 Chabot Road), H.J. Kennedy (5959 Chabot Road), and Connie Wood (5963 Chabot Road).

In the aerial photographs of 1974 and 1980, the northeast portion of the subject site appears with a two commercial structures and associated parking along College Avenue. The northwest portion of the subject site appears with four commercial structures. The south and southeast portions of the subject site appear with gasoline service station and four residential structures. The southwest and west portions of the subject site appear with two residential structures and two commercial structure. During that time, bordering the site is a large commercial structure and small commercial structure to the north; residential structures and Chabot Road followed by commercial structure to the south; College Avenue followed by a small commercial structure, three commercial structures and parking lot to the east; and Claremont Avenue followed by residential structures to the west. Note: due to the resolution of the image, the details of the aerial photographs are difficult to assess.

In the city directory of 1975, the subject site is listed as being occupied by Olunds Texaco (5901 College Avenue), unlisted designated as (xxxx) (5925 College Avenue), Dreyer's Ice Cream (5929 College Avenue), Peter Brown (6012 Claremont Avenue), A. King (6016 Claremont Avenue), Marie Louise French Laundry (6030 Claremont Avenue), The Little Daisy (6036 Claremont Ave), Bill Brown and F.N. Telek (6044 Claremont Avenue), Berens Associates (6046 Claremont Avenue), J.S. Sandhu (6050 Claremont Avenue), Martin Brown (6052 Claremont Avenue), Ana Maria Williams (6054 Claremont Avenue), unlisted designated as (xxxx) (5939 Chabot Road), J.F. Peterson (5957 Chabot Road), Marianne Alexander (5959 Chabot Road), and Robyn Kramer and Donn Spindt (5963 Chabot Road).

In the city directory of 1981, the subject site is listed as being occupied by Rockridge Travel (5919 College Avenue), unlisted designated as (xxxx) (5901 College Avenue), unlisted designated as (xxxx) (5925 College Avenue), Dreyer's Ice Cream and Mannings Inc. (5929 College Avenue), unlisted designated as (xxxx) (6012 Claremont Avenue), Hugh Hori and Kazuo Kajimura and Yoshie Kajimura (6016 Claremont Avenue), Yoshi's Japanese Restaurant (6030 Claremont Avenue), unlisted designated as (xxxx) (5939 Chabot Road), S.A. Bennett (5941 Chabot Road), Michael Palmer (5957 Chabot Road), unlisted designated as (xxxx) (5959 Chabot Road), and unlisted designated as (xxxx) (5963 Chabot Road).

In the aerial photographs of 1982 and 1988, the northeast portion of the subject site appears with a two commercial structures and associated parking along College Avenue. The northwest portion of the subject site appears with four commercial structures. The south and southeast portions of the subject site appear with gasoline service station and four residential structures. The southwest and west portions of the subject site appear with two residential structures and two commercial structures. During that time, bordering the site is a large commercial structure and small commercial structure to the north; residential structures and Chabot Road followed by commercial structure to the south; College Avenue followed by a small commercial structure, four commercial structures to the east; and Claremont Avenue followed by residential structures to the west. Note: due to the resolution of the image, the details of the aerial photographs are difficult to assess.

In the city directory of 1986, the subject site is listed as being occupied by Rockridge Travel (5919 College Avenue), unlisted designated as (xxxx) (5901 College Avenue), unlisted designated as (xxxx) (5925 College Avenue), Dreyer's Ice Cream and Eddy's Grand Ice Cream and Tres Chocolat Inc. (5929 College Avenue), Satoru Hori (6012 Claremont Avenue), Yoshi's Japanese Restaurant (6030 Claremont Avenue), Paula Skene Designs (6046 Claremont Avenue), Center Local Research (6048 Claremont Avenue), R. Dorothy and S.R. Fergusson and Psych Associates and Adele Schwarz (6050 Claremont Avenue), Shelley Brauer and Carol Cotton and Letty Fields and Marian Okamura and Randal Wortman (6052 Claremont Avenue), Carol and Clark Manus (5939 Chabot Road), Gerald and Muriel Manus (5941 Chabot Road), Gary Crumley (5957 Chabot Road), and unlisted designated as (xxxx) (5963 Chabot Road).

In the city directory of 1990, the subject site is listed as being occupied by Travel & Things (5919 College Avenue), unlisted designated as (xxxx) (5901 College Avenue), unlisted designated as (xxxx) (5925 College Avenue), Dreyer's Ice Cream and Eddy's Grand Ice Cream and Tres Chocolat Inc. (5929 College Avenue), Satoru Hori (6012 Claremont Avenue), Gengo Akiba and Yoshi Akiba and Akira Kamoda (6016 Claremont Avenue), Yoshi's Japanese Restaurant (6030 Claremont Avenue), unlisted designated by (xxxx) (6044 Claremont Avenue), unlisted designated by (xxxx) (6046 Claremont Avenue), unlisted designated by (xxxx) (6048 Claremont Avenue), unlisted designated as (xxxx) (5939 Chabot Road), John McKibben (5941 Chabot Road), unlisted designated as (xxxx) (5957 Chabot Road), and unlisted designated as (xxxx) (5963 Chabot Road).

In the aerial photograph of 1993, the northeast portion of the subject site appears redeveloped with current large commercial structure. The northwest portion of the subject site appears with one commercial structure and associated paved parking lot. The south portion of the subject site appear two residential structures and associated paved parking lot. The southwest and west portions of the subject site appear with two residential structures and one commercial structure. During that time, bordering the site is a large commercial structure and small commercial structure to the north; residential structures and Chabot Road followed by commercial structure to the south; College Avenue followed by a small commercial structure, four commercial structures to the east; and Claremont Avenue followed by residential structures to the west. Note: due to the resolution of the image, the details of the aerial photographs are difficult to assess.

In the city directory of 1995, the subject site is listed as being occupied by Global Entertainment (5901 College Avenue), unlisted designated as (xxxx) (5919 College Avenue), unlisted designated as (xxxx) (5925 College Avenue), Dreyer’s Ice Cream and Eddy’s Grand Ice Cream and Tres Chocolat (5929 College Avenue), Satoru Hori (6012 Claremont Avenue), Gengo Akiba and Yoshi Akiba (6016 Claremont Avenue), Keystone Korner and Yoshi’s Japanese Restaurant (6030 Claremont Avenue), unlisted designated as (xxxx) (6044 Claremont Avenue), unlisted designated as (xxxx) (6046 Claremont Avenue), and unlisted designated as (xxxx) (5939 Chabot Road).

In the aerial photographs of 1998, 2002, 2005, 2009, 2010, 2012, 2014 and 2016, the subject site and immediate surrounding properties appear as noted during the site reconnaissance. However, the commercial building on the west portion has been expanded to its current configuration. Note: due to the resolution of the image, the details of the aerial photographs are difficult to assess.

In the city directory of 2000, the subject site is listed as being occupied by Global Entertainment (5901 College Avenue), unlisted designated as (xxxx) (5919 College Avenue), Dreyer’s Grand Ice Cream Parlor (5925 College Avenue), Dreyer’s Ice Cream Corporation and Dreyer’s Ice Cream Parlor and Eddy’s Grand Ice Cream and The Portofino Company and Tres Chocolat (5929 College Avenue), unlisted designated as (xxxx) (6012 Claremont Avenue), Edward Hamilton and Andreja Stevanovic (6016 Claremont Avenue), unlisted designated as (xxxx) (6044 Claremont Avenue), unlisted designated as (xxxx) (6046 Claremont Avenue), unlisted designated as (xxxx) (6048 Claremont Avenue), unlisted designated as (xxxx) (6050 Claremont Avenue), and Emil Rettagliata (5939 Chabot Road).

In the city directory of 2005, the subject site is listed as being occupied by Cotton and Company (5901 College Avenue), Dreyer’s Grand Ice Cream Parlor (5925 College Avenue), Dreyer’s Ice Cream Corporation and Dreyer’s Ice Cream Parlor and Eddy’s Grand Ice Cream and Tres Chocolat (5929 College Avenue), and Joshua Brandt and Andrew Gendron and

Phillips, R.L. Niehaus and P.J. Russell and Karen Stelle (6052 Claremont Avenue).

In the city directory of 2010, the subject site is listed as being occupied by Dreyer’s Grand Ice Cream (5925 College Avenue), and Kellie Kute (6012 Claremont Avenue).

In the city directory of 2015, the subject site is listed as being occupied by Dreyer’s Grand Ice Cream (5925 College Avenue), Kellie Kute (6012 Claremont Avenue Unit A), unlisted designated as (xxxx) (6012 Claremont Avenue Unit B), and unlisted designated as (xxxx) (6016 Claremont Avenue).

In the city directory of 2019, the subject site is listed as being occupied by Crossroads Trading Company (5901 College Avenue), Dreyer’s Grand Ice Cream (5925 College Avenue), Dreyer’s Ice Cream and Eddy’s Grand Ice Cream and Haagen-Dazs Shoppe Co. and Nestle Direct Store Delivery (5929 College Avenue), Christopher Jensen (6012 Claremont Avenue), and Jordan Sartor (6016 Claremont Avenue).

5.0 ENVIRONMENTAL DATABASE REVIEW

5.1 Agency Record Review

Environmental Data Resources, Inc. (EDR) was contracted to compile data from available government agency databases on locations of actual and potentially impacted sites within a one-mile radius of the subject property. Copies of the environmental database lists and the location map for the subject site are included in Appendix A.

The results of the database search by EDR revealed 157 mapped sites and 2 unmapped sites within a one-mile radius, of which 103 mapped sites are within a one-eighth mile radius of the subject site. Based on distance from the subject property and regional hydrogeology the following selected site(s) identified by EDR were deemed to have the highest potential to impact the subject site. In addition, a Tier 1 Vapor Encroachment Screen (VES) pursuant to ASTM E2600-10 was performed on the following selected site(s) to assess whether a potential vapor encroachment condition (VEC) exists at the subject property caused by the release of vapors from contaminated soil or groundwater either on or near the subject site. These sites identified by EDR were located either at, adjacent or possibly up gradient of the subject site.

- **Rouse Perkins & Torre/AH Eske/Larry Olund/College Avenue Repair –** 5901-5109 College Avenue, Oakland. Formerly located on the subject site. Listed on the EDR Hist Auto database.

  According to the information provided by EDR, this site is listed as a gasoline service station from 1933 to 1979. No reports of spills or unauthorized releases were reported for this site by EDR. According to the CAL EPA DTSC EnviroStor and RWQCB GeoTracker online databases, this site is not listed as an active or inactive leak case.

- **Dreyer's Grand Ice Cream –** 5929 College Avenue, Oakland.
  Located on the subject site. Listed on the County, UST, CERS, Haznet, Cortese, ICIS, Finds, Echo and LUST databases.

  According to the information provided by EDR, this site is listed as having one 8,000-gallon unleaded gasoline, two 4,000-gallon diesel, one 4,000-gallon unleaded gasoline and two 1,000-gallon waste oil underground storage tanks. These tanks were installed on an unknown date. This site is also listed as manifesting aqueous solution with total organic residues less than 10 percent, unspecified aqueous solutions, unspecified oil containing waste, tank bottom waste, contaminated soil from site cleanups, asbestos containing waste and other inorganic solid waste from 1989 to 1999 (CAL EPA#s CAC000218609, CAC002170249, CAC002214273, CAC000922200, CAC000629856).

Impacts to the soil and ground water with petroleum hydrocarbons (diesel, gasoline, waste oil) were discovered on January 11, 1990 during the removal of underground storage tanks. In addition, an unauthorized release was reported on February 22, 1990.

See Section 5.2 – Local Agency File Review for more details

- **Sam Yick Laundry** – 5914 College Avenue, Oakland.
  Formerly located on the subject site. Listed on the EDR Hist Cleaners database.

  According to the information provided by EDR, this site is listed as a laundry in 1967. Although, EDR reports this site at 5914 College Avenue (across the street), historical city directories list this site at 5919 College Avenue (on the subject site). No reports of spills or unauthorized releases were reported for this site by EDR. According to the CAL EPA DTSC EnviroStor and RWQCB GeoTracker online databases, this site is not listed as an active or inactive leak case.

- **Parayre Benj** – 6028 Claremont Avenue, Oakland.
  Formerly located on the subject site. Listed on the EDR Hist Cleaners database.

  According to the information provided by EDR, this site is listed as a laundry in 1925. No reports of spills or unauthorized releases were reported for this site by EDR. According to the CAL EPA DTSC EnviroStor and RWQCB GeoTracker online databases, this site is not listed as an active or inactive leak case.

- **DC Graham/MME Louise French Laundry** – 6030 Claremont Avenue, Oakland.
  Formerly located on the subject site. Listed on the EDR Hist Cleaners database.

  According to the information provided by EDR, this site is listed as a laundry in 1943 and 1967. No reports of spills or unauthorized releases were reported for this site by EDR. According to the CAL EPA DTSC EnviroStor and RWQCB GeoTracker online databases, this site is not listed as an active or inactive leak case.

- **JF Williams** – 6036 Claremont Avenue, Oakland.
  Formerly located on the subject site. Listed on the EDR Hist Auto database.

  According to the information provided by EDR, this site is listed as a auto repair shop in 1943. No reports of spills or unauthorized releases were reported for this site by EDR. According to the CAL EPA DTSC EnviroStor and RWQCB GeoTracker online databases, this site is not listed as an active or inactive leak case.

- **Antiseptic French Landry/Claremont Laundry –** 6046 Claremont Avenue, Oakland. Formerly located on the subject site. Listed on the EDR Hist Cleaners database.

  According to the information provided by EDR, this site is listed as a laundry in 1943 and 1967. No reports of spills or unauthorized releases were reported for this site by EDR. According to the CAL EPA DTSC EnviroStor and RWQCB GeoTracker online databases, this site is not listed as an active or inactive leak case.

- **College Avenue Presbyterian Church –** 5951-5955 College Avenue, Oakland. Located adjacent to the northeast and perceived up gradient to the subject site. Listed on the Haznet database.

  According to the information provided by EDR, this site is listed as manifesting asbestos containing materials in 2005 and 2016 (CAL EPA#s CAC002586802, CAC002889798). No reports of spills or unauthorized releases were reported by EDR. Based on this information, the probability of a subsurface environmental impact and/or potential vapor encroachment from this site to the subject site is low.

- **Former Sheaff's Personal Service/Major Chabot Partners –** 5900-5902 College Avenue, Oakland. Located across College Avenue to the east and perceived up gradient to the subject site. Listed on the EDR Hist Auto, County, CERS and Cortese databases.

  According to the information provided by EDR, this site is listed as a gasoline service station from 1925 to 1943. Impacts to the soil and ground water with gasoline were discovered in 1992 during the removal of underground storage tanks.

  According to the ACDEH LOP, CAL EPA DTSC EnviroStor and RWQCB GeoTracker online databases, a gasoline service station operated on the property from 1928 through 1966.Three USTs (2 gasoline and 1 waste oil) are believed to have been removed since they were not located when the dispenser islands were removed from the site in 1979. A commercial/retail building, ~3,000 sq ft in size, was constructed on the property in 1985. A concrete patio area exists at the southwest corner of the property where fuel USTs and dispensing islands were once located. And the waste oil UST was located below the asphalt driveway, east of the building.

  In March 1993 six soil borings (B-1 through B-6) were advanced 15‘ to 20' bgs in the area (SW corner of property) where the former fuel USTs were located. A seventh boring (B-7) was advanced in the location of the former waste oil UST. Soil samples were collected from 15' bgs from all borings and analyzed for TPHg, BTEX, and lead. A grab water sample was collected from boring B-4.

  The soil samples from borings B-2 and B-4 identified levels of TPHg in excess of 100 ppm. The laboratory suspected these samples may also contain diesel and/or kerosene, so additional analysis for TPHd and TPHk were conducted. Low levels of TPHk (98 ppm) was identified in B-4. Sample 8-7, by the former waste oil tank, was also analyzed for TRPH, HVOCs, SVOCs, and heavy metals. Concentrations detected were not significant. The grab water sample from boring B-4 contained 6,300 ppb TPHg and BTEX levels were not above the detection limit of 10ppb.

Additional investigations were conducted in July 1996 to determine whether the USTs were present in the SW corner of the site and to define the extent and severity of soil and groundwater contamination. This study included an electromagnetic survey and the advancement of two geoprobe borings (B-2A and B-4A).

Due to the extensive re-bar and wire mesh under the concrete, the electromagnetic survey was unable to determine the existence or absence of USTs. However, four holes were punched through the concrete using a rock-drill in the southwest corner of the lot in an attempt to locate the USTs. At ~4' bgs the rock-drill encountered refusal in all four holes. It is still inconclusive as to whether USTs are present or absent at this site.

Existence of USTs beneath the site should not pose a threat to human health. However, if the patio area is excavated in the future, attempts must be made to verify the existence or non-existence of USTs, and if found, must be properly closed.

Soil and water samples collected form boring B-4A verified the presence of TPHg and BTEX at 14' bgs. Gasoline, kerosene, toluene, ethyl-benzene and xylene were detected in soil at the extreme southwest corner of the subject site. Small concentrations of oi] and grease were identified in a soil sample collected in the area where a waste oil tank was at one time. Soil concentrations of cadmium and chromium were reported to be less than Soluble Threshold Limit Concentrations (STLC) in the sample collected near the previous location of the waste oil tank. Lead, nickel, and zinc were reported to be above the STLC value but below the Total Threshold Limit Concentration. Concentrations are considered to be within acceptable "background levels* if identified in concentrations less than ten times the STLC. Therefore, all of these metals are within background levels.

Gasoline was also detected in a grab subsurface water sample at 6,300 ppb collected at the extreme south-west corner. However, the hydrocarbon levels identified were lower than levels identified in 1993. Natural bioattenuation may account for the lower levels of hydrocarbons identified. Also, the contaminant levels identified at that time (eg. 1.9 ppb benzene) were noted to not pose a risk to human health or the environment, based on RBCA Tier 1 Look Up Table for soil and groundwater volatilization to outdoor and indoor air, the only potential exposure pathways.

Subsequently, no further remedial actions in regards to the former underground storage tanks was required by the local regulatory agencies and conditional closure was issued on January 9, 1997.

Currently, there is no record of ground water impact from these tanks. However, if future environmental investigations indicate an impact to ground water has spread from the adjacent site onto the subject site, it appears unlikely that there will be any financial liability to the owner of the subject site even if it has been impacted by the release. This conclusion is based on established State policy, which has been promulgated in Resolution 92-49 of the RWCQB, which is entitled Policies and Procedures for Investigation and Cleanup and Abatement of Water Discharges Under Water Code Section 13304. The Resolution reads in part, “The Regional Water Board shall... Require the discharger to extend the investigation, and cleanup and abatement, to any location affected by the discharge or threatened discharge.” This language and the general practice of the governing regulatory agency are such that it is unlikely that any financial responsibility would be passed to the current or future owner(s) of the subject site in the unlikely event that the remedial investigation was to extend to the subject site.

This site is also within 528 feet of the critical distance to the nearest boundary of the subject site for suspect contaminated sites with petroleum hydrocarbon and MBTEX sources and within 1,760 feet of suspect contaminated sites with chlorinated solvents. The critical distance, as defined in E 2600-10, effectively is the upper limit distance a vapor can reasonably be expected to migrate in relatively permeable soil assuming the path of least resistance is directly from the nearest edge of the contaminated media (such as groundwater) to the nearest subject site boundary. As such, the conclusion from Tier 1 screening is that a VEC cannot be ruled out.

However, based on: (1) available grab water data collected along College Avenue; (2) elevated levels of petroleum hydrocarbons within CB-1 at the subject site, the probability of a subsurface environmental impact and/or potential vapor encroachment from this site to the subject site appears high at this time.

- **Former Sheaff’s Service Garage/Accacian Corp/Stauder Automotive –** 5930 College Avenue, Oakland. Located across College Avenue to the east and perceived up gradient to the subject site. Listed on the EDR Hist Auto, RCRA NGR, County, UST, CERS, Haznet, Cortese and LUST databases.

  According to the information provided by EDR, this site is listed as an auto repair shop from 1969 to 2014 and listed with the County as having 550-gallon regular unleaded gasoline and 250-gallon waste oil underground storage tanks. This site is also listed as manifesting aqueous solution with total organic residues less than 10 percent, waste oil and mixed oil, unspecified oil containing waste and unspecified organic liquid mixtures in 1993 to 2011 (CAL EPA#s CAL000308093, CAL000003165, CAL000343737, CAL000308093).

  Impacts to the soil and ground water with gasoline, benzene, tetrachloroethylene (PCE), MTBE were discovered in 1996 during the removal of underground storage tanks.

According to the CAL EPA DTSC EnviroStor and RWQCB GeoTracker online databases, one 675-gallon gasoline and one 340-gallon waste-oil UST were removed from the sidewalk in August 1996. Product piping was removed from beneath sidewalk and former dispenser location in late 2002. No active USTs, fuel storage, or fuel distribution system currently exist onsite. Elevated levels of total petroleum hydrocarbons as gasoline and its constituents (MBTEX) were detected in the soil and ground water. Obvious gasoline contaminated soil was removed up to the foundation of the building, utilities, and a large tree but appears to have been laterally limited due to these structures.

Groundwater monitoring wells MW-1 to MW-3, and soil bores B1 to B3 were installed in 1998 and 1999. Soil bores B7 to B11 were installed in October 2002, soil bores B12 to B24, and hydropunch bores HB-1 to HB-6 were installed in April and June 2005. Bores B25 to B27 and Soil Gas wells SG-1 to SG-3 were installed in August 2013. Soil bores B28 to B35 were installed in November 2015. Soil bores B36 to B44 and soil vapor bores B37V to B42V were installed in October 2017 and January 2019. PCE and its break down products have also been detected in the groundwater.

According to the latest sampling conducted in 2017, B39 and B40 were advance along College Avenue adjacent and directly upgradient to the subject site. After three attempts to obtain a groundwater sample on the west side of College Avenue a single grab groundwater sample has been recovered. While concentrations in this sample (B39) are trace to low, the soil bore log for B40 documented substantial PID detections in soil that indicate grab groundwater at this location, if successfully collected, could be higher. As previously discussed, grab groundwater analytical data collected from soil bore CB-1 in June 1999 at the Dryers Grand Ice Cream site (RO0000153 or T0600100466; 5929 College Avenue, Oakland, CA 94618), has been cited as providing an estimate on the length of the groundwater plume from the subject site. Bore CB-1 is considered upgradient of the Dryers Grand Ice Cream release but is cited to be downgradient of the subject site. Grab groundwater sample CB-1 detected 550 micrograms per liter [µg/l] Total Petroleum Hydrocarbons as diesel [TPHd], <0.5 µg/l benzene, toluene, ethylbenzene, and total xylenes, and <5.0 methyl tert butyl either (MTBE). Due to the inability to collect sufficient grab groundwater samples on the west side of College Avenue due to permitting constraints rather than technical reasons, the installation of a well at the location of B40 appears appropriate to determine the relative risk posed by residual contamination from the site, to buildings across College Avenue from the site, and upgradient of the location of CB-1.

As of June 21, 2019, a Corrective Action Plan and Data Gap Work Plan has been required by the ACDEH.

Currently, there is no record of ground water impact from these tanks. However, if future environmental investigations indicate an impact to ground water has spread from the adjacent site onto the subject site, it appears unlikely that there will be any financial liability to the owner of the subject site even if it has been impacted by the release. This conclusion is based on established State policy, which has been promulgated in Resolution 92-49 of the RWCQB, which is entitled Policies and Procedures for Investigation and Cleanup and Abatement of Water Discharges Under Water Code Section 13304. The Resolution reads in part, “The Regional Water Board shall... Require the discharger to extend the investigation, and cleanup and abatement, to any location affected by the discharge or threatened discharge.” This language and the general practice of the governing regulatory agency are such that it is unlikely that any financial responsibility would be passed to the current or future owner(s) of the subject site in the unlikely event that the remedial investigation was to extend to the subject site.

This site is also within 528 feet of the critical distance to the nearest boundary of the subject site for suspect contaminated sites with petroleum hydrocarbon and MBTEX sources and within 1,760 feet of suspect contaminated sites with chlorinated solvents. The critical distance, as defined in E 2600-10, effectively is the upper limit distance a vapor can reasonably be expected to migrate in relatively permeable soil assuming the path of least resistance is directly from the nearest edge of the contaminated media (such as groundwater) to the nearest subject site boundary. As such, the conclusion from Tier 1 screening is that a VEC cannot be ruled out.

However, based on: (1) available grab water data collected along College Avenue; (2) elevated levels of petroleum hydrocarbons within CB-1 at the subject site, the probability of a subsurface environmental impact and/or potential vapor encroachment from this site to the subject site appears high at this time.

- **CF Theiss/Chevron #20-9339/College Square –** 5940-5942 College Avenue, Oakland. Formerly located across College Avenue to the northeast and perceived up gradient to the subject site. Listed on the EDR Hist Auto, County, CERS and LUST databases.

  According to the information provided by EDR, this site is listed as a gasoline service station from 1928 to 1933. Impacts to the soil and ground water with gasoline and benzene were discovered in 1999 during the removal of underground storage tanks.

  According to the CAL EPA DTSC EnviroStor and RWQCB GeoTracker online databases, this site was a former service station between 1938 and 1968. The site is the current location of a multi-story building built in 1979. After closure of the historic service station at the subject site, surficial soil was excavated and the site was redeveloped at a depth of 4 to 6 feet below the surrounding grade surface. Four soil bores were installed in August and September 1999. Grab groundwater was collected and indicated a release had occurred at the site. Wells MW-1 and MW-2 were installed in December 2000. An additional soil bore was installed in October 2013 in the reported UST complex to determine if the secondary source had been removed. Two sub-slab vapor points were also installed to determine if the risk of vapor intrusion was present at the site, due to the earlier removal of 4 to 6 feet of soil. The October 2013 investigation did not find contaminate levels of concern under the Low Threat Closure Policy.

The site is immediately adjacent (upgradient) to another case (Former Sheaff's Service Garage/Accacian Corp/Stauder Automotive – 5930 College Avenue), and the potential for some commingling of the plumes may be present; however, concentrations in groundwater for the subject site are an order of magnitude lower than the adjacent downgradient site and are stable and decreasing. The two site wells (MW-1, downgradient offsite, and MW-2, adjacent to the former USTs onsite) were sampled for 12 years and the most recent fourth quarter 2012 data indicated no hydrocarbons present in either well. With the exception of trace concentrations of toluene, ethylbenzene, and total xylenes, no hydrocarbons were reported in soil samples collected from these well borings.

Subsequently, no further remedial actions in regards to the former underground storage tanks was required by the local regulatory agencies and conditional closure was issued on December 12, 2014.

Currently, there is no record of ground water impact from these tanks. However, if future environmental investigations indicate an impact to ground water has spread from the adjacent site onto the subject site, it appears unlikely that there will be any financial liability to the owner of the subject site even if it has been impacted by the release. This conclusion is based on established State policy, which has been promulgated in Resolution 92-49 of the RWCQB, which is entitled Policies and Procedures for Investigation and Cleanup and Abatement of Water Discharges Under Water Code Section 13304. The Resolution reads in part, "The Regional Water Board shall... Require the discharger to extend the investigation, and cleanup and abatement, to any location affected by the discharge or threatened discharge." This language and the general practice of the governing regulatory agency are such that it is unlikely that any financial responsibility would be passed to the current or future owner(s) of the subject site in the unlikely event that the remedial investigation was to extend to the subject site.

This site is also within 528 feet of the critical distance to the nearest boundary of the subject site for suspect contaminated sites with petroleum hydrocarbon and MBTEX sources and within 1,760 feet of suspect contaminated sites with chlorinated solvents. The critical distance, as defined in E 2600-10, effectively is the upper limit distance a vapor can reasonably be expected to migrate in relatively permeable soil assuming the path of least resistance is directly from the nearest edge of the contaminated media (such as groundwater) to the nearest subject site boundary. As such, the conclusion from Tier 1 screening is that a VEC cannot be ruled out.

However, based on: (1) available grab water data collected from their down gradient wells; (2) and soil vapor sampling results, the probability of a subsurface environmental impact and/or potential vapor encroachment from this site to the subject site appears low at this time.

- **College Avenue Shell/Sunshine Shell Service Station/Equilon Enterprises –** 6039 College Avenue, Oakland. Formerly located several parcels to the north and perceived up/cross gradient to the subject site. Listed on the EDR Hist Auto, County, UST, CERS, Haznet, Cortese and LUST databases.

  According to the information provided by EDR, this site is listed as a gasoline service station from 1969 to 2008 and listed as having three 10,000-gallon gasoline underground storage tanks installed in 1979. This site was also listed as manifesting waste oil and mixed oil, tank bottom waste, empty containers and other inorganic solid waste from 1998 to 2013 (CAL EPA#s CAL0001624992, CAL000367017). Impacts to the soil and ground water with gasoline and benzene were discovered in 2013 during the removal of underground storage tanks.

  According to the CAL EPA DTSC EnviroStor and RWQCB GeoTracker online databases, this site is a former Shell service station located on the southern corner of College Avenue and Claremont Avenue in Oakland, California. Currently, the site is a vacant lot. According to Shell's records, the station first opened in 1940.

  Soil and groundwater sampling was conducted between 1990 and 1993. Petroleum hydrocarbons were detected in soil during a dispenser and piping upgrade in February 1998. Separate phase product recovery was conducted using wells MW-3 and MW-4 in 1999 and 2001 Soil and groundwater sampling was conducted between 1990 and 1993. Petroleum hydrocarbons were detected in soil during a dispenser and piping upgrade in February 1998. Separate phase product recovery was conducted using wells MW-3 and MW-4 in 1999 and 2001.

  Historical data from monitoring wells MW-1 through MW-7 and grab groundwater samples from borings SB-1 through SB-3 and SB-6 through SB-8 in 2005 adequately defined BTEX, MTBE, and TBA impacts in groundwater to below applicable ESLs. The source area has been adequately characterized by grab groundwater samples collected during a 2005 subsurface investigation. Grab groundwater samples collected from the dispenser area (SB-1 and SB-2) and UST complex (SB-8) in 2005 contained concentrations of total petroleum hydrocarbons as gasoline (TPHg), benzene, and ethylbenzene which exceeded the ESLs. Benzene and ethylbenzene data from wells MW-5 and MW-6, located down gradient from the dispensers and the UST complex adequately defined the extent of groundwater impacts in these areas to below ESLs.

  Subsequently, no further remedial actions in regards to the former underground storage tanks was required by the local regulatory agencies and conditional closure was issued on May 4, 2011.

