DRAFT ENVIRONMENTAL IMPACT REPORT

LOT 3 NORTH – 1350 ADAMS COURT PROJECT

PREPARED FOR:

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APRIL 2022

ICF. 2022. *Lot 3 North – 1350 Adams Court Project*. Draft Environmental Impact Report. April. (ICF 104395.0.001.01.007.) San Francisco, CA. Prepared for City of Menlo Park, Menlo Park, CA.

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Acronyms and Abbreviations

°C	Celsius
2017 Scoping Plan	2017 Climate Change Scoping Plan
AB	Assembly Bill
ABAG	Association of Bay Area Governments
ACS	American Community Survey
ADA	Americans with Disabilities Act
ADT	average daily traffic
AMI	average median income
APN	assessor's parcel number
ATCM	Air Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
BART	Bay Area Rapid Transit
BAWSCA	Bay Area Water Supply and Conservation Agency
Bay	San Francisco Bay
Bay-Delta Plan Amendment	Amendment to the San Francisco Bay-Delta Water Quality Control Plan
Bay-Delta Plan	San Francisco Bay-Delta Water Quality Control Plan
Bay Trail	San Francisco Bay Trail
BD+C	Building Design and Construction
BMPs	best management practices
BMR	below market rate
BTUs	British thermal units
C/CAG	City/County Association of Governments of San Mateo County
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
Campus	Menlo Park Labs Campus
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CARE	Community Air Risk Evaluation
CCR	California Code of Regulations

CEC	California Energy Commission
CEQA	California Environmental Quality Act
CH_4	methane
CIP	Capital Improvement Program
City	City of Menlo Park
City Council	Menlo Park City Council
Clean Air Plan	2017 Bay Area Clean Air Plan
CLUP	Comprehensive Land Use Plan
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Connect Menlo	General Plan and M-2 Area Zoning Update
CPUC	California Public Utilities Commission
CWA	Clean Water Act
cy	cubic yards
dB	decibel
dBA	A-weighted decibel
DOF	California Department of Finance
DPM	diesel particulate matter
du	dwelling unit
EIR	environmental impact report
EMFAC	EMission FACtor
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
EV	electric vehicle
EVSE	electric-vehicle supply equipment
FAR	floor area ratio
FHWA	Federal Highway Administration
Friant Ranch Project	Community Plan Update and Friant Ranch Specific Plan
GFRC	glass fiber reinforced concrete
GHG	greenhouse gas
GIS	geographic information system
gpm	gallons per minute
gsf	gross square feet
GVWR	gross vehicle weight rating
GWP	global warming potential

Hetch Hetchy Project	Hetch Hetchy Water and Power Project
HFCs	hydroflourocarbons
HI	hazard index
HNA	housing needs analysis
HOV	high-occupancy vehicle
HRA	health risk assessment
HUD	U.S. Department of Housing and Urban Development
HVAC	heating, ventilation, and air-conditioning
I-280	Interstate 280
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Plan
ITE	Institute of Transportation Engineers
kWh	kilowatt hour
L_{dn}	day-night level
LEED	Leadership in Energy and Environmental Design
L_{eq}	equivalent sound level
LID	low-impact development
L_{max}	maximum sound level
LOS	levels of service
LS	Life Science
LS-B	Life Science, Bonus
LTS	less than significant
LTS/M	less than significant with mitigation
M-2	General Industrial
mg	million gallons
mg/m^3	milligrams per cubic meter
mgd	million gallons per day
mgy	million gallons per year
MMRP	Mitigation Monitoring and Reporting Program
MPFPD	Menlo Park Fire Protection District
mph	miles per hour
MPMWD	Menlo Park Municipal Water District
MPPD	Menlo Park Police Department
MRZ	Mineral Resource Zone
msl	mean sea level
MTC	Metropolitan Transportation Commission
$MTCO_2e/SP/year$	metric tons of carbon dioxide equivalent per service population per year
$MTCO_2e/year$	metric tons of carbon dioxide equivalent per year
N_2O	nitrous oxide

