

# OakDOT 2024 Internship program

## Team Descriptions

Interns may join one of the following teams:

- [Bicycle & Pedestrian Program](#)
- [Complete Streets Paving & Sidewalks](#)
- [Major Projects Division](#)
- [Parking & Mobility](#)
- [Planning & Project Development](#)
- [Right of Way Management](#)
- [Survey](#)
- [Traffic Engineering](#)

### **Bicycle & Pedestrian Program: Planning, Data, & Design**

Interns in the Bicycle & Pedestrian Program have a wide range of opportunities implementing the City of Oakland's Bicycle Plan and Pedestrian Plan plus supporting OakDOT with data management and analysis. The Program has three intern areas: planning, data, and design. Interns with broad interests and skills may work in multiple areas. Interns in the planning area contribute to bicyclist and pedestrian projects through GIS analysis (ArcGIS), fieldwork, community outreach, and graphic design (Illustrator). Data interns focus on GIS and databases to create, maintain, and improve important datasets on physical assets (e.g., traffic signals, speed humps, crosswalks) and traffic operations (e.g., traffic volumes, crashes, regulations). Design interns develop plans (AutoCAD), conduct fieldwork, and create photo-simulations for bicyclist and pedestrian projects.

Competitive candidates will have experience with ArcGIS or AutoCAD as well as strong skills in problem-solving and standard office applications. Successful candidates are expected to work at least 15 hours per week during the school year and may work up to full-time during breaks. Candidates are encouraged to pursue and plan for internships of at least eight months (and up to two years) to realize fully the opportunities for contributing to complex projects.

See [www.oaklandbikes.info](http://www.oaklandbikes.info) for additional information on the Bicycle & Pedestrian Program. Past interns have made core contributions to projects including the [CityRacks Bicycle Parking Program](#); [Bicycle Guide Signage Program](#); the design and production of Oakland's [annual bikeways map](#); a [socioeconomic analysis](#) to inform OakDOT's equity-driven work; the development of [design guidelines](#); prototyping for a project with [protected intersections](#); the development of [bicycle parking requirements](#) for new development; [community outreach](#) for neighborhood traffic safety improvements; and supporting the [Paint the Town Program](#). The Bicycle & Pedestrian Program is seeking 3 interns:

- *Planning Intern:* The planning intern in the Bicycle & Pedestrian Program has numerous opportunities to contribute to the implementation of Oakland's Pedestrian Plan and Bicycle Plan based on their skills and interests. Opportunities include hands-on work in supporting the

installation of bicycle parking and signage, along with data management and mapping to track these and other assets. Opportunities also include project-specific community outreach, communications for citywide efforts, supporting the City's Bicyclist & Advisory Commission, and graphic design for these work areas. There are additional opportunities with the Paint the Town street mural program and with OakDOT's efforts to develop permanent Slow Streets.

- *Data Intern:* This internship in the Bicycle & Pedestrian Program will contribute to ongoing work on data creation and maintenance for specific GIS datasets with established workflows. The intern will help maintain established data and populate the required attributes for key datasets. The intern will also assist in performing minor refinements to existing data. The intern is expected to play a role in the initial phase of data validation. Work will include researching and identifying relevant raw data and documents to support the creation of GIS data on physical infrastructure to be used by various DOT programs. Examples of such datasets include crosswalks, medians, pedestrian safety islands, bus boarding islands, traffic volumes, speed bumps, face-of-curb, etc.
- *Design Intern:* The design intern in the Bicycle & Pedestrian Program will work with a team of transportation engineers and planners, supporting the design and implementation of bicycle and pedestrian infrastructure improvements. The Design Intern will contribute to citywide bikeway striping projects and Permanent Slow Streets neighborhood activation/traffic-calming projects, as well as help develop the City's growing library of standard Design Details for active transportation improvements. Typical duties include using AutoCAD to complete roadway striping construction plans, developing engineering cost estimates for roadway striping and other improvements, collecting measurements and information in the field, and applying collected information, design guidelines, and engineering best practices to bicycle & pedestrian infrastructure designs.

### **Complete Streets Paving & Sidewalks**

The Complete Streets Paving & Sidewalks (CSP) team plans, designs, and delivers paving, sidewalks, and curb ramp improvements, guided by an equity lens. The CSP team is seeking three interns:

#### *Planning, Data, & Policy Intern:*

The planning intern will learn and support monthly reporting and analysis for paving program, annual reporting and analysis for curb ramp & sidewalks program, GIS analysis and mapping, development of an equity-based multi-year curb ramp and sidewalks work plan, and policy development for paving, curb ramps, and sidewalks programs.