  During the removal of three underground storage tanks on January 29, 2013, holes were observed in the end of one UST and petroleum hydrocarbons were detected in soil samples collected from the tank pit excavation. Additional site investigation that included soil, soil gas, and groundwater sampling, was conducted in February and March 2015 detected petroleum hydrocarbons at elevated concentrations in the central portion of the site.

The property owner has submitted plans to construct a mixed commercial and residential building that includes a subsurface garage. ACDEH requested a Corrective Action Plan that evaluates potential human health risks for the planned redevelopment and presents plans for cleanup and/or mitigation prior to or during site development. A work plan for removal of petroleum impacted soil was submitted in response to ACDEH's directive for a CAP. However, based on a stakeholder meeting conducted on September 13, 2016, ACDEH wrote a directive requesting additional information on the status of the entitlement process for the proposed redevelopment. As of 6/27/17, no information has been provided, and therefore, the case will be evaluated for closure, based on the existing land use.

Currently, there is no record of ground water impact from these tanks. However, if future environmental investigations indicate an impact to ground water has spread from the adjacent site onto the subject site, it appears unlikely that there will be any financial liability to the owner of the subject site even if it has been impacted by the release. This conclusion is based on established State policy, which has been promulgated in Resolution 92-49 of the RWCQB, which is entitled Policies and Procedures for Investigation and Cleanup and Abatement of Water Discharges Under Water Code Section 13304. The Resolution reads in part, “The Regional Water Board shall... Require the discharger to extend the investigation, and cleanup and abatement, to any location affected by the discharge or threatened discharge.” This language and the general practice of the governing regulatory agency are such that it is unlikely that any financial responsibility would be passed to the current or future owner(s) of the subject site in the unlikely event that the remedial investigation was to extend to the subject site.

This site is also within 528 feet of the critical distance to the nearest boundary of the subject site for suspect contaminated sites with petroleum hydrocarbon and MBTEX sources and within 1,760 feet of suspect contaminated sites with chlorinated solvents. The critical distance, as defined in E 2600-10, effectively is the upper limit distance a vapor can reasonably be expected to migrate in relatively permeable soil assuming the path of least resistance is directly from the nearest edge of the contaminated media (such as groundwater) to the nearest subject site boundary. As such, the conclusion from Tier 1 screening is that a VEC cannot be ruled out.

However, based on: (1) available grab water data collected from their down gradient wells; (2) and soil vapor sampling results, the probability of a subsurface environmental impact and/or potential vapor encroachment from this site to the subject site appears low at this time.

5.2 Local Agency File Review

On October 4, 2019, a Basics representative contacted the California EPA - Department of Toxic Substance Control (CAL EPA DTSC) in Berkeley, California, in regards to any information concerning the subject site.

- **5901-5937 (odds) College Avenue, Oakland, CA 94618**
- **6012-6048 (evens) Claremont Avenue, Oakland, CA 94618**
- **5939-5965 Chabot Road, Oakland, CA 94618**

The subject site.

No information regarding the subject site unit was available within the CAL EPA DTSC files, however the following records were provided from the CAL EPA Regulated Site Portal online database:

Dreyer's Grand Ice Cream – 5929 College Avenue

According to the information provided by CAL EPA, impacts to the soil and ground water with petroleum hydrocarbons (diesel, gasoline, waste oil) were discovered on January 10, 1990 during the removal of underground storage tanks. The cleanup of an unauthorized release of petroleum hydrocarbons or petroleum surrogates, or byproducts from a Leaking Underground Storage Tank (LUST) is currently being overseen by the ACDEH.

On October 4, 2019, a Basics representative contacted the California Regional Water Quality Control Board (RWQCB) in Oakland, California, in regards to any information concerning the subject site.

- **5901-5937 (odds) College Avenue, Oakland, CA 94618**
- **6012-6048 (evens) Claremont Avenue, Oakland, CA 94618**
- **5939-5965 Chabot Road, Oakland, CA 94618**

The subject site.

According to the information provided by RWQCB, the following records were provided from the GeoTracker online database:

Dreyer's Grand Ice Cream – 5929 College Avenue

According to the information provided by GeoTracker, this site is occupied by a large building (the Dreyer's facility), two large asphalt-covered parking areas, and small landscaping areas near the perimeter of the property. The two-acre property is bounded by Claremont Avenue to the northwest, College Avenue to the east, and Chabot Road to the south.

The property was developed as a commercial building and parking lot and serves as the headquarters of Dreyer’s Grand Ice Cream. Between December 1989 and February 1990, seven underground fuel and waste oil storage tanks1 (USTs) and approximately 500 to 550 cubic yards of impacted soil were removed from the site (CET Environmental Services [CET], 1995).

Since source removal, multiple soil and groundwater investigations have been conducted (e.g., Aqua Terra Technologies [ATT], 1992 and 1993; CET 1999). Groundwater monitoring wells MW1, MW2, and MW3 were installed in July 1991 as part of these investigations (ATT, 1992). Three additional wells, MW4, MW5, and MW6, were installed in August 1993 (CET, 1995).

The chemicals of concern (COCs) at the site are fuel-related compounds such as total petroleum hydrocarbons (TPH) quantified as gasoline and diesel (TPHg and TPHd, respectively), and benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX). Other fuel-related volatile organic compounds, including naphthalene, have also been detected, but generally at lower concentrations than TPH and benzene. Potential sources for these COCs in groundwater include leaks from the seven former USTs (gasoline, diesel, and waste oil) and upgradient fuel releases. The seven former USTs, along with up to 550 cubic yards of impacted soils, were removed between December 1989 and February 1990. The excavation of the tanks and impacted soils are believed to have removed the primary source of impacts to the subsurface; there has been no documented residual non-aqueous phase liquid to act as an ongoing source of COCs to groundwater.

A meeting was held on 10 January 2018 between Nestlé, ACDEH, and Haley & Aldrich to review existing site groundwater monitoring data in the context of the California State Water Resources Control Board’s (Water Board) Low Threat Underground Storage Tank Closure Policy (Low-Threat Closure Policy). During the meeting, ACDEH indicated that the site does not meet the Low-Threat Closure Policy criteria based on several data gaps, including:

- Definition of the lateral extent of the groundwater plume;
- dentification of potential sensitive receptors;
- Evaluation of potential vapor intrusion to indoor air; and
- Evaluation of chemicals of concern in shallow (0 to 5 feet) soil.

In April 2018, Haley & Aldrich compiled additional information to address the ACDEH concerns.

In July 2018, a review conducted by the RWQCB stated the site does not meet all eight General Criteria. Conceptual site model (CSM) is not fully developed because there is insufficient data to assess plume definition, vapor intrusion, and direction contact.

According to the latest ground water monitoring report (Haley & Aldrich, August 2019), TPHg was detected in three of the six site monitoring wells (MW2, MW3, and MW5). Where detected, TPHg concentrations ranged from 1,300 micrograms per liter ([µg/L]; in MW3) to 5,200 µg/L (in MW5). TPHd was also detected in the same three Site monitoring wells, at concentrations ranging from 380 µg/L (in MW3) to 1,500 µg/L (in MW5).

In general, TPHg and TPHd concentrations were reported to be consistent with, or lower than, historical concentrations. Concentrations in some wells have decreased by one to two orders of magnitude from historical high concentrations. For example, MW4 historically contained TPHg concentrations in excess of 10,000 µg/L, but no TPHg was detected in the most recent sampling event.

BTEX compounds and naphthalene were noted to be commonly detected in groundwater at fuel release sites. The analytical results for BTEX and naphthalene in samples collected from site monitoring wells are summarized below.

- Detected benzene concentrations ranged from 1.2 µg/L in MW2 to 4.4 µg/L in MW5. Benzene was not detected above the laboratory reporting limit in wells MW1, MW4, and MW6.
- Detected toluene concentrations ranged from 0.84 µg/L in MW2 to 1.4 µg/L in MW3. Toluene was not detected above the laboratory reporting limit in wells MW1, MW4, and MW6.
- Detected ethylbenzene concentrations ranged from 1.0 µg/L in MW3 to 28 µg/L in MW5. Ethylbenzene was not detected above the laboratory reporting limit in wells MW1, MW4, and MW6.
- Detected total xylene concentrations ranged from 2.9 µg/L in MW2 to 4.5 µg/L in MW5. Total xylene was not detected above the laboratory reporting limit in wells MW1, MW4, and MW6.
- Naphthalene was only detected in one well (MW5) at a concentration of 3.3 µg/L.

The results were reported to be generally consistent with an overall decreasing trend for BTEX compounds in groundwater. Similar to TPH, the BTEX compound concentrations reported have generally decreased by more than two orders of magnitude.

On August 13, 2018, Haley & Aldrich conducted additional soil, soil vapor and ground water sampling at the site in accordance with the approved work plan for Additional Site Characterization. Using the data generated from this effort, along with the results of ongoing groundwater monitoring at the site, Haley & Aldrich evaluated the available data with respect to the requirements of the Low-Threat Closure Policy. The evaluation concludes that the site meets the criteria specified in the Low-Threat Closure Policy and does not pose an unacceptable risk to human health and the environment. Haley & Aldrich therefore recommended that the site be considered for closure.

Libitzky Holdings, LP – 5901 College Avenue

On September 23, 2019, Litbitzky Holdings, LP submitted a preliminary site review by the ACDEH in regards to the planned use of the existing structures as part of the Nestle campus for housing and Jewish Community Center which would allow for daycare, educational activities and recreational use. In addition, clarification of the criteria to be used for closure of the current open leak case (Dryer's Grand Ice Cream).

As part of the preliminary site review, the ACDEH requested a summary of the data to include:

- Submit all Environmental Reports (Phase I, Phase II, etc.)
- Include figure(s) that illustrate boring/well locations in relation to current and historical site buildings and include the address and/or APNs of the current and former structures.
- Submit all boring logs for the site.
- Submit documentation for Planning Department approvals.
- Submit Building Permit Application plan set or conceptual development plan.
- Submit information of whether the site is cut and fill or a balanced site.
- Provide documentation for the property transaction.
- Submit a tentative schedule for the redevelopment.
- Submit documentation for lead, asbestos, and PCBs abatement should demolition activities be proposed.

On October 4, 2019, a Basics representative contacted the Bay Area Air Quality Management District (BAAQMD) in San Francisco, California, in regards to any information concerning the subject site.

- **5901-5937 (odds) College Avenue, Oakland, CA 94618**
- **6012-6048 (evens) Claremont Avenue, Oakland, CA 94618**
- **5939-5965 Chabot Road, Oakland, CA 94618**

The subject site.

No information regarding the subject site was available within the BAAQMD files. No information regarding hazardous materials, underground storage tanks or unauthorized releases was available for the subject site.

On October 4, 2019, a Basics representative contacted the Alameda County Water District (ACWD) in Fremont, California, in regards to any information concerning the subject site:

- **5901-5937 (odds) College Avenue, Oakland, CA 94618**
- **6012-6048 (evens) Claremont Avenue, Oakland, CA 94618**
- **5939-5965 Chabot Road, Oakland, CA 94618**

The subject site.

No information regarding the subject site was available within the ACWD files. In addition, no information regarding hazardous materials, underground storage tanks or unauthorized releases was available for the subject site.

On October 4, 2019, a Basics representative contacted the Alameda County Department of Environmental Health (ACDEH) in Alameda, California, in regards to any information concerning the subject site:

- **5901-5937 (odds) College Avenue, Oakland, CA 94618**
- **6012-6048 (evens) Claremont Avenue, Oakland, CA 94618**
- **5939-5965 Chabot Road, Oakland, CA 94618**

The subject site.

According to the information provided by ACDEH, the following records were provided:

<u>Dreyer's Grand Ice Cream – 5929 College Avenue</u>

The earliest record for Dreyer's Grand Ice Cream was an inspection conducted by the ACDEH and questionnaire completed by Mr. Doug Shultz on February 6, 1987. During this time, Dreyer's Grand Ice Cream was noted to utilize the site as an ice cream production facility. Toxic materials (lubricating oils, napthelene, petroleum ethyl ether, ethyl alcohol, sulfuric acid, methanol, dichloroethene, butyl alcohol, ammonia hydroxide, and various laboratory reagents), anhydrous ammonia (refrigerant), phosphoric acid and sodium hypochlorite (sanitizers) and six unused underground storage tanks were reported to be utilized onsite. Waste oil was also noted to be generated. As such, the proper permit fees, labels, secondary containment, hazardous materials management plan, etc. were required.

In December 1989, the underground storage tanks were removed (See RWQCB review above). During this time, the ice cream plant was in the process of vacating the building.

No other information regarding hazardous materials, underground storage tanks or unauthorized releases was available for the subject site.

On October 4, 2019, a Basics representative contacted the City of Oakland Fire Department (OFD) in Oakland, California, in regards to any information concerning the subject site:

- **5901-5937 (odds) College Avenue, Oakland, CA 94618**
- **6012-6048 (evens) Claremont Avenue, Oakland, CA 94618**
- **5939-5965 Chabot Road, Oakland, CA 94618**

The subject site.

The ACDEH is currently the local enforcing agency overseeing hazardous materials within the City of Oakland, however, from 1995 to 2015, the City of Oakland Fire Department (OFD) was the local enforcing agency.

According to the information from the OFD files, the only information provided are routine inspections conducted for Dreyers Ice Cream and Crossroad Trading Company from 2013 to 2019. No information regarding hazardous materials, underground storage tanks or unauthorized releases was available for the subject site.

On October 4, 2019, a Basics representative contacted the City of Oakland Building Department (OBD) in Oakland, California, in regards to any information concerning the subject site:

- **5901-5937 (odds) College Avenue, Oakland, CA 94618**
- **6012-6048 (evens) Claremont Avenue, Oakland, CA 94618**
- **5939-5965 Chabot Road, Oakland, CA 94618**

The subject site.

Discussions with a representative with the OBD indicated the records request could take up to ten business days to retrieve any records and they would contact us when the files are available for review.

As of the date of this report, no response from the OBD has been received. As such, this information was not reasonably ascertainable within the time frame of this report, thus representing a "data gap."

However, according to the information provided by OBD online database and available microfiche, the following records were available:

APN 014-1268-009-01 (5901-5937 College Avenue)

(5901 College Avenue)

On October 17, 1991, a permit that allowed tenant improvement for a global entertainment meter was issued. This permit is issued for the video store.

On October 23, 1991, a bathroom water heater was installed.

On January 11, 2000 the video store changed to a maternity and children's clothing store, and tenant improvements were made.

On February 2, 2000, a permit to add railings existing exterior ramps was obtained.

On February 15, 2000, a permit was obtained for electrical work as a form of tenant improvement.

On April 17, 2001, tenant improvements were made to expand the maternity and children's clothing store. A ramp was also added inside the space.

On May 5, 2002, a permit was issued to change 12 commercial building awnings, and replace the fabric on 3 of them.

On July 1, 2005, a trench was dug to install a PVC conduit.

On March 25, 2010, tenant improvements were made in Crossroads Trading Co.

On April 19, 2013, the sewer was repaired.

On September 18, 2019, the City of Oakland issued a sidewalk compliance certificate indicating satisfactory compliance of sidewalk regulation. Repairs and replacements of sidewalk were made in order to comply with city regulations.

(5919 College Avenue)

On November 15, 1989, permits were finalized to demolish the factory.

(5925 College Avenue)

On April 14, 1992, tenant improvements were made for the Dreyer's soda fountain.

On January 29, 1993, permits were issued to improve the storefront and 1100 SF of interior retail space for Dreyer’s Ice Cream shop. This was to happen on the ground floor retail section of the Dreyer’s Building.

On February 26, 1993, the plumbing for the ice cream parlor was completed.

On May 3, 1993, the tenant finalized the build out.

On February 10, 1997, two receptacles and a sub panel were installed.

On June 10, 2002, Dreyer’s Ice Cream was taken over by an ice cream store, but no changes were made to the exterior.

On November 7, 2007, tenant improvements were made for an ice cream parlor.

On December 18, 2007, a non-structural demolition occurred in the interior.

On January 17, 2008, tenant improvements were made for an ice cream parlor. While no exterior work was done, electrical and plumbing improvements were made.

On April 24, 2008, a wall sign was constructed.

On March 28, 2016, circuits were installed and the rooftop A/C unit and fan blower were replaced.

(5929 College Avenue)

On May 21, 1987, the permit for the installation of a waste treatment system was cancelled.

On July 23, 1987, partial piping was constructed for the disposal of waste into settling tank.

On August 14, 1989, a permit for a new office and retail building was finalized.

On November 15, 1989, a permit to demolish an existing factory was issued.

On March 12, 1990, a permit to install underground feeders was obtained.

On May 16, 1990, a permit was issued for tenant renovations for the core tenants.

On August 23, 1990, a permit was issued for more tenant improvements to be made on the ground, main, and upper floor.

On January 18, 1992, a permit to construct a 57,200 SF administrative office building was obtained. In addition to the office building, 87,810 SF parking garage (232 spaces and 590 SF loading dock) was also included in the permitting, with two of the three levels being underground. This permit also included a demolition of the former occupying structures. These structures to be demolished were Yoshi's Nightclub, an unoccupied single-family residence, a two story office building, and 158 surface parking spaces.

On May 7, 1998, a permit to conduct minor alterations to the work station was obtained.

On January 20, 2005, a permit was issued for tenant improvements to add non bearing interior partition walls.

On February 8, 2005, a permit was obtained to add electrical to the non bearing interior partition walls erected previously.

On February 10, 2006, a permit was issued to install electrical work for the office cubicles on the first and second floors.

On December 2, 2013, a mechanical permit was issued to remodel the lunchroom. This included the installation of 2 sinks, 1 floor drain, 1 garbage disposal, 1 dishwasher, 1 dual unit, 8 various air volume dampers, 1 fire damper, and 1 environmental air duct.

On July 21, 2014, a permit was approved for the proposal to construct a six foot fence and entry gate along Claremont Ave. According to regulation, the fence posts will be bolted to the existing parking curb and will remain within 10 to 20 feet of trees, with no existing trees to be removed.

On September 19, 2014, a proposal to construct a six foot metal railing fence and vehicle entry gate was approved.

<u>APN 014-1268-030-00 (6012 Claremont Avenue)</u>

On September 18, 2019, a Sidewalk Compliance Certificate was issued. The sidewalk was inspected and replaced in order to comply with Oakland Municipal Code 12.04.380.

<u>APN 014-1268-032-01 (6016 Claremont Avenue)</u>

On November 7, 2013 a permit to repair and replace the sewer on the buildings' property was obtained.

APN 014-1268-035-01 (6028 Claremont Avenue)

On June 29, 2004, a permit was issued to restore the exterior façade of the building to its original architecture character. This was to happen through removing existing mansard roofing attached to façade, as well as the transformation of exterior windows.

On September 19, 2014, a proposal to construct a six-foot metal railing fence and entry gate was approved. It was also emphasized in the permit that no trees were to be planted within ten feet of the fence.

APN 014-1268-036-00 (6036 Claremont Avenue)

On April 5, 1998, a permit for a commercial kitchen remodel was issued.

On May 16, 1988, a permit to repair the restaurant kitchen plumbing was obtained.

On August 6, 1991, a permit to create a new entryway to the club was issued.

On August 20, 1991, a permit to remodel the bar was issued.

On October 3, 2002, a small project design permit was issued to repair existing stucco, add new paint, repair the roof, install ADA compliant doors, upgrade windows and doors, install new gutters and downspouts, minor landscaping, and to remove unused rooftop mechanical equipment.

On October 18, 2002, tenant improvements were made to meet ADA compliance, remodel the interior, upgrade windows and install fire improvements (sprinklers, egress, etc.)

On January 28, 2003, a permit was issued to construct a trellis at the back of the commercial building outside the Critical Design Area.

On October 7, 2003, a permit for tenant improvements was approved.

On June 29, 2004, a small project design permit was issued to restore exterior façade to its original architectural character. This included removal and replacement of original components of the building.

On April 14, 2005, an electrical permit was issued for electrical work in the office cubicles.

APN 014-1268-038-00 (6046 Claremont Avenue)

On September 17, 1987, a permit to install the floor drains was issued, as well as to undergo water alteration and service.

On November 6, 1987, the removal and replacement of slab to repair plumbing and electric was approved.

APN 014-1268-039-00 (6048 Claremont Avenue)

On November 22, 2005, a permit to upgrade the electrical structure as well as tenant improvements was approved. This also included the replacement of 4 panel boxes.

On November 28, 2005, tenant improvements were made to the plumbing and mechanical structure, as well as ADA upgrades.

On November 18, 2019, a Sidewalk Compliance Certificate was issued.

APN 014-1268-013-00 (5939-5941 Chabot Road)

On December 18, 1933, a building permit was issued, allowing the construction of concrete supports under the front porch, and two under the hearth. In addition, a sheet metal ventilator would be added under this permit.

On March 3, 1950, a permit was obtained to install underpinning, connect utilities and sewer, and to apply stucco to the exterior.

On April 14, 1977, an application for a structural pest control permit was approved. An affidavit was signed and permission was granted to do Structural Pest Control Work in accordance with city ordinance. Later documents show Terminix (Northern) was applied via pressure to all mudsills, bottom of studs, and other lumber in contact with the foundation.

On November 1, 1977, an application for a structural pest control permit was issued, allowing Terminix to be reapplied to the dwelling.

On January 10, 1978, a standard structural pest control inspection report was issued, detailing the buildings experience with wood destroying pests. The inspection found subterranean termitos in wood underneath the stucco, fungus and dry rot in the framing below the concrete deck, cellulose debris in the sub soil, moisture in the upper deck causing damage beyond repair, as well as the stairs leading to upstairs deck in a state of decay. It was recommended that these be dealt with immediately by ridding rot and pests and replacing with new materials.

On September 6, 1979, the property was sold as a residential building.

On March 27, 1991, a permit was issued to repair and replace all bathrooms, including the drywall, as well as finish the cabinets.

On April 9, 1991, a permit was issued to repair and replace all bedrooms, including drywall, floor finish, cabinets, and fixtures due to the water damage that occurred on the property.

On July 10, 1991, minor alterations of the existing house were approved.

On August 28, 1991, a permit was issued to add any structural work deemed necessary when the remodel would occur.

On September 4, 1991, a building permit was issued to Dreyer's Grand Ice Cream Inc. to remodel the building, adding structural work deemed necessary during remodel. Currently a single family detached unit.

On September 31, 1991, a permit was issued to replace existing wall furnace, as well as to install a new water heater flue.

On November 19, 1991, a permit was issued to Dreyer's Grand Ice Cream Inc. to repair and replace all bathrooms, including drywall, finishes, cabinets, and fixtures.

On August 18, 1992, a permit was given to install heat and cool systems for kitchen, in the rear two-story building.

<u>APN 014-1268-012-00 (5957 Chabot Road)</u>

On July 31, 1945 the R. Brothers, sold the land, and a building permit was issued to Peter Anderson, purchaser of the lot. The permit was for construction of a building to be used as a family home.

On January 31, 1946, Peter Anderson received a permit to convert the ground floor into a rental property, installing a kitchen and bathroom as part of the renovations.

On October 3, 1947, Peter Anderson received his permit to construct a garage on the property, to be used by tenants.

On October 3, 1951, a permit for new construction was approved.

On June 20, 1967 a general request form was submitted to the city complaining about the drain from 5959 Chabot running onto Mrs. Pollara's property (5957 Chabot). It was deemed by the Deputy Building Inspector that both houses are contributing to a water problem.

On January 16, 1981, a plumbing permit was approved. Specifically, there would be new gas lines installed from the existing meter to the water heater. Strapping galvanized pipe to the side of the house.

On June 11, 1987, a plumbing permit was obtained to remodel the kitchen, adding a sink, dishwasher, gas outlets, vents, and a garbage disposal. There also was an electrical permit obtained on the same day, to install circuit work in the kitchen.

On May 10, 1989, a demolition permit was issued for the non-residential, one story building with the construction not to exceed 600 SF.

On December 18, 1989, a building permit was issued.

APN 014-1268-011-01 (5963-5965 Chabot Road)

On November 7, 1947, a permit was issued to install cabinets, doors, windows, hardwood floors, electric, and plumbing fixtures.

On January 28, 1952, a building permit was issued to the Laundry to add a porch in the rear of the building.

On May 5, 1975, a permit was issued to construct a wooden deck in front of the building.

No information regarding hazardous materials, underground storage tanks or unauthorized releases was available for the subject site.

6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

These conclusions are based on the data collected during performance of this ESA and are therefore subject to the time limitations associated with accessing governmental and site data. The purpose of this assessment was to evaluate the likelihood of soil and ground water degradation as a result of the use, storage, treatment, and/or disposal of hazardous materials/waste on the subject site and sites located within a one-mile radius. Findings are based on a geological and hydrogeological information study, and an evaluation of historical and present property use (historical resource review, regulatory agency database and file review, personal interviews and site reconnaissance study).

6.1.1 Data Gaps

A data gap is the failure to obtain information required by the standard despite good faith efforts by the environmental professional to gather the information. Based on the findings of our investigation, the following data gaps were identified:

(1) A request to review the files maintained by the City of Oakland Building Department (OBD) in Oakland was submitted on October 4, 2019 in regards to any information regarding the subject site. Discussions with a representative with the OBD indicated the records request could take up to ten business days to retrieve any records and they would contact us when the files are available for review.

As of the date of this report, no response from the OBD has been received. As such, the earlier building records (pre 1990s) were not reasonably ascertainable within the time frame of this report, thus representing a “data gap.”

Based on the findings of our investigation, it is our opinion that this data gap is considered “significant” at this time. If additional information is received from the OBD that significantly changes the conclusion of this report an addendum will be issued. Because ultimately it remains the user who accepts the liability for having entered into a chain of title, it remains important that the user recognize that if information is later uncovered that fills this "significant" data gap, our opinion regarding the presence of obvious recognized environmental conditions on site may or may not change.

6.1.2 Environmental Issues/*De Minimis* Conditions

De Minimis Condition are defined by the ASTM Standard Practice E1527-13 as condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. On the basis of the information compiled and reviewed by Basics, our findings indicate the following *de minimis* conditions:

(1) By 1911, the north portion of the subject site is shown undeveloped. The south and southeast portions of the subject site are shown with a one-story commercial building occupied by a saloon and non-descript retail storefront (300-302 59th Street (current Chabot Road)/5901 College Avenue), two (2) one-story residential dwellings (306-310 59th Street (current Chabot Road) and a two-story structure with associated elevated water tank and sheds utilized as a feed and fuel facility (314 59th Street (current Chabot Road). The west portion of the subject site is shown with two (2) one-story structures with associated shed/barn utilized as a plumber and cleaning works facility (452 & 454 Claremont Avenue). During that time, bordering the site are undeveloped lots to the north; undeveloped lots and 59th Street (current Chabot Road) to the south; College Avenue to the east; and Claremont Avenue to the west.

Between 1911 and 1933, the northeast portion of the subject site is shown with a one-story commercial building with mezzanine and associated parking lot occupied by an ice cream factory (including non-descript retail storefront, warehouse, cold storage and boiler room) (5929 College Avenue) and two-story commercial building occupied by two non-descript retail storefronts and a restaurant (5919-5925 College Avenue). The northwest portion of the subject site is shown with a three-story commercial building with elevator utilized as a warehouse (6040 Claremont Avenue), a one-story residential dwelling (6044 Claremont Avenue), a two-story commercial building with elevator, elevated water tower, boiler room and steam mangles fueled by "gas" utilized as a French laundry (6046 Claremont Avenue) and two-story 4-unit residential flat building (6048-6054 Claremont Avenue). The south and southeast portions of the subject site are shown with an "oil and gas" station and associated auto repair building occupied by a service station (5901-5911 College Avenue) and four (4) one-story residential dwellings with associated garages (5939-5965 Chabot Road). The southwest and west portions of the subject site are shown with two (2) one-story residential dwellings (6012-6016 Claremont Avenue), a contractor's storage yard with associated storage sheds (6016 1/2 Claremont Avenue), a two-story commercial building with elevated water tower and boiler room utilized as a French laundry (6028-6030 Claremont Avenue) and two-story commercial building occupied by the Lyon Storage & Moving company utilized for "A's & Stge" (6030 Claremont Avenue).

By the late 1980s early 1990s, much of the subject site was redeveloped. The ice cream factory (including non-descript retail storefront, warehouse, cold storage and boiler room) (5929 College Avenue), two-story commercial retail building (5919-5925 College Avenue), contractor's storage yard with associated storage sheds (6016 1/2 Claremont Avenue), two-story moving building (6030 Claremont Avenue), three-story commercial building (6040 Claremont Avenue), one-story residential dwelling (6044 Claremont Avenue), two-story French laundry (6046 Claremont Avenue), one-story "oil and gas" station and associated auto repair building (5901-5911 College Avenue) and two (2) one-story residential dwellings with associated garages (5957-5965 Chabot Road). The southwest and west portions of the subject site are shown with two (2) one-story residential dwellings (6012-6016 Claremont Avenue) were demolished.

In 1992, the east portion of the subject site was redeveloped with the current three-story office over retail building (5901-5937 College Avenue) was developed. During that time, the two-story commercial French laundry (6028-6030 Claremont Avenue), two-story 4-unit residential flat building (6048-6054 Claremont Avenue) were renovated into offices. In addition, the two (2) one-story residential dwellings (5939-5941 Chabot Road) were renovated into offices/fitness rooms.

Based on the historical references reviewed, the subject site appears to have been occupied by various businesses. The occupation by the following businesses identified onsite appear to have a high potential business activity indicative to the storage, treatment or disposal of hazardous or potentially toxic materials:

<u>WM Perkins Texaco Certified Service Station/Yager's Texaco Service/Hibbs & Kerns Texaco Service/Johnson & Andrews Texaco/Olunds Texaco (5901 College Avenue (from at least 1930s-1980s)</u>

Based on the historical references reviewed, a gasoline service station was reported to have occupied 5901 College Avenue. As part of gasoline service station operations, underground tanks and auto maintenance may have been conducted onsite.

See Section 6.1.3 –Recognized Environmental Conditions (RECs).

<u>Sam Vick Laundry (5919 College Avenue) (1960s-1970s)</u>

Based on the historical references reviewed, a retail cleaner was reported to have occupied 5919 College Avenue. As part of retail cleaner operations, dry cleaning may have been performed onsite.

See Section 6.1.3 –Recognized Environmental Conditions (RECs).