NAAQS	National Ambient Air Quality Standards
NHTSA	National Highway Traffic Safety Administration
NI	no impact
NO_2	nitrogen dioxide
NOP	Notice of Preparation
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NSR	New Source Review
O	Office
OEHHA	Office of Environmental Health Hazard Assessment
OPR	Office of Planning and Research
PacBio	Pacific Biosciences
PCBs	polychlorinated biphenyls
PFCs	perfluorocarbons
PG&E	Pacific Gas and Electric Company
PM_{10}	particulate matter less than 10 microns in aerodynamic diameter
$PM_{2.5}$	particulate matter less than 2.5 microns in aerodynamic diameter
pph	persons per household
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
Project Sponsor	Tarlton Properties
Proposed Project	1350 Adams Court Project
PS	potentially significant
R-MU	Residential Mixed-Use
R&D	research and development
Refuge	Don Edwards San Francisco Bay National Wildlife Refuge
RHNA	Regional Housing Needs Allocation
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWS	Regional Water System
SAFE	Safer Affordable Fuel-Efficient
SamTrans	San Mateo County Transit District
SB	Senate Bill
SCS	Sustainable Communities Strategy
SDWA	Safe Drinking Water Act

sf	square feet
SF_6	sulfur hexafluoride
SFBAAB	San Francisco Bay Area Air Basin
SFPUC	San Francisco Public Utilities Commission
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLCP Reduction Strategy	Short-Lived Climate Pollutant Reduction Strategy
SO_2	sulfur dioxide
SR	State Route
State	State of California
State Water Board	State Water Resources Control Board
SU	significant and unavoidable
SVCW	Silicon Valley Clean Water
SWPPP	Stormwater Pollution Prevention Plan
TACs	toxic air contaminants
TAZ	Transportation Analysis Zone
TDM	Transportation Demand Management
TIA	Transportation Impact Analysis
TIA Guidelines	Transportation Impact Analysis
TMA	transportation management association
U.S EIA	U.S. Energy Information Administration
Unified Program	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program
UWMP	Urban Water Management Plan
VdB	vibration decibel
VMT	vehicle miles traveled
WBSD	West Bay Sanitary District
WSA	Water Supply Assessment
WSCP	Water Shortage Consistency Plan
WSE Study	Water Supply Evaluation Study
WTP	water treatment plant
WWTP	wastewater treatment plant
ZEV	zero-emission vehicle
$\mu g/m^3$	microgram per cubic meter

ES.1 Project Overview

Tarlton Properties (Project Sponsor) is proposing to redevelop a portion of the existing Menlo Park Labs Campus (Campus), which consists of both an undeveloped and vacant area on the northern portion of the site located at 1350 Adams Court (referred to as Lot 3 North), and an approximately 188,100-gross-square-foot (gsf) two-story building on the southern portion of the site located at 1305 O'Brien Drive. The Proposed Project would construct a five-story life sciences building with three modules that would be slightly offset from each other; accommodate parking within a podium above an underground parking level, as well as three above-grade parking levels that would be integrated into the proposed building; and provide landscaping and open space (both public and private) as part of the 1350 Adams Court Project (Proposed Project). The Campus property outside the Project site would remain in its existing condition.

The Project Sponsor would add an approximately 255,000 gsf life sciences building on the Campus that would accommodate approximately 650 employees.[1] The proposed building would be designed with the flexibility to accommodate a single life sciences tenant or meet the needs of multiple tenants. The building would be located on the vacant Lot 3 North and oriented in an east–west direction, with the northern frontage along Adams Court being the front façade. The proposed building would have five levels and be a maximum of approximately 92 feet tall, with an overall average height of 50.6 feet.[2] In addition, the Proposed Project would include a Transportation Demand Management (TDM) program to promote alternatives to private automotive travel and reduce the number of single-occupancy vehicle trips as well as resulting traffic and greenhouse gas (GHG) emissions.

The Project Sponsor would construct onsite parking under the entire proposed building in one underground level as well as in a podium with three above-grade parking levels under the third floor of the west module with approximately 706 parking spaces. The parking would be available to new tenants of the proposed building. In addition, some parking would be available to employees in the adjacent building at 1305 O'Brien Drive because the Proposed Project would displace a portion of the existing surface parking that is currently used by these employees. Limited surface parking would be provided at the visitors' entrance at the rear of the proposed building.

The Proposed Project would consist of six construction phases, some of which may occur at the same time or overlap. Phase 1 would involve demolition and utilities relocation (lasting approximately 42 days); Phase 2 would involve dewatering, grading, and excavation activities (lasting approximately 100 days); Phase 3 would involve installation of the mat foundation and basement walls (lasting approximately 60 days); Phase 4 would involve construction of the parking garage (lasting approximately 128 days); Phase 5 would involve construction of the building shell structure (lasting approximately 155 days); and Phase 6 would involve all exterior skin/onsite work (lasting approximately 238 days).

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1 The original Project application was for 260,400 gsf, which was later reduced to approximately 255,000 gsf. This EIR will continue to base the analysis on the original application, resulting in a slight overestimation of some environmental effects of the current design.

a. 2 Height is defined as the average height of all buildings on one site where a maximum height cannot be exceeded.

