City of Clearlake
Notice of Intent to Adopt a Mitigated Negative Declaration (MND)

Notice is hereby given that the City of Clearlake has tentatively determined that the project described below will not result in a significant adverse impact on the environment and that, in accordance with the California Environmental Quality Act, the City is prepared to issue a "mitigated negative declaration" in accordance with the California Environmental Quality Act (CEQA).

Project Name: Airport Hotel and 18th Avenue Extension Project

Project Numbers: Conditional Use Permit (CUP 2022-02); Design Review (DR 2022-02) & Environmental Analysis (CEQA IS 2022-06).

Project Location: 6356 Armijo Avenue, Clearlake, CA 95422, Assessor Parcel Number (APN): 042-121-25.

Zoning Designation: "GC" General Commercial

Project Summary: The Airport Hotel and 18th Avenue Extension Project would include development of the project site with a four-story, 75-room hotel, to be located within the central portion of the site, as well as a one-story meeting hall in the southwest corner of the site. A parking lot and associated improvements would be developed throughout the remainder of the site. In addition, the proposed project would construct an extension of 18th Avenue to connect SR 53 to Old Highway 53. The first floor of the hotel would provide various amenities for guests, including a breakfast serving area and fitness center, as well as a linen cleaning/sorting space, and administrative/storage space. Ten rooms would also be provided on the first floor. The second through fourth floors of the building would house the remaining 65 guest rooms. In addition, a manager's quarters would be located on the fourth floor of the hotel. The proposed building would be limited to a height of 50 feet, consistent with the allowed building height of the GC zoning district.

A total of 109 parking spaces would be provided on-site. Of the 109 parking spaces, six would be reserved for electric vehicle (EV) parking, eight would be reserved for clean air vehicle parking, and four would be Americans with Disabilities Act (ADA)-compliant. In addition, 13 bicycle parking spaces would be provided on-site, including seven short-term spaces, and six long-term spaces in the form of storage lockers. Access to the project site would be provided by a new, 30-foot-wide, full-access driveway which would connect to the proposed 18th Avenue extension. As part of the project, a new sidewalk would be provided along the project frontage of the 18th Avenue extension. Pedestrian walkways throughout the project site would provide for connections to the 18th Avenue sidewalk. The hotel would operate 24 hours a day, 7 days a week, and would be staffed with an estimated 25 full-time employees. Approximately one to two supply and goods deliveries (i.e., linens and hotel supplies) would occur per day, between the hours of 7:00 AM and 6:30 PM. The hotel would not include a loading dock; rather, delivery vehicles would temporarily park at the front entrance of the hotel. In addition, the on-site meeting hall would operate between 8:00 AM at the earliest to midnight at the latest and would be used for events, including, but not limited to tradeshows, weddings, and conferences. It should be noted that the meeting hall would include an outdoor patio which could be used during events, and low amplified music would be allowed on the outdoor patio until 9:00 PM. A number of existing trees would be removed in order to develop the proposed hotel and roadway extension. However, the proposed project would provide landscaping improvements, including the planting of new trees and shrubs throughout the project site.

The proposed 18th Avenue extension would consist of two eight-foot lanes and would extend westward from SR 53 to Old Highway 53 by approximately 0.2-mile. The 18th Avenue/Old Highway 53 intersection would include a marked crosswalk on the 18th Avenue leg, ADA-compliant curb ramps, a relocated bus stop to the north leg, a 75-foot-long southbound left-turn lane on Old Highway 53, and overhead intersection lighting. In addition, the proposed roadway would provide connections to two existing roadways located to the north including Manzanita Avenue and Vallejo Avenue, as well as two connections to existing driveways located south of the proposed extension. Additional roadway improvements such as curb, gutter, and sidewalk improvements would be developed along the 18th Avenue extension, consistent with City standards. The proposed roadway would also include the extension of a 10-inch water line, a 6-inch sanitary sewer line, a 10-inch sanitary sewer line, a 12-inch sanitary sewer force main, and storm drain utilities. All utility mains would extend from SR 53 to Old Highway 53.

Sewer service for the proposed development would be provided by the Lake County Sanitation District (LACOSAN), and water services for the proposed project would be provided by the Highlands Mutual Water Company (HMWC). As part of the proposed project, new water and sanitary sewer connections would be provided from the new utility lines that would be developed as part of the 18th Avenue extension. In addition, a new storm drainage system would be developed within the hotel site, which would provide new storm drain lines throughout the paved areas on-site that would ultimately drain into the new storm drain line within the 18th avenue extension. The various landscaped areas on-site would also provide opportunities for the infiltration of stormwater

This tentative determination is based on an environmental analysis (CEQA IS 2022-06) that assesses the project's potential environmental impacts and those potential impacts have been reduced to less than significant levels with the incorporated mitigation measures. Anyone may review this study at Clearlake City Hall, 14050 Olympic Drive, Clearlake, CA 95901, during normal business hours or by downloading the CEQA Packet from the State Clearinghouse Website at: https://ceqanet.opr.ca.gov/

The public review period for this Notice of Intent (NOI) will remain open for a period of at least 30 days from publication date of this notice. **The commenting period for this Notice of Intent (NOI) is October 26, 2022, to November 30, 2022. (Please Note: All comments must be received no later than Wednesday, November 30, 2022.**

For more information, please call (707) 994-8201 during normal business hours of City Hall (Monday through Thursday – 8am to 5pm). During this period written comments on the project and the proposed mitigated negative declaration may be addressed. You may also submit comments via email at mroberts@clearlake.ca.us. Final environmental determinations are made by the decision-making body, which, in this case would be the City of Clearlake, Planning Commission.

City of Clearlake - Community Development Department
Attn: Mark Roberts – Senior Planner
14050 Olympic Drive
Clearlake, CA 95422

Notice of Completion & Environmental Document Transmittal

Mail to: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044 (916) 445-0613
For Hand Delivery/Street Address: 1400 Tenth Street, Sacramento, CA 95814

SCH #

Project Title: Airport Hotel and 18th Avenue Extension Project

Lead Agency: City of Clearlake, CA
Contact Person: Mark Roberts - City Senior Planner
Mailing Address: 14050 Olympic Drive
Phone: (707) 994-8201
City: Clearlake
Zip: 95422
County: Lake County

Project Location: County: Lake County
City/Nearest Community: Clearlake
Cross Streets: State Highway 53 and 18th Avenue (6356 Armijo Avenue, Clearlake, CA)
Zip Code: 95422
Longitude/Latitude (degrees, minutes and seconds): 38 ° 56 ′ 13 ″ N / 122 ° 37 ′ 32.94 ″ W Total Acres: 2.8
Assessor's Parcel No.: 042-121-25-000
Section: ____ Twp.: ____ Range: ____ Base: ____
Within 2 Miles: State Hwy #: 53/20
Waterways: N/A
Airports: N/A
Railways: N/A
Schools: Konocti Unified School Dist

Document Type:

CEQA: [ ] NOP [ ] Early Cons [ ] Neg Dec [x] Mit Neg Dec
[ ] Draft EIR [ ] Supplement/Subsequent EIR (Prior SCH No.) ____ Other: ____

NEPA: [ ] NOI [ ] EA [ ] Draft EIS [ ] FONSI

Other: [ ] Joint Document [ ] Final Document [ ] Other: ____

Local Action Type:

- [ ] General Plan Update
- [ ] General Plan Amendment
- [ ] General Plan Element
- [ ] Community Plan
- [ ] Specific Plan
- [ ] Master Plan
- [ ] Planned Unit Development
- [ ] Site Plan
- [ ] Rezone
- [ ] Prezone
- [x] Use Permit
- [ ] Land Division (Subdivision, etc.)
- [ ] Annexation
- [ ] Redevelopment
- [ ] Coastal Permit
- [x] Other: Design Review & CEQA

Development Type:

- [ ] Residential: Units ____ Acres ____
- [ ] Office: Sq.ft. ____ Acres ____ Employees ____
- [x] Commercial: Sq.ft. 48382 Acres 2.8 Employees 25
- [ ] Industrial: Sq.ft. ____ Acres ____ Employees ____
- [ ] Educational: ____
- [ ] Recreational: ____
- [ ] Water Facilities: Type ____ MGD ____
- [ ] Transportation: Type ____
- [ ] Mining: Mineral ____
- [ ] Power: Type ____ MW ____
- [ ] Waste Treatment: Type ____ MGD ____
- [ ] Hazardous Waste: Type ____
- [x] Other: 75 Room Hotel with Meeting/Convention (44,214 SQFT Hotel; 4,250 SQFT Meeting/Convention Center)

Project Issues Discussed in Document:

- [x] Aesthetic/Visual
- [ ] Agricultural Land
- [x] Air Quality
- [x] Archeological/Historical
- [x] Biological Resources
- [ ] Coastal Zone
- [ ] Drainage/Absorption
- [ ] Economic/Jobs
- [ ] Fiscal
- [ ] Flood Plain/Flooding
- [ ] Forest Land/Fire Hazard
- [x] Geologic/Seismic
- [ ] Minerals
- [x] Noise
- [ ] Population/Housing Balance
- [ ] Public Services/Facilities
- [ ] Recreation/Parks
- [ ] Schools/Universities
- [ ] Septic Systems
- [ ] Sewer Capacity
- [x] Soil Erosion/Compaction/Grading
- [ ] Solid Waste
- [ ] Toxic/Hazardous
- [ ] Traffic/Circulation
- [ ] Vegetation
- [ ] Water Quality
- [ ] Water Supply/Groundwater
- [ ] Wetland/Riparian
- [ ] Growth Inducement
- [ ] Land Use
- [ ] Cumulative Effects
- [x] Other: Tribal Cultural Resources

Present Land Use/Zoning/General Plan Designation:

Vacant/undeveloped. Zoning is "GC" General Commercial

Project Description: *(please use a separate page if necessary)*

Continue to next page for project description (Exhibit A)

Note: The State Clearinghouse will assign identification numbers for all new projects. If a SCH number already exists for a project (e.g. Notice of Preparation or previous draft document) please fill in.

Exhibit A

Project Description

The Airport Hotel and 18th Avenue Extension Project (proposed project) would include development of the project site with a four-story, 75-room hotel, to be located within the central portion of the site, as well as a one-story meeting hall in the southwest corner of the site. A parking lot and associated improvements would be developed throughout the remainder of the site . In addition, the proposed project would construct an extension of 18th Avenue to connect SR 53 to Old Highway 53. Continue to next page for more details

The proposed project would be located at 6356 Armijo Avenue, east of State Route (SR) 53, and north of the former Pearce Airport site. The project site is primarily undeveloped and, is zoned "GC", General Commercial. The Airport Hotel and 18th Avenue Extension Project (proposed project) would include development of the project site with a four-story, 75-room hotel, to be located within the central portion of the site, as well as a one-story meeting hall in the southwest corner of the site. A parking lot and associated improvements would be developed throughout the remainder of the site. In addition, the proposed project would construct an extension of 18th Avenue to connect SR 53 to Old Highway 53.

The first floor of the hotel would provide various amenities for guests, including a breakfast serving area and fitness center, as well as a linen cleaning/sorting space, and administrative/storage space. Ten rooms would also be provided on the first floor. The second through fourth floors of the building would house the remaining 65 guest rooms. In addition, a manager's quarters would be located on the fourth floor of the hotel. The proposed building would be limited to a height of 50 feet, consistent with the allowed building height of the GC zoning district

A total of 109 parking spaces would be provided on-site. Of the 109 parking spaces, six would be reserved for electric vehicle (EV) parking, eight would be reserved for clean air vehicle parking, and four would be Americans with Disabilities Act (ADA)-compliant. In addition, 13 bicycle parking spaces would be provided on-site, including seven short-term spaces, and six long-term spaces in the form of storage lockers. Access to the project site would be provided by a new, 30-foot-wide, full-access driveway which would connect to the proposed 18th Avenue extension. As part of the project, a new sidewalk would be provided along the project frontage of the 18th Avenue extension. Pedestrian walkways throughout the project site would provide for connections to the 18th Avenue sidewalk.

The hotel would operate 24 hours a day, 7 days a week, and would be staffed with an estimated 25 full-time employees. Approximately one to two supply and goods deliveries (i.e., linens and hotel supplies) would occur per day, between the hours of 7:00 AM and 6:30 PM. The hotel would not include a loading dock; rather, delivery vehicles would temporarily park at the front entrance of the hotel. In addition, the on-site meeting hall would operate between 8:00 AM at the earliest to midnight at the latest and would be used for events, including, but not limited to trade shows, weddings, and conferences. It should be noted that the meeting hall would include an outdoor patio which could be used during events, and low amplified music would be allowed on the outdoor patio until 9:00 PM.

A number of existing trees would be removed in order to develop the proposed hotel and roadway extension. However, the proposed project would provide landscaping improvements, including the planting of new trees and shrubs throughout the project site

The proposed 18th Avenue extension would consist of two eight-foot lanes, and would extend westward from SR 53 to Old Highway 53 by approximately 0.2-mile. The 18th Avenue/Old Highway 53 intersection would include a marked crosswalk on the 18th Avenue leg, ADA-compliant curb ramps, a relocated bus stop to the north leg, a 75-foot-long southbound left-turn lane on Old Highway 53, and overhead intersection lighting. In addition, the proposed roadway would provide connections to two existing roadways located to the north including Manzanita Avenue and Vallejo Avenue, as well as two connections to existing driveways located south of the proposed extension. Additional roadway improvements such as curb, gutter, and sidewalk improvements would be developed along the 18th Avenue extension, consistent with City standards. The proposed roadway would also include the extension of a 10-inch water line, a 6-inch sanitary sewer line, a 10-inch sanitary sewer line, a 12-inch sanitary sewer force main, and storm drain utilities. All utility mains would extend from SR 53 to Old Highway 53

Sewer service for the proposed development would be provided by the Lake County Sanitation District (LACOSAN), and water services for the proposed project would be provided by the Highlands Mutual Water Company (HMWC). As part of the proposed project, new water and sanitary sewer connections would be provided from the new utility lines that would be developed as part of the 18th Avenue extension. In addition, a new storm drainage system would be developed within the hotel site, which would provide new storm drain lines throughout the paved areas on-site that would ultimately drain into the new storm drain line within the 18th avenue extension. The various landscaped areas on-site would also provide opportunities for the infiltration of storm water.

Reviewing Agencies Checklist

Lead Agencies may recommend State Clearinghouse distribution by marking agencies below with and "**X**".
If you have already sent your document to the agency please denote that with an "**S**".

	Air Resources Board	X	Office of Historic Preservation
	Boating & Waterways, Department of	X	Office of Public School Construction
	California Emergency Management Agency		Parks & Recreation, Department of
X	California Highway Patrol		Pesticide Regulation, Department of
X	Caltrans District # 1		Public Utilities Commission
	Caltrans Division of Aeronautics	X	Regional WQCB # 1
X	Caltrans Planning		Resources Agency
	Central Valley Flood Protection Board		Resources Recycling and Recovery, Department of
	Coachella Valley Mtns. Conservancy		S.F. Bay Conservation & Development Comm.
	Coastal Commission		San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
	Colorado River Board		San Joaquin River Conservancy
	Conservation, Department of		Santa Monica Mtns. Conservancy
	Corrections, Department of		State Lands Commission
	Delta Protection Commission	X	SWRCB: Clean Water Grants
	Education, Department of		SWRCB: Water Quality
X	Energy Commission		SWRCB: Water Rights
X	Fish & Game Region # 2		Tahoe Regional Planning Agency
X	Food & Agriculture, Department of	X	Toxic Substances Control, Department of
X	Forestry and Fire Protection, Department of		Water Resources, Department of
	General Services, Department of		
X	Health Services, Department of	X	Other: CA Dept. of Alcoholic Beverage Control; (ABC)
X	Housing & Community Development		Other:
X	Native American Heritage Commission		

Local Public Review Period (to be filled in by lead agency)

Starting Date October 26, 2022 Ending Date November 30, 2022

Lead Agency (Complete if applicable):

Consulting Firm:
Address:
City/State/Zip:
Contact:
Phone:

Applicant:
Address:
City/State/Zip:
Phone:

Signature of Lead Agency Representative: **Date:** 10/26/2022

Authority cited: Section 21083, Public Resources Code. Reference: Section 21161, Public Resources Code.

CITY OF CLEARLAKE

DRAFT MITIGATED NEGATIVE DECLARATION

ENVIRONMENTAL ANALYSIS (CEQA)

INITIAL STUDY, IS 2022-06

AIRPORT PROPERTY COMMERCIAL CENTER PROJECT

LOCATED AT:
APN: 042-121-25

October 20th, 2022

CALIFORNIA ENVIRONMENTAL QUALITY ACT ENVIRONMENTAL CHECKLIST FORM INITIAL STUDY, IS 2022-06

1. Project Title:	Airport Hotel and 18th Avenue Extension Project
2. Permit Numbers:	Conditional Use Permit 2022-02 Design Review 2022-02 CEQA, IS 2022-06
3. Lead Agency Name/Address:	City of Clearlake 14050 Olympic Drive Clearlake, CA 95422
4. Contact Person:	Mark Roberts, Senior City Planner Phone: (707) 994-8201 Email: mroberts@clearlake.ca.us
5. Project Location(s):	6356 Armijo Avenue Clearlake, California 95422
6. Parcel Number(s):	APN: 042-121-25
7. Project Sponsor's Name/Address:	City of Clearlake 14050 Olympic Drive Clearlake, CA 95422
8. Project Developers Name:	Hotel Developer Matt Patel, MLI Associates, Inc. Rep: Josh Divilbiss, Designer 2511 llwood Dr Cameron Park, CA 95682
9. Property Owner(s) Name/Address:	City of Clearlake 14050 Olympic Drive Clearlake, CA 95422
10. Zoning Designation:	General Commercial (GC)
11. General Plan Designation:	Commercial
12. Supervisor District:	District Two (2)
13. Average Cross Slope:	Average cross slope – less than 10%
14. Earthquake Fault Zone:	Not within a fault zone

15. Dam Failure Inundation Area: Not within a Dam Failure Inundation Zone

16. Flood Zone: Not located within a known flood zone

17. Waste Management: Clearlake Waste Solutions

18. Water Access: Highlands Mutual Water Company

19. Fire Department: Lake County Fire Protection District

20. **Description of Project:** ***(Describe the whole action involved, including but not limited to later phases of the project and any secondary, support, or off-site features necessary for its implementation. Attach additional pages if necessary.)***

The proposed project would be located at 6356 Armijo Avenue, east of State Route (SR) 53, and north of the former Pearce Airport site (see Figure 1 through Figure 3). The project site is primarily undeveloped and, is zoned General Commercial (GC) (see Figure 4 and Figure 5).

The Airport Hotel and 18th Avenue Extension Project (proposed project) would include development of the project site with a four-story, 75-room hotel, to be located within the central portion of the site, as well as a one-story meeting hall in the southwest corner of the site. A parking lot and associated improvements would be developed throughout the remainder of the site (see Figure 6 and Figure 7). In addition, the proposed project would construct an extension of 18th Avenue to connect SR 53 to Old Highway 53 (see Figure 8 through Figure 15).

The first floor of the hotel would provide various amenities for guests, including a breakfast serving area and fitness center, as well as a linen cleaning/sorting space, and administrative/storage space. Ten rooms would also be provided on the first floor. The second through fourth floors of the building would house the remaining 65 guest rooms. In addition, a manager's quarters would be located on the fourth floor of the hotel. The proposed building would be limited to a height of 50 feet, consistent with the allowed building height of the GC General Commercial Zoning District.

A total of 109 parking spaces would be provided on-site. Of the 109 parking spaces, six would be reserved for electric vehicle (EV) parking, eight would be reserved for clean air vehicle parking, and four would be Americans with Disabilities Act (ADA)-compliant. In addition, 13 bicycle parking spaces would be provided on-site, including seven short-term spaces, and six long-term spaces in the form of storage lockers. Access to the project site would be provided by a new, 30-foot-wide, full-access driveway which would connect to the proposed 18th Avenue extension. As part of the project, a new sidewalk would be provided along the project frontage of the 18th Avenue extension. Pedestrian walkways throughout the project site would provide for connections to the 18th Avenue sidewalk.

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A number of existing trees would be removed in order to develop the proposed hotel and roadway extension (see Figure 16). However, the proposed project would provide landscaping improvements, including the planting of new trees and shrubs throughout the project site (see Figure 17).

The proposed 18th Avenue extension would consist of two eight-foot lanes, and would extend westward from SR 53 to Old Highway 53 by approximately 0.2-mile. The 18th Avenue/Old Highway 53 intersection would include a marked crosswalk on the 18th Avenue leg, ADA-compliant curb ramps, a relocated bus stop to the north leg, a 75-foot-long southbound left-turn lane on Old Highway 53, and overhead intersection lighting. In addition, the proposed roadway would provide connections to two existing roadways located to the north including Manzanita Avenue and Vallejo Avenue, as well as two connections to existing driveways located south of the proposed extension. Additional roadway improvements such as curb, gutter, and sidewalk improvements would be developed along the 18th Avenue extension, consistent with City standards. The proposed roadway would also include the extension of a 10-inch water line, a 6-inch sanitary sewer line, a 10-inch sanitary sewer line, a 12-inch sanitary sewer force main, and storm drain utilities. All utility mains would extend from SR 53 to Old Highway 53.

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20. Environmental Setting:

The project site consists of the rectangular-shaped, 2.8-acre parcel identified by APN 042-121-25, as well as the land located south of the parcel, which would be used to extend 18th Avenue from SR 53 to Old Highway 53. The southern portion of APN 042-121-25 has been previously disturbed, as the site is currently being used as a construction staging area for the storage of equipment and vehicles, stockpiles, and other construction-related materials (see Figure 5). The northern portion of the site is relatively undisturbed and consists primarily of wooded areas.

A portion of the 18th Avenue extension is currently developed as a paved roadway, which extends from the SR 53 intersection to just past Vallejo Avenue. The remaining portions of the proposed 18th Avenue extension currently consist of previously disturbed construction staging areas, as well as undisturbed land which consists primarily of ruderal grassland with trees and shrubs scattered throughout.

21. **Surrounding Land Uses and Setting: Briefly describe the project's surroundings:**
    - The parcels to the **North** – Single-family residences
    - The parcels to the **South –** Former Pearce Airport site
    - The parcels to the **West –** Single-family residences; convenience store
    - The parcels to the **East –** Single-family residences; storage facility

22. **Other Public Agencies Whose Approval is Required**: **Local Agencies**: City of Clearlake - Community Development (Planning, Building, Public Works); Clearlake Police Department, Lake County Fire Protection District, Lake County Department of Environmental Health, Lake County Air Quality Management District, Lake County Special Districts, Highlands Mutual Water District and Local Tribal Organizations.

23. **Federal and State Agencies:** Central Valley Regional Water Quality Control Board, California Department of Transportation (Caltrans); California Department of Fish and Wildlife, California Alcoholic of Bureau Control (ABC); California Department of Public Health. The applicant will adhere to and obtain all necessary Federal and State Agency permits.

24. **Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?** Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3 (c) contains provisions specific to confidentiality.

    Notification of the project was sent to local tribes for "AB 52" Notification, which allows interested Tribes to request tribal consultation within 30 days of receipt of notice. Additional consultation was conducted by Sub-Terra Heritage Resource Investigations as part of the Cultural Resource Investigation prepared for the proposed project.

25. **Impact Categories defined by CEQA:** The following documents are referenced information sources and are incorporated by reference into this document and are available for review upon request of the Community Development Department if they have not already been incorporated by reference into this report:

    - Bollard Acoustical Consultants, Inc. *Environmental Noise Analysis, Proposed Winery and Farm Brewery Zoning Text Amendment Project*. April 2019.
    - CalEPA. *Cortese List Data Resources*. Available at: https://calepa.ca.gov/sitecleanup/corteselist/. Accessed August 2022.
    - California Department of Conservation. *California Important Farmland Finder.* Available at: http://maps.conservation.ca.gov/ciff/ciff.html. Accessed August 2022.
    - California Department of Forestry and Fire Protection. *FHSZ Viewer.* Available at: https://egis.fire.ca.gov/FHSZ/. Accessed August 2022.

- California Geological Survey. *Earthquake Zones of Required Investigation.* Available at: https://maps.conservation.ca.gov/cgs/EQZApp/app/. Accessed August 2022.
- CalRecycle. *SWIS Facility/Site Activity Details – Eastlake Sanitary Landfill (17-AA-0001).* Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3787?siteID=930. Accessed August 2022.
- City of Clearlake. *2040 General Plan Update Final Environmental Impact Report (EIR).* February 2017.
- City of Clearlake. *2040 General Plan Update*. February 28, 2017.
- Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese).* Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed August 2022.
- Doug Gearhart, Air Pollution Control Officer at Lake County Air Quality Management District. Personal communication [phone] with Briette Shea, Senior Associate/Air Quality Technician at Raney Planning and Management, Inc. April 27, 2022.
- FEMA. *FEMA Flood Map Service Center.* Available at: https://msc.fema.gov/portal/home. Accessed August 2022.
- Highlands Mutual Water Company. *Drought Contingency Plan.* June 30, 2021.
- Live Oak Associates, Inc. *Airport Property Commercial Center Hotel Project Biological Evaluation Clearlake, Lake County, California.* July 18, 2022.
- Live Oak Associates, Inc. *Arborist Tree Inventory and Assessment for Proposed Airport Property Commercial Center Hotel Project, Clearlake, Lake County, California (PN 2671-02).* July 18, 2022.
- Live Oak Associates, Inc. *Post-Fire Tree Assessment for Proposed Airport Property Commercial Center Hotel Project, Clearlake, Lake County, California (PN 2671-02).* August 8, 2022.
- Sub-Terra Heritage Resource Investigations. *Cultural Resource Investigation of the 2.8-Acre Clearlake Airport Parcel APN 04212125 and the 3.47-Acre Proposed 18th Avenue Extension, City of Clearlake, Lake County, California.* August 4, 2022.
- USDA NRCS. Web Soil Survey. Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed August 2022.
- W-Trans. *Transportation Impact Study for the Airport Hotel Project.* July 1, 2022.

Figures

- Figure 1: Regional Map
- Figure 2: Vicinity Map
- Figure 3: USGS Map
- Figure 4: Zoning Map
- Figure 5: Site Photos
- Figure 6: Hotel Site Plan
- Figure 7: Hotel Building Elevations
- Figure 8: Roadway Site Plan - Overall
- Figure 9: Roadway Site Plan – Segment 1 (Sheet 4)
- Figure 10: Roadway Site Plan – Segment 2 (Sheet 5)
- Figure 11: Roadway Site Plan – Segment 3 (Sheet 6)
- Figure 12: Roadway Site Plan – Segment 4 (Sheet 7)
- Figure 13: Roadway Site Plan – Segment 5 (Sheet 8)
- Figure 14: Roadway Site Plan – Segment 6 (Sheet 9)

- Figure 15: Striping Plan
- Figure 16: Overall Site Plan with Existing Vegetation
- Figure 17: Landscaping Plan
- Figure 19: On-Site Habitat

Attachments

- Attachment A – Air Quality and Greenhouse Gas Modeling Results
- Attachment B – Biological Evaluation and Arborist Report
- Attachment C – Transportation Impact Study

Figure 1: Regional Map

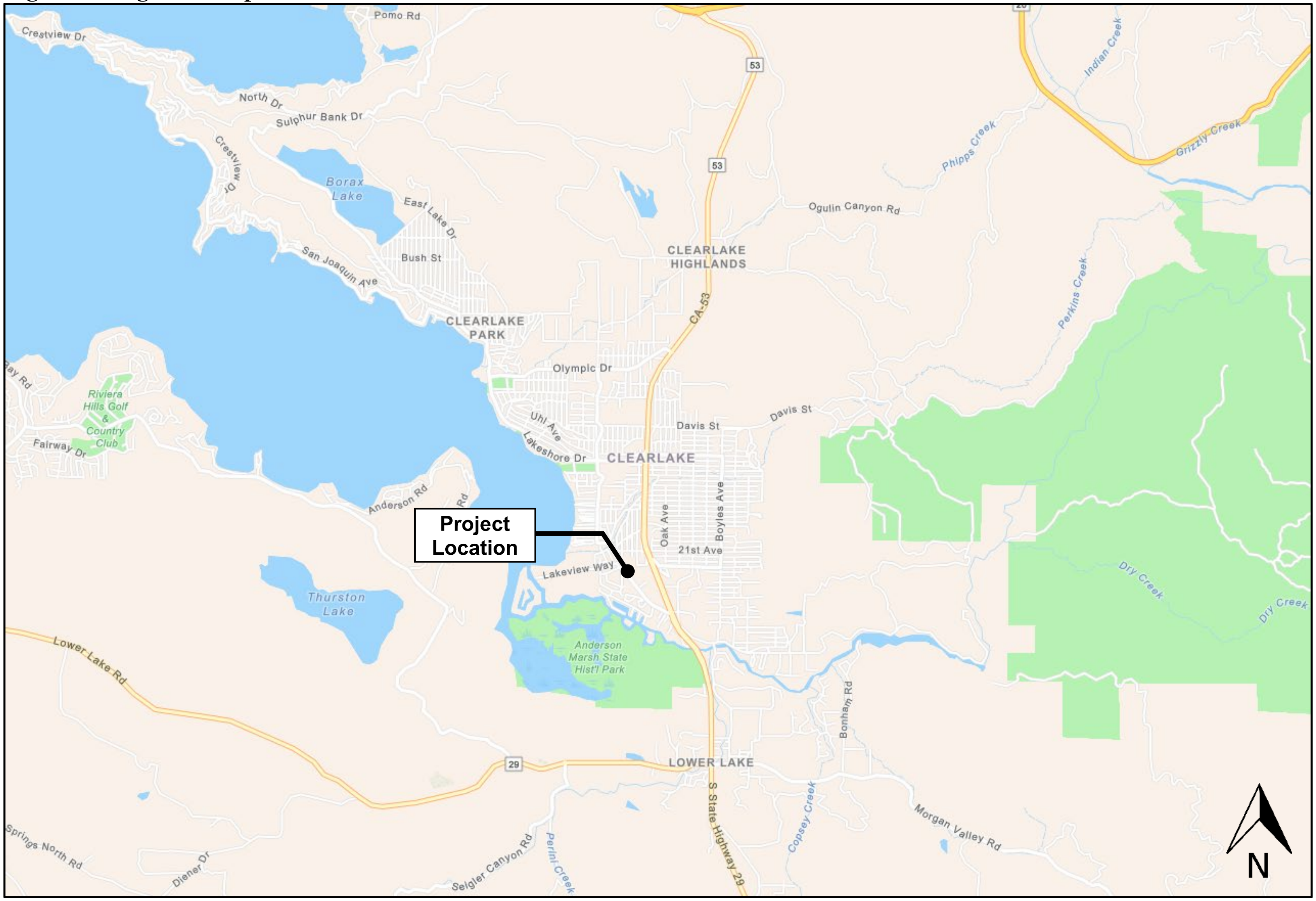


Figure 2: Vicinity Map

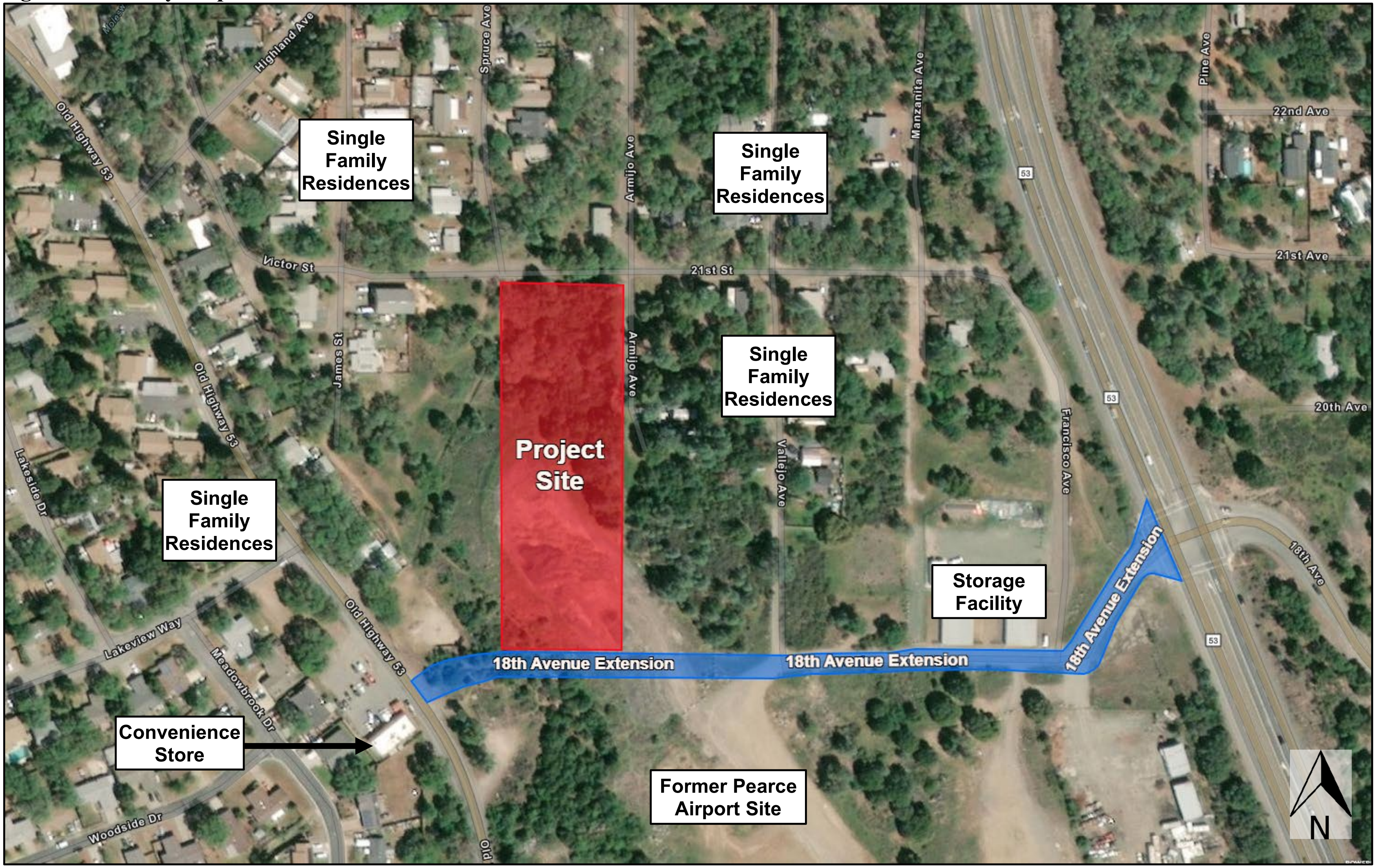


Figure 3: USGS Map

Figure 4: Zoning Map

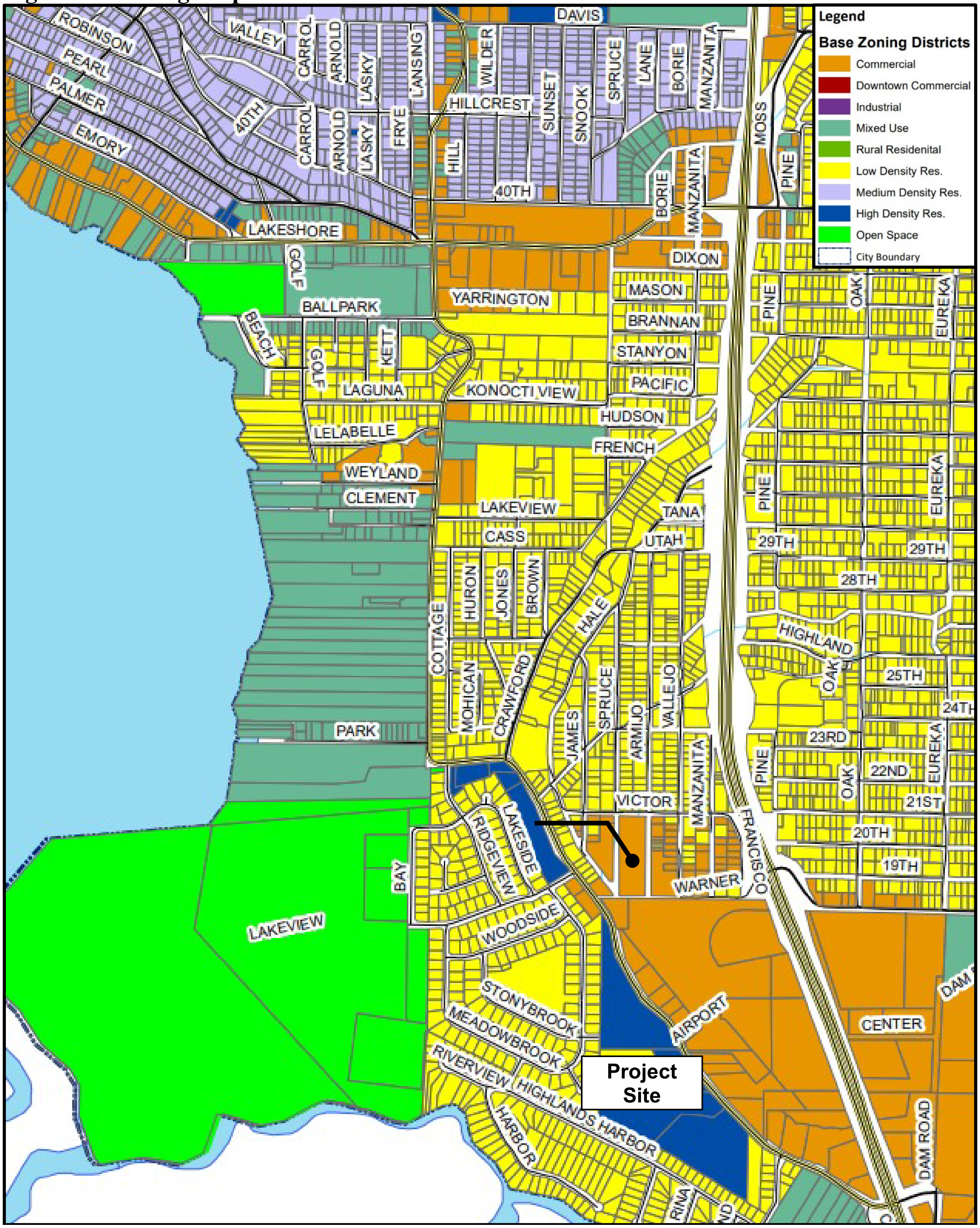


Figure 5: Site Photos

Existing SR 53/18th Avenue Intersection

Northerly View from Southeast Portion of the Site

Westerly View from Site Towards Future Old Highway 53 Connection

Southerly View from Southern Portion of Project Site

Figure 6: Hotel Site Plan

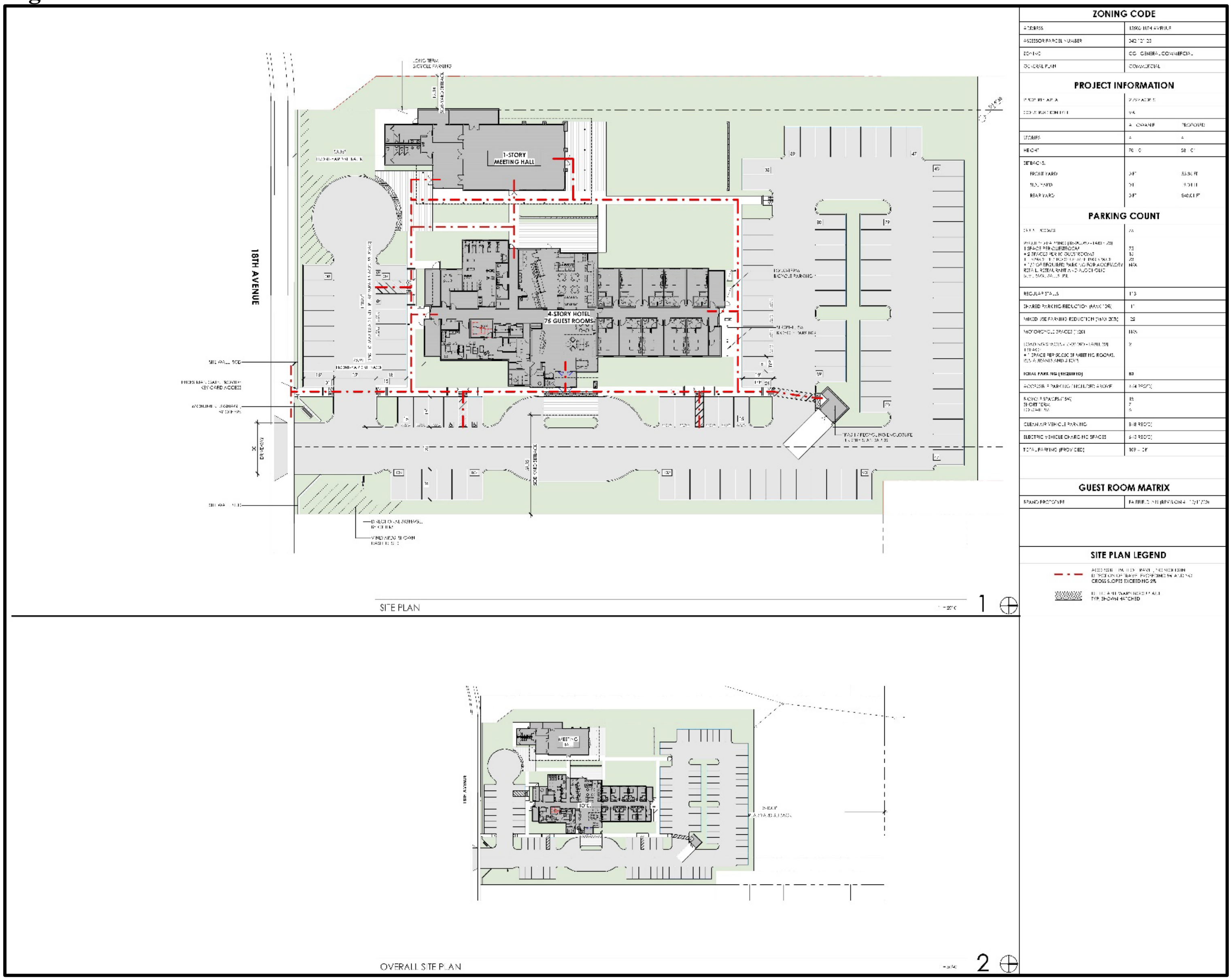


Figure 7: Hotel Building Elevations

Figure 8: Roadway Site Plan - Overall

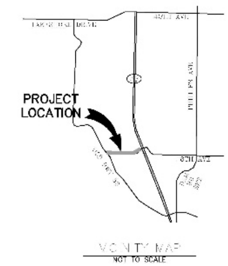
18TH AVENUE ROAD IMPROVEMENT PROJECT

CITY OF CLEARLAKE

PROJECT #LF2022(xx)

LAKE COUNTY, CALIFORNIA

XXXXX 2022



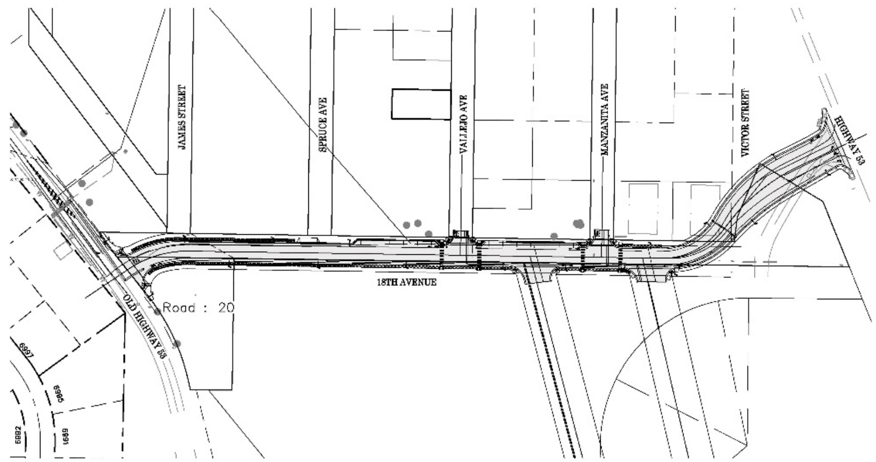
ABBREVIATIONS:

AC	ASPHALT CONCRETE	LIP	LIP OF GUTTER
AB	AGGREGATE BASE	L.S.	LONG SWEEP
APPROX.	APPROXIMATELY	MH	MANHOLE
AVE.	AVENUE	MON.	MONUMENT
BC	BEGIN CURVE	NG	NATURAL GROUND
C&G	CURB AND GUTTER	OG	ORIGINAL GROUND
CL	CENTER LINE	P.	PROPOSED
CONC	CONCRETE	PC	POINT OF CURVATURE
CR	CURB RETURN	PL	PROPERTY LINE
CULV.	CULVERT	PP	POWER POLE
DTL.	DETAIL	PT	POINT OF TANGENCY
DWY	DRIVEWAY	PUE	PUBLIC UTILITY ESMT.
DYLIN	DOUBLE YELLOW LINE	R/W	RIGHT-OF-WAY
EC	END CURVE	SCH	SCHEDULE
EL	ELEVATION	SD	STORM DRAIN
EP	EDGE OF PAVEMENT	SHT	SHEET
ESMT.	EASEMENT	SS	SANITARY SEWER
EX.	EXISTING	ST.	STREET
EXP.	EXPIRES	STA.	STATION
F.E.S.	FLARED END SECTION	STD.	STANDARD
FH	FIRE HYDRANT	SW	SIDEWALK
FG	FINISH GRADE	TBC	TOP BACK OF CURB
FL	FLOW LINE	TBW	TOP BACK OF WALK
FM	SEWER FORCE MAIN	TC	TOP OF CURB
FND.	FOUND	TOE	TOE OF SLOPE
GB	GRADE BREAK	TOP	TOP OF SLOPE
HORIZ.	HORIZONTAL	TP	TELEPHONE POLE
HP	HIGH POINT	VERT.	VERTICAL
INTX.	INTERSECTION	W/	WITH
INV.	INVERT	W	WATER
I.P.	IRON PIPE	WM	WATER METER
JP	JOINT POLE	WV	WATER VALVE

LEGEND

PROPOSED / EXISTING

- C & G, SW, DWY
- IMPROVEMENTS
- VALLEY GUTTER FL
- DRAINAGE INLET
- SEWER MANHOLE
- STORM DRAIN MANHOLE
- FH
- WATER VALVE
- WATER SERVICE
- SEWER SERVICE
- POWER POLE
- LIGHT POLE
- SIGN
- MONUMENT
- CONCRETE
- AB
- AC
- NATIVE SOIL
- FLOW ARROW
- SURVEY CONTROL SYMBOLS



UTILITY REPRESENTATIVES

UTILITY	COMPANY	CONTACT	PHONE
SEWER	LAKE COUNTY SPECIAL DISTRICTS	STAFF	(707) 263 0119
DRAINAGE	CITY OF CLEARLAKE	STAFF	(707) 994-8201
WATER	HIGHLANDS WATER COMPANY	STAFF	(707) 994-2393
IRRIG. WATER	CITY OF CLEARLAKE	STAFF	(707) 994 8201
FIRE	LAKE COUNTY FIRE PROTECTION DISTRICT	STAFF	(707) 994-0733
CABLE TV	MEDIACOM	AGENT	(845) 490-3326
ELECTRICAL	PACIFIC GAS & ELECTRIC (PG&E)	STAFF	(877) 743-7782
GAS	NO NATURAL GAS PRESENT IN LAKE COUNTY	STAFF	-
PHONE	AT&T	STAFF	(415) 499 4900
USA	UNDERGROUND SERVICE ALERT	STAFF	(800) 227-2600

CEC GENERAL NOTES

1.) ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THESE PLANS AND SPECIFICATIONS, CITY OF CLEARLAKE STANDARD PLANS AND SPECIFICATIONS, AND TO THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION STANDARD PLANS AND SPECIFICATIONS, LATEST EDITION AND WITH THE PRODUCT MANUFACTURE INSTALLATION REQUIREMENTS AND RECOMMENDATIONS. THE CONTRACTOR SHALL OBTAIN A COPY OF THE CITY'S IMPROVEMENT AND CONSTRUCTION STANDARDS PRIOR TO CONSTRUCTION. IN THE ABSENCE OF A SPECIFICATION FOR AN ITEM IN THESE PLANS AND THE CITY OF CLEARLAKE STANDARD PLANS AND SPECIFICATIONS, ALL APPLICABLE FEDERAL AND STATE LAWS ARE TO BE ADHERED TO AND MEET CURRENT ENGINEERING AND CONSTRUCTION STANDARD PRACTICES TO THE SATISFACTION OF THE CITY ENGINEER.

2.) THE TYPES, LOCATIONS, SIZES, AND DEPTHS OF EXISTING UTILITIES WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATIONS WILL REVEAL SUCH INFORMATION. A REASONABLE EFFORT WAS MADE TO DELINEATE UTILITIES, HOWEVER, CALIFORNIA ENGINEERING COMPANY, INC. ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS AND ACCURACY OF THE LOCATION OF THE EXISTING UTILITIES ON THE PLANS, NOR FOR OTHER UTILITIES THAT MAY BE ENCOUNTERED. THE CONTRACTOR IS HEREBY NOTIFIED THAT HE IS RESPONSIBLE FOR VERIFICATION OF THE LOCATION OF ALL UTILITIES AT THE CONSTRUCTION SITE. IN THE EVENT THAT SUBSTANTIAL DISCREPANCIES ARE FOUND, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER FOR DIRECTION.

3.) IN THE EVENT THERE IS A DISCREPANCY OR TYPOGRAPHICAL ERROR WITHIN THESE PLANS, OR REQUEST FOR INFORMATION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY FOR DIRECTION. THE CONTRACTOR IS HEREBY NOTIFIED THAT THE ENGINEER SHALL BE ALLOWED A MINIMUM OF TWO WORKING DAYS TO ADDRESS THE ISSUE.

4.) SHOULD ASPHALT, EXISTING PAVEMENT, OR STRIPING BE DAMAGED OR DESTROYED DURING CONSTRUCTION, CONTRACTOR IS RESPONSIBLE FOR REPAIR AND/OR REPLACEMENT PRIOR TO COMPLETION OF PROJECT.

5.) ONLY SIGNED PLANS BY ALL PARTIES INVOLVED SHALL BE CONSIDERED APPROVED. THE CONTRACTOR SHALL NOT BEGIN WORK BEFORE THE PLANS HAVE BEEN APPROVED. THE CONTRACTOR SHALL HAVE ALL PERMITS AND APPROVED PLANS ON-SITE AT ALL TIMES DURING CONSTRUCTION.

6.) THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT BEFORE DIGGING (800-227-2600) AT LEAST 72 HOURS BEFORE BEGINNING WORK.

7.) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WORK WITH ALL SUBCONTRACTORS, UTILITY COMPANIES, AND THE CITY OF CLEARLAKE.

8.) THE CONTRACTOR SHALL CONTACT THE CITY OF CLEARLAKE PUBLIC WORKS DEPARTMENT AT LEAST 72 HOURS IN ADVANCE/PRIOR TO COMMENCEMENT OF WORK.

9.) ADJACENT STREET FRONTAGES SHALL BE SWEPT AT LEAST ONCE A DAY AND AT THE END OF EACH DAY TO REMOVE SILT AND OTHER DIRT WHICH IS EVIDENT FROM CONSTRUCTION ACTIVITIES.

10.) ALL TESTING IS DONE BY THE CONTRACTOR.

11.) ADDITIONAL NOTES AND DETAILS ARE LOCATED ON THE FOLLOWING SHEETS.

12.) OWNER, NOT THE DESIGN ENGINEER, SHALL BE RESPONSIBLE FOR OBTAINING ANY AND ALL LOCAL, STATE, AND FEDERAL APPROVALS AND PERMITS ASSOCIATED WITH WORK SHOWN IN THESE PLANS, AND ASSUMES ALL LIABILITY ASSOCIATED THEREWITH.

13.) CONTRACTOR TO FIELD VERIFY ALL EXISTING ELEVATIONS AND INVERTS ON ALL EXISTING UTILITIES PRIOR TO INSTALLATION OF ANY PIPE.

14.) ALL SURFACE UTILITY COVERS TO BE MARKED, RECORDED AND RAISED TO GRADE BY THE CONTRACTOR.

BASIS OF BEARINGS:

THE BASIS OF BEARINGS FOR THIS SURVEY IS IDENTICAL TO THAT SOUTH BOUNDARY LINE SHOWN ON PARCEL MAP 231, ON FILE IN THE LAKE COUNTY RECORDERS OFFICE IN BOOK 16 OF PARCEL MAPS, AT PAGE 40; SAID LINE BEING NORTH 89°19'45" WEST.