The Harold D. Knudsen Company (1930s)

Based on the historical references reviewed, a Chevrolet cars and truck dealership was reported to have occupied 5929-5931 College Avenue. As part of auto dealership operations, underground tanks and auto maintenance may have been conducted onsite.

See Section 6.1.3 –Recognized Environmental Conditions (RECs).

Dreyer's Grand Ice Cream, Inc. (1948-1980s)

Based on the historical references reviewed, a Dreyer's Grand Ice Cream, Inc. was reported to have occupied 5929 & 6036 Claremont Avenue. As part of ice cream production operations, hazardous materials, van storage, truck maintenance may have been conducted onsite.

See Section 6.1.3 –Recognized Environmental Conditions (RECs).

Antiseptic French Laundry/Marie Louise French Laundry (from at least 1915-1970s)

Based on the historical references reviewed, several "French Laundries" were reported to have occupied several buildings (6028, 6030 and 6046 Claremont Avenue). As part of retail cleaner operations, dry cleaning may have been performed onsite.

See Section 6.1.3 –Recognized Environmental Conditions (RECs).

The Lyon Moving Company/Alt L.C., Alt Ray K, Bentley Moving & Storage, Palace Van & Storage Co., Palace Van & Storage Co/Nevel Storage Co. (1920s-1970s)

Based on the historical references reviewed, a moving company was reported to have occupied 6040 Claremont Avenue. As part of moving van operations, underground tanks and truck maintenance may have been conducted onsite.

See Section 6.1.3 –Recognized Environmental Conditions (RECs).

(2) Two Leaky Underground Storage Tank sites at 5900 and 5930 College Avenue (located across College Avenue and perceived up gradient to the subject site were identified to have a high potential of impacting the subject site.

According to the latest sampling conducted in 2017, B39 and B40 were advance along College Avenue adjacent and directly up gradient to the subject site. After three attempts to obtain a groundwater sample on the west side of College Avenue a single grab groundwater sample has been recovered. While concentrations in this sample (B39) are trace to low, the soil bore log for B40 documented substantial PID detections in soil that indicate grab groundwater at this location, if successfully collected, could be higher. As previously discussed, grab groundwater analytical data collected from soil bore CB-1 in June 1999 at the Dryers Grand Ice Cream site (RO0000153 or T0600100466; 5929 College Avenue, Oakland, CA 94618), has been cited as providing an estimate on the length of the groundwater plume from the subject site. Bore CB-1 is considered upgradient of the Dryers Grand Ice Cream release but is cited to be downgradient of the subject site. Grab groundwater sample CB-1 detected 550 micrograms per liter [µg/l] Total Petroleum Hydrocarbons as diesel [TPHd], <0.5 µg/l benzene, toluene, ethylbenzene, and total xylenes, and <5.0 methyl tert butyl either (MTBE). Due to the inability to collect sufficient grab groundwater samples on the west side of College Avenue due to permitting constraints rather than technical reasons, the installation of a well at the location of B40 appears appropriate to determine the relative risk posed by residual contamination from the site, to buildings across College Avenue from the site, and upgradient of the location of CB-1.

As of June 21, 2019, a Corrective Action Plan and Data Gap Work Plan has been required by the ACDEH.

Currently, there is no record of ground water impact from these tanks. However, if future environmental investigations indicate an impact to ground water has spread from the adjacent site onto the subject site, it appears unlikely that there will be any financial liability to the owner of the subject site even if it has been impacted by the release. This conclusion is based on established State policy, which has been promulgated in Resolution 92-49 of the RWCQB, which is entitled Policies and Procedures for Investigation and Cleanup and Abatement of Water Discharges Under Water Code Section 13304. The Resolution reads in part, "The Regional Water Board shall... Require the discharger to extend the investigation, and cleanup and abatement, to any location affected by the discharge or threatened discharge." This language and the general practice of the governing regulatory agency are such that it is unlikely that any financial responsibility would be passed to the current or future owner(s) of the subject site in the unlikely event that the remedial investigation was to extend to the subject site.

This site is also within 528 feet of the critical distance to the nearest boundary of the subject site for suspect contaminated sites with petroleum hydrocarbon and MBTEX sources and within 1,760 feet of suspect contaminated sites with chlorinated solvents. The critical distance, as defined in E 2600-10, effectively is the upper limit distance a vapor can reasonably be expected to migrate in relatively permeable soil assuming the path of least resistance is directly from the nearest edge of the contaminated media (such as groundwater) to the nearest subject site boundary. As such, the conclusion from Tier 1 screening is that a VEC cannot be ruled out.

However, based on: (1) available grab water data collected along College Avenue; (2) elevated levels of petroleum hydrocarbons within CB-1 at the subject site, the probability of a subsurface environmental impact and/or potential vapor encroachment from this site to the subject site appears high at this time.

6.1.3 Recognized Environmental Conditions (RECs)

Recognized Environmental Conditions (RECs) are defined by the ASTM Standard Practice E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. Based on the findings of our investigation, it is our opinion that there are apparent obvious RECs on site that warrant further investigation or documentation at this time:

(1) Perform a utility search to assess the existence or non-existence of a former underground storage tank(s) in connection with former onsite operations (see #2 below). Possible techniques may include magnatrometer, ground penetrating radar, etc.

If former underground fuel storage tank(s) are identified onsite, a permit to remove the tanks is required along with environmental sampling.

(2) Perform environmental site sampling to assess potential subsurface impacts from former onsite operations on the subject site.

<u>WM Perkins Texaco Certified Service Station/Yager’s Texaco Service/Hibbs & Kerns Texaco Service/Johnson & Andrews Texaco/Olunds Texaco (5901 College Avenue (from at least 1930s-1980s)</u>

Based on the historical references reviewed, a gasoline service station was reported to have occupied 5901 College Avenue. As part of gasoline service station operations, underground tanks and auto maintenance may have been conducted onsite.

Between December 1989 and February 1990, seven underground fuel and waste oil storage tanks1 (USTs) and approximately 500 to 550 cubic yards of impacted soil were removed from the site (CET Environmental Services [CET], 1995).

Since source removal, multiple soil and groundwater investigations have been conducted (e.g., Aqua Terra Technologies [ATT], 1992 and 1993; CET 1999). Groundwater monitoring wells MW1, MW2, and MW3 were installed in July 1991 as part of these investigations (ATT, 1992). Three additional wells, MW4, MW5, and MW6, were installed in August 1993 (CET, 1995).

The chemicals of concern (COCs) at the site are fuel-related compounds such as total petroleum hydrocarbons (TPH) quantified as gasoline and diesel (TPHg and TPHd, respectively), and benzene, toluene, ethylbenzene, and xylenes (collectively referred to as

BTEX). Other fuel-related volatile organic compounds, including naphthalene, have also been detected, but generally at lower concentrations than TPH and benzene. Potential sources for these COCs in groundwater include leaks from the seven former USTs (gasoline, diesel, and waste oil) and upgradient fuel releases. The seven former USTs, along with up to 550 cubic yards of impacted soils, were removed between December 1989 and February 1990. The excavation of the tanks and impacted soils are believed to have removed the primary source of impacts to the subsurface; there has been no documented residual non-aqueous phase liquid to act as an ongoing source of COCs to groundwater.

A meeting was held on 10 January 2018 between Nestlé, ACDEH, and Haley & Aldrich to review existing site groundwater monitoring data in the context of the California State Water Resources Control Board’s (Water Board) Low Threat Underground Storage Tank Closure Policy (Low-Threat Closure Policy). During the meeting, ACDEH indicated that the site does not meet the Low-Threat Closure Policy criteria based on several data gaps, including:

- Definition of the lateral extent of the groundwater plume;
- dentification of potential sensitive receptors;
- Evaluation of potential vapor intrusion to indoor air; and
- Evaluation of chemicals of concern in shallow (0 to 5 feet) soil.

In April 2018, Haley & Aldrich compiled additional information to address the ACDEH concerns.

In July 2018, a review conducted by the RWQCB stated the site does not meet all eight General Criteria. Conceptual site model (CSM) is not fully developed because there is insufficient data to assess plume definition, vapor intrusion, and direction contact.

According to the latest ground water monitoring report (Haley & Aldrich, August 2019), TPHg was detected in three of the six site monitoring wells (MW2, MW3, and MW5). Where detected, TPHg concentrations ranged from 1,300 micrograms per liter ([µg/L]; in MW3) to 5,200 µg/L (in MW5). TPHd was also detected in the same three Site monitoring wells, at concentrations ranging from 380 µg/L (in MW3) to 1,500 µg/L (in MW5).

In general, TPHg and TPHd concentrations were reported to be consistent with, or lower than, historical concentrations. Concentrations in some wells have decreased by one to two orders of magnitude from historical high concentrations. For example, MW4 historically contained TPHg concentrations in excess of 10,000 µg/L, but no TPHg was detected in the most recent sampling event.

BTEX compounds and naphthalene were noted to be commonly detected in groundwater at fuel release sites. The analytical results for BTEX and naphthalene in samples collected from site monitoring wells are summarized below.

- Detected benzene concentrations ranged from 1.2 µg/L in MW2 to 4.4 µg/L in MW5. Benzene was not detected above the laboratory reporting limit in wells MW1, MW4, and MW6.
- Detected toluene concentrations ranged from 0.84 µg/L in MW2 to 1.4 µg/L in MW3. Toluene was not detected above the laboratory reporting limit in wells MW1, MW4, and MW6.
- Detected ethylbenzene concentrations ranged from 1.0 µg/L in MW3 to 28 µg/L in MW5. Ethylbenzene was not detected above the laboratory reporting limit in wells MW1, MW4, and MW6.
- Detected total xylene concentrations ranged from 2.9 µg/L in MW2 to 4.5 µg/L in MW5. Total xylene was not detected above the laboratory reporting limit in wells MW1, MW4, and MW6.
- Naphthalene was only detected in one well (MW5) at a concentration of 3.3 µg/L.

The results were reported to be generally consistent with an overall decreasing trend for BTEX compounds in groundwater. Similar to TPH, the BTEX compound concentrations reported have generally decreased by more than two orders of magnitude.

On August 13, 2018, Haley & Aldrich conducted additional soil, soil vapor and ground water sampling at the site in accordance with the approved work plan for Additional Site Characterization. Using the data generated from this effort, along with the results of ongoing groundwater monitoring at the site, Haley & Aldrich evaluated the available data with respect to the requirements of the Low-Threat Closure Policy. The evaluation concludes that the site meets the criteria specified in the Low-Threat Closure Policy and does not pose an unacceptable risk to human health and the environment. Haley & Aldrich therefore recommended that the site be considered for closure.

Note: Impacts to the subsurface not discovered within previous investigations may still exist at the site eventhough no substantial impacts to the subsurface have been discovered. Although, previous limited subsurface investigations have been conducted at the site, samples were limited to the former gasoline service station (5901 College Avenue). In addition, analysis was limited to petroleum hydrocarbons and its constituents and did not include other potential chemicals (i.e. volatile organic compounds). Furthermore, contamination is not necessarily evenly distributed across the subsurface soil and ground water. Therefore, impacts from former large sites such as this can easily remain undetected.

Sam Vick Laundry (5919 College Avenue) (1960s-1970s)

Based on the historical references reviewed, a retail cleaner was reported to have occupied 5919 College Avenue. As part of retail cleaner operations, dry cleaning may have been performed onsite.

According to wikipedia, "modern dry cleaning's use of non-water-based solvents to remove soil and stains from clothes was reported as early as 1855…Flammability concerns led William Joseph Stoddard, a dry cleaner from Atlanta, to develop Stoddard solvent (white spirit) as a slightly less flammable alternative to gasoline-based solvents. The use of highly flammable petroleum solvents caused many fires and explosions, resulting in government regulation of dry cleaners. After World War I, dry cleaners began using chlorinated solvents. These solvents were much less flammable than petroleum solvents and had improved cleaning power…By the mid-1930s, the dry cleaning industry had adopted tetrachloroethylene (perchloroethylene), or PCE for short, as the solvent. It has excellent cleaning power and is nonflammable and compatible with most garments."

As part of retail cleaner operations this site may have performed dry cleaning. Dry cleaners typically utilized solvents above the threshold amounts requiring a permit.

However, no specific information regarding the "Sam Vick" operations was available within the local regulatory agency files reviewed.

Based on the scope of work performed, there is still insufficient data to assess whether dry cleaning operations were conducted onsite as part of past French laundry shop operations.

In the absence of information to indicate if dry cleaning operations was conducted onsite as part of past cleaners operations, this would represent a recognized environmental condition on site that warrants further investigation or documentation at this time.

The Harold D. Knudsen Company (1930s)

Based on the historical references reviewed, a Chevrolet cars and truck dealership was reported to have occupied 5929-5931 College Avenue. As part of auto dealership operations, underground tanks and auto maintenance may have been conducted onsite.

However, no specific information regarding the "The Harold D. Knudsen Company" operations was available within the local regulatory agency files reviewed. Additional review of an advertisement of The Harold D. Knudsen Company" indicates it was a full service dealership.

Dreyer’s Grand Ice Cream, Inc. (1948-1980s)

Based on the historical references reviewed, a Dreyer’s Grand Ice Cream, Inc. was reported to have occupied 5929 Claremont Avenue. As part of ice cream production operations, hazardous materials, van storage, truck maintenance may have been conducted onsite.

Dreyer’s may have also occupied the adjacent two-story commercial building (6036 Claremont Avenue) as it was noted as “auto servicing” during the 1950s.

The earliest record for Dreyer’s Grand Ice Cream was an inspection conducted by the ACDEH and questionnaire completed by Mr. Doug Shultz on February 6, 1987. During this time, Dreyer’s Grand Ice Cream was noted to utilize the site as an ice cream production facility. Toxic materials (lubricating oils, napthelene, petroleum ethyl ether, ethyl alcohol, sulfuric acid, methanol, dichloroethene, butyl alcohol, ammonia hydroxide, and various laboratory reagents), anhydrous ammonia (refrigerant), phosphoric acid and sodium hypochlorite (sanitizers) and six unused underground storage tanks were reported to be utilized onsite. Waste oil was also noted to be generated. As such, the proper permit fees, labels, secondary containment, hazardous materials management plan, etc. were required.

In December 1989, the underground storage tanks were removed (See 5901 College Avenue above). During this time, the ice cream plant was in the process of vacating the building.

No other information regarding hazardous materials, underground storage tanks or unauthorized releases was available for the subject site.

Antiseptic French Laundry/Marie Louise French Laundry (from at least 1915-1970s)

Based on the historical references reviewed, several “French Laundries” were reported to have occupied several buildings (6028, 6030 and 6046 Claremont Avenue). As part of retail cleaner operations, dry cleaning may have been performed onsite.

According to wikipedia, French hand laundries in California utilize the art of washing and ironing by hand, to launder fine linens and garments. As far back as 19th century, French women starched linen except vests and towels. The ironing was performed using irons that were heated directly over a charcoal fire. All work was originally done by hand.

However, “modern dry cleaning's use of non-water-based solvents to remove soil and stains from clothes was reported as early as 1855…Flammability concerns led William Joseph Stoddard, a dry cleaner from Atlanta, to develop Stoddard solvent (white spirit) as a slightly less flammable alternative to gasoline-based solvents. The use of highly flammable petroleum solvents caused many fires and explosions, resulting in government regulation of dry cleaners. After World War I, dry cleaners began using chlorinated solvents. These solvents were much less flammable than petroleum solvents and had improved cleaning power…By the mid-1930s, the dry cleaning industry had adopted tetrachloroethylene (perchloroethylene), or PCE for short, as the solvent. It has excellent cleaning power and is nonflammable and compatible with most garments."

As part of retail cleaner operations this site may have performed dry cleaning. Dry cleaners typically utilized solvents above the threshold amounts requiring a permit.
However, no specific information regarding the "French Laundry" operations was available within the local regulatory agency files reviewed.

Additional review of advertisements of other Antiseptic French Laundry" operations within California indicated the franchise business offered dry cleaning services.

Based on the scope of work performed, there is still insufficient data to assess whether dry cleaning operations were conducted onsite as part of past French laundry shop operations.

In the absence of information to indicate if dry cleaning operations was conducted onsite as part of past French laundry shop operations, this would represent a recognized environmental condition on site that warrants further investigation or documentation at this time.

<u>The Lyon Moving Company/Alt L.C., Alt Ray K, Bentley Moving & Storage, Palace Van & Storage Co., Palace Van & Storage Co/Nevel Storage Co. (1920s-1970s)</u>

Based on the historical references reviewed, a moving company was reported to have occupied 6040 Claremont Avenue. As part of moving van operations, underground tanks and truck maintenance may have been conducted onsite.

However, no specific information regarding the former moving company operations was available within the local regulatory agency files reviewed. Typical moving company facilities during this time period utilized a fleet of moving vans.

Note: Inadvertent discharges of hazardous materials to the concrete porous surface are not always evident. However, years of usage of appreciable amounts (typically 55-gallons for over extended periods of time) plus any conduits to the subsurface (sumps or cracks) increase the potential of inadvertent discharges to the subsurface.

The subject site is not currently listed as a contaminated facility. However, given the potential use of hazardous materials by various operations onsite for an extended period of time this would represent a Recognized Environmental Condition.

6.1.4 Controlled Recognized Environmental Conditions (CRECs)

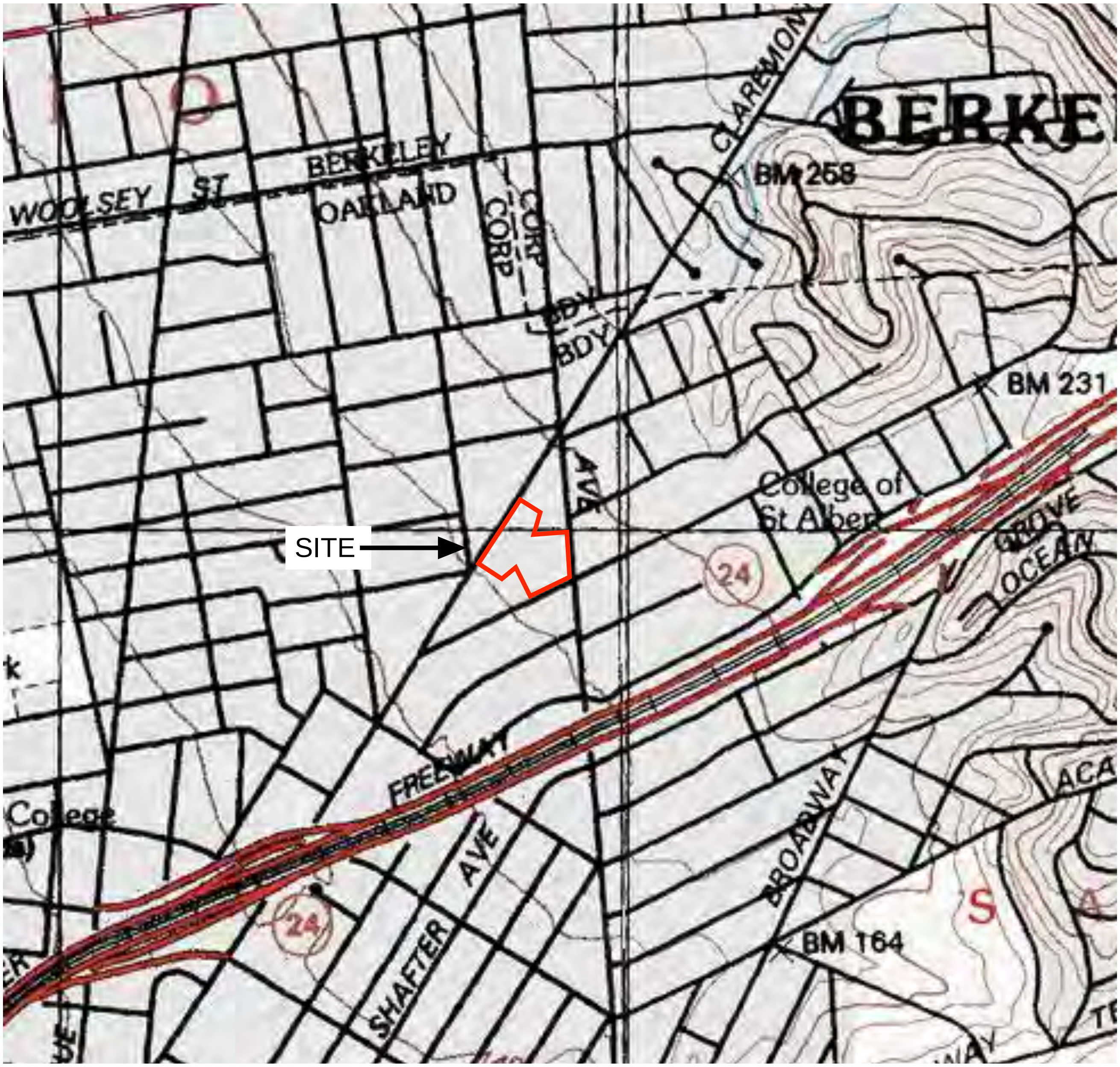
Controlled Recognized Environmental Conditions (CRECs) are defined by the ASTM Standard Practice E1527-13 as a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority, with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls. Based on the findings of our investigation, no apparent CRECs were identified onsite.

6.1.5 Historical Recognized Environmental Conditions (HRECs)

Historical Recognized Environmental Condition (HRECs) are defined by the ASTM Standard Practice E1527-13 as a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls. Based on the findings of our investigation, no apparent HRECs were identified onsite.

6.1.6 Recommendations

This assessment has revealed obvious evidence of recognized environmental conditions in connection with the property that warrants further investigation and/or documentation at this time. See Section 6.1.3 –Recognized Environmental Conditions (RECs) above.



Topographic Map Source:U.S. Geological Survey, 1993 Oakland West Quadrangle, California

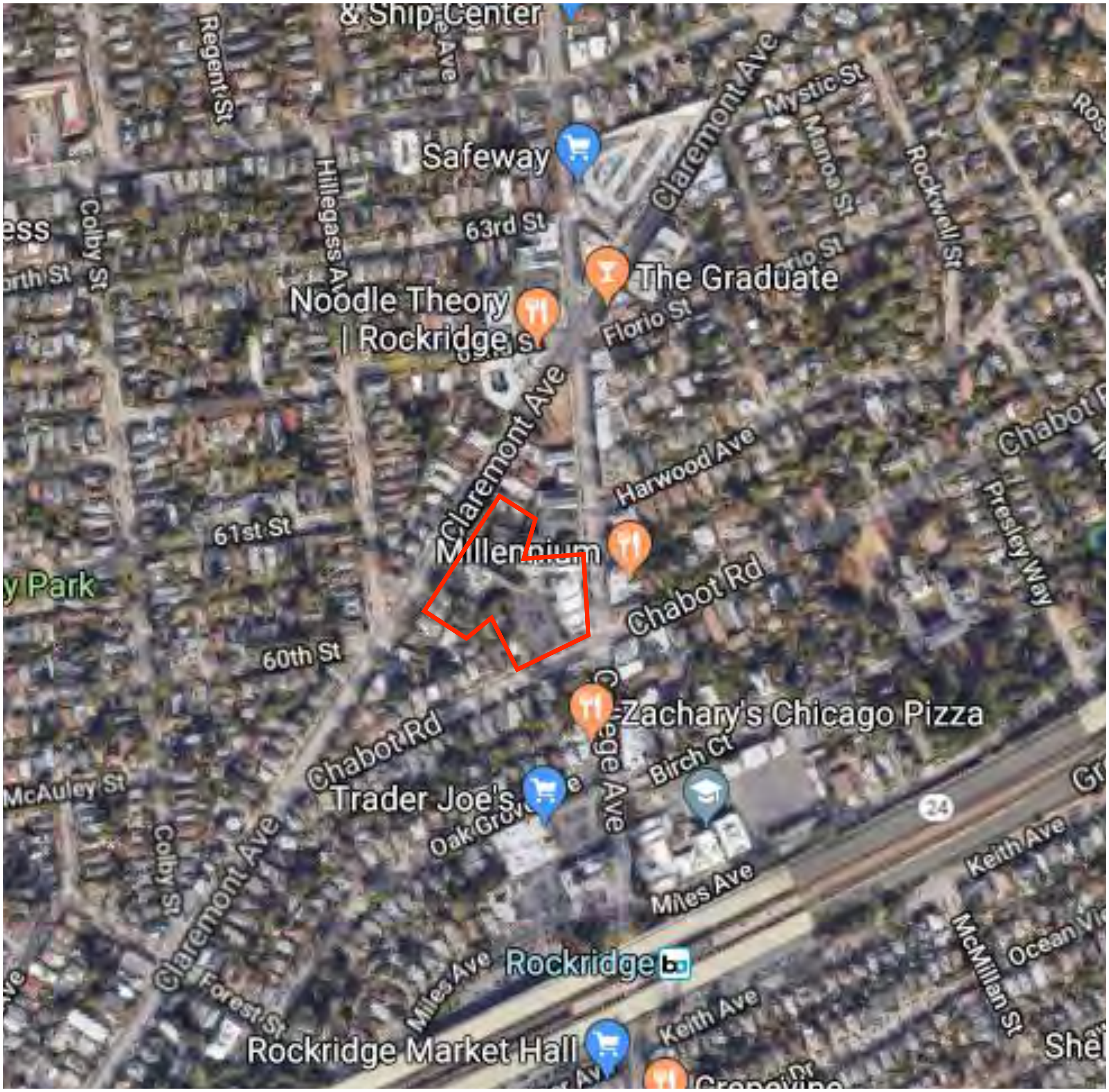
Site Location

basics ENVIRONMENTAL

Phase I Environmental Site Assessment
5901-5929 College Avenue, 6012-6048 Claremont Avenue
and 5941-5965 Chabot Road
Oakland, California

PROJECT NO.
19-ENV5582

DRAWING NO.
1



0 500 1000

APPROXIMATE SCALE IN FEET AS DETERMINED FROM GOOGLE MAPS

N

SITE Aerial Photo Source:U.S. Geological Survey & Google Maps

Aerial Photograph (2019)

basics ENVIRONMENTAL

Phase I Environmental Site Assessment
5901-5929 College Avenue, 6012-6048 Claremont Avenue
and 5941-5965 Chabot Road
Oakland, California

PROJECT NO.
19-ENV5582

DRAWING NO.
2

Site Plan

basics ENVIRONMENTAL

Phase I Environmental Site Assessment
5901-5929 College Avenue, 6012-6048 Claremont Avenue
and 5941-5965 Chabot Road
Oakland, California

PROJECT NO.
19-ENV5582

DRAWING NO.
3

Site Plan (1959 Sanborn Fire Insurance Map)

basics ENVIRONMENTAL

Phase I Environmental Site Assessment
5901-5929 College Avenue, 6012-6048 Claremont Avenue
and 5941-5965 Chabot Road
Oakland, California

PROJECT NO.
19-ENV5582

DRAWING NO.
4

Appendix G

Additional Site Characterization Report - Dreyer's Grand Ice Cream, Oakland, California

Haley & Aldrich, Inc., October 21, 2019

www.haleyaldrich.com

ADDITIONAL SITE CHARACTERIZATION REPORT
DREYER'S GRAND ICE CREAM
OAKLAND, CALIFORNIA

by
Haley & Aldrich, Inc.
Oakland, California

for
Nestlé USA, Inc.
Solon, Ohio

File No. 130654-005
October 2019

HALEY & ALDRICH, INC.
1956 Webster Street
Suite 300
Oakland, CA 94612
510.879.4544

21 October 2019
File No. 130654-005

Alameda County Health Care Services
Department of Environmental Health
Local Oversight Program for Hazardous Materials Releases
1131 Harbor Bay Parkway
Alameda, California 94502

Attention: Mr. Keith Nowell, PG, CHG

Subject: Additional Site Characterization Report
Dreyer's Grand Ice Cream
Oakland, California

Dear Mr. Nowell:

On behalf of Nestlé USA, Inc., Haley & Aldrich, Inc. has prepared this *Additional Site Characterization Report* (Report) for the Dreyer's Grand Ice Cream facility located at 5929 College Avenue, in Oakland, California (Site). This Report summarizes the results of the investigation to support Site closure under the California State Water Resources Control Board's Low-Threat Underground Storage Tank Case Closure Policy.

Sincerely yours,
HALEY & ALDRICH, INC.

Diana Rattanasith
Senior Scientist

Cheyenne Waldman, PG
Senior Technical Specialist

Michael Calhoun, PG, CHG
Senior Project Manager

c: Nestlé USA, Inc.; Attn: Sven Vetter
Alameda County Health Care Services; Attn: Dilan Roe

\\haleyaldrich.com\share\oak_common\Nestle\Nestle Dreyer's project\DELIVERABLES\2019_10 Additional Characterization Report\RO0000153_AddlCharacterizationReport_2019-10-21.docx

HALEY & ALDRICH, INC.
1956 WEBSTER STREET
SUITE 300
OAKLAND, CA 94612
510.879.4544

SIGNATURE PAGE FOR

ADDITIONAL SITE CHARACTERIZATION REPORT
DREYER'S GRAND ICE CREAM
OAKLAND, CALIFORNIA

PREPARED FOR
NESTLÉ USA, INC.
SOLON, OHIO

PREPARED BY:

Diana Rattanasith
Senior Scientist
Haley & Aldrich, Inc.

REVIEWED AND APPROVED BY:

Michael Calhoun, PG, CHG
Senior Project Manager
Haley & Aldrich, Inc.

Peter Bennett, PG, CHG
Principal Hydrogeologist
Haley & Aldrich, Inc.

Executive Summary

On behalf of Nestlé USA, Inc. (Nestlé), Haley & Aldrich, Inc. (Haley & Aldrich) has prepared this *Additional Site Characterization Report* (Report) for the Dreyer's Grand Ice Cream facility located at 5929 College Avenue, in Oakland, California (the Site). The report describes the methods and results of a Site investigation conducted in August and October 2019. The objective of the investigation was to address remaining data gaps identified by Alameda County Department of Environmental Health (ACDEH) to support Site closure under the California State Water Resources Control Board's Low-Threat Underground Storage Tank Case Closure Policy (Low-Threat Closure Policy).

In August 2019, Haley & Aldrich conducted the additional Site characterization, which included the collection of soil, soil vapor, and/or grab groundwater samples at 10 locations across the Site. In October 2019, additional soil vapor samples were collected from two sample locations to confirm the results obtained in August 2019. Soil samples were analyzed for volatile organic compounds (VOCs), total petroleum hydrocarbons quantified as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo), and polycyclic aromatic hydrocarbons (PAHs). Grab groundwater samples were analyzed for VOCs, TPHg, TPHd, and PAHs. Soil vapor samples were analyzed for VOCs, including confirmation analysis of naphthalene using two different analytical methods.