The Proposed Project would include upgrades to waterlines at the following locations:

- Under Adams Court, along the interior of the 1350 Adams Court property, connecting to existing lines at the adjacent Menlo Science and Technology Park, and
- Under O'Brien Drive, from the southwest corner of the 1305 O'Brien Drive frontage to the intersection at Willow Road.

After Project implementation, approximately 109,020 square feet (sf) of open space would be provided on the Project site, including approximately 60,220 sf of private open space and 48,800 sf of public open space. The private open space would be provided within a patio and large outdoor deck on the second floor of the proposed building and would include outdoor furniture, seating areas, planters, and green screens. The public open space would be provided along the street frontage; landscaping would include berms, trees, and California native vegetation. In addition, the Proposed Project would improve existing bicyclist and pedestrian circulation throughout the Project site by incorporating buffered bicycle lanes around the perimeter of the site; a planned paseo would be provided either along the western edge of the Project site or on the adjoining property that would connect Adams Court to O'Brien Drive.

The site is designated as Life Sciences under the City of Menlo Park (City) General Plan, which provides for new life sciences and research-and-development (R&D) uses, along with high-tech office services and supportive sales as well as personal sales. The designation also accommodates existing light industrial uses as well as new light industrial uses that are not in conflict with existing or planned commercial or residential uses in the vicinity. In addition, the Project site is zoned Life Sciences, Bonus (LS-B), which has base and bonus development regulations. The LS-B zone permits a maximum height and average height for buildings of 35 feet and a maximum floor area ratio (FAR) of 55 percent at the base level. At the bonus level, the LS-B zone allows a FAR of up to 125 percent and a 110-foot maximum height in exchange for community amenities. The Project proposes an approximately 92-foot-tall building, resulting in the average building height on the Campus becoming 50.6 feet.[3] The Proposed Project would require the Project Sponsor to provide community amenities in exchange for bonus-level development. The Project Sponsor has elected to provide community amenities through payment of an in-lieu fee. When combined with existing buildings on the Campus, the Proposed Project would result in the Campus containing two buildings with a combined floor area of approximately 443,000 gsf and a FAR of 90.7 percent.

ES.2 Regulatory Context and Background

The Project site is designated as Life Sciences on the City's General Plan Land Use Designations Map, which was updated as part of the General Plan Land Use and Circulation Elements Update (referred to herein as ConnectMenlo). The Project site is within the LS-B zoning district.[4] The certified ConnectMenlo Final Environmental Impact Report (ConnectMenlo Final EIR) provided a program-level analysis of the development potential envisioned for the entire city, including the increased development potential in the Bayfront Area. The Land Use Element specifically identified available development potential in the Bayfront Area as follows: up to 4.1 million gsf of non-residential space, 400 hotel rooms, and 5,500 residential units.

[3] Because the Campus includes an existing building at 1305 O'Brien Drive (the PacBio building), the existing and proposed life sciences buildings are included in calculations that rely on the size of a property, such as FAR and average height. Although the Proposed Project would need to comply with the design standards of the LS-B zoning district, the PacBio building would not because it would remain as is and would be part of the baseline conditions.

[4] City of Menlo Park. 2021. *City of Menlo Park GIS Viewer*. Available: https://menlopark.maps.arcgis.com/apps/View/index.html?appid=0798b044d1b541f9b0498d94f5c804e0. Accessed: March 25, 2021.

The EIR and the Initial Study for the Proposed Project (see Appendix 1-1) were prepared in accordance with the terms of the settlement agreement between the cities of Menlo Park and East Palo Alto, which allows for simplification in accordance with California Environmental Quality Act (CEQA) Guidelines Section 15168 for all topic areas, except housing and transportation. The analysis provided in this EIR and the Initial Study tiers from the ConnectMenlo Final EIR, as appropriate and as further described in each topic section. Refer to the *2017 Settlement Agreement* section in Chapter 3.0, *Environmental Impact Analysis*, for a complete description of the settlement agreement.

ES.3 Areas of Controversy

CEQA Guidelines Section 15123 specifies that the Draft EIR summary must identify "areas of controversy" known to the Lead Agency, including issues raised by agencies and the public.

A Notice of Preparation (NOP) was released for the Proposed Project on December 10, 2018, for a 30-day public review period. A public scoping meeting was held before the City's Planning Commission on January 14, 2019. This summary is based on written comments received (included in Appendix 1-2 of this Draft EIR) and oral comments made during the public scoping meeting. Topics that would result in physical impacts under CEQA are addressed in the EIR analysis. Potential areas of controversy that were identified by the comments include those listed below.