Desired skill sets/educational background: education or interest in city planning, transportation planning, public administration; great written and oral communication skills; knowledge and experience with software and webapps such as MS Word, MS Excel, ArcGIS, and basic web content management.

#### *Paving Engineering Intern:*

The paving engineering intern will learn or apply basic AutoCAD skills to prepare simple drawings and set up plan sheets, support with field inspections, develop cost and quantity estimates, and support GIS-based asset updating.

Desired skill sets/educational background: education or interest in civil or transportation engineering, city planning, transportation planning; ability or interest in learning basic AutoCAD skills and learning to interpret plans and specifications and support estimate development; fieldwork practices; knowledge and experience with software and webapps such as MS Word, MS Excel, ArcGIS, and basic web content management.

*Curb Ramps & Sidewalks Engineering Intern:*

The Sidewalks & Curb Ramps engineering intern will learn and support curb ramp and sidewalk field inspections, tracking implementation of CIP sidewalk ordinances, developing quantity and cost estimates, and associated research.

Desired skill sets/educational background: education or interest in civil or transportation engineering, city planning, transportation planning; ability or interest in learning basic AutoCAD skills, fieldwork practices, and learning to interpret plans and specifications; knowledge and experience with software and webapps such as MS Word, MS Excel, ArcGIS, and basic web content management.

## **Major Projects Division**

The Major Projects Division (MPD or Division) of the Oakland Department of Transportation (OakDOT) is a team of planners, engineers, and project managers that works collaboratively with other OakDOT divisions, city departments and partner agencies to deliver major transportation infrastructure improvements in the City of Oakland (City).

Consistent with 2021 City Council direction, the Division's first suite of projects will improve safety and strengthen connections between West Oakland, Chinatown, Downtown, Old Oakland, and the Jack London District, while enhancing goods movement to, through and around the Port of Oakland (Port). The City has received \$428 million in grant funds for these projects, which is unprecedented. This success will in turn deliver large capital projects identified as longstanding community priorities, and regionally significant projects that will improve transportation and Port operations, while reconnecting Oaklanders and investing in key commercial districts.

This suite of projects accelerates the implementation of longstanding transportation plans and projects. Major Projects Planning leads the planning, engagement and development of the division's projects, and interagency coordination on regional planning and projects.

Project Scope: The Major Projects Division (MPD or Division) of the Oakland Department of Transportation (OakDOT) is a team of planners, engineers, and project managers that works collaboratively with other OakDOT divisions, city departments and partner agencies to deliver major transportation infrastructure improvements in the City of Oakland (City).

The Division's current suite of projects will improve safety and strengthen connections between West Oakland, Chinatown, Downtown, Old Oakland, and the Jack London District, while enhancing goods movement to, through and around the Port of Oakland (Port). This suite of projects accelerates the implementation of longstanding transportation plans and projects. Major Projects Planning leads the planning, engagement and development of the division's projects, and interagency coordination on

regional planning and projects. Link to current and upcoming projects:  
<https://www.oaklandca.gov/topics/major-projects-division>

Typical duties to be done to support the Major Projects Division include, but are not limited, to:

- Support engagement strategies on multiple projects, including assisting in facilitating in-person and virtual opportunities, analyzing feedback (quantitative and qualitative data), taking photos, and other event logistics.
- Assist in translating project scopes, designs, and updates into public-facing materials for in-person and virtual engagement opportunities. Includes development of clear and informative graphics, charts, maps, text, survey and activity design, to be used in a range of communication strategies like social media posts, webpages, flyers, postcards, email newsletters, etc.
- Assist in compiling technical information and writing grant application narratives to support the team in seeking grant funding to close remaining funding gaps and free up local funds.
- Support project evaluation efforts, including data collection, analysis, project photos, and reporting through informational graphics, presentations, etc.
- Support the creation of an organized MPD photo library, to include high-quality images of project before/after photos, precedent street design photos, engagement event photos, and others as needed.

The MPD Planning Intern will have the opportunity to:

- Gain experience in facilitating public engagement around transportation projects in a variety of settings, with a focus on prioritizing investing in priority equity communities.
- Gain experience in grant writing and compiling technical information.
- Develop a portfolio of transportation planning engagement and project evaluation materials.
- Support the creation of the MPD photo library.