The results indicated the presence of TPHd and TPHmo in soil, with the highest concentrations detected in shallow soil (2 feet below ground surface [bgs]). These shallow, widespread impacts and not considered to be related to the former source areas (i.e., the underground storage tanks) and are not expected to be of concern by ACDEH because only low concentrations of fuel-related VOCs were detected, and neither benzene nor naphthalene was detected in any soil sample (benzene, ethylbenzene, and naphthalene are the VOCs that are of concern in the Low-Threat Closure Policy).

In groundwater, low concentrations of petroleum hydrocarbons and VOCs were detected. Of the Site-related COCs, benzene, toluene, ethylbenzene, and xylenes (collectively referred to as BTEX) and naphthalene were not detected in any grab groundwater sample. The investigation results, along with recent groundwater monitoring results, indicate that the groundwater plume is contained within the Site boundary, suggesting that the potential risk of Site-related impacts to off-Site receptors is minimal. Methyl-tert-butyl ether (in one sample) and chloroform (in three samples) were also detected in groundwater; as discussed in the report, neither of these compounds is related to Site impacts.

A wide range of VOCs was detected in soil vapor at low concentrations. Of the fuel-related compounds, BTEX was detected at most locations, at concentrations below the applicable low-threat closure criteria, where applicable. Naphthalene was not detected in any of the primary soil vapor samples but was detected in one confirmation sample at a concentration below its low-threat closure criteria.

Haley & Aldrich evaluated the available data (historical analytical results and results of the current Site investigation) with respect to the eight general criteria and the media-specific criteria specified in the Low-Threat Closure policy. The evaluation concludes that all of the general and media-specific criteria are met for the Site, and we recommend that the Site be considered for closure under the Low-Threat Closure Policy. We look forward to discussing our findings and conclusions with ACDEH in our meeting scheduled for 19 November 2019.

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List of Abbreviations

Abbreviation	Definition
µg/kg	micrograms per kilogram
µg/L	micrograms per liter
µg/m^3	micrograms per cubic meter
1,2-DCA	1,2-dichloroethane
ACDEH	Alameda County Department of Environmental Health
ACPWA	Alameda County Public Works Agency
Advisory	July 2015 *Advisory – Active Soil Gas Investigations*
B[a]Pe	Benzo(a)Pyrene toxicity equivalents
bgs	below ground surface
BTEX	benzene, toluene, ethylbenzene and xylene
Cal/EPA	California Environmental Protection Agency
CET	CET Environmental Services
COC	chemical of concern
CSM	conceptual site model
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EBMUD	East Bay Municipal Utility District
EDB	1,2-dibromoethane
Haley & Aldrich	Haley & Aldrich, Inc.
Low-Threat Closure Policy	California State Water Resources Control Board's Low-Threat Underground Storage Tank Case Closure Policy
mg/kg	milligrams per kilogram
ml/min	milliliters per minute
MTBE	methyl tert butyl ether
NAVD88	North American Vertical Datum of 1988
Nestlé	Nestlé USA, Inc.
PAH	polycyclic aromatic hydrocarbon
PID	photoionization detector
QA/QC	quality assurance/quality control
Report	*Additional Site Characterization Report*
SFRWQCB	San Francisco Regional Water Quality Control Board
Site	Dreyer's Grand Ice Cream, 5929 College Avenue, Oakland, California
TestAmerica	Eurofins TestAmerica
TPH	total petroleum hydrocarbon
TPHd	total petroleum hydrocarbons quantified as diesel
TPHg	total petroleum hydrocarbons quantified as gasoline
TPHmo	total petroleum hydrocarbons quantified as motor oil
USEPA	United States Environmental Protection Agency
UST	underground fuel and waste oil storage tanks
VOC	volatile organic compound
WC	water column
Work Plan	*Work Plan for Additional Site Characterization*

1. Introduction

On behalf of Nestlé USA, Inc. (Nestlé), Haley & Aldrich, Inc. (Haley & Aldrich) has prepared this *Additional Site Characterization Report* (Report) for the Dreyer's Grand Ice Cream facility located at 5929 College Avenue, in Oakland, California (Site; Figure 1).

On 19 April 2019, Haley & Aldrich submitted a *Work Plan for Additional Site Characterization* (Work Plan; Haley & Aldrich, 2019a) to Alameda County Department of Environmental Health (ACDEH) describing the rationale and methods for investigating soil, soil gas, and groundwater to address the data gaps to support Site closure under the California State Water Resources Control Board's Low-Threat Underground Storage Tank Case Closure Policy (Low-Threat Closure Policy). ACDEH provided a conditional approval of the Work Plan which requested modifications to the sampling plan and the submittal of a revised Figure 2 (ACDEH, 2019). Haley & Aldrich submitted the revised Figure 2 on 28 June 2019, initiated the investigation and sampling on 13 August 2019 and completed the work on 20 August 2019. This Report summarizes the methods and results of the investigation.

1.1 SITE BACKGROUND

The Site is located at 5929 College Avenue in Oakland, California, approximately 0.25 miles north of California Highway 24 and approximately 0.25 miles south of the Berkeley city limits (Figure 1). The property is occupied by a large building (the former Dreyer's facility), two large asphalt-covered parking areas, and small landscaping areas near the perimeter of the property. The two-acre property is bounded by Claremont Avenue to the northwest, College Avenue to the east, and Chabot Road to the south. Ground surface slopes gently to the southwest with an elevation of approximately 192 feet relative to the North American Vertical Datum of 1988 (NAVD88). The land use in the area is residential and commercial. The commercial properties are concentrated along College Avenue.

The property was developed as a commercial building with a parking lot and served as the headquarters of Dreyer's Grand Ice Cream until June 2019. Between December 1989 and February 1990, seven underground fuel and waste oil storage tanks[1] (USTs) and approximately 500 to 550 cubic yards of impacted soil were removed from the Site (CET Environmental Services [CET], 1995). The locations and former contents of each tank are shown on Figure 2.

Since source removal, multiple soil and groundwater investigations have been conducted (e.g., Aqua Terra Technologies [ATT], 1992; ATT, 1993; CET, 1999). Groundwater monitoring wells MW1, MW2, and MW3 were installed in July 1991 as part of these investigations (ATT, 1992). Three additional wells, MW4, MW5, and MW6, were installed in August 1993 (CET, 1995). Site monitoring well locations are shown on Figure 2. Groundwater monitoring continues to date.

A detailed description of the regional and local hydrogeology, and Site environmental conditions, is included in the updated Conceptual Site Model (CSM) presented in Section 4.

[1] One 1,000-gallon and one 8,000-gallon gasoline tank; one 2,000-gallon and two 4,000-gallon diesel tanks; and two 1,000-gallon waste oil tanks.

2. Additional Site Characterization Methods

Haley & Aldrich conducted an additional Site characterization which consisted of collecting soil, soil vapor, and grab groundwater samples to evaluate current subsurface conditions. The characterization methods are described in the sections below.

2.1 PRE-FIELD ACTIVITIES

Prior to the start of field activities, Haley & Aldrich updated the Site-specific Health and Safety Plan, obtained a soil boring permit from the Alameda County Public Works Agency (ACPWA), and coordinated with Site tenants and subcontractors. Haley & Aldrich marked each boring location and notified Underground Service Alert prior to the start of fieldwork. In addition, each boring location was screened and cleared for utilities by a private utility locator, Subtronic Corporation. The ACPWA soil boring permit is provided as Appendix A to this report. ACPWA and ACDEH were notified prior to the start of field activities.

2.2 SOIL BORING AND SOIL SAMPLING METHODS

Haley & Aldrich subcontracted Cascade Drilling Company to advance a total of 17 borings at 10 locations between 13 and 15 August 2019, as shown on Figure 3. To minimize the risk of encountering unmarked and undetected underground utilities during drilling, and to ensure the health and safety of workers, each boring was advanced to a depth of 5 feet below ground surface (bgs) by hand auger.

At 7 of the 10 locations, two adjacent borings were advanced: one was advanced to depths of up to 25 feet bgs for the collection of soil and grab groundwater samples, and the other was advanced to between 5 and 6.5 feet bgs for installation of a soil vapor probe. At the 3 locations adjacent to existing monitoring wells, only one boring was advanced to a depth of 10 feet bgs using a hand auger for the collection of soil samples and the installation of a soil vapor probe. For the deeper soil and grab groundwater locations, after augering the top 5 feet, the borings were advanced using a truck-mounted GeoProbe™ 6600 direct-push technology drill rig. Soil cuttings and cores were logged by a field geologist under the supervision of a California Professional Geologist in general accordance with ASTM International Standard D2488 (Standard Practice for Description and Identification of Soil, Visual-Manual Procedure). Boring Logs are included as Appendix B. Soil was also screened for organic vapors using a photoionization detector (PID).

At each location, soil samples were collected from borings at depths of approximately 2, 5, and 10 feet bgs. Additional soil samples were collected where visible or olfactory impacts were observed, at the soil/groundwater interface, if encountered, and from the bottom of each boring. Samples were collected in accordance with United States Environmental Protection Agency (USEPA) Method 5035, labeled, sealed in plastic bags, and placed in an ice-cooled chest pending the courier pick-up by the analytical laboratory under chain-of-custody procedures.

Soil samples were submitted to Eurofins TestAmerica (TestAmerica) of Pleasanton, California for the following analyses:

- Volatile organic compounds (VOCs) and total petroleum hydrocarbons quantified as gasoline (TPHg) using USEPA Method 8260;
- Total petroleum hydrocarbons quantified as diesel (TPHd) and motor oil (TPHmo) using USEPA Method 8015; and
- Polycyclic aromatic hydrocarbons (PAHs) using USEPA Method 8270.

2.3 GRAB GROUNDWATER SAMPLING METHODS

Seven grab groundwater samples (GW-101 through GW-107) were collected, as shown on Figure 3. Due to slow groundwater recharge, temporary polyvinyl chloride well casings were placed in each boring and left open overnight under the approval of the ACPWA inspector to allow for groundwater to accumulate within the casing. Samples were collected through the casing with a peristaltic pump using new polyethylene and silicone tubing. Grab groundwater samples were submitted to a California-certified laboratory (TestAmerica of Pleasanton, California), for quantification of VOCs and TPHg using USEPA Method 8260, for TPHd using USEPA Method 8015, and for PAHs using USEPA Method 8270.

2.4 SOIL VAPOR PROBE INSTALLATION METHODS

Ten semi-permanent soil vapor probes (SV-101 through SV-110) were installed by hand auger at a depth of 5 feet bgs with the exception of two locations: SV-107 and SV-108. In order to ensure a distance of at least 5 feet between the bottom of the adjacent foundation slab and the soil vapor probe, these probes were installed at 6 and 5.5 feet bgs, respectively. Construction of the soil vapor probes occurred between 13 and 15 August and consisted of the following, with variances based on installation depth:

- Upon reaching total depth to a maximum depth of 10 feet bgs, each boring was backfilled with granular bentonite (hydrated in 6-inch lifts) to approximately 5.5 feet bgs.
- A stainless-steel vapor probe filter tip was then attached to new disposable ¼-inch Teflon® tubing and placed inside the borehole to a depth of approximately 5 feet bgs.
- A 1-foot thick filter pack of #2/12 (or similar) sand was placed around the probe tip from approximately 5.5 to 4.5 feet bgs.
- Above the filter pack, bentonite was placed and hydrated in 6-inch lifts from 4.5 feet to ground surface.
- A tee-valve was placed on the aboveground end of each tube to ensure that there was no exposure to the atmosphere prior to or during sampling.
- A flush mounted well box was installed to house the soil vapor probe.

Soil vapor probe construction details are provided as Appendix C.

2.5 SOIL VAPOR SAMPLING METHODS

Soil vapor sampling was conducted between 19 and 20 August 2019, in general accordance with the July 2015 *Advisory – Active Soil Gas Investigations* (Advisory) published jointly by the California

Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC), the San Francisco Regional Water Quality Control Board (SFRWQCB), and the Los Angeles Regional Water Quality Control Board (Cal/EPA DTSC et. al., 2015). Sample collection also followed the guidelines of Haley & Aldrich's standard operating procedure for soil vapor sampling, which is included as Appendix D. As described in Section 3.1, additional soil vapor samples were collected on 8 October 2019 from two of the sample locations (SV-107 and SV-109) to confirm the initial results.

2.5.1 Leak Testing and Purging Methods

After installation of the soil vapor probes, subsurface conditions were allowed to equilibrate for a minimum of 48 hours prior to sampling, in accordance with the Advisory. Prior to purging and sampling, a vacuum shut-in test was conducted at each soil vapor location to confirm that there were no leaks in the aboveground sample train equipment and connection points, which includes the valves, tubing, and fittings between the soil vapor probe tee-valve and the Summa™ canister. The test consists of applying a vacuum of approximately 100 inches of water column (WC) to the tubing and valve system between the tee-valve and Summa™ canister, closing the valves to seal the vacuum in the line, and verifying that the vacuum (e.g., 100 inches WC) is maintained for at least 30 seconds. Vacuum was maintained during the sampling at all locations.

After a successful vacuum shut-in test, the soil vapor probe was purged. The purge volume ("dead space volume") is estimated by summation of the following volumes: (1) the internal volume of the tubing from the probe tip to the tee-valve, and (2) the void space of the sand pack and dry bentonite in the annular space surrounding and above/below the probe tip (estimated to be 2 feet of linear length). Three purge volumes were extracted into a Tedlar® bag using a pump with a vacuum of no more than 100 inches WC. During purging, a sampling shroud was placed over the vapor probe, sample tubing, and fittings so a helium tracer gas could be introduced inside the shroud to evaluate the ground surface seal and probe interface for ambient air leaks. The helium concentration in the sampling shroud was maintained at a minimum concentration of 30 percent by volume (as measured with a handheld helium detector). For each purge volume, field measurements were recorded for helium (using a MGD2002 portable helium detector), methane, carbon dioxide, oxygen, and nitrogen (using a GEM5000 multi-gas meter), and total VOCs (using a ppbRAE 3000 PID).

A soil vapor purge sample was collected from the 1-liter Tedlar® bag using a lung box prior to sampling. The helium concentration in the Tedlar bag was measured using a helium detector. If the helium concentration in the Tedlar bag was less than or equal to 10 percent of the minimum concentration maintained in the shroud during purging, the soil vapor probe and sample train was considered to be free of significant leaks, and the Summa™ canister sample was collected.

2.5.2 Soil Vapor Sampling Methods

As described above, after leak checks and purging were complete, a soil vapor sample was collected using a 1-liter Summa™ canister. The evacuated Summa™ canister was attached to the probe via a laboratory-provided manifold and other fittings assembled prior to the leak check. A flow regulator calibrated by the laboratory to a flow rate of between 100 and 200 milliliters per minute (ml/min) was used to collect the soil vapor sample in the Summa™ canister. A vacuum gauge was also used to document the canister vacuum at the start and end of sample collection. Samples were labeled and shipped to a California-certified laboratory (TestAmerica of West Sacramento, California) under chain-of-custody procedures for VOC analysis using USEPA Method TO-15.

2.5.3 Confirmation Naphthalene Sampling Methods

At the request of ACDEH, confirmation soil vapor samples for naphthalene were collected at half of the sampling locations (SV-101, SV-103, and SVE-107 through SV-109). Following collection of the 1-liter Summa™ canister sample, one 350 ml and one 200 ml soil vapor sample were collected using a sorbent tube and laboratory-provided syringe. The sorbent tube was attached to the soil vapor probe using laboratory-provided fittings. Following a successful shut-in test, the sample was collected at a flow rate between 40 and 60 ml/min. The 200 ml soil vapor sample sorbent tube was collected to ensure consistent sampling flowrates and was only analyzed if the laboratory encountered problems during analysis. Samples were labeled and placed on ice and shipped to a California-certified laboratory (Eurofins Air Toxics of Folsom, California), under chain-of-custody procedures for analysis using Modified USEPA Method TO-17.

2.6 BOREHOLE DESTRUCTION METHODS

All borings that were not converted into soil vapor probes were backfilled by placing neat cement grout from total depth to surface using a tremie pipe and under the observation and approval of an ACPWA inspector. The surface was then repaired with asphalt patch to match surrounding conditions.

2.7 DECONTAMINATION AND WASTE MANAGEMENT

All re-used, downhole equipment (e.g., hand auger) were decontaminated between each location using a wash of municipal water and low-phosphate detergent, and a municipal water rinse. Soil cuttings and decontamination water were containerized separately in labeled, 55-gallon drums temporarily stored on-Site pending waste profiling and disposal at an appropriate waste disposal facility.

3. Additional Site Characterization Results

The results of the additional Site characterization are provided below; the results are evaluated with respect to low-threat closure in Section 5. Detected compounds in soil are summarized in Tables 1 and 2; results for grab groundwater samples are summarized in Table 3. Table 4 presents the fixed gases detected at time of soil vapor sampling, and Table 5 summarizes the detected compounds in soil vapor samples. Analytical reports are included as Appendix F.

3.1 QUALITY ASSURANCE/QUALITY CONTROL

Two quality control issues were observed for the soil vapor samples. First, the duplicate sample for SV-107 reported detections of almost every VOC on the analyte list, even though there were far fewer detections in the primary sample. The analytical laboratory reported that this was highly unusual[2], and the detections may be the result of the sample being inadvertently spiked, or due to a contamination in the Summa canister prior to sampling (the canisters were batch-certified instead of individually certified). Therefore, the duplicate sample results are not considered to be representative of Site conditions; they are included in Table 5 for completeness but are not included in the discussion below. However, the primary sample is consistent with other soil vapor results and is considered representative. To confirm that the primary sample results are representative of conditions at that location, a second sample was collected from SV-107 on 8 October 2019. The results of the second round of sampling are consistent with the primary sample (confirming that it is representative), and are included in Table 5.

Second, a high concentration of non-target analytes (2,2,4-timethylpentane, which is an isomer of octane, a component of gasoline) resulted in elevated reporting limits for sample SV-109. As previously mentioned, there were higher concentrations of TPHg, TPHd, and TPHmo in soil at the co-located soil boring SB-109. The elevated reporting limits mean that the presence or absence of VOCs in soil vapor cannot be determined based on the original sample. Therefore, a second sample was collected from SV-109 on 8 October 2019, and the lab was instructed to minimize the dilution of the sample, and to report the results for naphthalene down to the method detection limit (MDL). These changes allowed the reporting limits to be low enough to be useful, and the results of this second sample are included in Table 5.

Haley & Aldrich conducted a quality assurance/quality control (QA/QC) review of the soil, soil vapor, and groundwater analytical data for precision, accuracy, completeness, conformance with holding times, and detection limits. Project samples and laboratory control samples were reviewed and evaluated in accordance with the USEPA's National Functional Guidelines for Organic Data Review (USEPA 540-R-2016-002) and Inorganic Data Review (USEPA 540-R-2016-001). Samples that did not meet the criteria specified in the Guidelines were qualified with either estimate (J/UJ), low biased (J-/UJ), or high biased (J+/UJ). Field duplicates were assessed for accuracy and reproducibility of analytical results. Comparison between the parent and duplicate samples were qualified if the absolute difference was greater than the specified limits. A summary of the findings is included as Appendix G. Overall the analytical data were found to be of acceptable quality for this investigation.

[2] The laboratory manager remarked that "I've never seen something like this before."

3.2 SOIL SAMPLING RESULTS

A range of VOCs were detected at low concentrations, as shown on Table 1. Of the fuel-related VOCs, methyl tert butyl ether (MTBE) was detected in one sample location at 10 micrograms per kilogram (µg/kg; SB-101 at 25 feet bgs). This boring is located upgradient of all known Site sources, and coincides with a detection of MTBE in groundwater at this location and depth interval. The Sheaff's Garage site[3], which has known MTBE impacts, is located upgradient of the Site and is the likely source of MTBE at this location. 1,2-dibromoethane (EDB), 1,2-dichloroethane (1,2-DCA), benzene, toluene, and naphthalene were not detected in any soil samples.

TPHd, TPHg, and TPHmo were detected in a number of sample locations and depth intervals. TPHd and TPHmo were detected at the highest concentrations (up to 830 and 4,000 milligrams per kilogram [mg/kg], respectively) in the samples collected from 2 feet bgs, with concentrations attenuating rapidly with depth. The widespread and shallow detections of TPHd and TPHmo suggest that these impacts are not related to former Site sources (i.e., the USTs).. TPHg was detected at higher concentrations at greater depths (the maximum of 250 mg/kg was detected at SB-104 at a depth of 16 feet bgs). However, as stated above, most of the other fuel-related VOCs were not detected in soil samples.

As shown on Table 2, low concentrations of PAHs were detected in soil, with the most widespread detections in the shallow (2 feet bgs) samples where elevated TPHd and TPHmo were detected. However, no naphthalene was detected in any sample at concentrations above the method detection limit.

3.3 GRAB GROUNDWATER SAMPLING RESULTS

Petroleum hydrocarbons and other VOCs were detected at low concentrations in groundwater, as shown in Table 3. Of the fuel-related VOCs, no benzene, toluene, ethylbenzene, or xylenes (collectively referred to as BTEX), 1,2-DCA, or EDB were detected in any groundwater samples. MTBE was detected in one groundwater sample (GW-101) at a concentration of 57 micrograms per liter (µg/L). As previously discussed, this is located upgradient of all known Site sources, and is likely related to upgradient, off-Site impacts from Sheaff's Garage. Chloroform was also detected in three samples (GW-104 through GW-106) at concentrations up to 9.1 µg/L. Chloroform is not generally associated with fuel releases, but is commonly associated with public sewer systems and infiltration of irrigation water, as it is a disinfectant byproduct of pubic water supplies.

Maximum detected concentrations of TPHd (140 µg/L) and TPHg (1,700 µg/L) were detected at sample location GW-104. Grab groundwater sample results for TPHd, TPHg, and BTEX compounds are consistent with or lower than the most recent groundwater monitoring event of on-Site wells.

3.4 SOIL VAPOR SAMPLING RESULTS

Results for fixed gases measured during sampling are presented in Table 4. Oxygen concentrations in soil vapor ranged from 1.4 to 16.7 percent by volume, and carbon dioxide concentrations ranged from 3.8 to 20.3 percent. Methane was detected in three samples (SV-104, SV-108, and SV-109) at concentrations of 0.2, 0.6, and 8.2 percent. The relatively low oxygen concentrations, coupled with elevated carbon dioxide and concentrations and the presence of methane, indicate that biological processes continue to

[3] https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0600102112

degrade Site impacts (consistent with the observed decrease in COC concentrations in groundwater of several magnitudes over time). During leak testing for each sample, helium concentrations measured within the shroud were maintained above 30 percent by volume, indicating a successful leak test at each sample.

A wide range of VOCs were detected in soil vapor samples, as shown on Table 5. Of the fuel-related VOCs, BTEX compounds were detected at most locations, at concentrations below their applicable low-threat closure criteria (see Section 5). Naphthalene was not detected in any of the primary soil vapor samples analyzed using USEPA Method TO-15. At the request of ACDEH, additional samples were collected from half of the locations for analysis of naphthalene using USEPA Method TO-17. Naphthalene was detected in only one of these additional samples, at a concentration of 2.8 micrograms per cubic meter ($\mu g/m^3$).

4. Updated Conceptual Site Model

Haley & Aldrich previously prepared a CSM for the Site (Haley & Aldrich, 2017), and has updated the CSM with each round of data collected. Using the results of historical and current data, an updated CSM is provided in the sections below. Soil, groundwater, and soil vapor analytical data for the additional Site characterization are provided in Tables 1 through 5. Sampling locations are shown on Figure 3. Historical soil analytical data is provided in Table 6, and historical groundwater data for grab groundwater samples and monitoring well samples is provided in Tables 7 and 8, respectively. Historical sampling locations are shown on Figure 4.

4.1 REGIONAL GEOLOGY AND HYDROGEOLOGY

The Site is within an upland portion of the Oakland sub-area in the East Bay Plain, a northwest trending alluvial plane bounded by San Pablo Bay to the north, the Franciscan bedrock of the Oakland hills to the east, the Niles Cone Groundwater Basin to the south, and San Francisco Bay to the west (Figuers, 1998). The Oakland sub-area contains a sequence of alluvial fans up to 700 feet thick that overlies the Franciscan bedrock (Figuers, 1998). Groundwater yields are low in this upland area because of the low recharge potential (SFRWQCB, 1999). Harwood Creek runs in an engineered drainage beneath College Avenue east of the Site and south of the Site along Chabot Road (Sowers, 2000). The closest, downgradient major surface water body is the San Francisco Bay, located approximately 2.5 miles to the west.

Site groundwater is unlikely to be used as drinking water since the Site lies in the service area of the East Bay Municipal Utility District (EBMUD), which sources water from the Mokelumne River Watershed, located in the Sierra Nevada and approximately 90 miles east of the Site.

4.2 LOCAL GEOLOGY AND HYDROGEOLOGY

The native alluvial soils underlying the Site are primarily composed of silty to sandy clay to an average depth of 30 feet bgs with occasional saturated lenses of sand and/or gravel present at depths below 10 feet bgs. These lenses do not appear to be laterally continuous across the Site. The depth to water measured in wells has ranged historically between approximately 5 and 16 feet bgs, and ranged between 8 and 12 feet bgs in the most recent monitoring event conducted in June 2019 (Table 8). The direction of the horizontal hydraulic gradient is historically to the southwest (Haley & Aldrich, 2019b). Based on the fine-grained nature of the shallow subsurface, groundwater velocities are expected to be low.

4.3 SITE CHEMICALS OF CONCERN

The chemicals of concern (COCs) at the Site are fuel-related compounds such as TPHg, TPHd, and BTEX compounds. Other fuel-related VOCs, including naphthalene, have also been detected, but generally at lower concentrations than TPH and benzene. Potential sources for these COCs in groundwater include leaks from the seven former USTs (gasoline, diesel, and waste oil) shown on Figure 2 and upgradient fuel releases. The seven former USTs, along with up to 550 cubic yards of impacted soils, were removed between December 1989 and February 1990 (CET, 1995). The excavation of the tanks and impacted soils are believed to have removed the primary source of impacts to the subsurface. There has been no documented residual non-aqueous phase liquid to act as an ongoing source of COCs to groundwater.

4.3.1 COCs in Soil

Historical soil samples collected during UST excavation, well installation, and the 1993 Site investigation are included in Table 6. Soil samples collected between 10 and 15 feet bgs when installing wells MW1, MW2, and MW3 (ATT, 1992) indicated TPHg and TPHd concentrations up to 490 and 110 mg/kg, respectively, in areas near the former USTs. Benzene was detected at concentrations up to 0.39 mg/kg. No COCs were detected in soil at upgradient well MW1. TPHd and TPHg concentrations in the other locations sampled during well installation were at or below 25 mg/kg. Soil samples collected as part of a Site investigation in 1993 (ATT, 1993; Figure 4) contained significantly lower concentrations of site COCs (for example, TPHd was recorded at a maximum concentration of 6.4 mg/kg). This suggests that impacts to soil are limited to the former excavation areas and the immediate vicinity.

The soil samples collected during the recent additional Site characterization conducted in August 2019 indicated the presence of TPHd and TPHmo at concentrations ranging up to 830 and 4,000 mg/kg, respectively (Table 1). However, the highest concentrations of both compounds were found at shallow depths (2 feet bgs), with lower concentrations detected in deeper samples. The wide distribution and shallow nature of these impacts suggests that they are not related to the former source areas. TPHg was detected at approximately half the sampling locations, and was most frequently detected in deeper samples up to a concentration of 250 mg/kg. However, other fuel-related compounds (such and xylenes and ethylbenzene) were only detected at low concentrations in a small number of samples; benzene and naphthalene were not detected in any soil sample. MTBE was only detected at one location and depth interval (SB-101 at 25 feet bgs) at concentrations of 10 µg/kg. This location also had detections of MTBE in groundwater at the same depth (Table 3). This boring is located upgradient of all known Site sources, and is likely the result of impacts to groundwater from off-Site upgradient sources. Finally, the soil analytical results also indicate that there are no significant impacts of chlorinated VOCs or PAHs in soil.

4.3.2 COCs in Groundwater

Site COCs were detected in groundwater during the most recent monitoring event conducted in June 2019 in wells located downgradient of the two clusters of former USTs (MW2, MW3, and MW5). COCs were not detected in wells located upgradient, cross-gradient, or farther downgradient of the former USTs (MW1, MW4, and MW6; Table 8). For the most recent monitoring event, the highest TPHg and TPHd concentrations (5,200 and 1,500 µg/L) were reported in the samples from MW5, located downgradient of the former waste oil USTs. Benzene was detected at much lower concentrations in groundwater. The highest benzene concentration was only 4.4 µg/L, also detected at MW5. COC concentrations in groundwater have decreased from historical maximum values, in some cases by several orders of magnitude (Haley & Aldrich, 2019b). This is an indication that natural attenuation processes are degrading COCs in situ. Lastly, as discussed above, MTBE was detected in one sample (GW-101) collected during the recent Site characterization. This is located upgradient of all known Site sources, and likely reflects groundwater impacts from an off-Site, upgradient source. Low concentrations of chloroform were detected at three locations. As previously discussed chloroform is not related to former Site operations but is likely related to infiltration of irrigation water or sewers (chloroform is a common disinfectant byproduct for public water supplies).

4.3.3 Extent of Groundwater Plume

The recent additional Site characterization helped to define the extent of COCs present in groundwater (i.e., the groundwater plume). Locations GW-105, GW-106, and GW-107 (along with monitoring well

MW4) are located at the downgradient edge of the Site. In the grab groundwater samples collected from GW-105, GW-106, and GW-107, TPHd was detected at a maximum concentration of 81 µg/L (which is below the Maximum Contaminant Level of 200 µg/L); TPHg and BTEX compounds were not detected in any downgradient grab groundwater sample. Moreover, no Site COCs were detected in MW4 during the most recent monitoring event in June 2019. These results indicate that COCs degrade rapidly with distance from the former source areas.

Previous grab groundwater samples collected in 1993 indicated the presence of TPHg and TPHd in groundwater at concentrations up to 9,800 and 58,000 µg/L, respectively (see Table 7 and Figure 4). However, these samples were collected between 20 and 26 years ago (when concentrations in monitoring wells were also higher), and COCs are expected to have degraded over time. For example, location GW-105 and GW-107 from the current investigation are located near historical locations CB-3 and CB-2, respectively. The concentration of TPHd in the more recent grab samples are an order of magnitude lower than the historical grab samples (i.e., a decrease of 90 percent), confirming that attenuation has occurred over time. The results of the recent additional Site characterization and the four rounds of groundwater monitoring conducted at the Site since 2017 confirm the decreasing trend in COC concentrations in groundwater, and are considered to be representative of current Site conditions. Thus, the downgradient extent of the groundwater plume can be defined by GW-105, GW-106, GW-107, and MW4.