- **Transportation**: Analysis of traffic operations, trip generation, trip distribution, trip assignments, trip reductions, TDM plan, transportation impact fees, study intersections, impacts on surrounding jurisdictions, bicycle and pedestrian routes, and mitigation measures to reduce potential impacts.
- **Greenhouse Gas Emissions**: Evaluation of greenhouse gas emissions, carbon generation, and mitigation strategies.
- **Population and Housing**: Preparation of a Housing Needs Analysis that discusses the jobs/housing ratio, affordable housing, and the employee generation rate.
- **Alternatives**: Analysis of Proposed Project alternatives and potential alternatives to be considered.
- **Others**: Light pollution, sea-level rise, noise from the proposed private deck, population growth related to schools, and mitigation of impacts on public services.

An explanation why tiering from the ConnectMenlo Final EIR is appropriate is provided throughout this EIR, including Section ES.2, *Regulatory Context and Background*; Chapter 3, *Environmental Impact Analysis*, *CEQA Methodology* subsection; as well as each topic section in Chapter 3 and the Initial Study (Appendix 1-1). The analyses included in the EIR and Initial Study are based on current regulatory requirements, including current CEQA Guidelines.

Comments related to transportation are considered and addressed in Section 3.1, *Transportation*, of this EIR. Similarly, impacts related to greenhouse gas emissions and population and housing are addressed in Section 3.3, *Greenhouse Gas Emissions*, and Section 3.5, *Population and Housing,* of this EIR. Comments related to sea-level rise and operational noise are addressed in Section 3.9, *Hydrology and Water Quality*, and Section 3.12, *Noise*, of the Initial Study (Appendix 1-1). Comments related to the impact of population growth on schools are addressed in Section 3.14, *Public Services*, of the Initial Study. Comments related to the impact of light pollution are addressed in Section 3.1, *Aesthetics*, and comments regarding bird-friendly designs are discussed in Section 3.4*, Biological Resources*, of the Initial Study. Alternatives considered are discussed in Chapter 6, *Alternatives*, of this EIR.

ES.4 Impacts and Mitigation Measures

Table ES-1 presents a summary of the impacts of the Proposed Project, proposed mitigation and improvement measures, and each impact's level of significance after mitigation. The environmental impacts are identified and classified as "Significant," "Potentially Significant," "Less than Significant," or "No Impact." According to CEQA Guidelines Section 15382, a significant impact is "… a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project…" CEQA Guidelines Section 15126.4(a)(1) also states that an EIR "… shall describe feasible mitigation measures which could minimize significant adverse impacts…" Mitigation measures are identified for all impacts labeled as "Potentially Significant."

ES.4.1 Findings of the Initial Study

The Initial Study for the Proposed Project is included in Appendix 1-1 to this EIR. The Initial Study identified (1) no impacts, (2) less-than-significant impacts, or (3) less-than-significant impacts with implementation of mitigation measures identified in the ConnectMenlo Final EIR related to the following environmental issues:

- Aesthetics
- Air Quality (conflicts with plans, odors)
- Cultural and Tribal Cultural Resources
- Hazards and Hazardous Materials
- Land Use and Planning
- Noise (all impacts, except for an increase in ambient noise levels)
- Recreation
- Utilities and Service Systems (stormwater and solid waste)
- Agricultural and Forestry Resources
- Biological Resources
- Geology and Soils
- Hydrology and Water Quality
- Mineral Resources
- Public Services
- Transportation (changes in air traffic patterns)

The Proposed Project would be required to comply with all applicable mitigation measures identified in the ConnectMenlo Mitigation Monitoring and Reporting Program (MMRP), which is an enforceable MMRP prepared for the ConnectMenlo Final EIR and a requirement of any proposed development project in the city. Applicable mitigation measures identified in the Initial Study are provided in Table ES-1. For a complete description of potential impacts identified in the Initial Study, please refer to the specific discussion within each topic section of the Initial Study (Appendix 1-1). Chapter 4, *Other CEQA Considerations*, also includes a summary of the findings for each topic not discussed in the EIR.

Since the release of the Initial Study, the Proposed Project has been modified to include the construction of waterlines as well as new assumptions regarding building construction at 1350 Adams Court. Therefore, construction noise and vibration topics, as well as topics pertaining to utilities and service systems, are now evaluated in Chapter 3 of this EIR, along with the topics listed below.