The MPD Planning Intern is expected to:

- Be working towards their graduate degree in a related field
- Have a understanding and interest in transportation projects and street designs that support and prioritize equity, safety, and sustainable mobility.
- Have experience or interest in engaging with members of the public, listening skills, and ability to speak knowledgeably and clearly about transportation themes and project designs.
- Have experience in data analysis (demographic data, statistics, others) and creation of charts or informational graphics that tell a story.
- Have experience using Microsoft 360 suite (Teams, Outlook, Word, Excel, PowerPoint, OneNote, SharePoint)
- Have experience with graphic design software or applications (Adobe Illustrator and Photoshop, Canva, others)
- Have a collaborative approach to learning and completing tasks
- Be in the office in-person at least 2 days a week (Tuesday and Wednesday to match MPD team in-office days). Additional fieldwork, in-person meetings, and public evening and weekend events with advance notice may be required.
- Preferences, not required:
  - Have experience in GIS and/or Photography

- Have local knowledge of the communities and neighborhoods we are delivering improvements

## **Parking & Mobility**

With increasing demand for curb space and the rise of mobility services like bike share, car share, scooter-share and ride-share, there's never been a greater time to consider parking, mobility services and parking enforcement together. The Parking & Mobility Division is dedicated to efficiently managing the city's parking supply and valuable curb space through programs such as dynamic parking pricing, parking enforcement, electric vehicle charging, and shared mobility programs like car share and bike share. Competitive candidates will have a strong interest in community engagement, program management and data analysis. Intern projects may include, but are not limited, to:

- **Innovative parking and transportation demand management strategies:** The Parking and Mobility Team recently launched an innovative "Universal Basic Mobility" program that aims to increase walking, biking, public transit, and shared mobility trips in West and East Oakland while reducing drive-alone car trips. Through this Pilot, pre-paid debit cards are distributed to Oaklanders for buying trips or passes on public transportation (like BART and AC Transit) and shared mobility (bikeshare and e-scooters). In addition, the team is implementing grant-funded "Demand-Responsive Parking" (OakPark+) with three primary goals Oakland: increase parking availability through variable pricing and time limits, improve customer satisfaction, and actively manage the parking supply to support environmental, economic, and social equity goals. Tasks may include crafting outreach materials, developing policy, collecting data in the field, analyzing that data, contacting employers and creating reports.
- **Zero Emission Vehicle Action Plan:** Gas- and diesel-powered vehicles are now the single largest source of greenhouse gases and air pollution in Oakland. The Zero Emission Vehicle Action Plan calls for Oakland to equitably transition the City's vehicles to clean fuels like hydrogen and electricity. Tasks involved with implementing the ZEV Plan will involve developing policies, writing grants, GIS analysis, conducting outreach in underserved communities and researching innovative new technologies.
- **Shared mobility:** This Spring, hundreds of new electric bikes and dozens of new bike share stations are coming to Oakland's BayWheels bike share program. You can help Oakland implement this expansion by evaluating station locations using data analysis and field visits, conducting in-person outreach and preparing outreach materials.

## **Planning & Project Development**

The Planning and Project Development Program (PPD) develops long-range, modal, and corridor transportation plans; manages outreach, planning and conceptual design for paving projects and other capital projects; and reviews, coordinates, and leverages major development projects to implement the City's plans and strategic priorities. Working closely with both planners and engineers, interns will support inclusive community engagement, develop complete streets corridor designs, and review private development proposals. Competitive undergraduate candidates will have an interest/experience

in planning, outreach, community development, active transportation, or public transit. Competitive graduate student candidates will have a major in Planning, Policy, or Civil Engineering, and/or be knowledgeable about Oakland, and transportation planning. PPD is seeking interns who can work in person.

Typical duties and/or projects may include, but are not limited, to: public outreach, analysis, creation of collateral pieces, in-person data collection, and general support for our Project Development/Corridor Streetscape projects. These tasks include walking corridors to distribute flyers and talk to merchants, creation of postcards and boards, getting collateral printed and translated, conducting parking surveys, intercept surveys, etc.

### **Right-of-Way Management**

The Right-of-Way Management Division seeks four interns, one Right-of-Way Management Division Planning & Policy intern, two Right-of-Way Management Division Engineering Services interns, and one Right-of-Way Management Division Construction Inspections intern.

#### *Right-of-Way Management Division Planning & Policy Intern*

The Right-of-Way Management Division provides stewardship of the public right-of-way by issuing permits for and inspecting third-party improvements in the public right-of-way. Our team seeks a planning or public policy intern to help expand our parklet program and help develop additional programs to allow community groups and merchants to use sidewalks and streets for neighborhood, commercial and retail activities. In addition, the planning and policy intern may support community engagement related to navigating our permit systems and municipal code revisions to advance our transparency, sustainability, equity and safety goals. An intern with our team will gain a deep understanding of city government, advance placemaking/placekeeping efforts, and research peer jurisdictions to recommend enhancements to better serve Oaklanders.