4.3.4 COCs in Soil Vapor

As previously discussed, a number of VOCs were detected in soil vapor samples collected in August and October 2019, including BTEX compounds and halogenated VOCs. At SV-109, 2,2,4-trimethylpentane (180,000 $\mu g/m^3$), which is an isomer of octane and a component of gasoline, was detected. However, the fuel-related VOC benzene was only detected at 92 $\mu g/m^3$, which is below the low-threat closure criteria, and naphthalene was not detected. Overall, naphthalene was detected at only one location (SV-107) at a concentration of 2.8 $\mu g/m^3$.

4.4 POTENTIAL RECEPTORS

Haley & Aldrich previously evaluated the potential for direct exposure to impacted groundwater by downgradient receptors (for example, from water supply wells or dewatering sumps), and the potential for vapor intrusion to indoor air from impacted groundwater (Haley & Aldrich, 2018). Because the recent additional Site characterization indicated that the groundwater plume is contained within the Site boundary (defined by downgradient locations GW-105, GW-106, GW-107, and MW4), the potential risk to off-Site receptors via direct contact is expected to be low since the plume does not extend off-Site.

4.4.1 Direct Contact with Groundwater

Water for the Site and surrounding properties is supplied by EBMUD, and groundwater is unlikely to be used for drinking water in the future. Nevertheless, Haley & Aldrich contacted the Alameda County Department of Public Works and California Department of Water Resources (DWR) to obtain information about wells (monitoring, cathodic, irrigation, or drinking water) located within 2,000 feet of the Site. The DWR identified 30 wells in the local quadrant (Township 01S, Range 04W, Section 13); all but one of the wells were shallow monitoring wells associated with local cleanup sites, both for the Dreyer’s site as well as other unrelated sites under the oversight of local or State agencies (Haley & Aldrich, 2018). The last well was an “unused” cathodic protection well (as designated on the well report). To date, 6 of these wells have been decommissioned and the others remain. DWR confirmed that there were no drinking water wells (private or municipal) located within the quadrant. One irrigation well was identified, but it was located approximately 4,000 feet upgradient of the Site.

Domestic supply wells may have been operated in the area historically that are not recorded by the DWR. Figuers (1998) notes that domestic wells were in use until the 1920s; however, the well fields were shut down or sold in 1930 after the construction of the Par Dee Dam between 1925 and 1929, and the formation of EMBUD in 1923. Haley & Aldrich also reviewed the 1910 East Bay Plains Map, which shows the approximate location of local water supply wells active in the area at that time. Due to the accuracy of the historical map, the locations are not precise enough to be plotted in relation to the Site. However, two historical supply wells may have been present west and upgradient of the Site, and up to three supply wells may have been present downgradient of the Site. The current disposition of these wells is not known. Given the low yield of the shallow subsurface (as evidenced by the slow accumulation of groundwater in borings during the additional Site characterization), it is unlikely that domestic supply wells would be screened in the shallow depth intervals where Site-related impacts are observed.

In 2018, Haley & Aldrich conducted a survey of properties downgradient of the Site to identify potential preferential pathways or building features that may increase the potential for a complete groundwater exposure pathway (Haley & Aldrich, 2018). The results of the survey indicate that several off-Site properties likely have sumps and/or basements. However, as previously stated the groundwater plume is contained within the Site boundary, so the potential risk to direct contact via sumps or basements is expected to be low.

4.4.2 Surface Water

There are no large surface water bodies located within 1 mile downgradient of the Site. Off-Site surface water bodies such as Harwood Creek (running between Chabot Road and Forest Avenue) were observed in historical Sanborn maps; however, the creek has since been routed underground into the box culvert. The only current surface water body is an artificial creek located at Frog Park, outside the edge of the hypothetical maximum plume; this artificial creek does not gain water from the subsurface.

4.4.3 Vapor Intrusion

Another potential exposure pathway for Site COCs is via vapor intrusion to indoor air. As discussed above, benzene and ethylbenzene concentrations in soil vapor beneath the Site are below the low-threat closure criteria. Moreover, VOCs in soil vapor do not pose an unacceptable risk to off-Site receptors via the vapor intrusion pathway because groundwater impacted with Site COCs does not extend off-Site.

5. Low-Threat Closure Evaluation

Haley & Aldrich evaluated data collected during the additional Site characterization and available historical data relative the general and specific criteria of the State's Low-Threat Closure Policy. That evaluation is presented in the sections below. Based on the evaluation, Haley & Aldrich believes the Site meets the criteria for low-threat closure.

5.1 GENERAL CRITERIA

The Low-Threat Closure Policy includes eight general criteria that must be satisfied, which are summarized below:

- **The unauthorized release is located within the service area of a public water system.** Water for the Site and surrounding properties is supplied by the EBMUD.
- **The unauthorized release consists only of petroleum.** The USTs removed from the Site contained gasoline, diesel, and waste oil. Soil and groundwater sampling conducted to date confirm that the main COCs at the Site are petroleum-related compounds such as TPHg, TPHd, TPHmo, and BTEX.
- **The unauthorized ("primary") release from the UST system has been stopped.** Between December 1989 and February 1990, seven underground fuel and waste oil storage tanks and approximately 500 to 550 cubic yards of impacted soil were removed from the Site.
- **Free product has been removed to the maximum extent practicable.** Historical and recent investigations and groundwater monitoring do not indicate the presence of free product at the Site.
- **A conceptual site model that assesses the nature, extent, and mobility of the release has been developed.** A CSM was initially developed for the Site in 2017 and has been updated in this report.
- **Secondary source has been removed to the extent practicable.** Potential secondary sources (soil impacted with diesel, gasoline, and waste oil) were removed during soil excavations in 1989 and 1990.
- **Soil or groundwater has been tested for MTBE and results reported in accordance with H&S Code 25296.15.** Soil and groundwater samples were analyzed for MTBE during the 2019 additional Site characterization. As discussed, MTBE was only detected at one location (SB-101/GW-101) and likely results from an off-Site, upgradient source.
- **Nuisance as defined by Water Code section 13050 does not exist at the site.** No nuisance exists at the site per Water Code Section 13050.

Based on the above, the Site meets the general criteria for closure under the Low-Threat Closure Policy.

5.2 GROUNDWATER-SPECIFIC CRITERIA

Per the Low-Threat Closure Policy, to satisfy the media-specific criteria for groundwater, the groundwater plume has to be stable or decreasing in areal extent, and meet the characteristics of one of five classes of sites (the five classes are defined in the Low Threat Closure Policy based on plume length, COC concentrations, and distance to water supply wells or surface water bodies). For a "Class 1" Site, the most stringent classification, the following criteria must be met:

- The groundwater plume is less than 100 feet in length.
- There is no free product.
- The nearest existing water supply well or surface water body is greater than 250 feet from the defined plume boundary.

First, the plume is stable or decreasing in extent. The results of the latest monitoring event conducted in June 2019 indicate that COC concentrations in groundwater have decreased significantly (by several orders of magnitude in some wells) from historical high concentrations and continue for follow a decreasing trend (Haley & Aldrich, 2019b). Based on the trends, water quality objectives can likely be achieved in most wells within a reasonable time frame. Geochemical conditions evaluated in 2017 indicate that natural attenuation of petroleum hydrocarbons is occurring at the Site (Haley & Aldrich, 2017). The primarily fine-grained nature of the subsurface and low yields of monitoring wells suggests that groundwater velocities (and mass flux of COCs) is likely to be low.

The Site also meets the characteristics for the most stringent "Class 1" Sites. The groundwater plume is less than 100 feet in length, because it is defined within the boundary of the Site by groundwater samples collected from GW-105, GW-106, GW-107, and MW4. As previously discussed, there has been no evidence of free product at the Site. Finally, there are no water supply wells or surface water bodies within 250 feet of the plume boundary. For context, the Site would also meet the requirements for the other four classes of sites, which are less stringent.

Based on the above, the Site meets the media-specific criteria for groundwater under the Low-Threat Closure Policy.

5.3 VAPOR INTRUSION TO INDOOR AIR CRITERIA

The Low-Threat Closure Policy provides vapor intrusion criteria for various scenarios, depending on the type of analytical data available (e.g., soil, groundwater, and/or soil vapor). One of these scenarios is required to be met to satisfy the media-specific criteria for soil vapor. Because soil vapor data is available, Haley & Aldrich evaluated the data with respect to Scenario 4 ("Direct Measurement of Soil Gas Concentrations"). This scenario requires that soil gas samples be collected at least 5 feet from the bottom of the building foundation or ground surface (in the absence of a building), and provides maximum concentrations of benzene, ethylbenzene, and naphthalene in soil vapor. A comparison of these criteria with actual laboratory data collected in 2019 is provided below:

Constituent	Residential Criteria (µg/m^3)	Commercial Criteria (µg/m^3)	Maximum Detected (µg/m^3)
Benzene	85	280	92
Ethylbenzene	1,100	3,600	180
Naphthalene	93	310	2.8 J

As can be seen above and in Table 5, the concentrations of ethylbenzene and naphthalene are below both the residential and commercial low-threat closure criteria. For Benzene, all samples were below the commercial criteria, but one sample was above the residential criteria (SV-109). However, this sample is located on the part of the Site used for commercial purposes, so the commercial low-threat criteria are applicable at this location.

Based on the above, the Site meets the media-specific criteria for soil vapor, as it relates to vapor intrusion to indoor air.

5.4 DIRECT CONTACT AND OUTDOOR AIR EXPOSURE CRITERIA

The Low-Threat Closure Policy contains criteria for direct contact with impacted soil, or inhalation of COCs that volatilize to outdoor air. Haley & Aldrich evaluated the soil analytical data from the 2019 additional Site characterization with respect to "Scenario A" which describes maximum concentrations of petroleum constituents in soil and various depths. A comparison is provided below:

Constituent	Residential Criteria (mg/kg)		Commercial Criteria (mg/kg)		Utility Worker (mg/kg)	Maximum Detected (mg/kg)
	0-5 feet	5-10 feet	0-5 feet	5-10 feet	0-10 feet	All Depths
Benzene	1.9	2.8	8.2	12	14	Non-detect (<0.46)
Ethylbenzene	21	32	89	134	314	0.0056
Naphthalene	9.7	9.7	45	45	219	Non-detect (<0.94)
B(a)Pe	0.063	N/A	0.68	N/A	4.5	3.61

As can be seen above and in Tables 1 and 2 (as well as the lab reports provided in Appendix F), the concentrations of the individual constituents in soil are all below the most stringent values specified in the policy. Benzo(a)Pyrene toxicity equivalents (B[a]Pe) are calculated for the seven carcinogenic PAHs in accordance with DTSC's 2015 Guidance[4], and assumes concentrations of half the reporting limit for non-detected compounds. Of the 49 primary and duplicate soil samples collected, all samples met the utility worker criteria, and 45 out of 49 samples met the commercial criteria. The 4 samples that did not meet the commercial criteria were the shallow (2 foot bgs) samples collected from SB-101, SB-102, SB-104, and SB-108, where elevated concentrations of TPHd and TPHmo were also detected.

For the two borings located on the adjacent parcel (SB-105 and SB-106), B(a)Pe values ranged from 0.03 to 0.13 mg/kg; only two samples (collected at 2 feet bgs) exceeded the residential criteria of 0.063 mg/kg. Because PAHs are commonly found in the environment, particularly in urban soil, the approach used by the DTSC to assess the significance of measured PAHs is to compare the detected concentrations in soil to ambient PAH concentrations. Ambient PAH concentrations are associated with naturally occurring and other anthropogenic sources. DTSC issued a PAH Advisory that describes the use of a large and robust ambient PAH dataset that can be considered representative of the range of ambient PAHs present in northern California soil (DTSC, 2009). The ambient PAH values presented in the PAH Advisory are referenced using calculated B(a)Pe values. As recommended in the DTSC PAH Advisory, the B(a)Pe concentrations measured at the Site can be compared to the range of ambient values for northern California soil (i.e., from non-detect to 2.8 mg/kg) and the 95th percentile of the northern California ambient dataset (i.e., 0.9 mg/kg). For the two borings located on the adjacent parcel (SB-105 and SB-106), calculated B(a)Pe values are all below the 95th percentile value for ambient PAHs in soil, indicating they are consistent with ambient values.

[4] https://www.dtsc.ca.gov/PublicationsForms/upload/PEA_Guidance_Manual.pdf

Based on the available data, and with the exceptions noted above, the Site meets the media-specific criteria for soil as it relates to direct contact and outdoor air exposure.

6. Conclusion and Recommendations

In August 2019, Haley & Aldrich completed an additional Site characterization which included the collection of soil, groundwater, and soil vapor samples. Two additional soil vapor samples were collected in October 2019 to confirm the initial results at two locations. Using the data generated from this effort, along with the results of ongoing groundwater monitoring at the Site, Haley & Aldrich evaluated the available data with respect to the requirements of the Low-Threat Closure Policy. The evaluation concludes that the Site meets the criteria specified in the Low-Threat Closure Policy and does not pose an unacceptable risk to human health and the environment. Haley & Aldrich therefore recommends that the Site be considered for closure, and welcomes the opportunity to discuss the findings and conclusions of this report with ACDEH during our meeting scheduled for 19 November 2019.

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HALEY ALDRICH

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Appendix H

Limited Subsurface Investigation Report

P&D Environmental, Inc., September 23, 2021

P&D ENVIRONMENTAL, INC.
55 Santa Clara Avenue, Suite 240
Oakland, CA 94610
(510) 658-6916

September 23, 2021
Report 0812.R2

Mr. Moses Libitzky
Mr. Nathan Petrowsky
LPC College, LLC
1475 Powell Street, Suite 201
Emeryville, CA 94608

SUBJECT: LIMITED SUBSURFACE INVESTIGATION REPORT
(B1 THROUGH B9 and VP6)
County File # RO153
5929 College Avenue
Oakland, California

Gentlemen:

P&D Environmental, Inc. (P&D) has prepared this report on behalf of the property owner LPC College, LLC documenting limited subsurface investigation performed at and near the subject site (5929 College Avenue in Oakland, California) to evaluate the extent of petroleum hydrocarbons in groundwater that have historically been detected at and near the subject site. This work was performed to satisfy the remaining outstanding Low Threat Closure Policy (LTCP) requirement that the extent of petroleum in groundwater be defined to allow the LTCP case to move to closure.

All work was performed in accordance with P&D's July 23, 2021 Subsurface Investigation Work Plan (document 0812.W2A), a July 28, 2021 Conditional Work Plan Approval letter from the Alameda County Department of Environmental Health (ACDEH) that requested the submittal of a revised work plan which included the concurrent collection of a soil gas sample from Vapor Pin VP6, and P&D's July 28, 2021 Subsurface Investigation Work Plan Addendum (document 0812.W2B) which addressed comments in the July 28, 2021 ACDEH conditional approval letter. Documentation of the collection of the Vapor Pin VP6 sublab soil gas sample and sample results is also included in this report.

This report also includes field data sheets and laboratory reports related to historical sampling performed by P&D for Vapor Pins at the site on September 8, 2020 and January 19, 2021 and for groundwater monitoring well sampling at the site on November 23, 2020. Documentation of these sampling events and the results were previously provided to the ACDEH via email.

A Site Location Map is attached with this report as Figure 1; a Site Aerial Photograph showing borehole and groundwater monitoring well locations is attached as Figure 2; Site Aerial Photographs showing petroleum concentrations in groundwater are attached as Figures 3 through Figure 5; and a Site Aerial Photograph Detail showing the former gasoline station and Vapor Pin locations is attached as Figure 6. All work was performed under the direct supervision of a professional geologist.

BACKGROUND

The open fuel case for 5929 College Avenue is associated with the former gasoline station located at 5901 College Avenue (the northwest corner of intersection of Chabot Road and College Avenue, see Figure 6). According to a Phase I Environmental Site Assessment (ESA) dated October 22, 2019 prepared by Basics Environmental, Inc. (Basics), the former gasoline station was visible in Sanborn Fire Insurance Maps dated between 1951 and 1969 and in aerial photographs of the area for the years between 1939 and 1988. According to Environmental Data Resources, Inc. (EDR), the gasoline station was present between the years of 1933 and 1979. The Basics Phase I ESA also mentions that the USTs were removed between December 1989 and February 1990 along with approximately 500 to 550 cubic yards of petroleum-impacted soil.

The property was transferred from Nestle to Libitzky Holdings, LP in the second half of 2019. During an October 15, 2020 meeting with the ACDEH steps were discussed to close the open fuel release case for the subject site. The steps included the following:

- Verify that HVOCs are not present in the groundwater monitoring wells.
- Verify that soil gas is not a concern beneath the building where the gasoline station was historically located.
- Verify the extent of petroleum in groundwater downgradient of the subject site.

Groundwater Monitoring Well Monitoring and Sampling

On November 23, 2020 P&D personnel monitored wells MW1 through MW6 (see Figure 2) for depth to water to the nearest 0.01 foot, using an electric water level indicator. The recorded depth to water in wells MW1, MW2, MW3, MW4, MW5, and MW6 on November 23, 2020 was 14.40, 11.33, 8.64, 8.64, 10.72, and 8.87 feet, respectively. No separate phase hydrocarbons were detected in any of the wells.

On November 23, 2020 following the depth to water measurements, wells MW1through MW6 were purged and sampled as part of a joint well sampling event with Sheaff's Garage (RO 377) located at 5930 College Avenue in Oakland. The wells were each purged for a minimum of fifteen minutes with a peristaltic pump and new polyethylene tubing prior to sampling in accordance with US EPA low flow purge methods. New silicone tubing was used in the pump rollers at each well. The bottom of the polyethylene tubing was set at a depth of approximately three feet below the static water level in each well. Purging was performed at low flow rates of approximately 200 mL per minute to minimize turbulence and to minimize the likelihood of sediments in the samples. During purging operations, the field parameters of electrical conductivity, temperature, pH, dissolved oxygen, oxidation/reduction potential, and depth to water were monitored and recorded on a groundwater monitoring/well purging data sheet. Petroleum hydrocarbon sheen was not detected on any of the purge water from any of the wells, and slight petroleum odors were detected on the purge water from wells MW2 and MW5. No petroleum odors were detected on the purge water from wells MW1, MW3, MW4, or MW6.

Once the wells had been purged for a minimum of fifteen minutes, water samples were collected from the pump discharge tubing. The water samples were transferred to 40-milliliter glass Volatile

Organic Analysis (VOA) vials containing hydrochloric acid preservative and 40-milliliter amber glass unpreserved VOA vials that were sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to ensure that no air bubbles were present. The sample containers were then transferred to a cooler with ice, and later were transported to McCampbell Analytical, Inc. in Pittsburg, California. Chain of custody procedures were observed for all sample handling. Well purging records of the field parameters measured during well purging are attached with this report as Appendix A. The sample results were transmitted to the ACDEH via email on January 15, 2021.

The results of the November 23, 2020 groundwater monitoring are summarized in Tables 2, 3A, and 3B; the Total Petroleum Hydrocarbons (TPH) as Gasoline (TPH-G) and as Diesel (TPH-D) concentrations, benzene, and MTBE concentrations are shown on Figures 3 through 5; and the laboratory analytical results and chain of custody documentation is included in Appendix E.

Vapor Pin Sampling

The subslab soil gas Vapor Pins located inside of the building where the gasoline station was historically located were sampled on September 8, 2020 and on January 19, 2021 using the same procedures described below for VP6 sample collection. The sample results were provided to the ACDEH via email on June 14, 2021. Historical Vapor Pin subslab soil gas sample results are summarized in Tables 4A, 4B, and 4C, and the Vapor Pin locations are shown in Figure 6.

Evaluation of Historical Extent of Petroleum in Groundwater

Review of historical reports for subsurface investigation of groundwater at locations downgradient of the former fuel tank pit identified groundwater sample results that are summarized in Table 1 that were collected from boreholes in 1993, 1999, and 2019. Historical water level measurements in groundwater monitoring wells at the site are summarized in Table 2, and historical groundwater monitoring well groundwater samples, including the November 23, 2020 results, are summarized in Tables 3A and 3B.

The historical borehole groundwater grab sample results and the November 23, 2020 groundwater monitoring well results are shown in Figures 3, 4, and 5 as follows:

- Figure 3 - Groundwater Total Petroleum Hydrocarbons (TPH) as Gasoline (TPH-G) and as Diesel (TPH-D).
- Figure 4 - Groundwater benzene.
- Figure 5 - Groundwater MTBE.

Based on the evaluation of the historical extent of petroleum in groundwater and a July 23, 2021 meeting with the ACDEH, P&D provided the ACDEH with a July 23, 2021 Subsurface Investigation Work Plan (document 0812.W2A) to complete the delineation of the extent of petroleum in groundwater. The ACDEH provided a July 28, 2021 Conditional Work Plan Approval letter that requested the submittal of a revised work plan which included the concurrent collection of a soil gas sample from Vapor Pin VP6, and P&D provided to the ACDEH a July 28, 2021 Subsurface Investigation Work Plan Addendum (document 0812.W2B) which addressed comments in the July 28, 2021 ACDEH conditional approval letter.

FIELD ACTIVITIES

Prior to performing field activities, drilling permit W2021-0620 was obtained from Alameda County Public Works Agency (ACPWA) and permits were obtained from the City of Oakland for work in the public right-of-way at boreholes B6 through B9. The drilling locations were marked with white paint, Underground Service Alert was notified for underground utility location, a health and safety plan was prepared, and notification of the drilling dates was provided to ACPWA and the ACDEH.

Continuous Coring and Sample Collection

P&D personnel oversaw drilling at locations B1 through B5 on August 26 and 27, 2021 (see Figure 2) for groundwater sample collection to evaluate the presence of petroleum in groundwater immediately downgradient of the subject site. Boreholes B6 through B9 were drilled on September 3, 9 and 10, 2021 in the parking lane on the south side of Chabot Road. Boreholes B1 through B9 were drilled to total depths of 30.0, 11.0, 30.0, 26.0, 36.0, 20.0, 30.0, 30.0, and 30.0 feet below the ground surface (bgs), respectively.

Drilling was performed by Cascade Drilling LP of Richmond, California (Cascade) using Geoprobe dual tube direct push methods with a Macrocore barrel sampler lined with transparent PVC sleeves at each of the boreholes.

The soil from all of the boreholes was logged in the field in accordance with standard geologic field techniques and the Unified Soil Classification System, and was evaluated with a Photoionization Detector (PID) equipped with a 10.6 eV bulb that was calibrated with a 100 parts per million (ppm) isobutylene standard. The soil was also evaluated for other evidence of petroleum hydrocarbon and solvent contamination, including odors, staining, and discoloration. No elevated PID values, odors, staining, or discoloration were identified in any of the boreholes with the exception of B3 where strong odor and discoloration was observed between 12.0 and 13.5 feet bgs with PID values ranging from 121 to 225 ppm and in borehole B6 where strong odor and discoloration was observed between 14.8 and 16.0 feet bgs with PID values ranging from 117 to 232ppm. No soil samples were retained from boreholes B1 through B9 for laboratory analysis. Copies of the boring logs are attached with this report as Appendix B.

Following the completion of drilling to the total depth in each of boreholes B1 and B3 through B9 a temporary 1-inch diameter slotted PVC pipe was placed into each of the boreholes. Groundwater was first encountered during drilling in each of boreholes B3 and B6 at a depth of 13.0 feet bgs. However, water did not enter these boreholes until they were deepened and left open overnight for groundwater to accumulate in the boreholes. Groundwater was not encountered during drilling at boreholes B1, B4, B5, B7, B8, and B9, and these boreholes were similarly left open overnight for groundwater to accumulate in the boreholes. Drilling refusal was encountered in borehole B2 at a depth of 11.0 feet bgs, and for this reason no groundwater sample was collected from borehole B2.

The measured depth to water in boreholes B1, B3 through B9 after drilling and prior to groundwater sample collection was 12.8, 12.3, 23.8, 17.7, 13.8, 20.1, 11.5 and 15.2 feet bgs, respectively. The measured depth to water after groundwater sample collection and prior to grouting boreholes B1, B3 through B9 was 23.4, 21.7, 25.3, 15.5, 22.3, 20.5 and 22.1 feet bgs, respectively.

Groundwater grab samples were collected from temporary slotted PVC pipes that were placed in the boreholes at locations B1 and B3 through B9 using a peristaltic pump and polyethylene tubing. The groundwater samples were collected directly from the peristaltic pump discharge tubing into unpreserved 1-liter amber glass bottles and 40-milliliter Volatile Organic Analysis (VOA) vials that contained hydrochloric acid preservative and that were all sealed with Teflon-lined screw caps. The VOA vials were overturned and tapped to ensure that no air bubbles were present, and all sample containers were labeled and placed in a cooler with ice until they were transported to the laboratory. Chain of custody procedures were observed for all sample handling.

No odor or sheen was detected on the water collected from any of the boreholes with the exception of B6 where a strong petroleum odor and sheen were identified.

Following groundwater sample collection from boreholes B1, and B3 through B9, all of the boreholes (B1 through B9) were grouted with neat cement grout. In boreholes B1, and B3 through B9 where groundwater samples were collected, the boreholes were grouted using the temporary PVC pipe as a tremie pipe. All drilling and sampling equipment was cleaned with an Alconox solution followed by a clean water rinse prior to use in each borehole. All soil and water generated during subsurface investigation was stored in labeled 55-gallon steel drums at the site pending characterization and proper disposal.

Vapor Pin Installation and Previous Sample Collection Events

Flush-mounted Vapor Pins designated as VP1 through VP7 were installed through the building floor slab at the approximate locations shown in Figure 6 by VTS Drilling on September 2, 2020 to evaluate the presence of petroleum and Volatile Organic Compound (VOC) vapors beneath the building floor slabs. The Vapor Pins and flush-mounted stainless steel secured covers were installed in accordance with manufacturer recommended installation procedures, and were left in place with the flush-mounted covers following sample collection. The boreholes for each Vapor Pin extended to a depth of approximately 2 inches below the floor slab, and each drilling location was evaluated to verify that the concrete slab had been fully penetrated. The concrete slab thicknesses at VP1, VP2, VP3, VP4, VP5, VP6, and VP7 were 6.0, 5.5, 5.0, 4.0, 5.5, 4.0, and 5.5 inches, respectively. No soil was removed from the ground at any of the drilling locations, and for this reason no boring logs were prepared.

Figure 6 attached with this report is a site aerial photograph detail showing former gasoline station and Vapor Pin Locations. All Vapor Pin construction equipment was cleaned with an Alconox solution wash followed by a clean water rinse prior to use at each location.

Vapor Pin Subslab Soil Gas Sample Collection

Subslab soil gas samples were initially collected from Vapor Pins VP1 through VP7 on September 8, 2020 and again on January 19, 2021 following the same procedures as described below for the August 27, 2021 sample collection from VP6.

One subslab soil gas sample was recollected from Vapor Pin VP6 on August 27, 2021. No precipitation occurred on the day of subslab soil gas sample collection or during the 5 days preceding the sample collection event. The Vapor Pin was left in place with the flush-mounted cover following sample collection.

The subslab soil gas sample was collected from Vapor Pin VP6 into an individually certified 1-liter Summa canister using a helium shroud provided by the laboratory in accordance with procedures identified in the September 2017 Enthalpy Analytical Field Guide for Use of the Helium Shrouds. A copy of the field guide is attached with this report in Appendix C. Additionally, the subslab soil gas sample was collected in accordance with procedures identified in the July 2015 DTSC Active Soil Gas Investigations Advisory Appendix C Quantitative Leak Testing Using a Tracer Gas. A clean, unused vacuum gage and stainless steel sampling manifold were used during sample collection. The sampling manifold for the soil gas sample was provided by the laboratory under vacuum, and the vacuum was recorded to be undiminished immediately prior to sampling, satisfying shut-in test requirements.

Helium was introduced into the shroud as a tracer gas and maintained at a recommended concentration of approximately 20 percent beginning approximately 5 minutes before purging and was maintained in the shroud at a concentration of approximately 20 percent until completion of sample collection. The purge volume was calculated based on the measured floor slab thickness and a default of three purge volumes, and the purge time was calculated using a nominal flow rate provided by the flow controller of 150 milliliters per minute. The calculated purge volume and purge time for Vapor Pin V6 are provided in Appendix C. Additionally, the calculated purge volumes and purge times for Vapor Pins VP1 through VP5, and VP7 are also included in Appendix C.

During subslab soil gas sample collection the vacuum at the Vapor Pin was monitored to verify that the vacuum did not exceed 100 inches of water column (approximately 7.35 inches of mercury). No vacuum was observed at the Vapor Pin during soil gas sample collection that exceeded 100 inches of water column. Vacuums and shroud helium concentrations observed during sample collection were recorded on a Soil Gas Sampling Data Sheet that is provided in Appendix C. Additionally, the Soil Gas Sampling Data Sheets completed during sample collection for Vapor Pins VP1 through VP7 on the previous sample collection events on September 8, 2020 and January 19, 2021 are also included in Appendix C.

No duplicate samples were collected on August 27, 2021. During the previous two sampling events (on September 8, 2020 and January 19, 2021) one duplicate subslab soil gas sample was collected into a 1-liter Summa canister from Vapor Pin VP1 using a shroud that was equipped with a stainless steel sampling tee for the Summa canisters which allowed for the simultaneous collection of the sample and the duplicate sample using methods described above. Following the completion of soil gas sample collection the soil gas sample Summa canisters were stored in a box and promptly shipped to the laboratory for extraction and analysis. Chain of custody procedures were observed for all sample handling.

WEATHER

Based on review of available weather information, no precipitation occurred during the month preceding the September 8, 2020 Vapor Pin subslab soil gas sample collection event and no precipitation occurred on the day of sample collection event. Additionally, no precipitation occurred during the week preceding the January 19, 2021 Vapor Pin subslab soil gas sample collection event and no precipitation occurred on the day of sample collection event. No precipitation occurred during the month of August 2021 prior to the Vapor Pin subslab soil gas sample collection event and no precipitation occurred on the day of sample collection event (August 27, 2021). Weather data, including precipitation and barometric pressure for the months of August and September 2020 and for the months of January and August 2021, including the dates of soil gas sample collection are provided in Appendix D.