VERTICAL DATUM:

THE VERTICAL DATUM FOR THIS PROJECT IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LAKE COUNTY SPECIAL DISTRICTS
APPROVED BY:

SCOTT HARTER, P.E #C65026 — DATE
ADMINISTRATOR

HIGHLANDS WATER COMPANY
APPROVED BY:

JEFF DAVIS — DATE
GENERAL MANAGER

CITY OF CLEARLAKE
APPROVED BY:

DAVID L. SWARTZ, P.E. # C52840 - P.L.S. # 8401 — DATE
CITY ENGINEER

CALIFORNIA ENGINEERING COMPANY, INC.
SUBMITTED BY:

MARISA R. HEWITT, P.E. # C91572 — DATE
PROJECT ENGINEER

Figure 9: Roadway Site Plan – Segment 1 (Sheet 4)

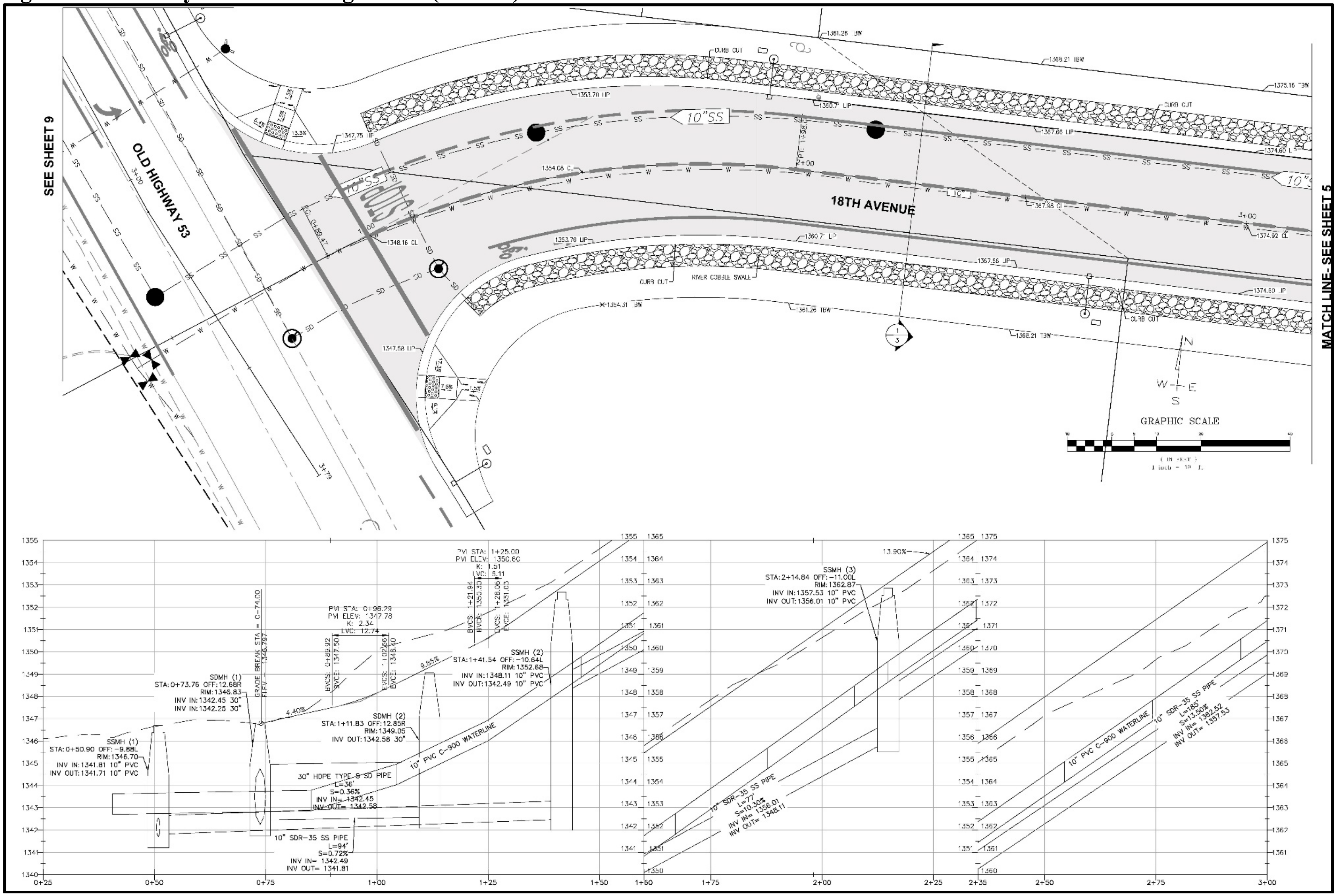


Figure 10: Roadway Site Plan – Segment 2 (Sheet 5)

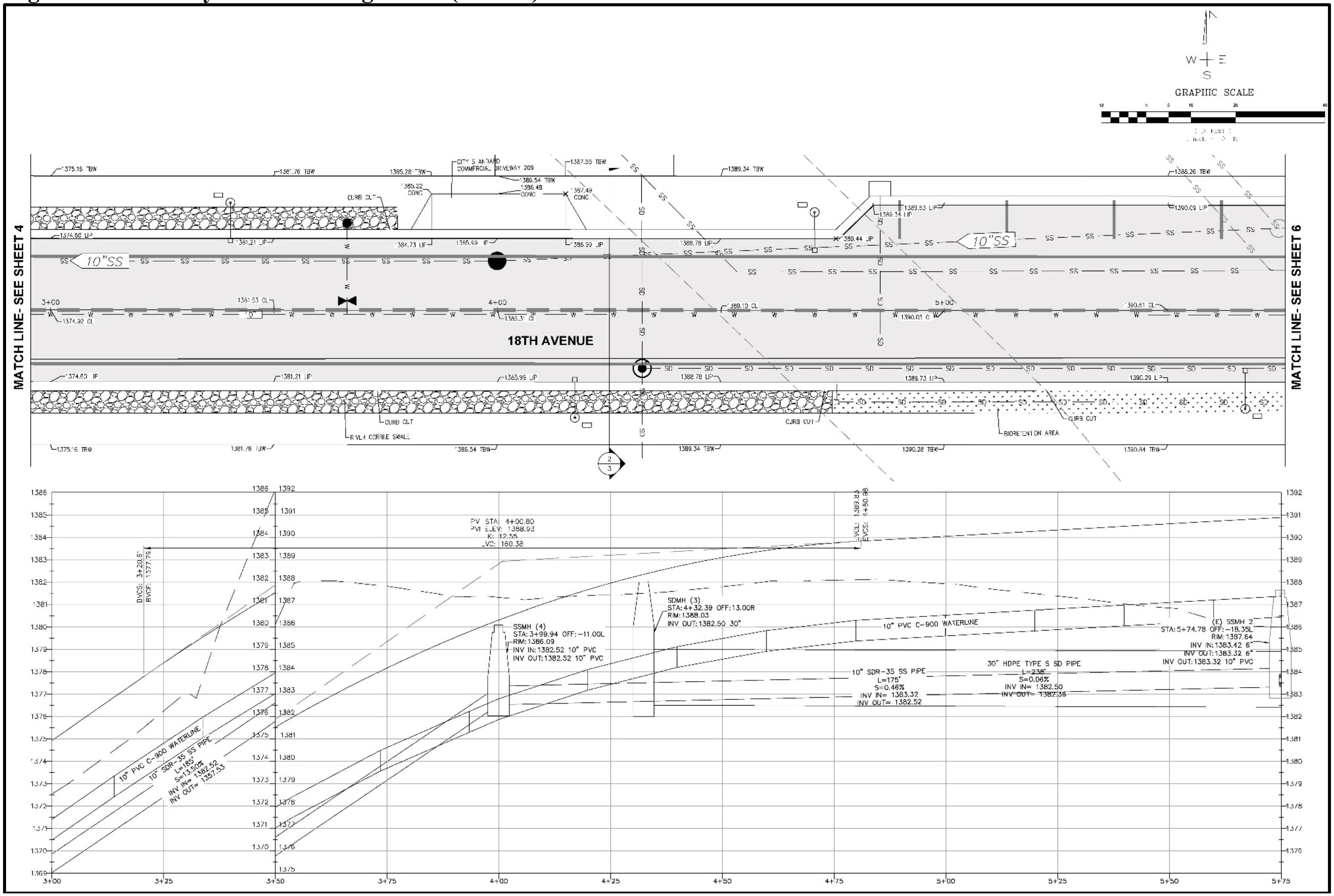


Figure 11: Roadway Site Plan – Segment 3 (Sheet 6)

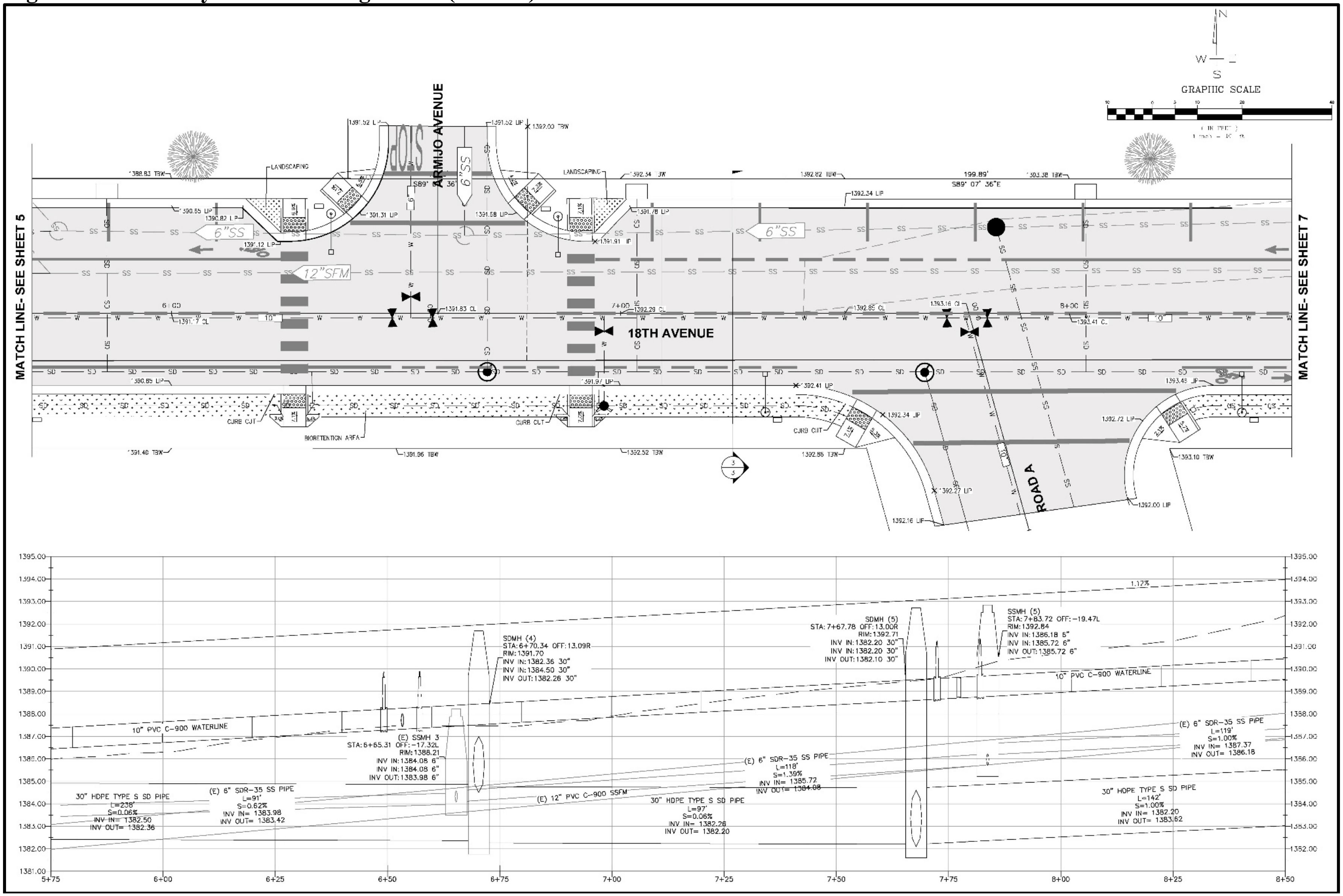


Figure 12: Roadway Site Plan – Segment 4 (Sheet 7)

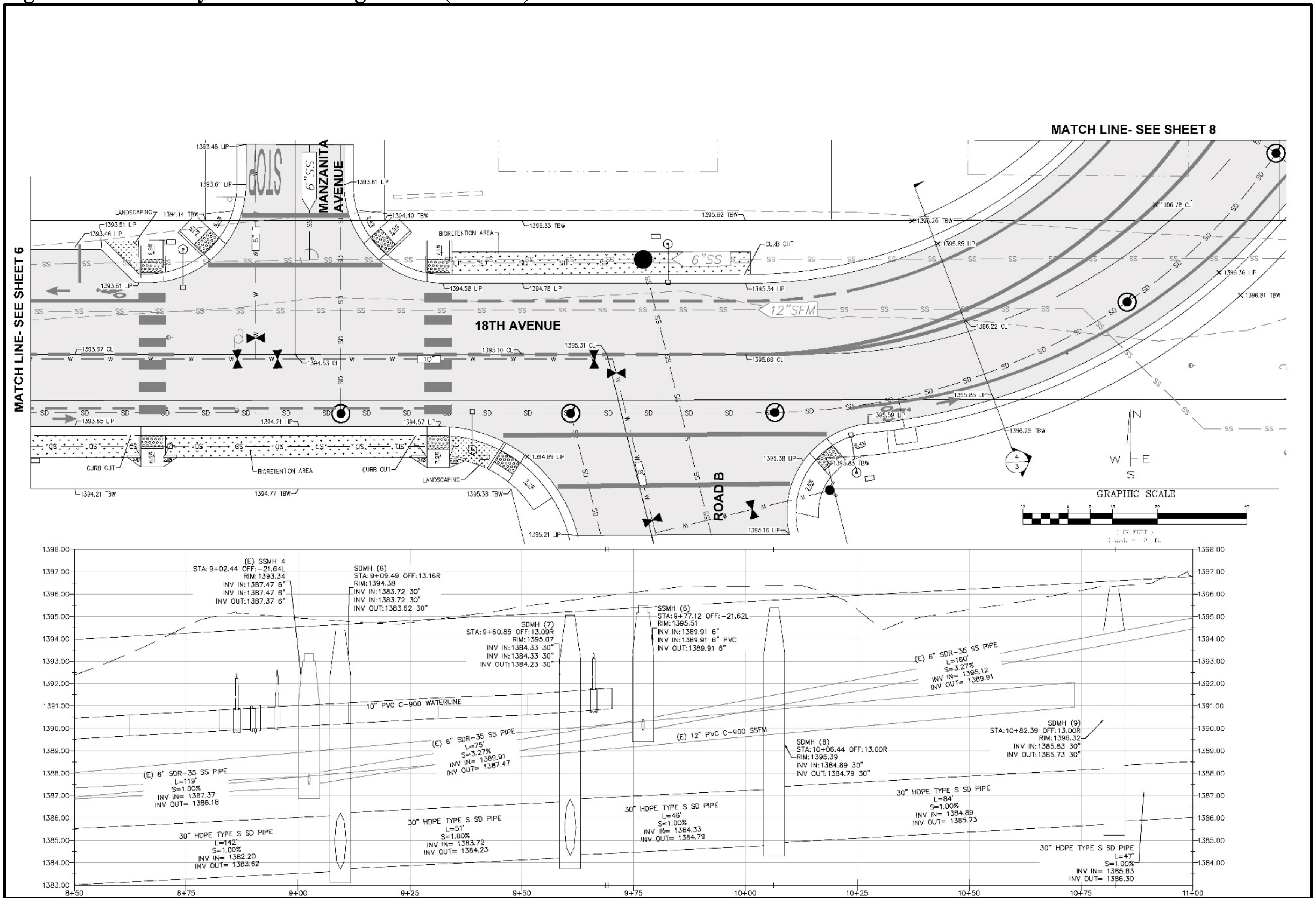


Figure 13: Roadway Site Plan – Segment 5 (Sheet 8)

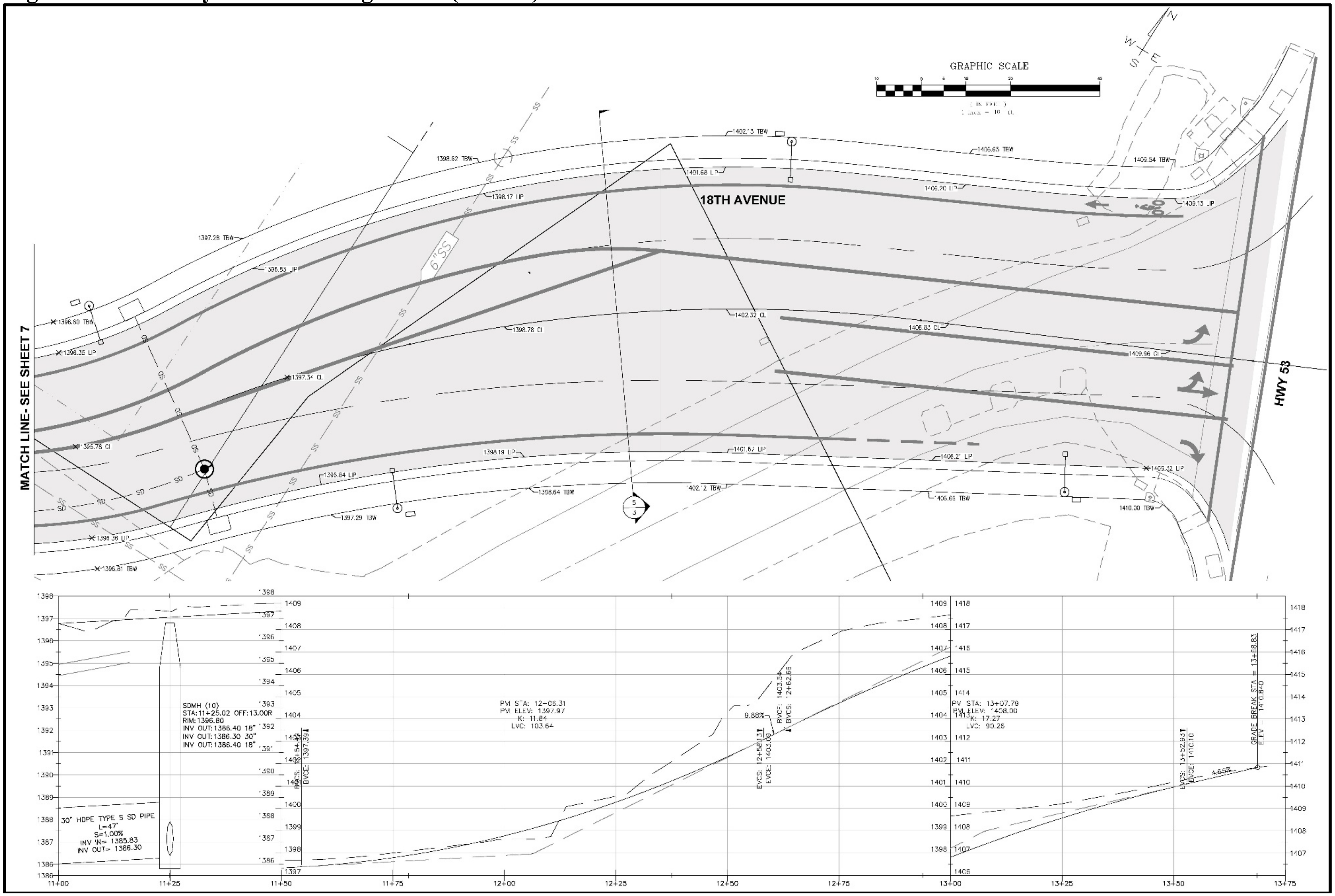


Figure 14: Roadway Site Plan – Segment 6 (Sheet 9)

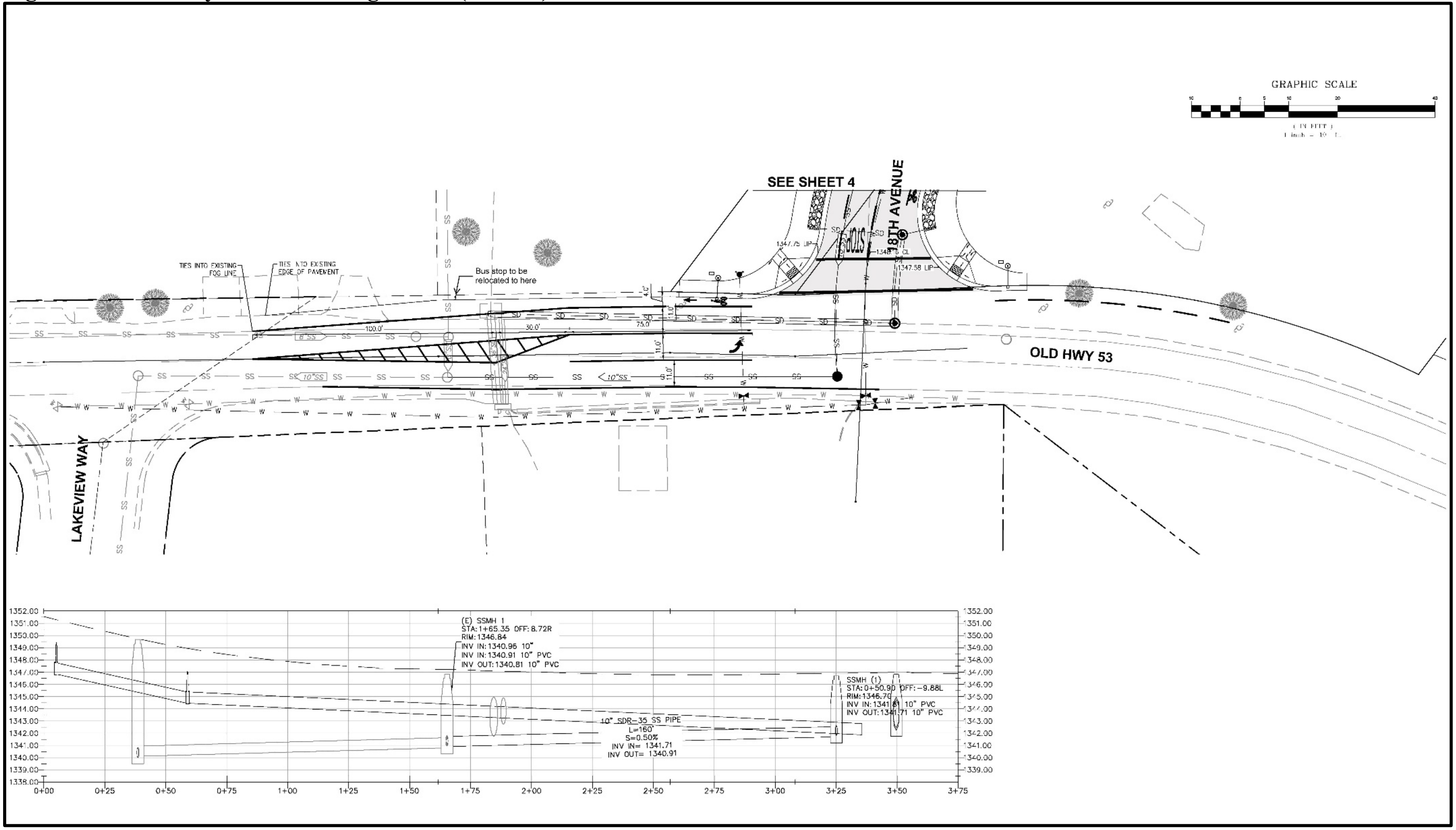


Figure 15: Striping Plan

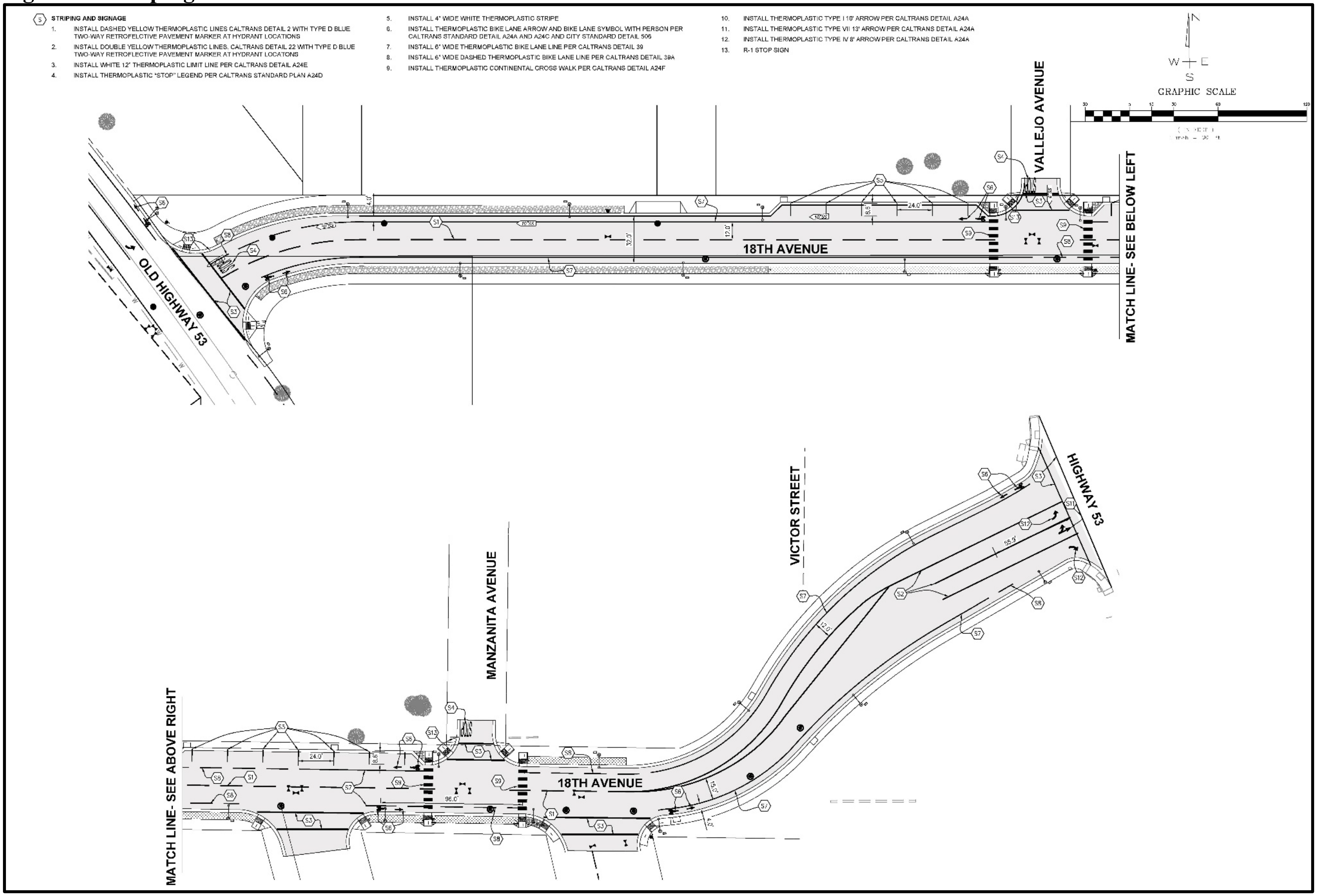


Figure 16: Overall Site Plan with Existing Vegetation

Figure 17: Landscaping Plan

Landscape Concept Statement

The hotel and meeting hall landscapes will provide an attractive destination for visitors and guests. Plants have been chosen to complement the surrounding native landscape, with primarily low water use plants. One high water use lawn area will be included for events and gatherings.

Accent planting will be used at the driveway entrance on 18th Avenue as well as building entrances. The parking lot will be well shaded with canopy trees at frequent intervals.

Irrigation Design Statement

The irrigation for this project will be designed thoughtfully, using equipment that will target root zones and avoid wasted water. All shrubs and non-turf groundcover will use drip irrigation and trees will be irrigated with deep root bubblers. The event turf area, which will be the only high water use area within the project, will be irrigated with low flow rotary nozzles, which will ensure even watering without misting or overspray. The system will use a smart controller with a weather sensor to ensure that irrigation will not occur when it is not needed.

Figure 18: Road Abandonment Exhibits

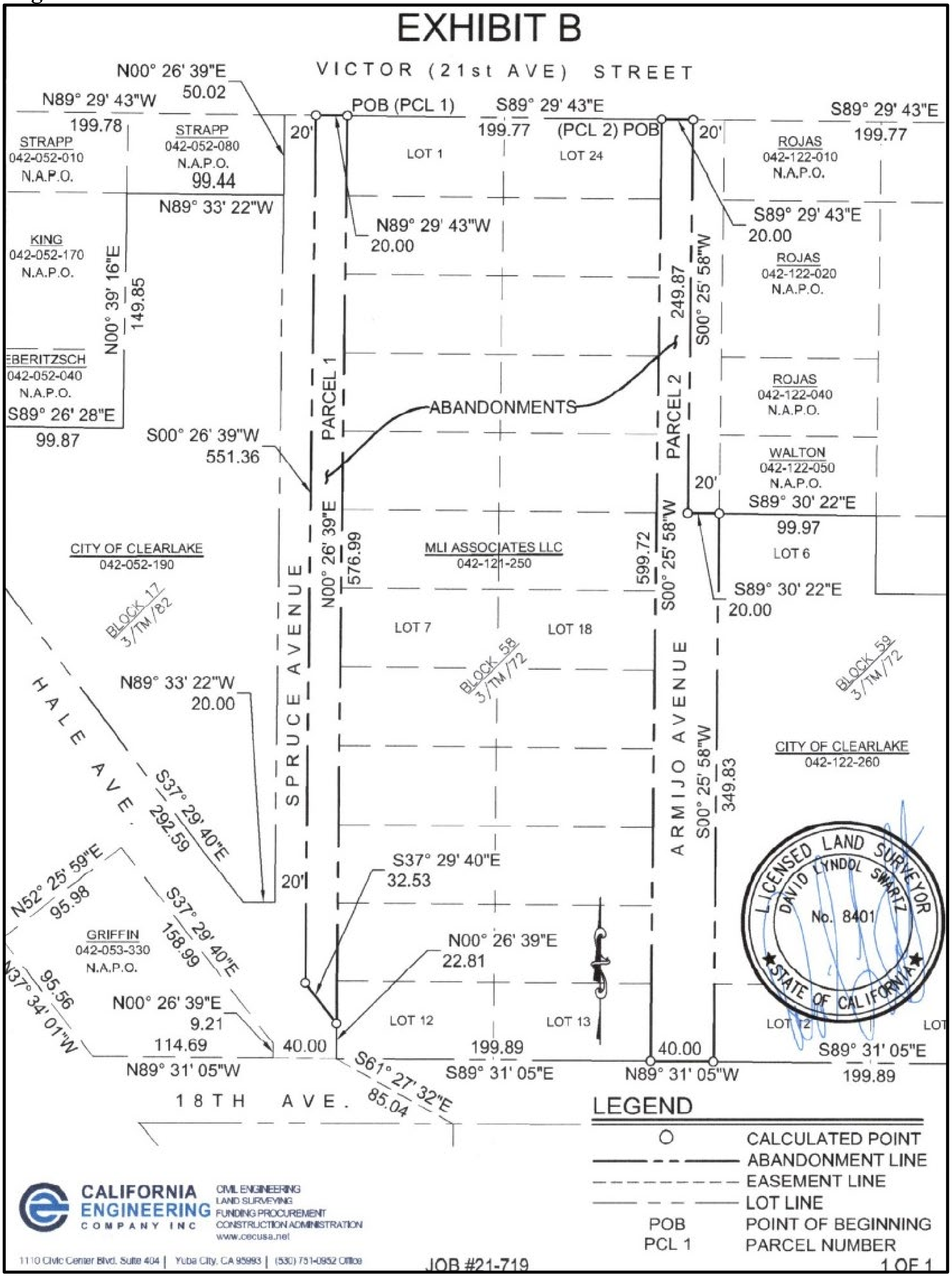


Exhibit A

Description of a

Road Abandonment

All that certain real property situate in the City of Clearlake, County of Lake, State of California, and described as follows:

Parcel 1 – *Portion of Spruce Avenue*

Beginning at the northwest corner of Lot 1, Block 58, as shown on that certain map entitled "Tract No. 4, Clear Lake Highlands", on file with the Lake County Recorder's Office in Book 3 of Town Maps, at Page 72; Thence from said Point of Beginning North 89° 29' 43" West, along the south right of way line of 21st Avenue , also known as Victor Street, a distance of 20 feet; thence South 0° 26' 39" West a distance of 551.36 feet, to a point on the north right of way projection of Hale Avenue as shown on that certain map entitled "Tract No. 6, Clear Lake Highlands", on file with the Lake County Recorder's Office in Book 3 of Town Maps, at Page 82, said point being 39.92 feet from and perpendicular to the south right of way line of said Hale Avenue; Thence South 37° 29' 40" East a distance of 32.53 feet to a point on the east right of way line of said Spruce Avenue that bears North 0° 26' 39" East from the southwest corner of Lot 12, Block 58, as shown on said "Tract No. 4, Clear Lake Highlands", a distance of 22.81 feet; Thence North 0° 26' 39" East, along the east right of way of Spruce avenue to the point of beginning, a distance of 576.99 feet.

The above-described abandonment contains 0.259 acres, more or less.

Parcel 2 – *Portion of Armijo Avenue*

Beginning at the northeast corner of Lot 24, Block 58, as shown on that certain map entitled "Tract No. 4, Clear Lake Highlands", on file with the Lake County Recorder's Office in Book 3 of Town Maps, at Page 72; Thence from said Point of Beginning South 89° 29' 43" East, along the south right of way line of 21st Avenue, also known as Victor Street, a distance of 20 feet; thence South 0° 25' 58" West a distance of 249.87 feet; Thence south 89° 30' 22" East a distance of 20 feet, to a point on the easterly right of way line of Armijo Avenue and being the northwest corner of lot 6, block of said "Tract No. 4, Clear Lake Highlands"; Thence, along the east right of way of Armijo Avenue, South 0° 25' 58" West a distance of 349.83 feet, said point being the southwest corner of Lot 12, of said Block 59; Thence North 89° 31' 05" West, along the northerly right of way line of 18th Avenue, a distance of 40 feet, said point being the south east corner of lot 13, aforementioned Block 58; thence North 0° 25' 58" East, along the westerly right of way of said Armijo Avenue to the point of beginning, a distance of 599.72 feet.

The above-described abandonment contains 0.436 acres, more or less.

The basis of bearings for the above-described road abandonments are shown on that certain map entitled "Record of Survey", on file with the Lake County Recorder's Office in Book 63 of Record of Surveys, at Pages 24 and 25.

Figure 19: On-Site Habitat

31. **Environmental Factors Effected:** The environmental sections checked below would be potentially affected by this project in an adverse manner, including at least one environmental issue/significance criteria that is a "less than significant impact with mitigation" as indicated by the analysis in the following evaluation of environmental impacts.

☒	**Aesthetics**	☐	Greenhouse Gas Emissions	☐	Public Services
☐	Agriculture & Forestry Resources	☐	Hazards & Hazardous Materials	☐	Recreation
☒	**Air Quality**	☐	Hydrology / Water Quality	☐	Transportation
☒	**Biological Resources**	☐	Land Use / Planning	☒	**Tribal Cultural Resources**
☒	**Cultural Resources**	☐	Mineral Resources	☐	Utilities / Service Systems
☐	Energy	☒	**Noise & Vibration**	☐	Wildfire
☒	**Geology / Soils**	☐	Population / Housing	☒	**Mandatory Findings of Significance**

DETERMINATION: (To be completed by the lead Agency) - On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ **I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.**

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Prepared By: Mark Roberts **Title: City Senior Planner**

Signature: **Date: October 26th, 2022**

SECTION 1 - EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, and then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance

IMACT CATEGORIES KEY:

- **1 = Potentially Significant Impact**
- **2 = Less Than Significant with Mitigation Incorporation**
- **3 = Analyzed in Prior EIR**
- **4 = Substantially Mitigated by Uniformly Applicable Development Policies/Standards**
- **5 = Less Than Significant Impact**
- **6 = No Impact**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION I. AESTHETICS *Except as provided in Public Resources Code Section 21099, would the project:*							
a) Have a substantial adverse effect on a scenic vista that is visible from a City scenic corridor?	☐	☐	☐	☐	☐	☒	**No impact.** According to the City's General Plan, officially designated scenic vistas or view corridors do not exist within Clearlake. However, three vistas and three potential view corridors have been identified along the Lakeshore Drive Corridor. In addition, three existing public parks, including Redbud Park, Highlands Park, and Austin Park, provide panoramic views of the lake and act as vistas. Figure 4.1-1 of the General Plan shows the locations of the identified vistas and view corridors. The project site is not located in the vicinity of, or visible from, any vistas or potential view corridors as identified by the General Plan.
b) Substantially damage scenic resources that is visible from a City Corridor, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☐	☐	☒	**No Impact.** The proposed project is not located in the vicinity of an officially designated State scenic highway. It should be noted that SR 53, which is located east of the project site, is eligible for listing as a State scenic highway; however, the roadway is not officially designated as such. In addition, while the City identifies view corridors along a portion of Olympic Drive (from Austin Park to SR 53) and along Lakeshore Drive, the project site is not visible from either City corridor. As a result, the proposed project would not substantially damage scenic resources that may be visible from a City Corridor, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
c) Conflict with applicable General Plan policies or zoning regulations governing scenic quality.	☐	☐	☐	☐	☐	☒	**No impact**. The City of Clearlake General Plan designates the project site as Commercial and the site is zoned "GC", General Commercial. Therefore, the proposed project is consistent with the site's land use and zoning designations, and the site has been anticipated for commercial development by the City. In addition, the proposed project would be required to comply with Section 18-9.020, of the City's Municipal Code, which sets forth requirements and standards for development that apply to the

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							C zone such as building setbacks and height limitations. Furthermore, all development within the City is required to adhere to the general development standards included in Article 18-5, Development Standards, of the City's Municipal Code. Compliance with such would ensure that the proposed project does not conflict with applicable zoning and other regulations governing scenic quality.
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐	☐	☐	**Less Than Significant Impact with Mitigation.** The proposed project would increase lighting levels in the area, which may impact nighttime views and may result in substantial light or glare, particularly from the hotel and associated parking lot lighting. All lighting would be directed downwards and shielded, in compliance with the City's lighting design standards. However, details of the lighting design for the proposed project are not currently shown in the plans. As such, preparation of a detailed lighting plan would be required to demonstrate that the project compliance City Municipal code and darksky.org. Therefore, with the following incorporated Mitigation Measure, the potential impact has been reduced to a less than significant level. Mitigation Measure: **AES 1: Prior to the issuance of development plans and/or building permits, a Final Lighting Design Plan shall be submitted to the City's Community Development Department for review and approval. All outdoor lighting shall be directed downwards and shielded onto the project site and not onto adjacent properties. All lighting shall comply and adhere to all federal, state and local agency requirements, including all requirements in darksky.org, in accordance with the City's Design Standards and Municipal Codes.**

SECTION II. AGRICULTURE AND FORESTRY RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest protocols adopted by the California Air Resources Board.

Would the project:

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐	☐	☒	**No impact**. According to the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), the entirety of the project site is characterized as "Urban and Built-Up Land." The project site does not contain, and is not located adjacent to, Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Given the designation of the site as Urban and Built-Up Land, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or otherwise result in the loss of Farmland to non-agricultural use or the conversion of forest land to non-forest use. **Therefore, no impact would occur as a result of the proposed project.**
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐	☐	☒	**No Impact**. The project site is currently zoned GC, General Commercial and designated Commercial by the City's General Plan. In addition, the project site is not under a Williamson Act contract. **Therefore, the proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract, and no impact would occur.**
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public	☐	☐	☐	☐	☐	☒	**No Impact**. While the northern portion of the project site is relatively undisturbed and consists primarily of wooded areas, the project site is not considered forest land (as defined in Public Resources Code [PRC] Section 12220[g]), timberland (as defined by PRC Section 4526) and is not zoned Timberland Production (as defined by Government Code Section 51104[g]). **As such, the project would not conflict with existing zoning for, or cause the rezoning of, forest land, timberland, or timberland zoned Timberland Production.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?							
d) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☐	☐	☒	**No Impact**. See Questions II-a and II-c, above.

SECTION III. AIR QUALITY

Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations.
Would the project:

a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☒	☐	☐	☐	☐	**Less Than Significant Impact with Mitigation.** The City of Clearlake is located in the Lake County Air Basin (LCAB), which is under the jurisdiction of the local air quality agency, the Lake County Air Quality Management District (LCAQMD). The LCAB is the only air basin in the State that is classified as an attainment area for all California Ambient Air Quality Standards (CAAQS). Because the CAAQS are more stringent than the National Ambient Air Quality Standards (NAAQS), the LCAB is designated attainment for all NAAQS as well. Due to the attainment status of the LCAB, an air quality plan for the area is not required to be and has not been prepared. Because the LCAQMD is under attainment for all CAAQS and NAAQS, numerical thresholds of significance for air pollutants have not been established by the LCAQMD for CEQA analysis purposes, as such thresholds of significance are typically developed based on attainment goals set forth within an air quality plan. Based on the recommendation of the LCAQMD, this analysis applies the thresholds of significance used for CEQA analyses within the nearby San Francisco Bay Area Air Basin (SFBAAB), formulated by the Bay Area Air Quality Management District (BAAQMD). The BAAQMD thresholds of significance are based on the SFBAAB's current nonattainment status of ozone and particulate matter (PM) emissions and the subsequent air quality attainment plans. Using the BAAQMD thresholds of significance for the proposed project presents a conservative analysis. The BAAQMD's thresholds of significance are listed in Table 1.

Table 1
BAAQMD Thresholds of Significance

Pollutant	Construction: Average Daily Emissions (lbs/day)	Operational: Average Daily Emissions (lbs/day)	Operational: Maximum Annual Emissions (tons/year)
ROG	54	54	10
NO_X	54	54	10
PM_{10} (exhaust)*	82	82	15
$PM_{2.5}$ (exhaust)*	54	54	10

* Emissions from exhaust only. BAAQMD has not yet adopted thresholds for fugitive PM emissions.

Source: BAAQMD, CEQA Guidelines, May 2017.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.

If a project were to exceed the BAAQMD's criteria pollutant emission thresholds during construction or operations, the project could be considered to result in an adverse air quality impact.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2022.1 – a Statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information is applied in the model.

The proposed project's estimated emissions associated with construction and operations and the project's contribution to cumulative air quality conditions are provided below. All CalEEMod results are included as Attachment A to this IS/MND.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's construction emissions for ROG, PM_{10} and $PM_{2.5}$ would be well below the applicable thresholds of significance. However, the proposed project's construction emissions of NO_X would be above the applicable threshold. Consequently, the proposed project could be considered to result in a potentially significant impact related to construction emissions.

Table 2
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	10.0	54	NO
NO_X	56.9	54	YES
PM_{10} (exhaust)	2.54	82	NO
$PM_{2.5}$ (exhaust)	2.34	54	NO

Source: CalEEMod, August 2022 (see Attachment A).

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 3.

Table 3
Maximum Unmitigated Operational Emissions

Pollutant	Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	6.19	1.03	54	10	NO
NO_X	2.97	0.58	54	10	NO
PM_{10} (exhaust)	0.07	0.01	82	15	NO
$PM_{2.5}$ (exhaust)	0.07	0.01	54	10	NO

Source: CalEEMod, August 2022 (see Attachment A).

As shown in the table, the proposed project's operational emissions would be well below the applicable thresholds of significance. As such, the proposed project would result in a less-than-significant impact related to operational emissions.

Cumulative Emissions

Past, present and future development projects contribute to a region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions would contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.

The BAAQMD's thresholds of significance, presented in Table 1, are used to represent the levels at which the LCAQMD would consider a project's individual emissions of criteria air pollutants to result in a cumulatively considerable contribution to existing air quality conditions. As demonstrated in Table 3 (see above) the proposed project would result in operational emissions below the applicable thresholds of significance, the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions during operations. However, as shown in Table 2, construction emissions of NO_X would exceed the applicable threshold. Nonetheless, implementation of Mitigation Measures AQ-1 through AQ-13, as discussed below, would reduce NO_X emissions to a less-than-significant level. Therefore, the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions during construction.

<u>Conclusion</u>

Based on the above, the proposed project would not result in operational emissions above the applicable thresholds. In addition, implementation of the proposed project would result in construction-related emissions of ROG, PM_{10}, and $PM_{2.5}$ below the applicable thresholds of significance. However, emissions of NO_X would exceed the applicable threshold during construction. Therefore, the proposed project could be considered to result in a potentially significant impact.

The primary source of construction-related NO_X emissions is from off-road construction equipment. Therefore, implementation of Mitigation Measures AQ-1 through AQ-13, which requires the use of some higher-tier off-road equipment, would substantially reduce the emissions of NO_X. The estimated emissions reductions are presented in Table 4. As shown in the table, with implementation of Mitigation Measure AQ-1, emissions of NO_X would be reduced below BAAQMD's thresholds.

Table 4
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	10.0	54	NO
NO_X	53.5	54	NO
PM_{10} (exhaust)	2.37	82	NO
$PM_{2.5}$ (exhaust)	2.19	54	NO

Source: CalEEMod, August 2022 (see Attachment A).

Less than significant impact with the implementation of the following mitigation measures.

AQ-1: Prior to approval of any grading plans, the project applicant shall show on the plans via notation that the contractor shall ensure that the heavy-duty off-road vehicles (50 horsepower or more) to be used in the construction project, including owned, leased, and subcontractor vehicles, shall achieve a project wide fleet average 5.1 percent NO_X reduction compared to the year 2023 CARB fleet average. The 5.1 percent NO_X reduction may be achieved by requiring a combination of engine Tier 3 or Tier 4 off-road construction equipment or the use of hybrid, electric, or alternatively fueled equipment. For instance, the emissions presented in Table 4 were achieved by requiring all tractors/loaders/backhoes used for grading to be engine Tier 4.

In addition, all off-road equipment operating at the construction site must be maintained in proper working condition according to manufacturer's specifications. Idling shall be limited to 5 minutes or less in accordance with the Off-Road Diesel Fueled Fleet Regulation as required by CARB. Clear signage regarding idling restrictions should be placed at the entrances to the construction site.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							AQ-2: Portable equipment over 50 horsepower must have either a valid District Permit to Operate (PTO) or a valid statewide Portable Equipment Registration Program (PERP) placard and sticker issued by CARB. **AQ-3: Construction activities shall be conducted with adequate dust suppression methods, including watering during grading and construction activities to limit the generation of fugitive dust or other methods approved by the Lake County Air Quality Management District. Prior to initiating soil removing activities for construction purposes, the applicant shall pre-wet affected areas with at least 0.5 gallons of water per square yard of ground area to control dust.** **AQ-4: Driveways, access roads and parking areas shall be surfaced in a manner so as to minimize dust. The applicant shall obtain all necessary encroachment permits for any work within the right-of-way. All improvement shall adhere to all applicable federal, State and local agency requirements.** **AQ-5: Any disposal of vegetation removed as a result of lot clearing shall be lawfully disposed of, preferably by chipping and composting, or as authorized by the Lake County Air Quality Management District and the Lake County Fire Protection District..** **AQ-6 During construction activities, the applicant shall remove daily accumulation of mud and dirt from any roads adjacent to the site.** **AQ-7: Grading permits shall be secured for any applicable activity from the Community Development Department, Building Division. Applicable activities shall adhere to all grading permit conditions, including Best Management Practices. All areas disturbed by grading shall be either surfaced in manner to minimize dust, landscaped or hydro seeded. All BMPs shall be routinely inspected and maintained for lifer of the project** **AQ-8: All refuse generated by the facility shall be stored in approved disposal/storage containers, and appropriately covered. Removal of waste shall be on a weekly basis so as to avoid excess waste. All trash receptacles/containers shall remain covered at all times to prevent fugitive odors and rodent infestation. An odor control plan shall be submitted for review and approval by the City In accordance with the Zoning Code. Odor control shall be maintained to an acceptable level at all times.** **AQ-9: Construction activities that involve pavement, masonry, sand, gravel, grading, and other activities that could produce airborne particulate should be conducted with adequate dust controls to minimize airborne emissions. A dust mitigation plan may be required should the applicant fail to maintain adequate dust controls.** **AQ-10: If construction or site activities are conducted within Serpentine soils, a Serpentine Control Plan may be required. Any parcel with Serpentine soils must obtain proper approvals from LCAQMD prior to beginning any construction activities. Contact LCAQMD for more details.** **AQ-11: All engines must notify LCAQMD prior to beginning construction activities and prior to engine Use. Mobile diesel equipment used for construction and/or maintenance must be in compliance with State registration requirements. All equipment units must meet Federal, State and local requirements. All equipment units must meet RICE NESHAP/ NSPS requirements including proper maintenance to minimize airborne emissions and proper record-keeping of all activities, all units must meet the State Air Toxic Control Measures for CI engines and must meet local regulations.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							AQ-12: Site development, vegetation disposal, and site operation shall not create nuisance odors or dust. During the site preparation phase, the District recommends that any removed vegetation be chipped and spread for ground cover and erosion control. Burning of debris/construction material is not allowed on commercial property, materials generated from the commercial operation, and waste material from construction debris, must not be burned as a means of disposal. **AQ-13: Significant dust may be generated from increase vehicle traffic if driveways and parking areas are not adequately surfaced. Surfacing standards should be included as a requirement in the use permit to minimize dust impacts to the public, visitors, and road traffic. At a minimum, the district recommends chip seal as a temporary measure for primary access roads and parking. Paving with asphaltic concrete is preferred and should be required for long term occupancy. All areas subject to semi-truck / trailer traffic should require asphaltic concrete paving or equivalent to prevent fugitive dust generation. Gravel surfacing may be adequate for low use driveways and overflow parking areas; however, gravel surfaces require more maintenance to achieve dust control, and permit conditions should require regular palliative treatment if gravel is utilized. White rock is not suitable for surfacing (and should be prohibited in the permit) because of its tendency to break down and create excessive dust. Grading and re-graveling roads should utilizing water trucks, if necessary, reduce travel times through efficient time management and consolidating solid waste removal/supply deliveries, and speed limits** **Conformance with the foregoing requirements shall be included as notes and be confirmed through review and approval of grading plans by the City of Clearlake Community Development Department.**
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☒	☐	☐	☐	☐	**Less Than Significant Impact with Mitigation.** See Question III-a, above.
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest sensitive receptors include existing single-family residences, located approximately 65 feet east, and 150 feet west, of the project site. The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions, toxic air contaminants (TAC) emissions, and criteria pollutant emissions, which are addressed in further detail below. Localized CO Emissions Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood. Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							The LCAQMD has not established screening criteria for localized CO emissions. Therefore, in order to provide a conservative indication of whether the proposed project would result in localized CO emissions that would exceed the applicable threshold of significance, the screening criteria for localized CO emissions established by BAAQMD was used in this analysis. According to BAAQMD, a project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project: • The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans; • The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and • The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.). An established congestion management program does not exist for the project area. As such, the proposed project would not be inconsistent with any such a plan. In addition, according to the General Plan EIR, daily traffic volumes along SR 53 range from 19,000 vehicles per day near the southern end of the roadway to 10,000 vehicles per day near SR 20. Because SR 53 is a State Highway, the assumption can be made that the traffic travelling along the roadway would be greater than the traffic travelling on the local roadways in the project vicinity. Therefore, given the relatively small size of the proposed project, the addition of project-generated vehicle trips would not be expected to increase traffic volumes at any intersections within the project vicinity to more than 44,000 vehicles per hour. Furthermore, intersections where vertical and/or horizontal mixing is limited are not located in the project vicinity. Based on the BAAQMD's screening criteria for localized CO emissions, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards or cause health hazards. <u>TAC Emissions</u> Another category of environmental concern is TACs. The CARB's Air Quality and Land Use Handbook: A Community Health Perspective (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. The proposed project does not include any operations that would be considered a substantial source of TACs. Accordingly, operations of the proposed project would not expose sensitive receptors to excess concentrations of TACs. Short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. However, construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Specifically, as noted above, construction would occur over an approximately one-year period. The exposure period typically analyzed in health risk assessments is 30 years or greater, which is substantially longer than the estimated one-year

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							construction period associated with the proposed project. In addition, all construction equipment and operation thereof would be regulated by the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. During construction, only portions of the project site would be disturbed at a time. Operation of construction equipment would occur on such portions of the site intermittently throughout the course of a day over the overall construction period. Because construction equipment on-site would not operate for any long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, sensitive receptors in the area would not be exposed to pollutants for a permanent or substantially extended period of time. Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, and the highly dispersive nature of DPM, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations. <u>Criteria Pollutants</u> As discussed above, the LCAB is the only air basin in the State that is classified as an attainment area for all CAAQS and NAAQS. Due to the attainment status of the LCAB, an air quality plan for the area is not required to be and has not been prepared. As such, numerical thresholds of significance for air pollutants have not been established by the LCAQMD for CEQA analysis purposes, as such thresholds of significance are typically developed based on attainment goals set forth within an air quality plan. According to the BAAQMD, a project's compliance with BAAQMD's thresholds of significance provides an indication that criteria pollutants released as a result of project implementation would not inhibit attainment of the health-based regional NAAQS and CAAQS. Because the LCAB is in attainment for all CAAQS and NAAQS, and project-related emissions would not exceed the BAAQMD's thresholds with implementation of Mitigation Measure AQ-1, the criteria pollutants emitted during project implementation would not be anticipated to result in measurable health impacts to sensitive receptors. Accordingly, the proposed project would not expose sensitive receptors to excess concentrations of criteria pollutants. **<u>Conclusion</u>** **Based on the above discussion, the proposed project would not expose any sensitive receptors to substantial concentrations of localized CO, or criteria pollutants from construction or operation. Therefore, a less-than-significant impact would occur**.
d) Result in other emissions that create objectionable odors adversely affecting a substantial number of people?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** While offensive odors rarely cause physical harm, they can be unpleasant, leading to considerable annoyance and distress among the public and can generate citizen complaints to local governments and air districts. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, it is difficult to quantitatively determine the presence of a significant odor impact. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses. Construction activities often include diesel-fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, construction is temporary and construction equipment would operate intermittently throughout the course of a day, and would likely only occur over portions of the site at a time. In addition, all construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation. Project construction would also be required to comply with all applicable LCAQMD

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions, as well as any associated odors related to operation of construction equipment. Considering the short-term nature of construction activities, as well as the regulated and intermittent nature of the operation of construction equipment, the proposed project would not be expected to create objectionable odors affecting a substantial number of people.