#### *Right-of-Way Management Division Engineering Services*

The Right-of-Way Management Division Engineering Services team facilitates third-party improvements in the right-of-way, including reviewing and approving street improvement permits, excavation permits, obstruction permits, encroachment permits, traffic control plans, and parklet permits. Our team works across departments and divisions to coordinate right-of-way permits with land use permits, City-led capital projects, and utility projects. Engineering Services has expert level command of the Oakland Municipal Code and speaks for the agency in meetings with key stakeholders, including Oakland residents, developers, regional agencies, and public utilities. Interns will be trained on right-of-way management policies, procedures, permit processes, and multi-discipline engineering standards. We seek two interns to assist in processing and reviewing permit applications, record management and archiving, analyzing data, preparing reports, and related activities.

#### *Right-of-Way Management Division Construction Inspections*

The Right-of-Way Management Division Construction Inspections team ensures private development and utility project construction comply with the City's standard plans and specifications and permit conditions. Our construction inspectors are regularly in the field preserving City of Oakland assets,

including pavement, bike lane and travel lane striping, accessible sidewalks, wastewater infrastructure, and stormwater infrastructure. Construction inspectors oversee permit-related construction activity, as well as respond to service requests submitted by community members. Alongside our existing construction inspections intern, we seek a second intern to help process, prioritize, and resolve service requests related to insufficient right-of-way restoration by utility companies and private developers or related to access concerns around construction sites, especially for people walking and biking. Interns will gain a basic understanding of right-of-way construction means and methods. Day-to-day, interns may shadow inspectors on larger projects, investigate service requests, conduct data entry and analysis, and help manage inspection records. The ideal candidate will have a valid driver's license.

## **Survey**

The Surveying Department (SVY) team provides Surveying Services for multiple disciplines within the City Oakland DOT, Public Works, Planning and Building, City Attorney's Office and other disciplines within our great 171-year-old historic City.

The Surveying Department conducts ground surveys to locate, describe, monument and map the boundaries of City owned parcels and Right of Ways of land. Surveys may include topography, street, bridge and building locations on varied parcels of land. Mapped information is used for design and implementation in Capital Improvement Projects and other City Works.

Typical duties an intern may perform may include, but are not limited to the following:

- Global Position Services
- Topographic Mapping Services
- Boundary/Legal Support
- Planning Services
- Construction Staking
- Monument Protection, etc.

This is a fun and interactive position where interns will gain intricate knowledge of historical mapping, research, analog to digital conversion, datums and working with geospatial GPS and Robotic Terrestrial Surveying tools. The intern should have a valid and current California License.

Competitive applicants will have a land surveying background and major in Civil Engineering preferably in their junior or senior year.

## **Traffic Engineering**

The OakDOT traffic engineering group is seeking engineering interns that will support the following programs:

- Neighborhood Traffic Calming Projects
- School Area Traffic Safety Improvements
- Traffic Safety Investigations

Interns will come out with a strong understanding of engineering standards and practices used by local municipalities. The successful candidates are expected to work full time during Summer and Winter breaks and approximately 15 hours per week during the school year. The duration of employment is typically 2 years predicated on concurrent enrollment in an engineering program (preferably Civil Engineering) at an accredited university (preferably local).

Typical duties may include, but are not limited to:

- Draft engineering design plans in AutoCAD including pavement marking and traffic sign layout plans that support traffic safety investigations and school safety improvements
- Review temporary traffic control plans submitted by private contractors
- Collect data in the field including traffic speed, volume, and classification, and geometric roadway conditions
- Analyze engineering data to determine appropriate traffic control
- Write engineering reports

Traffic Engineering Intern (Safe Streets): School Safety

This Traffic Engineering Intern would work with the school safety program. Like the previous year Summer intern, they would assist with the citywide rollout of 15 MPH school zones, drafting work orders for others to review and approve. They also supported site visits at schools, taking notes and helping to draft work orders in response to school safety requests. It is always preferable to do field work in pairs for safety reasons but two full-time staff is a lot of resources to devote to some types of data collection and having an intern would be very helpful.

Traffic Engineering Intern (Safe Streets): (Public Requests, Speed Bump and Rapid Response)

This Traffic Engineering Intern would work with the speed bump and rapid response programs and support Safe Street Division with public request traffic safety investigations. Like the previous year Summer intern, they would assist with the reviewing speed bump applications for signature and preliminary engineering evaluations, drafting engineering design plans in AutoCAD including pavement marking and traffic sign layout plans for others to review and approve, and help develop and submit work orders to OakDOT field Installation team. They also support site visits, taking notes and helping to draft work orders in response to public safety requests. It is always preferable to do field work in pairs for safety reasons but two full-time staff is a lot of resources to devote to some types of data collection and having an intern would be very helpful.