The weather station is located on the south side of Oak Grove Avenue approximately 580 feet west of the intersection of Oak Grove Avenue and College Avenue in Oakland at an elevation of 226 feet above sea level, approximately 580 feet to the southwest of the subject site. The subject site is located at an elevation of approximately 190 feet above sea level. An internet link to the weather station information is provided in Appendix D.

GEOLOGY AND HYDROGEOLOGY

Based on a review of the USGS Oakland West, California Quadrangle topographic map, the subject property is located approximately 193 feet above mean sea level, and the local topography slopes to the southwest (see Figure 1). Based on review of regional geologic maps from U. S. Geological Survey Professional Paper 943, "Flatland Deposits - Their Geology and Engineering Properties and Their Importance to Comprehensive Planning," by E. J. Helley and K. R. Lajoie, 1979, the subject site is underlain by Late Pleistocene Alluvium (Qpa), which is described as weakly consolidated slightly weathered poorly sorted irregularly interbedded clay, silt, sand, and gravel.

The subsurface materials encountered in the boreholes consisted predominantly of silty clay, with coarse-grained material encountered in the boreholes as follows:

- B1: Gravelly silty sand from 0.5 to 3.5 feet bgs, and gravelly clayey sand from 11.0 to 11.3 and 20.0 to 21.0 feet bgs.
- B2: Gravelly silty sand from the surface to 4.0 feet bgs.
- B3: Gravelly silty sand from the surface to 3.5 feet bgs.
- B4: Gravelly silty sand from the surface to 4.0 feet bgs, and gravelly clayey sand from 23.0 to 24.0 feet bgs.
- B5: Gravelly clayey sand from 20.0 to 21.0 feet bgs.
- B6: Silty sandy gravel from 7.5 to 7.75 and 14.8 to 16.0 feet bgs, and silty fine sand from 9.0 to 14.8 and 16.0 to 17.0 feet bgs.
- B7: Silty fine sand from 24.5 to 25.0 feet bgs.
- B8: Silty fine sand from 22.5 to 28.0 feet bgs.
- B9: Silty fine sand from 23.0 to 27.5 feet bgs.

The subsurface materials encountered in the boreholes B1 through B9 are consistent with the Qpa description of subsurface materials provided by Helley and Lajoie.

Groundwater was first encountered during drilling in each of boreholes B3 and B6 at a depth of 13.0 feet bgs. However, water did not enter these boreholes until they were deepened and left open overnight for groundwater to accumulate in the boreholes. Groundwater was not encountered during drilling at boreholes B1, B4, B5, B7, B8, and B9, and these boreholes were similarly left open overnight for groundwater to accumulate in the boreholes. Drilling refusal was encountered in borehole B2 at a depth of 11.0 feet bgs, and for this reason no groundwater sample was collected from borehole B2.

The measured depth to water in boreholes B1, B3 through B9 after drilling and prior to groundwater sample collection was 12.8, 12.3, 23.8, 17.7, 13.8, 20.1, 11.5 and 15.2 feet bgs, respectively. The measured depth to water after groundwater sample collection and prior to grouting boreholes B1, B3 through B9 was 23.4, 21.7, 25.3, 15.5, 22.3, 20.5 and 22.1 feet bgs, respectively.

The nearest surface water is Lake Temescal, located approximately 1.1 mile east of the subject site. Based on local topography and consistent southwesterly groundwater flow directions identified from groundwater monitoring well water level data at the subject site and at nearby sites, the groundwater flow direction at the subject site is to the southwest. Rose diagrams showing historical groundwater flow directions identified at the subject site and at 5930 College Avenue (Sheaff's Garage which is located across College Avenue from the subject site) are shown in Figure 3.

LABORATORY ANALYSIS

The groundwater samples collected from monitoring wells MW1 through MW6 on November 23, 2020 and the groundwater samples collected from boreholes B1 and B3 through B9 on August 27 and 31, 2021 and September 10, 2021 were analyzed at McCampbell for the following analytes:

- TPH-G using EPA Method 5030B in conjunction with modified EPA Method 8015Bm.
- TPH-D, and TPH as Motor Oil (TPH-MO) using EPA Method 3510C in conjunction with EPA Method 8015B.
- Volatile Organic Compounds (VOCs) including methyl-tert-butyl ether (MTBE), benzene, toluene, ethylbenzene, and xylenes (MBTEX), naphthalene, and Halogenated Volatile Organic Compounds (HVOCs) using EPA Method 5030B in conjunction with EPA Method 8260B.

The soil gas Vapor Pin soil gas samples collected from Vapor Pins VP1 through V7 on September 8, 2020 and on January 19, 2021 and the sample collected from Vapor Pin VP6 collected on August 27, 2021 were all analyzed at Enthalpy Analytical (Enthalpy) in Berkeley, California for the following analytes:

- VOCs using EPA Method TO-15.
- Helium (the tracer gas) using method ASTM D1946-90.

The soil gas samples collected from Vapor Pins VP1 through VP7 on September 8, 2020 and on January 19, 2021 were additionally analyzed for TPH-G using EPA Method TO-3 and for oxygen, carbon dioxide, and methane using method ASTM D1946-90.

The borehole groundwater grab sample results are summarized in Table 1, and the subslab soil gas sample laboratory analytical results for TPH-G and petroleum VOCs are summarized in Table 2A, the subslab soil gas sample laboratory analytical results for non-petroleum VOCs are summarized in Table 2B, and the soil gas well soil gas sample laboratory analytical results for the fixed gases (carbon dioxide, oxygen, methane, and the tracer gas helium) are summarized in Table 2C. Copies of the laboratory analytical reports and chain of custody documentation for all the samples collected that are referenced above are attached with this report in Appendix E.

Groundwater grab samples collected from boreholes B1 and B3 through B9 and the August 27, 2021 Vapor Pin VP6 subslab soil gas sample results are highlighted yellow in the summary tables.

DISCUSSION AND RECOMMENDATIONS

The objective of the investigation was primarily to define the extent of petroleum in groundwater to satisfy the remaining outstanding LTCP requirement for case closure. Although drilling refusal was encountered at borehole B2 which prevented collection of a groundwater sample from B2, groundwater samples were successfully collected at locations B1, and B3 through B9. The groundwater sample results show that benzene and MTBE were not detected in any of the groundwater samples (see Table 1 and Figures 4 and 5), and that the downgradient extent of TPH-G and TPH-D has been defined (see Figure 3).

The PC-series, CB-series, and GW-series groundwater petroleum sample results are for samples that were collected in 1993, 1999, and 2019, respectively, and the groundwater monitoring well MW-series results shown on the figures are from the November 23, 2021 well sampling event. Although TPH-G and TPH-D were detected at B6, the absence of VOCs and the demonstrated reduction in TPH concentration by one to two orders of magnitude when compared with historical TPH concentrations detected near B6 is consistent with LTCP guidance which states the following:

"Resolution No. 92-49 does not require that the requisite level of water quality be met at the time of case closure; it specifies compliance with cleanup goals and objectives within a reasonable time frame."

The site investigation was additionally intended to evaluate chloroform in subslab soil gas at Vapor Pin VP6 (see Figure 6 and Table 4B). The subslab soil gas results for VP6 show that the tracer gas helium was not detected at a concentration greater than 5 percent of the shroud helium concentration, indicating that the sample did not experience unacceptable atmospheric dilution. Additionally, chloroform was detected at a concentration less than the commercial chloroform soil gas ESL, which is consistent with acceptable risk for the current commercial land use.

Based on the sample results P&D recommends that no further investigation be performed and that the LTCP case be closed.

LIMITATIONS

This report was prepared solely for the use of LPC College, LLC. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with site owner, regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between boreholes and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental, Inc.

Paul H. King
Professional Geologist # 5901
Expires: 12/31/21

PROFESSIONAL GEOLOGIST
PAUL H. KING
No. 5901
STATE OF CALIFORNIA

Attachments:

Table 1 - Summary of Borehole Groundwater Sample Analytical Results
Table 2 - Summary of Water Level Data
Table 3A - Summary of Monitoring Well Groundwater Sample Analytical Results – TPH-G and MBTEX
Table 3B - Summary of Monitoring Well Groundwater Sample Analytical Results – Other VOCs
Table 4A - Summary of Vapor Pin Sub Slab Soil Gas Sample Analytical Results – TPH-G and Petroleum VOCs
Table 4B - Summary of Vapor Pin Sub Slab Soil Gas Sample Analytical Results – Non-Petroleum VOCs
Table 4C - Summary of Vapor Pin Sub Slab Soil Gas Sample Analytical Results – Fixed Gases

Figure 1 - Site Location Map
Figure 2 - Site Aerial Photograph Showing Borehole and Groundwater Monitoring Well Locations
Figure 3 - Site Aerial Photograph Showing TPH-G and TPH-D in Groundwater
Figure 4 - Site Aerial Photograph Showing Benzene in Groundwater
Figure 5 - Site Aerial Photograph Showing MTBE in Groundwater
Figure 6 - Site Aerial Photograph Detail Showing Former Gasoline Station Location and Vapor Pin Locations

Appendix A - Groundwater Monitoring/Well Purging Data Sheets (November 23, 2020 Sample Date)
Appendix B - Soil Boring Logs
Appendix C - Enthalpy Field Guide, Soil Gas Purge Volume Calculations, and Soil Gas Sampling Data Sheets
Appendix D - Weather Information
Appendix E - Laboratory Analytical Reports and Chain of Custody Documentation

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Appendix I

Leaking Underground Storage Tank Cleanup Site Case Closure Summary Form

Alameda County Department of Environmental Health, February 16, 2022

ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH
LEAKING UNDERGROUND STORAGE TANK CLEANUP SITE
CASE CLOSURE SUMMARY FORM

Dryer's Grand Ice Cream, 5929 College Avenue, Oakland, CA 94618
Case No.RO0000153, GeoTracker ID T0600100466

February 16, 2022

This Case Closure Summary Form was prepared by Alameda County Department of Environmental Health (ACDEH) for the case identified above. This form provides a summary of information on the case and the basis for case closure. ACDEH's closure determination was based upon information in the case file and a case closure evaluation conducted in accordance with the State Water Resources Control Board's Low-Threat Underground Storage Tank Closure Policy (LTCP) for petroleum related contaminants. Based on this evaluation, and with the provision that the information provided to this agency is accurate and representative of site conditions, ACDEH has determined that there is a low threat to human health and safety and the environment at and in the vicinity of the site in its current land use as a mixed-use multi-parcel property from residual subsurface contamination associated with the unauthorized release of petroleum related constituents from underground storage tank systems at the site.

Information in this Case Closure Summary Form is organized as follows:

- **Section 1 – Case Information**: Facility/site address, case identification numbers, lead regulatory oversight agency information, and responsible party information;
- **Section 2 – Property Information**: Assessor parcel numbers, historic land use and operations, environmental cases associated with the property, and land use at time of case closure;
- **Section 3 – Case Summary**: Reason the case was opened, investigation and cleanup activities, and the basis for the case closure determination;
- **Section 4 – Residual Contamination**: Constituents evaluated during site investigation activities and residual contamination remaining at closure;
- **Section 5 – Engineering and Institutional Controls**: Engineering and institutional controls established for the property; and
- **Section 6 – Completion of Closure Activities**: Status of monitoring and remediation wells and probes and disposal of investigation and remediation derived waste, and stakeholder notification of the proposed case closure.

Supporting documentation is provided in the following attachments:

- **Attachment A – LTCP Evaluation:** GeoTracker LTCP checklist, site conceptual model summary, and LTCP media specific evaluation for groundwater, vapor intrusion and direct contact/outdoor air exposure;
- **Attachment B – Site Investigation Data**: Preferential pathways and sensitive receptor survey data, boring logs and media specific data;
- **Attachment C – Responsible Party & Property Information**: Responsible party identification, assessor's office property information, site configuration at time of case closure, and institutional controls (if applicable);
- **Attachment D – Case Closure Public Notification Information**: Public notification fact sheet and distribution list;
- **Attachment E –** List of attachment subcategories, and acronyms and symbols used in the Closure Summary Form.

Additional information on this case can be viewed in the online case file over the Internet on the ACDEH website (https://dehpra.acgov.org/LOP/) or the State of California Water Resources Control Board GeoTracker website (http://geotracker.waterboards.ca.gov). Both databases should be reviewed to obtain a complete history.

CASE CLOSURE SUMMARY FORM

SECTION 1 - CASE INFORMATION

A. Facility/Site Address (Case Name & Address)

Project Name	Address
Dryer's Grand Ice Cream	**5929 College Avenue, Oakland, CA 94618**

B. Case Identification Numbers

Cleanup Oversight Agencies	Case/ID No.
Alameda County Local Oversight Program (LOP) - Lead Agency	RO0000153
San Francisco Bay Regional Water Quality Control Board (Region 2)	01-0512
State Water Resources Control Board GeoTracker Global ID	T0600100466

C. Lead Agency Information

Agency Name:	Agency Address:	Agency Phone:
Alameda County Department of Environmental Health (ACDEH)	1131 Harbor Bay Parkway, Alameda, CA 94502-6577	(510) 567-6700
Case Worker:	LOP Supervisor:	Land Water Division Chief:
Eva Hey,	Paresh Khatri	Dilan Roe, PE C73703

D. Responsible Party Information

Responsible Parties:	Address:
LPC College LLC (ATTN: N Petrowsky & M S Libitzky)	1475 Powell Street, Suite 201, Emeryville, CA 94608-2182
Dryer's Grand Ice Cream, Inc. C/O Nestles Holding, Inc. (ATTN: Sven Vetter)	383 Main Avenue, FL 5th, Norwalk, CT, 06851-1543

SECTION 2 - PROPERTY INFORMATION

A. Assessor Parcel Numbers (APNs) & Associated Addresses

	APN(s)	Addresses
Current	1) 014-1268-013 2) 014-1268-038, 014-1268-036, 014-1268-012, 014-1268-011-01, & 014-1268-009-01 3) 014-1268-039 4) 014-1268-032-01 and 014-1268-035-01 5) 014-1268-030	1) 5941 Chabot Rd* 2) 5901 College Ave. (includes multiple addresses)* 3) 6048 Claremont Ave. 4) 6016 & 6028 Claremont Ave. 5) 6012 Claremont Ave. *=Parcels located within ACDEH Case RO0000153 boundary.
Former	1) Current Chabot Rd./5901 College Ave. 2) Other historical addresses	1) 300-302 59th St.; 306-310 59th St.; 314 59th St. 2) 452 & 454 Claremont Ave.

B. Identified Historic Land Use & Operations

Type	Description
Undeveloped	Undeveloped land prior to 1911.
Saloon, retail storefront, residential dwellings, French Laundry, Plumber & cleaning works facility, Cyclery	1911-1933
Chevy Dealership	1933
Gasoline Service Station	A gasoline service station operated on the Site from approximately 1938 to the mid to late 1970's. Seven underground storage tanks (USTs) including two Waste Oil USTs were removed in 1989 and 1990, and over-excavation of impacted soil was performed in 1995.
Ice Cream Company	1944; new Dryer's Ice Cream plant built in 1948, acquired by Nestle in 2002
Various laundries, residential dwellings, warehouses, moving & storage companies, piano store, restaurants	1951-1975

Administrative and conference offices for Nestle Direct Store Delivery operations, residential rental properties, and various leased retail businesses	2019

C. Environmental Cases Associated with Property

Case Type	Lead Agency	LOP Case No; GeoTracker ID	Case Name	Associated Historic Land Use	Primary PCOCs	Year Case Opened/Closed
Case Associated with this Case Closure Summary Form						
LUST[1]	ACDEH	RO0000153; T0600100466	Dryer's Grand Ice Cream	Gas Station	**Fuel USTs:** TPH (g), TPH (d), BTEX, MTBE	1990/2022
Other Cases Associated with the Property						
Non-Case Information	ACDEH	RO0003393 T10000013666	Libitzky Holdings, LP	See Section 2B above	-Chlorinated Hydrocarbons---	2019/----

SECTION 3 – CASE SUMMARY

A. Known UST Systems & Service Station Infrastructure

UST System Component	Size/Quantity	Material Stored	Status	URF Filing Date
UST	8,000-gallon	Gasoline	Removed	12/13/1989
UST	1,000-gallon	Gasoline	Removed	12/13/1989
UST	4,000-gallon	Diesel	Removed	12/13/1989
UST	4,000-gallon	Diesel	Removed	12/13/1989
UST	2,000-gallon	Diesel	Removed	12/13/1989
UST	1,000-gallon	Waste Oil	Removed	12/14/1989
UST	1,000-gallon	Waste Oil	Removed	12/14/1989

B. Unauthorized Release Description & Reason Case Opened

Fuel Leak Case No. RO0000153 was opened in 1990 by Alameda County Department of Environmental Health (ACDEH) following removal of seven USTs (see above) in December 1989. A copy of the ACDEH Hazardous Materials Inspection form dated December 13, 1989 notes that a hole was observed in one of the two 4,000-gallon diesel USTs and in a 1,000-gallon diesel UST, which was misidentified and later determined to be a 1,000-gallon gasoline UST. A copy of the ACDEH Hazardous Materials Inspection form dated December 14, 1989 notes that the two 1,000-gallon waste oil USTs had previously been closed in place and the skin of the USTs had to be peeled away from the concrete that had been poured in them prior to removal. Tank pit soil sample results indicated an unauthorized release occurred at the subject site. Fuel Leak Case No. RO0000153 was opened to evaluate potential impacts to groundwater and begin a groundwater monitoring program for the site and to excavate and dispose of soil removed from the UST pits. In preparation for a purchase of the property by a new owner in 2020 a Service Request Application for Preliminary Site Review was submitted to the ACDEH.

C. Site Investigations

Site investigation activities were conducted in 1989, 1991, 1993, 1999, 2019, 2020, and 2021 to evaluate the extent of subsurface impacts to soil, soil gas and groundwater from the leaking USTs. Site investigation activities conducted on site included: UST excavation pit and stockpile sampling (1989 and 1990); installation of groundwater monitoring wells MW-1 to MW-3 (1991); installation of groundwater monitoring wells MW-4 to MW-6 (1993); continuous coring of 9 direct push borings, designated as PC1 through PC9 for soil and groundwater sample collection (1993); advancement of ten borings, designated as CB-1 through CB-10 for groundwater grab sample collection (1999); advanced 17 boreholes at 10 Locations for the collection of soil, groundwater, and soil gas sample collection (2019); installation of 7 sub-slab Vapor Pins for soil gas sample collection (2020 and 2021); advancement of 8 boreholes B1, and B3 through B9 for the collection of grab groundwater samples (2021). Quarterly groundwater monitor and sampling was conducted intermittently between 1991 through 1994, semi-annual groundwater monitor and sampling was conducted between 1995 through 1996, and annual groundwater monitor and sampling was conducted between 1998 and 2020.

Analytical data from soil, groundwater and soil vapor samples indicated that the subsurface beneath the site had been impacted by petroleum hydrocarbons and fuel-related constituents including, but not limited TPHg, TPHd, BTEX, and naphthalene. Analyses of halogenated VOCs (HVOCs) and PAHs were additionally conducted on soil and groundwater samples during the investigations and HVOCs were also evaluated for in soil gas.

D. Remediation

Remediation on the subject site consisted of removal of the USTs, over-excavation of the tank pits and aeration of soil. Additionally, Oxygen Release Compound (ORC) socks placed in monitoring wells MW-2, MW-3, and MW-6 in 1996 for approximately 30 days, however oxygen did not increase in groundwater.

E. Closure Evaluation

This LUST case was evaluated for closure consistent with the State Water Resource Control Board's Low-Threat Underground Storage Tank Closure Policy (LTCP) for petroleum related contaminants. ACDEH determined that the site met all the LTCP General Criteria and Media Specific Criteria. Therefore, case closure is granted for the current mixed land use as a multi-parcel property that is developed with residential and commercial structures. If a change in land use to any residential, commercial other than as a vacant lot with no structures or buildings, or conservative land use, or if any site redevelopment is planned, Alameda County Department of Environmental Health (ACDEH) must be notified as required by Government Code Section 65850.2.2. Any below grade work require planning and implementation of appropriate health and safety procedures by the responsible party prior to and during excavation and construction activities.

CASE CLOSURE SUMMARY FORM

SECTION 4 – RESIDUAL CONTAMINATION

A. Constituents Evaluated & Residual Contamination Remaining at Closure

Material Stored/Dispensed in UST System

Engine Fuels

☒ Gasoline Fuel (1, 2, 9, 11, 12, 13, 14)

☒ Diesel Fuel (2, 9, 10)

☐ Jet Fuel (1, 2, 4, 9, 10)

Heating Oils

☐ Kerosene (2, 5, 9, 10,)

☐ Residential Heating Oils (2, 3, 9, 10)

☐ Commercial & Industrial Heating Oils (1, 2, 3, 7, 9, 10, 15, 16)

Other Oils

☒ Waste (Used) Oil (1, 2, 3, 9, 10, 15, 16, 17, 18)

☐ Hydraulic Oil (8, 16, 17)

☐ Dielectric Oil (2, 3, 10, 16, 17)

☐ Unknown Oil (1, 2, 3, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18)

Solvents

☐ Hydrocarbon Solvents (2, 3, 6, 9, 10)

☐ Chlorinated Solvents (15)

Analytes		Analytes Sampled in Media & Residual Contamination						
		S	GW	SW	SV	SS	IA	OA
TPHg[1]	Sampled	☒	☒	☐	☐	☒	☐	☐
	Residual	☒	☒	☐	☐	☒	☐	☐
TPHd[2]	Sampled	☒	☒	☐	☐	☐	☐	☐
	Residual	☒	☒	☐	☐	☐	☐	☐
TPHmo[3] (soil only)	Sampled	☒	☒	☐	☐	☐	☐	☐
	Residual	☒	☒	☐	☐	☐	☐	☐
TPHjf[4]	Sampled	☐	☐	☐	☐	☐	☐	☐
	Residual	☐	☐	☐	☐	☐	☐	☐
TPHk[5]	Sampled	☐	☐	☐	☐	☐	☐	☐
	Residual	☐	☐	☐	☐	☐	☐	☐
TPHss[6]	Sampled	☐	☐	☐	☐	☐	☐	☐
	Residual	☐	☐	☐	☐	☐	☐	☐
TPHbo[7]	Sampled	☐	☐	☐	☐	☐	☐	☐
	Residual	☐	☐	☐	☐	☐	☐	☐
TPHho[8]	Sampled	☐	☐	☐	☐	☐	☐	☐
	Residual	☐	☐	☐	☐	☐	☐	☐
BTEX[9]	Sampled	☒	☒	☐	☐	☒	☐	☐
	Residual	☒	☐	☐	☒	☒	☐	☐
Naphthalene[10]	Sampled	☒	☒	☐	☒	☒	☐	☐
	Residual	☐	☒	☐	☒	☐	☐	☐
MTBE/TBA[11]	Sampled	☒	☒	☐	☐	☒	☐	☐
	Residual	☒	☒	☐	☐	☐	☐	☐
EDB/EDC[12]	Sampled	☐	☒	☐	☒	☒	☐	☐
	Residual	☐	☐	☐	☐	☐	☐	☐
Organic Lead[13]	Sampled	☒	☐	☐	☐	☐	☐	☐
	Residual	☐	☐	☐	☐	☐	☐	☐
Fuel Oxys[14]	Sampled	☐	☒	☐	☐	☐	☐	☐
	Residual	☐	☐	☐	☐	☐	☐	☐
VOCs[15] (full scan)	Sampled	☒	☒	☐	☒	☒	☐	☐
	Residual	☒	☒	☐	☒	☒	☐	☐
SVOCs[16]	Sampled	☒	☒	☐	☐	☐	☐	☐
	Residual	☐	☐	☐	☐	☐	☐	☐
PCBs[17]	Sampled	☒	☐	☐	☐	☐	☐	☐
	Residual	☐	☐	☐	☐	☐	☐	☐
Wear Metals[18] (soil only)	Sampled	☐	☐	☐	☐	☐	☐	☐
	Residual	☐	☐	☐	☐	☐	☐	☐

S = Soil, GW = Groundwater, SW = Surface Water, SV = Soil Vapor, SS = Sub-Slab Vapor, IA = Indoor Air, OA = Outdoor Air

SECTION 5 – ENGINEERING AND INSTITUTIONAL CONTROLS

A. Land Use & Operations at Time of LUST Case Closure

At the time of closure of LUST Case No. RO0000153/ T0600100466 the subject site is located at 5929 College Avenue in Oakland and is located in a mixed commercial and residential zoned area north of Highway 24 and three blocks to the Bay Area Rapid Transit (BART) Rockridge Station. The site occupies 10 contiguous parcels totaling approximately 129,541 square feet. The new owners of the subject site are proposing to use the existing onsite structures as housing and a Jewish Community Center which would allow for daycare, educational activities, and recreational use.

B. Engineering and Institutional Controls

Engineering Controls
Not Applicable
Institutional Controls
Not Applicable

SECTION 6 - COMPLETION OF CLOSURE ACTIVITIES

As a condition of case closure all monitoring and remediation wells and probes must be properly destroyed (unless the owner of the property on which the monitoring point is located certifies that the monitoring point will be maintained); all remediation systems must be decommissioned; all investigation and remediation derived waste must be properly disposed of; and all stakeholders notified of the proposed case closure.

A. Well Status (Groundwater)

No. of Wells Installed: 6 (MW-1 through MW-6)	No. of Wells Lost: 0
No. of Wells Destroyed: 6	No. of Wells Retained: 0

B. Vapor Probe Status

No. of Soil Vapor Probes (VP) Installed: 0 All historical soil gas probes were temporary. No. of Sub-Slab Probes Installed: 10	No. of VPs Lost: 0
No. of VPs Destroyed: 10	No. of VPs Retained: 0

C. Remediation System Decommissioning

Type of System	N/A
Remediation System Components Removed	N/A

D. Investigation and Remediation Derived Waste Removal Status

All investigation and remediation derived waste associated with the UST releases was removed from the site. It is not clear whether soil that was excavated from the UST pits during tank removal activities was reused or disposed of off-site.

E. Public Comment

A 60 day public notification period was completed on December 16, 2021. No comments were received.

ATTACHMENT A-1

GeoTracker LTCP Evaluation Checklist

DREYER'S GRAND ICE CREAM (T0600100466) - MAP THIS SITE | PUBLIC PAGE

5929 COLLEGE AVE.
OAKLAND , CA 94618
ALAMEDA COUNTY
LUST CLEANUP SITE (INFO)
STATUS: OPEN - ELIGIBLE FOR CLOSURE

PERTINENT INFORMATION:
View Documents in ECM

CLEANUP OVERSIGHT AGENCIES
ALAMEDA COUNTY LOP *(LEAD) - CASE #: RO0000153 - EVA HEY*
SAN FRANCISCO BAY RWQCB (REGION 2) *- CASE #: 01-0512 - Regional Water Board*

THERE ARE 1 OTHER CASES ASSOCIATED WITH THIS CASE - SHOW

THIS PROJECT WAS LAST MODIFIED BY *EVA HEY* ON 2/17/2022 9:20:29 AM - HISTORY

CLOSURE POLICY *THIS VERSION IS FINAL AS OF 2/16/2022* *CHECKLIST INITIATED ON 5/13/2013* PRINT THIS FORM | CLOSURE POLICY HISTORY

General Criteria - *The site satisfies the policy general criteria* - CLEAR SECTION ANSWERS **YES**

a. Is the unauthorized release located within the service area of a public water system? **Name of Water System :** EBMUD		(•) YES	( ) NO
b. The unauthorized release consists only of petroleum (info).		(•) YES	( ) NO
c. The unauthorized ("primary") release from the UST system has been stopped.		(•) YES	( ) NO
d. Free product has been removed to the maximum extent practicable (info).	( ) FP Not Encountered	(•) YES	( ) NO
e. A conceptual site model that assesses the nature, extent, and mobility of the release has been developed (info).		(•) YES	( ) NO
f. Secondary source has been removed to the extent practicable (info).		(•) YES	( ) NO
g. Soil or groundwater has been tested for MTBE and results reported in accordance with Health and Safety Code Section 25296.15.	( ) Not Required	(•) YES	( ) NO
h. Does a nuisance exist, as defined by Water Code section 13050.		( ) YES	(•) NO

1. Media-Specific Criteria: Groundwater - *The contaminant plume that exceeds water quality objectives is stable or decreasing in areal extent, and meets all of the additional characteristics of one of the five classes of sites listed below.* - CLEAR SECTION ANSWERS **YES**

EXCEPTION - Soil Only Case (Release has not Affected Groundwater - Info)	( ) YES	(•) NO
Does the site meet any of the Groundwater specific criteria scenarios?	(•) YES	( ) NO
1.1 - The contaminant plume that exceeds water quality objectives is <100 feet in length. There is no free product. The nearest existing water supply well or surface water body is >250 feet from the defined plume boundary.	(•) YES	( ) NO

2. Media Specific Criteria: Petroleum Vapor Intrusion to Indoor Air - *The site is considered low-threat for the vapor-intrusion-to-air pathway if site-specific conditions satisfy items 2a, 2b, or 2c* - CLEAR SECTION ANSWERS **YES**

EXCEPTION - Active Commercial Petroleum Fueling Facility	( ) YES	(•) NO
Does the site meet any of the Petroleum Vapor Intrusion to Indoor Air specific criteria scenarios?	(•) YES	( ) NO
2a - Scenario 4 (example): Direct Measurement of Soil Gas Concentrations	**YES**	
i. Soil Gas Sampling Locations – No Bioattenuation Zone:		
- Beneath or adjacent to an existing building: Soil gas sample is collected at least 5 feet below the bottom of the building foundation.	( ) YES	( ) NO
- Future construction: The soil gas sample shall be collected from at least 5 feet below the ground surface (bgs).	( ) YES	( ) NO
ii. Soil Gas Sampling Locations – with Bioattenuation Zone: The criteria in Column A in the Soil Gas Criteria table (page 5 of the Policy) apply if the following requirements for a bioattenuation zone are satisfied:	**YES**	
- Minimum of 5 feet of soil between the soil vapor measurement and the foundation of an existing or ground surface of future construction.	(•) YES	( ) NO
- TPH (TPHg + TPHd) is <100 mg/kg (measured in at least two depths within the 5-ft zone)	(•) YES	( ) NO
- Oxygen is ≥ 4% measured at the bottom of the 5-ft zone.	(•) YES	( ) NO

3. Media Specific Criteria: Direct Contact and Outdoor Air Exposure - *The site is considered low-threat for direct contact and outdoor air exposure if it meets 1, 2, or 3 below.* - CLEAR SECTION ANSWERS **YES**

EXCEPTION - The upper 10 feet of soil is free of petroleum contamination	( ) YES	(•) NO
Does the site meet any of the Direct Contact and Outdoor Air Exposure criteria scenarios?	(•) YES	( ) NO
3(a) - Maximum concentrations of petroleum constituents in soil are less than or equal to those listed in the following table (LINK) for the specified depth below ground surface.	(•) YES	( ) NO

Additional Information

This case should be kept OPEN in spite of meeting policy criteria.	( ) YES	( ) NO
Has this LTCP Checklist been updated for FY 21/22?	(•) YES	( ) NO

SPELL CHECK

Save Form as Partially Completed | Save Form as Complete

ATTACHMENT A-2

Site Conceptual Model Summary

ATTACHMENT A-2

SITE CONCEPTUAL MODEL SUMMARY

A. Site Geology & Hydrogeology

The geologic and hydrogeologic characteristics of the site were evaluated using data from the site's boring logs generated during site investigations. Soil encountered during drilling generally consisted of fine-grained soil (clays, sandy clay, silty clay, gravelly clay) with layers of coarse-grained soil (sand, silty sand with gravel, clayey gravel, silty clay) interspersed from the ground surface to 36 feet bgs, the total depth explored.