SECTION IV. BIOLOGICAL RESOURCES

Would the project:

a) 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?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** A Biological Evaluation conducted by Live Oak Associates, Inc., was prepared for the proposed project. A search of the California Natural Diversity Database (CNDDB) was included in the Biological Evaluation, and based on the results, a total of 12 special-status plant species and 18 special-status wildlife species are known to occur within the project region. In addition, a site survey was conducted on July 11, 2022 as part of the Biological Evaluation to assess the potential for the identified special-status species to occur on-site. According to the Biological Evaluation, of the 12 special-status plant species known to occur in the area, three are either absent from or unlikely to occur on the site due to a lack of suitable habitat, because the species has not been observed in the site's vicinity, and/or because the species is a perennial and would have been identifiable during the time of year that the site survey was conducted, and the species was not observed. However, the Biological Evaluation identified nine special-status plant species as having the potential to occur on-site including eight species listed under California Native Plant Society (CNPS) Rare Plant Rank 1B (bent-flowered fiddleneck, Raiche's manzanita, three-fingered morning glory, deep-scarred cryptantha, Tracy's eriastrum, congested-headed hayfield tarplant, Napa bluecurls, and San Joaquin spearscale) and one species listed under CNPS Rare Plant Rank 2B (oval-leaved viburnum). Focused floristic surveys during the appropriate blooming season in all potentially suitable habitats on-site for the aforementioned species would be necessary to determine whether the proposed project would impact any populations of the species. Should focused surveys determine populations of any of the species are present on the site, and if the project as proposed would impact the populations, a potentially significant impact could occur. Many of the 18 special-status wildlife species identified as a result of the CNDDB search have habitat requirements that are not present on the project site. Although the project site does not contain suitable habitat for a majority of special-status wildlife species, four species may regularly or occasionally use the project site for foraging, including the Clear Lake roach, Townsend's big-eared bat, pallid bat, and western red bat. While the three bat species listed above, including the Townsend's big-eared bat, pallid bat, and western red bat may forage over the site, roosting habitat is absent from the site for the species, as trees with suitable cavities and leaf density are not present within the site. In addition, the project site does not provide regionally important foraging habitat for the aforementioned species. Furthermore, while a drainage is located in the northwestern corner of the site, the drainage is not within the development area, and, therefore, Clear Lake roach habitat would not be impacted. Avian species protected by the Migratory Bird Treaty Act (MBTA) could use the project site as potential foraging and/or nesting habitat. Therefore, while development of the project would result in a less-than-significant impact on Clear Lake roach, Townsend's big-eared bat, pallid bat, and western red bat, if construction activity occurs during nesting season, the proposed project could result in a potentially significant impact to avian species protected under the MBTA. **Mitigation Measures BIO-1 through BIO-8 shall be implemented to ensure potential impacts to special-status species will be reduced to a less-than-significant levels**.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							<u>**Mitigation Measures:**</u> **BIO-1: Prior to initiation of ground-disturbing activities on the project site, the project applicant shall retain a qualified biologist to conduct floristic surveys to identify any special-status plant species on-site.** • **Floristic surveys shall be conducted in all on-site habitats that potentially support special status species during the appropriate season to identify the species, which is typically during the species' blooming period. Based upon the suite of special status plant species potentially occurring on the site, at a minimum, four surveys shall be conducted, (i.e., in March, April, June, and October) in all areas of the site within and adjacent to (within 100 feet) project development footprints that provide potential habitat for the target species. Surveys shall be conducted in conformance with the most recent version of CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities and CNPS' Botanical Survey Guidelines.** **BIO-2: If rare plant populations are determined to be present on the project site during the focused floristic surveys by a qualified/license biologist, the populations shall be mapped, and the number of individuals shall be estimated. A qualified plant ecologist or botanist shall determine whether project impacts to plant populations are significant.** **BIO-3: To the extent practicable, the project shall be designed to avoid or minimize impacts to special status plant populations with a buffer determined by the qualified botanist or plant ecologist.** **BIO-4: If the project cannot be redesigned to avoid or minimize impacts to the identified species to a less-than-significant level, then compensation measures shall include development of an onsite or off-site restoration plan for the species. At a minimum, any restoration plan shall contain the following elements: 1) location of restoration areas, 2) propagation and planting techniques to be employed for the restoration effort, 3) a timetable for implementation, 4) a monitoring plan and performance criteria, 5) an adaptive management plan should the restoration not meet interim success criteria, and 6) a site maintenance plan. The restoration plan shall be approved by the City of Clearlake Community Development Department prior to the start of project construction and shall, where feasible, occur in the immediate vicinity of the identified population(s).** **BIO-5: If tree removal is required, site preparation, grading, or construction is planned to occur within the avian breeding period (i.e., between February 1 and August 31), a qualified biologist shall conduct pre-construction surveys for active nests of migratory birds within seven days of the onset of construction activities. If construction activity is planned to commence outside the breeding period, pre-construction surveys are not required for nesting birds and raptors. Survey results shall be submitted to the City of Clearlake Community Development Department. If active nests of migratory birds are not detected within the project site, further mitigation is not required. If nesting birds are detected, the applicant shall implement Mitigation Measure BIO-3.** **BIO-6: If any active nests are discovered in or near proposed construction zones, a qualified biologist shall establish a construction-free buffer around the nest. The buffer shall be adequate to ensure the nest is not disturbed by construction activities and shall be based on the location of the nest, species of bird, sensitivity of the bird (as determined by the biologist), and proximity to and type of construction occurring near the nest. The buffer shall be identified on the ground with flagging or fencing and shall be maintained until the biologist has determined that the young have fledged. Established buffers may be altered only if a qualified biologist provides compelling biological or ecological reason to do so. Proof of compliance with this Mitigation Measure**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							shall be provided to the City of Clearlake Community Development Department prior to recommencing construction within the buffer area. **BIO-7: All construction and operations workers on the project site shall be trained by a qualified biologist prior to ground disturbing activities. The tailgate training shall include a description of the Migratory Bird Treaty Act, instructions on what to do if an active nest is located, and the importance of capping pipes and pipe-like structures standing upright to avoid birds falling into the pipes and getting stuck. Proof of compliance with this Mitigation Measure shall be provided to the City of Clearlake Community Development Department.**
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** A drainage occurs in the northwestern corner of the site with culverts running under the road to the north of the site (see Figure 19). The drainage was dry at the time of the July 2022 site visit conducted as part of the Biological Evaluation. The drainage has a flat bottom with fairly steep sides, suggesting a large volume of seasonal flow. The width of the drainage varied from approximately 12 feet wide at the northern boundary of the site to approximately five feet wide where the drainage exits the site on the western side of the project site. The unnamed drainage appears to be a tributary of Cache Creek which is connected to Clear Lake. As such, the drainage is likely considered to be a water of the U.S. and/or water of the State. However, while the drainage is located on-site, development of the project is not proposed within the near vicinity of the drainage, and the disturbance area of the project would avoid the drainage feature completely. Therefore, impacts to jurisdictional waters, wetlands, or riparian habitats are not expected to occur.
c) Have a substantial adverse effect on state or federally protected wetlands (including, not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** See Question IV-b, above.
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Wildlife movement corridors are areas where regional wildlife populations regularly and predictably move during dispersal or migration. Movement corridors in California are typically associated with valleys, rivers and creeks supporting riparian vegetation, and ridgelines. Wildlife will often move across ill-defined undeveloped habitat patches, or regional movement is facilitated along existing linear features such as ditches, canals, farm roads, and creeks. Regionally, the nearest area believed to provide for regional wildlife movement is Cache creek and the riparian habitat approximately 0.5-mile to the south of the site. In addition, according to the Biological Evaluation prepared for the proposed project, the Lake County Land Trust Conservation Priority Plan identifies the project site location as being along the northern edge of a structural connectivity corridor which appears to center around Cache Creek and upland habitat to the east of Clearlake. The project site consists mainly of open, previously developed area with some natural lands along the northern edge. Development within the City of Clearlake occurs to the west, north, and east of the site, with dispersed rural residential uses located immediately north of the site. Therefore, the Biological Evaluation concluded that the site does not play a major role as a wildlife corridor; however, wildlife which currently use the site for daily or dispersal movements would likely continue to do so after the site is built out because the majority of the undisturbed lands in the northern portion of the site would remain undeveloped under post-project conditions. Nonetheless, the proposed project would not interfere substantially with the movement of any native resident or migratory fish or wildlife

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites, and a less-than-significant impact would occur.
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** Chapter 18-40 of the City's Municipal Code comprises the City's Native Tree Protection Ordinance. The City's Native Tree Protection Ordinance defines Protected Trees as native oak trees, including Blue Oak, Valley Oak, Interior Live Oak, California Black Oak, Canyon Live Oak, and Oregon White Oak with a greater than six-inch diameter at breast height (DBH). An Arborist Report (Attachment B) was prepared to evaluate the health and structural condition of the trees within the project area, determine which trees could be preserved and removed, and provide guidelines for tree preservation during the design, construction, and maintenance phases of development. Based on a survey of the project site conducted on July 11 and 12, 2022, a total of 78 protected trees were determined to exist on site, including nine Blue Oaks, one Valley Oak, and 68 Interior Live Oaks. Of the 78 protected trees, the Arborist Report concluded that 51 trees would require removal during development of the proposed project. In addition, 27 trees are expected to experience encroachment from the proposed project. It should be noted that a portion of the site was inaccessible during the field survey. An estimated additional 25 trees from that area, including 20 Interior Live Oaks and five Blue Oaks, may require removal, and an additional 10 Interior Live Oaks from that area are expected to experience encroachment from the proposed project. Overall, a total of 76 protected trees are expected to be removed as part of the proposed project, including 70 Interior Live Oaks, one Valley Oak, and five Blue Oaks; and a total of 37 protected trees are expected to experience encroachment from the proposed project, including 28 Interior Live Oaks, and nine Blue Oaks. However, in July 2022, after the tree inventory and assessment of the project site were conducted, a fire occurred that potentially damaged, injured, and/or killed some of the existing protected trees. As such, a Post-Fire Tree Assessment was prepared by Live Oak Associates (LOA), which provided recommendations to determine the health status of each tree. According to LOA, within eight to 10 weeks of being impacted by fire, a tree's cambium can be checked to determine if a tree is dying or is living. The method of checking a tree's cambium for health is recommended only for trees expected to be removed by the project, as the method damages the tree's bark and should not be conducted on trees that would remain in place. A permit is required by the City of Clearlake to remove or encroach into the dripline of a protected tree. In addition, the City would impose tree replacement standards or in-lieu fees pursuant to Section 18-40.050 of the Municipal Code for all protected trees proposed for removal. Furthermore, the tree protection measures included in the Arborist Report would be required for all protected trees expected to experience encroachment from the proposed project. Without adequate protection measures for the trees to be retained on the site, the proposed project could result in injury to protected trees. Because of the fire that occurred on-site, the site would require additional surveys prior to commencement of construction to determine the number of protected trees that would be removed and retained on-site during project development. Mitigation Measure BIO-5 would ensure impacts to protected trees would be less-than-significant. **Mitigation Measures:** **BIO-8: Prior to the start of construction activities, the applicant shall retain a certified arborist to reassess the protected trees on-site and determine if any additional trees would require removal due to damage from the on-site fire. The updated report shall be submitted to the City of Clearlake Community Development Department for review and approval.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							• **A native tree protection and removal permit, waiver, or similar approval shall be secured prior to impacting trees protected under the City ordinance. The project applicant shall mitigate for the removal of Protected Trees located within the project site, as identified in the Arborist Report prepared for the proposed project, by preparing a Tree Replacement Plan to ensure on-site replacement planting or the payment of in-lieu fees, or a combination of both.** • **For the Protected Trees to be preserved as part of the project, the project applicant shall implement the Tree Protection Measures and Performance Standards included in the Arborist Report prepared for the proposed project, including requirements related to: tree removal, tree protection fencing, trenching, tree protection training, tree protection measure monitoring, and other general provisions.** • **The above measures shall be included in the notes on construction drawings, subject to review and approval by the City of Clearlake Community Development Department, prior to initiation of construction activities.**
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☐	☐	☒	**No Impact.** The project site is not located within an area that is subject to an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. Therefore, the proposed project would have no impact related to a conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan.
SECTION V. CULTURAL RESOURCES *Would the project:*							
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Currently, the site is vacant and undeveloped. Thus, the site does not contain any existing structures, buildings, or other features which would be considered historical. A Cultural Resource Investigation was prepared for the proposed project by Sub-Terra Heritage Resource Investigations (Sub-Terra), which included an archival review of historic General Land Office plats and USGS topographic maps, as well as an archeological field survey of the entire project site. The field survey included a complete, intensive inspection of the project site, with transects of three meters or less. Ground visibility was generally good, and where necessary, the surveyor dug small holes to examine the sediments of the land. As discussed within the Cultural Resource Investigation, evidence of historic period cultural resources was not present within the project area, and historic properties were not recorded within the project site. In addition, portions of the project site have been used as a designated construction staging area. As such, the storage of equipment and vehicles, stockpiles, waste bins, and other construction-related materials has occurred on the project site. Therefore, portions of the project site have been subject to disturbance. Based on the above, the proposed project would have a less-than-significant impact related to the substantial adverse change of a historical resource.
b) Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** Based on the California Historical Resources Information System (CHRIS) records search conducted by the Northwest Information Center (NWIC), and archival review of historic General Land Office plats and USGS topographic maps conducted as part of the Cultural Resource Investigation prepared for the proposed project, previously recorded cultural resources are not located within the project site. As discussed above, an archeological field survey was also conducted as part of the Cultural Resource Investigation, which included the minor modification of ground cover, to allow for the detection of all evidence of prior human activity including

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							archeological remains. The archeological field survey did not find any cultural resources within the project area. Additionally, according to the Cultural Resource Investigation, the project area has been previously bulldozed, severely graded, and most of the original landscape was previously removed and re-distributed as fill. From the 1990s to present day, the project area has served as the City's materials storage yard, resulting in further modification by introduction of fill materials of various kinds and from various sources. Although the project area has been subject to a records search and an archeological field survey, and has been subject to previous disturbance, the Koi Nation tribe has ancestral ties to the area. Therefore, a remote possibility exists that unknown archaeological resources, including human remains, could be uncovered during ground-disturbing activities at the project site. If previously unknown resources are encountered during construction activities, the proposed project could cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb human remains, including those interred outside of dedicated cemeteries, during construction. Therefore, Mitigation Measures CUL-1 and CUL-2 would be required to ensure impacts would be less than significant. <u>**Mitigation Measures:**</u> **CUL-1: During construction activities, if any subsurface archaeological remains are uncovered, all work shall be halted within 100 feet of the find and the owner shall utilize a qualified cultural resources consultant to identify and investigate any subsurface historic remains and define their physical extent and the nature of any built features or artifact-bearing deposits**. **CUL-2: The cultural resource consultant's investigation shall proceed into formal evaluation to determine their eligibility for the California Register of Historical Resources. This shall include, at a minimum, additional exposure of the feature(s), photo-documentation and recordation, and analysis of the artifact assemblage(s). If the evaluation determines that the features and artifacts do not have sufficient data potential to be eligible for the California Register, additional work shall not be required. However, if data potential exists – e.g., there is an intact feature with a large and varied artifact assemblage – it will be necessary to mitigate any Project impacts. Mitigation of impacts might include avoidance of further disturbance to the resources through Project redesign. If avoidance is determined to be infeasible, pursuant to CEQA Guidelines Section 15126.4(b)(3)(C), a data recovery plan, which makes provisions for adequately recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Such studies shall be deposited with the California Historical Resources Regional Information Center. Archeological sites known to contain human remains shall be treated in accordance with the provisions of Section 7050.5 Health and Safety Code. If an artifact must be removed during Project excavation or testing, curation may be an appropriate mitigation. This language of this mitigation measure shall be included on any future grading plans and utility plans approved by the City for the Project** **CUL-3: If human remains are encountered, no further disturbance shall occur within 100 feet of the vicinity of the find(s) until the Lake County Coroner has made the necessary findings as to origin (California Health and Safety Code Section 7050.5). Further, pursuant to California Public Resources Code Section 5097.98(b) remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the Lake County Coroner determines the remains to be Native American, the Native American Heritage Commission must be contacted within 24 hours. The Native American Heritage Commission must then identify the "most likely descendant(s)", The landowner shall engage in consultations with the most likely descendant (MLD). The MLD will make recommendations concerning**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							the treatment of the remains within 48 hours as provided in Public Resources Code 5097.98. **CUL-4: On or prior to the first day of construction the owner shall organize cultural sensitivity training for contractors involved in ground disturbing activities.**
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐	☐	☐	**Less Than Significant Impact with Mitigation. See Question V-b, above.**
SECTION VI. ENERGY *Would the project:*							
a) Consume energy resources in a wasteful, inefficient, or unnecessary amount during project construction and/or operation?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** The main forms of available energy supply are electricity, natural gas, and oil. The following provides a discussion regarding the proposed project's potential effects related to energy demand during construction and operations. Construction Energy Use Construction of the proposed project would involve increased energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met through a hookup to the existing electricity grid. Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. As a result, construction equipment would be used intermittently over the duration of the construction period, and the increased energy demand associated with construction would also occur intermittently, and for a limited amount of time. In addition, all construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation, which is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency and reduce GHG emissions by requiring construction vehicles to become cleaner through the use of renewable energy resources. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction. The CARB has prepared the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan), which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The In-Use Off-Road Diesel Vehicle Regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand. <u>Operational Energy Use</u> Following implementation of the proposed project, PG&E would provide electricity to the project site. Energy use associated with operation of the proposed project would be typical of hotel uses, requiring electricity for interior and exterior building lighting, operation of stoves, kitchen and cleaning appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by employee commutes, hotel patrons, and the movement of goods. Energy use associated with operation of the roadway extension would consist solely of electricity required for roadway lighting. The proposed project would be subject to all relevant provisions of the most recent update of the California Buildings Standards Code (CBSC), including the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and Building Energy Efficiency Standards would ensure that the proposed structures would consume energy efficiently. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary. In addition, electricity supplied to the project by PG&E would comply with the State's Renewable Portfolio Standard (RPS), which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent by 2030. Thus, a portion of the energy consumed during project operations would originate from renewable sources. Furthermore, the project would be required to incorporate design features to reduce outdoor water use by 20 percent. With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, as discussed in Section XVII, Transportation, of this Initial Study, the project site would provide new pedestrian infrastructure along the project frontage, and electric vehicle (EV) charging stations would be included in the project. Bicycle parking would be included on-site, which would encourage patrons to use alternative transportation. With regard to the proposed roadway extension, the proposed project would result in transportation energy use associated with vehicles travelling along the roadway. However, the roadway extension would not induce additional vehicle travel in the project area. Rather, the proposed project would redistribute existing traffic within the City and allow for residents of the City to use an alternative, potentially shorter, route. As such, energy consumption associated with vehicles travelling along the proposed roadway would not be considered wasteful, inefficient, or unnecessary. Based on the above, compliance with the State's latest Energy Efficiency Standards would ensure that the proposed project would implement all necessary energy efficiency regulations. <u>**Conclusion**</u> **Based on the above, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources**.
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** See Question VI-a, above.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION VII. GEOLOGY AND SOILS *Would the project:*							
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist- Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** The Coast Ranges are composed primarily of Mesozoic and Cenozoic sedimentary strata. The northern Coast Ranges are dominated by irregular, knobby, landslide-topography of the Franciscan Complex. The eastern border is characterized by ridges and valleys comprised primarily of Upper Mesozoic strata. In several areas, Franciscan rocks are overlain by volcanic cones and flows of the Quien Sabe, Sonoma and Clear Lake volcanic fields. Mount Konocti, the largest volcanic feature of the Clear Lake volcanic fields, is located approximately eight miles northeast of the Project site. <u>i) Earthquake Faults</u> Known active faults are not located at or adjacent to the project site. Furthermore, designated Alquist-Priolo Fault Zones do not intersect the project site. Therefore, potential for fault rupture on the site is estimated to be low. <u>ii) Seismic Ground Shaking</u> According to the City's General Plan, a 50 percent to 60 percent chance exists that a 6.0 magnitude earthquake could occur within 50 kilometers of Clearlake in the next 50 years, and strong ground shaking could occur in the area. However, the proposed buildings would be properly engineered in accordance with the CBSC, which includes engineering standards appropriate for the seismic area in which the project site is located. Projects designed in accordance with the CBSC should be able to: 1) resist minor earthquakes without damage, 2) resist moderate earthquakes without structural damage but with some nonstructural damage, and 3) resist major earthquakes without collapse but with some structural as well as nonstructural damage. Conformance with the design standards is verified by the City prior to the issuance of building permits. Proper engineering of the proposed buildings would ensure that the project would not be subject to substantial risks related to seismic ground shaking. <u>iii) Seismic–Related Ground Failure, including liquefaction</u> The California Geologic Survey (CGS) has designated certain areas within California as potential liquefaction hazard zones, which are areas considered at risk of liquefaction-related ground failure during a seismic event based upon mapped surficial deposits and the depth to the areal groundwater table. The project site is not currently mapped for potential liquefaction hazard by the CGS. However, as noted in the City's General Plan, Clearlake contains soils that are susceptible to liquefaction during a seismic event. Therefore, the project site could be located on a geologic unit or soil that is susceptible to liquefaction, and a potential substantial adverse effect could occur. <u>iv) Landslides</u> According to the City's General Plan, the threat of seismically induced landslides in and around the City of Clearlake is low due to the gentle topography of much of the incorporated area. The City of Clearlake is classified by the CGS as being in landslide risk areas 1 and 2, which are the least hazardous landslide areas. In addition, due to the relatively level topography of the project site and general surrounding area, the potential for slope instability is considered low. Thus, landslides are not likely to occur on- or off-site as a result of the proposed project. <u>Conclusion</u> Based on the above, the proposed project would not result in impacts associated with earthquake faults, seismic ground shaking, or landslides. However, the project site could contain potentially liquefiable soils. As such, Mitigation Measure GEO-1 would be required to ensure impacts are reduced to a less-than-significant level. **<u>Mitigation Measures:</u>** **GEO-1: Prior to approval of any grading permits, a Geotechnical Analysis shall be conducted by a California Geotechnical Engineer to characterize the subsurface conditions of the project site. The report shall address and make recommendations on the following:** • **Road, pavement, and parking area design.**

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							• **Structural foundations, including retaining wall design (if applicable).** • **Grading practices.** • **Erosion/winterization.** • **Special problems discovered on-site, (i.e., groundwater, expansive/unstable soils, etc.); and** • **Slope stability.** **GEO-2: All grading and foundation plans for the development shall be designed by a Civil and Structural Engineer and reviewed and approved by the Director of Public Works/City Engineer, Chief Building Official/Building Inspector, and a licensed/qualified Geotechnical Engineer prior to issuance of grading and building permits to ensure that all geotechnical recommendations specified in the Geotechnical Analysis are properly incorporated and utilized in the project design.**
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** The project site would be graded for project development, and approximately 1,300 cubic yards of soil would be imported to the project site during grading activities. As such, during construction, the project applicant shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system. All grading measure shall adhere to all Federal, State and local agency requirements. Therefore, to ensure impacts related to the Geology and Soils are minimized, the following mitigation measures shall be implemented. **Mitigation Measures:** **GEO-3: Prior to any ground disturbance and/or operation, the applicant shall submit Erosion Control and Sediment Plans to the Community Development Department for review and approval. The project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system.** **GEO-4: Prior to any ground disturbance, the project applicant shall submit and obtain a Grading Permit from the Community Development in accordance with the City of Clearlake Municipal Code.** **GEO-5: The project applicant shall monitor the site during the rainy season including post-installation, application of BMPs, erosion control maintenance, and other improvements as needed. Measures shall be maintained for life of the project and replaced/repaired when necessary.**
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact**. Potential impacts related to landslides and liquefaction are discussed in Question VII-a, above. As such, the proposed project's potential effects related to lateral spreading, and subsidence are discussed below. Lateral Spreading Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. The project site does not contain any open faces that would be considered susceptible to lateral spreading. Therefore, the potential for lateral spreading to pose a risk to the proposed development is relatively low. Subsidence/Settlement Subsidence is the settlement of soils of very low density generally from either oxidation of organic material, or desiccation and shrinkage, or both, following drainage. Subsidence takes place gradually, usually over a period of several years.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							According to the City's General Plan, unconsolidated or water saturated soils along drainages and the lake shore are most likely to be affected by settlement. However, the project site is not located along a drainage or within close proximity to the lake shore. Therefore, the potential for subsidence/settlement to pose a risk to the proposed development is relatively low. In addition, the project shall incorporate Best Management Practices (BMPs) consistent with the City Code and the State Storm Water Drainage Regulations to the maximum extent practicable to prevent and/or reduce discharge of all construction or post-construction pollutants into the local storm drainage system.
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐	☐	☐	**Less Than Significant Impact with Mitigation.** According to the City's General Plan, some soil types within the City are expansive and will shrink and swell in response to moisture. In addition, according to the USDA soil survey, development within the project site is somewhat to very limited due to the shrink-swell potential of soils within the project site. The project would adhere to all Federal, State and local agency requirements, including all requirements in the City of Clearlake's Municipal Code(s). However, given that the project site contains potentially expansive soils, Mitigation Measure GEO-4 would be required to ensure impacts are reduced to a less-than-significant level. **<u>Mitigation Measures:</u>** **All potential impacts have been reduced to less than significant levels with the incorporated mitigation Measures GEO-1 through GEO-5.**
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☐	☐	☒	**No Impact.** The proposed project would include connection to the existing public sewer infrastructure. As such, the construction or operation of septic tanks or other alternative wastewater disposal systems is not included as part of the project. Therefore, no impact regarding the capability of soil to adequately support the use of septic tanks or alternative wastewater disposal systems would occur.
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** Disturbance of paleontological resources or unique geologic features is not anticipated. However, if a previously unknown unique paleontological resource or unique geological feature is encountered during construction activities, the proposed project could result in a disturbance of such resources. Nonetheless, the potential impact would be reduced to less than significant with the incorporated mitigation measures CUL-1 and CUL-2. **<u>Mitigation Measures:</u>** **All potential impacts have been reduced to less than significant levels with the incorporated mitigation Measures GEO-1 through GEO-5 and CUL-1 through CUL-4.**
SECTION VIII. GREENHOUSE GAS EMISSIONS *Would the project:*							
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts. Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr). A number of regulations currently exist related to GHG emissions, predominantly AB 32, Executive Order S-3-05, and Senate Bill (SB) 32. In 2005, Governor Schwarzenegger signed Executive Order S-3-05, which sets forth a target of 1990 levels by 2020, and a long-term target of 80 percent below 1990 levels by 2050. AB 32 (California Global Warming Solutions Act of 2006) codifies the statewide GHG emissions reduction target of 1990 levels by 2020 included in Executive Order S-3-05. Thereafter, in 2016, SB 32 built upon AB 32 by establishing a transitional reduction target of 40 percent below 1990 levels by 2030. As discussed under Section III, Air Quality, for the analysis within this IS/MND, based on the recommendation of the LCAQMD, the City has elected to use the BAAQMD's thresholds of significance for GHG emissions, which were specifically crafted to indicate consistency with AB 32. By using the BAAQMD thresholds of significance for GHG, the City would comply with Section 15064.4(b)(3) of the CEQA Guidelines, which suggests that lead agencies consider the extent that the project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction of GHG emissions. On April 20, 2022, BAAQMD adopted updated thresholds of significance for climate impacts, which included a qualitative approach to assessing GHG impacts. However, the LCAQMD has indicated a preference to continue assessing GHG impacts quantitatively. In addition, according to BAAQMD Resolution No. 2022-06 adopting the CEQA thresholds, the newly adopted thresholds of significance are not applicable to projects that initiated the CEQA process prior to April 20, 2022, such as the proposed project, including the proposed project. As such, for the purposes of the analysis included herein, and consistent with guidance from the LCAQMD and the BAAQMD 2017 CEQA Guidelines, the GHG emissions threshold of significance used in this analysis is whether the proposed project would result in operational GHG emissions in excess of the following: • 1,100 $MTCO_2e$/yr; or • 4.6 $MTCO_2e$/capita/yr. As noted above, the foregoing thresholds are specific to AB 32. SB 32 requires that statewide emissions be reduced by an additional 40 percent beyond the AB 32 reduction goal by the year 2030; therefore, it is reasonable to assume that in order to meet the reduction targets of SB 32, a proposed project would be required to reduce emissions by an additional 40 percent beyond the emissions reductions currently required by BAAQMD for compliance with AB 32. Assuming a 40 percent reduction from the BAAQMD targets which demonstrate compliance with AB 32, a proposed project would be in compliance with SB 32 if the project's emissions do not exceed 660 $MTCO_2e$/yr. The proposed project's GHG emissions were quantified with CalEEMod using the same assumptions as presented in the Air Quality section of this IS/MND, and compared to the thresholds of significance noted above. All CalEEMod results are included in Attachment A to this IS/MND. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted threshold of significance for construction-related GHG emissions and does not require quantification. Nonetheless, the proposed project's construction GHG emissions have been estimated. The CalEEMod emissions estimates prepared for the proposed project determined that unmitigated project construction would result in total emissions of 273 $MTCO_2e$ over the course of the project construction period.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							The estimated maximum annual GHG emissions related to operations of the proposed project are presented in Table 5 below. As shown in Table 5, the project's maximum annual unmitigated operational GHG emissions were estimated to be approximately 551 $MTCO_2e$/yr. Thus, implementation of the proposed project would result in operational emissions below the 1,100 $MTCO_2e$/yr threshold of significance for GHG emissions, as well as the adjusted SB 32 threshold of 660 $MTCO_2e$/yr.

Table 5
Unmitigated Operational GHG Emissions

Source	GHG Emissions ($MTCO_2e$/yr)
Area	0.71
Energy	107
Mobile	414
Waste	12.8
Water	3.19
Refrigerants	12.5
Total GHG Emissions	**551**
BAAQMD Threshold	**1,100**
Adjusted SB 32 Threshold	**660**
Exceeds Thresholds?	**NO**

Source: CalEEMod, August 2022 (see Attachment A).

							Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, and impacts would be considered less-than-significant.
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** See Question VIII-a, above.

SECTION IX. HAZARDS AND HAZARDOUS MATERIALS

Would the project:

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact**. Hotel developments are not typically associated with the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. On-site maintenance may involve the use of common cleaning products, fertilizers, and herbicides, any of which could contain potentially hazardous chemicals, such products would be expected to be used in accordance with label instructions. Due to the regulations governing use of such products and the amount anticipated to be used on the site, routine use of such products would not represent a substantial risk to public health or the environment. While transportation of hazardous materials could occur along the proposed roadway extension, the number of vehicles transporting hazardous materials within the City of Clearlake would not increase as a result of the proposed project. In addition, the majority of vehicles expected to travel along the proposed roadway extension are anticipated to be passenger vehicles, which typically do not transport hazardous materials. **Therefore, the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a less-than-significant impact would occur.**
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact**. The project site is vacant and consists primarily of ruderal vegetation and wooded areas in the northern portion, and previously disturbed areas in the southern portion. Known hazards (e.g., underground storage tanks, abandoned wells, structures containing lead-based paint or asbestos) are not located on-site. According to the California Department of Toxic Substances Control Envirostor Database, hazardous material sites do not exist at the project site or in the project vicinity.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							Construction activities associated with the proposed project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. Small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply with all California Health and Safety Codes and local Town ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Thus, construction of the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. As discussed above, during project operation, hazardous materials use would be limited to landscaping products such as fertilizer and pesticides/herbicides. Such chemicals would be utilized in limited quantities according to label instructions. Because the proposed project would involve limited use of hazardous materials, primarily limited to the construction phase of the project, during which the contractor would be required to adhere to all relevant guidelines and ordinances regulating the handling, storage, and transportation of hazardous materials, the project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and a less-than-significant impact would occur.
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☐	☐	☒	**No Impact.** Schools are not located within one-quarter mile of the project site. The nearest school is Clearlake Creativity School, located approximately 0.7-mile south of site. Therefore, the proposed project would result in no impact related to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☐	☐	☒	**No Impact.** The California Environmental Protection Agency provides a list of data resources that provide information regarding the facilities or sites identified as meeting the "Cortese List" requirements, pursuant to Government Code 65962.5. The project site is not located on the Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List, which is a component of the Cortese List. The other components of the Cortese List include the list of leaking underground storage tank sites from the SWRCB's GeoTracker database, the list of solid waste disposal sites identified by the SWRCB, and the list of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the SWRCB. The project site is not located on any of the aforementioned components of the Cortese List. Thus, the project site is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and no impact would occur.
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, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☐	☐	☒	**No Impact.** The nearest airport to the site is Lampson Field Airport, which is located approximately 22 miles west of the site. As such, the project site is not located within two miles of any public airports, and does not fall within an airport land use plan area. Therefore, no impact would occur related to the project being located within an airport land use plan or within two miles of a public airport or public use airport, thereby resulting in a safety hazard or excessive noise for people residing or working in the project area.
f) Impair implementation of or physically interfere with an adopted emergency response	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact**. The project would not impair or interfere with an adopted emergency response or evacuation plan. The project has been reviewed by the Lake County Department of Environmental Health, Lake County Special Districts, City of Clearlake Police Department, City of Clearlake's Community Development Department (Building, Public Works, Planning), and the Local Fire Protection

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
plan or emergency evacuation plan?							District/CalFire for consistency with access and safety standards. The City of Clearlake did not receive any adverse comments. During operation, the proposed project would provide adequate access for emergency vehicles and would not interfere with potential evacuation or response routes used by emergency response teams. During construction of the proposed project, all construction equipment would be staged on-site so as to prevent obstruction of local and regional travel routes in the City that could be used as evacuation routes during emergency events. The project would not substantially alter existing circulation systems in the surrounding area. Rather, the proposed roadway extension would have the potential to provide an additional evacuation route in the event of an emergency. As a result, the project would have a less-than-significant impact with respect to impairing the implementation of or physically interfering with an adopted emergency response plan or emergency evacuation plan.
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact**. Issues related to wildfire hazards are further discussed in Section XX, Wildfire, of this IS/MND. As noted therein, the project site is not located within a Very High Fire Hazard Severity Zone. Additionally, the proposed project would be required to comply with all applicable requirements of the California Fire Code through the installation of fire sprinkler systems, fire hydrants, and other applicable requirements. The primarily developed nature of the area surrounding the project site generally precludes the spread of wildfire to the site. Thus, the potential for wildland fires to reach the project site would be low. Based on the above, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, and a less-than-significant impact would occur.

SECTION X. HYDROLOGY AND WATER QUALITY

Would the project:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** During the early stages of construction activities, topsoil would be exposed due to grading and excavation of the site. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality. The State Water Resources Control Board (SWRCB) regulates stormwater discharge associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. Given that the proposed project would disturb more than one acre of land, the proposed construction activities would be subject to applicable SWRCB regulations. For example, the project shall comply the Statewide Construction General Permit No. 2009-009-DWQ (or most current permit). Prior to grading permit issuance, the applicant shall provide the Waste Discharger Identification (WDID) number issued by the SWRCB, and prepare a Storm Water Pollution Prevention Plan (SWPPP). A SWPPP describes Best Management Practices (BMPs) to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project, including post-construction impacts. Compliance with State regulations, including implementation of a SWPPP, would ensure that construction activities associated with the proposed project would not adversely affect water quality. Additionally, the City's Stormwater Management Ordinance (Chapter 14 of the Clearlake Municipal Code) includes regulations and requirements to prevent, control, and reduce stormwater pollutants within the City. The City of Clearlake requires all development projects to use BMPs to treat runoff and ensure that the water quality of the drainage systems within the City is not adversely impacted. Temporary construction phase BMPs may include, but are not limited to, silt fencing, straw wattles, staging areas, tree protection fencing, dust control, and other miscellaneous provisions as required by the regulatory agencies. BMPs would ensure that water quality is not degraded during the construction of the proposed project.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							The proposed project would not involve operations typically associated with the generation or discharge of polluted water. Following project buildout, disturbed areas of the site would be largely covered with impervious surfaces and topsoil would no longer be exposed. Given that the project site is currently undeveloped, development of the proposed project would result in an increase of impervious surfaces on-site. However, stormwater runoff from the new impervious surfaces within the project site would flow into the proposed stormwater drainage system, as well as landscaped areas on-site. During operation, the project would comply with all relevant water quality standards and waste discharge requirements, and would not degrade water quality. Permanent BMPs may include soil stabilization, revegetation, and landscaping of all non-hardscaped disturbed areas of the project site. Based on the above, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Thus, a less-than-significant impact would occur.
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Potable water service for the proposed project would be provided by HMWC. According to a 2021 Drought Contingency Plan prepared by the HMWC, the sole source of water supply for distribution is treated surface water from Clear Lake. As a result, any increase in water demand associated with the proposed project would be primarily met through surface water supply, rather than groundwater. According to the City's General Plan, the City of Clearlake is located within the Burns Valley and Clear Lake Cache Formation groundwater basins. However, the project site represents a relatively small area compared to the overall surface area of the groundwater basins. In addition, a portion of the runoff from the proposed impervious surfaces would percolate through the on-site landscaped areas and recharge the basins. Therefore, any new impervious surfaces associated with the proposed project would not interfere substantially with groundwater recharge within the area. Based on the above, the proposed project would result in a less-than-significant impact with respect to substantially decreasing groundwater supplies, interfering substantially with groundwater recharge, or conflicting with or obstructing implementation of a water quality control plan or sustainable groundwater management plan.
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would: i) result in substantial erosion or siltation on-site or off-site; ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide	☐	☐	☐	☐	☒	☐	**ci-ciii) Less than Significant Impact.** The proposed project would include development of the project site with a hotel, meeting hall, parking lot and associated improvements, as well as the extension of 18th Avenue to connect SR 53 to Old Highway 53. As discussed above, the project site is currently undeveloped and does not contain any impervious surfaces. Therefore, development of the proposed project would result in an increase in impervious surfaces on the project site, which would alter the existing drainage pattern of the site and would result in increased stormwater runoff. However, as discussed above, projects that disturb over one acre of land, including the proposed project, are subject to the NPDES General Permit. The SWPPP required under the NPDES General Permit would prevent substantial on-site erosion and siltation. In addition, a new storm drainage system would be developed within the hotel site, which would provide new storm drain lines throughout the paved areas on-site that would ultimately drain into the new storm drain line within the 18th avenue extension. The various landscaped areas on-site would also provide opportunities for the infiltration of stormwater. The City of Clearlake has been designated as a regulated small MS4 because the City's storm runoff discharges to a sensitive water body (Clear Lake). As such, the proposed project would be subject to the standards established in the MS4 permit, which would require that post-development peak stormwater runoff discharge rates not exceed the estimated pre-development rate. Therefore, the proposed project would not exceed the capacity of existing storm drain infrastructure, cause flooding on- or off-site, or result in off-site erosion or siltation after development of the site, and a less-than-significant impact would occur. **civ) Less than Significant Impact.** Based on the Federal Emergency Management Act (FEMA) Flood Insurance Rate Map (FIRM) Panel 06033C0684D, the project site is shown as being located in Zone X, an area of minimal flood hazard. As such, the proposed project would not include development within a Special Flood Hazard

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
substantial additional sources of polluted run-off; or iv) impede or redirect flood flows?							Area and would not be subject to project-specific design features related to flood hazards. Therefore, development of the proposed project would not impede or redirect flood flows.
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** As discussed above, development of the project would not impede or redirect flood flows. Tsunamis are defined as sea waves created by undersea fault movement. The project site is not located in proximity to a coastline and would not be potentially affected by flooding risks associated with tsunamis. A seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a lake or reservoir. The project site is not located near the shore of Clear Lake, and, therefore, would not be susceptible to impacts from seiches due to seismic activity.
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** The project would not conflict with or obstruct any water quality or groundwater management plans. Additionally, to control runoff, the proposed project would be required to incorporate appropriate BMPs consistent with the City's Municipal Code and State Storm Water Drainage Regulations to prevent or reduce discharge of all construction and post-construction pollutants into the local storm drainage system. See Questions X-a and X-b, above for further discussion.
SECTION XI. LAND USE AND PLANNING *Would the project:*							
a) Physically divide an established community?	☐	☐	☐	☐	☐	☒	**No impact.** A project risks dividing an established community if the project would introduce infrastructure or alter land uses so as to change the land use conditions in the surrounding community, or isolate an existing land use. Currently, the project site is vacant. Surrounding existing uses include single-family residences to the north, east, and west; a convenience store to the southwest, across Old Highway 53; the former Pearce Airport site to the south; and a storage facility further east. The project would not isolate an existing land use. In addition, the proposed roadway extension would provide a new connection for the residents of Clearlake to travel from SR 53 to Old Highway 53. Therefore, the proposed project would not physically divide an established community.
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** The project site is currently designated Commercial per the City's General Plan and is zoned GC, General Commercial. According to the General Plan, anticipated uses for the Commercial designation include retail trade, commercial services, entertainment, restaurants, fast food, and other commercial uses permitted under the Zoning Code. Hotels are a permitted use within the GC zoning district. Additionally, the applicant has applied for a conditional use permit to allow the onsite sales and consumption of alcoholic beverages associated with the hotel development pursuant to Section 18-19.110 of the City Municipal code/Zoning Ordinance. As such, the project would be consistent with the site's current land use and zoning designations. As discussed throughout this Initial Study, the proposed project would not result in any significant environmental effects that cannot be mitigated to a less-than-significant level by the mitigation measures provided herein. In addition, the proposed project would not conflict with City policies and regulations adopted for the purpose of avoiding or mitigating an environmental effect, including, but not limited to, the City's noise standards, applicable SWRCB regulations related to stormwater, and standards set within the City of Clearlake General Plan and General Plan EIR. Therefore, the proposed project would not cause a significant environmental impact in excess of what has already been analyzed and anticipated in the General Plan EIR, and would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
SECTION XII. MINERAL RESOURCES *Would the project:*							
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☐	☐	☒	**No Impact.** According to the City's General Plan, the only active mining taking place within city limits is aggregate mining. However, aggregate mineral resources or other mineral resources of State or local significance are not mapped within the City of Clearlake. **Therefore, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.**
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☐	☐	☐	☐	☒	**No Impact.** See Question XII-a, above.
SECTION XIII. NOISE & VIBRATIONS *Would the project:*							
a) Generate construction noise levels that exceed the Noise Ordinance exterior or interior noise standards at residential properties during the hours that are specified in the City's General Plan Noise Element?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation Measures.** Some land uses are considered more sensitive to noise than others, and, thus, are referred to as sensitive noise receptors. Land uses often associated with sensitive noise receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. The nearest sensitive receptors include existing single-family residences, located approximately 65 feet east, and 150 feet west, of the project site. Table 7.2 of the City's General Plan establishes maximum non-transportation interior and exterior noise level standards for residential land uses within the City. As shown in the table, the City has established a maximum interior noise level standard of 55 decibels (dB) equivalent continuous sound level (L_{eq}) for residential uses, and maximum exterior noise level standards of 55 dB L_{eq} during daytime (7:00 AM to 10:00 PM) hours, and 45 dB L_{eq} during nighttime (10:00 PM to 7:00 AM) hours. As established in Policy NO 1.5.1 of the City's General Plan, for projects that are required by CEQA to analyze noise impacts, a significant impact may occur regarding stationary and non-transportation noise sources if the project results in an exceedance of the noise level standards contained above, or the project would result in an increase in ambient noise levels by more than 3 dB, whichever is greater. In addition, where existing traffic noise levels are less than 60 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +5 dB L_{dn} increase in roadway noise levels would be considered significant; where existing traffic noise levels range between 60 and 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in roadway noise levels would be considered significant; and where existing traffic noise levels are greater than 65 dB L_{dn} at the outdoor activity areas of noise-sensitive uses, a + 1.5 dB L_{dn} increase in roadway noise levels would be considered significant. It should be noted that the standards included in the City's General Plan do not apply to construction activities which are conducted according to City regulations. City regulations for construction activities are contained in Section 5-4 of the Clearlake Municipal Code. As noted therein, noise in excess of 65 dB at a distance within 50 feet of any dwelling or transient accommodation shall not be produced between the hours of 7:00 AM and 10:00 PM, except, pursuant to permission granted by the Building Official in any case where a building permit has been obtained, or by the City Engineer in any case where public work not requiring a building permit is being performed, construction equipment may be operated during daylight hours which produces noise up to a level of 80 dB when measured at a distance of 100 feet from the source. According to the General Plan, compliance

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.

with the City's construction requirements would be sufficient to reduce construction-related noise impacts to a less than significant level.

The following sections provide an analysis of potential noise impacts associated with construction and operation of the proposed project.

Construction Noise

Heavy-duty equipment would be used during construction of the proposed project, which would result in temporary noise level increases. Project haul truck traffic on local roadways would also result in a temporary noise level increase during construction activities. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. Standard construction equipment, such as graders, backhoes, loaders, and haul trucks would be used on-site. Table 6 shows maximum noise levels associated with typical construction equipment.

Table 6
Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Backhoe	78
Compactor	83
Compressor (air)	78
Concrete Saw	90
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Jackhammer	89
Pneumatic Tools	85

Source: Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.

Based on the table, activities involved in typical construction would generate maximum noise levels ranging from 76 to 90 dB at a distance of 50 feet. As noted previously, the construction noise standards established in the Clearlake Municipal Code allow noise levels up to 65 dB within 50 feet of any single-family residential uses.

As one increases the distance between equipment, or increases separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of combining separate noise sources. The noise levels from a source decrease at a rate of approximately 6 dB per every doubling of distance from the noise source. The nearest single-family residence to the east would be approximately 65 feet from the eastern boundary of the project site. As such, construction noise levels associated with the proposed project would be slightly less than the noise levels presented Table 6; however, noise levels would still be above the noise standards established in the City's Municipal Code.

It should be noted that if permission is granted by the Building Official in any case where a building permit has been obtained, or by the City Engineer in any case where public work not requiring a building permit is being performed, construction equipment operated during daylight hours is would be allowed to produce noise up to a level of 80 dB when measured at a distance of 100 feet from the source. The construction equipment at the project site would generate noise levels within 80 dB when measured at a distance of 100 feet from the source, and, thus, would be allowed if permission is granted by the Building Official or City Engineer. However, as permission has not yet been granted, the relevant standard would be the City's 65 dB standard for noise levels within 50 feet of any single-family residential uses

Based on the above, noise levels at the nearest sensitive receptors would be reduced from the noise levels presented in Table 6, but would exceed the noise level thresholds that have been established by the City's Municipal Code. Therefore, the

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							use of noise-dampened equipment would be required during project construction to ensure that a substantial temporary or periodic increase in ambient noise levels in the project vicinity associated with construction of the proposed project would not occur. *Operational Noise* The following includes a discussion of impacts associated with noise generated by the proposed hotel and roadway extension. *Hotel Operations* Operations associated with the proposed hotel would generate noise primarily associated with the on-site meeting hall and rooftop heating, ventilation, and air conditioning (HVAC) units, as well as traffic noise generated by the proposed project. As discussed above, the on-site meeting hall would operate between the hours of 8:00 AM at the earliest to midnight at the latest and would be used for events, including, but not limited to tradeshows, weddings, and conferences. However, events would occur primarily indoors, with the exception of an outdoor patio which would allow for the use of low amplified music until 9:00 PM. The nearest sensitive receptors would be located approximately 170 feet west and 412 feet east of the meeting hall. According to a Noise Study prepared for Placer County which assessed typical sound levels for outdoor events, the typical noise levels generated from a smaller event with amplified speech and music at a distance of 50 feet were 72 dB $L_{eq.}$ As discussed above, the City's maximum interior and daytime exterior noise level standard for residential uses is 55 dB, and the maximum exterior noise level standards during nighttime hours is 45 dB. However, according to Table 7.2 of the City's General Plan, the exterior noise levels shall be lowered by five dB for simple tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises (e.g., humming sounds, outdoor speaker systems). As such, the exterior noise level standards would be adjusted to 50 dB and 40 dB during daytime and nighttime hours, respectively. According to the aforementioned Noise Study, in order for amplified speech/music to be within the 50 dB L_{eq} noise contour, a 550-foot distance between the event and the sensitive receptor would be required. Given that the nearest sensitive receptors are located within 550 feet of the outdoor patio of the meeting hall, outdoor noise associated with events would exceed the City's daytime noise level standard of 50 dB L_{eq} for residential uses. It should be noted that because music would not occur past 9:00 PM, nighttime noise impacts associated with the proposed meeting hall are not anticipated to occur. Nonetheless, because the City's daytime noise level standard of 50 dB L_{eq} for residential uses would be exceeded at the nearest sensitive receptors, Mitigation Measure NOI-2 would be required to ensure impacts associated with the on-site meeting hall are less-than-significant. The proposed project would include roof-top mechanical equipment, such as HVAC systems. Information regarding the type and size of the mechanical equipment units to be used in the project is not currently available. However, typical air conditioning units and heat pumps range from approximately 50 to 60 dBA L_{eq} at a distance of 50 feet. While the nearest residence to the project site is located approximately 70 feet from the eastern project boundary, the proposed hotel building is centrally located within the site, Therefore, the nearest residence would be located approximately 230 feet from the rooftop HVAC equipment. As discussed above, noise levels from a source decrease at a rate of approximately 6 dB per every doubling of distance from the noise source. Therefore, the HVAC equipment noise is not expected to exceed the City's maximum interior noise level standard of 55 dB for residential uses, or maximum exterior noise level standards of 55 dB during daytime (7:00 AM to 10:00 PM) hours, and 45 dB during nighttime (10:00 PM to 7:00 AM) hours. According to the Transportation Impact Study (TIS) prepared for the proposed project, traffic generated by the proposed project would result in approximately 599 daily trips. As shown in Figure 4.12-1(d) of the General Plan EIR, Year 2040 ambient noise level conditions within the project area would be approximately 60

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							to 65 dB L_{dn}, upon full buildout of the General Plan; therefore, the threshold of significance for traffic noise level increases attributable to the proposed project would be 3 dB. Generally, a doubling in traffic volumes is required to increase traffic noise levels by 3.0 dB. According to the General Plan EIR, daily traffic volumes along SR 53 range from 19,000 vehicles per day near the southern end of the roadway to 10,000 vehicles per day near SR 20. Given the relatively small number of trips generated by the proposed project, a reasonable assumption can be made that the proposed project would not be expected to double traffic volumes on local roadways. Thus, the proposed project would not substantially increase traffic noise in the project vicinity. In addition, because the proposed project is consistent with the site's current land use and zoning designation, traffic noise level increases associated with commercial development on the project site have been previously anticipated by the City. *Roadway Extension Operations:* Operations associated with the proposed roadway extension would generate noise associated with vehicle traffic. However, as discussed above, traffic generated by the proposed project would result in approximately 599 daily trips, which would not substantially increase traffic noise in the project vicinity. In addition, according to the Clearlake General Plan, most streets within the City of Clearlake are considered local streets, which are defined as streets that have two lanes and provide access for smaller residential subdivisions which are characteristic of low speed, low-capacity roads that provide direct access to adjacent land uses and are typically meant only for local, as opposed to through traffic. The 18th Avenue extension would be considered a local street, and thus, would not be expected to experience a substantial amount of traffic beyond what is anticipated for the proposed hotel. Furthermore, the nearest sensitive receptor to the proposed roadway would be the single-family residences located approximately 250 feet north of the site. As discussed above, the noise levels from a source decrease at a rate of approximately 6 dB per every doubling of distance from the noise source. **Therefore, traffic noise levels generated by the proposed roadway extension would be substantially reduced at the nearest sensitive receptors.** **As such, the proposed roadway extension would not generate a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and a less-than-significant impact would occur**. **Mitigation Measures:** **NOI-1: Permanent potential noise sources such as, generators used for power shall be designed and located to minimize noise impacts to surrounding properties.** **NOI-2: During construction noise levels shall not exceed 65 decibels within fifty (50) feet of any dwellings or transient accommodations between the hours of 7:00 AM and 6:00 PM. This threshold can be increased by the Building Inspector or City Engineer have approved an exception in accordance with Section 5-4.4(b)(1) of the City Code. An exception of up to 80 decibels may be approved within one hundred (100) feet from the source during daylight hours. Project is expected to result in less than significant impacts with regards to noise and vibration.**
b) Generate a substantial temporary (non- construction) or permanent increase in vibration at existing sensitive receptors in	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
the vicinity of the project site?							Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV. Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 7, which was developed by Caltrans, shows that the vibration levels that would normally be required to result in damage to structures range from 0.2 to 0.6 in/sec PPV.

Table 7
Effects of Vibration on People and Buildings

PPV		Human Reaction	Effect on Buildings
mm/sec	in/sec		
0.15 to 0.30	0.006 to 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of “architectural” damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of “architectural” damage to normal dwelling – houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize “architectural” damage
10 to 15	0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage

***Source:* Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.**

The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration.

The primary vibration-generating activities associated with the proposed project would occur during grading, placement of underground utilities, and construction of foundations. Although noise and vibration associated with the construction of the project would add to the noise and vibration environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Table 8 shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors. Use of vibratory compactors/rollers could be required during construction of the proposed on-site drive aisles and parking areas. However, at a distance of 26 feet or greater, vibration levels from such equipment would be below the 0.20 in/sec threshold recommended by Caltrans.

The proposed construction activities would occur at a distance of approximately 70 feet from the nearest existing single-family residence to the east. According to the vibration levels shown in Table 8, groundborne vibration at the nearest receptor would be below the 0.20 in/sec PPV threshold established by Caltrans for architectural damage to buildings. Therefore, the proposed project would not expose people to or

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							generate excessive groundborne vibration or groundborne noise levels and a less-than-significant impact would occur.

Table 8
Vibration Levels for Various Construction Equipment

Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)	PPV at 100 feet (in/sec)
Large Bulldozer	0.089	0.031	0.011
Loaded Trucks	0.076	0.027	0.010
Small Bulldozer	0.003	0.001	0.000
Auger/drill Rigs	0.089	0.031	0.011
Jackhammer	0.035	0.012	0.004
Vibratory Hammer	0.070	0.025	0.009
Vibratory Compactor/roller	0.210	0.074	0.026

Source: ***Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.***

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
c) For a project located within the vicinity of a private airstrip or 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, would the project expose people residing or working in the project area to excessive noise levels and generate excessive ground borne vibration?	☐	☐	☐	☐	☐	☒	**No Impact.** The nearest airport to the site is Lampson Field Airport, which is located approximately 22 miles west of the site. As such, the project site is not located within the vicinity of a private airstrip, an airport land use plan, or within two miles of a public airport or public use airport. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels or excessive ground borne vibration.

SECTION XIV. POPULATION AND HOUSING

Would the project:

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
a) Induce substantial unplanned population growth in an area, either directly or indirectly?	☐	☐	☐	☐	☐	☒	**No Impact**. The proposed project would include the development of a hotel and roadway extension on a site that is currently designated for commercial uses. Given that the project would not include any residential development, the project would not directly induce population growth. While the proposed project would include the creation of new jobs, which could potentially result in an increase in the housing demand in the area, such an increase would be minimal due to the relatively small scale of the proposed project. In addition, given that the project is consistent with the site's current land use and zoning designations, potential growth associated with development of the site has been anticipated by the City and analyzed in the City of Clearlake General Plan EIR.
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐	☐	☒	**No Impact.** The proposed project would not result in the destruction of any permanent or temporary residences. As such, the proposed project would not displace a substantial number of existing housing or people and would not necessitate the construction of replacement housing elsewhere.