Boring logs indicate that groundwater was not encountered during drilling of a vast majority of the boreholes drilled at and near the subject site. In the boreholes where groundwater was encountered during drilling, the depth to groundwater ranged from 7.1 feet to 24.0 feet bgs. A majority of the boreholes where groundwater samples were collected were left open over night to allow water to enter the boreholes. The groundwater monitoring well network indicates that the groundwater gradient flow direction has been to the southwest.

B. Dissolved Phase Contaminant Plume

A grab groundwater sample collected in 1999 from borehole CB-9A located approximately 50 feet south of the subject site on the south side of Chabot Road had TPHg and TPHd detected at concentrations of 9,800 µg/L and 58,000 µg/L, respectively.

Long term monitoring of dissolved phase concentration of contaminants in groundwater has been conducted in monitoring wells MW-1 to MW-3 for twenty-nine years, from August 1991 to November 2020, and MW-4 through MW-6 for twenty-seven years, from October 1993 through November 2020. Monitoring well screen intervals have not been submerged for most of the monitoring and sampling events in wells MW-1 and MW-2, were never submerged in wells MW-3 and MW-4, was submerged for about half of the monitoring and sampling events in well MW-5, and was submerged for all but 2 of the monitoring and sampling events in well MW-6.

Analysis for the following contaminants of concern (COCs) in groundwater have included total petroleum hydrocarbon as gasoline (TPHg), total petroleum hydrocarbon as diesel (TPHd) benzene, toluene, ethylbenzene, xylene (BTEX), naphthalene, MTBE, and Polyaromatic Hydrocarbons (PAHs).

Concentrations of COCs in groundwater have been reported below the respective laboratory detect limits in well MW-1 throughout the twenty-nine years of monitoring and sampling with the exception of TPHd being detected 3 times and benzene detected the first sampling event only. Concentrations of COCs in groundwater have been reported below the respective laboratory detect limits in wells MW-4 and MW-6 since 2017 with the exception of TPHd being detected in well MW-4 once. Elevated concentrations of the following COCs have been detected in groundwater: TPHg in MW-2, MW-3 and MW-5 (most recent concentrations of 1,700; 380; and 5,100 µg/L respectively); TPHd in MW-2, MW-3 and MW-5 (most recent concentrations of 890; 210; and 1,500 µg/L respectively). MTBE, BTEX, and naphthalene were not detected in any of the wells during the most recent groundwater monitoring and sampling event on November 23, 2020, with the exceptions of ethylbenzene being detected in wells MW-3 and MW-5 at concentrations of 1.5 and 8.3 µg/L, respectively.

At case closure, the dissolved phase contaminant plume appears to be defined by the off-site boreholes along the south side of Chabot Road and appears be primarily in a parking lot where the former USTs were located.

ATTACHMENT A-2

SITE CONCEPTUAL MODEL SUMMARY (CONTINUED)

C. Non Aqueous Phase Liquid (NAPL)

Free liquid LNAPL has not been directly observed at the site; however, as described in the LTCP's Technical Justification for Vapor Intrusion Media-Specific Criteria, indirect evidence of LNAPL was evidenced in groundwater samples when benzene was detected in at concentrations exceeding 3,000 µg/L (Prior to October 1993 in well MW-2, and once in well MW-4 and twice in wells MW-3 and MW-5 historically). TPH-D exceeded 5,000 µg/L three times historically in well MW-2 and one time in well MW-5 and TPH-G exceeded 20,000 µg/L in wells from the first sampling event through October 2017 and have not exceeded 20,000 µg/L since.

D. Soil Impacts

Site soil data collected prior to over-excavation in 1989 during UST removal had elevated concentrations of TPHg, TPHd, Oil & Grease, BTEX, and naphthalene in the former UST pits at depths of 6.0 and 10.0 feet bgs. Soil samples collected in 1991 from the boreholes that groundwater monitoring wells MW-2 and MW-3 at a depth of 10.0 bgs feet had elevated concentrations of TPHg, TPHd, and BTEX. Soil samples collected in 1993 from historical boreholes PC-1, and PC-3 through PC-9 at depths ranging between depths of 9.0 to 16.5 did not have elevated TPHg and TPH-D or BTEX with the exception of a soil sample collected at a depth of 15.0 feet bgs where elevated BTEX was detected. Soil samples collected from boreholes SB-101 through SB-110 in 2019 had TPHg concentrations ranging from not detected in most samples to elevated concentrations of 35,000, 120,000, and 250,000 mg/kg, respectively in a soil sample collected from SB-103 at a depth in 10.0 feet bgs, a soil sample collected from borehole SB-104 at a depth of 10.0 feet bgs, and a soil sample collected from SB-104 at a depth of 16.0 feet bgs. No VOCs were detected at elevated concentrations with the exception of acetone being detected at slightly elevated concentrations in a handful of samples.

E. Preferential Pathways

According to the April 13, 2018, Additional Information for Data Gap Evaluation prepared by Haley & Aldrich, Inc., (Haley & Aldrich) from the available information received from DPW and EBMUD, the invert (base) of main utility lines in the vicinity of the subject site is below the static water level of the Site. An approximately 5-foot-square concrete box culvert containing the former Harwood Creek is located immediately south of the Site; the invert of the box culvert is approximately 20 to 25 feet below ground surface (bgs). It may locally influence the direction of groundwater flow.

F. Sensitive Receptors & Exposure Pathways

Haley & Aldrich contacted the DPW and CA DWR to obtain information about wells (monitoring, cathodic, irrigation, or drinking water) located within 2,000 feet of the Site. DPW did not respond to repeated requests, but CA DWR did provide a list of all wells located within Township 01S, Range 04W, Section 13. Well survey information provided by CA DWR is presented in Attachment 1. Table 1 of Attachment 1 includes all wells within the Section; Table 2 includes those wells located within 2,000 feet of the Site. Thirty wells were identified within 2,000 feet of the Site; all but one of the wells were shallow monitoring wells associated with local cleanup sites. The last well was an "unused" cathodic protection well (as designated on the well report). To date, six of these wells have been decommissioned and the others remain. CA DWR confirmed that there were no drinking water wells (private or municipal) located within the quadrant. One irrigation well was identified, but it was located approximately 4,000 feet upgradient of the Site. Three boring logs from 1935 were identified for borings at "the foot of Oak Grove Ave," which may or may not fall within the hypothetical plume boundary. However, no well construction was available, and it is not known if these borings were ultimately converted into wells. Overall, water wells are not likely to create significant exposure pathways for residents, workers, or visitors

ATTACHMENT A-3

LTCP Media Specific Evaluation for Groundwater

LTCP Media Specific Evaluation - Groundwater

☐ Exemption - Site has not affected groundwater;

☒ Scenario 1 – Short stabilized contaminant plume;

☐ Scenario 2, ☐ Scenario 3 – Moderate stabilized contaminant plumes;

☐ Scenario 4 – Long stabilized contaminant plumes;

☐ Scenario 5 – Site specific conditions demonstrate that the contaminant plume poses a low threat to the human health and the environment

Evaluation Criteria

Key: Shading = site specific data; ☒ = type of data or criteria met; hatched box indicates no criteria

Element Evaluated	Site Specific Data	Short Plume Scenario 1	Moderate Plume Scenarios 2 & 3		Long Plume Scenario 4
Plume Length (feet)	☒ <100 ☐ <250 ☐ <1,000 ☐ ≥1,000	☒ <100	☐ <250	☐ <250	☐ <1,000
Free Product	☒ No FP ☐ FP Onsite ☐ FP Offsite ☐ Removed to Max Extent	☒ No FP	☐ No FP	☐ Removed to max extent onsite; ☐ Does not extend offsite	☐ No FP
Plume Stability	☐ Extent Undefined ☒ Stable ☐ Decreasing ☐ ≥5 Years	☒ Stable or decreasing	☐ Stable or decreasing	☐ Stable or decreasing for ≥ 5 years	☐ Stable or decreasing
Distance to Nearest Water Supply Well from Plume Boundary (feet)	☐ <250 ☒ >250 ☐ >1,000	☒ >250	☐ >1,000	☐ >1,000	☐ >1,000
Distance to Nearest Surface Water Body from Plume Boundary (feet)	☒ >250 ☐ >1,000	☒ >250	☐ >1,000	☐ >1,000	☐ >1,000
Maximum Benzene Concentrations @ Closure (µg/l)	☒ < 1,000 ☐ < 3,000 ☐ > 3,000		☐ <3,000		☐ <1,000
Maximum MTBE Concentrations @ Closure (µg/l)	☒ < 1,000 ☐ > 1,000		☐ <1,000		☐ <1,000
Land Use Restriction	☒ Not Required ☐ Recorded			☐ Recorded	

Element	Analysis
Plume Length	The objective of the August 2021 investigation was primarily to define the extent of petroleum in groundwater to satisfy the remaining outstanding LTCP requirement for case closure. Although drilling refusal was encountered at borehole B2, which prevented collection of a groundwater sample from B2, groundwater samples were successfully collected at locations B1, and B3 through B9. The groundwater sample results show that benzene and MTBE were not detected in any of the groundwater samples (see P&D Environmental, Inc.'s September 23, 2021, Limited Subsurface Investigation Report), and that the downgradient extent of TPH-G and TPH-D has been defined (see P&D Environmental, Inc.'s September 23, 2021, Limited Subsurface Investigation Report). The PC-series, CB-series, and GW-series groundwater petroleum samples were collected in 1993, 1999, and 2019, respectively. Although TPH-G and TPH-D were detected at B6, the absence of VOCs and the demonstrated reduction in TPH concentration by one to two orders of magnitude when compared with historical TPH concentrations detected near B6 is consistent with LTCP guidance which states the following: "Resolution No. 92-49 does not require that the requisite level of water quality be met at the time of case closure; it specifies compliance with cleanup goals and objectives within a reasonable time frame." Therefore, the petroleum hydrocarbon dissolved phase plume was determined to be less than 250 feet in length. The groundwater plume has been defined to water quality objectives, therefore it poses a low threat to human health and the environment.
Free Product	Free liquid LNAPL has not been directly observed at the site; however, as described in the LTCP's Technical Justification for Vapor Intrusion Media-Specific Criteria, indirect evidence of LNAPL was evidenced in groundwater samples when benzene was detected in at concentrations exceeding 3,000 µg/L (Prior to October 1993 in well MW-2, and once in well MW-4 and twice in wells MW-3 and MW-5 historically). TPH-D exceeded 5,000 µg/L three times historically in well MW-2 and one time in well MW-5 and TPH-G exceeded 20,000 µg/L in wells from the first sampling event through October 2017 and have not exceeded 20,000 µg/L since.
Plume Stability	Long term monitoring of dissolved phase concentration of contaminants in groundwater has been conducted in monitoring wells MW-1 to MW-3 for twenty-nine years, from August 1991 to November 2020, and MW-4 through MW-6 for twenty-seven years, from October 1993 through November 2020. The historical groundwater monitoring well sample results indicate the dissolved phase groundwater plume concentrations are decreasing and/or stable. At the time of case closure, the estimated lateral extent of the dissolved phase groundwater plume was defined based on downgradient and off-site borehole groundwater grab sample results.
Benzene Concentrations	Benzene has been detected at elevated concentrations in groundwater in site monitoring wells MW-2 through MW-5. The maximum grab groundwater historic benzene concentration, 8,300 µg/L, was detected in MW-2 for the very first sampling event on August 5, 1991 and has bio-attenuated over the twenty-nine years of sampling the well. The maximum historic benzene concentration, 8,300 µg/L, was detected in well MW-2 located adjacent to the southwestern corner of the former waste oil UST excavation pit. The other elevated benzene concentrations have historically attenuated over time in well MW-5, located less than 50 feet west of MW-2, and MW-3 and MW-4, located immediately downgradient of the former fuel UST excavation pit. Benzene was not detected above laboratory reporting limits in any of the wells during the most recently collected groundwater samples on November 23, 2020.
MTBE Concentrations	The only MTBE detection in any groundwater samples at the subject site was in grab groundwater sample GW-101 and GW-101 Duplicate at a concentration of 57 µg/L in 2019.
Water Supply Wells	The results from an Alameda County Public Works Agency (ACPWA) survey and the GeoTracker Groundwater Ambient Monitoring Assessment (GAMA) website indicated there are no domestic, irrigation, and municipal wells located within a 2,000-foot radius of the site.
Surface Water Bodies	The closest downgradient surface water body is an unnamed lake located on the north side of St. Mary's Cemetery. The next closest downgradient or cross-gradient surface water body was identified as Lake Temescal, located 1.1 miles east of the Site.

ATTACHMENT A-4

LTCP Media Specific Evaluation for Vapor Intrusion

ATTACHMENT A-4

LTCP Media Specific Evaluation – Vapor Intrusion
Closure Scenario
☐ Exemption (Onsite) - Active fueling station exempt from vapor specific criteria; ☐ Scenario 1 – Unweathered free phase LNAPL on groundwater; ☐ Scenario 2 – Unweathered residual LNAPL in soil; ☒ Scenario 3a, ☐ Scenario 3b, ☐ Scenario 3c – Dissolved phase benzene concentrations in groundwater; ☐ Scenario 4a - Soil vapor concentrations without bioattenuation zone; ☐ Scenario 4b - Soil vapor concentrations with bioattenuation zone; ☐ Site specific risk assessment demonstrates human health is protected; ☐ Exposure controlled through use of mitigation measures or institutional or engineering controls
Evaluation Criteria
Key: Shading = site specific data; ☒ = type of data or criteria met; hatched box indicates no criteria

Element Evaluated	**Site Specific Data**	**High Concentration Source Scenarios 1, 2**	**Low Concentration Source Scenarios 3a, 3b, 3c**			**Soil Vapor Scenarios 4a, 4b**	
		Unweathered NAPL	**Maximum Dissolved Phase Benzene Concentration in Groundwater @ Closure**			**Without Bio. Zone**	**With Bio. Zone**
Groundwater ☐ WT ☐ SC ☒ CF	Max Benzene Concentration: (µg/L): Historic:8,300; at closure: ND<0.50		☒ <100	☐ ≥100 & <1,000	☐ <1,000		
NAPL ☒ No NAPL ☐ NAPL in Soil ☐ NAPL on GW	☐ Direct Evidence ☐ Indirect Evidence ☐ W; ☐ UW	☐ UW in Soil or ☐ UW on GW	☒ No UW in Soil or GW				
Foundations ☐ None ☒ Existing ☐ Proposed	☒ Slab on Grade ☐ Crawl Space ☐ Subterranean Features						
Bioattenuation Zone	Highest Historic Water Level (ft bgs): 5.5	☐ ≥30	☐ ≥5	☒ ≥10	☐ ≥5	☐ <5 or ☐ ≥ 5	☐ ≥ 5
	TPH(g+d) Concentration (mg/kg): <1	☐ <100	☐ <100	☐ <100	☐ <100	☐ <100 ☒ ≥100	☐ <100 (at 2 depths)
	Bio Zone Thickness (ft): ☐ <5; ☒ ≥5; ☐ ≥10; ☐ ≥30	☐ ≥30	☐ ≥5	☐ ≥10	☐ ≥5	☐ <5 or ☒ ≥ 5	☐ ≥ 5
	Oxygen Conc (%): ☒ <4; ☐ ≥4; ☐ No data		☐ No data ☐ <4, ☐ ≥4	☐ No data ☐ <4, ☐ ≥4	☐ ≥4	☒ < 4 ☐ ≥4	☐ ≥4 (at bottom)
Soil Vapor (Current Conditions) ☐ No Samples Collected	Sample Depth (ft bgs) ☒ Subslab = Not Applicable ☒ Soil Gas = 5					☐ <5 or ☒ ≥5	☐ ≥5
	Benzene Concentration (µg/m³): <64					☐ R< 85 ☒ C<280	☐ C<85,000 ☐ C<280,000
	Ethylbenzene Concentration (µg/m³): 370					☒ R<1,100 ☒ C<3,600	☐ R<1,100,000 ☐ C<3,600,000
	Naphthalene Concentration (µg/m³): <1,000					☒ R<93 ☒ R<310	☐ R<93,000 ☐ C<310,000

ATTACHMENT A-4

GW = Groundwater WT = Water Table SC = Semi-Confined CF = Confined W= Weathered UW = Unweathered
R=Residential C=Commercial

ATTACHMENT A-4

LTCP Media Specific Evaluation – Vapor Intrusion	
Location	**Analysis**
Onsite	The site was evaluated for vapor intrusion risk based on the current mixed use of the subject site property. Haley & Aldrich stated that the site meets the LTCP's Media Specific Vapor Intrusion to Indoor Air in the Additional Site Characterization Report dated October 21, 2019. The bio-attenuation zone appears to be at least five feet bgs and soil vapor samples were collected at depths of five feet bgs. The detected concentrations of ethylbenzene and naphthalene are below both the residential and commercial low threat closure criteria. For Benzene, all samples were below the commercial criteria, but one sample was above the residential criteria (SV-109). However, this sample is located on the part of the Site used for commercial purposes, so the commercial low threat criteria are applicable at this location. Additionally, seven sub-slab Vapor Pins were installed on September 2, 2020 inside the site building where the gasoline station was historically located and sampled on September 8, 2020 and January 19, 2021 (VP6 was additionally sampled on August 27, 2021).
Offsite	Haley & Aldrich concluded VOCs in soil vapor do not pose an unacceptable risk to off-site receptors via the vapor intrusion pathway because groundwater because groundwater impacted with COCs does not extend off-site.

ATTACHMENT A-5

LTCP Media Specific Evaluation for Direct Contact & Outdoor Air Exposure

ATTACHMENT A-5

LTCP Media Specific Evaluation – Direct Contact & Outdoor Air
Closure Scenario
☐ Exemption (no petroleum hydrocarbons in upper 10 feet); ☒ Maximum concentrations of petroleum hydrocarbons are less than or equal to those in Table 1 below; ☐ Maximum concentrations of petroleum constituents are less than levels that a site specific risk assessment demonstrates will have no significant risk of adversely affecting human health; ☐ Concentrations of petroleum in soil will have no significant risk of adversely affecting human health as a result of controlling exposure through the use of mitigation measures or through the use of institutional or engineering controls; ☐ This case should be closed in spite of not meeting the direct contact and outdoor air specific media criteria
Evaluation Criteria
Key: Shading = site specific data; ☒ = type of data or criteria met; hatched box indicates no criteria

Constituent (LTCP Criteria & Site Maximum)		**Residential**		**Commercial/Industrial**		**All Scenarios**
		Direct Contact	**Volatilization to Outdoor Air**	**Direct Contact**	**Volatilization to Outdoor Air**	**Construction or Utility Worker**
		0 to 5 ft bgs (mg/kg)	5 to 10 ft bgs (mg/kg)	0 to 5 ft bgs (mg/kg)	5 to 10 ft bgs (mg/kg)	0 to 10 ft bgs (mg/kg)
Analysis Required For All USTs						
Benzene	Current Site Max	ND<0.0076	ND<0.460	ND<0.0076	ND<0.460	ND<0.460
	LTCP Criteria	☒ ≤1.9	☒ ≤2.8	☒ ≤8.2	☒ ≤12	☒ ≤14
Ethylbenzene	Current Site Max	ND<0.0076	0.0056	ND<0.0076	0.0056	0.0056
	LTCP Criteria	☒ ≤21	☒ ≤32	☒ ≤89	☒ ≤134	☒ ≤314
Naphthalene	Current Site Max	ND<0.015	ND<0.920	ND<0.015	ND<0.920	ND<0.920
	LTCP Criteria	☒ ≤9.7	☒ ≤9.7	☒ ≤45	☒ ≤45	☒ ≤219
Analysis Required For USTs with Waste Oil, Bunker C Fuel or Unknown Contents						
PAHs[1]	Current Site Max	0.96	0.10	0.96	0.10	0.10
	LTCP Criteria	☒ ≤0.063		☒ ≤0.68		☒ ≤4.5

NR = Not Required NA = Not Analyzed

Notes:

1. Based on the seven carcinogenic poly-aromatic hydrocarbons (PAHs) as benzo(a)pyrene toxicity equivalent (BaPe).

ATTACHMENT A-5

LTCP Media Specific Evaluation – Direct Contact & Outdoor Air	
Location	**Analysis**
Onsite	The current maximum concentrations of hydrocarbons in soil within the 0 to 10 foot interval are less than the concentrations in Table 1 for residential, commercial and construction worker exposure.
Offsite	The petroleum hydrocarbon soil contamination does not appear to extend offsite.

Appendix J

Dreyers HQ Sites Historic Resource Evaluation

Preservation Architecture, August 2, 2024

PRESERVATION
ARCHITECTURE

March 18, 2024 rev. August 2, 2024

Dreyers HQ, Oakland
Historic Resource Evaluations

The overall and former Dreyers property has seven existing buildings at the following individual addresses and lot numbers:

- 6012 Claremont Ave. (APN 14-1268-32-1), a 1917 residence
- 6016 Claremont Ave. (APN 14-1268-30), a 1923 residence
- 6028-30 Claremont Ave. (APN 14-1268-35-1), a 1911 commercial building with multiple alterations and additions
- 6048-54 Claremont Ave. (APN 14-1268-39), a c1924 apartment building
- 5941-45 Chabot Rd. (APN 14-1268-13), two 1926 residential buildings
- 5901-5929 College Ave. (APN 14-1268-9-1), a 1992 commercial retail and office building

The Project is located in the Rockridge neighborhood of Oakland. The Project site involves fourteen separate lots or legal parcels, comprising an area of just over 2.97 acres.

The Project site also consists of ten separate Assessor's Parcels (APNs) comprising 129,541 square feet of land

Six of the Project site's ten Assessor's Parcels contain existing buildings. These existing buildings (see Figure 4) include the following:

- The 1992 commercial retail and office building at 5901 College Ave. (APN 14-1268-9-1) is the 2- and 3-story Dreyer's Headquarters office building. The building is 60,547 square feet in size, including 8,920 square feet of ground floor retail space in five separate storefronts along College Avenue. The remaining 51,627 square feet of office space is still being used by Dreyer's/Nestle until the end of 2024, under the purchase terms of the building.
- The building at 6048 Claremont Ave. (APN 14-1268-39) is a 2-story, 4,170 square-foot c1924 apartment building converted to office use in 1982 and currently serves as the main administrative offices of the Jewish Community Center of the East Bay.
- The 1911 commercial building at 6028 Claremont Ave. (APN 14-1268-35-1) is a graduated 1-, 2- and 3-story Dreyer's Conference Building. The building is 15,267 square feet in size and includes 5,807 square feet of conference rooms, multi-purpose rooms and accessory kitchen space, with the remaining 9,460 square feet as office space. Similar to the Headquarters building at 5901 College Avenue, Dreyer's continues to use this building until the end of 2024.
- The 1923 residential building at 6016 Claremont Ave. (APN 14-1268-30) is a 1-story, 1,490 square-foot building currently serving as the residence of a rabbinic couple who host events and informal gatherings with Jewish young professionals through a program known as Base Bay.
- The 1917 residential building at 6012 Claremont Ave. (APN 14-1268-32-1) is a 1-story, 1,360 square-foot building that is home to the Rockridge Moishe House, where post-college residents host social events for other Jewish young adults.
- The two, 1926 residential buildings at 5941 and 5936 Chabot Rd. (APN 14-1268-13, two addresses on one parcel) are two similarly sized 2-story, 3,375 square-foot residential buildings converted to commercial use in the 1990s. The building at 5941 Chabot is currently an office for

446 17th Street #302 Oakland CA 94612
510.418.0285 mhulbert@earthlink.net

Jewish Learning Works, and the building at 5936 Chabot provides office space for the Jewish Community Federation and an artist studio space.

The 7 subject buildings are distributed around the overall property, the interstitial spaces landscaped and paved. The overall property with its multiple parcels, originally mapped in the 1878 Batchelder Tract, is set in approximately the middle of its uniquely triangular, mixed commercial and residential block, the former concentrated in the northern half along Claremont and College avenues with residential in the southern half along Claremont and Chabot (figs.1-4).

The purpose of this evaluation effort is to first determine if the subject properties and buildings do or do not qualify as historic resources per the California Register of Historical Resources (CR) criteria and with respect to the California Environmental Quality Act (CEQA). As this historical summary and project evaluation will address resources of potential historical age – i.e., greater than 45 years of age – it will therefore not further address the recent 5901 College Ave. building, which is at this juncture just over 30 years of age. A second piece of this evaluation will generally address a currently proposed project relative its potential impacts on identified historic resources.

This evaluation effort is based on site visits to survey and record the buildings and their setting. Prior records were also collected and reviewed, including historic maps and aerial views, historic telephone directories, building permit records from the City of Oakland (both via a public records microfiche records requests from the City), along with Alameda County deed research. Despite these efforts, few original records and no original plans of any of the subject buildings have been located.

Previously Evaluated Resources

The following types of properties constitute the City of Oakland's Local Register of Historical Resources:

- Designated Historic Properties, which include Oakland Landmarks, Heritage Properties, Preservation Study List Properties;
- Properties within an S-7 or S-20 Preservation Combining Zone (i.e., historic preservation zoning districts);
- Potential Designated Historic Properties (PDHPs) identified in the Oakland Cultural Heritage Survey (OCHS) as having an existing or contingency rating of A or B;
- Potential Designated Historic Properties that are contributors or potential contributors to an Area of Primary Importance (API);
- Other PDHPs and Areas of Secondary Importance (ASIs) warrant consideration for preservation, but do not necessarily meet the threshold for historical resources under CEQA.

The Oakland Cultural Heritage Survey previously surveyed several properties within the project site, including 6012, 6016 and 6048-54 Claremont (figs.5-7). Those 3 resources were assigned a rating of are "C3." Per Oakland's historical ratings, the "C" indicates a "secondary" resource, the "3" that these buildings are not located in a potential historic district.

Also previously surveyed and rated, the two Chabot Rd. (5941-43 - fig.8) buildings are again "C" rated yet, in their case, assigned a "2+" rating, which indicates that they are within and contribute to an identified district, the “2” further indicating that the district is an Area of Secondary Importance (ASI) – the residential Claremont Avenue District.

These Oakland ratings identify each of these five former residential buildings as Potentially Designated Historic Properties (PDHPs). However, Oakland’s PDHPs are not identified as historic resources for discretionary planning purposes under the California Environmental Quality Act (CEQA).

Individual inventory forms were not previously completed for any of the subject buildings. Rather, the individual ratings were assigned based on general reconnaissance. Nevertheless, those previously surveyed residential buildings have not markedly changed so their previously assigned ratings remain pertinent. Further development of those records is not included herein as, under the currently proposed project, there is no proposed work associated with these five former residential buildings.

6028-30 Claremont Ave.

The 6028-30 Claremont building (figs.9-14) was not previously rated, the apparent reason being that when the city undertook its historical property surveys in the 1980s and 90s, the 6028-30 Claremont building was a restaurant and music venue with substantive contemporary alterations and additions. In 2004, following the restaurant’s relocation, the building front was altered by and for Dreyers and, in that process, the older building front uncovered and renewed.

No original permit records or historical documents have been located for 6028-30 Claremont, so there is no visual evidence of its original or early appearance. A plan of the building first appeared in the 1911 Sanborn map and with the addresses 452-454 Claremont, the former identified as a plumber and the latter cleaning works, the building 1-story and with an outbuilding at the very rear of the site (fig.15).

The first Oakland directory listings for both a plumber and cleaners at this location was also in 1911, with William H. Robinson, plumber and Antiseptic Curtain Cleaning Co. (though the addresses were listed as 440 and 442 Claremont). The 1912 Oakland directory next listed Robinson and Antiseptic at 6028 and 6030 Claremont, respectively. Based on this basic information, the original 6028-30 Claremont Ave. building is presumed to date to 1911.

The earliest found deed was in April 1906, when the Mason-McDuffie Co. deeded the property to Howard A. Naumann. The next identified transaction was in October 1920, when B.D. and Florence Marx-Greene sold lot 11 to Benjamin and Louise Parayre, which family retained ownership until 1976.

In that overall period, there were a few relevant permits for 6028-30 Claremont:

year	*work*	*use*	*owner*
1937	Tile front	laundry	Parayre
1947	Fire repairs	laundry and 1 apartment	Parayre-Graham
1972	Stucco front	laundry	Boone
1976	Interior alts	restaurant (proposed)	Olund

No plans for any of these projects are available.

Based thereon, the existing tile façade dates to 1937, when it was added for Louise Parayre. Beginning in 1972, the front was altered and the change of use with further alterations and additions ensued by 1976.

In 1978, Larry W. and Mary Ann Olund deeded lot 11 and a portion of lot 12 to Kazuo and Yoshie Kajimura and Hugh H. Hori, whose proposed restaurant, Yoshi's, opened in 1979. Substantive building permits associated with Yoshi's include:

year	*work*
1979	extension of existing restaurant into rear half of building, new entrance way
1980	application to operate cabaret
1984	restaurant alterations and addition
1991	new entry way

Again, no permit plans for these several projects are available yet several images depict the Yoshi's period (1979-1996), during which the structure was extensively altered including the enclosure of its front, the addition of its south side entry way and then the addition of the south wing (figs.16-18).