SECTION XV. PUBLIC SERVICES

Would the project:

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for	☐	☐	☐	☐	☒	☐	a-b) **Less Than Significant Impact.** Fire protection services are currently provided to the site by the Lake County Fire Department (LCFPD). The nearest fire station to the project site is Station #71, located approximately 0.7 miles from the project site by way of Old Highway 53. The City of Clearlake Police Department provides police protection services at the project site. The City's Police Department headquarters is located at 14050 Olympic Drive, approximately 2.7 miles from the project site.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services: a) Fire Protection? b) Police Protection? c) Schools? d) Parks? e) Other public facility?							The General Plan EIR determined that implementation of General Plan goals, policies, and actions would ensure that build-out of the General Plan would result in a less than significant impact with respect to fire and police protection services. Furthermore, new or expanded fire protection facilities would not be required as a result of the proposed project. Because the proposed project is consistent with the project site's current General Plan and zoning designations, potential increases in demand for fire and police protection services associated with buildout of the site have been anticipated by the City and analyzed in the General Plan EIR. Furthermore, the project would comply with all applicable State and local requirements related to fire safety and security, including installation of fire sprinklers. Compliance with such standards would minimize fire and police protection demands associated with the project. Therefore, the proposed project would have a less-than-significant impact related to the need for new or physically altered fire or police protection facilities, the construction of which could cause significant environmental impacts. c-e) **Less Than Significant Impact**. The proposed project would not include any residential development and, thus, would not result in population growth such that demand for schools, parks, or other public facilities would increase substantially. In addition, the project would be subject to payment of School Impact Mitigation Development Fees to fund local school services. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[…] legislative or adjudicative act…involving …the planning, use, or development of real property" (Government Code 65996(b)). Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation." Furthermore, the project would be subject to payment of the City's park and recreation facility fee in accordance with Chapter 3-8 of the Clearlake Municipal Code. The fee would help to fund expanded park facilities and services within the City. Therefore, the proposed project would have a less-than-significant impact related to the need for new or physically altered schools, parks, or other public facilities, the construction of which could cause significant environmental impacts.
SECTION XVI. RECREATION *Would the project:*							
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☐	☐	☒	**No Impact.** The proposed project would include the development of a hotel on a site designated for commercial uses. The proposed project would not result in population growth that could result in increased demand on existing recreational facilities or cause the construction or expansion of recreational facilities.
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☐	☐	☒	**No Impact.** See Question XVI-a, above.
SECTION XVII. TRANSPORTATION *Would the project:*							
a) Conflict with a program plan, ordinance or policy addressing the circulation system,	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** The law has changed with respect to how transportation-related impacts may be addressed under CEQA. Traditionally, lead agencies used level of service (LOS) to assess the significance of such impacts, with greater levels of congestion considered to be more significant than lesser levels. Enacted as part of Senate Bill 743 (2013), PRC Section 21099, subdivision (b)(1),

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
including transit, roadway, bicycle, and pedestrian facilities?							directed the Governor's Office of Planning and Research (OPR) to prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed CEQA Guidelines addressing "criteria for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." Pursuant to SB 743, the Natural Resources Agency promulgated CEQA Guidelines Section 15064.3 in late 2018. It became effective in early 2019. Subdivision (a) of that section provides that generally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact." Please refer to Question XVII-b, below, for a discussion of VMT. A TIS was prepared for the proposed project by W-Trans (Attachment D). The TIS included an assessment of potential project-related impacts on transit, bicycle, and pedestrian facilities within the City, as discussed below. <u>Transit Facilities</u> Lake Transit provides fixed route bus service in the City of Clearlake and throughout Lake County. Lake Transit Route 10 provides loop service throughout the western portion of the City and stops on Old Highway 53 at the location of the proposed intersection with the 18th Avenue Extension. Route 10 operates Monday through Friday with approximately one-hour headways between 5:10 AM and 7:10 PM. Route 11 provides loop service in the central portion of the City and stops on 18th Avenue near the intersection with SR 53. Route 11 operates Monday through Friday between 7:20 AM and 5:20 PM. Dial-a-ride, also known as paratransit, or door-to-door service, is available for residents who are unable to independently use the transit system due to a physical or mental disability. Lake Transit Dial-A-Ride and Flex Stops are designed to serve the needs of individuals with disabilities within Clearlake. Existing stops are within an acceptable walking distance of the site and would be reachable upon completion of the proposed sidewalk improvements, and transit ridership generated by the proposed project could be accommodated by existing transit facilities within the City. Therefore, the proposed project would not conflict with a program, plan, ordinance, or policy related to the City's transit facilities. <u>Bicycle Facilities</u> In the project area, Class II bike lanes exist on Old Highway 53 and segments of 18th Avenue, Phillips Avenue, Dam Road, and Garner Avenue. Additional Class II bike lanes are planned on Boyles Avenue. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project study area. As part of the project, Class II bike lanes would be provided on the 18th Avenue Extension. The improvements along 18th Avenue, together with existing bicycle lanes on Old Highway 53 and the planned facilities outlined in the County's Active Transportation Plan would provide adequate access for bicyclists within the project vicinity. Thus, the proposed project would not conflict with a program, plan, ordinance, or policy related to the City's bicycle facilities. <u>Pedestrian Facilities</u> Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting and benches. In general, the sidewalk network surrounding the project site is very limited. Sidewalk gaps along connecting roadways impact convenient and continuous access for pedestrians and may present safety concerns in the locations where appropriate pedestrian infrastructure would address potential conflict points. In general, intermittent sidewalks are provided on the west side of Old Highway 53 north of the project site; however, lighting is not provided. In addition, sidewalks are not currently provided on 18th Avenue or along SR 53, though crosswalks with pedestrian phasing

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							and curb ramps exist on all four legs of the signalized intersection of SR 53 and 18th Avenue. Most hotel guests are expected to use a vehicle to reach the project site, though given the proximity of residential uses surrounding the site, a reasonable assumption can be made that some project employees may want to walk, bicycle, and/or use transit to travel between the project site and surrounding areas. Additionally, once the Airport property is redeveloped, a potential exists for substantial pedestrian travel between the hotel and other commercial and restaurant uses within the Airport redevelopment site. Upon construction of sidewalks along both sides of the extension of 18th Avenue, as proposed, the project site would be connected to the existing and planned pedestrian network. A network of sidewalks would also be provided throughout the project site resulting in connected on-site pedestrian circulation. Therefore, the proposed project would not conflict with a program, plan, ordinance, or policy related to the City's pedestrian facilities. **Conclusion** **Based on the above, a less than significant impact would occur related to conflicting with a program, plan, ordinance, or policy addressing the circulation system, including transit, bicycle, and pedestrian facilities.**
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. The City of Clearlake has not yet adopted a policy or thresholds of significance regarding VMT. Nonetheless, the Governor's Office of Planning and Research (OPR) released a Technical Advisory to evaluate transportation impacts pursuant to CEQA, which includes screening thresholds to identify when a lead agency may screen out VMT impacts. In addition, Vehicle Miles Traveled Regional Baseline Study (RBS) was prepared for the Lake Area Planning Council (LAPC). As such, guidance from the OPR Technical Advisory and RBS were used within the TIS prepared for the proposed project by W-Trans (Attachment D) to assess project-related VMT impacts. Many of the recommendations in the RBS are consistent with the OPR Technical Advisory. As recommended by CEQA, each component of the proposed project was assessed individually, considering the employee and guest uses separately, and are discussed in further detail below. Employee VMT VMT impacts associated with employees of the proposed project were assessed based on guidance contained in the both the Technical Advisory and the County's RBS, which indicate that an employee-based project generating vehicle travel that is 15 or more percent below the existing average countywide VMT per worker may indicate a less-than-significant VMT impact. OPR encourages the use of screening maps to establish geographic areas that achieve the 15 percent below regional average thresholds, allowing jurisdictions to screen projects in specific areas from quantitative VMT analysis because impacts can be presumed to be less than significant. The RBS includes a link to a web-based VMT screening tool that can be used to screen employment-based projects that are located in low VMT-generating areas. The tool uses data from the Wine Country Travel Demand Model (WCTDM) to compare the home-based VMT per worker for the Traffic Analysis Zone (TAZ) in which a study parcel is located to the same measure for the County as a whole. The tool projects the Countywide average baseline VMT per worker to be 12.3 miles per day in 2022. A project generating a VMT that is 15 percent or more below this value, or 10.5 miles per employee or less per day, would have a less-than- significant VMT impact.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							The project site is located within TAZ 1915, which is bounded by Spruce Avenue to the west, Victor Street to the north, the proposed 18th Avenue Extension to the south, and Armijo Avenue to the east, and has a baseline VMT per employee of 6.8 miles per day. Because the per capita VMT ratio is below the significance threshold of 10.5 miles per day, the VMT generated by employees of the proposed project would be considered to have a less-than-significant VMT impact. <u>Guest VMT</u> The OPR Technical Advisory does not specifically address hotel or visitor-based uses, indicating that lead agencies may develop their own thresholds for such land use types and allowing assessment on a case-by-case basis. The proposed hotel requires consideration of the project's intended visitor base and where customers would otherwise have stayed if the project were not constructed. Unless a hotel project also includes construction of a major new attraction or convention component, a hotel alone is unlikely to draw new visitors to the County. Rather, the hotel would just redistribute where visitors stay. The shift in travel patterns and VMT is similar to how OPR considers retail uses, in which many types of retail projects may generally be presumed to have a less-than-significant VMT impact because the total amount of shopping that occurs in a given geographic area tends to remain unchanged, and adding new retail uses to the urban fabric often reduces the distances (i.e., the "miles" in VMT) that people need to drive on shopping trips. The City of San Jose was an early adopter of VMT thresholds and has chosen to apply the methodology of treating lodging uses similarly to retail, where small- to mid-sized hotels and other lodging uses can be expected to shift travel patterns rather than generate new VMT and can generally be presumed to have a less-than-significant transportation-related VMT impact. The OPR Technical Advisory notes that retail development including stores less than 50,000 sf can generally be considered local-serving. The proposed hotel would consist of 44,158 sf, with an additional 4,244 sf meeting hall. As a result, the project would be below 50,000 sf and, therefore, would be considered local-serving. The proposed hotel would be operated by Marriott under the "Fairfield Inn" line, which are self-described business hotels. The Fairfield Inn website states the goal of the hotel is to provide "simple, straightforward, and stress-free experiences that the brand is known for." Business hotels are typically chosen out of convenience and proximity to the travelers' destination, and are not considered a destination themselves, as opposed to a resort-style hotel which could be considered a destination. While larger resort hotels have the potential to generate interregional trips specifically for the purpose of visiting the hotel, business hotels typically do not. Further, several other existing hotels are located near Lakeshore Drive to the north of the project site, which indicates that future guests of the proposed hotel would likely shift from staying at one of the other nearby hotels. Finally, the project would be anticipated to generate predominantly business travelers whose travel patterns could reasonably be expected to be similar to employees, which have been identified as having a less-than- significant VMT impact. Given the aforementioned characteristics, W-Trans determined that few, if any, net new hotel guest trips added to the Lake County region would be exclusively attributable to the project. Accordingly, guests of the proposed hotel project would be expected to result in a less-than-significant VMT impact. **<u>Conclusion</u>** **Based on the above, the proposed project is presumed to have a less-than-significant impact on VMT, and the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).**
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** The Transportation Impact Analysis prepared for the proposed project included an evaluation of traffic safety issues in terms of the adequacy of sight distance and need for turn lanes at the project access as well as the adequacy of stacking space in dedicated turn lanes at the study intersections to accommodate additional queuing due to adding project-generated trips.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							The project site would be accessed through a driveway on the north side of the new 18th Avenue Extension. The driveway would be located approximately 300 feet east of the proposed Old Highway 53/18th Avenue Extension intersection. <u>Sight Distance</u> Sight distances along Old Highway 53 at the proposed intersection with 18th Avenue near J & L Market and along 18th Avenue at the project driveway were evaluated based on sight distance criteria contained in the Caltrans Highway Design Manual. For the posted speed limit of 35 miles per hour (mph) on Old Highway 53, the minimum corner sight distance needed at the proposed intersection is 385 feet. Sight lines were field measured to extend approximately 400 feet in each direction, which is adequate for the posted speed limit. Additionally, adequate stopping sight distances are available for following drivers to notice and react to a preceding motorist slowing to turn right or stopped waiting to turn left onto 18th Avenue. While 18th Avenue does not have a posted speed limit, travel speeds are anticipated to be 25 to 35 mph so a design speed of 35 mph was used to evaluate the adequacy of stopping sight distance at the proposed hotel driveway location. For speeds of 35 mph, the minimum stopping sight distance needed is 250 feet. According to W-Trans, sight lines would extend at least 300 feet in each direction given the straight orientation of 18th Avenue, which would be more than adequate for anticipated travel speeds. <u>Left-Turn Lane Warrants</u> The need for a left-turn lane on the 18th Avenue Extension at the project driveway and on Old Highway 53 at the intersection with the 18th Avenue Extension were evaluated based on criteria contained in the National Cooperative Highway Research Program (NCHRP) Intersection Channelization Design Guide, as well as an update of the methodology developed by the Washington State Department of Transportation and published in the *Method for Prioritizing Intersection Improvements.* Using Future plus Project volumes, which represent worst-case conditions, the TIS determined that a left-turn lane would not be warranted on the 18th Avenue Extension at the project driveway. However, a left-turn lane would be warranted on Old Highway 53 at the intersection with 18th Avenue. Therefore, the TIS recommended that the intersection be designed to include a southbound left-turn lane on Old Highway 53. As shown on Figure 14 of this Initial Study, the proposed project would include the construction of a left-turn lane, as recommended by the TIS. *Left-Turn Lane Design Requirements* In order to determine the necessary storage length for the left-turn lane on Old Highway 53, the projected maximum left-turn queue was determined using a methodology contained in Institute of Transportation Engineers (ITE) Estimating Maximum Queue Length at Unsignalized Intersections Report. Under Future plus Project volumes, the maximum southbound left-turn queue on Old Highway 53 would be less than three vehicles. Therefore, the TIS recommended that the storage be based on three passenger vehicles, or 75 feet. *<u>Queuing</u>* The City of Clearlake does not prescribe thresholds of significance regarding queue lengths. However, an increase in queue length due to project traffic was considered a potentially significant impact if the increase would cause the queue to extend out of a dedicated turn lane into a through traffic lane where moving traffic would be impeded, or the back of queue into a visually restricted area, such as a blind corner. As presented in the TIS, the existing turn lanes at the SR 53/18th Avenue intersection are expected to have adequate storage capacity to accommodate queuing under all scenarios. Therefore, the proposed project would not be expected to cause any queues to exceed available storage or extend into an adjacent intersection, so the impact is considered less than significant.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							<u>**Conclusion**</u> **Based on the above, the proposed project would not result in impacts related to sight distance or queueing. However, a left-turn lane would be warranted on Old Highway 53 at the intersection with 18th Avenue. Nonetheless, the project would include the construction of a left-turn lane, as recommended by the TIS. Therefore, impacts would be less-than-significant.**
d) Result in inadequate emergency access?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact.** Emergency response vehicles would access the project site from the 18th Avenue Extension through the project driveway, which would have a width of 30 feet. A 30-foot driveway would be adequate to satisfy the required minimum driveway width of 24 feet set forth in the City of Clearlake's Design and Construction Standards. On-site circulation would include a 25-foot drive aisle, which also exceeds the minimum width of 24 feet. In addition, all aspects of the site including driveway widths and parking lot circulation would be designed in accordance with applicable standards; therefore, access would be expected to function acceptably for emergency response vehicles. While the proposed project would be expected to result in a minor increase in delay for traffic on SR 53 at the 18th Avenue intersection, emergency response vehicles can claim the right-of-way by using lights and sirens; therefore, the project would be expected to have a nominal effect on emergency response times. It should also be noted that the proposed extension of 18th Avenue to Old Highway 53 would be expected to shift some trips away from the SR 53 intersections with Lakeshore Drive and Dam Road; therefore, reducing delay at the intersections and potentially improving emergency response times. Further, the new section of 18th Avenue would be a more direct route to many homes on the west side of SR 53 south of Lakeshore Drive and north of Dam Road so the emergency response times to dwellings in the area would likely be improved. **Conclusion: Based on the above, emergency access and on-site circulation are anticipated to function acceptably with incorporation of applicable design standards into the site layout, and traffic from the proposed project is expected to have a less-than- significant impact on emergency response times.**
SECTION XVIII. TRIBAL CULTURAL RESOURCES *Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:*							
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** As discussed in Section V, Cultural Resources, of this IS/MND the Cultural Resource Investigation prepared for the proposed project included a records search and literature review. In addition, in compliance with the City's Native American Tribal Consultation Program, Sub-Terra initiated tribal coordination with the Koi Nation of California to request any information that tribal representatives might provide regarding the cultural significance of the project area, and any interests or concerns the tribe may express regarding the project activity. Representatives of the Koi Nation expressed concern regarding a home that was historically occupied by a tribal member within the project vicinity. However, the home was located approximately 0.2-mile south of the project area. Nonetheless, the tribe asked that the City proceed with all due caution, and to continue coordination with the Koi Nation Tribal Council on all work scheduled for the proposed project. In compliance with AB 52 (Public Resources Code Section 21080.3.1), notification of the project was sent to local tribes by the City of Clearlake. The Habemetotel tribe requested consultation which occurred in March 2022. Although the project area has been subject to a records search and an archeological field survey, and tribal cultural resources were not discovered on the project site, unknown tribal cultural resources have the potential to be uncovered during ground-disturbing activities at the proposed project site. Therefore, the proposed project could result in a substantial adverse change in the significance of a tribal cultural resource. Compliance with Mitigation Measures CUL-1 and CUL-2, as described in Section V, above, would be required to ensure impacts would be less than significant.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							<u>**Mitigation Measures:**</u> **All potential impacts have been reduced to less than significant levels with the incorporated mitigation Measures GEO-1 through GEO-5 and CUL-1 through CUL-4.**
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** See Question XVIII-a, above. <u>**Mitigation Measures:**</u> **All potential impacts have been reduced to less than significant levels with the incorporated mitigation Measures GEO-1 through GEO-5 and CUL-1 through CUL-4.**
SECTION XIX. UTILITIES AND SERVICE SYSTEMS *Would the project:*							
a) Require the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, or natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Utilities developed as part of the proposed roadway extension would include water, sewer, and storm drainage by way of an extension of a 10-inch water line, a 6-inch sanitary sewer line, a 10-inch sanitary sewer line, a 12-inch sanitary sewer force main, and storm drain utilities. All utility mains would extend from SR 53 to Old Highway 53. The physical impacts associated with such utility infrastructure have been addressed throughout this IS/MND. All utilities for the proposed hotel would be provided by way of connections to the new utility infrastructure located within the 18th Avenue extensions, as well as existing infrastructure located within the project vicinity. In addition, the proposed project is consistent with the project site's General Plan land use designation, so utility demand for the proposed project has generally been anticipated by the City. Therefore, the proposed project would result in a less-than-significant impact related to the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** The proposed project would be served potable water by Highlands Mutual Water Company (HMWC), which services residential and non-residential customers within the central portion of the City of Clearlake. HMWC supplies customers with treated surface water from nearby Clear Lake through the use of four water storage tanks and over 42 miles of pipelines throughout the service area. According to the HMWC 2021 Drought Contingency Plan, the HMWC has implemented a four-stage process to combat drought conditions. The four stages are as follows: • Stage 1 – Voluntary conservation and compliance with State conservation regulations and requirements. Emphasis on community awareness and outreach. • Stage 2 – Initiate mandatory conservation measures (implement of a surcharge for violations must be through a "Water Waste" Urgency Ordinance). • Stage 3 – Through additional Urgency Ordinances, implement additional mandatory conservation measures including but not limited to revised water rates (base and usage) to financially discourage non-essential water use and surcharges for usage over designated threshold.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
							• Stage 4 – Implement Urgency Ordinance with stringent consumption tiers, limits, and penalties. The stages are typically seasonal; however, if the HWMC service area experiences additional dry periods, or ongoing capacity issues, the stages could remain in effect for a longer period of time. In 2006, a Water Demand Forecast was prepared for Lake County by the Lake County Watershed Protection District. The Water Demand Forecast was based on information provided in the County's Water Inventory and Analysis report, which analyzed water resources within the County. Based on the Water Demand Forecast, urban water demand was anticipated to increase 81 percent, from 10,900 acre-feet per year in 2000 to 19,738 acre-feet per year by the year 2040. However, the Water Demand Forecast used a high population projection estimate that the City of Clearlake would grow to 20,196 residents by 2040, as compared to the projected population of 18,702 residents anticipated by the City's 2040 General Plan. Therefore, the General Plan EIR concluded that because the County anticipated a much larger population growth than what was anticipated for buildout of the City's General Plan, water purveyors would be prepared to provide services for the City, and with implementation of General Plan policies, which would help to further reduce water consumption within the City, a less-than-significant impact would occur. The proposed project would include development of the project site with a hotel, consistent with the site's current General Plan land use and zoning designations. Given that the project is consistent with the City's General Plan, water demand associated with buildout of the project site with commercial uses has been anticipated by the City and accounted for in regional planning efforts, including the Water Demand Forecast. In addition, the project would comply with Section 18-20.130 of the City's Municipal Code, which contains the City's Water Efficient Landscape Ordinance. Therefore, HMWC would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years, and a less-than-significant impact would occur.
c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** The Lake County Sanitation District (LACOSAN) provides wastewater services in the City of Clearlake. The City of Clearlake is within the Southeast Regional Wastewater Collection and Treatment System of the LACOSAN. According to the City's General Plan EIR, full buildout of the General Plan could potentially result in an increased sewer treatment demand at Southeast Regional Wastewater Treatment Plant (SRWTP). The SRWTP has a permitted monthly average wet weather flow of 6.1 million gallons per day (mgd), and a permitted daily maximum wet weather flow of 8.5 mgd; however, wet weather flows typically average between two and three mgd during wet weather months, with a peak flow of 6.2 mgd. Given the available monthly average wet weather capacity of 3.1 mgd, and the maximum wet weather capacity of 2.3 mgd, the General Plan EIR determined that an increase of one mgd that would result from the General Plan buildout could be accommodated without expanded capacity and facilities. The proposed project is consistent with the site's current General Plan land use designation. Thus, the demand for wastewater collection and treatment facilities associated with buildout of the site have been anticipated by the City and analyzed in the General Plan EIR. **Conclusion: Based on the above, the City would have adequate capacity to serve the wastewater demand projected for the proposed project in addition to the City's existing commitments, and a less-than-significant impact would occur.**
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** Solid waste, recyclable materials, and compostable material collection within the project area is provided by Clearlake Waste Solutions. The nearest active landfill to the project site is Eastlake Landfill in Clearlake, California, located approximately 28 miles from the site. The Eastlake Landfill has a daily permitted disposal of approximately 200 tons per day, and a maximum permitted capacity of 6.05 million cubic yards. The Eastlake Landfill is expected to remain active until the year 2023, and has a remaining capacity of approximately

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
attainment of solid waste reduction goals?							2.86 million cubic yards. However, the Lake County Public Services Department is proposing an expansion of the Landfill to extend the landfill's life to approximately the year 2046; increasing the landfill footprint from 35 acres to 56.6 acres. The expansion is proposed to begin in 2023 and will take place in phases, with modules constructed every four to nine years. Pursuant to the CALGreen Code, at least 65 percent diversion of construction waste is required for projects permitted after January 1, 2017. Because the project would only create a temporary increase in the amount of waste during construction activities, the proposed project would not result in a significant impact related to solid waste generation during construction. With respect to operational solid waste generation, the proposed project would not be expected to generate substantial amounts of solid waste due to the relatively small scale of the project. In addition, because the proposed project is consistent with the project site's current General Plan land use and zoning designations, the proposed project would not result in increased solid waste generation beyond what has been previously anticipated for the site by the City and analyzed in the General Plan EIR. **Therefore, the proposed project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals and would comply with federal, State, and local management and reduction statutes and regulations related to solid waste. Therefore, a less-than-significant impact would occur.**
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact.** See Question XIX, d, above.

SECTION XX. WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐	☒	☐	**Less Than Significant Impact**. The project site is not located within a Very High Fire Hazard Severity Zone nor within a State Responsibility Area (SRA). Additionally, the proposed project would be required to comply with all applicable requirements of the California Fire Code through the installation of fire sprinkler systems, fire hydrants, and other applicable requirements. The developed nature of the area surrounding the project site generally precludes the spread of wildfire to the site. Thus, the potential for wildland fires to reach the project site would be low. According to the TIS, all study intersections are expected to operate at acceptable Levels of Service under Existing, near-term Baseline, and Future conditions with and without the addition of trips from the proposed project assuming implementation of side-street stop controls at the proposed Old Highway 53/18th Avenue Extension intersection. In addition, the proposed roadway extension would have the potential to provide an additional evacuation route in the event of an emergency. Therefore, the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan.
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the	☐	☐	☐	☐	☒	☐	**Less than Significant Impact**. See Question XX-a, above. The proposed project would not exacerbate wildfire risks and/or expose persons to pollutant concentrations in the event of a wildfire in the area. Additionally, the project would be required to adhere to all Federal, State, and local fire requirements/regulations related to the use of hazardous and/or flammable materials, including all mitigation measures and/or conditions of approval imposed on such use.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
uncontrolled spread of a wildfire?							
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact**. See Question XX-a, above. All infrastructure would be routinely maintained to ensure all Federal, State, and local agency requirements are being satisfied, including all necessary City Codes and/or regulations. Additionally, the proposed project would not include the installation of any infrastructure (i.e., overhead power lines) that would exacerbate fire risk. Furthermore, the construction of fire breaks or fire access roads which could result in temporary or ongoing impacts to the environment would not be required as part of the proposed project.
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	☐	☒	☐	**Less than Significant Impact**. See Question XX-a, above. The project site is not located within the direct vicinity of known waterways, nor is the site located within a designated flood zone. Therefore, the risk of flooding/runoff, landslides, slope instability, or drainage changes would not be increased due to the proposed project.
SECTION XXI. MANDATORY FINDINGS OF SIGNIFICANCE							
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** As discussed in Section IV, Biological Resources, of this IS/MND, while the potential exists for special-status plant species, as well as nesting birds and raptors protected by the MBTA, to occur on-site, Mitigation Measures BIO-1 through BIO-4 would ensure that impacts to special-status species would be less than significant. The project site is disturbed and does not contain any known historical resources. However, given that unknown cultural resources have the potential to exist on-site, Mitigation Measures CUL-1 and CUL-2 would ensure that impacts to cultural resources would be less-than-significant. Considering the above, the proposed project would not result in impacts associated with the following: 1) degrade the quality of the environment; 2) substantially reduce or impact the habitat of fish or wildlife species; 3) cause fish or wildlife populations to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history or prehistory. Therefore, with mitigation incorporated, a less-than-significant impact would occur.
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** The proposed project in conjunction with other development within the City of Clearlake could incrementally contribute to cumulative impacts in the project area. However, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of project implementation would be reduced to a less-than-significant level through compliance with the mitigation measures included in this IS/MND, as well as applicable General Plan policies, Municipal Code standards, and other applicable local and State regulations.

IMPACT CATEGORIES*	1	2	3	4	5	6	All determinations need explanation. Reference to documentation, sources, notes and correspondence.
with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)							Therefore, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not result in a cumulatively considerable contribution to cumulative impacts in the City of Clearlake, and the project's incremental contribution to cumulative impacts would be less than significant with mitigation incorporated.
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐	☐	☐	**Less than Significant Impact with Mitigation.** As described in this IS/MND, the proposed project would comply with all applicable General Plan policies, Municipal Code standards, other applicable local and State regulations, in addition to the mitigation measures included herein. Additionally, as discussed in Section III, Air Quality, Section IX, Hazards and Hazardous Materials, and Section XIII, Noise, of this IS/MND, the proposed project would not cause substantial effects to human beings, including effects related to exposure to air pollutants and hazardous materials, with mitigation incorporated.

INITIAL STUDY SUMMARY: Based on the review of the proposed project site and surrounding area, appropriate mitigation measures were identified to mitigate potentially significant impacts to a level below adversity for Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology & Soils, Noise & Vibration, and Tribal Cultural Resources. Assuming implementation of the identified measures and standard conditions of project approval of the City of Clearlake and other pertinent agencies, no adverse impacts are anticipated.

Attachment A

Air Quality and Greenhouse Gas Modeling Results

Clearlake Airport Property Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Clearlake Airport Property
Lead Agency	City of Clearlake
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	9.20
Location	6356 Armijo Ave, Clearlake, CA 95422, USA
County	Lake
City	Clearlake
Air District	Lake County AQMD
Air Basin	Lake County
TAZ	240
EDFZ	2
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric

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
Road Construction	0.20	Mile	1.65	0.00	—	—	—	—
Hotel	75.0	Room	1.82	48,402	27,453	—	—	—
Parking Lot	109	Space	0.98	0.00	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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.17	10.0	56.9	54.6	0.11	2.54	351	354	2.34	37.9	40.3	—	11,591	11,591	0.41	0.37	4.95	11,716
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.54	10.0	41.6	43.2	0.08	1.75	208	209	1.61	20.8	22.4	—	8,831	8,831	0.36	0.11	0.06	8,873
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.07	2.63	7.91	8.59	0.01	0.35	47.8	48.1	0.33	4.91	5.24	—	1,636	1,636	0.07	0.03	0.25	1,647
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	0.48	1.44	1.57	< 0.005	0.06	8.72	8.78	0.06	0.90	0.96	—	271	271	0.01	< 0.005	0.04	273

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2023	7.17	10.0	56.9	54.6	0.11	2.54	351	354	2.34	37.9	40.3	—	11,591	11,591	0.41	0.37	4.95	11,716
2024	1.82	6.90	12.6	16.2	0.03	0.53	112	113	0.49	11.2	11.7	—	2,930	2,930	0.12	0.06	1.39	2,951
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	5.54	10.0	41.6	43.2	0.08	1.75	208	209	1.61	20.8	22.4	—	8,831	8,831	0.36	0.11	0.06	8,873
2024	1.82	6.91	12.6	16.1	0.03	0.53	112	113	0.49	11.2	11.7	—	2,924	2,924	0.12	0.06	0.04	2,944
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.07	2.08	7.91	8.59	0.01	0.35	47.8	48.1	0.33	4.91	5.24	—	1,636	1,636	0.07	0.03	0.25	1,647
2024	0.65	2.63	4.58	5.81	0.01	0.19	40.8	40.9	0.18	4.08	4.26	—	1,055	1,055	0.04	0.02	0.22	1,062
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.20	0.38	1.44	1.57	< 0.005	0.06	8.72	8.78	0.06	0.90	0.96	—	271	271	0.01	< 0.005	0.04	273
2024	0.12	0.48	0.84	1.06	< 0.005	0.04	7.44	7.47	0.03	0.75	0.78	—	175	175	0.01	< 0.005	0.04	176

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.09	6.19	2.96	21.8	0.03	0.07	95.0	95.0	0.07	14.4	14.5	25.8	3,198	3,224	2.88	0.17	86.6	3,434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.86	5.98	2.97	18.8	0.03	0.06	95.0	95.0	0.06	14.4	14.5	25.8	3,144	3,169	2.88	0.17	75.9	3,369
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.53	5.62	3.21	20.5	0.03	0.07	95.0	95.0	0.06	14.4	14.5	25.8	3,092	3,118	2.90	0.18	80.4	3,325

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.83	1.03	0.58	3.74	< 0.005	0.01	17.3	17.3	0.01	2.63	2.64	4.27	512	516	0.48	0.03	13.3	551

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.68	4.46	2.57	19.4	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,542	2,542	0.22	0.16	10.9	2,607
Area	0.37	1.71	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	5.09	6.19	2.96	21.8	0.03	0.07	95.0	95.0	0.07	14.4	14.5	25.8	3,198	3,224	2.88	0.17	86.6	3,434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.82	4.60	2.59	18.5	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,496	2,496	0.22	0.16	0.28	2,550
Area	—	1.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	4.86	5.98	2.97	18.8	0.03	0.06	95.0	95.0	0.06	14.4	14.5	25.8	3,144	3,169	2.88	0.17	75.9	3,369
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	4.30	4.07	2.82	19.1	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,440	2,440	0.24	0.17	4.71	2,502
Area	0.18	1.53	0.01	1.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.27	4.27	< 0.005	< 0.005	—	4.28
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	4.53	5.62	3.21	20.5	0.03	0.07	95.0	95.0	0.06	14.4	14.5	25.8	3,092	3,118	2.90	0.18	80.4	3,325
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.78	0.74	0.51	3.49	< 0.005	0.01	17.3	17.3	0.01	2.63	2.63	—	404	404	0.04	0.03	0.78	414
Area	0.03	0.28	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	107	107	0.01	< 0.005	—	107
Water	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19
Waste	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Total	0.83	1.03	0.58	3.74	< 0.005	0.01	17.3	17.3	0.01	2.63	2.64	4.27	512	516	0.48	0.03	13.3	551

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314

Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.33	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.5	43.5	< 0.005	< 0.005	—	43.7
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.21	7.21	< 0.005	< 0.005	—	7.23
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.10	1.45	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	150	150	0.01	0.01	0.68	152
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.16	1.16	< 0.005	< 0.005	< 0.005	1.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.94	0.87	—	0.87	—	2,958	2,958	0.12	0.02	—	2,968
Dust From Material Movement	—	—	—	—	—	—	7.09	7.09	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.38	< 0.005	0.02	—	0.02	0.02	—	0.02	—	56.7	56.7	< 0.005	< 0.005	—	56.9
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.39	9.39	< 0.005	< 0.005	—	9.42
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.09	1.24	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	128	128	0.01	< 0.005	0.58	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	0.04	2.91	0.32	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	1,729	1,729	< 0.005	0.27	3.14	1,813
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.32	2.32	< 0.005	< 0.005	< 0.005	2.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	33.2	33.2	< 0.005	0.01	0.03	34.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.49	5.49	< 0.005	< 0.005	< 0.005	5.75

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	2.87	3.20	0.01	0.13	—	0.13	0.12	—	0.12	—	582	582	0.02	< 0.005	—	584
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.07	0.06	0.52	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	96.3	96.3	< 0.005	< 0.005	—	96.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.12	1.68	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	174	174	0.01	0.01	0.79	177
Vendor	0.01	0.01	0.37	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	195	195	< 0.005	0.03	0.50	204
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.17	0.12	1.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	169	169	0.01	0.01	0.02	172
Vendor	0.01	0.01	0.38	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	195	195	< 0.005	0.03	0.01	204
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.36	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	39.7	39.7	< 0.005	< 0.005	0.08	40.7
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	47.4	47.4	< 0.005	0.01	0.05	49.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.57	6.57	< 0.005	< 0.005	0.01	6.74
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.84	7.84	< 0.005	< 0.005	0.01	8.19
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.43	4.04	4.72	0.01	0.18	—	0.18	0.16	—	0.16	—	863	863	0.04	0.01	—	866
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.74	0.86	< 0.005	0.03	—	0.03	0.03	—	0.03	—	143	143	0.01	< 0.005	—	143
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.11	1.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	171	171	0.01	0.01	0.74	174
Vendor	0.01	0.01	0.35	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	193	193	< 0.005	0.03	0.50	202
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.11	1.43	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	166	166	0.01	0.01	0.02	169
Vendor	0.01	0.01	0.36	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	193	193	< 0.005	0.03	0.01	202
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.49	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	57.9	57.9	< 0.005	< 0.005	0.12	58.8
Vendor	< 0.005	< 0.005	0.13	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	69.6	69.6	< 0.005	0.01	0.08	72.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	9.58	9.58	< 0.005	< 0.005	0.02	9.74
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.01	12.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.79	7.13	8.89	0.01	0.35	—	0.35	0.32	—	0.32	—	1,351	1,351	0.05	0.01	—	1,356
Paving	—	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.7	40.7	< 0.005	< 0.005	—	40.9
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.74	6.74	< 0.005	< 0.005	—	6.76
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.12	1.66	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	171	171	0.01	0.01	0.77	174
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.85	4.85	< 0.005	< 0.005	0.01	4.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.82
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.20	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.7	28.7	< 0.005	< 0.005	—	28.8

Architect Coatings	—	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.76	4.76	< 0.005	< 0.005	—	4.77
Architect ural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.34	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.8	34.8	< 0.005	< 0.005	0.16	35.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	33.9	33.9	< 0.005	< 0.005	< 0.005	34.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	7.05	7.05	< 0.005	< 0.005	0.01	7.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.17	1.17	< 0.005	< 0.005	< 0.005	1.20

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.35	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	51.7	51.7	< 0.005	< 0.005	—	51.9

Architectural Coatings	—	2.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.57	8.57	< 0.005	< 0.005	—	8.59
Architectural Coatings	—	0.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.2	34.2	< 0.005	< 0.005	0.15	34.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	33.3	33.3	< 0.005	< 0.005	< 0.005	33.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	12.5	12.5	< 0.005	< 0.005	0.02	12.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.06	2.06	< 0.005	< 0.005	< 0.005	2.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Linear, Grubbing & Land Clearing (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	3.95	3.56	< 0.005	0.28	—	0.28	0.25	—	0.25	—	491	491	0.02	< 0.005	—	492
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.72	6.72	< 0.005	< 0.005	—	6.74
Dust From Material Movement	—	—	—	—	—	—	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	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.11	1.11	< 0.005	< 0.005	—	1.12
Dust From Material Movement	—	—	—	—	—	—	< 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	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.41	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	42.8	42.8	< 0.005	< 0.005	0.19	43.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Linear, Grading & Excavation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.30	3.62	33.7	30.9	0.06	1.56	—	1.56	1.44	—	1.44	—	6,495	6,495	0.26	0.05	—	6,518
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.24	2.22	2.03	< 0.005	0.10	—	0.10	0.09	—	0.09	—	427	427	0.02	< 0.005	—	429
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.37	< 0.005	0.02	—	0.02	0.02	—	0.02	—	70.7	70.7	< 0.005	< 0.005	—	71.0
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.24	0.18	2.48	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	257	257	0.02	0.01	1.16	261
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	24.6	24.6	< 0.005	< 0.005	0.06	25.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.14	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	15.9	15.9	< 0.005	< 0.005	0.03	16.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.69
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.63	2.63	< 0.005	< 0.005	0.01	2.69
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Linear, Drainage, Utilities, & Sub-Grade (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.40	2.85	28.2	25.0	0.05	1.16	—	1.16	1.06	—	1.06	—	5,693	5,693	0.23	0.05	—	5,712

Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.40	2.85	28.2	25.0	0.05	1.16	—	1.16	1.06	—	1.06	—	5,693	5,693	0.23	0.05	—	5,712
Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.24	1.10	< 0.005	0.05	—	0.05	0.05	—	0.05	—	250	250	0.01	< 0.005	—	250
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.23	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.3	41.3	< 0.005	< 0.005	—	41.5
Dust From Material Movement	—	—	—	—	—	—	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	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.20	0.15	2.07	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	214	214	0.01	0.01	0.97	218
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.21	0.15	1.91	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	208	208	0.01	0.01	0.03	211
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.82	8.82	< 0.005	< 0.005	0.02	9.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.46	1.46	< 0.005	< 0.005	< 0.005	1.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Linear, Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	1.00	8.46	10.9	0.01	0.43	—	0.43	0.39	—	0.39	—	1,620	1,620	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.19	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.5	35.5	< 0.005	< 0.005	—	35.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.88	5.88	< 0.005	< 0.005	—	5.90
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.10	1.34	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	146	146	0.01	0.01	0.02	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.09	3.09	< 0.005	< 0.005	0.01	3.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	4.68	4.46	2.57	19.4	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,542	2,542	0.22	0.16	10.9	2,607
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.68	4.46	2.57	19.4	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,542	2,542	0.22	0.16	10.9	2,607
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	4.82	4.60	2.59	18.5	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,496	2,496	0.22	0.16	0.28	2,550
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.82	4.60	2.59	18.5	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,496	2,496	0.22	0.16	0.28	2,550
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.78	0.74	0.51	3.49	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	404	404	0.04	0.03	0.78	414

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.78	0.74	0.51	3.49	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	404	404	0.04	0.03	0.78	414

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.03	< 0.005	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	20.9	20.9	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.03	< 0.005	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	20.9	20.9	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	28.7	28.7	< 0.005	< 0.005	—	29.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.46	3.46	< 0.005	< 0.005	—	3.50
Total	—	—	—	—	—	—	—	—	—	—	—	—	32.2	32.2	0.01	< 0.005	—	32.5

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	0.01	< 0.005	—	74.6
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	0.01	< 0.005	—	74.6

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.37	0.35	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Total	0.37	12.4	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	12.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	0.03	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Total	0.03	0.87	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	8/1/2023	8/3/2023	5.00	3.00	—
Grading	Grading	8/4/2023	8/14/2023	5.00	7.00	—
Building Construction	Building Construction	8/30/2023	7/2/2024	5.00	220	—
Paving	Paving	8/15/2023	8/29/2023	5.00	11.0	—
Architectural Coating	Architectural Coating	9/13/2023	7/16/2024	5.00	220	—
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	8/1/2023	8/8/2023	5.00	5.00	—
Linear, Grading & Excavation	Linear, Grading & Excavation	8/9/2023	9/11/2023	5.00	24.0	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	9/12/2023	10/4/2023	5.00	16.0	—
Linear, Paving	Linear, Paving	10/5/2023	10/16/2023	5.00	8.00	—

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
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	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	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	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
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38

Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82

Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backh	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.1	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.35	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	10.1	LDA,LDT1,LDT2
Grading	Vendor	—	7.35	HHDT,MHDT
Grading	Hauling	23.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	20.3	10.1	LDA,LDT1,LDT2
Building Construction	Vendor	7.93	7.35	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT

Paving	—	—	—	—
Paving	Worker	20.0	10.1	LDA,LDT1,LDT2
Paving	Vendor	—	7.35	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.07	10.1	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.35	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	5.00	10.1	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	—	7.35	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	30.0	10.1	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	7.35	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	25.0	10.1	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	—	7.35	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	17.5	10.1	LDA,LDT1,LDT2

Linear, Paving	Vendor	—	7.35	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	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	74,526	24,842	2,564

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	4.50	0.00	—
Grading	1,300	—	7.00	0.00	—
Paving	0.00	0.00	0.00	0.00	2.63
Linear, Grubbing & Land Clearing	—	—	1.65	0.00	—
Linear, Grading & Excavation	—	—	1.65	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	—	—	1.65	0.00	—

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
Road Construction	1.65	100%
Hotel	0.00	0%
Parking Lot	0.98	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	204	0.03	< 0.005
2024	0.00	204	0.03	< 0.005

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
Hotel	599	599	599	218,726	2,622	2,622	2,622	956,948
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

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	74,526	24,842	2,564

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)
Hotel	310,445	204	0.0330	0.0040	1,401,916
Parking Lot	37,434	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Hotel	1,902,508	262,390
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Hotel	41.1	0.00
Parking Lot	0.00	0.00

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
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	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)

5.17. User Defined

Equipment Type	Fuel Type
—	—

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	15.7	annual days of extreme heat
Extreme Precipitation	15.9	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	22.3	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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
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	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	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 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	16.8
AQ-PM	0.19
AQ-DPM	37.4
Drinking Water	64.2
Lead Risk Housing	63.1

Pesticides	43.4
Toxic Releases	0.74
Traffic	20.4
Effect Indicators	—
CleanUp Sites	71.6
Groundwater	59.6
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	51.2
Solid Waste	80.5
Sensitive Population	—
Asthma	97.4
Cardio-vascular	81.7
Low Birth Weights	90.6
Socioeconomic Factor Indicators	—
Education	63.4
Housing	81.8
Linguistic	4.59
Poverty	98.0
Unemployment	99.4

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	3.002694726
Employed	1.591171564
Education	—

Bachelor's or higher	11.36917747
High school enrollment	100
Preschool enrollment	49.7754395
Transportation	—
Auto Access	7.878865649
Active commuting	29.50083408
Social	—
2-parent households	1.745155909
Voting	16.57898114
Neighborhood	—
Alcohol availability	64.31412806
Park access	81.35506224
Retail density	25.43308097
Supermarket access	42.69215963
Tree canopy	89.76004106
Housing	—
Homeownership	41.48594893
Housing habitability	19.17105094
Low-inc homeowner severe housing cost burden	3.592968048
Low-inc renter severe housing cost burden	46.90106506
Uncrowded housing	44.45014757
Health Outcomes	—
Insured adults	33.59425125
Arthritis	0.0
Asthma ER Admissions	4.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0

Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.8
Cognitively Disabled	2.2
Physically Disabled	1.7
Heart Attack ER Admissions	47.9
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.2
SLR Inundation Area	0.0
Children	19.9
Elderly	38.5
English Speaking	52.3
Foreign-born	30.0
Outdoor Workers	1.8
Climate Change Adaptive Capacity	—

Impervious Surface Cover	88.8
Traffic Density	6.6
Traffic Access	0.0
Other Indices	—
Hardship	89.1
Other Decision Support	—
2016 Voting	13.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	73.0
Healthy Places Index Score for Project Location (b)	4.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
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 and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Lot acreage and building square footage adjusted to be consistent with project site plan.

Construction: Construction Phases	Demolition not required. Architectural coating assumed to start two weeks after building construction and last for the same duration.
Operations: Vehicle Data	Adjusted to be consistent with TIS prepared for the proposed project by W-Trans.

Clearlake Airport Property Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Clearlake Airport Property
Lead Agency	City of Clearlake
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.20
Precipitation (days)	9.20
Location	6356 Armijo Ave, Clearlake, CA 95422, USA
County	Lake
City	Clearlake
Air District	Lake County AQMD
Air Basin	Lake County
TAZ	240
EDFZ	2
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric

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
Road Construction	0.20	Mile	1.65	0.00	—	—	—	—
Hotel	75.0	Room	1.82	48,402	27,453	—	—	—
Parking Lot	109	Space	0.98	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	7.17	10.0	56.9	54.6	0.11	2.54	351	354	2.34	37.9	40.3	—	11,591	11,591	0.41	0.37	4.95	11,716
Mit.	6.81	10.0	53.5	55.0	0.11	2.37	351	353	2.19	37.9	40.1	—	11,591	11,591	0.41	0.37	4.95	11,716
% Reduced	5%	—	6%	-1%	—	7%	—	< 0.5%	6%	—	< 0.5%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.54	10.0	41.6	43.2	0.08	1.75	208	209	1.61	20.8	22.4	—	8,831	8,831	0.36	0.11	0.06	8,873
Mit.	5.54	10.0	41.6	43.2	0.08	1.75	208	209	1.61	20.8	22.4	—	8,831	8,831	0.36	0.11	0.06	8,873
% Reduced	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.07	2.63	7.91	8.59	0.01	0.35	47.8	48.1	0.33	4.91	5.24	—	1,636	1,636	0.07	0.03	0.25	1,647
Mit.	1.07	2.63	7.84	8.60	0.01	0.35	47.8	48.1	0.32	4.91	5.23	—	1,636	1,636	0.07	0.03	0.25	1,647
% Reduced	1%	—	1%	> -0.5%	—	1%	—	< 0.5%	1%	—	< 0.5%	—	—	—	—	—	—	—

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.20	0.48	1.44	1.57	< 0.005	0.06	8.72	8.78	0.06	0.90	0.96	—	271	271	0.01	< 0.005	0.04	273
Mit.	0.19	0.48	1.43	1.57	< 0.005	0.06	8.72	8.78	0.06	0.90	0.95	—	271	271	0.01	< 0.005	0.04	273
% Reduced	1%	—	1%	> -0.5%	—	1%	—	< 0.5%	1%	—	< 0.5%	—	—	—	—	—	—	—

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	7.17	10.0	56.9	54.6	0.11	2.54	351	354	2.34	37.9	40.3	—	11,591	11,591	0.41	0.37	4.95	11,716
2024	1.82	6.90	12.6	16.2	0.03	0.53	112	113	0.49	11.2	11.7	—	2,930	2,930	0.12	0.06	1.39	2,951
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	5.54	10.0	41.6	43.2	0.08	1.75	208	209	1.61	20.8	22.4	—	8,831	8,831	0.36	0.11	0.06	8,873
2024	1.82	6.91	12.6	16.1	0.03	0.53	112	113	0.49	11.2	11.7	—	2,924	2,924	0.12	0.06	0.04	2,944
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.07	2.08	7.91	8.59	0.01	0.35	47.8	48.1	0.33	4.91	5.24	—	1,636	1,636	0.07	0.03	0.25	1,647
2024	0.65	2.63	4.58	5.81	0.01	0.19	40.8	40.9	0.18	4.08	4.26	—	1,055	1,055	0.04	0.02	0.22	1,062
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.20	0.38	1.44	1.57	< 0.005	0.06	8.72	8.78	0.06	0.90	0.96	—	271	271	0.01	< 0.005	0.04	273
2024	0.12	0.48	0.84	1.06	< 0.005	0.04	7.44	7.47	0.03	0.75	0.78	—	175	175	0.01	< 0.005	0.04	176

2.3. Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	6.81	10.0	53.5	55.0	0.11	2.37	351	353	2.19	37.9	40.1	—	11,591	11,591	0.41	0.37	4.95	11,716
2024	1.82	6.90	12.6	16.2	0.03	0.53	112	113	0.49	11.2	11.7	—	2,930	2,930	0.12	0.06	1.39	2,951
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	5.54	10.0	41.6	43.2	0.08	1.75	208	209	1.61	20.8	22.4	—	8,831	8,831	0.36	0.11	0.06	8,873
2024	1.82	6.91	12.6	16.1	0.03	0.53	112	113	0.49	11.2	11.7	—	2,924	2,924	0.12	0.06	0.04	2,944
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	1.07	2.08	7.84	8.60	0.01	0.35	47.8	48.1	0.32	4.91	5.23	—	1,636	1,636	0.07	0.03	0.25	1,647
2024	0.65	2.63	4.58	5.81	0.01	0.19	40.8	40.9	0.18	4.08	4.26	—	1,055	1,055	0.04	0.02	0.22	1,062
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.19	0.38	1.43	1.57	< 0.005	0.06	8.72	8.78	0.06	0.90	0.95	—	271	271	0.01	< 0.005	0.04	273
2024	0.12	0.48	0.84	1.06	< 0.005	0.04	7.44	7.47	0.03	0.75	0.78	—	175	175	0.01	< 0.005	0.04	176

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.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.09	6.19	2.96	21.8	0.03	0.07	95.0	95.0	0.07	14.4	14.5	25.8	3,198	3,224	2.88	0.17	86.6	3,434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.86	5.98	2.97	18.8	0.03	0.06	95.0	95.0	0.06	14.4	14.5	25.8	3,144	3,169	2.88	0.17	75.9	3,369

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.53	5.62	3.21	20.5	0.03	0.07	95.0	95.0	0.06	14.4	14.5	25.8	3,092	3,118	2.90	0.18	80.4	3,325
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.83	1.03	0.58	3.74	< 0.005	0.01	17.3	17.3	0.01	2.63	2.64	4.27	512	516	0.48	0.03	13.3	551

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.68	4.46	2.57	19.4	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,542	2,542	0.22	0.16	10.9	2,607
Area	0.37	1.71	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	5.09	6.19	2.96	21.8	0.03	0.07	95.0	95.0	0.07	14.4	14.5	25.8	3,198	3,224	2.88	0.17	86.6	3,434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.82	4.60	2.59	18.5	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,496	2,496	0.22	0.16	0.28	2,550
Area	—	1.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7

Total	4.86	5.98	2.97	18.8	0.03	0.06	95.0	95.0	0.06	14.4	14.5	25.8	3,144	3,169	2.88	0.17	75.9	3,369
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.30	4.07	2.82	19.1	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,440	2,440	0.24	0.17	4.71	2,502
Area	0.18	1.53	0.01	1.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.27	4.27	< 0.005	< 0.005	—	4.28
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	4.53	5.62	3.21	20.5	0.03	0.07	95.0	95.0	0.06	14.4	14.5	25.8	3,092	3,118	2.90	0.18	80.4	3,325
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.78	0.74	0.51	3.49	< 0.005	0.01	17.3	17.3	0.01	2.63	2.63	—	404	404	0.04	0.03	0.78	414
Area	0.03	0.28	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	107	107	0.01	< 0.005	—	107
Water	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19
Waste	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Total	0.83	1.03	0.58	3.74	< 0.005	0.01	17.3	17.3	0.01	2.63	2.64	4.27	512	516	0.48	0.03	13.3	551

2.6. Operations Emissions by Sector, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.68	4.46	2.57	19.4	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,542	2,542	0.22	0.16	10.9	2,607
Area	0.37	1.71	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647

Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	5.09	6.19	2.96	21.8	0.03	0.07	95.0	95.0	0.07	14.4	14.5	25.8	3,198	3,224	2.88	0.17	86.6	3,434
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.82	4.60	2.59	18.5	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,496	2,496	0.22	0.16	0.28	2,550
Area	—	1.36	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	4.86	5.98	2.97	18.8	0.03	0.06	95.0	95.0	0.06	14.4	14.5	25.8	3,144	3,169	2.88	0.17	75.9	3,369
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.30	4.07	2.82	19.1	0.02	0.04	95.0	95.0	0.03	14.4	14.4	—	2,440	2,440	0.24	0.17	4.71	2,502
Area	0.18	1.53	0.01	1.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.27	4.27	< 0.005	< 0.005	—	4.28
Energy	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	644	644	0.07	< 0.005	—	647
Water	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Waste	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	4.53	5.62	3.21	20.5	0.03	0.07	95.0	95.0	0.06	14.4	14.5	25.8	3,092	3,118	2.90	0.18	80.4	3,325
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.78	0.74	0.51	3.49	< 0.005	0.01	17.3	17.3	0.01	2.63	2.63	—	404	404	0.04	0.03	0.78	414
Area	0.03	0.28	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Energy	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	107	107	0.01	< 0.005	—	107
Water	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19
Waste	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Total	0.83	1.03	0.58	3.74	< 0.005	0.01	17.3	17.3	0.01	2.63	2.64	4.27	512	516	0.48	0.03	13.3	551

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.33	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.5	43.5	< 0.005	< 0.005	—	43.7
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.21	7.21	< 0.005	< 0.005	—	7.23
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.10	1.45	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	150	150	0.01	0.01	0.68	152
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.16	1.16	< 0.005	< 0.005	< 0.005	1.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.2. Site Preparation (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.70	3.95	39.7	35.5	0.05	1.81	—	1.81	1.66	—	1.66	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.33	0.29	< 0.005	0.01	—	0.01	0.01	—	0.01	—	43.5	43.5	< 0.005	< 0.005	—	43.7
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.08	0.08	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.21	7.21	< 0.005	< 0.005	—	7.23
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.15	0.14	0.10	1.45	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	150	150	0.01	0.01	0.68	152
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.16	1.16	< 0.005	< 0.005	< 0.005	1.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.19	0.19	< 0.005	< 0.005	< 0.005	0.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.43	2.04	20.0	19.7	0.03	0.94	—	0.94	0.87	—	0.87	—	2,958	2,958	0.12	0.02	—	2,968

Dust From Material Movement	—	—	—	—	—	—	7.09	7.09	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.38	0.38	< 0.005	0.02	—	0.02	0.02	—	0.02	—	56.7	56.7	< 0.005	< 0.005	—	56.9
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.39	9.39	< 0.005	< 0.005	—	9.42
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.09	1.24	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	128	128	0.01	< 0.005	0.58	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	0.04	2.91	0.32	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	1,729	1,729	< 0.005	0.27	3.14	1,813

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.32	2.32	< 0.005	< 0.005	< 0.005	2.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	33.2	33.2	< 0.005	0.01	0.03	34.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.49	5.49	< 0.005	< 0.005	< 0.005	5.75

3.4. Grading (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.07	1.75	16.6	20.0	0.03	0.78	—	0.78	0.72	—	0.72	—	2,958	2,958	0.12	0.02	—	2,968
Dust From Material Movement	—	—	—	—	—	—	7.09	7.09	—	3.43	3.43	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.32	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	56.7	56.7	< 0.005	< 0.005	—	56.9
Dust From Material Movement	—	—	—	—	—	—	0.14	0.14	—	0.07	0.07	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	9.39	9.39	< 0.005	< 0.005	—	9.42
Dust From Material Movement	—	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.13	0.12	0.09	1.24	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	128	128	0.01	< 0.005	0.58	131
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	0.04	2.91	0.32	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	1,729	1,729	< 0.005	0.27	3.14	1,813
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.32	2.32	< 0.005	< 0.005	< 0.005	2.37
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	< 0.005	< 0.005	0.06	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	33.2	33.2	< 0.005	0.01	0.03	34.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.38	0.38	< 0.005	< 0.005	< 0.005	0.39
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.49	5.49	< 0.005	< 0.005	< 0.005	5.75

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	2.87	3.20	0.01	0.13	—	0.13	0.12	—	0.12	—	582	582	0.02	< 0.005	—	584
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.07	0.06	0.52	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	96.3	96.3	< 0.005	< 0.005	—	96.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.12	1.68	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	174	174	0.01	0.01	0.79	177
Vendor	0.01	0.01	0.37	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	195	195	< 0.005	0.03	0.50	204
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.17	0.12	1.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	169	169	0.01	0.01	0.02	172
Vendor	0.01	0.01	0.38	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	195	195	< 0.005	0.03	0.01	204
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.36	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	39.7	39.7	< 0.005	< 0.005	0.08	40.7
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	47.4	47.4	< 0.005	0.01	0.05	49.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.57	6.57	< 0.005	< 0.005	0.01	6.74
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.84	7.84	< 0.005	< 0.005	0.01	8.19
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.6. Building Construction (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.50	1.26	11.8	13.2	0.02	0.55	—	0.55	0.51	—	0.51	—	2,397	2,397	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.37	0.31	2.87	3.20	0.01	0.13	—	0.13	0.12	—	0.12	—	582	582	0.02	< 0.005	—	584
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.06	0.52	0.58	< 0.005	0.02	—	0.02	0.02	—	0.02	—	96.3	96.3	< 0.005	< 0.005	—	96.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.16	0.12	1.68	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	174	174	0.01	0.01	0.79	177
Vendor	0.01	0.01	0.37	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	195	195	< 0.005	0.03	0.50	204
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.18	0.17	0.12	1.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	169	169	0.01	0.01	0.02	172
Vendor	0.01	0.01	0.38	0.13	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	195	195	< 0.005	0.03	0.01	204
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.36	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	39.7	39.7	< 0.005	< 0.005	0.08	40.7
Vendor	< 0.005	< 0.005	0.09	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	47.4	47.4	< 0.005	0.01	0.05	49.5
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.07	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	6.57	6.57	< 0.005	< 0.005	0.01	6.74
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.84	7.84	< 0.005	< 0.005	0.01	8.19
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.7. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.43	4.04	4.72	0.01	0.18	—	0.18	0.16	—	0.16	—	863	863	0.04	0.01	—	866
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.74	0.86	< 0.005	0.03	—	0.03	0.03	—	0.03	—	143	143	0.01	< 0.005	—	143
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.11	1.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	171	171	0.01	0.01	0.74	174
Vendor	0.01	0.01	0.35	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	193	193	< 0.005	0.03	0.50	202
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.11	1.43	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	166	166	0.01	0.01	0.02	169
Vendor	0.01	0.01	0.36	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	193	193	< 0.005	0.03	0.01	202
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.49	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	57.9	57.9	< 0.005	< 0.005	0.12	58.8
Vendor	< 0.005	< 0.005	0.13	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	69.6	69.6	< 0.005	0.01	0.08	72.8

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	9.58	9.58	< 0.005	< 0.005	0.02	9.74
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.01	12.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.8. Building Construction (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.44	1.20	11.2	13.1	0.02	0.50	—	0.50	0.46	—	0.46	—	2,398	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.52	0.43	4.04	4.72	0.01	0.18	—	0.18	0.16	—	0.16	—	863	863	0.04	0.01	—	866
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.09	0.08	0.74	0.86	< 0.005	0.03	—	0.03	0.03	—	0.03	—	143	143	0.01	< 0.005	—	143
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.15	0.11	1.55	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	171	171	0.01	0.01	0.74	174
Vendor	0.01	0.01	0.35	0.11	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	193	193	< 0.005	0.03	0.50	202
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.11	1.43	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	166	166	0.01	0.01	0.02	169
Vendor	0.01	0.01	0.36	0.12	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	193	193	< 0.005	0.03	0.01	202
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.05	0.49	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	57.9	57.9	< 0.005	< 0.005	0.12	58.8
Vendor	< 0.005	< 0.005	0.13	0.04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	69.6	69.6	< 0.005	0.01	0.08	72.8
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.09	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	9.58	9.58	< 0.005	< 0.005	0.02	9.74
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.5	11.5	< 0.005	< 0.005	0.01	12.0
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.9. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.79	7.13	8.89	0.01	0.35	—	0.35	0.32	—	0.32	—	1,351	1,351	0.05	0.01	—	1,356
Paving	—	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.21	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.7	40.7	< 0.005	< 0.005	—	40.9
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.74	6.74	< 0.005	< 0.005	—	6.76
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.12	1.66	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	171	171	0.01	0.01	0.77	174
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.85	4.85	< 0.005	< 0.005	0.01	4.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.82
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Paving (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.95	0.79	7.13	8.89	0.01	0.35	—	0.35	0.32	—	0.32	—	1,351	1,351	0.05	0.01	—	1,356
Paving	—	0.63	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.02	0.21	0.27	< 0.005	0.01	—	0.01	0.01	—	0.01	—	40.7	40.7	< 0.005	< 0.005	—	40.9
Paving	—	0.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.74	6.74	< 0.005	< 0.005	—	6.76
Paving	—	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.17	0.16	0.12	1.66	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	171	171	0.01	0.01	0.77	174
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.04	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	4.85	4.85	< 0.005	< 0.005	0.01	4.97
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.80	0.80	< 0.005	< 0.005	< 0.005	0.82
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Architectural Coating (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.20	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.7	28.7	< 0.005	< 0.005	—	28.8
Architectural Coatings	—	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.76	4.76	< 0.005	< 0.005	—	4.77
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.34	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.8	34.8	< 0.005	< 0.005	0.16	35.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	33.9	33.9	< 0.005	< 0.005	< 0.005	34.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	7.05	7.05	< 0.005	< 0.005	0.01	7.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.17	1.17	< 0.005	< 0.005	< 0.005	1.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Architectural Coating (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.18	0.15	0.93	1.15	< 0.005	0.04	—	0.04	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.20	0.25	< 0.005	0.01	—	0.01	0.01	—	0.01	—	28.7	28.7	< 0.005	< 0.005	—	28.8
Architectural Coatings	—	1.16	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.76	4.76	< 0.005	< 0.005	—	4.77
Architectural Coatings	—	0.21	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.34	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.8	34.8	< 0.005	< 0.005	0.16	35.4
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	33.9	33.9	< 0.005	< 0.005	< 0.005	34.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	7.05	7.05	< 0.005	< 0.005	0.01	7.22
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.17	1.17	< 0.005	< 0.005	< 0.005	1.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.13. 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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.35	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	51.7	51.7	< 0.005	< 0.005	—	51.9
Architectural Coatings	—	2.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.57	8.57	< 0.005	< 0.005	—	8.59
Architectural Coatings	—	0.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.2	34.2	< 0.005	< 0.005	0.15	34.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	33.3	33.3	< 0.005	< 0.005	< 0.005	33.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	12.5	12.5	< 0.005	< 0.005	0.02	12.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.06	2.06	< 0.005	< 0.005	< 0.005	2.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Architectural Coating (2024) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.17	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	5.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.05	0.35	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	51.7	51.7	< 0.005	< 0.005	—	51.9
Architectural Coatings	—	2.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.57	8.57	< 0.005	< 0.005	—	8.59
Architectural Coatings	—	0.38	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.31	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	34.2	34.2	< 0.005	< 0.005	0.15	34.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.03	0.02	0.29	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	33.3	33.3	< 0.005	< 0.005	< 0.005	33.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.11	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	12.5	12.5	< 0.005	< 0.005	0.02	12.7
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.06	2.06	< 0.005	< 0.005	< 0.005	2.10
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Linear, Grubbing & Land Clearing (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	3.95	3.56	< 0.005	0.28	—	0.28	0.25	—	0.25	—	491	491	0.02	< 0.005	—	492
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.72	6.72	< 0.005	< 0.005	—	6.74
Dust From Material Movement	—	—	—	—	—	—	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	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.11	1.11	< 0.005	< 0.005	—	1.12

Dust From Material Movement	—	—	—	—	—	—	< 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	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.41	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	42.8	42.8	< 0.005	< 0.005	0.19	43.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Linear, Grubbing & Land Clearing (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.56	0.47	3.95	3.56	< 0.005	0.28	—	0.28	0.25	—	0.25	—	491	491	0.02	< 0.005	—	492
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.01	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.72	6.72	< 0.005	< 0.005	—	6.74
Dust From Material Movement	—	—	—	—	—	—	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	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.11	1.11	< 0.005	< 0.005	—	1.12
Dust From Material Movement	—	—	—	—	—	—	< 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	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.04	0.04	0.03	0.41	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	42.8	42.8	< 0.005	< 0.005	0.19	43.5
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.55	0.55	< 0.005	< 0.005	< 0.005	0.56
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.09	0.09	< 0.005	< 0.005	< 0.005	0.09
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Linear, Grading & Excavation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.30	3.62	33.7	30.9	0.06	1.56	—	1.56	1.44	—	1.44	—	6,495	6,495	0.26	0.05	—	6,518

Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.24	2.22	2.03	< 0.005	0.10	—	0.10	0.09	—	0.09	—	427	427	0.02	< 0.005	—	429
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.37	< 0.005	0.02	—	0.02	0.02	—	0.02	—	70.7	70.7	< 0.005	< 0.005	—	71.0
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.24	0.18	2.48	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	257	257	0.02	0.01	1.16	261
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	24.6	24.6	< 0.005	< 0.005	0.06	25.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.14	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	15.9	15.9	< 0.005	< 0.005	0.03	16.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.69
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.63	2.63	< 0.005	< 0.005	0.01	2.69
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Linear, Grading & Excavation (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	4.30	3.62	33.7	30.9	0.06	1.56	—	1.56	1.44	—	1.44	—	6,495	6,495	0.26	0.05	—	6,518
Dust From Material Movement	—	—	—	—	—	—	3.18	3.18	—	0.34	0.34	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	0.24	2.22	2.03	< 0.005	0.10	—	0.10	0.09	—	0.09	—	427	427	0.02	< 0.005	—	429
Dust From Material Movement	—	—	—	—	—	—	0.21	0.21	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.04	0.40	0.37	< 0.005	0.02	—	0.02	0.02	—	0.02	—	70.7	70.7	< 0.005	< 0.005	—	71.0
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	< 0.005	< 0.005	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.26	0.24	0.18	2.48	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	257	257	0.02	0.01	1.16	261
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	24.6	24.6	< 0.005	< 0.005	0.06	25.7
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.14	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	15.9	15.9	< 0.005	< 0.005	0.03	16.3
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.62	1.62	< 0.005	< 0.005	< 0.005	1.69

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	2.63	2.63	< 0.005	< 0.005	0.01	2.69
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.27	0.27	< 0.005	< 0.005	< 0.005	0.28
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Linear, Drainage, Utilities, & Sub-Grade (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.40	2.85	28.2	25.0	0.05	1.16	—	1.16	1.06	—	1.06	—	5,693	5,693	0.23	0.05	—	5,712
Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.40	2.85	28.2	25.0	0.05	1.16	—	1.16	1.06	—	1.06	—	5,693	5,693	0.23	0.05	—	5,712
Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.24	1.10	< 0.005	0.05	—	0.05	0.05	—	0.05	—	250	250	0.01	< 0.005	—	250
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.23	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.3	41.3	< 0.005	< 0.005	—	41.5
Dust From Material Movement	—	—	—	—	—	—	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	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.20	0.15	2.07	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	214	214	0.01	0.01	0.97	218
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.21	0.15	1.91	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	208	208	0.01	0.01	0.03	211
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.82	8.82	< 0.005	< 0.005	0.02	9.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.46	1.46	< 0.005	< 0.005	< 0.005	1.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.20. Linear, Drainage, Utilities, & Sub-Grade (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.40	2.85	28.2	25.0	0.05	1.16	—	1.16	1.06	—	1.06	—	5,693	5,693	0.23	0.05	—	5,712
Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.40	2.85	28.2	25.0	0.05	1.16	—	1.16	1.06	—	1.06	—	5,693	5,693	0.23	0.05	—	5,712

Dust From Material Movement	—	—	—	—	—	—	2.65	2.65	—	0.29	0.29	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.12	1.24	1.10	< 0.005	0.05	—	0.05	0.05	—	0.05	—	250	250	0.01	< 0.005	—	250
Dust From Material Movement	—	—	—	—	—	—	0.12	0.12	—	0.01	0.01	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.23	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.3	41.3	< 0.005	< 0.005	—	41.5
Dust From Material Movement	—	—	—	—	—	—	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	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.22	0.20	0.15	2.07	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	214	214	0.01	0.01	0.97	218
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.22	0.21	0.15	1.91	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	208	208	0.01	0.01	0.03	211
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.01	0.08	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.82	8.82	< 0.005	< 0.005	0.02	9.04
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.46	1.46	< 0.005	< 0.005	< 0.005	1.50
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Linear, Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	1.00	8.46	10.9	0.01	0.43	—	0.43	0.39	—	0.39	—	1,620	1,620	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.03	0.02	0.19	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.5	35.5	< 0.005	< 0.005	—	35.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.88	5.88	< 0.005	< 0.005	—	5.90
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.10	1.34	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	146	146	0.01	0.01	0.02	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.09	3.09	< 0.005	< 0.005	0.01	3.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

3.22. Linear, Paving (2023) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.19	1.00	8.46	10.9	0.01	0.43	—	0.43	0.39	—	0.39	—	1,620	1,620	0.07	0.01	—	1,625
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.19	0.24	< 0.005	0.01	—	0.01	0.01	—	0.01	—	35.5	35.5	< 0.005	< 0.005	—	35.6
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	5.88	5.88	< 0.005	< 0.005	—	5.90
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.16	0.15	0.10	1.34	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	146	146	0.01	0.01	0.02	148
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.09	3.09	< 0.005	< 0.005	0.01	3.16
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	0.51	0.51	< 0.005	< 0.005	< 0.005	0.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	4.68	4.46	2.57	19.4	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,542	2,542	0.22	0.16	10.9	2,607
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.68	4.46	2.57	19.4	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,542	2,542	0.22	0.16	10.9	2,607
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	4.82	4.60	2.59	18.5	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,496	2,496	0.22	0.16	0.28	2,550

Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.82	4.60	2.59	18.5	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,496	2,496	0.22	0.16	0.28	2,550
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.78	0.74	0.51	3.49	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	404	404	0.04	0.03	0.78	414
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.78	0.74	0.51	3.49	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	404	404	0.04	0.03	0.78	414

4.1.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	4.68	4.46	2.57	19.4	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,542	2,542	0.22	0.16	10.9	2,607
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.68	4.46	2.57	19.4	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,542	2,542	0.22	0.16	10.9	2,607
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	4.82	4.60	2.59	18.5	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,496	2,496	0.22	0.16	0.28	2,550
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.82	4.60	2.59	18.5	0.02	0.04	0.14	0.17	0.03	0.04	0.08	—	2,496	2,496	0.22	0.16	0.28	2,550
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.78	0.74	0.51	3.49	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	404	404	0.04	0.03	0.78	414
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

Total	0.78	0.74	0.51	3.49	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	404	404	0.04	0.03	0.78	414

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.03	< 0.005	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	20.9	20.9	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.03	< 0.005	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	20.9	20.9	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	28.7	28.7	< 0.005	< 0.005	—	29.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.46	3.46	< 0.005	< 0.005	—	3.50
Total	—	—	—	—	—	—	—	—	—	—	—	—	32.2	32.2	0.01	< 0.005	—	32.5

4.2.2. Electricity Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.03	< 0.005	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	20.9	20.9	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	173	173	0.03	< 0.005	—	175
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	20.9	20.9	< 0.005	< 0.005	—	21.1
Total	—	—	—	—	—	—	—	—	—	—	—	—	194	194	0.03	< 0.005	—	196
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	28.7	28.7	< 0.005	< 0.005	—	29.0
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	3.46	3.46	< 0.005	< 0.005	—	3.50
Total	—	—	—	—	—	—	—	—	—	—	—	—	32.2	32.2	0.01	< 0.005	—	32.5

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	0.01	< 0.005	—	74.6
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	0.01	< 0.005	—	74.6

4.2.4. Natural Gas Emissions By Land Use - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.04	0.02	0.38	0.32	< 0.005	0.03	—	0.03	0.03	—	0.03	—	449	449	0.04	< 0.005	—	451
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	0.01	< 0.005	—	74.6
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	74.4	74.4	0.01	< 0.005	—	74.6

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.37	0.35	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Total	0.37	12.4	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	12.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	0.03	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Total	0.03	0.87	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71

4.3.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.37	0.35	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69
Total	0.37	12.4	0.02	2.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	8.66	8.66	< 0.005	< 0.005	—	8.69

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	11.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	12.1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.65	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.19	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.03	0.03	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71
Total	0.03	0.87	< 0.005	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.71	0.71	< 0.005	< 0.005	—	0.71

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19

4.4.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.65	3.57	7.21	0.37	0.01	—	19.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.60	0.59	1.19	0.06	< 0.005	—	3.19

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8

4.5.1. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	22.1	0.00	22.1	2.21	0.00	—	77.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.66	0.00	3.66	0.37	0.00	—	12.8

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5

4.6.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	75.7	75.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Hotel	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	12.5	12.5

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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9.2. Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	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

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	8/1/2023	8/3/2023	5.00	3.00	—
Grading	Grading	8/4/2023	8/14/2023	5.00	7.00	—
Building Construction	Building Construction	8/30/2023	7/2/2024	5.00	220	—
Paving	Paving	8/15/2023	8/29/2023	5.00	11.0	—
Architectural Coating	Architectural Coating	9/13/2023	7/16/2024	5.00	220	—
Linear, Grubbing & Land Clearing	Linear, Grubbing & Land Clearing	8/1/2023	8/8/2023	5.00	5.00	—
Linear, Grading & Excavation	Linear, Grading & Excavation	8/9/2023	9/11/2023	5.00	24.0	—
Linear, Drainage, Utilities, & Sub-Grade	Linear, Drainage, Utilities, & Sub-Grade	9/12/2023	10/4/2023	5.00	16.0	—
Linear, Paving	Linear, Paving	10/5/2023	10/16/2023	5.00	8.00	—

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
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37

Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	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	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	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
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41

Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82

Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	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	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	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
Linear, Grubbing & Land Clearing	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43

Linear, Grubbing & Land Clearing	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Linear, Grubbing & Land Clearing	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Crawler Tractors	Diesel	Average	1.00	8.00	87.0	0.43
Linear, Grading & Excavation	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Grading & Excavation	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Grading & Excavation	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Linear, Grading & Excavation	Rubber Tired Loaders	Diesel	Average	1.00	8.00	150	0.36
Linear, Grading & Excavation	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Linear, Grading & Excavation	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Grading & Excavation	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Drainage, Utilities, & Sub-Grade	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Linear, Drainage, Utilities, & Sub-Grade	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Graders	Diesel	Average	1.00	8.00	148	0.41
Linear, Drainage, Utilities, & Sub-Grade	Plate Compactors	Diesel	Average	1.00	8.00	8.00	0.43
Linear, Drainage, Utilities, & Sub-Grade	Pumps	Diesel	Average	1.00	8.00	11.0	0.74
Linear, Drainage, Utilities, & Sub-Grade	Rough Terrain Forklifts	Diesel	Average	1.00	8.00	96.0	0.40
Linear, Drainage, Utilities, & Sub-Grade	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Linear, Drainage, Utilities, & Sub-Grade	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Drainage, Utilities, & Sub-Grade	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Linear, Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Linear, Paving	Paving Equipment	Diesel	Average	1.00	8.00	89.0	0.36
Linear, Paving	Rollers	Diesel	Average	3.00	8.00	36.0	0.38
Linear, Paving	Signal Boards	Electric	Average	0.00	8.00	6.00	0.82
Linear, Paving	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.1	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.35	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	10.1	LDA,LDT1,LDT2
Grading	Vendor	—	7.35	HHDT,MHDT
Grading	Hauling	23.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	20.3	10.1	LDA,LDT1,LDT2
Building Construction	Vendor	7.93	7.35	HHDT,MHDT

Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	10.1	LDA,LDT1,LDT2
Paving	Vendor	—	7.35	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.07	10.1	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.35	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	5.00	10.1	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	—	7.35	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	30.0	10.1	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	7.35	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	25.0	10.1	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	—	7.35	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT

Linear, Paving	—	—	—	—
Linear, Paving	Worker	17.5	10.1	LDA,LDT1,LDT2
Linear, Paving	Vendor	—	7.35	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	10.1	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.35	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	10.1	LDA,LDT1,LDT2
Grading	Vendor	—	7.35	HHDT,MHDT
Grading	Hauling	23.3	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	20.3	10.1	LDA,LDT1,LDT2
Building Construction	Vendor	7.93	7.35	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	10.1	LDA,LDT1,LDT2
Paving	Vendor	—	7.35	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT

Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	4.07	10.1	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.35	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Linear, Grubbing & Land Clearing	—	—	—	—
Linear, Grubbing & Land Clearing	Worker	5.00	10.1	LDA,LDT1,LDT2
Linear, Grubbing & Land Clearing	Vendor	—	7.35	HHDT,MHDT
Linear, Grubbing & Land Clearing	Hauling	0.00	20.0	HHDT
Linear, Grubbing & Land Clearing	Onsite truck	—	—	HHDT
Linear, Grading & Excavation	—	—	—	—
Linear, Grading & Excavation	Worker	30.0	10.1	LDA,LDT1,LDT2
Linear, Grading & Excavation	Vendor	1.00	7.35	HHDT,MHDT
Linear, Grading & Excavation	Hauling	0.00	20.0	HHDT
Linear, Grading & Excavation	Onsite truck	—	—	HHDT
Linear, Drainage, Utilities, & Sub-Grade	—	—	—	—
Linear, Drainage, Utilities, & Sub-Grade	Worker	25.0	10.1	LDA,LDT1,LDT2
Linear, Drainage, Utilities, & Sub-Grade	Vendor	—	7.35	HHDT,MHDT
Linear, Drainage, Utilities, & Sub-Grade	Hauling	0.00	20.0	HHDT
Linear, Drainage, Utilities, & Sub-Grade	Onsite truck	—	—	HHDT
Linear, Paving	—	—	—	—
Linear, Paving	Worker	17.5	10.1	LDA,LDT1,LDT2
Linear, Paving	Vendor	—	7.35	HHDT,MHDT
Linear, Paving	Hauling	0.00	20.0	HHDT
Linear, Paving	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	74,526	24,842	2,564

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	4.50	0.00	—
Grading	1,300	—	7.00	0.00	—
Paving	0.00	0.00	0.00	0.00	2.63
Linear, Grubbing & Land Clearing	—	—	1.65	0.00	—
Linear, Grading & Excavation	—	—	1.65	0.00	—
Linear, Drainage, Utilities, & Sub-Grade	—	—	1.65	0.00	—

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
Road Construction	1.65	100%

Hotel	0.00	0%
Parking Lot	0.98	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	204	0.03	< 0.005
2024	0.00	204	0.03	< 0.005

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
Hotel	599	599	599	218,726	2,622	2,622	2,622	956,948
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Hotel	599	599	599	218,726	2,622	2,622	2,622	956,948
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

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	74,526	24,842	2,564

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.10.4. Landscape Equipment - Mitigated

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)
Hotel	310,445	204	0.0330	0.0040	1,401,916
Parking Lot	37,434	204	0.0330	0.0040	0.00

5.11.2. Mitigated

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)
Hotel	310,445	204	0.0330	0.0040	1,401,916
Parking Lot	37,434	204	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Hotel	1,902,508	262,390
Parking Lot	0.00	0.00

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Hotel	1,902,508	262,390
Parking Lot	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Hotel	41.1	0.00
Parking Lot	0.00	0.00

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Hotel	41.1	0.00

Parking Lot	0.00	0.00

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
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Hotel	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
Hotel	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
Hotel	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

5.15.2. Mitigated

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)

5.17. User Defined

Equipment Type	Fuel Type
—	—

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

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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	15.7	annual days of extreme heat
Extreme Precipitation	15.9	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	22.3	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 (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth 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 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.

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	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack	N/A	N/A	N/A	N/A

Air Quality	N/A	N/A	N/A	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 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	16.8
AQ-PM	0.19
AQ-DPM	37.4
Drinking Water	64.2
Lead Risk Housing	63.1
Pesticides	43.4
Toxic Releases	0.74
Traffic	20.4
Effect Indicators	—
CleanUp Sites	71.6
Groundwater	59.6
Haz Waste Facilities/Generators	0.00
Impaired Water Bodies	51.2
Solid Waste	80.5

Sensitive Population	—
Asthma	97.4
Cardio-vascular	81.7
Low Birth Weights	90.6
Socioeconomic Factor Indicators	—
Education	63.4
Housing	81.8
Linguistic	4.59
Poverty	98.0
Unemployment	99.4

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	3.002694726
Employed	1.591171564
Education	—
Bachelor's or higher	11.36917747
High school enrollment	100
Preschool enrollment	49.7754395
Transportation	—
Auto Access	7.878865649
Active commuting	29.50083408
Social	—
2-parent households	1.745155909
Voting	16.57898114

Neighborhood	—
Alcohol availability	64.31412806
Park access	81.35506224
Retail density	25.43308097
Supermarket access	42.69215963
Tree canopy	89.76004106
Housing	—
Homeownership	41.48594893
Housing habitability	19.17105094
Low-inc homeowner severe housing cost burden	3.592968048
Low-inc renter severe housing cost burden	46.90106506
Uncrowded housing	44.45014757
Health Outcomes	—
Insured adults	33.59425125
Arthritis	0.0
Asthma ER Admissions	4.7
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.8
Cognitively Disabled	2.2
Physically Disabled	1.7
Heart Attack ER Admissions	47.9
Mental Health Not Good	0.0

Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	19.6
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.2
SLR Inundation Area	0.0
Children	19.9
Elderly	38.5
English Speaking	52.3
Foreign-born	30.0
Outdoor Workers	1.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	88.8
Traffic Density	6.6
Traffic Access	0.0
Other Indices	—
Hardship	89.1
Other Decision Support	—
2016 Voting	13.5

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	73.0
Healthy Places Index Score for Project Location (b)	4.00
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
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 and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Lot acreage and building square footage adjusted to be consistent with project site plan.
Construction: Construction Phases	Demolition not required. Architectural coating assumed to start two weeks after building construction and last for the same duration.
Operations: Vehicle Data	Adjusted to be consistent with TIS prepared for the proposed project by W-Trans.

Attachment B

Biological Evalution and Arborist Report

LIVE OAK
ASSOCIATES, INC.

AIRPORT PROPERTY COMMERCIAL CENTER HOTEL PROJECT
BIOLOGICAL EVALUATION
CLEARLAKE, LAKE COUNTY, CALIFORNIA

Prepared by

LIVE OAK ASSOCIATES, INC.

Rick Hopkins, Principal and Senior Conservation Biologist/Ecologist
Katrina Krakow, M.S., Sr. Project Manager and Staff Ecologist

Prepared for

Alan Flora
City Manager
City of Clear Lake
14050 Olympic Drive
Clear Lake, CA 95422

July 21, 2022 PN 2671-01

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EXECUTIVE SUMMARY

Live Oak Associates, Inc., (LOA) conducted an investigation of the biological resources of the Airport Property Commercial Center Hotel and extension of 18^{th} Avenue project ("Project Site", "Site") in Lake County, California.

LOA evaluated likely impacts to biological resources resulting from development of an approximately 0.3-acre Airport Property Commercial Center Hotel and the associated extension of 18^{th} Avenue. The Project Site is in Clearlake, Lake County, between Old Highway 53 and Highway 53. On July 11, 2022, Live Oak Associates (LOA) conducted a site visit to assess for biotic habitats, the plants and animals occurring in those habitats, and significant habitat values that may be protected by state and federal law.

The Project Site consists of developed, California annual grassland/ruderal, chaparral, interior live oak woodland, and drainage habitat types. The drainage is outside of the development area and will not be impacted. The Project Site provides suitable habitat for nine locally occurring special-status plant and four special-status animal species. These nine plant species include the bent-flowered fiddleneck, Raiche's manzanita, three-fingered morning-glory, deep-scarred cryptantha, Tracy's eriastrum, San Joaquin spearscale, congested-headed hayfield tarplant, Napa bluecurls, oval-leaved viburnum. Rare plant surveys are recommended during the appropriate blooming periods of these plants (March, April, June, and October).

Potentially suitable habitat was found for four special status animal species that potentially occur as regular foragers or residents of the Project Site. These include the Clear Lake roach, Townsend's big-eared bat, pallid bat, and western red bat. Additionally, we have provided mitigation measures for nesting migratory birds and raptors protected by the federal Migratory Bird Treaty Act.

TABLE OF CONTENTS

1 INTRODUCTION

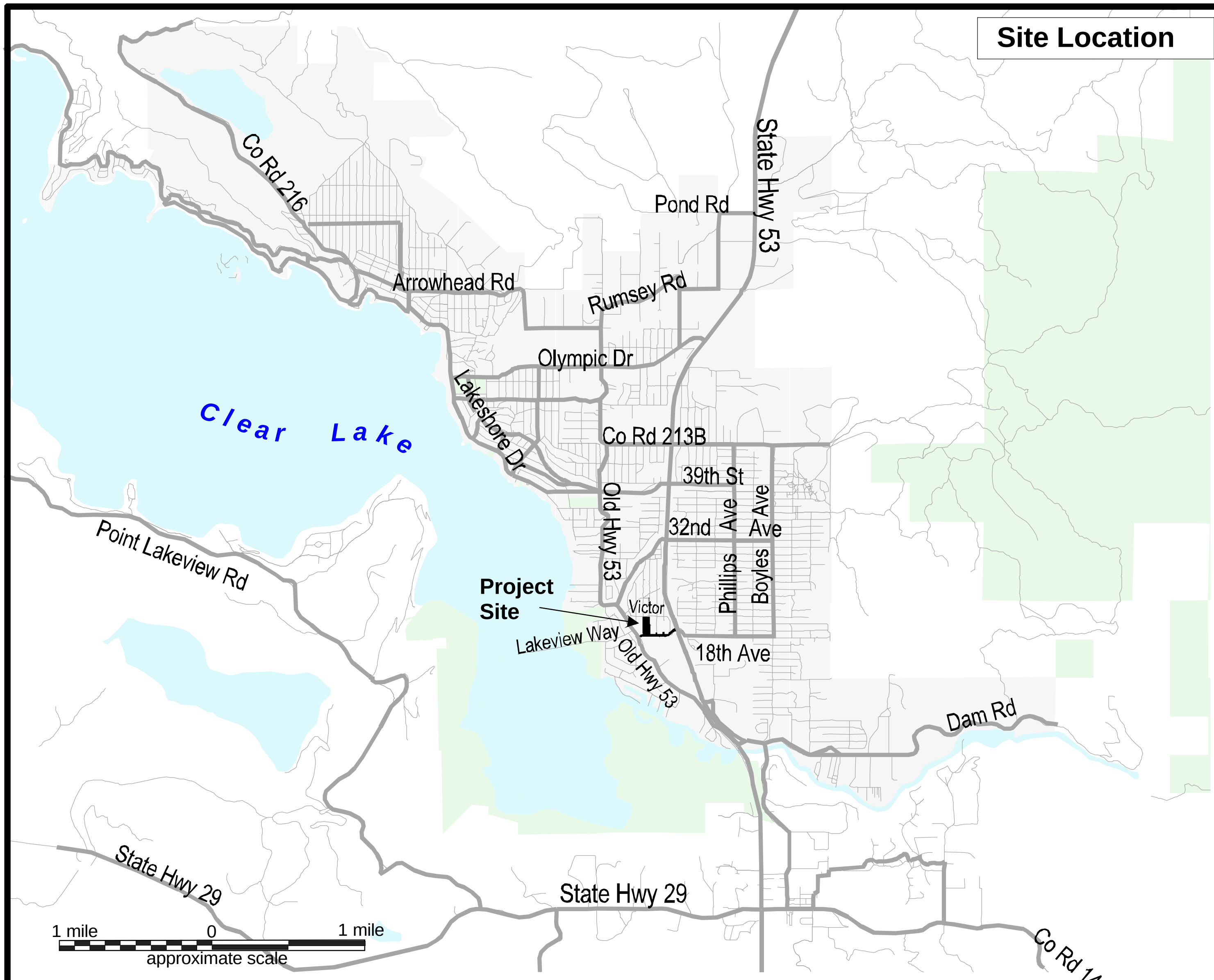
Live Oak Associates, Inc. (LOA) has prepared the following report. This report describes the biotic resources of the proposed approximately 0.3-acre Airport Property Commercial Center Hotel and the associated extension of 18th Avenue ("Project Site, site") and evaluates likely impacts to biological resources resulting from the construction of a hotel and associated roadway on the project site.

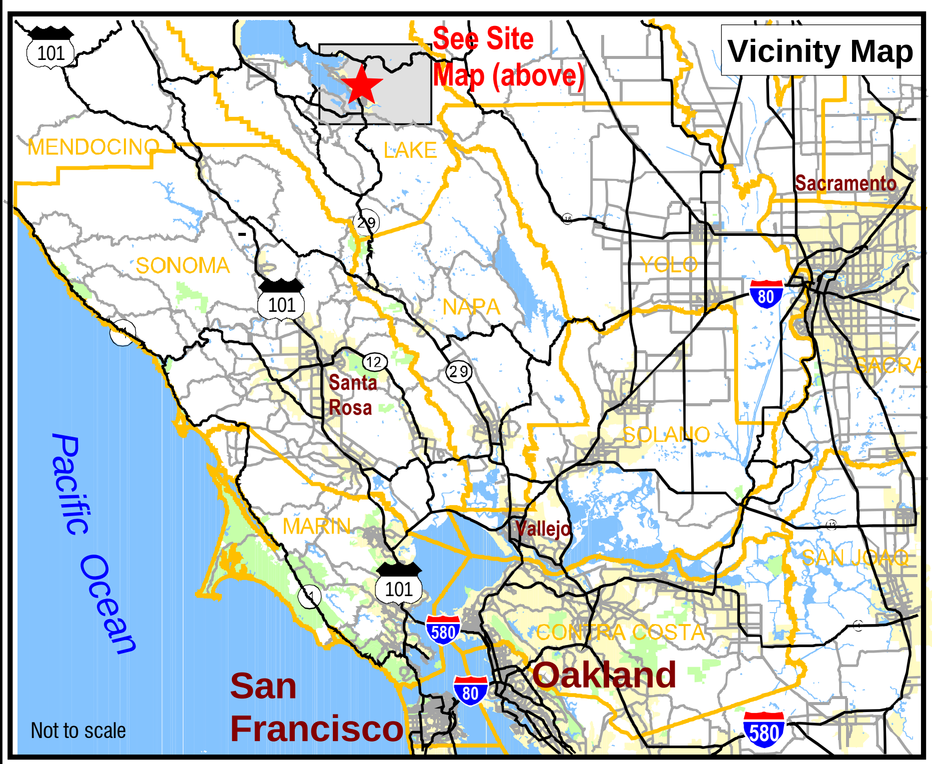
The Project Site is in Clearlake, Lake County, between Old Highway 53 and Highway 53 (Figure 1). The Project Site is located within the Clearlake Highlands and Lower Lake U.S. Geological Survey (USGS) 7.5-minute quadrangle.

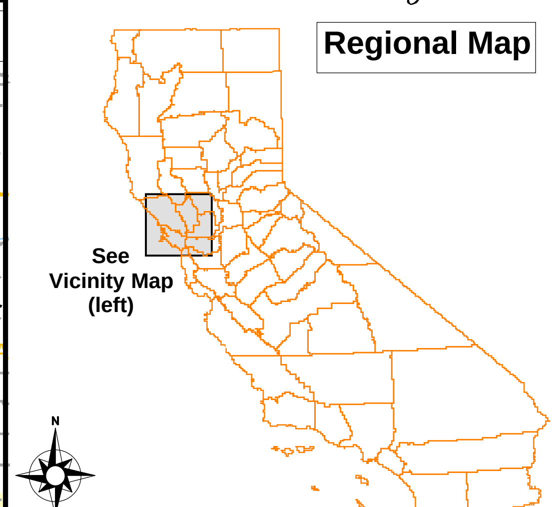
The project site is relatively flat with site elevations ranging from a high of 425 feet (130 meters) above mean sea level (amsl) at the southeast corner of the site to a low of 411 feet amsl (125 meters) at the northwest corner. The site is currently vacant and supports a gravel area which used to be part of the airfield or airport as well as ruderal and natural habitats. There are no buildings, sheds, or other structures on the project site.

1.1 PROJECT DESCRIPTION

The proposed project is the extension of 18th Avenue westward from Highway 53 to the hotel site and the development of a 79-room hotel and associated parking lot. The northernmost area of the property is not proposed to be developed at this time; however, we have included the entire parcel in this report should additional development become necessary. This project is associated with the future Airport Property Commercial Center project.







LIVE OAK ASSOCIATES, INC.

Airport Property Commercial Center

Site / Vicinity Map

Date	Project #	Figure #
6/29/2022	**2671-01**	**1**

1.2 REPORT OBJECTIVES

The development of land can damage or modify biotic habitats used by sensitive plant and wildlife species. In such cases, site development may be regulated by state or federal agencies, subject to provisions of the California Environmental Quality Act (CEQA), and/or covered by policies and ordinances of the City of Clearlake. This report addresses issues related to: 1) sensitive biotic resources occurring within the Project Site; 2) the federal, state, and local laws regulating such resources, and 3) mitigation measures which may be required to reduce the magnitude of anticipated impacts and/or comply with permit requirements of state and federal resource agencies, and the requirements of the California Environmental Quality Act (CEQA). As such, the objectives of this report are to:

- Summarize all site-specific information related to existing biological resources, based on a review of the literature, a search of species databases, and field surveys conducted by LOA over the entire Project Site;
- In addition to species observed to be present within the Project Site, make reasonable inferences about the other biological resources that could occur onsite based on habitat suitability and the proximity of the Project Site to a species' known range;
- Summarize all state and federal natural resource protection laws that may be relevant to development of Solar project within the Project Site;
- Identify and discuss project impacts to biological resources likely to occur within the Project Site within the context of CEQA or any state or federal laws; and
- Identify avoidance and mitigation measures that would reduce impacts to a less-than-significant impact (as identified by CEQA) and are generally consistent with recommendations of the resource agencies for affected biological resources.

1.3 STUDY METHODOLOGY

The analysis of impacts, as discussed in Section 3.0 of this report, is based on the known and potential biotic resources of the Project Site discussed in Section 2.0. Sources of information used in the preparation of this analysis included: (1) the *California Natural Diversity Data Base*

(CDFW 2022), (2) the *Online Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2022), and (3) manuals, reports, and references related to plants and animals of the Lake County region. Field survey of the Project Site was conducted on July 11, 2022, by LOA ecologists Colleen Del Vecchio and Katrina Krakow. During this site visit, the principal land uses of the site were identified, and the constituent plants and animals were noted.

Detailed surveys for sensitive biological resources were not conducted during the site visit, except a tree inventory which has been included in the attached arborist report.

2 EXISTING CONDITIONS

2.1 PROJECT SITE

The approximately 0.3-acre Project Site and its associated roadway extension is located between Old Highway 53 and Highway 53 in the City of Clearlake. The Project site is relatively flat with site elevations ranging from a high of 425 feet (130 meters) above mean sea level (amsl) at the southeast corner of the site to a low of 411 feet amsl (125 meters) at the northwest corner. The project site is in the Clearlake Highlands and Lower Lake U.S. Geological Survey (USGS) quadrangle. The site is currently vacant and supports a gravel area which used to be part of the airfield or airport as well as ruderal and natural habitats.

The Project is a hotel with parking lot as well as the extension of 18th Avenue from Highway 53 to the hotel.

Two soil types occur on the Project Site: 1) Asbill clay loam, 8 to 15 percent slopes and 2) Benridge-Sodabay loams, 8 to 15 percent slopes (NRCS Web Soil Survey 2022; Figure 2). Both soils are well drained with medium to rapid runoff and moderately slow to permeability. These soils are not considered hydric or edaphic.

2.2 BIOTIC HABITATS/LAND USES

Five biotic habitats and land uses were identified on the project site, these include developed, California annual grassland/ruderal, chaparral, interior live oak woodland, and drainage (Figure 3). These habitats are discussed in more detail below.


LEGEND
103 Asbil Clay Loam, 5-8% slopes
104 Asbil Clay Loam, 8-15% slopes
114 Benridge-Sodabay Loams, 8-15% slopes
Source:
U.S.D.A. Soil Conservation Service
N
Victor St
Armijo Ave
Vallejo Ave
Victor St
Victor St
Old Hwy 53
53
53
104
104
104
103
114
114
114
114
114
Approximate Project Boundary
Approximate Project Boundary
200' 0 100' 200 feet
approximate scale
LIVE OAK
ASSOCIATES, INC.
Airport Property Commercial Center
Soils
Date
6/29/2022
Project #
2671-01
Figure #
2


N
Victor St
Armijo Ave
Vallejo Ave
Victor St
State Hwy 53
18th Ave
Old Hwy 53
Project design courtesy of CML Engineering
Aerial Photo courtesy of U.S.D.A. National Agriculture Imagery Program (NAIP) Aerial Photo Field Office 8/25/2020
200'
0
100'
200 feet
approximate scale
LEGEND
Approximate Project Boundary
Approximate Drainage Location
California Annual Grassland / Ruderal
Chaparral
Developed
Interior Live Oak Woodland
LIVE OAK
ASSOCIATES, INC.
Airport Property Commercial Center
Habitats
Date
7/14/2022
Project #
2671-01
Figure #
2

2.2.1 Developed

This land use on the site consists of 18th Avenue, some outbuildings, and a gravelly area with piles of ground gravel/asphalt around the exterior. Vegetation within this habitat is limited to non-native invasive herbaceous annual plants which are consistent with the California annual grassland/ruderal habitat type (Section 2.2.2).

Animal species observed in this habitat was limited to a western gray squirrel (*Sciurus griseus*). This habitat is most likely used by animals occurring in adjacent habitats to move through the larger, more suitable habitat areas.

2.2.2 California annual grassland/Ruderal

Portions of the site support California annual grassland; some areas are more ruderal than others, as this habitat type consists mainly of non-native invasive species and included jointed goat grass (Aegilops cylindrica), wild oats (*Avena* sp.), ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis*), yellow star-thistle (*Centaurea solstitialis*), blue wild-rye (*Elymus glaucus*), yerba santa (*Eriodictyon californicum*), Narrow tarplant (*Holocarpha virgata*)Indian tobacco (*Nicotiana quadrivalvis*), European black nightshade (*Solanum nigrum*), red sandspurry (*Spergularia rubra*), clover (*Trifolium* sp.), Ithuriel's spear (*Triteleia laxa*), vetch (*Vicia* sp.), and other non-native invasive species were present in this habitat.

As this habitat is patchy on the landscape, it can be expected to be used by animal species occurring in adjacent habitats.

2.2.3 Chaparral

Chaparral habitat is scattered and consists mainly of chamise (*Adenostoma fasciculatum*) with some ceanothus (*Ceanothus* sp.) and poison-oak (*Toxicodendron diversilobum*) as well as an understory consisting mainly of non-native invasive grasses, and Yerba santa.

Animal species observed were limited to the western fence lizard (*Sceloporus occidentalis*) and California scrub jay (*Aphelocoma californica*). Species using adjacent habitats would also use this habitat.

2.2.4 Interior Live Oak Woodland

A large portion of the site supports interior live oak woodland dominated by interior live oak (*Quercus wislizeni*) with a large percentage of foothill pines (*Pinus sabiniana*). Other vegetation in this habitat includes blue oak (*Quercus douglasii*), white oak (*Quercus alba*), elderberry (*Sambucus nigra*), plum (*Prunus* sp.), poison-oak, western redbud (*Cercis occidentalis*), toyon (*Heteromeles arbutifolia*), manzanita (*Arctostaphylos* sp.), ceanothus (*Ceanothus* sp.), hollyleaf redberry (*Rhamnus ilicifolia*). The understory included largely non-native invasive annual plant species with the addition of honeysuckle (*Lonicera* sp.).

Animal species observed in this habitat type include the mourning dove (*Zenaida macroura*), Eurasian collared dove (*Streptopelia decaocto*), acorn woodpecker (*Melanerpes formicivorus*), California scrub jay, northern mockingbird (*Mimus polyglottos*), oak titmouse (*Baeolophus inornatus*), California towhee (*Melozone crissalis*), spotted towhee (*Pipilo maculatus*), American goldfinch (*Spinus tristis*), western fence lizard, and western gray squirrel.

2.2.5 Drainage

A drainage occurs in the northwestern corner of the site with culverts running under the road to the north of the site. This drainage was dry at the time of the July 2022 site visit. The drainage has a flat bottom with fairly steep sides, suggesting a large volume of seasonal flow. The width of the drainage varied from approximately 12 feet wide at the northern boundary of the site to approximately five feet wide where it exits the site on the western side of the parcel. The banks supported upland vegetation consistent with the woodland and grassland adjacent to it. Based on aerial imagery and the National Wetlands Inventory (USFWS accessed 2022), this unnamed drainage appears to be a tributary of Cache Creek which is connected to Clear Lake.

This drainage may have the potential to support aquatic species seasonally, depending on seasonal water flow levels.

2.3 WILDLIFE MOVEMENT CORRIDORS

Wildlife movement corridors are areas where regional wildlife populations regularly and predictably move during dispersal or migration. Movement corridors in California are typically associated with valleys, rivers and creeks supporting riparian vegetation, and ridgelines. Wildlife will often move across ill-defined undeveloped habitat patches, or regional movement is facilitated along existing linear features such as ditches, canals, farm roads, and creeks.

Regionally, the nearest area believed to provide for regional wildlife movement is Cache creek and its riparian habitat approximately a half-mile to the south of the site. Figure 16 of the Lake County Land Trust Conservation Priority Plan (Lake County Land Trust 2017/2018) identifies the project site location as being the along the northern edge of a structural connectivity corridor which appears to center around Cache Creek and upland habitat to the east of Clearlake.

The site itself consists mainly of open previously developed area with some natural lands along the northern edge. Development of the City of Clearlake occurs to the west, north, and east of the site, with dispersed rural residential around the immediate northern are of the site. Therefore, the site itself likely does not play a major role as a wildlife corridor, however, wildlife which currently use the site for daily or dispersal movements would likely continue to do so after the site is built out.

2.4 SPECIAL STATUS PLANTS AND ANIMALS

Several species of plants and animals within the state of California have low populations and/or limited distributions. Such species may be considered “rare” and are vulnerable to extirpation as the state’s human population grows and the habitats these species occupy are converted to agricultural and urban uses. As described more fully in Section 3.2, state and federal laws have provided the California Department of Fish and Wildlife (CDFW) and the U.S. Fish and Wildlife Service (USFWS) with a mechanism for conserving and protecting the diversity of plant and animal species native to the state. A sizable number of native plants and animals have been formally designated as “threatened” or “endangered” under state and federal endangered species legislation. Others have been designated as candidates for such listing. Still others have been designated as “species of special concern” by the CDFW. The California Native Plant Society (CNPS) has developed its own set of lists of native plants considered rare, threatened, or endangered (CNPS 2022). Collectively, these plants and animals are referred to as “special status species”.

Several special status plants and animals occur in the vicinity of the Project Site (Figure 4). These species, and their potential to occur in the Project Site, are listed in Table 2 in the following pages. Sources of information for this table included *California Amphibian and Reptile Species of Special Concern* (Thomson et.al. 2016), *California Bird Species of Special Concern* (Shuford and Gardall 2008), *California Natural Diversity Data Base* (CDFW 2022), *Endangered and Threatened Wildlife and Plants* (USFWS 2022), *Annual Report on the Status of California State Listed Threatened and Endangered Animals and Plants* (CDFW 2022), and *The California Native Plant Society’s Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2022). This information was used to evaluate the potential for special status plant and animal species to occur within the Project Site. It is important to note that the California Natural Diversity Data Base (CNDDB) is a volunteer database.

A search of published accounts for all relevant special status plant and animal species was conducted for the Clearlake Highlands and Lower Lake USGS 7.5-minute quadrangles within which the Project Site is located, and for the 10 surrounding quadrangles (Lucerne, Clearlake Oaks, Benmore Canyon, Wilbur Springs, Kelseyville, Wilson Valley, The Geysers, Whispering Pines, and Middletown) using the California Natural Diversity Data Base Rarefind 5 (2022).

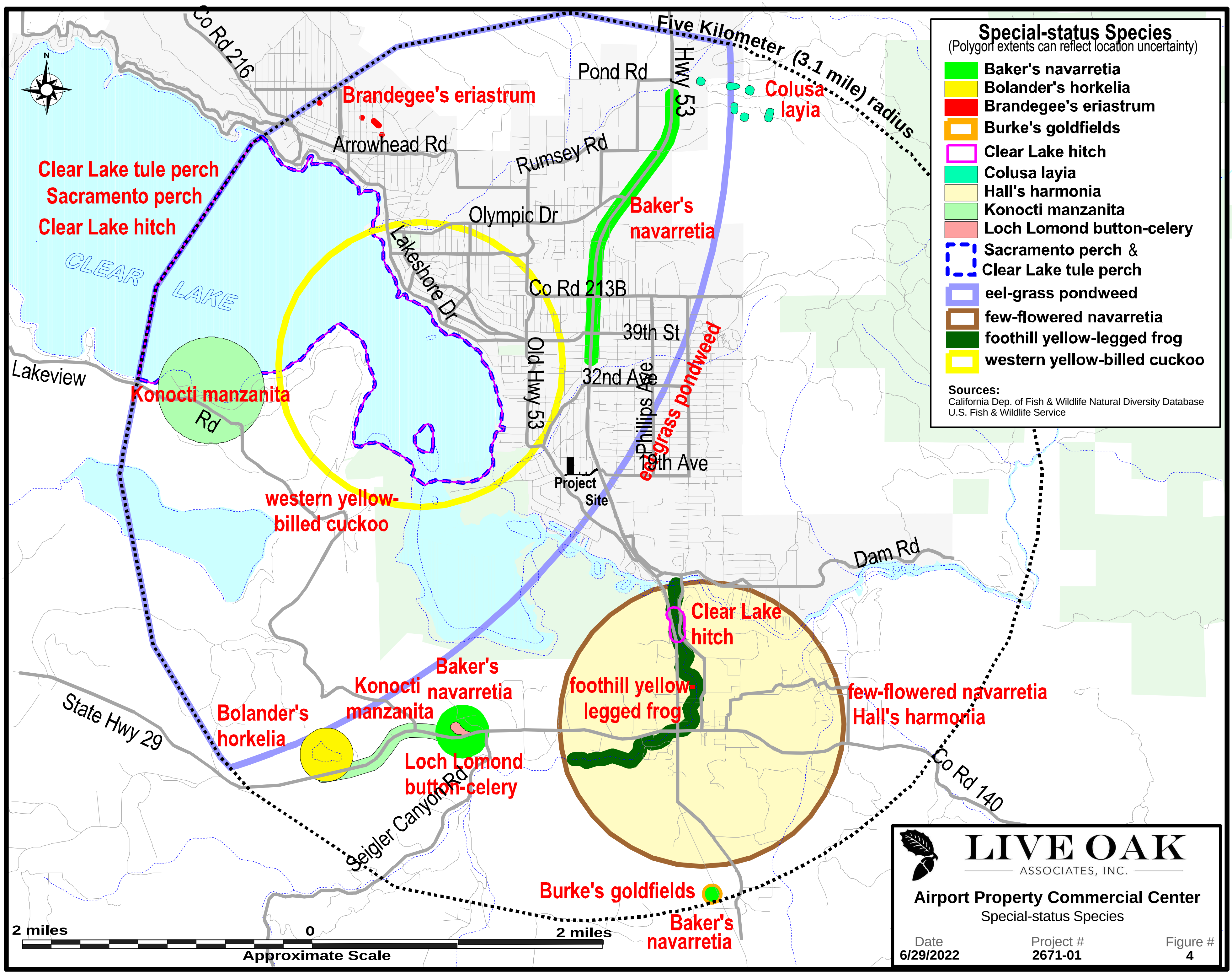

Special-status Species
(Polygon extents can reflect location uncertainty)
Baker's navarretia
Bolander's horkelia
Brandegee's eriastrum
Burke's goldfields
Clear Lake hitch
Colusa layia
Hall's harmonia
Konocti manzanita
Loch Lomond button-celery
Sacramento perch &
Clear Lake tule perch
eel-grass pondweed
few-flowered navarretia
foothill yellow-legged frog
western yellow-billed cuckoo
Sources:
California Dep. of Fish & Wildlife Natural Diversity Database
U.S. Fish & Wildlife Service
Five Kilometer (3.1 mile) radius
Co Rd 216
Brandegee's eriastrum
Pond Rd
Hwy 53
Colusa layia
Arrowhead Rd
Rumsey Rd
Clear Lake tule perch
Sacramento perch
Clear Lake hitch
CLEAR LAKE
Baker's navarretia
Olympic Dr
Lakeshore Dr
Co Rd 213B
39th St
eel-grass pondweed
32nd Ave
Phillips Ave
Old Hwy 53
Lakeview Rd
Konocti manzanita
18th Ave
Project Site
western yellow-billed cuckoo
Dam Rd
Clear Lake hitch
foothill yellow-legged frog
few-flowered navarretia
Hall's harmonia
Baker's navarretia
Konocti manzanita
Bolander's horkelia
State Hwy 29
Loch Lomond button-celery
Seigler Canyon Rd
Co Rd 140
Burke's goldfields
Baker's navarretia
2 miles
0
2 miles
Approximate Scale
LIVE OAK
ASSOCIATES, INC.
Airport Property Commercial Center
Special-status Species
Date
6/29/2022
Project #
2671-01
Figure #
4

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY			
PLANTS (adapted from CDFW 2022 and CNPS 2022) ***Species status under the California Rare Plant Rank***			
Common and scientific names	**Status**	**General habitat description**	***Occurrence in the study area**
Bent-flowered fiddleneck *Amsinckia lunaris*	CRPR 1B	Habitat: Coastal bluff scrub, cismontane woodland, and valley and foothill grasslands. Elevation: 3-500 meters. Blooms: Annual herb; March–June.	**Possible.** Potentially suitable habitat is present, and the survey occurred outside of the blooming season for this species. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.
Raiche's manzanita *Arctostaphylos stanfordiana Parry ssp. raichei*	CRPR 1B	Habitat: Occurs in chaparral and lower montane coniferous forest openings. Elevation: 450-1,035 meters. Blooms: Perennial shrub; February-April.	**Possible.** At least one manzanita species is present on the site but could not be identified to species as the survey occurred outside the blooming season. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.
Big-scale Balsamroot *Balsamorhiza macrolepis var. macrolepis*	CRPR 1B	Habitat: Occurs in chaparral, cismontane woodland, valley and foothill grassland, sometimes on serpentine Elevation: 45-1,555 meters. Blooms: Perennial herb; March-June.	**Absent.** This perennial species would have been observed on the site during the survey, if present, and it was not observed.
Three-fingered morning-glory *Calystegia collina ssp. tridactylosa*	CRPR 1B2	Habitat: Occurs in chaparral and cismontane woodland. Elevation: 0-600 meters. Blooms: Perennial herb; April-June.	**Possible.** Potentially suitable habitat is present, and the survey occurred outside of the blooming season for this species. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.
Pappose tarplant *Centromadia parryi ssp. Parryi*	CRPR 1B	Habitats: Often alkaline soils within chaparral, coastal prairie, meadows, seeps, marshes, swamps, and mesic valley and foothill grasslands. Elevation: 0-420 meters. Blooms: May-November.	**Unlikely.** Habitats of the site are marginal for this species and there are no known occurrences within three miles of the site.
Deep-scarred cryptantha *Cryptantha excavate*	CRPR 1B.1	Habitat: Occurs in gravelly and sandy cismontane woodland. Elevation: 100-500 meters. Blooms: April-May.	**Possible.** One senesced cryptantha species was tentatively identified on the site during the reconnaissance survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site.
Tracy's eriastrum *Eriastrum tracyi*	CRPR 1B	Habitat: Occurs in chaparral and cismontane woodland. Elevation: 315-1,125 meters. Blooms: Annual herb; May-July.	**Possible.** Potentially suitable habitat is present, and the survey occurred outside of the blooming season for this species. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

PLANTS (adapted from CDFW 2022 and CNPS 2022)

Species status under the California Rare Plant Rank

Common and scientific names	Status	General habitat description	*Occurrence in the study area
San Joaquin spearscale *Extriplex joaquinana*	CRPR 1B	Habitat: Occurs in chenopod scrub, meadows and seeps, playas, and valley and foothill grasslands on alkaline soils. Elevation: 1-835 meters. Blooms: Annual herb; April-October.	**Possible.** Potentially suitable habitat is present, and the survey occurred at a time when this annual herb may not have yet emerged. A survey would need to be conducted during the blooming season to rule out the occurrence of this species on the site.
Adobe-lily *Fritillaria pluriflora*	CRPR1B.2	Habitat: Occurs on adobe soils of chaparral, cismontane woodland, and valley and foothill grassland. Elevation: 60-705 meters. Blooms: Bulbiferous; February-April.	**Absent.** Suitable habitat is absent from the site for this species.
Congested-headed hayfield tarplant *Hemizonia congesta ssp. congesta*	CRPR 1B2	Habitat: Occurs in valley and foothill grasslands, often on roadsides. Elevation: 20-560 meters. Blooms: April-November.	**Possible.** Suitable habitat occurs on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site.
Napa bluecurls *Trichostema ruygtii*	CRPR 1B.2	Habitats: Occurs in chaparral, cismontane woodland, lower montane forest, valley and foothill grassland, and vernal pools. Elevation: 30-680 meters. Blooms: Annual herb; June-October.	**Possible.** Suitable habitat occurs on the site and this species may not yet have emerged at the time of the survey. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site.
Oval-leaved viburnum *Viburnum ellipticum*	CRPR 2B	Habitat: Chaparral, cismontane woodland, and lower montane coniferous forest. Elevation: 215-1400 meters. Blooms: Perennial shrub; May-June.	**Possible.** Suitable habitat occurs on the site and the survey occurred outside of the blooming season for this species. A focused survey during this species' blooming season would need to be conducted to rule out its occurrence on the site.

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Animals (adapted from CDFW 2022 and USFWS 2022)

Species Listed under theThreatened and Endangered State and/or Federal Endangered Species Act

Common and scientific names	Status	General habitat description	*Occurrence in the study area
Clear Lake hitch *Lavinia exilicauda chi*	FT	Occurs in slow warm water and is known to occur in Clear Lake and its larger tributaries.	**Unlikely.** This species is unlikely to occur on the site, as the drainage onsite lacks deep pools.
Steelhead - Central California Coast DPS *Oncorhynchus mykiss irideus*	FT	Spawn in freshwater rivers or streams in the spring and spend the remainder of their life in the ocean.	**Absent.** This species is unlikely to occur on the site, as the drainage appears to be seasonal and lacks spawning habitat for this species.

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Animals (adapted from CDFW 2022 and USFWS 2022)

Species Listed under theThreatened and Endangered State and/or Federal Endangered Species Act

Common and scientific names	Status	General habitat description	*Occurrence in the study area
Foothill yellow-legged frog *Rana boylii*	CE	Occurs in swiftly flowing streams and rivers with rocky substrate with open, sunny banks in forest, chaparral, and woodland habitats, and can sometimes be found in isolated pools and ponds.	**Absent.** Habitats required by this species are absent. The only water feature onsite is a seasonal drainage with poor habitat for this species. This species is known from a larger tributary approximately a mile south of the site (CDFW 2022).
California red-legged frog *Rana draytonii*	FT, CSC	Dense, shrubby riparian vegetation such as arroyo willow, cattails, and bulrushes with still or slow-moving water. Perennial streams or ponds are preferred, and a salinity of no more than $4.5^{o}/_{o}$.	**Absent.** Habitats required by this species are absent. The only water feature onsite is a seasonal drainage with poor habitat for this species. The closest recorded observation of this species is more than three miles from the site (CDFW 2022).
Bald eagle *Haliaeetus leucocephalus*	CE, CP	Breeding habitat is usually within 4 km of a water source in a tall tree or cliffs; roosting in large numbers in winter is common.	**Absent.** Although Clear Lake is within a mile from the site, large stick nests indicative of this species were not observed during the site visit. The closest recorded observation of this species is more than three miles from the site (CDFW 2022).
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	FT, CE	Breed in large blocks of riparian habitats, particularly cottonwoods and willows.	**Unlikely.** Dense riparian habitat required by this species is absent from the Project Site. The closest recorded observation of this species is a proximity polygon centered approximately a mile to the west of the site along Clear Lake (CDFW 2022). Therefore, while this species is unlikely to breed on the site, it may occur from time to time on the site due to the proximity of the site to suitable habitat.