As noted above, the 1972 front was removed and the underlying tile façade renewed in 2004. At the same time, the overall building was substantially altered including, at its front, new entry steps and railings, recessed wall including tiled apron, storefront and transom windows and door, plus substantial new additions above and behind. Its use was also then converted to a conference facility and office building.

In sum, the original/early 6028-30 Claremont building was largely a retail drapery and clothes cleaning business of minor commercial interest and largely under the ownership of the Parayre family, who are of no identifiable historic importance. What remains of the early commercial building is the 1-story frontward building form and its 1937 tiled front. Excepting its front, the extant building is of recent exterior construction and appearance. Nonetheless, recognizing its restored tiled façade along with that former commercial front's contribution to its street, block and neighborhood, 6028-30 Claremont Ave. may in part be assigned an historical rating of "3" – i.e., of secondary importance – as the limited extent to which an original building remains and the greater extent of its alterations and additions precludes its consideration as having primary importance. The extant building is, like its several former residential neighbors, without association to a potential district. Thus, per the City of Oakland's historical rating system, a rating of "C3" is recommended for the surviving original commercial portion of the 6028-30 Claremont Ave. building. Based thereon, per City criteria, this building is a PDHP so is not an historic resource under CEQA.

5951 College Ave.

One adjacent, off-site historic resource in the direct vicinity is the College Avenue Presbyterian Church (5951 College Ave.), which is "B" rated (i.e., "major importance") by the City of Oakland. The church stands directly alongside the Dreyers headquarters on College Ave., fronts northeastward on the avenue and backs up to the interior of the project site (fig.4 and attached inventory form).

Summary Historical Considerations

As summarized, the Dreyers HQ property houses five previously surveyed former residential buildings identified by the City of Oakland as PDHPs and which previous historical ratings remain accurate despite changes of use. There is one additional building not previously rated yet, as detailed above, the original/early part of which likewise appears to be a “3” rated, secondary resource and thus a sixth PDHP on the subject properties. As also summarized above, these 6 PDHPs are not “historic resources” for planning purposes under CEQA. The seventh and largest building, at just over 30 years of age, is without historical potential. Additionally, there is one identified historic resource directly adjacent to the project site at 5951 College Ave.

Relative to the five previously evaluated and sixth presently evaluated on-site buildings, the currently proposed project – predominately site and landscape work plus focused exterior alterations at the non-historic building at 5901-5929 College and at the non-historical portions of the 6028-30 Claremont Ave. building, where the recent rearward addition is proposed to be removed -- will have no effect upon these identified on-site historic buildings, the uses of which were previously changed and to which there are no proposed alterations or potential affects. Otherwise, no work is proposed at the potentially historic frontward portion of 6028-30 Claremont.

In conclusion, in addition to identifying their PDHP ratings and non-historic resource statuses under CEQA, the current project proposes no change to any of the six identified on-site PDHPs, inclusive of 6028-30 Claremont Ave.

With respect to the identified historic resource at 5951 College Ave., as per the applicable Secretary of the Interior’s *Standards for Rehabilitation*, the proposed project:

- Will not affect the historic use (*Standard 1*) or identified historic character and characteristics of the church (*Standards 2, 5-7 and 9*);
- Does not have any potential to confound patterns of historical development (*Standard 3*);
- Is entirely separated thus distinct from the church property (*Standard 9*);
- Would be reversible without effecting any change on the integrity of the church (*Standard 10*).

Consequently, the proposed project, again primarily site and landscape improvements, will also have no direct or indirect effects on the directly adjacent historic resource at 5951 College Ave.

Signed:

Mark Hulbert
Preservation Architect

attached: Figs.1-18 (pp.6-14); OCHS inventory form for 5951 College Av. (1p)

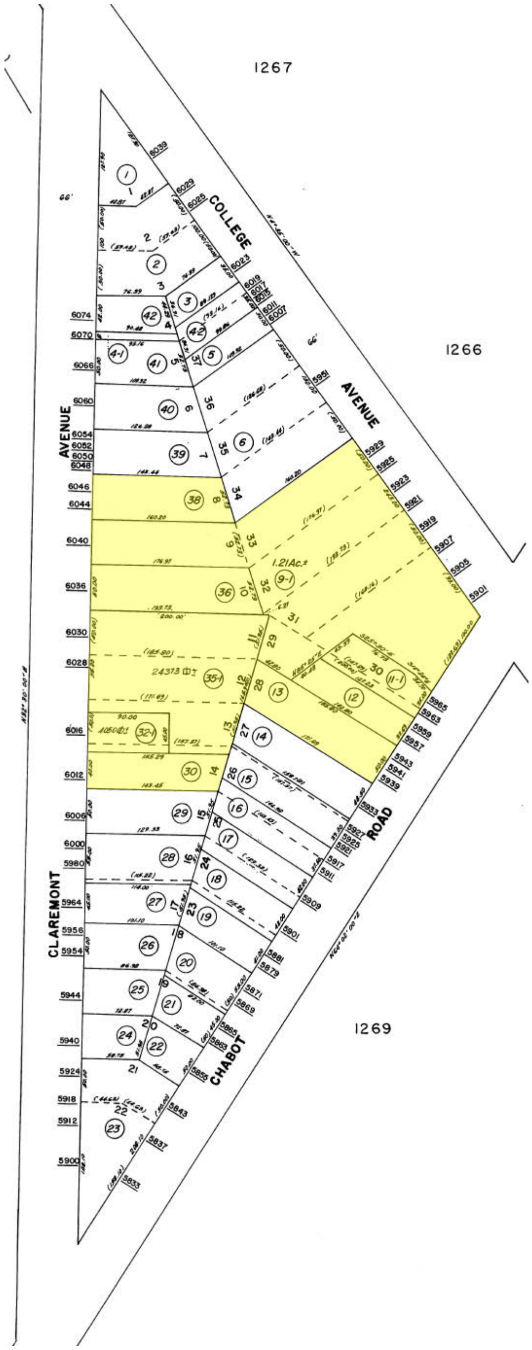

Fig.1 – Dreyers HQ properties (highlighted) – Assessor's parcel map (north at upper left)

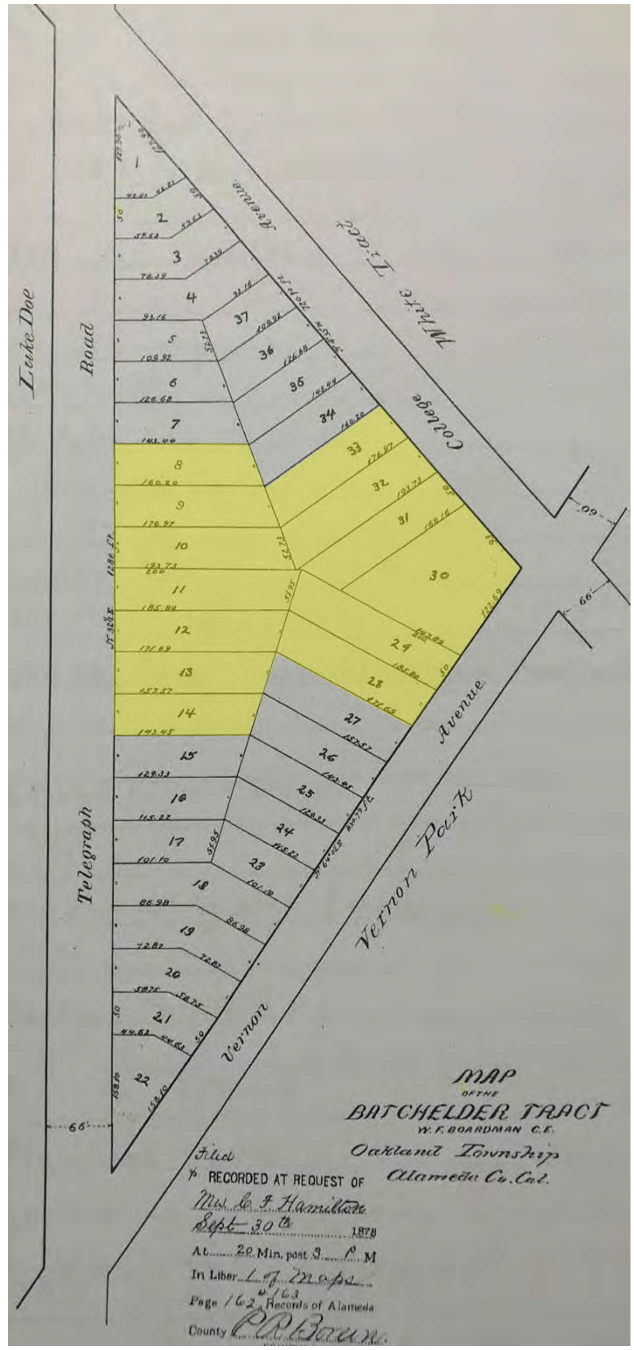

Fig.2 – Future Dreyers HQ properties (highlighted) – Batchelder Tract map, 1878 (north at upper left)

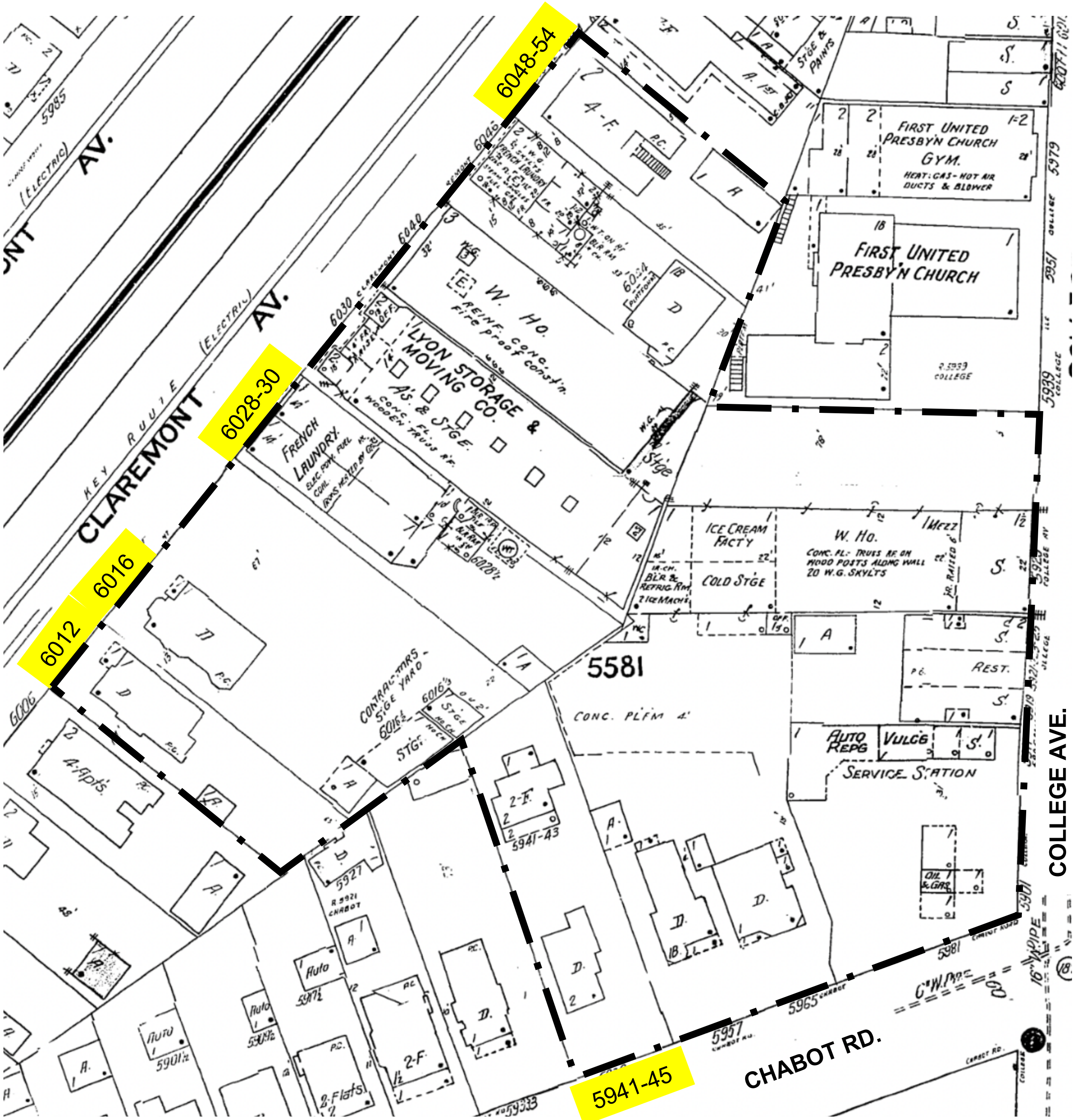

Fig.3 – Future Dreyers HQ properties (outlined) – from 1951 Sanborn map (north is up) with subject buildings labeled

Fig.4 – Future Dreyers HQ properties (outlined) – Aerial, 2023 (Google Earth, north is up)
with subject buildings labeled

Fig.5 – 6012 Claremont Ave. (MH 2024)

Fig.6 – 6016 Claremont Ave. (MH 2024)

Fig.7 – 6048-54 Claremont Ave. (Google Earth 2024)

Fig.8 – 5941 (front) - 5945 (rear) Chabot Rd. (MH 2024)

Fig.9 – 6028-30 Claremont Ave. – Aerial (Google Earth 2024, north is up)

Fig.10 – 6028-30 Claremont Ave. (Google Earth 2024)

Figs.11-12 – 6028-30 Claremont Ave. – Front (figs.11-14, MH 2024)

Figs.13-14 – 6028-30 Claremont Ave. – North side (above) and rear (below

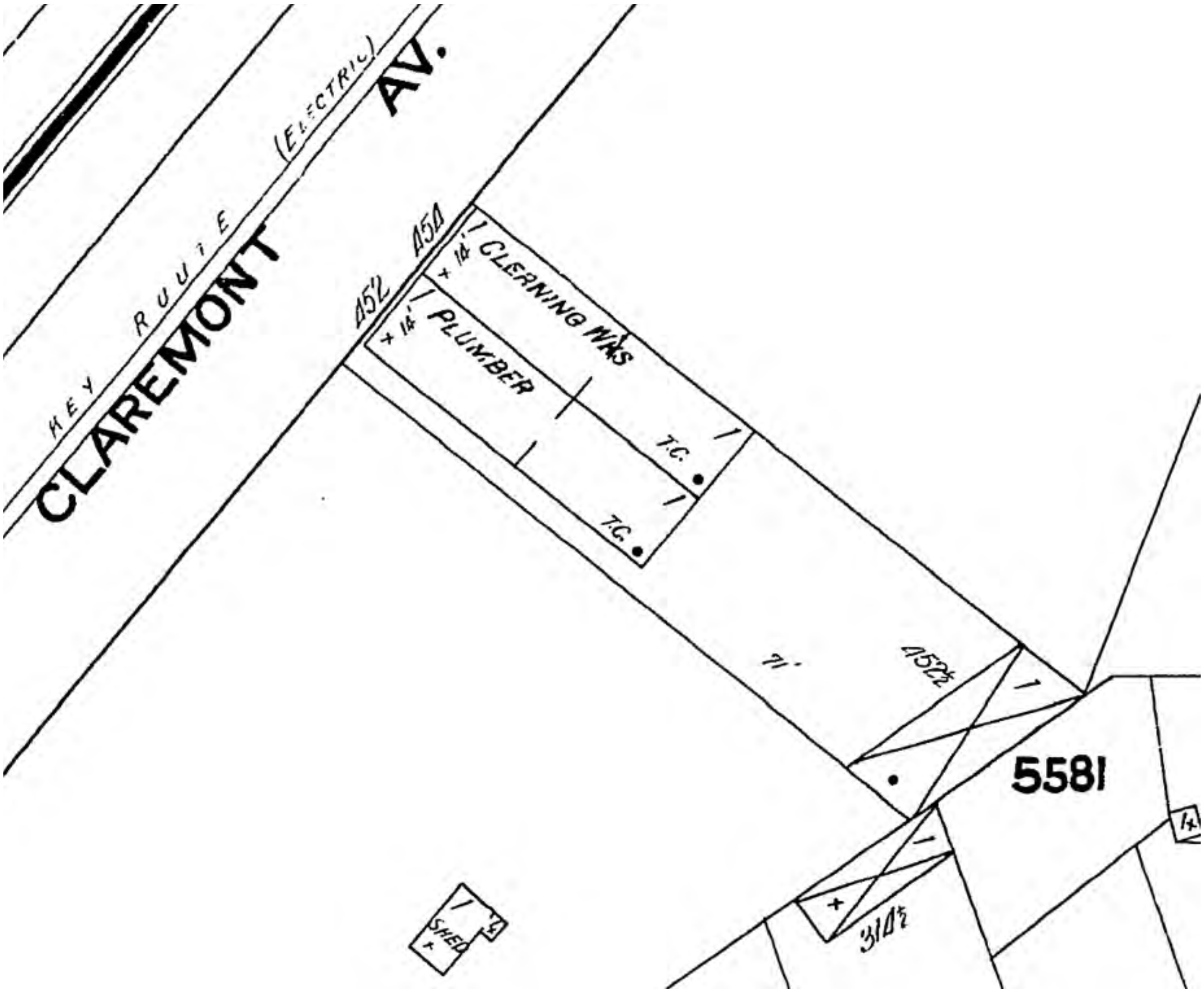

Fig.15 – 6028-30 (452-454) Claremont Ave. – from 1911 Sanborn

Fig.16 – 6028-30 Claremont Ave. – c1980

Fig.17 – 6028-30 Claremont Ave. – c1995

Fig.18 – 6028-30 Claremont Ave. – 2002

State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # ____
HRI # ____
Trinomial ____
NRHP Status Code: 7

Page P1 of 1

Other Listings OPB Prelim. B+1+
Review Code ____ Reviewer ____ Date ____

***P1. a. Resource Identifier** (assign a name or number): Serial No. B1325
b. Other Identifier: College Avenue Presbyterian

***P2. Location:** **a. County** Alameda
***b. Address** 5951 COLLEGE AV
City Oakland, CA Zip
***c. UTM: USGS 7.5' Quad** Date Zone: mE / mN
***d. Other Locational Data** (e.g. parcel #, legal description, additional UTMs, etc.)
Parcel no.: 014 1268 006 00 S

***P3. a. Description** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, etc.):

5951 COLLEGE AV is a Craftsman-Prairie style church and hall. It is one and 2 stories and basement, multi-level plan, on an angled lot. Both buildings have a front gable roof. The church has exposed beams and a monumental, centered entry. Exterior walls are stucco and half-timbering. The windows on the upper walls are set between the half-timbers, forming a panel. There are colonettes between the paired windows at the front. Roof is composition shingle. Foundation is concrete. Structure is wood frame. The building has a glazed French door with small-paned sidelights. Curved-top windows flank the entry. Above the entry is a large round window with divided amber glass. A carved surround features thistles, the symbol of Scotland where Presbyterianism was founded. A monitor extends the full length of the church. The accessory building repeats the shape and the design elements of the church in a simplified form. Present use is church, College Avenue Presbyterian Church. Surroundings are densely built-up commerical. The buildings are in excellent condition; the integrity is excellent.

b. Resource attributes: HP16--church building

***P4. Resources present:** /X/Building / /Structure / /Object / /Site / /District / /Element of District ( ) / /Other

***P5. a. Photograph or Drawing**

P5. b. Photo number: 728-18
Photo date: 08/13/96

***P6. Date Constructed/Age, and Source:**
/ /Prehistoric /X/Historic / /Both
1917 F ad 1938
building permit

***P7. Owner and Address:**
COLLEGE AVE UNITED
PRESBYTERIAN CHURCH OF
OAKLAND
5951 COLLEGE AV
OAKLAND CALIF 94618

***P8. Recorded by** (name, affiliation, address):
Oakland Cultural Heritage Survey, 1 City Hall Plaza, Oakland 94612 (510-238-3941)

***P9. Date Recorded:** 09/30/96

***P10. Type of Survey:** / /Intensive /X/Reconnaissance / /Other

***P11. Report Citation:** OCHS Completion Report, CLG Project #06-95-10104, 9/30/96 (Citywide)

***Attachments:** /X/None / /Location Map / /Sketch Map / /Continuation Sheet / /Building, Structure, and Object Record / /Other
Substitute DPR 523A (ochsp1.frm, rev 9/11/96)

Appendix K

ECAP Consistency Checklist

Equity Community Builders, August 28, 2024

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 (ECAP) Consistency Checklist is to assess whether a development project is consistent with the City of Oakland ECAP and the City of Oakland's greenhouse gas (GHG) emissions reduction targets. This Checklist must be submitted concurrently with the City of Oakland Basic Application.

For projects subject to discretionary review, the California Environmental Quality Act (CEQA) requires the analysis of GHG emissions impacts from new development.

- If a discretionary development project demonstrates 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 discretionary 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, the City will consider the project to have a significant effect on the environment related to GHG emissions.

The City additionally requires residential development projects subject to by right review to complete the Checklist to demonstrate that the project will not impede the City from achieving its GHG reduction targets. Accessory Dwelling Unit (ADU) projects are not required to complete this Checklist and are instead reviewed by applying state and local ADU approval criteria.

- If a by right residential development project demonstrates compliance with the Checklist items as part of the project's design, or alternatively demonstrates to the City's satisfaction why the item is not applicable, then the project will be considered to not impede the City from reaching its GHG emissions reductions targets.
- If a by right residential development project cannot meet all of the Checklist items and cannot demonstrate through a quantitative analysis alternate means of equivalent greenhouse gas reductions, the project will not be eligible for approval under a by right review process. The applicant may revise the project to comply with the Checklist or alternatively utilize the City's discretionary review process.

Application Information

Applicant's Name/Company: Suzanne Brown/ Equity Community Builders

Property Address: 5901 College Avenue; 5965, 5957, 5941 Chabot Road; 6048, 6046, 6036, 6028, 6016, 6012 Claremont Ave

Assessor's Parcel Number: 014 126800901, 014 126801101, 014 126801200, 014 126801300, 014 126803900, 014 126803800, 014 126803600, 014 126803501, 014 126803201, 014 126803000

Phone Number: 415-577-3723

E-mail: suzanne@ecbsf.com

Checklist Item (Check the appropriate box and provide explanation for your answer).			
Transportation & Land Use			
1. For residential and mixed-use development, if the project is located on a parcel designated in the City of Oakland Housing Element as a Housing Inventory Site, is the proposed project a majority residential use (at least two-thirds of the square footage utilized for residential purposes) with either i) a minimum residential unit count no less than seventy-five percent of the realistic capacity designated for the site or ii) a minimum density of 30 dwelling units/acre? For non-residential development, 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, 2023-2031 Housing Element, 2022 CARB Scoping Plan Appx. D.)	**Yes** X	**No**	**N/A**
Please explain how the proposed project meets this action item. The Project is not proposing residential land use. The Project's proposed commercial and civic land uses are consistent with the General Plan LUTE's Neighborhood Center Mixed Use land use designation and its desired mix of land use types. The Project is consistent with the Land Use and Transportation Element of the General Plan. The land use types proposed by the Project are all either permitted or permitted with approval of a CUP within the CN-1 zoning of the Project site. The Project is fully consistent with regulations and development standards of the CN-1 zone, including development standards pertaining to lot dimensions, building setbacks, building height, and floor-to-area ratios.			
2. For developments in "Transit Accessible Areas" as defined in the Planning Code, would the project provide less than the following off-street parking: - For Residential Activities, less than one parking space per dwelling unit? - For Commercial Activities, less than one parking space per 600 square feet of floor area on the ground floor and one parking space per 1,000 square feet of floor area on other floors? - For Industrial Activities, less than one space per 3,500 square feet of floor area if total size exceeds 25,000 square feet, and less than one space per 1,00 square feet in all other circumstances? - For Agricultural and Extractive Activities, less than one space per 1,000 square feet of floor area and outdoor sales area Where developments contain a mix of activities, each standard above should be applied to the respective component. (TLU1, 2022 CARB Scoping Plan, Appx. D, Oakland Planning Code Ch. 17.116 prior to ECAP effective date of July 2020.)	**Yes** X	**No**	**N/A**
Please explain how the proposed project meets this action item. Consistent with the Section 21155 of the California Public Resources Code and as required by the California Assembly Bill 2097, Municipal Code Sections 17.116.070 and 17.116.080 do not require parking minimums for civic or commercial developments located within a 0.5-mile of a major transit stop. Since the Project is within 0.25 mile of the Rockridge BART Station, which is considered a major transit stop, no parking minimums apply to the Project. In addition, the Municipal Code does not establish any parking maximums for the Project. The 48-space Staff Parking Lot would provide two ADA-accessible parking spaces, and the 39-space Visitor Parking Lot would provide three ADA-accessible parking spaces including one van-accessible parking space. The Project would provide 51 parking spaces for staff parking comprised of 48 spaces in the Staff Parking Lot and three spaces in the parking lot at 5939 and 5941 Chabot Road. The 39-space Visitor Parking Lot would provide parking for site visitors including drop-off and pick-up for the various student activities.			

	Yes	No	N/A
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)			X
Please explain how the proposed project meets this action item. The Projects does not include any structured parking (i.e., no parking garages or sublevel parking basements).			
4. For projects that ***are*** subject to a Transportation Demand Management Program, would the project include transit passes for employees and/or residents? (TLU1)	X		
Please explain how the proposed project meets this action item. The Projects is subject to a Transportation Demand Management (TDM) Program, and among the number of measures identified in that TDM Plan is the requirement for the Project to provide transit passes for employees. The transit passes will be through AC Transit.			
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. The Projects is subject to a Transportation Demand Management (TDM) Program			
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. Chapter 15.04 of the Oakland Municipal Code(OMC) includes a requirement for new construction of non-residential and residential buildings. This project includes alterations to existing buildings and is not required to comply with the PEV Charging requirements of the OMC. However, the project will include the voluntary installation of seven (7) new EVCS.			

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)	**Yes**	**No**	**N/A**
			X

Please explain how the proposed project meets this action item.

The Project would not displace any existing housing or displace essential businesses. The site includes the current corporate office of the Dryers/Nestle Company, which has made an independent business decision to vacate this site. With departure of Dreyers/Nestle from their corporate office space, the Project provides for a community assembly, educational, and commercial office use of these existing buildings.

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)	Yes	No	N/A
	X		

Please explain how the proposed project meets this action item.

Yes, the project is consistent with the City's adopted Pedestrian and Bicycle Plans. It would not interfere with existing pedestrian and bicycle facilities or preclude future improvements in the public right-of-way. The project would promote biking and walking by installing additional bicycle parking along the project frontage on College Ave, and installing improvements at the College Ave/Chabot Rd intersection, consisting of a bulb-out at the northwest corner of the intersection, RRFBs for both crosswalks across College Ave, and relocation of the bus stops from the near-side to the far-side of the intersection.

Buildings

9. Does the project not create any new natural gas connections/hook-ups? (B1 & B2)	**Yes**	**No**	**N/A**
	X		

Please explain how the proposed project meets this action item.

Each of the 6 existing buildings on the Project site are currently connected to natural gas service. 5901 College Avenue has a gas connection to a gas main within the College Avenue right-of-way and a gas assembly unit at the northerly side of the building adjacent to the neighboring Church. Buildings at 6048, 6028, 6016 and 6012 Claremont Avenue all have natural gas connections to a gas main within the Claremont Avenue right-of-way. The two buildings at 5941 and 5936 Chabot Road both have natural gas connections to a gas main within the Claremont Avenue right-of-way. The Project includes renovation of existing office space within 5901 College Avenue to accommodate a new kosher cafe. The proposed new cafe will be all electric and will have no new natural gas connections or hook-ups. The Project proposes to upgrade the existing kitchen space within 6028 Claremont, but does not propose any new natural gas connections or hook-ups.

10. Does the project comply with the City of Oakland Green Building Ordinance (Chapter 18.02 of the Oakland Municipal Code), if applicable? (B4)	**Yes**	**No**	**N/A**
	X		

Please explain how the proposed project meets this action item.

The Project's proposed building alterations at 5901 College Avenue (proposed preschool classrooms, new café, and lobby renovations) and 6028 Claremont (new kitchen and multipurpose room renovations) would comply with the Oakland Green Building Ordinance as pertain to defined Small Projects, relying on the StopWaste.Org Small Commercial Checklist.

	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 Project does not involve a City-owned or City-controlled building.			
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)	X		
Please explain how the proposed project meets this action item. Pursuant to the City's Construction Demolition Ordinance, the Project will prepare a Construction and Demolition Waste Reduction and Recycling Plan, and will implement the approved Plan during construction. The Plan will specify the methods used by the Project to divert construction and demolition debris waste from landfill disposal in accordance with current City requirements.			
City Leadership			
13. For City projects: Have opportunities to eliminate/minimize fossil fuel dependency been analyzed in project design and construction? (CL2)			X
Please explain how the proposed project meets this action item. The Project is a private development project and not a City project. This criterion does not apply.			
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)			X
Please explain how the proposed project meets this action item. The Project site is not located within a Very High Wildfire Severity Zone as designated by CalFire			

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. The Project proposes to remove 51 trees from those portions of the site where existing landscape areas will be removed. Among those 51 trees proposed for removal, 16 trees are identified as protected trees pursuant to the City's Tree Ordinance. According to the Project's proposed Planting Plan (Sheet L3.00), the Project will plant 70 new trees of various species.			
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 site is located in a highly urbanized and developed portion of the City and does not contain a creek, is not adjacent to a property with a creek and is not subject to the Creek Protection Ordinance. The Project will have well over 5,000 square feet of land within the Project's Limit of Work that involves the replacement of existing impervious surface parking area with new impervious pavement, and the Project is therefore considered a Regulated Project. Consistent with City SCAs, the Project includes a Preliminary Stormwater Management Plan for the site that demonstrates the Project will result in a net reduction of 9,825 square feet of impervious surface, and will provide new landscape areas where stormwater runoff from replaced impervious surfaces can be provided with biofiltration prior to discharge into the storm drain system. By replacing impervious surfaces with new pervious surface area, the Project is calculated to result in a reduction of approximately 0.45 cubic feet per second (CFS) from the existing 10-year design storm flow rate from the site, or a 16 percent reduction in peak stormwater flows from the site. The proposed Stormwater Management Plan will be subject to review and approval by the City prior to issuance of any grading permits, and the Project applicant is required to implement the approved Stormwater Management Plan.			

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 July 24, 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 _______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 July 24, 2020 and requires that staff apply the Greenhouse Gas (GHG) Reduction Plan Condition of Approval as adopted by the Planning Commission on _______ 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.

______________________________ 8/28/2024

Name and Signature of Preparer Date