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Animals (adapted from CDFW 2022 and USFWS 2022)

State Species of Special Concern

Common and scientific names	Status	General habitat description	*Occurrence in the study area

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Animals (adapted from CDFW 2022 and USFWS 2022)

State Species of Special Concern

Common and scientific names	Status	General habitat description	*Occurrence in the study area
Sacramento perch *Archoplites interruptus*	CSC	Occurs in sloughs, slow-moving rivers, and large lakes. They are not known from their historic range, and most known locations are locations where this species has been planted. Less than 25 populations are known (CDFW species accounts).	**Absent.** This species is known to occur in Clear Lake, however, is not known to occur in tributaries of the lake.
Clear Lake tule perch *Hysterocarpus traskii pomo*	CSC	Occurs in Clear Lake.	**Absent.** This species is restricted to Clear Lake and is therefore not expected to occur within the tributary onsite.
Clear Lake roach *Lavinia symmetricus ssp.*	CSC	Occurs in tributaries of Clear Lake in a slow-flow conditions ranging from fast-flowing water to slow water and can occur in intermittent streams and can deal well with low dissolved oxygen levels.	**Possible.** This species may occur within the drainage of the site when seasonal flows allow for it to occur.
California giant salamander *Dicamptodon ensatus*	CSC	Occurs in or adjacent to cold clear permanent to semi-permanent streams and seeps.	**Absent.** Suitable habitat for this species is absent from the site, additionally, the site is outside of this species' known range.
Red-bellied Newt *Taricha rivularis*	CSC	This species lays eggs in running water and can be found in coastal woodlands and redwood forest along the coast of northern California north of San Francisco except a small population occurring in the Steven's Creek watershed near the San Francisco Bay.	**Absent.** Suitable habitat for this species is absent from the site, additionally, the site is outside of this species' known range.
Western pond turtle *Actinemys marmorata*	CSC	Intermittent and permanent waterways including streams, marshes, rivers, ponds and lakes. Open slow-moving water of rivers and creeks of central California with rocks and logs for basking.	**Unlikely.** Marginal habitat for the western pond turtle may occur onsite seasonably when the onsite drainage supports enough water, however, other tributaries with year-round water support higher quality habitat for this species. Additionally, this species has not been recorded within three miles of the project site.
Golden eagle *Aquila chrysaetos*	CP	Typically frequents rolling foothills, mountain areas, sage-juniper flats and desert.	**Unlikely.** Suitable foraging habitat is poor onsite; additionally, breeding habitat is absent from the site and golden eagles have not been recorded within three miles of the site (CDFW 2022).

TABLE 2: SPECIAL STATUS SPECIES THAT COULD OCCUR IN THE PROJECT VICINITY

Animals (adapted from CDFW 2022 and USFWS 2022)

State Species of Special Concern

Common and scientific names	Status	General habitat description	*Occurrence in the study area
Purple martin *Progne subis*	CSC	Inhabits woodlands, low elevation coniferous forest of Douglas fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities, also in human-made structures and nests widely in human-made birdhouses. Nests often located in tall, isolated trees or snags.	**Unlikely.** The trees of the site do not provide potential nesting habitat. These birds are known to nest near open water, the closest of which is Clear Lake approximately a mile away, however this species has not been recorded within a mile of the site (CDFW 2022). The purple martin may be expected to fly over or forage on the site from time to time.
Townsend's Big-eared bat *Corynorhinus townsendii*	CSC	Primarily a cave-dwelling bat that may also roost in buildings. Occurs in a variety of habitats.	**Possible.** Suitable foraging habitat for this species is present on the Project Site; however, roosting habitat is absent.
Pallid bat *Antrozous pallidus*	CSC	Roosts in rocky outcrops, cliffs, and crevices with access to open habitats for foraging. May also roost in caves, mines, hollow trees and buildings.	**Possible.** Suitable foraging habitat for this species is present on the Project Site; however, roosting habitat is absent.
Western red bat *Lasiurus blossevillii*	CSC	Roosts in tree or shrub foliage, although will occasionally use caves.	**Possible.** Suitable foraging habitat for this species is present on the Project Site; however, roosting habitat is absent.
Ringtail *Bassariscus astutus*	CP	Occurs in riparian and heavily wooded habitats near water.	**Unlikely.** Riparian habitat along the drainage is marginally suitable for this species.

*Explanation of Occurrence Designations and Status Codes
Present: Species observed within the Project Site at time of field surveys or during recent past.
Likely: Species not observed within the Project Site, but it may reasonably be expected to occur there on a regular basis.
Possible: Species not observed within the Project Site, but it could occur there from time to time.
Unlikely: Species not observed within the Project Site, and would not be expected to occur there except, perhaps, as a transient.
Absent: Species not observed within the Project Site and precluded from occurring there because habitat requirements not met.

STATUS CODES

FE	Federally Endangered	CE	California Endangered
FT	Federally Threatened	CT	California Threatened
FPE	Federally Endangered (Proposed)	CR	California Rare
FC	Federal Candidate	CP	California Fully Protected
CSC	California Species of Special Concern		
CC	California Candidate		
CNPS	California Native Plant Society Listing		
1A	Plants Presumed Extinct in California	3	Plants about which we need more information – a review list
1B	Plants Rare, Threatened, or Endangered in California and elsewhere	4	Plants of limited distribution – a watch list
2	Plants Rare, Threatened, or Endangered in California, but more common elsewhere		

2.5 JURISDICTIONAL WATERS

Jurisdictional waters include rivers, creeks, and drainages that have a defined bed and bank and which, at the very least, carry ephemeral flows. Jurisdictional waters also include lakes, ponds, reservoirs, and wetlands. Such waters may be subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Wildlife (CDFW), and the California Regional Water Quality Control Board (RWQCB). See Section 3.2.4 of this report for additional discussion of these agencies' roles and responsibilities.

The site supports a drainage which is a tributary of Cache Creek, which may be a Jurisdictional Water.

3 IMPACTS AND MITIGATIONS

3.1 SIGNIFICANCE CRITERIA

General plans, area plans, and specific projects are subject to the provisions of the California Environmental Quality Act. The purpose of CEQA is to assess the impacts of proposed projects on the environment before they are constructed. For example, site development may require the removal of some or all of its existing vegetation. Animals associated with this vegetation could be destroyed or displaced. Animals adapted to humans, roads, buildings, pets, etc., may replace those species formerly occurring on a site. Plants and animals that are state and/or federally listed as threatened or endangered may be destroyed or displaced. Sensitive habitats such as wetlands and riparian woodlands may be altered or destroyed. These impacts may be considered significant. According to 2021 CEQA Status and Guidelines (2022), "Significant effect on the environment" means a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic interest. Specific project impacts to biological resources may be considered "significant" if they will:

- 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 Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

3.2 RELEVANT GOALS, POLICIES, AND LAWS

3.2.1 Threatened and Endangered Species

State and federal "endangered species" legislation has provided the CDFW and USFWS with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Species listed as threatened or endangered under provisions of the state and federal Endangered Species Acts, candidate species for such listing, state species of special concern, and some plants listed as endangered by the California Native Plant Society are collectively referred to as "species of special status." Permits may be required from both the CDFW and USFWS if activities associated with a proposed project will result in the take of a listed species. To "take" a listed species, as defined by the state of California, is "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill" said species (California Fish and Game Code, Section 86). "Take" is more broadly defined by the federal Endangered Species Act to include "harm" of a listed species (16 USC, Section 1532(19), 50 CFR, Section 17.3). Furthermore, the CDFW and the USFWS are responding agencies under CEQA. Both agencies review CEQA documents in order to determine the adequacy of their treatment of endangered species issues and to make project-specific recommendations for their conservation.

3.2.2 Migratory Birds

State and federal laws also protect most bird species. The State of California signed Assembly Bill 454 into law in 2019, which clarifies native bird protection and increases protections where

California law previously deferred to Federal law. The Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., scc. 703, Supp. I, 1989) prohibits killing, possessing, or trading in migratory birds, except in accordance with regulations prescribed by the Secretary of the Interior. This act encompasses whole birds, parts of birds, and bird nests and eggs.

3.2.3 Birds of Prey

Birds of prey are protected in California under provisions of the State Fish and Game Code, Section 3503.5, which states that it is "unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto." Construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to nest abandonment. Disturbance that causes nest abandonment and/or loss of reproductive effort is considered "taking" by the CDFW.

Additionally, the Bald and Golden Eagle Protection Act (16 U.S.C., scc. 668-668c) prohibits anyone from taking bald or golden eagles, including their parts, nests, or eggs, unless authorized under a federal permit. The act prohibits any disturbance that directly affects an eagle or an active eagle nest as well as any disturbance caused by humans around a previously used nest site during a time when eagles are not present such that it agitates or bothers an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death or nest abandonment.

3.2.4 Jurisdictional Waters and Wetlands

Jurisdictional waters include waters of the United States subject to the regulatory authority of the U.S. Army Corps of Engineers (USACE) and waters of the State of California subject to the regulatory authority of the California Department of Fish and Wildlife (CDFW) and the California Regional Water Quality Control Board (RWQCB).

3.2.4.1 Clean Water Act, Section 404

The USACE regulates the filling or grading of Waters of the U.S. under the authority of Section 404 of the Clean Water Act. Drainage channels and adjacent wetlands may be considered "waters of the United States" or "jurisdictional waters" subject to the jurisdiction of the USACE. The extent of jurisdiction has been defined in the Code of Federal Regulations and clarified in federal courts.

The definition of waters of the U.S. have changed several times in recent years. In January 2020, the Environmental Protection Agency (EPA) and USACE jointly issued the Navigable Waters Protection Rule. The new rule was published in the Federal Register on April 21, 2020 and took effect on June 22, 2020.

On August 30, 2021, the U.S. District Court for the District of Arizona issued an order vacating and remanding the Navigable Waters Protection Rule. In light of this order, the EPA and USACE have halted implementation of the Navigable Waters Protection Rule and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime until further notice.

The pre-2015 regulatory regime defines waters of the U.S. as:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
    a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or

   b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
   c. Which are used or could be used for industrial purposes by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under this definition;
5. Tributaries of waters identified in paragraphs (s)(1) through (4) of this section;
6. The territorial sea;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (s)(1) through (6) of this section; waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 423.11(m) which also meet the criteria of this definition) are not waters of the United States.

All activities that involve the discharge of dredge or fill material into waters of the U.S. are subject to the permit requirements of the USACE under Section 404 of the Clean Water Act. Such permits are typically issued on the condition that the applicant agrees to provide mitigation that result in no net loss of wetland functions or values. No permit can be issued without a CWA Section 401 Water Quality Certification (or waiver of such certification) verifying that the proposed activity will meet state water quality standards (Section 3.6.2).

3.2.4.2 Porter-Cologne Water Quality Act/Clean Water Act, Section 401

There are nine Regional Water Quality Control Boards (RWQCB) statewide; collectively, they oversee regional and local water quality in California. The RWQCB administers Section 401 of the Clean Water Act and the Porter-Cologne Water Quality Control Act. The RWQCB for a given region regulates discharges of fill or pollutants into waters of the State through the issuance of various permits and orders.

Pursuant to Section 401 of the Clean Water Act, the RWQCB regulates waters of the State that are also waters of the U.S. Discharges into such waters require a Section 401 Water Quality Certification from the RWQCB as a condition to obtaining certain federal permits, such as a

Clean Water Act Section 404 permit (Section 3.6.1). Discharges into all Waters of the State, even those that are not also Waters of the U.S., require Waste Discharge Requirements (WDRs), or a waiver of WDRs, from the RWQCB.

The Porter-Cologne Water Quality Control Act, Water Code Section 13260, requires that "any person discharging waste, or proposing to discharge waste, within any region that could affect the 'waters of the State' to file a report of discharge" with the RWQCB. Waters of the State as defined in the Porter-Cologne Act (Water Code Section 13050[e]) are "any surface water or groundwater, including saline waters, within the boundaries of the state." This gives the RWQCB authority to regulate a broader set of waters than the Clean Water Act alone; specifically, in addition to regulating waters of the U.S. through the Section 401 Water Quality Certification process, the RWQCB also claims jurisdiction and exercises discretionary authority over "isolated waters," or waters that are not themselves waters of the U.S. and are not hydrologically connected to waters of the U.S.

The RWQCB also administers the Construction Stormwater Program and the federal National Pollution Discharge Elimination System (NPDES) program. Projects that disturb one or more acres of soil must obtain a Construction General Permit under the Construction Stormwater Program. A prerequisite for this permit is the development of a Stormwater Pollution Prevention Plan (SWPPP) by a certified Qualified SWPPP Developer. Projects that discharge wastewater, stormwater, or other pollutants into a Water of the U.S. may require a NPDES permit.

3.2.4.3 California Fish and Game Code, Section 1602

The CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If the CDFW determines that the activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement will be prepared. Such an agreement typically stipulates that certain measures will be implemented to protect the habitat values of the lake or drainage in question.

3.2.5 Local Policies: City of Clearlake Native Tree Protection Ordinance

The City of Clearlake wishes to "ensure the preservation and protection of resources that cannot be replaced while also balancing the needs of commerce, industry and the human population within the City." As such, the Native Tree Protection Ordinance, Chapter 18, Section 40 of the City of Clearlake Municipal Code protects certain trees and requires an approved permit be obtained before disturbances "which might cause harm to a protected tree, are strictly prohibited within the Root Protection Zone (RPZ) of that tree". These disturbances include, but are not limited to:

1. Removing, moving or failing to install and maintain proper temporary protection fencing in the vicinity of construction prior to completion of on-site work;
2. Trenching;
3. Any permanent or temporary structures; however, temporary structures not fixed to the ground shall be allowed as long as they will not compact the soil;
4. Grading, cutting, filling or changing the natural grade in any way;
5. Installation of an irrigation system;
6. Covering with any substance impermeable to air and rain water, such as asphalt, concrete, plastic, etc.; however, pervious surfacing such as pavers, gravel, pervious asphalt or other such materials may be used to within one-half (1/2) the distance from the dripline of the tree to the trunk;
7. Burning, open fires or open flames;
8. Compaction of the soil;
9. Girdling; and/or
10. Topping. (Ord. #248-2020, S2 (Exh. A))

Chapter 18, Section 40.020 defines which trees are subject to permits for removal as follows:

   a. A native tree removal permit shall be required for the following, unless exempted under Section 18- 40.030:

11. Native oak trees with the following diameter at breast height (DBH):

   a. Blue Oak (*Quercus douglasii*) greater than six (6") inch DBH;
   b. Valley Oak (*Quercus lobata*) greater than six (6") inch DBH;

c. Interior Live Oak (*Quercus wislizeni*) greater than six (6") inch DBH;
d. California Black Oak (*Quercus kelloggii*) greater than six (6") inch DBH;
e. Canyon Live Oak (*Quercus chrysolepsis*) greater than six (6") inch DBH;
f. Oregon White Oak (*Quercus garryana*) greater than six (6") inch DBH.

12. Any other tree designated by the City Council as a "heritage tree" as described in Section 18-40.060. (Ord. #248-2020, S2 (Exh. A)).

3.3 PROJECT IMPACTS AND MITIGATION MEASURES

The Airport Property Commercial Center Hotel and the extension of 18th will develop a small amount of regionally available habitat to developed use. The northern portion of the parcel for the Hotel development, although covered by this report, is not currently planned for development, as such impacts to this area are not expected.

Project impacts to biological resources and mitigations are discussed below.

3.3.1 Loss of Habitat for Special Status Plants

Potential Impact. Three special status plant species that occur, or once occurred, in the project vicinity are considered either absent from or unlikely to occur on the site due to a lack of suitable habitat, and/or because the species has not been observed in the site's vicinity, and/or because the species is a perennial and would have been identifiable during the time of year that the reconnaissance survey was conducted and it was not observed (see Table 1; Figure 4). These three species include the big-scale balsamroot, adobe-lily, and pappose tarplant.

However, nine special status plants cannot be ruled out as occurring on the site because habitats of the site are potentially suitable for these species and the survey occurred outside of the blooming period for these species. The latter special status plant species, along with their blooming period, include the bent-flowered fiddleneck (March – June), Raiche's manzanita (February – April), three-fingered morning glory (April – June), deep-scarred cryptantha (April – May), Tracy's eriastrum (May – July), congested-headed hayfield tarplant (April – November), Napa bluecurls (June – October), San Joaquin spearscale (April - October), and oval-leaved viburnum (May – June). Focused floristic surveys during the appropriate blooming season in all potentially suitable habitats for these species would be necessary to determine whether the proposed project would impact any populations of these species. Should focused surveys determine populations of any of these species are present on the site, and if the project as proposed would impact these populations, this could be considered a potentially significant impact of the project.

Mitigation. As indicated above, there is the potential for special status plants to occur on the site. Floristic surveys should be conducted on the site in all habitats that potentially support special status species during the appropriate season to identify the species if it is present, which is typically during the species' blooming period. Based upon the suite of special status plant species potentially occurring on the site, at a minimum, four surveys should be conducted, i.e., in March, April, June, and October in all areas of the site within and adjacent to (within 100 feet) of project development footprints that provide potential habitat for the target species. These surveys should be conducted in conformance with the most recent version of CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities* and CNPS' *Botanical Survey Guidelines.*

Should rare plant populations be determined present on the project site during the focused floristic surveys, the populations will be mapped and the number of individuals will be estimated. A qualified plant ecologist or botanist will determine whether project impacts to these populations are significant. If project impacts are determined to be significant, the following mitigation measures will be implemented to reduce impacts to a less-than-significant level.

Avoidance and Minimization Measures. To the extent practicable, the project should be designed to avoid or minimize impacts to special status plant populations with a buffer determined by the qualified botanist or plant ecologist.

Compensation Measures. If the project cannot be redesigned to avoid or minimize impacts to the identified species to a less-than-significant level, then compensation measures would include development of an onsite or off-site restoration plan for these species. At a minimum, any restoration plan should contain the following elements: 1) location of restoration areas, 2) propagation and planting techniques to be employed for the restoration effort, 3) a timetable for implementation, 4) a monitoring plan and performance criteria, 5) an adaptive management plan should the restoration not meet interim success criteria, and 6) a site maintenance plan. The restoration plan would need to be approved by the County prior to the start of project construction and should, where feasible, occur in the immediate vicinity of the identified population(s). The objective of this mitigation measure would be to replace the special status plants and habitat lost during project build-out. This and any other compensation (on- or off-site mitigation) for anticipated impacts should be consistent with local policies and ordinances, and any other regulations protecting these plant communities.

Implementation of the above measures is expected to reduce project impacts to a less-than-significant level to any special status plant species that may occur on the site.

3.3.2 Loss of Habitat for Special Status Animals

Potential Impacts. Of the 34 special-status animal species potentially occurring in the region, 22 species would be absent or unlikely to occur within the Project Site due to unsuitable habitat conditions or being outside the species' range. These include the Clear Lake hitch, Steelhead, Sacramento perch, Clear Lake tule perch, foothill yellow-legged frog, California giant salamander, red-bellied newt, California red-legged frog, western pond turtle, bald eagle, golden eagle, western yellow-billed cuckoo, purple martin, and ringtail. Construction of the project would have no effect on loss of habitat for these species because there is little or no likelihood that they are present.

An additional four species may regularly or occasionally utilize the Project Site for foraging, including the Clear Lake roach, Townsend's big-eared bat, pallid bat, and western red bat. The Project Site does not provide regionally important foraging habitat for these species. Additionally, the drainage is not within the development area, therefore, fish habitat will not be impacted. Therefore, development of the project would result in a less-than-significant impact on these species.

The three bat species listed above, including the Townsend's big-eared bat, pallid bat, and California mastiff bat may forage over the site, however, roosting habitat is absent from the site for these species, as trees with suitable cavities and leaf density are absent from the site.

Mitigation. No mitigation is warranted for specific species; however, mitigation measures are provided below for raptors and migratory birds (Mitigation 3.3.3).

3.3.3 Disturbance to Active Raptor and Migratory Bird Nests

Potential Impacts. The Project Site provides potentially suitable nesting habitat for several migratory bird species, including raptors. Nearly all native bird species are protected by the federal Migratory Bird Treaty Act. The trees, bushes, and ground of the site provide potential nesting habitat for these birds. If birds were to nest in these areas in the future prior to construction, such project-related activities could result in the abandonment of active nests or direct mortality to these birds. Construction activities that adversely affect the nesting success of raptors or result in mortality of individual birds constitute a violation of state and federal laws (see Section 3.2.2 and 3.2.3) and would be considered a significant impact under CEQA.

Mitigation. To minimize construction disturbance to active raptor and migratory bird nests, the following measure(s) will be followed:

Mitigation 3.3.3a **(*Pre-construction surveys*).** If tree removal, site preparation, grading, or construction is planned to occur within the breeding period (i.e., between February 1 and August 31), a qualified biologist will conduct pre-construction surveys for active nests of migratory birds within 7 days of the onset of these activities. If construction activity is planned to commence outside the breeding period, no pre-construction surveys are required for nesting birds and raptors.

Mitigation 3.3.3b **(*Establish Buffers*).** Should any active nests be discovered in or near proposed construction zones, the biologist will establish a construction-free buffer around the nest. The buffer would be adequate to ensure the nest is not disturbed by construction activities and would be based on the location of the nest, species of bird, sensitivity of the bird (as determined by the biologist), and proximity to and type of construction occurring near the nest. This buffer shall be identified on the ground with flagging or fencing and shall be maintained until the biologist has determined that the young have fledged. Established buffers may be altered only if a qualified biologist provides compelling biological or ecological reason to do so.

Mitigation 3.3.3c **(*Tailgate Training*).** All construction and operations workers on the project site shall be trained by a qualified biologist. The tailgate training shall include a description of the Migratory Bird Treaty Act, instructions on what to do if an active nest is located, and the importance of capping pipes and pipe-like structures standing upright to avoid birds falling into the pipes and getting stuck.

Implementation of the above measures would ensure that construction of the project would have no impact on nesting raptors and migratory birds and that the project would follow state and federal laws protecting nesting birds.

3.3.4 Impacts to Wildlife Movement Corridors

Potential Impacts. The site itself consists mainly of open previously developed area with some natural lands along the northern edge. Development of the City of Clearlake occurs to the west, north, and east of the site, with dispersed rural residential around the immediate northern are of the site. Therefore, the site itself likely does not play a major role as a wildlife corridor, however, wildlife which currently use the site for daily or dispersal movements would likely continue to do so after the site is built out.

Impacts to movement corridors for local wildlife are less-than-significant.

Mitigations. Mitigation for impacts to wildlife movements is not warranted.

3.3.5 Impacts to Jurisdictional Waters, Wetlands, or Riparian Habitats

Potential Impacts. The only hydrologic feature occurring within the study area is the drainage that cuts through the northwestern corner of the site; this drainage is a tributary of Cache

Creek and is likely considered to be a water of the U.S. and/or water of the State. However, the development area will avoid this feature completely, therefore, impacts to jurisdictional waters, wetlands, or riparian habitats are not expected to occur.

Mitigation. Mitigation measures are not warranted.

3.3.6 City of Clearlake Native Tree Protection Ordinance

Potential Impacts. City of Clearlake has a tree protection ordinance to protect native oak trees. LOA ISA-certified arborist Colleen Del Vecchio (WE#11788A) conducted an arborist inventory and provided an arborist report, which is attached to this report as Appendix A. Development, as currently planned is expected to impact 52 trees protected under the ordinance. Replacement in Clearlake is conducted by planting trees onsite, off-site, or paying in-lieu fees to the City. The report outlines protection measures for remaining trees and more information regarding the 52 trees to be removed or otherwise impacted.

Mitigation. Trees removed will need to be either replaced onsite, off-site, or an in-lieu fee paid to the City.

4 LITERATURE CITED

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5 APPENDIX A: ARBORIST TREE INVENTORY AND ASSESSMENT FOR PROPOSED AIRPORT COMMERCIAL CENTER HOTEL PROJECT, CLEARLAKE, LAKE COUNTY, CALIFORNIA

August 8, 2022

Alan Flora
City Manager, City of Clear Lake
14050 Olympic Drive
Clearlake, CA 95422

Subject: Post-Fire Tree Assessment for Proposed Airport Property Commercial Center Hotel Project, Clearlake, Lake County, California (PN 2671-02)

Dear Mr. Flora,

This letter summarizes Live Oak Associates, Inc. (LOA) recommended post-fire tree assessment procedures. In July 2022, after LOA's arborist conducted a tree inventory and assessment at the proposed airport property commercial center hotel project, a fire occurred that potentially damaged, injured, and/or killed some of the existing protected trees. The steps below are recommended to determine the health status of each tree.

Post-Fire Survey Procedures

The following procedures are recommended to determine which of the protected trees will survive the July 2022 fire. The protected trees that survive and are then impacted by project activities, will need to be mitigated for. These methods will help determine which trees are alive. Protected trees within the vicinity of the project, but not needing to be removed, would require more long-term monitoring methods which are also described below.

Protected Trees Expected To Be Removed

Within 8 to 10 weeks of being impacted by fire, a tree's cambium can be checked to determine if a tree is dying or is living. In the short-term, this can be helpful for determining whether or not a tree is still alive and subject to mitigation. The method of checking a tree's cambium for health is recommended only for trees expected to be removed by the project. This method damages the tree's bark and should not be conducted on trees that will remain in place. If this method is to be used as a follow-up survey, the grading limit must be physically staked in the project site so not to confuse a protected tree that is being removed vs. a protected tree that requires protection measures and will remain in place.

Protected Trees Expected To Remain

Protected trees expected to remain in place may require a hazard assessment if safety becomes a concern at the time of construction. This survey is optional. Since these trees will not be removed or potentially require mitigation, it is recommended that these trees are not assessed at the time of the tree expected to be removed. Instead, it is recommended that the tree protection measures remain the same (as stated in LOA's July 18, 2022 "Arborist Tree Inventory and Assessment for Proposed Airport Property Commercial Center Hotel Project" report). Then, prior to construction starting when the tree protection measures are required to be checked by an arborist, if the client would like an assessment made for hazardous trees near the construction site, this would be the ideal time. To determine health for these trees, it is recommended at least one winter season has passed (2022-2023), and this timing does not correspond with the survey that can be conducted for trees expected to be removed.

Conclusion

Protected trees expected to be removed from project activities can be re-surveyed as early as October 1, 2022 to determine their health status. Trees not expected to be removed from project activities, but require tree protection measures, can be re-surveyed in spring 2023 at the earliest.

If you have any questions regarding this letter, please contact me at your earliest convenience. I may be reached by phone (559-642-4880) or e-mail (cdelvecchio@loainc.com).

Sincerely,

Colleen Del Vecchio
Ecologist & Arborist/Project Manager
Live Oak Associates, Inc.

March 24, 2022

Alan Flora
City Manager
City of Clearlake
14050 Olympic Drive
Clearlake, CA 95422

SUBJECT: Reconnaissance Survey for the Adjacent Airport Property in Clearlake, Lake County, California.

Dear Mr. Flora:

At your request, Live Oak Associates, Inc. (LOA) has prepared this scope and budget to conduct the necessary field surveys and to gather reconnaissance-level information for the adjacent airport property during the same site visit as the Hotel project site. The Airport site is just south of the Hotel site, which is located at the end of 18th Avenue in the City of Clearlake in Lake County, California. This property is identified as "Parcel S" in the 2021 Clearlake Conceptual Plan. The approximately 0.3-acre property is located at the end of 18th Avenue.

Following are the proposed tasks:

Task 1. RECONNAISSANCE SUREVEY FOR THE ADJACENT AIRPORT PROPERTY.

Task 1a. Project Management
A small amount of time has been allocated for project management.

Task 1b. Site Survey.
This survey is intended to occur in the same trip as for the Hotel Property and is meant to be a general site visit to assess for obvious potential issues only, such as whether an arborist survey, wetland delineation, rare plant surveys, or other special surveys may be necessary. This is meant to be a reconnaissance-level survey that could be used to write a biological evaluation report at a later date if it is requested by the City within a reasonable amount of time.

We are not proposing to conduct a formal wetland delineation or protocol-level, species-specific surveys. If such surveys are warranted, they will be covered under a separate scope of work.

Task 1c. Preparation of Memo.
After the site visit, the biologist will prepare a memo summarizing the field notes; this is not intended to be an assessment or evaluation, just strictly a summarization of what was observed on the site and any other notes the biologist takes in the field.

We propose to complete Task 1 for a not-to-exceed amount of $2,358.

We thank you for using our firm to provide you these services and look forward to working with you. If you have any additional questions or concerns regarding this proposal, please contact me at (408) 281-5889, at your convenience.

Sincerely,

Katrina Krakow

Katrina Krakow
Senior Project Manager
Staff Ecologist

Proposal Acceptance

Accepted By: ______________________________ Date: __________________

Printed Name: ______________________________ Title: __________________

STANDARD TERMS AND CONDITIONS

The following are LOA's standard contract terms and conditions, to be incorporated into the agreement by and between
LIVE OAK ASSOCIATES, INC. (hereinafter referred to as "LOA") and **City of Clearlake** (hereinafter referred to as "Client").

APPLICABLE LAWS. Contractor is obligated by professional codes of ethics and applicable laws to report observed violations of federal, state, and local codes for protection of natural resources and the environment.

ADDITIONAL SERVICES. Should Client, or any public body or inspector direct any modification or addition to the Services covered by this Contract, the payment for Services as set forth in Section 4 shall be adjusted accordingly. Client agrees to reimburse LOA for any additional hours for requested additional work not described in the Contract at an applicable hourly fee schedule rate.

INDEPENDENT CONTRACTOR STATUS. It is understood by the parties that in performing the above-described Services, LOA shall act as an independent contractor with respect to Client.

PAYMENT FOR SERVICES. In consideration for the Services to be performed by LOA under this Contract, Client agrees to pay to LOA for work performed upon receipt of monthly invoices. Monthly invoices will reflect work performed at the respective hourly rates of individuals providing Services on behalf of LOA. Payments are due upon receipt of monthly invoice.

Accounts more than 30 days past due shall accrue interest at the rate of ten percent (10%) per annum. Additionally, accounts more than 30 days past due shall be subject to a service charge of eight percent (8%) per annum. In the event that collection is required on past due accounts or litigation is required to resolve a dispute arising under this Contract, it is further agreed that the prevailing party in any such action shall be entitled to receive reasonable attorney's fees in addition to costs.

TERM. This Contract shall become effective on the date of its execution and shall continue in force and effect until the Services provided for herein have been fully and completely performed, unless otherwise terminated as set forth in Section 6 below.

RIGHT TO STOP WORK. LOA shall have the right to stop performance of the Services until all payments due are received if any payment shall not be made, when due, to LOA under this Contract. Failure to make payment, within thirty (30) days of the date due, is a material breach of this Contract and shall entitle LOA to cease any further Services under the Contract.

TERMINATION. If a party defaults by failing to substantially perform any provision, term or condition of this Contract, the other party may terminate this Contract by providing written notice to the defaulting party. This notice shall describe with sufficient detail the nature of the default. The party receiving such notice shall have 30 days from the effective date of such notice to cure the default(s). Unless waived by a party providing notice, the failure to cure the default(s) within such time period shall result in the automatic termination of this Contract.

USE OF INFORMATION. Upon completion of the Project, LOA shall have the right to use relevant information gathered during the Project investigation on future projects. LOA shall have the right to use illustrations, charts, graphs, maps and other visual materials developed by LOA in connection with the Project, but will omit references to Client's name. LOA shall have the right to reference the Project and client's name when preparing literature, proposals and conducting interviews for obtaining future consulting jobs. LOA's reports shall be used by Client only in connection with the Project.

OBLIGATIONS OF CLIENT. Client agrees to comply with all reasonable requests of LOA necessary for the performance of LOA's obligations under this Contract. Client agrees to furnish space on Client's property for use by LOA while performing the Services.

WARRANTY. LOA shall provide its Services and meet its obligations under this Contract in a timely and workmanlike manner, and shall provide a standard of care equal to, or superior to, care used by service providers similar to LOA on similar projects.

INDEMNIFICATION. Client shall indemnify and hold LOA harmless from any liability, claims, demands, loss, damages or expense, including any reasonable attorney fees and costs, asserted against or suffered by LOA resulting from: (i) any breach by Client of this Agreement; (ii) any liability of the Client with respect to the Client's Property and/or Client's Project or otherwise; or (iii) the accuracy or breach of any of the representations, warranties or covenants made by Client.

LOA shall indemnify and hold Client or its directors, officers, and employees harmless from any liability, claims, demands, loss, damages or expense, including any reasonable attorney fees and costs, asserted against or suffered by Client resulting from the acts, errors or omissions of LOA or its directors, officers, employees, and sub-consultants in performance of this Agreement, except for injuries and damages caused by the sole negligence of the Client.

SUBCONTRACTORS. LOA may subcontract to other qualified personnel such portions of the work required by Client as LOA deems necessary.

ASSIGNMENT. Neither party may assign or transfer its rights or obligations under this Contract without the prior written consent of the non-assigning party.

MEDIATION. LOA and Client agree to mediate any dispute or claim arising between them out of this Contract, or any resulting transaction, before resorting to court action. Mediation fees, if any, shall be divided equally among the parties involved. If, for any dispute or claim to which this paragraph applies, any party commences an action without first attempting to resolve the matter through mediation, or refuses to mediate after a request has been made, then that party shall not be entitled to recover attorney fees, even if they would otherwise be available to that party in any such action.

ATTORNEY'S FEES. If either party institutes a court action arising from this Contract or the performance of it, the prevailing party in such action or litigation shall, in addition to such other relief as the court may grant, be entitled to an award of reasonable costs and expenses of litigation, including expert witness fees and attorney fees.

ENTIRE AGREEMENT. This Contract contains the entire agreement of the parties, and there are no other promises or conditions in any other agreement whether oral or written concerning the subject matter of this Contract. This Contract supersedes any prior written or oral agreements between the parties.

SEVERABILITY. If any provision of this Contract will be held to be invalid or unenforceable for any reason, the remaining provisions will continue to be valid and enforceable. If a court finds that any provision of this Contract is invalid or unenforceable, but that by limiting such provision it would become valid and enforceable, then such provision will be deemed to be written, construed, and enforced as so limited.

AMENDMENT. This Contract may be modified or amended in writing, if the writing is signed by the party obligated under the amendment.

GOVERNING LAW. This Contract shall be construed in accordance with the laws of the State of California.

BINDING EFFECT. The terms and provisions of this Contract shall be binding and inure to the benefit of the successors and assigns of the parties hereto.

DESCRIPTIVE HEADINGS. The descriptive headings used and inserted into this Contract are for convenience only and shall not be deemed to affect the meaning or construction of any provision herein.

COUNTERPARTS. This Contract may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. This Contract shall become effective upon the execution of a counterpart hereof by each of the parties hereto.

NOTICES. All notices and communications hereunder shall be in writing and shall be deemed given and delivered personally when mailed by registered or certified mail, postage prepaid, addressed as follows if to LOA:

Live Oak Associates, Inc.
P.O. Box 2697
Oakhurst, CA 93644

and addressed as follows if to Client:
Alan Flora
City Manager
City of Clearlake
14050 Olympic Drive
Clearlake, CA 95422
707-994-8201

LIVE OAK ASSOCIATES, INC.
AIRPORT PROPERTY COMMERCIAL CENTER

RECONNAISSANCE SURVEY FOR THE ADJACENT AIRPORT PROPERTY
CLEARLAKE, LAKE COUNTY, CALIFORNIA

24-Mar-22

I. STAFF COSTS FOR RECONNAISSANCE SURVEY FOR THE ADJACENT AIRPORT PROPERTY

	STAFF				
TASKS	**Principal**	**Sr. Proj. Manager Staff Ecologist**	**Botanist**	**Cartographer**	**Support**
Task 1. Additional Work for Adjacent Property	-	-	-	-	-
Task 1a. Project Management	1	1	0	0	0
Task 1b. Site survey	0	6	0	0	0
Task 1c. Field Notes Memo	0.5	3	2	0	0.25
TOTAL	**1.5**	**10**	**2**	**0**	**0.25**
$/HR	**235**	**145**	**145**	**145**	**70**
$ TOTAL	**353**	**1,450**	**290**	**-**	**18**
STAFF SUBTOTAL					**$ 2,110**

VI. DIRECT COSTS FOR TASK 1

Per Diem ($96/day lodging; $59/day meals) 2022 GSA Rate		214			214
Mileage ($0.585/mi)		20 miles			11
Service Cost (10% direct expenses)					23
DIRECT EXPENSE SUBTOTAL					**$ 248**

TOTAL PROJECT COSTS FOR TASK 1	**$ 2,358**

Attachment C

Transportation Impact Study

Transportation Impact Study for the Airport Hotel Project

Prepared for the City of Clearlake

Submitted by
W-Trans

August 31, 2022

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Table of Contents

Plates

Appendices

Executive Summary

The proposed 75-room Fairfield Inn hotel would occupy approximately 2.8 acres of vacant land at the northern end of the former airport site in the City of Clearlake. The project would be expected to generate an average of 599 daily trips, with 35 new trips during the weekday a.m. peak hour and 44 trips during the weekday p.m. peak hour.

The project site would be accessed via a new 18th Avenue Extension, which would intersect Old Highway 53 to the west and connect to the existing terminus of 18th Avenue to the east. Sight lines on Old Highway 53 and 18th Avenue are adequate to accommodate all turns into and out of the proposed intersection and project driveway. To maintain clear sight lines, vision triangles at the access points should be kept free of obstructions.

As shown on the improvement plans, the design of the proposed new intersection at Old Highway 53/18th Avenue includes a marked crosswalk on the 18th Avenue leg, ADA-compliant curb ramps, a relocated bus stop to the north leg, a southbound left-turn lane on Old Highway 53 with 75 feet of stacking space, and overhead intersection lighting.

The projected 95th percentile queues in turn pockets at the SR 53/18th Avenue intersection would remain within existing storage capacity under all scenarios. Access for emergency vehicles and on-site circulation are expected to function acceptably with incorporation of applicable design standards into the site layout.

Bicycle parking on the project site should be supplied at a rate of 15 percent of the vehicle parking spaces, translating to 17 spaces for the proposed vehicle supply of 109 spaces. With the construction of sidewalks and Class II bike lanes on 18th Avenue Extension, the project site would be connected to the surrounding pedestrian and bicycle network, and access for pedestrians, bicyclists, and transit riders would be adequate.

Under guidance provided by the California Governor's Office of Planning and Research (OPR) as well as data contained in the *Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study* for Lake County, hotel employees and guests would be expected to have a less-than-significant transportation impact on vehicle miles traveled (VMT).

To assess the project's compliance with General Plan policies, operations were evaluated at the existing SR 53/18th Avenue intersection as well as at the proposed Old Highway 53/18th Avenue Extension intersection. Analysis indicates the SR 53/18th Avenue study intersection is operating acceptably under Existing Conditions and would continue to do so under Baseline and Future Conditions, with and without project traffic added. The new intersection is also expected to operate acceptably under Existing, Baseline, and Future Conditions with project traffic added.

The proposed vehicle parking supply of 109 spaces would be four spaces short of meeting City requirements for the 75 proposed guest rooms and 2,300 square feet of meeting space; however, would be adequate with a shared parking reduction allowed by City Code. Given that national standard parking demand rates for business hotels translate to substantially fewer spaces than required by City Code, the City may wish to consider approving the project with a shared parking reduction.

Introduction

This report presents an analysis of the potential transportation impacts and operational effects that would be associated with the proposed hotel to be located at the northern end of the former airport site in the City of Clearlake. The transportation study was completed in accordance with the criteria established by the City of Clearlake, reflects a scope of work approved by City staff, and is consistent with standard traffic engineering techniques.

Prelude

The purpose of a transportation impact study (TIS) is to provide City staff and policy makers with data that they can use to make an informed decision regarding the potential transportation impacts of a proposed project, and any associated improvements that would be required to mitigate these impacts to an acceptable level under CEQA, the City's General Plan, or other policies. This report provides an analysis of those items that are identified as areas of environmental concern under the California Environmental Quality Act (CEQA) and that, if significant, require an EIR. Impacts associated with access for pedestrians, bicyclists, and to transit; the vehicle miles traveled (VMT) generated by the project; potential safety concerns such as increased queuing in dedicated turn lanes, adequacy of sight distance, need for turn lanes, and need for additional right-of-way controls; and emergency access are addressed in the context of the CEQA criteria.

While no longer a part of the CEQA review process, vehicular traffic service levels at key intersections were evaluated for consistency with General Plan policies by determining the number of new trips that the proposed uses would be expected to generate, distributing these trips to the surrounding street system based on anticipated travel patterns specific to the proposed project, then analyzing the effect the new traffic would be expected to have on the study intersections and need for improvements to maintain acceptable operation. Adequacy of parking is also addressed as a policy issue.

Applied Standards and Criteria

The report is organized to provide background data that supports the various aspects of the analysis, followed by the assessment of CEQA issues and then evaluation of policy-related issues. The CEQA criteria evaluated are as follows.

Would the project:

a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?
b. Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
d. Result in inadequate emergency access?

Project Profile

The project includes a 75-room Fairfield Inn hotel that would be operated by Marriott. As part of the project, 18th Avenue would be extended from its existing terminus on the west side of SR 53 along the project frontage to Old Highway 53, creating a new public street intersection between Old Highway 53 and 18th Avenue. As proposed, the new intersection would be stop-controlled on the terminating 18th Avenue approach and would include a southbound left-turn lane on Old Highway 53. The project site is located on approximately 2.8 acres of vacant land at the northern end of the former airport site in the City of Clearlake, as shown in Figure 1.

cle030.ai 05/22

Transportation Impact Study for the Airport Hotel Project

Figure 1 – Study Area, Existing, and Proposed Lane Configurations

W-Trans

Transportation Setting

Study Area and Periods

The study area varies depending on the topic. For pedestrian trips it consists of all streets within a half-mile of the project site that would lie along primary routes of pedestrian travel, or those leading to nearby generators or attractors. For bicycle trips it consists of all streets within one mile of the project site that would lie along primary routes of bicycle travel. For the safety and operational analyses, the study area was selected with input from City and Caltrans staff and consists of the following intersections, one of which is existing and another that would be a new intersection constructed as part of the project:

1. SR 53/18th Avenue (All Scenarios)
2. Old Highway 53/18th Avenue Extension (Project Conditions only)

Operating conditions during the weekday a.m. and p.m. peak periods were evaluated to capture the highest trip generation potential for the proposed use as well as the highest volumes on the local transportation network. The weekday morning peak hour occurs between 7:00 and 9:00 a.m. and reflects conditions during the home to work or school commute, while the weekday p.m. peak hour occurs between 4:00 and 6:00 p.m. and typically reflects the highest level of congestion during the homeward bound commute. New turning movement counts were obtained for the existing study intersection in May 2022.

Study Intersections

SR 53/18th Avenue is an existing four-legged signalized intersection with protected left-turn phasing on the northbound and southbound approaches and split phasing on the eastbound and westbound approaches. Crosswalks with pedestrian phasing are provided on all four legs.

Old Highway 53/18th Avenue Extension is a proposed tee intersection that would be constructed with the project approximately 320 feet south of Lakeview Way. The intersection would be stop-controlled on the westbound 18th Avenue approach and a southbound left-turn lane would be provided on Old Highway 53.

The locations of the study intersections along with the existing and proposed lane configurations and controls are shown in Figure 1.

Study Roadway

Old Highway 53 runs on a skewed alignment, though it is mostly oriented north to south and has one travel lane in each direction plus Class II bicycle lanes. The roadway has a posted speed limit of 35 miles per hour (mph) in the project vicinity. Based on count data collected in May 2022, the roadway has an average daily traffic (ADT) volume of approximately 7,200 vehicles south of Lakeview Way.

Vehicle Collision History

The collision history for the existing study intersection of SR 53/18th Avenue was reviewed to determine any trends or patterns that may indicate a safety issue for motorists in the project vicinity. The collision rate, measured in collisions per million vehicles entering intersection (c/mve), was calculated based on records available from the California Highway Patrol (CHP) as published in their Statewide Integrated Traffic Records System (SWITRS) reports. The most current five-year period available is January 1, 2017, through December 31, 2021.

The calculated collision rate for SR 53/18th Avenue was compared to the average collision rate for similar facilities statewide, as indicated in *2018 Collision Data on California State Highways*, California Department of Transportation (Caltrans). These average rates statewide are for intersections in the same environment (urban, suburban, or rural), with the same number of approaches (three or four), and the same controls (all-way stop, two-way stop, or traffic signal).

During the five-year study period, a total of five collisions were reported at the intersection translating to a calculated collision rate of 0.13 c/mve, which is lower than the statewide average rate of 0.24 c/mve for similar facilities indicating that the intersection is performing within normal safety parameters. The collision rate calculation is provided in Appendix A.

Project Data

The proposed project includes a hotel with 75 rooms and approximately 2,300 square feet of meeting space to be located on an extension of 18th Avenue between SR 53 and Old Highway 53. A total of 109 parking spaces are indicated on the site plan. The project site plan is shown in Figure 2 and the proposed roadway improvements are shown in Figure 3.

Trip Generation

The anticipated trip generation for the project was estimated using standard rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation Manual*, 11th Edition, 2021 for "Hotel" (Land Use #310). As shown in Table 1, the project would be expected to result in an average of 599 trips per day, with 35 trips during the weekday a.m. peak hour and 44 trips during the weekday p.m. peak hour. As is the case with all standard trip generation rates, although the number of rooms is the independent variable, trips associated with all aspects of the use such as employees, deliveries, etc. are included in the rates and resulting trip estimates.

Table 1 – Trip Generation Summary

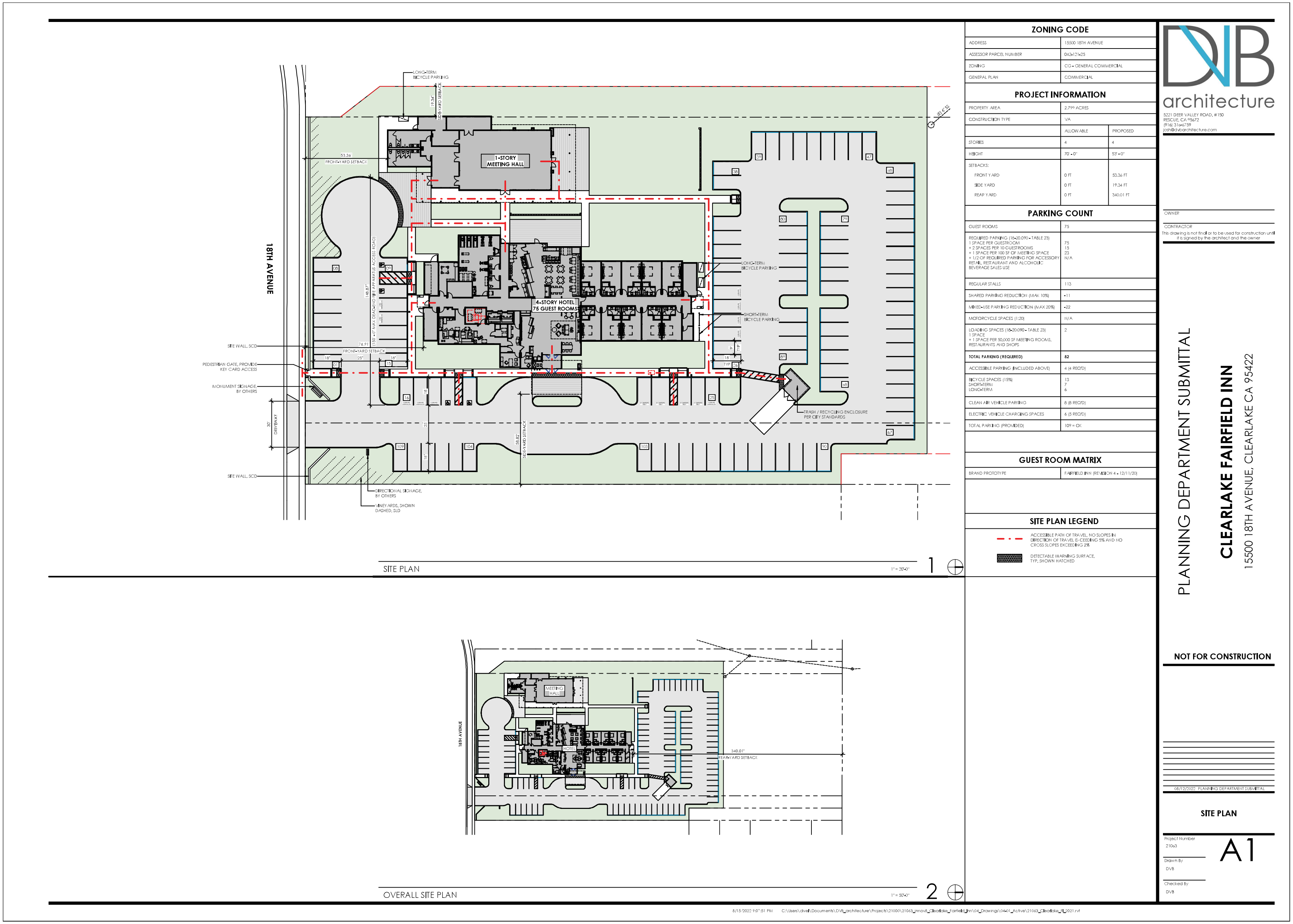
Land Use	Units	Daily		AM Peak Hour				PM Peak Hour			
		Rate	Trips	Rate	Trips	In	Out	Rate	Trips	In	Out
Hotel	75 rooms	7.99	599	0.46	35	19	16	0.59	44	22	22

Trip Distribution

The pattern used to allocate new project trips to the surrounding street network was determined by reviewing historical turning movements in the study area, knowledge of the area and surrounding region, and anticipated travel patterns for patrons of the project. The applied trip distribution assumptions approved by City and Caltrans staff and resulting daily trips are shown in Table 2.

Table 2 – Trip Distribution Assumptions

Route	Percent	Daily Trips
To/from North via Old Highway 53	20	120
To/from North via SR 53	40	239
To/from South via Old Highway 53	10	60
To/from South via SR 53	30	180
Total	**100%**	**599**



Source: DVB Architects 8/29

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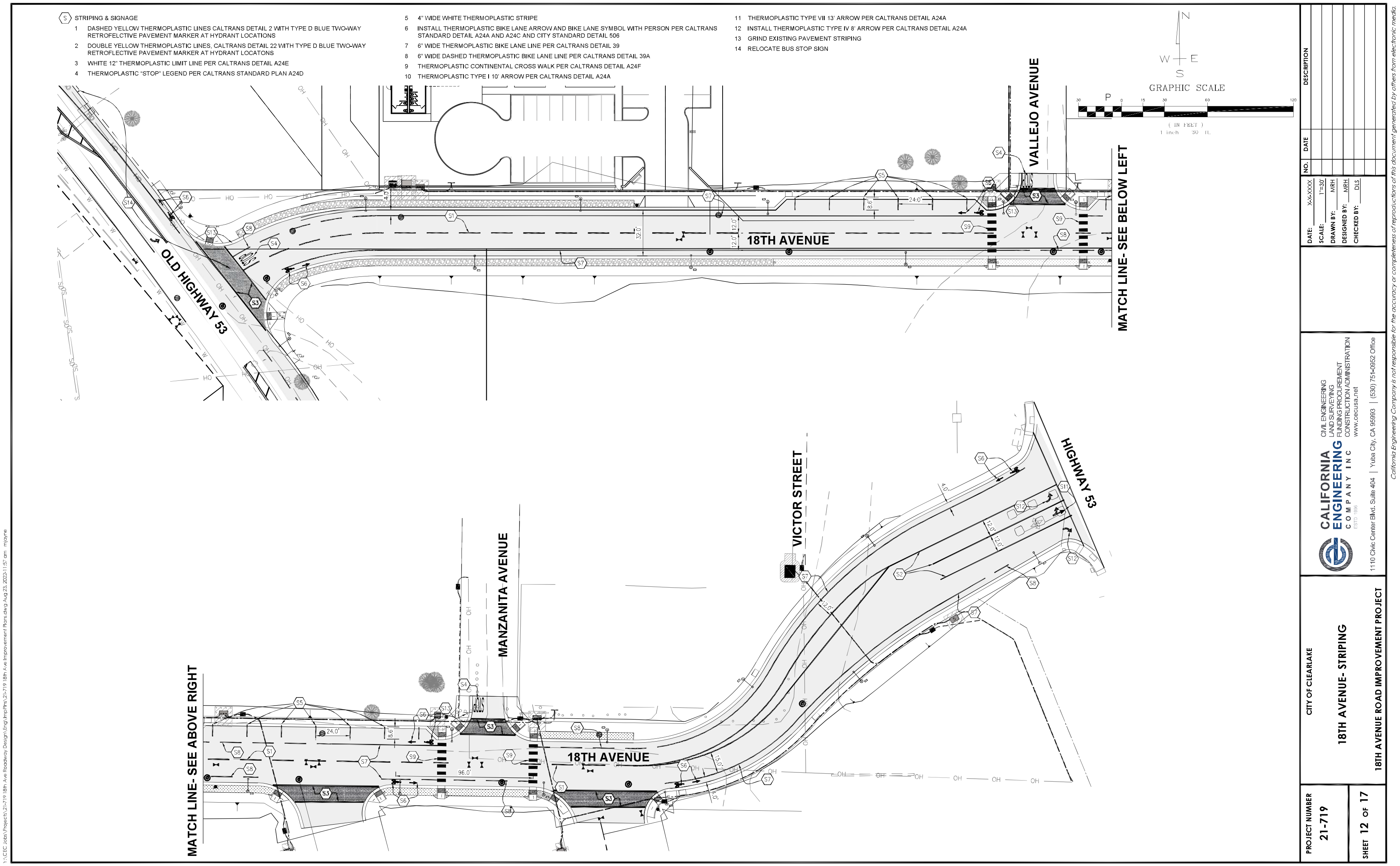
Transportation Impact Study for the Airport Hotel Project

Figure 2 – Site Plan



Source: DVB Architects 8/29

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Transportation Impact Study for the Airport Hotel Project

Figure 3 – Proposed Roadway Improvements

Circulation System

This section addresses the first bullet point on the CEQA checklist, which relates to the potential for a project to conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.

Pedestrian Facilities

Existing and Planned Pedestrian Facilities

Pedestrian facilities include sidewalks, crosswalks, pedestrian signal phases, curb ramps, curb extensions, and various streetscape amenities such as lighting, benches, etc. In general, the sidewalk network surrounding the project site is very limited. Sidewalk gaps along connecting roadways impact convenient and continuous access for pedestrians and may present safety concerns in those locations where appropriate pedestrian infrastructure would address potential conflict points.

- **Old Highway 53** – Intermittent coverage is provided on the west side of Old Highway 53 north of the project site. Lighting is not provided.
- **18th Avenue** – Sidewalks are not currently provided on 18th Avenue. As contained in the *Active Transportation Plan for Lake County*, Lake County/City Area Planning Council, 2016, sidewalks are proposed along 18th Avenue east of SR 53.
- **SR 53** – Sidewalks are not provided or planned along SR 53, though crosswalks with pedestrian phasing and curb ramps exist on all four legs of the signalized intersection with 18th Avenue.

Pedestrian Safety

The collision history for the existing study intersection was reviewed to determine any trends or patterns that may indicate a safety issue for pedestrians in the vicinity of the project site. For the same five-year study period used for the vehicle collision analysis of January 1, 2017, through December 31, 2021, there was a single collision reported near SR 53/18th Avenue in November 2020 resulting in a pedestrian fatality. The collision involved a southbound motorist and an elderly westbound pedestrian crossing the south leg of the intersection. Because the pedestrian was deemed at fault and this was an isolated incident with no other pedestrian collisions occurring during the study period and even as far back as 10 years, it can reasonably be determined that the existing pedestrian facilities at the intersection consisting of crosswalks, pedestrian phasing, curb ramps, and overhead intersection lighting provide sufficient crossing measures for pedestrians.

Project Impacts on Pedestrian Facilities

Most hotel guests are expected to use a vehicle to reach the project site, though given the proximity of residential uses surrounding the site, it is reasonable to assume that some project employees may want to walk, bicycle, and/or use transit to travel between the project site and surrounding areas. Additionally, once the Airport property is redeveloped, there is potential for substantial pedestrian travel between the hotel and other commercial and restaurant uses within the Airport redevelopment site. Upon construction of sidewalks along both sides of the extension of 18th Avenue, as proposed, the project site would be connected to the existing and planned pedestrian network. A network of sidewalks would also be provided throughout the project site resulting in connected on-site pedestrian circulation. As shown on the site plan, the design of the Old Highway 53/18th Avenue intersection includes ADA-compliant curb ramps with a marked crosswalk on the stop-controlled 18th Avenue leg as well as overhead intersection lighting.

Finding – Upon constructing sidewalks along both sides of 18th Avenue Extension, the hotel would be connected to the surrounding pedestrian network.

Bicycle Facilities

Existing and Planned Bicycle Facilities

The *Highway Design Manual*, Caltrans, 2017, classifies bikeways into four categories:

- **Class I Multi-Use Path** – a completely separated right-of-way for the exclusive use of bicycles and pedestrians with cross flows of motorized traffic minimized.
- **Class II Bike Lane** – a striped and signed lane for one-way bike travel on a street or highway.
- **Class III Bike Route** – signing only for shared use with motor vehicles within the same travel lane on a street or highway.
- **Class IV Bikeway** – also known as a separated bikeway, a Class IV Bikeway is for the exclusive use of bicycles and includes a separation between the bikeway and the motor vehicle traffic lane. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking.

In the study area, Class II bike lanes exist on Old Highway 53 and segments of 18th Avenue, Phillips Avenue, Dam Road, and Garner Avenue. Additional Class II bike lanes are planned on Boyles Avenue. Bicyclists ride in the roadway and/or on sidewalks along all other streets within the project study area. Table 3 summarizes the existing and planned bicycle facilities in the project vicinity, as contained in the *Active Transportation Plan for Lake County*, 2016.

Table 3 – Bicycle Facility Summary

Status Facility	Class	Length (miles)	Begin Point	End Point
Existing				
Old Highway 53	II	2.7	Olympic Drive	Dam Road
18th Avenue	II	0.64	SR 53	Boyles Avenue
Dam Road	II	0.50	Dam Road Extension	Southern City Limits
Phillips Avenue	II	0.36	40th Avenue	32nd Avenue
Garner Avenue	II	0.64	32nd Avenue	18th Avenue
Dam Road Extension	II	0.25	South Center Drive	Dam Road
Planned				
Boyles Avenue	II	0.82	36th Avenue	18th Avenue

Source: *Active Transportation Plan for Lake County*, Lake County/City Area Planning Council, 2016

Bicyclist Safety

Collision records for the study area were reviewed to determine if any bicyclist-involved crashes were reported. During the five-year study period between January 1, 2017, and December 31, 2021, there were no reported collisions involving bicyclists at SR 53/18th Avenue indicating that there are no readily apparent safety issues for cyclists.

Project Impacts on Bicycle Facilities

As part of the project, Class II bike lanes would be provided on the 18th Avenue Extension. These improvements together with existing bicycle lanes on Old Highway 53 and the planned facilities outlined in the County's *Active Transportation Plan* would provide adequate access for bicyclists.

Finding – Bicycle facilities serving the project site would be adequate with the planned provision of Class II bike lanes on 18th Avenue Extension.

Transit Facilities

Existing Transit Facilities

Lake Transit provides fixed route bus service in the City of Clearlake and throughout Lake County. Lake Transit Route 10 provides loop service throughout the western portion of the City and stops on Old Highway 53 at the location of the proposed intersection with the 18th Avenue Extension. Route 10 operates Monday through Friday with approximately one-hour headways between 5:10 a.m. and 7:10 p.m. Route 11 provides loop service in the central portion of the City and stops on 18th Avenue near the intersection with SR 53. Route 11 operates Monday through Friday between 7:20 a.m. and 5:20 p.m.

Two bicycles can be carried on most Lake Transit buses. Bike rack space is on a first come, first served basis. Additional bicycles are allowed on Lake Transit buses at the discretion of the driver.

Dial-a-ride, also known as paratransit, or door-to-door service, is available for those who are unable to independently use the transit system due to a physical or mental disability. Lake Transit Dial-A-Ride and Flex Stops are designed to serve the needs of individuals with disabilities within Clearlake.

Impact on Transit Facilities

Existing stops are within an acceptable walking distance of the site and would be reachable upon completion of the proposed sidewalk improvements. The proposed Old Highway 53/18th Avenue intersection would conflict with the location of an existing northbound Route 10 bus stop so the location of the bus stop would be relocated to the north leg of the new intersection. This improvement is indicated in the design plans for the new intersection.

Finding – Existing transit facilities serving the project site are adequate and the stop for Route 10 would operate acceptably upon relocation to the north leg of the new intersection of Old Highway 53/18th Avenue Extension, as proposed.

Vehicle Miles Traveled (VMT)

The potential for the project to conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b) was evaluated based the project's anticipated Vehicle Miles Traveled (VMT).

Background and Guidance

Senate Bill (SB) 743 established VMT as the metric to be applied in determining transportation impacts associated with development projects. As of the date of this analysis, the City of Clearlake has not yet adopted a policy or thresholds of significance regarding VMT so the project-related VMT impacts were assessed based on guidance provided by the California Governor's Office of Planning and Research (OPR) in the publication *Transportation Impacts (SB 743) CEQA Guidelines Update and Technical Advisory*, 2018 as well as information contained within the *Senate Bill 743 Vehicle Miles Traveled Regional Baseline Study* (RBS), Fehr & Peers, 2020, prepared for the Lake Area Planning Council (LAPC). Many of the recommendations in the RBS are consistent with the OPR Technical Advisory. As recommended by CEQA, each component of the proposed project was assessed individually considering the employee and guest uses separately.

Employee VMT

VMT impacts associated with employees of the proposed project were assessed based on guidance contained in the both the *Technical Advisory* and the County's RBS, which indicate that an employee-based project generating vehicle travel that is 15 or more percent below the existing average countywide VMT per worker may indicate a less-than-significant VMT impact. OPR encourages the use of screening maps to establish geographic areas that achieve the 15 percent below regional average thresholds, allowing jurisdictions to "screen" projects in those areas from quantitative VMT analysis since impacts can be presumed to be less than significant.

The RBS includes a link to a web-based VMT screening tool in the appendix of the document that can be used to screen employment-based projects that are located in low VMT-generating areas. The tool uses data from the Wine Country Travel Demand Model (WCTDM) to compare the home-based VMT per worker for the Traffic Analysis Zone (TAZ) in which a study parcel is located to the same measure for the County as a whole. The tool projects the Countywide average baseline VMT per worker to be 12.3 miles per day in 2022. A project generating a VMT that is 15 percent or more below this value, or 10.5 miles per employee or less per day, would have a less-than-significant VMT impact.

The project site is located within TAZ 1915, which is bounded by Spruce Avenue to the west, Victor Street to the north, the proposed 18th Avenue Extension to the south, and Armijo Avenue to the east, and has a baseline VMT per employee of 6.8 miles per day. Because this per capita VMT ratio is below the significance threshold of 10.5 miles per day, the VMT generated by employees of the proposed project would be considered to have a less-than-significant VMT impact. A copy of the VMT screening tool output is provided in Appendix B and the VMT calculations are summarized in Table 4.

Table 4 – Employee Vehicle Miles Traveled Analysis Summary

VMT Metric	Baseline VMT Rate	Significance Threshold	Project VMT Rate	Resulting Significance
Employee VMT per Capita (Countywide Baseline)	12.3	10.5	6.8	Less than significant

Note: VMT is measured in daily miles driven per employee.

Finding – Employees of the proposed project would be expected to have a less-than-significant transportation impact on vehicle miles traveled.

Hotel Guest VMT

The OPR *Technical Advisory* does not specifically address hotel or visitor-based uses, indicating that lead agencies may develop their own thresholds for such land use types and allowing assessment on a case-by-case basis. The proposed hotel requires consideration of the project's intended visitor base and where those customers would otherwise have stayed if the project were not constructed. Unless a hotel project also includes construction of a major new attraction or convention component, on its own it is unlikely to draw *new* visitors to the County; it will just redistribute where visitors stay. This shift in travel patterns and VMT is similar to how OPR considers retail uses, in which many types of retail projects may generally be presumed to have a less-than-significant VMT impact since the total amount of shopping that occurs in a given geographic area tends to remain unchanged, and adding new retail uses to the urban fabric often reduces the distances (i.e., the "miles" in VMT) that people need to drive on shopping trips. The City of San Jose was an early adopter of VMT thresholds and has chosen to apply this methodology of treating lodging uses similarly to retail, where small- to mid-sized hotels and other lodging uses can be expected to shift travel patterns rather than generate new VMT and can generally be presumed to have a less-than-significant transportation-related VMT impact.

The proposed hotel would be operated by Marriott under their "Fairfield Inn" line, which are self-described business hotels. The Fairfield Inn website states their goal is to provide "simple, straightforward, and stress-free experiences that the brand is known for." These types of hotels are typically chosen out of convenience and proximity to the travelers' destination, and are not considered a destination themselves, as opposed to a resort-style hotel which could be considered a destination. While larger resort hotels have the potential to generate interregional trips specifically for the purpose of visiting the hotel, this is not typically the case for business hotels. Further, there are several other existing hotels near Lakeshore Drive to the north of the project site, which indicates that future guests of the proposed hotel would likely have shifted their stay from one of the other nearby hotels. Finally, the project would be anticipated to generate predominantly business travelers whose travel patterns could reasonably be expected to be similar to employees, which have been identified as having a less-than-significant VMT impact. Given these characteristics, it is anticipated that there would be few to no net new hotel guest trips added to the Lake County region that would be exclusively attributable the project. Accordingly, guests of the proposed hotel project would be expected to result in a less-than-significant VMT impact.

Finding – Guests of the proposed hotel would be expected to have a less-than-significant transportation impact on vehicle miles traveled.

Safety Issues

The potential for the project to impact safety was evaluated in terms of the adequacy of sight distance and need for turn lanes at the project access as well as the adequacy of stacking space in dedicated turn lanes at the study intersections to accommodate additional queuing due to adding project-generated trips. This section addresses the third bullet on the CEQA checklist which is whether or not the project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

Site Access

According to the site plan, the project site would be accessed via a driveway on the north side of the new 18th Avenue Extension. The driveway would be located approximately 300 feet east of the proposed Old Highway 53/18th Avenue Extension intersection.

Sight Distance

Sight distances along Old Highway 53 at the proposed intersection with 18th Avenue near J & L Market and along 18th Avenue at the project driveway were evaluated based on sight distance criteria contained in the *Highway Design Manual* published by Caltrans. The recommended sight distance at intersections of public streets is based on corner sight distances, while recommended sight distances for minor street approaches that are either a private road or a driveway are based on stopping sight distance. Both use the approach travel speeds as the basis for determining the recommended sight distance. Additionally, the stopping sight distance needed for a following driver to stop if there is a vehicle waiting to turn into a side street or driveway is evaluated based on stopping sight distance criterion and the approach speed on the major street.

Field measurements were obtained at the location of the proposed intersection while sight lines at the project driveway were evaluated using the site plan.

Old Highway 53/18th Avenue Extension Intersection

For the posted speed limit of 35 mph on Old Highway 53, the minimum corner sight distance needed at the proposed intersection is 385 feet. Sight lines were field measured to extend approximately 400 feet in each direction, which is adequate for the posted speed limit. Additionally, adequate stopping sight distances are available for following drivers to notice and react to a preceding motorist slowing to turn right or stopped waiting to turn left onto 18th Avenue.

While sight lines are currently clear, care should be taken to maintain unobstructed sight lines during the design and construction of the proposed intersection and placement of signage, monuments, or other structures should be avoided within the sight triangles, which are denoted graphically in Plate 1. The Intersection Sight Distance (ISD) lengths should be based on corner sight distances of 385 feet.

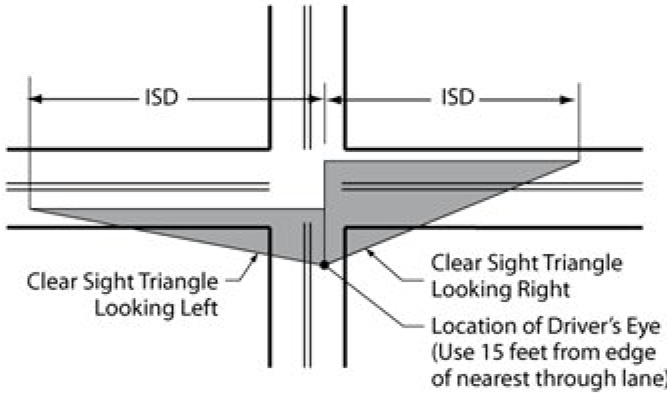

Plate 1 Vision Triangle Graphic

18th Avenue Extension Project Driveway

While 18th Avenue does not have a posted speed limit, travel speeds are anticipated to be 25 to 35 mph so a design speed of 35 mph was used to evaluate the adequacy of stopping sight distance at the proposed hotel driveway location. For speeds of 35 mph, the minimum stopping sight distance needed is 250 feet. Based on a review of the project site plan, it is anticipated that sight lines would extend at least 300 feet in each direction given the straight orientation of 18th Avenue, which would be more than adequate for anticipated travel speeds. Again, any roadside structures to be placed near the project driveway should not obstruct sight lines for motorists entering and exiting the hotel property.

Finding – Sight lines on Old Highway 53 and 18th Avenue are adequate to accommodate all turns into and out of the proposed intersection and driveway.

Recommendation – To maintain adequate sight lines, any new signage, monuments, or other structures should be kept out of the vision triangles at the access points.

Access Analysis

Left-Turn Lane Warrants

The need for a left-turn lane on 18th Avenue Extension at the project driveway and on Old Highway 53 at the intersection with the 18th Avenue Extension were evaluated based on criteria contained in the *Intersection Channelization Design Guide*, National Cooperative Highway Research Program (NCHRP) Report No. 279, Transportation Research Board, 1985, as well as an update of the methodology developed by the Washington State Department of Transportation and published in the *Method for Prioritizing Intersection Improvements*, January 1997. The NCHRP report references a methodology developed by M. D. Harmelink that includes equations that can be applied to expected or actual traffic volumes to determine the need for a left-turn pocket based on safety issues.

Using Future plus Project volumes, which represent worst-case conditions, it was determined that a left-turn lane would not be warranted on 18th Avenue Extension at the project driveway. However, a left-turn lane would be warranted on Old Highway 53 at the intersection with 18th Avenue as shown on the improvement plans. Copies of the turn lane warrant spreadsheets are provided in Appendix C.

Left-Turn Lane Design Requirements

In order to determine the necessary storage length for the left-turn lane on Old Highway 53, the projected maximum left-turn queue was determined using a methodology contained in “Estimating Maximum Queue Length at Unsignalized Intersections,” John T. Gard, *ITE Journal*, November 2001. Under Future plus Project volumes, the maximum southbound left-turn queue on Old Highway 53 would be no more than three vehicles. Therefore, it is recommended that the storage be based on three passenger vehicles, or 75 feet. Copies of the queue length calculations are contained in Appendix C.

Finding – Volumes would not be sufficient to warrant installation of a left-turn lane on 18th Avenue Extension at the project driveway; however, volumes would be sufficient to meet the warrant at the Old Highway 53/18th Avenue Extension intersection.

Recommendation – The left-turn lane proposed for the southbound approach to Old Highway 53/18th Avenue Extension should provide a minimum of 75 feet of storage length.

Queuing

The City of Clearlake does not prescribe thresholds of significance regarding queue lengths. However, an increase in queue length due to project traffic was considered a potentially significant impact if the increase would cause the queue to extend out of a dedicated turn lane into a through traffic lane where moving traffic would be impeded, or the back of queue into a visually restricted area, such as a blind corner.

Signalized Intersection

Under each scenario, the projected 95th percentile queues in dedicated turn lanes at the signalized intersection of SR 53/18th Avenue were determined using the Vistro software. As summarized in Table 5, the existing turn lanes are expected to have adequate storage capacity to accommodate queuing under all scenarios. Copies of the queuing projections are contained in the Vistro output in Appendix D.

Table 5 – 95th Percentile Queues

Study Intersection Turn Lane	Available Storage	95th Percentile Queues											
		Weekday AM Peak Hour						Weekday PM Peak Hour					
		E	E+P	B	B+P	F	F+P	E	E+P	B	B+P	F	F+P
1. SR 53/18th Avenue													
NB Left Turn	675	2	16	2	17	64	118	1	21	1	22	71	142
SB Left Turn	720	21	27	22	29	37	50	21	29	23	31	43	62
WB Right Turn	160	24	31	25	32	24	63	25	32	26	34	48	68

Notes: 95th Percentile Queue based on Vistro output; all distances are measured in feet; E = Existing Conditions; E+P = Existing plus Project Conditions; B = Baseline Conditions; B+P = Baseline plus Project Conditions; F = Future Conditions; F+P = Future plus Project Conditions

Finding – The project would not be expected to cause any queues to exceed available storage or extend into an adjacent intersection, so the impact is considered less than significant.

Emergency Access

The final bullet on the CEQA checklist requires an evaluation as to whether the project would result in inadequate emergency access or not.

Adequacy of Site Access

Emergency response vehicles would access the project site from 18th Avenue Extension via the project driveway, which would have a width of 30 feet according to the preliminary site plan; this would be adequate to satisfy the required minimum driveway width of 24 feet set forth in the City of Clearlake's *Design and Construction Standards*. On-site circulation would include a 25-foot drive aisle, which also exceeds the minimum width of 24 feet. As the project moves through final design, it is anticipated that all aspects of the site including driveway widths and parking lot circulation would be designed in accordance with applicable standards; therefore, access would be expected to function acceptably for emergency response vehicles.

Off-Site Impacts

While the project would be expected to result in a minor increase in delay for traffic on SR 53 at the 18th Avenue intersection, emergency response vehicles can claim the right-of-way by using their lights and sirens; therefore, the project would be expected to have a nominal effect on emergency response times. It should also be noted that the proposed extension of 18th Avenue to Old Highway 53 would be expected to shift some trips away from the SR 53 intersections with Lakeshore Drive and Dam Road; therefore, reducing delay at these intersections and potentially improving emergency response times. Further, the new section of 18th Avenue would be a more direct route to many homes on the west side of SR 53 south of Lakeshore Drive and north of Dam Road so the emergency response times to these dwellings would likely be improved.

Finding – Emergency access and on-site circulation are anticipated to function acceptably with incorporation of applicable design standards into the site layout, and traffic from the proposed project is expected to have a less-than-significant impact on emergency response times. The proposed extension of 18th Avenue has the potential to improve emergency response times to many dwellings on the west side of SR 53.

Capacity Analysis

Though not relevant to the CEQA review process, in keeping with General Plan policies, the potential for the project to effect traffic operation was evaluated.

Intersection Level of Service Methodologies

Level of Service (LOS) is used to rate traffic operation on various types of facilities based on traffic volumes and roadway capacity using a series of letter designations ranging from A to F. Generally, Level of Service A represents free flow conditions and Level of Service F represents forced flow or breakdown conditions. A unit of measure that indicates a level of delay generally accompanies the LOS designation.

The study intersections were analyzed using methodologies published in the *Highway Capacity Manual* (HCM), Transportation Research Board, 2018. This source contains methodologies for various types of intersection control, all of which are related to a measurement of delay in average number of seconds per vehicle.

The Old Highway 53/18th Avenue Extension intersection is proposed to have stop control on the 18th Avenue approach so was evaluated using the "Two-Way Stop-Controlled" intersection capacity methodology from the HCM. This methodology determines a Level of Service for each minor turning movement by estimating the level of average delay in seconds per vehicle. Results are presented for individual movements together with the weighted overall average delay for the intersection.

The study intersection of SR 53/18th Avenue is controlled by a traffic signal so was evaluated using the signalized methodology from the HCM. This methodology is based on factors including traffic volumes, green time for each movement, phasing, whether the signals are coordinated or not, truck traffic, and pedestrian activity. Average stopped delay per vehicle in seconds is used as the basis for evaluation in this LOS methodology. Delays were calculated using signal timing parameters obtained from Caltrans.

The ranges of delay associated with the various Levels of Service are indicated in Table 6.

Table 6 – Intersection Level of Service Criteria		
LOS	**Two-Way Stop-Controlled**	**Signalized**
A	Delay of 0 to 10 seconds. Gaps in traffic are readily available for drivers exiting the minor street.	Delay of 0 to 10 seconds. Most vehicles arrive during the green phase, so do not stop at all.
B	Delay of 10 to 15 seconds. Gaps in traffic are somewhat less readily available than with LOS A, but no queuing occurs on the minor street.	Delay of 10 to 20 seconds. More vehicles stop than with LOS A, but many drivers still do not have to stop.
C	Delay of 15 to 25 seconds. Acceptable gaps in traffic are less frequent, and drivers may approach while another vehicle is already waiting to exit the side street.	Delay of 20 to 35 seconds. The number of vehicles stopping is significant, although many still pass through without stopping.
D	Delay of 25 to 35 seconds. There are fewer acceptable gaps in traffic, and drivers may enter a queue of one or two vehicles on the side street.	Delay of 35 to 55 seconds. The influence of congestion is noticeable, and most vehicles have to stop.
E	Delay of 35 to 50 seconds. Few acceptable gaps in traffic are available, and longer queues may form on the side street.	Delay of 55 to 80 seconds. Most, if not all, vehicles must stop and drivers consider the delay excessive.
F	Delay of more than 50 seconds. Drivers may wait for long periods before there is an acceptable gap in traffic for exiting the side streets, creating long queues.	Delay of more than 80 seconds. Vehicles may wait through more than one cycle to clear the intersection.

Reference: *Highway Capacity Manual,* Transportation Research Board, 2018

Traffic Operation Standards

City of Clearlake

The City of Clearlake established a standard of LOS D for all intersections and roadways in Policy Cl 1.3.4 of *City of Clearlake 2040 General Plan Update,* City of Clearlake, 2017. Exceptions to this may be considered by the City Council when an unacceptable LOS (E or F) would result in clear public benefit. Such circumstances may include when improvements to achieve the LOS standard would result in impacts to unique historic resources or highly sensitive environmental areas; if right-of-way acquisition is infeasible; and/or if there are overriding economic or social circumstances.

Caltrans

While the SR 53/18th Avenue intersection is on a State highway, Caltrans does not have a standard of significance relative to operation as this is no longer a CEQA issue. The *Vehicle Miles Traveled-Focused Transportation Impact Study Guide* (TISG), published in May 2020, replaced the *Guide for the Preparation of Traffic Impact Studies*, 2002. As indicated in the TISG, the Department is transitioning away from requesting LOS or other vehicle operations analyses of land use projects and will instead focus on Vehicle Miles Traveled (VMT). Therefore, the City's standard of LOS D was applied to this intersection.

Existing Conditions

The Existing Conditions scenario provides an evaluation of current operation based on existing traffic volumes during the weekday a.m. and weekday p.m. peak periods. This condition does not include project-generated traffic volumes. Volume data was collected in May 2022 during typical traffic conditions and while local schools were in session. Peak hour factors (PHFs) were calculated based on the counts obtained and used in the analysis.

The existing SR 53/18th Avenue intersection is currently operating acceptably at LOS B during both peak hours. The existing traffic volumes are shown in Figure 4. A summary of the intersection Level of Service calculations is contained in Table 7, and copies of the calculations for all evaluated scenarios are provided in Appendix D.

Table 7 – Existing Peak Hour Intersection Levels of Service

Study Intersection	AM Peak		PM Peak	
	Delay	LOS	Delay	LOS
1. SR 53/18th Ave	11.0	B	10.7	B

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service.

Baseline Conditions

Baseline (Existing plus Approved) operating conditions were determined with traffic from approved or pending projects in the study area that could be operational within the next five-year horizon added to the existing volumes. As directed by City staff, the following pending projects were included in the Baseline Conditions scenario:

- JS Market would be located on the west side of Old Highway 53 south of Lakeview Way and would consist of a 3,095 square-foot convenience store, 980 square feet of retail, 2,245 square feet of fast casual dining, and two dwelling units. ITE standard rates for "Convenience Store" (LU #851), "Strip Retail Plaza" (LU #822), "Fast Casual Restaurant" (LU #930), and "Multifamily Housing" (LU #220) were applied.

- A new gas station with six vehicle fueling positions, a self-service car wash, and a 2,800 square-foot convenience store would be constructed on Dam Road Extension. ITE standard rates for "Convenience Store/Gas Station" (LU #945) were applied, and pass-by trips were deducted.

- A drive-through window would be added to an existing 1,600 square-foot Subway restaurant located at 15060 Lakeshore Drive. ITE standard rates for "Fast-Food Restaurant" (LU #933) were applied.

- An unused Shell gasoline service station located at 15105 Lakeshore Drive would be remodeled and expanded for use with eight vehicle fueling positions. ITE standard rates for "Gasoline/Service Station" (LU #944) were applied, and pass-by trips were deducted.

The trip generation potential for the approved and pending Baseline projects are summarized in Table 8. Collectively, these projects are expected to result in 329 new trips on local streets during the a.m. peak hour and 371 new trips during the p.m. peak hour.

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Transportation Impact Study for the Airport Hotel Project

Figure 4 – Existing, Baseline, and Future Traffic Volumes

Table 8 – Trip Generation Summary for Baseline Projects										
Land Use	**Units**	**AM Peak Hour**				**PM Peak Hour**				
Deduction		**Rate**	**Trips**	**In**	**Out**	**Rate**	**Trips**	**In**	**Out**
JS Market									
Convenience Store	3.095 ksf	62.54	194	97	97	49.11	152	78	74
Strip Retail Plaza	0.98 ksf	2.36	2	1	1	6.59	6	3	3
Fast Casual Restaurant	2.245 ksf	1.43	3	2	1	12.55	28	15	13
Multifamily Housing	2 du	0.40	1	0	1	0.51	1	1	0
JS Market Total			**200**	**100**	**100**		**187**	**97**	**90**
Convenience/Gas Station	5.95 ksf	40.59	242	121	121	48.48	288	144	144
Pass-By Trips		*-60%*	*-146*	*-73*	*-73*	*-56%*	*-162*	*-81*	*-81*
Convenience/Gas Station Total			**96**	**48**	**48**		**126**	**63**	**63**
Subway with Drive-Thru	1.6 ksf	45.42	73	37	36	32.65	52	27	25
Existing without Drive-Thru	*-1.6 ksf*	*43.87*	*-70*	*-42*	*-28*	*26.15*	*-42*	*-21*	*-21*
Subway with Drive-Thru Total			**3**	**-5**	**8**		**10**	**6**	**4**
Shell Gas Station	8 vfp	10.28	82	41	41	13.91	111	56	55
Pass-By Trips		*-64%*	*-52*	*-26*	*-26*	*-57%*	*-63*	*-32*	*-31*
Shell Gas Station Total			**30**	**15**	**15**		**48**	**24**	**24**
Total Baseline Trips			**329**	**158**	**171**		**371**	**190**	**181**

Notes: ksf = 1,000 square feet; du = dwelling units; vfp = vehicle fueling positions

Upon adding trips from approved or pending projects in the study area to existing volumes, the existing study intersection would continue to operate acceptably at LOS B. These results are summarized in Table 9 and Baseline traffic volumes are shown in Figure 4.

Table 9 – Baseline Peak Hour Intersection Levels of Service				
Study Intersection	**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**
1. SR 53/18th Ave	11.2	B	10.8	B

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

Future Conditions

Future volumes for the horizon year 2040, as developed for the *City of Clearlake 2040 General Plan Update* and the *Walmart Expansion Transportation Impact Analysis Report*, Omni-Means, 2016 were used to project future operating conditions at the existing study intersection. It should be noted that the General Plan analysis evaluated two scenarios for buildout, with and without the Dam Road Extension project. Since the Dam Road Extension project has already been constructed, volumes for this scenario were applied. Under these anticipated future volumes, the study intersection is expected to operate acceptably at LOS B during both peak hours. Future volumes are shown in Figure 4, and operating conditions are summarized in Table 10.

Table 10 – Future Peak Hour Intersection Levels of Service				
Study Intersection	**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**
1. SR 53/18th Ave	18.0	B	19.3	B

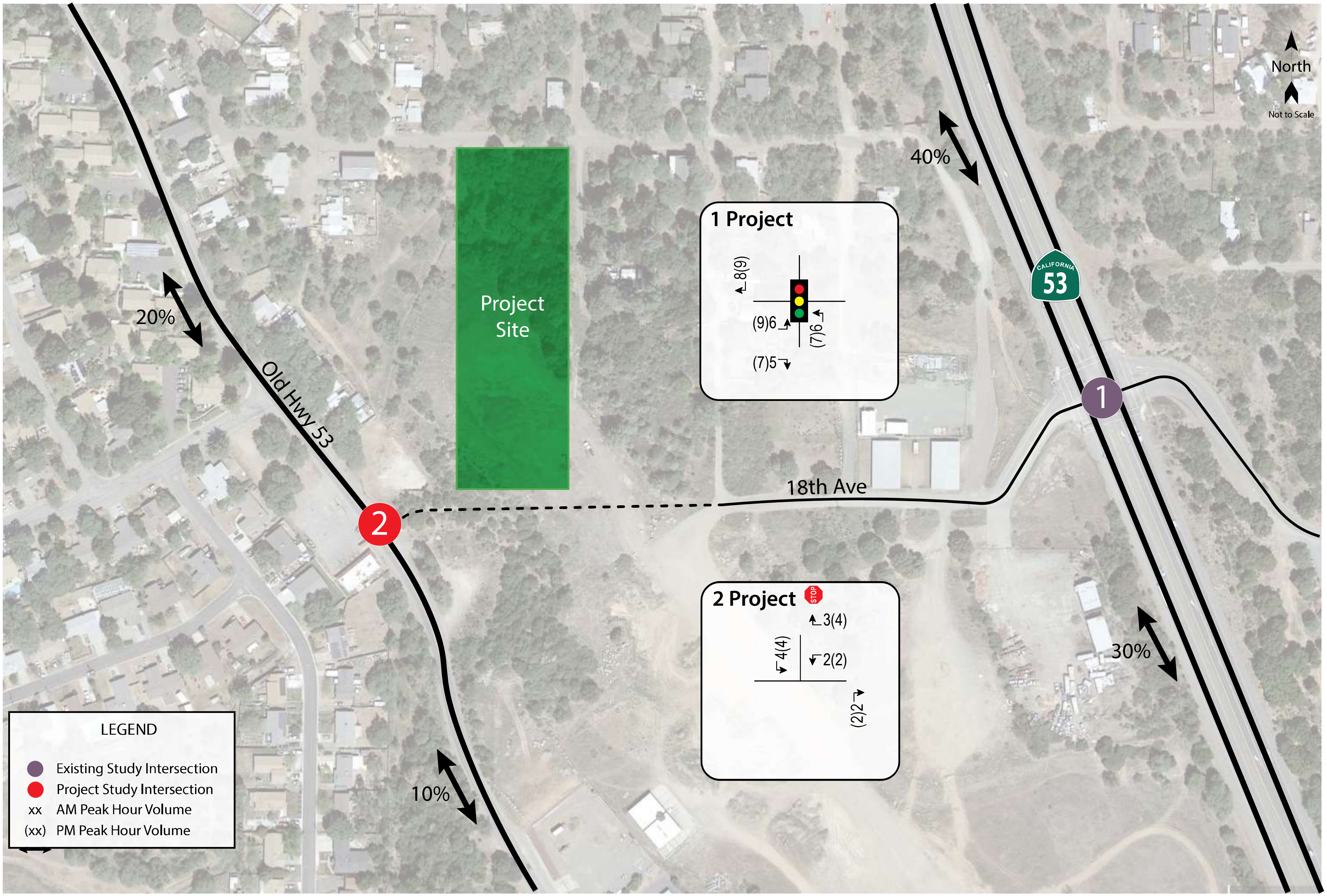
Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service

Project Conditions

The proposed 18th Avenue Extension would allow for passage between Old Highway 53 and SR 53 and would therefore be expected to redistribute some of the existing traffic in the area. Motorists traveling between SR 53 and the western part of the City could potentially use 18th Avenue as part of a faster route than through the SR 53/Lakeshore Drive intersection to the north or the SR 53/Old Highway 53-Dam Road intersection to the south. Therefore, under Project Conditions, in addition to assigning new project trips it was also assumed that 10 percent of the existing traffic entering or exiting the west legs of SR 53/Lakeshore Drive and SR 53/Old Highway 53 would be redistributed away from those intersections to the SR 53/18th Avenue and Old Highway 53/18th Avenue intersections. The volumes at these adjacent intersections used for rerouting trips through the proposed 18th Avenue Extension were obtained from the General Plan and Walmart traffic analysis since new turning movement counts were not collected at these intersections.

Existing plus Project Conditions

Upon the addition of trips associated with the proposed project to Existing volumes together with the diversion of existing traffic, the study intersections would be expected to continue operating acceptably during both peak hours. These results are summarized in Table 11. Project-only traffic volumes are shown in Figure 5, and Existing plus Project volumes are shown in Figure 6.



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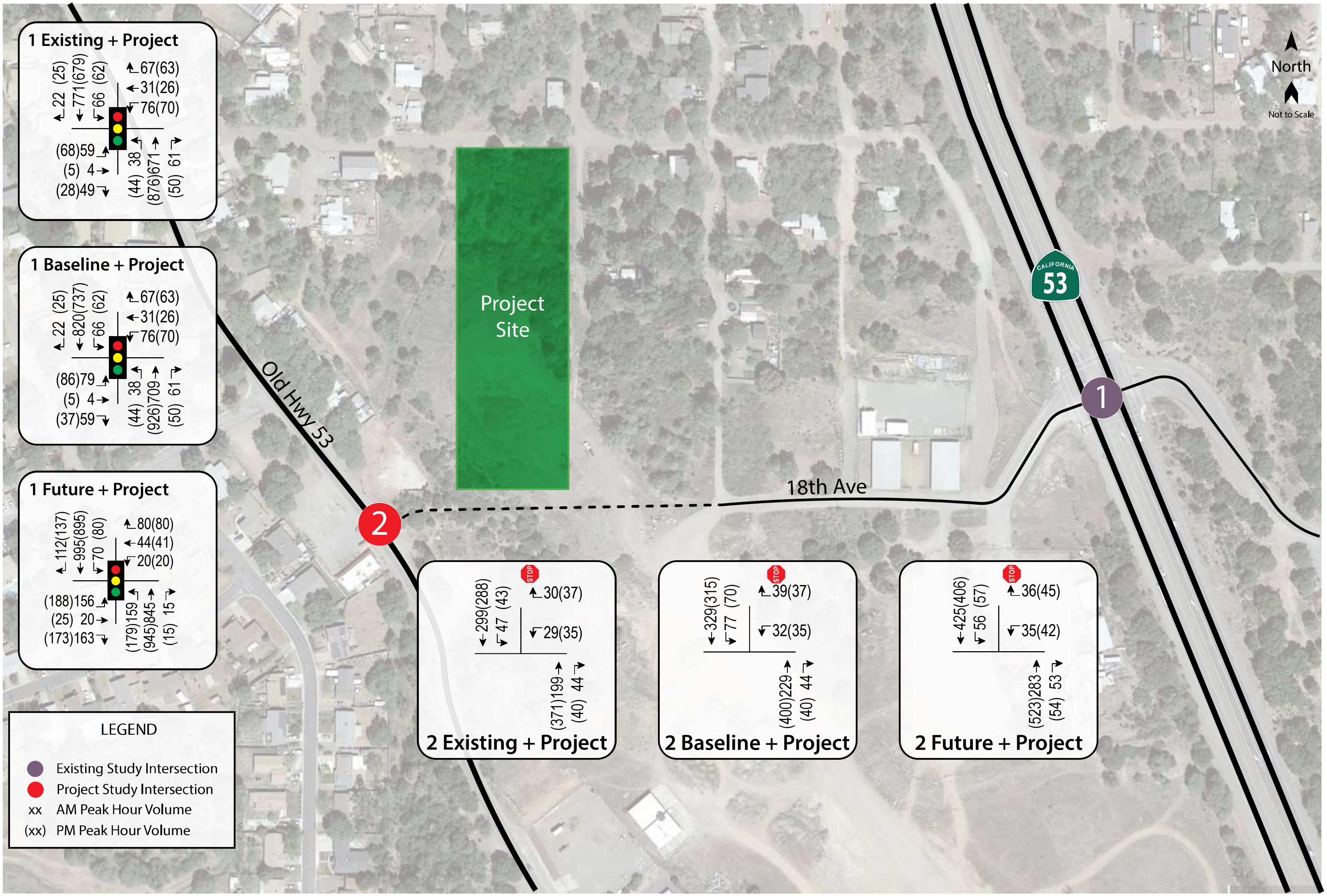
Transportation Impact Study for the Airport Hotel Project

Figure 5 – Project Traffic Volumes and Trip Distributions

W-Trans



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Transportation Impact Study for the Airport Hotel Project

Figure 6 – Existing plus Project, Baseline plus Project, and Future plus Project Traffic Volumes

W-Trans

Table 11 – Existing and Existing plus Project Peak Hour Intersection Levels of Service								
Study Intersection	**Existing Conditions**				**Existing plus Project**			
Approach	**AM Peak**		**PM Peak**		**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1. SR 53/18th Ave	11.0	B	10.7	B	15.1	B	15.0	B
2. Old Hwy 53/18th Ave Extension	-	-	-	-	1.8	A	1.8	A
Westbound (18th Ave) Approach	-	-	-	-	*13.2*	*B*	*15.1*	*C*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Finding – The study intersections would continue to operate acceptably upon the addition of traffic associated with the proposed project to existing volumes; therefore, the project would have an acceptable effect on operation of the surrounding roadway network.

Baseline plus Project Conditions

With project-related traffic added to the near-term Baseline volumes, the study intersections are expected to continue operating acceptably at LOS A or B overall and LOS B or C on the side-street approach. These results are summarized in Table 12 and Baseline plus Project volumes are shown in Figure 6.

Table 12 – Baseline and Baseline plus Project Peak Hour Intersection Levels of Service								
Study Intersection	**Baseline Conditions**				**Baseline plus Project**			
Approach	**AM Peak**		**PM Peak**		**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1. SR 53/18th Ave	11.2	B	10.8	B	15.7	B	15.5	B
2. Old Hwy 53/18th Ave Extension	-	-	-	-	2.1	A	2.1	A
Westbound (18th Ave) Approach	-	-	-	-	*15.1*	*B*	*17.1*	*C*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*

Finding – The study intersections are expected to operate acceptably upon the addition of traffic associated with the proposed project to Baseline volumes; therefore, the project would have an acceptable effect on operation of the surrounding roadway network.

Future plus Project Conditions

Upon the addition of project-generated traffic to the anticipated future volumes, the study intersections are expected to continue operating acceptably. The Future plus Project operating conditions are summarized in Table 13 and volumes are shown in Figure 6.

Table 13 – Future and Future plus Project Peak Hour Intersection Levels of Service								
Study Intersection ***Approach***	**Future Conditions**				**Future plus Project**			
	AM Peak		**PM Peak**		**AM Peak**		**PM Peak**	
	Delay	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**	**Delay**	**LOS**
1. SR 53/18th Ave	18.0	B	19.3	B	24.2	C	27.3	C
2. Old Hwy 53/18th Ave Extension	-	-	-	-	1.7	A	2.0	A
Westbound (18th Ave) Approach	-	-	-	-	*14.7*	*B*	*20.2*	*C*

Notes: Delay is measured in average seconds per vehicle; LOS = Level of Service; Results for minor approaches to two-way stop-controlled intersections are indicated in *italics*.

Finding – The study intersections are expected to operate acceptably under Future plus Project conditions; therefore, the project's cumulative effect on operation of the surrounding roadway network would be considered acceptable.

Parking

As proposed, the project would have 109 parking spaces on-site. Jurisdiction parking supply requirements are based on the City of Clearlake Municipal Code, Chapter 18-20.090; Parking Space Requirements. Vehicle parking for hotels is required at a rate of 1.2 spaces per guest room in addition to one space per 100 square feet of meeting floor area. This translates to a required parking supply of 113 spaces, making the proposed supply of 109 spaces short by four spaces.

The City's requirements and proposed parking supply are summarized in Table 14.

Table 14 – Parking Analysis Summary

Land Use	**Units**	**City Requirements**	
		Rate	**Spaces Required**
Hotel (Guest Rooms)	75 rms	1.2 spaces per room	90
Meeting Space	2,300 sf	1 space per 100 sf	23
Supply Required per Code			**113**
Proposed Supply			109

Notes: rms = rooms; sf = square feet

Because the proposed supply would be four spaces short of satisfying City code requirements, consideration was given to the anticipated parking demand that would be expected based on standard parking rates developed by ITE in *Parking Generation Manual*, 5th Edition, 2019. Using rates for the "Business Hotel" land use, which would be most applicable to the proposed project, the average and peak parking demands are expected to be 54 and 63 spaces, respectively, on weekdays and less on weekend days. Given that the ITE peak parking demand for the hotel component is anticipated to be 27 spaces fewer than required by City Code, and the project is only four spaces short, it would be reasonable for the City to consider approving the project with fewer spaces than required by standard City rates. City Code allows for a shared parking reduction of 10 percent, which if applied, would reduce the required supply to 102 spaces, which the proposed parking supply exceeds.

Based on requirements stipulated by the Federal Accessibility Guidelines, five accessible stalls, including one van-accessible stall, must be supplied for a vehicle parking supply between 100 and 150 spaces.

Finding – The proposed vehicle parking supply of 109 spaces would be four spaces short of meeting standard City code requirements, though would exceed the minimum requirement with application of a shared parking reduction of 10 percent, as allowed by City Code.

Recommendation – Given that national standard ITE parking demand rates for a business hotels translate to substantially fewer spaces than required by City Code, the City may wish to consider approving the project with a shared parking reduction.

Bicycle Storage

According to the Clearlake Municipal Code, bicycle parking shall be provided at a rate of 15 percent of the required vehicle parking spaces. For the proposed vehicle parking supply of 109 spaces, a minimum of 17 bicycle parking spaces would need to be provided.

Recommendation – Bicycle parking should be supplied at a rate of 15 percent of the vehicle parking spaces, resulting in a need for 17 bike spaces based on a vehicle supply of 109 spaces.

Conclusions and Recommendations

Conclusions

CEQA Issues

- The proposed project has the potential to result in an average of 599 trips per day, with 35 trips during the weekday a.m. peak hour and 44 new trips during the weekday p.m. peak hour.
- The calculated collision rate for the intersection of SR 53/18th Avenue was determined to be lower than the statewide average rate, indicating that there are no readily apparent safety issues for motorists in the vicinity of the project site.
- Upon constructing sidewalks along 18th Avenue Extension and within the project site itself, the project would be connected to the existing and planned pedestrian network.
- Bicycle facilities serving the project site would be adequate with the planned provision of Class II bike lanes on 18th Avenue Extension.
- Existing transit facilities serving the project site are adequate and would continue to be adequate with the proposed relocation of an existing bus stop on the east side of Old Highway 53 to the north leg of the proposed intersection with 18th Avenue Extension.
- The proposed hotel is anticipated to result in a less-than-significant transportation impact on VMT for both guests and employees.
- Sight lines on Old Highway 53 and 18th Avenue are adequate to accommodate all turns into and out of the proposed intersection and driveway.
- A left-turn lane would be warranted on Old Highway 53 at the intersection with 18th Avenue Extension.
- The project would have a less-than-significant impact on queuing in dedicated turn lanes at the signalized intersection of SR 53/18th Avenue.
- Emergency access and on-site circulation are anticipated to function acceptably with incorporation of applicable design standards into the site layout, and traffic from the proposed project is expected to have a less-than-significant impact on emergency response times. The proposed extension of 18th Avenue has the potential to improve emergency response times to many dwellings on the west side of SR 53.

Policy Issues

- All existing and proposed study intersections are expected to operate at acceptable Levels of Service under Existing, near-term Baseline, and Future conditions without and with the addition of trips from the proposed project assuming implementation of side-street stop controls at the proposed Old Highway 53/18th Avenue Extension intersection.
- The proposed parking supply of 109 spaces would be four spaces short of meeting standard City code requirements, though would be more than adequate to meet the anticipated demand based on application of standard parking rates, and could be approved with application of a shared parking reduction of 10 percent, as allowed by City Code.

Recommendations

CEQA Issues

- Bicycle parking should be supplied at a rate of 15 percent of the required vehicle parking spaces. Based on the proposal of 109 vehicle spaces, this would result in need for 17 bicycle spaces.

- To maintain adequate sight lines on Old Highway 53 and 18th Avenue, any new signage, monuments, or other structures should be kept out of the vision triangles at the access points.

Policy Issues

- Given that national standard ITE parking demand rates for a business hotels translate to substantially fewer spaces than required by City Code, the City may wish to consider approving the project with a shared parking reduction.

Study Participants and References

Study Participants

Principal in Charge	Dalene J. Whitlock, PE, PTOE
Transportation Planner	Zack Matley, AICP
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Assistant Engineer	Siddharth Gangrade
Graphics	Cameron Wong
Editing/Formatting	Hannah Yung-Boxdell
Quality Control	Dalene J. Whitlock, PE, PTOE

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Appendix A

Collision Rate Calculations

W-Trans

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Intersection Collision Rate Worksheet

Airport Hotel

Intersection # 1: SR 53 & 18th Ave
Date of Count: Saturday, January 00, 1900

Number of Collisions: 5
Number of Injuries: 1
Number of Fatalities: 1
Average Daily Traffic (ADT): 21900
Start Date: January 1, 2017
End Date: December 31, 2021
Number of Years: 5

Intersection Type: Four-Legged
Control Type: Signals
Area: Urban

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{5 \quad x \quad 1{,}000{,}000}{21{,}900 \quad x \quad 365 \quad x \quad 5}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.13 c/mve**	**20.0%**	**20.0%**
Statewide Average*	**0.24 c/mve**	**0.5%**	**46.9%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2018 Collision Data on California State Highways, Caltrans

Intersection # 2: &
Date of Count: Saturday, January 00, 1900

Number of Collisions: 0
Number of Injuries: 0
Number of Fatalities: 0
Average Daily Traffic (ADT): 0
Start Date: January 0, 1900
End Date: January 0, 1900
Number of Years: 0

Intersection Type: 0
Control Type: 0
Area: 0

$$\text{Collision Rate} = \frac{\text{Number of Collisions x 1 Million}}{\text{ADT x Days per Year x Number of Years}}$$

$$\text{Collision Rate} = \frac{0 \quad x \quad 1{,}000{,}000}{0 \quad x \quad 365 \quad x \quad 0}$$

	Collision Rate	Fatality Rate	Injury Rate
Study Intersection	**0.00 c/mve**	**0.0%**	**0.0%**
Statewide Average*	**0.26 c/mve**	**1.5%**	**41.4%**

Notes
ADT = average daily total vehicles entering intersection
c/mve = collisions per million vehicles entering intersection
* 2018 Collision Data on California State Highways, Caltrans

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Appendix B

VMT Screening Tool Output

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Screening Results

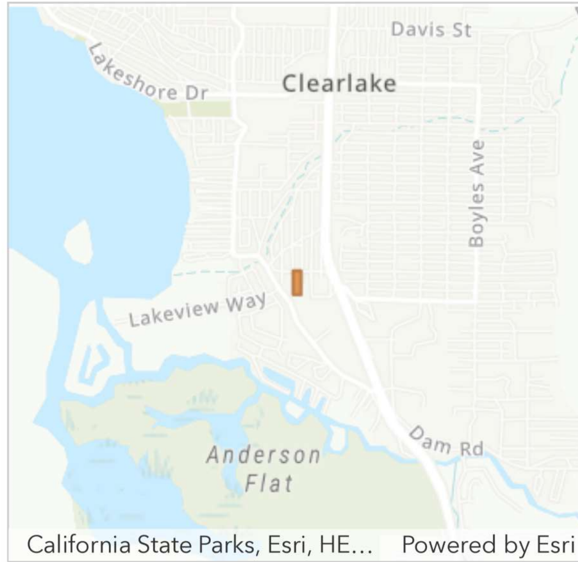
Screening Inputs

Criteria	Input
VMT Metric	Home-based Work VMT per Worker
Baseline Year	2022
Threshold (% reduction from Baseline Year)	Countywide Benchmark (-15%)

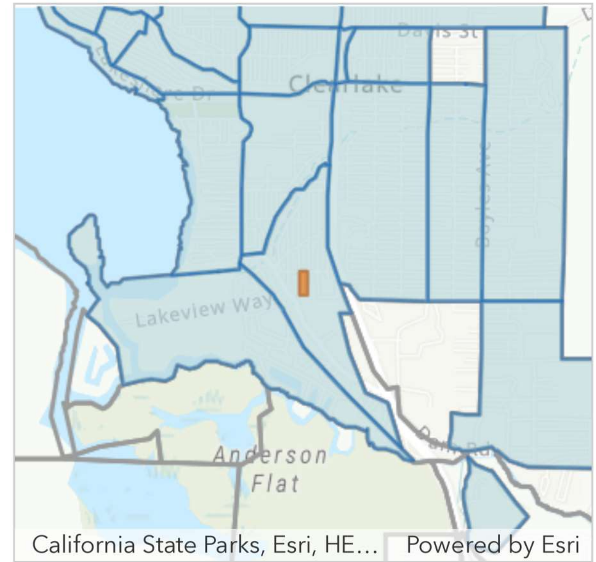
Legend

Category	Color
Selected Project Area	
Traffic Analysis Zone ID	
Low VMT Generating TAZs	

Project Location



Project Proximity to Output Low VMT Generating TAZs



Passed

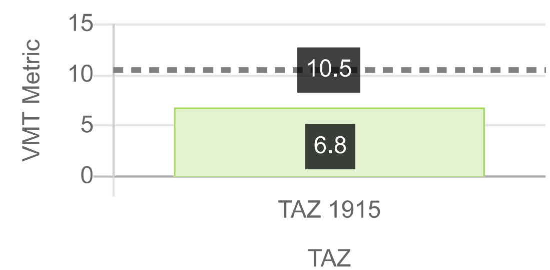
Screening Questions	Results
Within a low VMT generating TAZ?	Yes (Pass)

Screening results are based on location of parcel centroids. If results are desired considering the full parcel, please refer to the associated map layers to visually review parcel and TAZ boundary relationship.

Traffic Analysis Zone (TAZ) Details

TAZ Questions	TAZ ID: 1915
Jurisdiction	Clearlake
TAZ VMT	6.8
Countywide Average VMT	12.3
% Difference	-44.7%
VMT Metric	Home-based Work VMT per Worker
Threshold	10.5

Threshold Evaluation



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Appendix C

Turn Lane Warrants and Queuing Spreadsheet

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Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Old Hwy 53 / 18th Ave Extension
Study Scenario: Future plus Project AM

Direction of Analysis Street: North/South

Cross Street Intersects: From the East

Old Hwy 53
Northbound Volumes (veh/hr)
Through Volume = 283
Right Turn Volume = 53

Old Hwy 53
Southbound Volumes (veh/hr)
425 = Through Volume
56 = Left Turn Volume

Northbound Speed Limit: 35 mph
Northbound Configuration: 2 Lanes - Undivided

18th Ave Extension

Southbound Speed Limit: 35 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	652.5
Advancing Volume	Va =	336
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

Thresholds not met, continue to next step

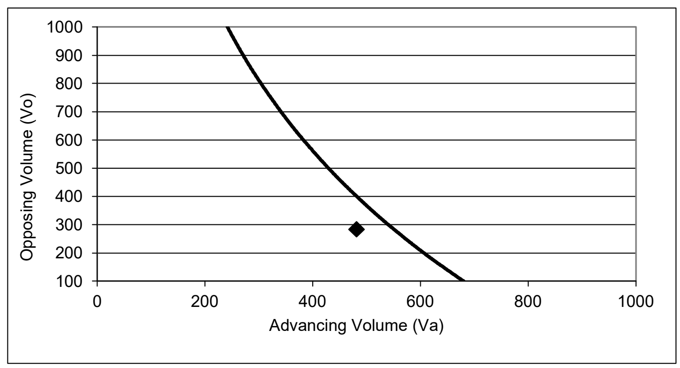
2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	370
Advancing Volume	Va =	336
If AV<Va then warrant is met		No

Right Turn Taper Warranted: **NO**

Southbound Left Turn Lane Warrants

Percentage Left Turns %lt 11.6 %
Advancing Volume Threshold AV 551 veh/hr
If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 35 mph
Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Old Hwy 53 / 18th Ave Extension
Study Scenario: Baseline plus Project PM

Direction of Analysis Street: North/South

Cross Street Intersects: From the East

Old Hwy 53
Northbound Volumes (veh/hr)
Through Volume = 400
Right Turn Volume = 40

Old Hwy 53
Southbound Volumes (veh/hr)
315 = Through Volume
70 = Left Turn Volume

Northbound Speed Limit: 35 mph
Northbound Configuration: 2 Lanes - Undivided

18th Ave Extension

Southbound Speed Limit: 35 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	750
Advancing Volume	Va =	440
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

Thresholds not met, continue to next step

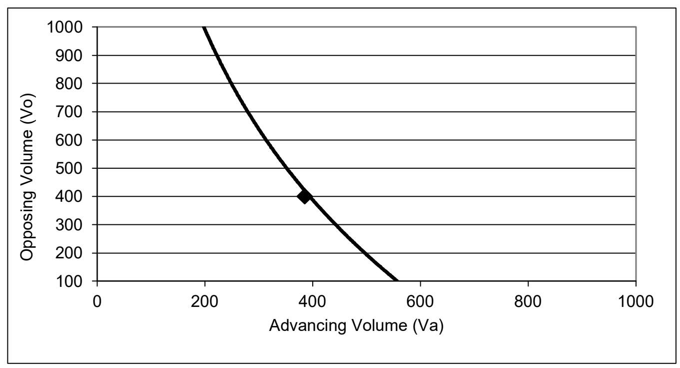
2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	500
Advancing Volume	Va =	440
If AV<Va then warrant is met		No

Right Turn Taper Warranted: **NO**

Southbound Left Turn Lane Warrants

Percentage Left Turns %lt 18.2 %
Advancing Volume Threshold AV 394 veh/hr
If AV<Va then warrant is met



◆ Study Intersection
—— Two lane roadway warrant threshold for: 35 mph
Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: Old Hwy 53 / 18th Ave Extension
Study Scenario: Future plus Project PM

Direction of Analysis Street: North/South

Cross Street Intersects: From the East

Old Hwy 53

Northbound Volumes (veh/hr)

Through Volume = 523
Right Turn Volume = 54

Old Hwy 53

Southbound Volumes (veh/hr)

506 = Through Volume
57 = Left Turn Volume

18th Ave Extension

Northbound Speed Limit: 35 mph
Northbound Configuration: 2 Lanes - Undivided

Southbound Speed Limit: 35 mph
Southbound Configuration: 2 Lanes - Undivided

Northbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	645
Advancing Volume	Va =	577
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Northbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

Thresholds not met, continue to next step

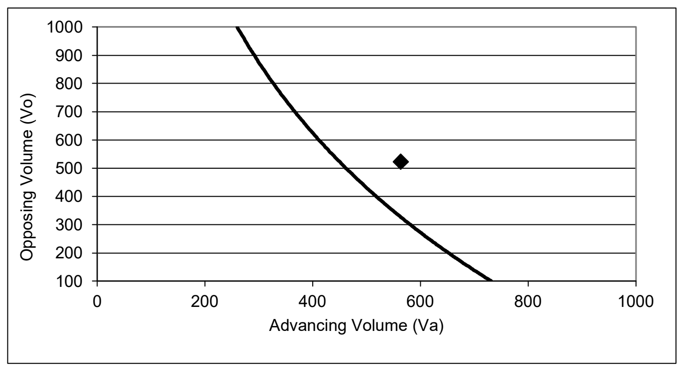
2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	360
Advancing Volume	Va =	577
If AV<Va then warrant is met		Yes

Right Turn Taper Warranted: **YES**

Southbound Left Turn Lane Warrants

Percentage Left Turns %lt 10.1 %
Advancing Volume Threshold AV 450 veh/hr
If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 35 mph
Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **YES**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements* , January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: 18th Ave Extension / Project Dwy
Study Scenario: Future plus Project AM

Direction of Analysis Street: East/West

Cross Street Intersects: From the North

18th Ave Extension
Westbound Volumes (veh/hr)
Through Volume = 315
Right Turn Volume = 14

18th Ave Extension
Eastbound Volumes (veh/hr)
339 = Through Volume
6 = Left Turn Volume

Project Dwy

Westbound Speed Limit: 30 mph
Westbound Configuration: 2 Lanes - Undivided

Eastbound Speed Limit: 30 mph
Eastbound Configuration: 2 Lanes - Undivided

Westbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	945.1
Advancing Volume	Va =	329
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Westbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

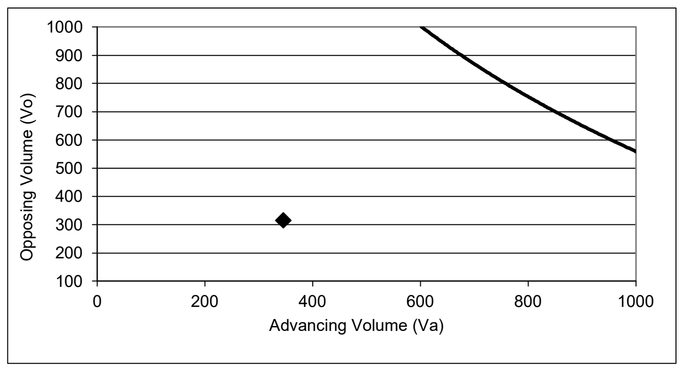
2. Check advance volume threshold criteria for taper

Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	329
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Eastbound Left Turn Lane Warrants

Percentage Left Turns %lt 1.7 %
Advancing Volume Threshold AV 1325 veh/hr
If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 30 mph
Turn lane warranted if point falls to right of warrant threshold line

Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Turn Lane Warrant Analysis - Tee Intersections

Study Intersection: 18th Ave Extension / Project Dwy
Study Scenario: Future plus Project PM

Direction of Analysis Street: East/West

Cross Street Intersects: From the North

18th Ave Extension		**18th Ave Extension**	
Westbound Volumes (veh/hr)		Eastbound Volumes (veh/hr)	
Through Volume =	357	386	= Through Volume
Right Turn Volume =	16	6	= Left Turn Volume

Project Dwy

Westbound Speed Limit: 30 mph
Westbound Configuration: 2 Lanes - Undivided

Eastbound Speed Limit: 30 mph
Eastbound Configuration: 2 Lanes - Undivided

Westbound Right Turn Lane Warrants

1. Check for right turn volume criteria

Thresholds not met, continue to next step

2. Check advance volume threshold criteria for turn lane

Advancing Volume Threshold	AV =	930.1
Advancing Volume	Va =	373
If AV<Va then warrant is met		No

Right Turn Lane Warranted: **NO**

Westbound Right Turn Taper Warrants
(evaluate if right turn lane is unwarranted)

1. Check taper volume criteria

NOT WARRANTED - Less than 20 vehicles

2. Check advance volume threshold criteria for taper

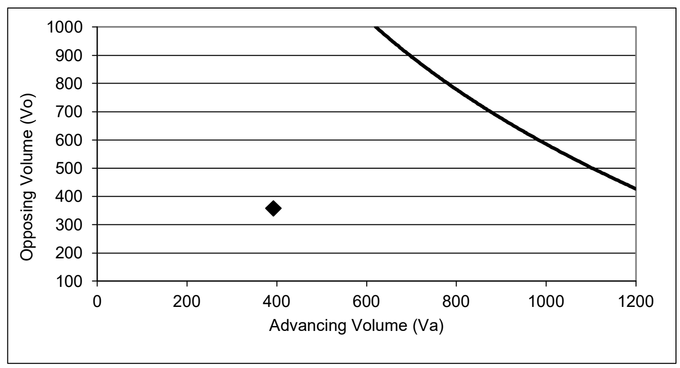
Advancing Volume Threshold	AV =	-
Advancing Volume	Va =	373
If AV<Va then warrant is met		-

Right Turn Taper Warranted: **NO**

Eastbound Left Turn Lane Warrants

Percentage Left Turns	%lt	1.5 %
Advancing Volume Threshold	AV	1300 veh/hr

If AV<Va then warrant is met



◆ Study Intersection
Two lane roadway warrant threshold for: 30 mph
Turn lane warranted if point falls to right of warrant threshold line

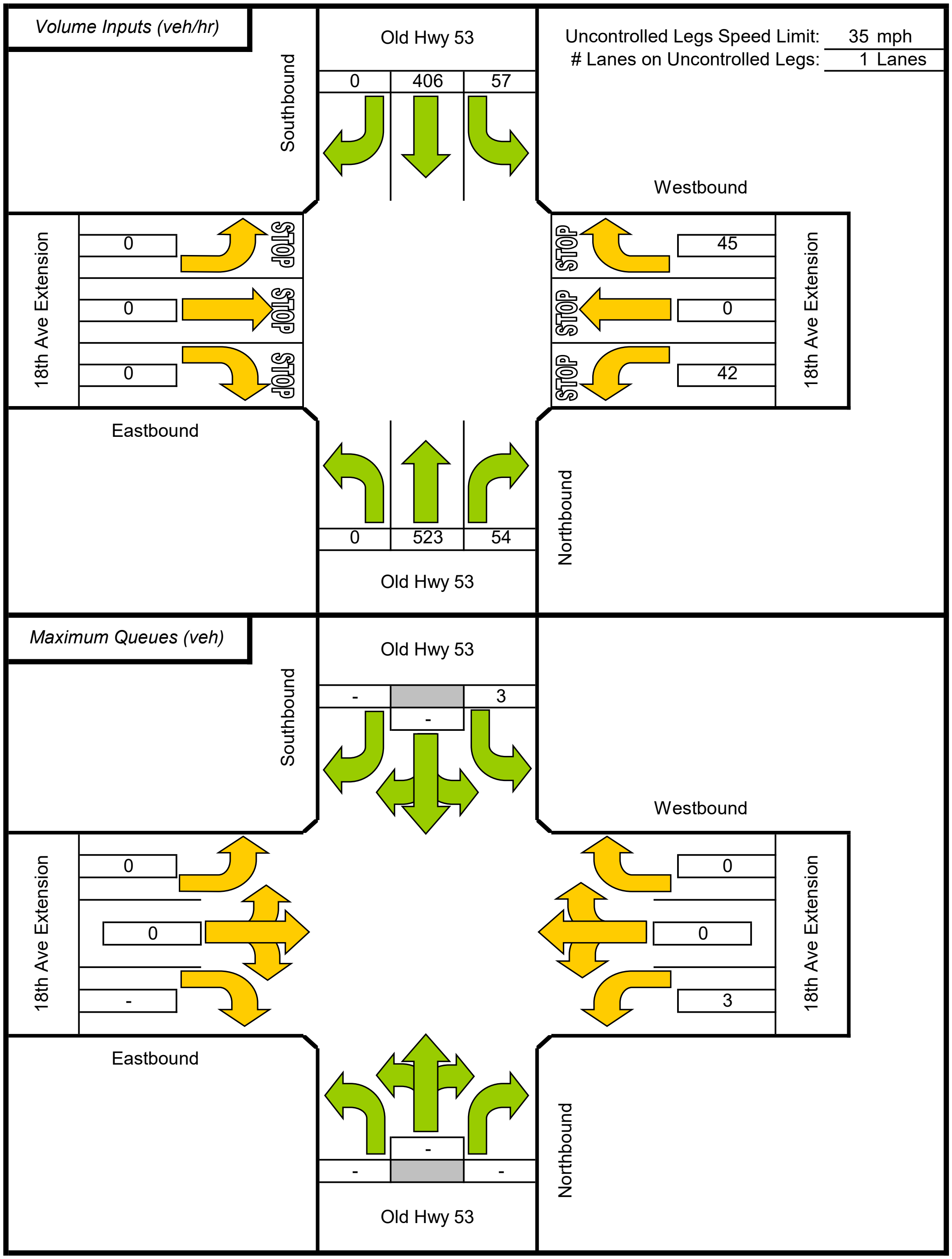
Left Turn Lane Warranted: **NO**

Methodology based on Washington State Transportation Center Research Report *Method For Prioritizing Intersection Improvements*, January 1997.
The right turn lane and taper analysis is based on work conducted by Cottrell in 1981.
The left turn lane analysis is based on work conducted by M.D. Harmelink in 1967, and modified by Kikuchi and Chakroborty in 1991.

Maximum Queue Length
Two-Way Stop-Controlled Intersections

Through Street: Old Hwy 53
Side Street: 18th Ave Extension

Scenario: Future plus Project PM
Stop Controlled Legs: East/West



Source: John T. Gard, ITE Journal, November 2001, "Estimating Maximum Queue Length at Unsignalized Intersections"

Appendix D

Intersection Level of Service and Queuing Calculations

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Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	11.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.365

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	5	671	61	66	771	5	3	4	9	76	13	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	671	61	66	771	5	3	4	9	76	13	67
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	187	17	18	215	1	1	1	3	21	4	19
Total Analysis Volume [veh/h]	6	748	68	74	860	6	3	4	10	85	14	75
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
l1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
l2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	45	45	45	45	45	45	45	45	45
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	6	17	17	9	21	21	7	11	11
g / C, Green / Cycle	0.13	0.39	0.39	0.21	0.47	0.47	0.15	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.00	0.25	0.25	0.05	0.26	0.26	0.01	0.06	0.05
s, saturation flow rate [veh/h]	1603	1683	1634	1603	1683	1679	1513	1614	1431
c, Capacity [veh/h]	204	655	636	338	795	793	221	411	364
d1, Uniform Delay [s]	17.18	11.13	11.13	14.68	8.43	8.43	16.57	13.31	13.18
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	1.02	1.05	0.12	0.59	0.59	0.15	0.30	0.28
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.63	0.63	0.22	0.55	0.55	0.08	0.24	0.21
d, Delay for Lane Group [s/veh]	17.20	12.14	12.18	14.80	9.01	9.01	16.72	13.61	13.46
Lane Group LOS	B	B	B	B	A	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.04	2.16	2.10	0.46	1.62	1.62	0.14	0.71	0.53
50th-Percentile Queue Length [ft/ln]	1.06	53.92	52.54	11.54	40.56	40.47	3.56	17.72	13.36
95th-Percentile Queue Length [veh/ln]	0.08	3.88	3.78	0.83	2.92	2.91	0.26	1.28	0.96
95th-Percentile Queue Length [ft/ln]	1.91	97.05	94.57	20.78	73.00	72.84	6.40	31.90	24.04

Movement, Approach, & Intersection Results

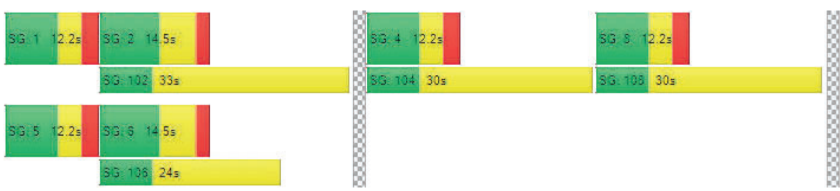
d_M, Delay for Movement [s/veh]	17.20	12.16	12.18	14.80	9.01	9.01	16.72	16.72	16.72	13.61	13.61	13.46
Movement LOS	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	12.20			9.47			16.72			13.54		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	11.04											
Intersection LOS	B											
Intersection V/C	0.365											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	12.76	12.76	12.76	12.76
I_p,int, Pedestrian LOS Score for Intersection	2.895	2.891	1.695	2.004
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	357	357	312	312
d_b, Bicycle Delay [s]	15.13	15.13	15.96	15.96
I_b,int, Bicycle LOS Score for Intersection	2.238	2.335	1.588	1.847
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	10.6
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.407

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	2	876	50	62	679	3	0	5	3	70	8	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	876	50	62	679	3	0	5	3	70	8	63
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	241	14	17	187	1	0	1	1	19	2	17
Total Analysis Volume [veh/h]	2	964	55	68	747	3	0	6	3	77	9	69
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stre	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stre	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	48	48	48	48	48	48	48	48	48
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	5	21	21	9	25	25	6	11	11
g / C, Green / Cycle	0.11	0.44	0.44	0.20	0.52	0.52	0.13	0.24	0.24
(v / s)_i Volume / Saturation Flow Rate	0.00	0.31	0.31	0.04	0.22	0.22	0.01	0.05	0.05
s, saturation flow rate [veh/h]	1603	1683	1651	1603	1683	1681	1589	1611	1431
c, Capacity [veh/h]	181	738	724	316	880	879	200	383	340
d1, Uniform Delay [s]	18.75	10.80	10.80	16.02	6.98	6.98	18.30	14.61	14.53
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.01	1.20	1.22	0.12	0.33	0.33	0.09	0.29	0.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.70	0.70	0.22	0.43	0.43	0.04	0.22	0.20
d, Delay for Lane Group [s/veh]	18.76	12.00	12.03	16.15	7.30	7.31	18.39	14.91	14.82
Lane Group LOS	B	B	B	B	A	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.02	2.76	2.71	0.48	1.18	1.18	0.08	0.68	0.55
50th-Percentile Queue Length [ft/ln]	0.40	68.96	67.78	11.94	29.58	29.54	2.08	17.07	13.68
95th-Percentile Queue Length [veh/ln]	0.03	4.97	4.88	0.86	2.13	2.13	0.15	1.23	0.99
95th-Percentile Queue Length [ft/ln]	0.71	124.13	122.00	21.49	53.24	53.18	3.75	30.72	24.63

Movement, Approach, & Intersection Results

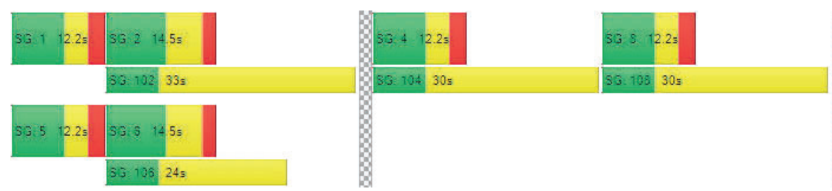
d_M, Delay for Movement [s/veh]	18.76	12.01	12.03	16.15	7.31	7.31	18.39	18.39	18.39	14.91	14.91	14.82
Movement LOS	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	12.03			8.04			18.39			14.87		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	10.65											
Intersection LOS	B											
Intersection V/C	0.407											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.03	14.03	14.03	14.03
I_p,int, Pedestrian LOS Score for Intersection	2.924	2.925	1.689	1.996
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	337	337	295	295
d_b, Bicycle Delay [s]	16.43	16.43	17.27	17.27
I_b,int, Bicycle LOS Score for Intersection	2.402	2.234	1.574	1.815
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	11.2
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.384

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	5	671	61	66	771	5	3	4	9	76	13	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	58	0	0	59	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	729	61	66	830	5	3	4	9	76	13	67
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	203	17	18	231	1	1	1	3	21	4	19
Total Analysis Volume [veh/h]	6	813	68	74	925	6	3	4	10	85	14	75
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stre	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stre	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	46	46	46	46	46	46	46	46	46
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	6	19	19	10	22	22	7	11	11
g / C, Green / Cycle	0.12	0.40	0.40	0.21	0.49	0.49	0.14	0.25	0.25
(v / s)_i Volume / Saturation Flow Rate	0.00	0.27	0.27	0.05	0.28	0.28	0.01	0.06	0.05
s, saturation flow rate [veh/h]	1603	1683	1638	1603	1683	1679	1513	1614	1431
c, Capacity [veh/h]	198	679	661	330	817	816	216	400	355
d1, Uniform Delay [s]	17.84	11.21	11.22	15.30	8.47	8.47	17.22	13.95	13.82
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	1.09	1.12	0.13	0.63	0.63	0.15	0.32	0.29
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.03	0.66	0.66	0.22	0.57	0.57	0.08	0.25	0.21
d, Delay for Lane Group [s/veh]	17.86	12.31	12.34	15.43	9.10	9.10	17.37	14.27	14.11
Lane Group LOS	B	B	B	B	A	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.04	2.42	2.36	0.49	1.81	1.81	0.15	0.75	0.56
50th-Percentile Queue Length [ft/ln]	1.12	60.43	58.96	12.25	45.22	45.13	3.72	18.71	14.10
95th-Percentile Queue Length [veh/ln]	0.08	4.35	4.25	0.88	3.26	3.25	0.27	1.35	1.02
95th-Percentile Queue Length [ft/ln]	2.01	108.77	106.13	22.04	81.40	81.23	6.70	33.69	25.38

Movement, Approach, & Intersection Results

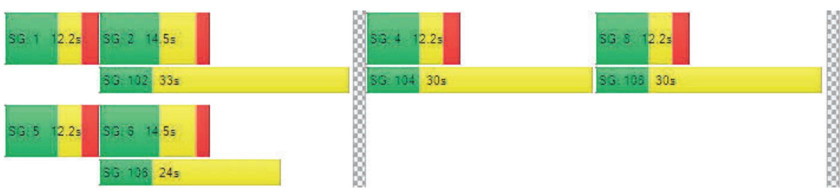
d_M, Delay for Movement [s/veh]	17.86	12.32	12.34	15.43	9.10	9.10	17.37	17.37	17.37	14.27	14.27	14.11
Movement LOS	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	12.36			9.56			17.37			14.20		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	11.21											
Intersection LOS	B											
Intersection V/C	0.384											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	13.41	13.41	13.41	13.41
I_p,int, Pedestrian LOS Score for Intersection	2.943	2.939	1.697	2.006
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	346	346	303	303
d_b, Bicycle Delay [s]	15.79	15.79	16.63	16.63
I_b,int, Bicycle LOS Score for Intersection	2.291	2.389	1.588	1.847
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.429

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	2	876	50	62	679	3	0	5	3	70	8	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	68	0	0	67	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	2	944	50	62	746	3	0	5	3	70	8	63
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	260	14	17	205	1	0	1	1	19	2	17
Total Analysis Volume [veh/h]	2	1039	55	68	821	3	0	6	3	77	9	69
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stre	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stre	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	49	49	49	49	49	49	49	49	49
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	5	22	22	9	27	27	6	11	11
g / C, Green / Cycle	0.11	0.46	0.46	0.19	0.54	0.54	0.12	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.00	0.33	0.33	0.04	0.24	0.24	0.01	0.05	0.05
s, saturation flow rate [veh/h]	1603	1683	1653	1603	1683	1681	1589	1611	1431
c, Capacity [veh/h]	175	767	753	308	906	905	194	371	330
d1, Uniform Delay [s]	19.65	10.91	10.91	16.86	6.98	6.98	19.17	15.47	15.38
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.01	1.29	1.31	0.13	0.36	0.36	0.10	0.32	0.31
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.72	0.72	0.22	0.46	0.46	0.05	0.23	0.21
d, Delay for Lane Group [s/veh]	19.66	12.19	12.22	16.99	7.34	7.34	19.27	15.78	15.69
Lane Group LOS	B	B	B	B	A	A	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.02	3.10	3.05	0.51	1.35	1.35	0.09	0.73	0.58
50th-Percentile Queue Length [ft/ln]	0.42	77.57	76.36	12.80	33.82	33.78	2.20	18.20	14.59
95th-Percentile Queue Length [veh/ln]	0.03	5.59	5.50	0.92	2.43	2.43	0.16	1.31	1.05
95th-Percentile Queue Length [ft/ln]	0.76	139.63	137.45	23.03	60.87	60.80	3.96	32.76	26.26

Movement, Approach, & Intersection Results

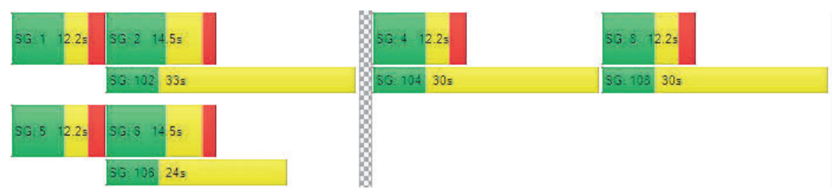
d_M, Delay for Movement [s/veh]	19.66	12.21	12.22	16.99	7.34	7.34	19.27	19.27	19.27	15.78	15.78	15.69
Movement LOS	B	B	B	B	A	A	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	12.22			8.07			19.27			15.74		
Approach LOS	B			A			B			B		
d_I, Intersection Delay [s/veh]	10.78											
Intersection LOS	B											
Intersection V/C	0.429											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	14.89	14.89	14.89	14.89
I_p,int, Pedestrian LOS Score for Intersection	2.979	2.980	1.692	1.998
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	324	324	284	284
d_b, Bicycle Delay [s]	17.31	17.31	18.16	18.16
I_b,int, Bicycle LOS Score for Intersection	2.464	2.296	1.574	1.815
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	18.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.606

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	120	845	15	70	995	90	90	20	115	20	25	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	120	845	15	70	995	90	90	20	115	20	25	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	30	211	4	18	249	23	23	5	29	5	6	20
Total Analysis Volume [veh/h]	120	845	15	70	995	90	90	20	115	20	25	80
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stre	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stre	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	11	29	29	10	27	27	14	11	11
g / C, Green / Cycle	0.18	0.44	0.44	0.16	0.42	0.42	0.22	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.07	0.26	0.26	0.04	0.33	0.33	0.15	0.03	0.06
s, saturation flow rate [veh/h]	1603	1683	1673	1603	1683	1634	1516	1646	1431
c, Capacity [veh/h]	283	745	741	254	715	694	336	292	254
d1, Uniform Delay [s]	23.72	13.50	13.50	23.97	15.90	15.91	23.03	22.50	23.19
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.38	0.71	0.72	0.22	1.79	1.85	2.32	0.24	0.70
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.58	0.58	0.28	0.77	0.77	0.67	0.15	0.32
d, Delay for Lane Group [s/veh]	24.10	14.22	14.22	24.18	17.69	17.76	25.35	22.75	23.89
Lane Group LOS	C	B	B	C	B	B	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	1.42	3.61	3.59	0.83	5.50	5.36	3.14	0.57	1.05
50th-Percentile Queue Length [ft/ln]	35.57	90.27	89.74	20.63	137.55	134.06	78.59	14.21	26.36
95th-Percentile Queue Length [veh/ln]	2.56	6.50	6.46	1.49	9.35	9.16	5.66	1.02	1.90
95th-Percentile Queue Length [ft/ln]	64.02	162.49	161.54	37.14	233.73	229.01	141.46	25.57	47.45

Movement, Approach, & Intersection Results

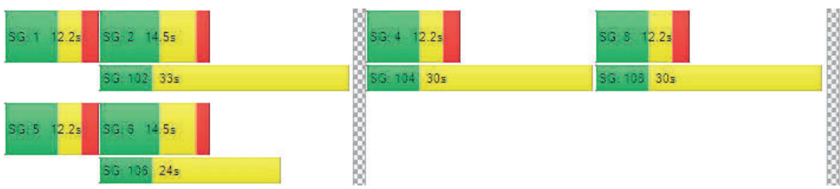
d_M, Delay for Movement [s/veh]	24.10	14.22	14.22	24.18	17.72	17.76	25.35	25.35	25.35	22.75	22.75	23.89
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	15.43			18.11			25.35			23.48		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	17.98											
Intersection LOS	B											
Intersection V/C	0.606											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.21	22.21	22.21	22.21
I_p,int, Pedestrian LOS Score for Intersection	3.036	3.057	1.921	1.997
Crosswalk LOS	C	C	A	A
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	248	248	217	217
d_b, Bicycle Delay [s]	24.77	24.77	25.65	25.65
I_b,int, Bicycle LOS Score for Intersection	2.368	2.512	1.931	1.766
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	19.3
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.616

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	130	945	15	80	895	110	110	25	130	20	20	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	130	945	15	80	895	110	110	25	130	20	20	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	33	236	4	20	224	28	28	6	33	5	5	20
Total Analysis Volume [veh/h]	130	945	15	80	895	110	110	25	130	20	20	80
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stre	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stre	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	65	65	65	65	65	65	65	65	65
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	12	27	27	11	26	26	16	11	11
g / C, Green / Cycle	0.18	0.42	0.42	0.16	0.40	0.40	0.25	0.18	0.18
(v / s)_i Volume / Saturation Flow Rate	0.08	0.29	0.29	0.05	0.30	0.30	0.17	0.02	0.06
s, saturation flow rate [veh/h]	1603	1683	1674	1603	1683	1619	1520	1642	1431
c, Capacity [veh/h]	284	701	697	260	676	650	374	287	250
d1, Uniform Delay [s]	24.06	15.56	15.56	24.12	16.79	16.80	22.46	22.77	23.53
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.12	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.43	1.20	1.21	0.25	1.77	1.84	2.78	0.22	0.73
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.46	0.69	0.69	0.31	0.76	0.76	0.71	0.14	0.32
d, Delay for Lane Group [s/veh]	24.49	16.77	16.78	24.36	18.56	18.64	25.24	22.99	24.26
Lane Group LOS	C	B	B	C	B	B	C	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	1.57	4.64	4.62	0.96	5.34	5.16	3.74	0.51	1.07
50th-Percentile Queue Length [ft/ln]	39.27	116.05	115.46	23.88	133.58	128.93	93.54	12.77	26.76
95th-Percentile Queue Length [veh/ln]	2.83	8.18	8.14	1.72	9.13	8.88	6.73	0.92	1.93
95th-Percentile Queue Length [ft/ln]	70.68	204.38	203.57	42.99	228.36	222.04	168.37	22.99	48.18

Movement, Approach, & Intersection Results

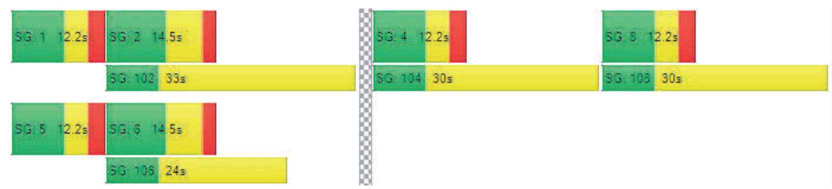
d_M, Delay for Movement [s/veh]	24.49	16.77	16.78	24.36	18.59	18.64	25.24	25.24	25.24	22.99	22.99	24.26
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	C
d_A, Approach Delay [s/veh]	17.69			19.02			25.24			23.84		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	19.33											
Intersection LOS	B											
Intersection V/C	0.616											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	22.49	22.49	22.49	22.49
I_p,int, Pedestrian LOS Score for Intersection	3.045	3.076	1.953	2.000
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	246	246	215	215
d_b, Bicycle Delay [s]	25.06	25.06	25.94	25.94
I_b,int, Bicycle LOS Score for Intersection	2.459	2.455	1.997	1.758
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	15.1
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.448

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	5	671	61	66	771	5	3	4	9	76	13	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	27	0	0	0	0	9	50	0	35	0	18	0
Site-Generated Trips [veh/h]	6	0	0	0	0	8	6	0	5	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	671	61	66	771	22	59	4	49	76	31	67
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	187	17	18	215	6	16	1	14	21	9	19
Total Analysis Volume [veh/h]	42	748	68	74	860	25	66	4	55	85	35	75
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stre	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stre	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	52	52	52	52	52	52	52	52	52
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	8	19	19	10	21	21	11	12	12
g / C, Green / Cycle	0.16	0.37	0.37	0.19	0.40	0.40	0.21	0.23	0.23
(v / s)_i Volume / Saturation Flow Rate	0.03	0.25	0.25	0.05	0.26	0.26	0.08	0.07	0.05
s, saturation flow rate [veh/h]	1603	1683	1634	1603	1683	1666	1524	1625	1431
c, Capacity [veh/h]	260	623	605	304	669	662	325	369	325
d1, Uniform Delay [s]	18.74	13.68	13.68	17.91	12.84	12.84	17.53	16.77	16.39
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	1.23	1.26	0.15	1.15	1.16	0.74	0.51	0.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.16	0.66	0.66	0.24	0.67	0.67	0.38	0.33	0.23
d, Delay for Lane Group [s/veh]	18.85	14.91	14.95	18.06	13.98	13.99	18.27	17.28	16.75
Lane Group LOS	B	B	B	B	B	B	B	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.35	2.99	2.91	0.61	3.03	3.01	1.22	1.12	0.68
50th-Percentile Queue Length [ft/ln]	8.87	74.75	72.78	15.17	75.85	75.15	30.43	28.00	17.12
95th-Percentile Queue Length [veh/ln]	0.64	5.38	5.24	1.09	5.46	5.41	2.19	2.02	1.23
95th-Percentile Queue Length [ft/ln]	15.97	134.54	131.00	27.30	136.53	135.27	54.77	50.40	30.82

Movement, Approach, & Intersection Results

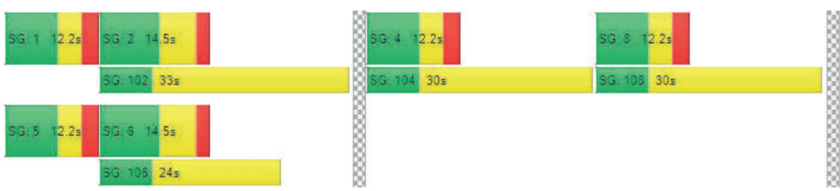
d_M, Delay for Movement [s/veh]	18.85	14.92	14.95	18.06	13.99	13.99	18.27	18.27	18.27	17.28	17.28	16.75
Movement LOS	B	B	B	B	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	15.12			14.30			18.27			17.08		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	15.12											
Intersection LOS	B											
Intersection V/C	0.448											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	16.09	16.09	16.09	16.09
I_p,int, Pedestrian LOS Score for Intersection	2.933	2.929	1.794	2.020
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	309	309	270	270
d_b, Bicycle Delay [s]	18.54	18.54	19.40	19.40
I_b,int, Bicycle LOS Score for Intersection	2.267	2.351	1.766	1.881
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Old Hwy 53/18th Ave Extension

Control Type:	Two-way stop	Delay (sec / veh):	15.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.091

Intersection Setup

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Base Volume Input [veh/h]	199	0	0	299	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	42	43	0	27	27
Site-Generated Trips [veh/h]	0	2	4	0	2	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	199	44	47	299	29	30
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	59	13	14	88	9	9
Total Analysis Volume [veh/h]	234	52	55	352	34	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.04	0.00	0.09	0.04
d_M, Delay for Movement [s/veh]	0.00	0.00	7.95	0.00	15.78	10.74
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.14	0.14	0.47	0.47
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.38	3.38	11.73	11.73
d_A, Approach Delay [s/veh]	0.00		1.07		13.22	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.77					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	15.0
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.485

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	2	876	50	62	679	3	0	5	3	70	8	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	35	0	0	0	0	13	59	0	18	0	18	0
Site-Generated Trips [veh/h]	7	0	0	0	0	9	9	0	7	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	876	50	62	679	25	68	5	28	70	26	63
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	241	14	17	187	7	19	1	8	19	7	17
Total Analysis Volume [veh/h]	48	964	55	68	747	28	75	6	31	77	29	69
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stree	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stree	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	56	56	56	56	56	56	56	56	56
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	9	23	23	10	24	24	11	12	12
g / C, Green / Cycle	0.16	0.42	0.42	0.18	0.43	0.43	0.20	0.21	0.21
(v / s)_i Volume / Saturation Flow Rate	0.03	0.31	0.31	0.04	0.23	0.23	0.07	0.07	0.05
s, saturation flow rate [veh/h]	1603	1683	1651	1603	1683	1662	1555	1624	1431
c, Capacity [veh/h]	255	704	691	281	731	722	305	341	300
d1, Uniform Delay [s]	20.41	13.63	13.63	19.90	11.66	11.66	19.49	18.70	18.37
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.13	1.48	1.50	0.16	0.61	0.61	0.74	0.51	0.39
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.19	0.73	0.73	0.24	0.53	0.53	0.37	0.31	0.23
d, Delay for Lane Group [s/veh]	20.54	15.11	15.14	20.07	12.27	12.27	20.22	19.22	18.75
Lane Group LOS	C	B	B	C	B	B	C	B	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.46	4.00	3.93	0.64	2.54	2.51	1.22	1.11	0.71
50th-Percentile Queue Length [ft/ln]	11.41	100.06	98.33	15.92	63.57	62.82	30.50	27.81	17.81
95th-Percentile Queue Length [veh/ln]	0.82	7.20	7.08	1.15	4.58	4.52	2.20	2.00	1.28
95th-Percentile Queue Length [ft/ln]	20.54	180.11	177.00	28.66	114.42	113.08	54.91	50.06	32.05

Movement, Approach, & Intersection Results

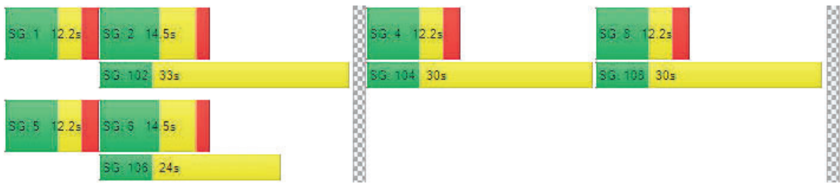
d_M, Delay for Movement [s/veh]	20.54	15.12	15.14	20.07	12.27	12.27	20.22	20.22	20.22	19.22	19.22	18.75
Movement LOS	C	B	B	C	B	B	C	C	C	B	B	B
d_A, Approach Delay [s/veh]	15.37			12.90			20.22			19.03		
Approach LOS	B			B			C			B		
d_I, Intersection Delay [s/veh]	14.96											
Intersection LOS	B											
Intersection V/C	0.485											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	18.04	18.04	18.04	18.04
I_p,int, Pedestrian LOS Score for Intersection	2.960	2.971	1.794	2.012
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	286	286	250	250
d_b, Bicycle Delay [s]	20.53	20.53	21.39	21.39
I_b,int, Bicycle LOS Score for Intersection	2.440	2.255	1.744	1.848
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Old Hwy 53/18th Ave Extension

Control Type:	Two-way stop	Delay (sec / veh):	17.8
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.116

Intersection Setup

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Base Volume Input [veh/h]	371	0	0	288	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	38	39	0	33	33
Site-Generated Trips [veh/h]	0	2	4	0	2	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	371	40	43	288	35	37
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	100	11	12	77	9	10
Total Analysis Volume [veh/h]	398	43	46	309	38	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.04	0.00	0.12	0.06
d_M, Delay for Movement [s/veh]	0.00	0.00	8.36	0.00	17.80	12.48
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.13	0.13	0.65	0.65
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.21	3.21	16.14	16.14
d_A, Approach Delay [s/veh]	0.00		1.08		15.07	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	1.78					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	15.7
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.484

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	5	671	61	66	771	5	3	4	9	76	13	67
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	27	0	0	0	0	9	50	0	35	0	18	0
Site-Generated Trips [veh/h]	6	38	0	0	49	8	26	0	15	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	38	709	61	66	820	22	79	4	59	76	31	67
Peak Hour Factor	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970	0.8970
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	11	198	17	18	229	6	22	1	16	21	9	19
Total Analysis Volume [veh/h]	42	790	68	74	914	25	88	4	66	85	35	75
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stre	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stre	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	54	54	54	54	54	54	54	54	54
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	8	20	20	10	22	22	12	12	12
g / C, Green / Cycle	0.16	0.38	0.38	0.19	0.40	0.40	0.22	0.22	0.22
(v / s)_i Volume / Saturation Flow Rate	0.03	0.26	0.26	0.05	0.28	0.28	0.10	0.07	0.05
s, saturation flow rate [veh/h]	1603	1683	1637	1603	1683	1667	1528	1625	1431
c, Capacity [veh/h]	254	637	620	297	682	675	330	359	316
d1, Uniform Delay [s]	19.51	13.98	13.98	18.68	13.20	13.20	18.41	17.60	17.20
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	1.30	1.34	0.16	1.27	1.28	1.08	0.54	0.38
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.17	0.68	0.68	0.25	0.69	0.69	0.48	0.33	0.24
d, Delay for Lane Group [s/veh]	19.62	15.28	15.32	18.85	14.47	14.48	19.49	18.14	17.58
Lane Group LOS	B	B	B	B	B	B	B	B	B
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.37	3.30	3.21	0.64	3.41	3.38	1.64	1.18	0.72
50th-Percentile Queue Length [ft/ln]	9.35	82.41	80.32	16.03	85.20	84.46	41.12	29.52	18.05
95th-Percentile Queue Length [veh/ln]	0.67	5.93	5.78	1.15	6.13	6.08	2.96	2.13	1.30
95th-Percentile Queue Length [ft/ln]	16.83	148.35	144.57	28.86	153.35	152.02	74.02	53.14	32.49

Movement, Approach, & Intersection Results

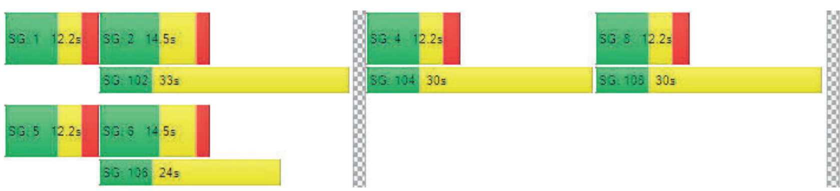
d_M, Delay for Movement [s/veh]	19.62	15.30	15.32	18.85	14.47	14.48	19.49	19.49	19.49	18.14	18.14	17.58
Movement LOS	B	B	B	B	B	B	B	B	B	B	B	B
d_A, Approach Delay [s/veh]	15.50			14.79			19.49			17.93		
Approach LOS	B			B			B			B		
d_I, Intersection Delay [s/veh]	15.67											
Intersection LOS	B											
Intersection V/C	0.484											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	16.89	16.89	16.89	16.89
I_p,int, Pedestrian LOS Score for Intersection	2.973	2.973	1.812	2.022
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	299	299	262	262
d_b, Bicycle Delay [s]	19.36	19.36	20.22	20.22
I_b,int, Bicycle LOS Score for Intersection	2.302	2.395	1.820	1.881
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Old Hwy 53/18th Ave Extension

Control Type:	Two-way stop	Delay (sec / veh):	18.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.116

Intersection Setup

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Base Volume Input [veh/h]	199	0	0	299	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	42	43	0	27	27
Site-Generated Trips [veh/h]	30	2	34	30	2	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	229	44	77	329	29	30
Peak Hour Factor	0.8500	0.8500	0.8500	0.8500	0.8500	0.8500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	13	23	97	9	9
Total Analysis Volume [veh/h]	269	52	91	387	34	35
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.07	0.00	0.12	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	8.14	0.00	18.87	11.48
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.24	0.24	0.57	0.57
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.94	5.94	14.37	14.37
d_A, Approach Delay [s/veh]	0.00		1.55		15.12	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.06					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	15.5
Analysis Method:	HCM 6th Edition	Level Of Service:	B
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.521

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	2	876	50	62	679	3	0	5	3	70	8	63
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	35	0	0	0	0	13	59	0	18	0	18	0
Site-Generated Trips [veh/h]	7	50	0	0	58	9	27	0	16	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	44	926	50	62	737	25	86	5	37	70	26	63
Peak Hour Factor	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090	0.9090
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	12	255	14	17	203	7	24	1	10	19	7	17
Total Analysis Volume [veh/h]	48	1019	55	68	811	28	95	6	41	77	29	69
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stre	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stre	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	58	58	58	58	58	58	58	58	58
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	9	25	25	10	26	26	12	12	12
g / C, Green / Cycle	0.15	0.43	0.43	0.17	0.44	0.44	0.20	0.20	0.20
(v / s)_i Volume / Saturation Flow Rate	0.03	0.32	0.32	0.04	0.25	0.25	0.09	0.07	0.05
s, saturation flow rate [veh/h]	1603	1683	1653	1603	1683	1663	1552	1624	1431
c, Capacity [veh/h]	248	724	711	272	749	741	307	329	290
d1, Uniform Delay [s]	21.48	13.97	13.97	20.98	11.97	11.97	20.66	19.84	19.48
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.11	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.14	1.58	1.61	0.18	0.67	0.67	1.09	0.56	0.42
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.19	0.75	0.75	0.25	0.56	0.56	0.46	0.32	0.24
d, Delay for Lane Group [s/veh]	21.62	15.54	15.58	21.15	12.64	12.65	21.75	20.40	19.90
Lane Group LOS	C	B	B	C	B	B	C	C	B
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	Yes	No
50th-Percentile Queue Length [veh/ln]	0.49	4.47	4.40	0.68	2.93	2.90	1.67	1.19	0.76
50th-Percentile Queue Length [ft/ln]	12.17	111.79	110.01	17.02	73.20	72.39	41.73	29.65	18.98
95th-Percentile Queue Length [veh/ln]	0.88	7.94	7.84	1.23	5.27	5.21	3.00	2.13	1.37
95th-Percentile Queue Length [ft/ln]	21.91	198.49	196.01	30.63	131.76	130.30	75.11	53.37	34.16

Generated with PTV VISTRO Airport Hotel Project 6/29/2022
Version 2021 (SP 0-6)

Movement, Approach, & Intersection Results

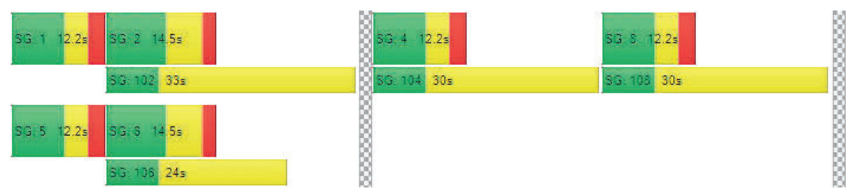
d_M, Delay for Movement [s/veh]	21.62	15.56	15.58	21.15	12.64	12.65	21.75	21.75	21.75	20.40	20.40	19.90
Movement LOS	C	B	B	C	B	B	C	C	C	C	C	B
d_A, Approach Delay [s/veh]	15.82			13.28			21.75			20.20		
Approach LOS	B			B			C			C		
d_I, Intersection Delay [s/veh]	15.52											
Intersection LOS	B											
Intersection V/C	0.521											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	19.14	19.14	19.14	19.14
I_p,int, Pedestrian LOS Score for Intersection	3.009	3.023	1.811	2.015
Crosswalk LOS	C	C	A	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	275	275	241	241
d_b, Bicycle Delay [s]	21.65	21.65	22.52	22.52
I_b,int, Bicycle LOS Score for Intersection	2.485	2.308	1.794	1.848
Bicycle LOS	B	B	A	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Old Hwy 53/18th Ave Extension

Control Type:	Two-way stop	Delay (sec / veh):	20.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.142

Intersection Setup

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Base Volume Input [veh/h]	371	0	0	288	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	38	39	0	33	33
Site-Generated Trips [veh/h]	29	2	31	27	2	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	400	40	70	315	35	37
Peak Hour Factor	0.9310	0.9310	0.9310	0.9310	0.9310	0.9310
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	107	11	19	85	9	10
Total Analysis Volume [veh/h]	430	43	75	338	38	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.07	0.00	0.14	0.07
d_M, Delay for Movement [s/veh]	0.00	0.00	8.55	0.00	20.93	13.41
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.22	0.22	0.77	0.77
95th-Percentile Queue Length [ft/ln]	0.00	0.00	5.54	5.54	19.25	19.25
d_A, Approach Delay [s/veh]	0.00		1.55		17.07	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.05					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	24.2
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.713

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]		55.00			55.00			30.00			30.00	
Grade [%]		0.00			0.00			0.00			0.00	
Curb Present		No			No			No			No	
Crosswalk		Yes			Yes			Yes			Yes	

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	120	845	15	70	995	90	90	20	115	20	25	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	33	0	0	0	0	14	60	0	43	0	19	0
Site-Generated Trips [veh/h]	6	0	0	0	0	8	6	0	5	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	159	845	15	70	995	112	156	20	163	20	44	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	40	211	4	18	249	28	39	5	41	5	11	20
Total Analysis Volume [veh/h]	159	845	15	70	995	112	156	20	163	20	44	80
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stre		0			0			0			0	
v_di, Inbound Pedestrian Volume crossing major street [		0			0			0			0	
v_co, Outbound Pedestrian Volume crossing minor stre		0			0			0			0	
v_ci, Inbound Pedestrian Volume crossing minor street [		0			0			0			0	
v_ab, Corner Pedestrian Volume [ped/h]		0			0			0			0	
Bicycle Volume [bicycles/h]		0			0			0			0	

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
l1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
l2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	79	79	79	79	79	79	79	79	79
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	12	34	34	11	33	33	22	12	12
g / C, Green / Cycle	0.16	0.44	0.44	0.14	0.41	0.41	0.28	0.15	0.15
(v / s)_i Volume / Saturation Flow Rate	0.10	0.26	0.26	0.04	0.33	0.34	0.22	0.04	0.06
s, saturation flow rate [veh/h]	1603	1683	1673	1603	1683	1624	1519	1657	1431
c, Capacity [veh/h]	251	733	728	217	697	673	423	250	216
d1, Uniform Delay [s]	31.21	16.94	16.94	30.89	20.37	20.39	26.49	29.65	30.20
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.12	0.34	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.99	0.76	0.76	0.31	2.41	2.53	10.58	0.54	1.06
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.63	0.59	0.59	0.32	0.81	0.81	0.80	0.26	0.37
d, Delay for Lane Group [s/veh]	32.20	17.70	17.71	31.20	22.79	22.92	37.06	30.19	31.26
Lane Group LOS	C	B	B	C	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	2.62	5.00	4.97	1.11	7.93	7.69	6.88	1.08	1.40
50th-Percentile Queue Length [ft/ln]	65.54	125.06	124.32	27.78	198.14	192.16	172.12	27.09	34.89
95th-Percentile Queue Length [veh/ln]	4.72	8.67	8.63	2.00	12.54	12.23	11.19	1.95	2.51
95th-Percentile Queue Length [ft/ln]	117.98	216.76	215.75	50.00	313.56	305.83	279.70	48.77	62.81

Movement, Approach, & Intersection Results

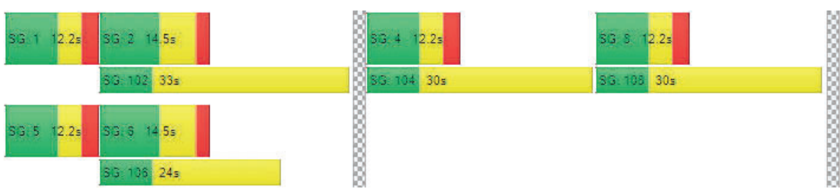
d_M, Delay for Movement [s/veh]	32.20	17.70	17.71	31.20	22.84	22.92	37.06	37.06	37.06	30.19	30.19	31.26
Movement LOS	C	B	B	C	C	C	D	D	D	C	C	C
d_A, Approach Delay [s/veh]	19.97			23.35			37.06			30.78		
Approach LOS	B			C			D			C		
d_I, Intersection Delay [s/veh]	24.20											
Intersection LOS	C											
Intersection V/C	0.713											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.21	29.21	29.21	29.21
I_p,int, Pedestrian LOS Score for Intersection	3.078	3.100	2.026	2.014
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	203	203	177	177
d_b, Bicycle Delay [s]	31.85	31.85	32.75	32.75
I_b,int, Bicycle LOS Score for Intersection	2.400	2.531	2.119	1.797
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Old Hwy 53/18th Ave Extension

Control Type:	Two-way stop	Delay (sec / veh):	18.1
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.112

Intersection Setup

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Base Volume Input [veh/h]	199	0	0	299	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.4200	1.4200	1.4200	1.4200	1.4200	1.4200
In-Process Volume [veh/h]	0	51	52	0	33	33
Site-Generated Trips [veh/h]	0	2	4	0	2	3
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	283	53	56	425	35	36
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	71	13	14	106	9	9
Total Analysis Volume [veh/h]	283	53	56	425	35	36
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.05	0.00	0.11	0.05
d_M, Delay for Movement [s/veh]	0.00	0.00	8.08	0.00	18.09	11.49
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.14	0.14	0.57	0.57
95th-Percentile Queue Length [ft/ln]	0.00	0.00	3.59	3.59	14.25	14.25
d_A, Approach Delay [s/veh]	0.00		0.94		14.74	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	1.69					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 1: SR 53/18th Ave

Control Type:	Signalized	Delay (sec / veh):	27.3
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.735

Intersection Setup

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	0	1	0	0	0	0	0	0	0	1
Entry Pocket Length [ft]	675.00	100.00	100.00	720.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	150.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	55.00			55.00			30.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name	SR 53			SR 53			18th Ave Extension			18th Ave		
Base Volume Input [veh/h]	130	945	15	80	895	110	110	25	130	20	20	80
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	42	0	0	0	0	18	69	0	36	0	21	0
Site-Generated Trips [veh/h]	7	0	0	0	0	9	9	0	7	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	179	945	15	80	895	137	188	25	173	20	41	80
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	45	236	4	20	224	34	47	6	43	5	10	20
Total Analysis Volume [veh/h]	179	945	15	80	895	137	188	25	173	20	41	80
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing major stre	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing major street [	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing minor stre	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing minor street [	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	Yes
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	0.00

Phasing & Timing

Control Type	Protect	Permis	Permis	Protect	Permis	Permis	Split	Split	Split	Split	Split	Split
Signal Group	5	2	0	1	6	0	0	4	0	0	8	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	7	8	0	7	8	0	0	7	0	0	7	0
Maximum Green [s]	20	50	0	20	50	0	0	20	0	0	20	0
Amber [s]	3.2	5.0	0.0	3.2	5.0	0.0	0.0	3.2	0.0	0.0	3.2	0.0
All red [s]	2.0	1.5	0.0	2.0	1.5	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Split [s]	12	14	0	12	14	0	0	12	0	0	12	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	7	0	0	7	0	0	7	0	0	7	0
Pedestrian Clearance [s]	0	26	0	0	17	0	0	23	0	0	23	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Minimum Recall	No	Yes		No	Yes			No			No	
Maximum Recall	No	No		No	No			No			No	
Pedestrian Recall	No	No		No	No			No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	C	L	C	C	C	C	R
C, Cycle Length [s]	83	83	83	83	83	83	83	83	83
L, Total Lost Time per Cycle [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
g_i, Effective Green Time [s]	14	35	35	11	32	32	25	12	12
g / C, Green / Cycle	0.17	0.42	0.42	0.13	0.39	0.39	0.30	0.14	0.14
(v / s)_i Volume / Saturation Flow Rate	0.11	0.29	0.29	0.05	0.31	0.31	0.25	0.04	0.06
s, saturation flow rate [veh/h]	1603	1683	1674	1603	1683	1606	1525	1656	1431
c, Capacity [veh/h]	267	711	707	214	656	626	459	237	205
d1, Uniform Delay [s]	32.62	19.47	19.47	32.95	22.63	22.64	27.29	31.77	32.41
k, delay calibration	0.04	0.11	0.11	0.04	0.11	0.11	0.47	0.11	0.11
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.10	1.14	1.14	0.40	2.43	2.57	15.92	0.57	1.21
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.67	0.68	0.68	0.37	0.81	0.81	0.84	0.26	0.39
d, Delay for Lane Group [s/veh]	33.71	20.61	20.62	33.35	25.07	25.21	43.20	32.34	33.62
Lane Group LOS	C	C	C	C	C	C	D	C	C
Critical Lane Group	Yes	No	No	No	No	Yes	Yes	No	Yes
50th-Percentile Queue Length [veh/ln]	3.15	6.52	6.48	1.37	8.20	7.86	8.89	1.11	1.50
50th-Percentile Queue Length [ft/ln]	78.87	162.94	162.12	34.30	205.11	196.56	222.27	27.72	37.56
95th-Percentile Queue Length [veh/ln]	5.68	10.70	10.66	2.47	12.90	12.46	13.78	2.00	2.70
95th-Percentile Queue Length [ft/ln]	141.96	267.62	266.52	61.73	322.55	311.52	344.52	49.89	67.60

Movement, Approach, & Intersection Results

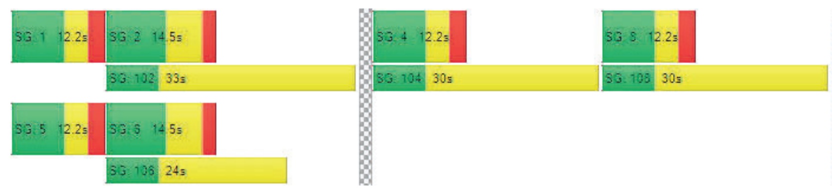
d_M, Delay for Movement [s/veh]	33.71	20.61	20.62	33.35	25.12	25.21	43.20	43.20	43.20	32.34	32.34	33.62
Movement LOS	C	C	C	C	C	C	D	D	D	C	C	C
d_A, Approach Delay [s/veh]	22.67			25.73			43.20			33.07		
Approach LOS	C			C			D			C		
d_I, Intersection Delay [s/veh]	27.28											
Intersection LOS	C											
Intersection V/C	0.735											

Other Modes

g_Walk,mi, Effective Walk Time [s]	11.0	11.0	11.0	11.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	31.34	31.34	31.34	31.34
I_p,int, Pedestrian LOS Score for Intersection	3.091	3.126	2.073	2.020
Crosswalk LOS	C	C	B	B
s_b, Saturation Flow Rate of the bicycle lane [bicycles/h]	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	192	192	168	168
d_b, Bicycle Delay [s]	33.99	33.99	34.90	34.90
I_b,int, Bicycle LOS Score for Intersection	2.499	2.477	2.197	1.792
Bicycle LOS	B	B	B	A

Sequence

Ring 1	1	2	4	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 2: Old Hwy 53/18th Ave Extension

Control Type:	Two-way stop	Delay (sec / veh):	24.9
Analysis Method:	HCM 6th Edition	Level Of Service:	C
Analysis Period:	15 minutes	Volume to Capacity (v/c):	0.185

Intersection Setup

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Approach	Northbound		Southbound		Westbound	
Lane Configuration						
Turning Movement	Thru	Right	Left	Thru	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	35.00		35.00		30.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		Yes		Yes	

Volumes

Name	Old Hwy 53		Old Hwy 53		18th Ave Extension	
Base Volume Input [veh/h]	371	0	0	288	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	2.00	2.00	2.00	2.00	2.00	2.00
Growth Factor	1.4100	1.4100	1.4100	1.4100	1.4100	1.4100
In-Process Volume [veh/h]	0	52	53	0	40	41
Site-Generated Trips [veh/h]	0	2	4	0	2	4
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	523	54	57	406	42	45
Peak Hour Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	131	14	14	102	11	11
Total Analysis Volume [veh/h]	523	54	57	406	42	45
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.06	0.00	0.19	0.08
d_M, Delay for Movement [s/veh]	0.00	0.00	8.83	0.00	24.94	15.79
Movement LOS	A	A	A	A	C	C
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.18	0.18	1.07	1.07
95th-Percentile Queue Length [ft/ln]	0.00	0.00	4.54	4.54	26.69	26.69
d_A, Approach Delay [s/veh]	0.00		1.09		20.21	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	2.01					
Intersection LOS	C					