- Transportation
- Air Quality
- Greenhous Gas Emissions

- Noise
- Population and Housing
- Utilities and Energy

ES.4.2 Significant Impacts

Under CEQA, a significant impact on the environment is defined as "… 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 significance." As discussed in more detail in Chapter 3 of this EIR, impacts in the following areas would be potentially significant without implementation of mitigation measures but would be reduced to a less-than-significant level if the mitigation measures recommended in this report are implemented:

- Transportation (vehicle miles traveled)
- Air Quality (conflicts with applicable air quality plan, criteria pollutants, sensitive and receptors)
- Greenhouse Gas Emissions (generation of greenhouse gas emissions and conflicts with applicable plans and polices)
- Noise (substantial temporary or permanent increase in noise)

Impacts related to population and housing and utilities and energy would be less than significant, and no mitigation measures would be required.

ES.4.3 Significant and Unavoidable Impacts

The Proposed Project would not result in any significant and unavoidable impacts. All potentially significant project impacts would either be less than significant or would be reduced to a less-than-significant level with implementation of identified mitigation measures, as discussed throughout Chapter 3 of this EIR.

ES.4.4 Cumulative Impacts

CEQA defines cumulative impacts as "two or more individual effects, which when considered together, are considerable, or which can compound or increase other environmental impacts." Section 15130 of the CEQA Guidelines requires an EIR to evaluate potential environmental impacts that are individually limited but cumulatively significant. Such impacts can result from the Proposed Project when combined with past, present, or reasonably foreseeable future projects. As described in Chapter 3 of this EIR, the cumulative impacts analysis in this EIR is based on information provided by the City on currently planned, approved, or proposed projects as well as regional projections for the area. All identified impacts of the Proposed Project would be individually limited and would not be cumulatively considerable. Therefore, cumulative impacts would be less than significant.

ES.5 Project Alternatives

In accordance with CEQA and the CEQA Guidelines, specifically Section 15126.6, an EIR must describe a reasonable range of alternatives to a project, or the location of a project, that could attain most of the project's basic objectives while avoiding or substantially lessening any of the significantly adverse environmental effects of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. CEQA states that an EIR should not consider alternatives "whose effects cannot be ascertained and whose implementation is remote and speculative."

The three alternatives to the Proposed Project are discussed and analyzed in Chapter 6, *Alternatives*, of this EIR are:

- **No Project Alternative**. The No Project Alternative is provided in this EIR to compare the impacts of the Proposed Project with what would be reasonably expected to occur in the foreseeable future if the Proposed Project were not approved and development continued to occur in accordance with existing plans and consistent with available infrastructure and community services (CEQA Guidelines Section 15126.6 [e][2]).
- **Base Level Alternative**. The Base Level Alternative assumes a reduction in FAR to approximately 55 percent instead of the approximately 90.7 percent FAR proposed under the Project. As discussed in Chapter 6, the Base Level Alternative is the environmentally superior alternative.
- **Mixed-Use Alternative**. The Mixed-Use Alternative would develop the Project site with the same life sciences building, approximately 255,000 gsf in size, as the Proposed Project but would replace the ground floor (Level 1) of the life sciences space with approximately 38,995 gsf of commercial space that would be open for use by the general public.

Each alternative is compared to the Proposed Project and discussed in terms of its various mitigating or adverse effects on the environment. Analysis of the alternatives focuses on those topics for which significant adverse impacts would result from the Proposed Project and policy considerations designed to provide information regarding mixed-use and base-level development. The Base Level Alternative is considered to be the environmentally superior alternative. However, this alternative would not fully achieve some of the basic Project objectives, such as those related to creating a project that attracts tenants who will grow a broad socioeconomic base of jobs as well as a business-to-business tax base for the City.

ES.6 Draft EIR Conclusions

In accordance with CEQA Guidelines Section 15123(b)(3), this summary section must identify issues to be resolved, including a discussion of whether or how to mitigate the significant effects and the choice among alternatives. Chapter 3 of the Draft EIR, *Environmental Impact Analysis*, presents mitigation measures to reduce or avoid significant impacts identified for the Proposed Project. An MMRP will be prepared to define the timing for implementation of the measures, the parties who will be responsible for implementation, and the parties who will be responsible for reporting and verifying implementation.

As stated above, the Proposed Project would not result in any significant and unavoidable impacts. All potentially significant project impacts would either be less than significant or would be reduced to a less-than-significant level with implementation of identified mitigation measures, as discussed throughout Chapter 3 of this EIR and in the Initial Study (Appendix 1-1).

ES.7 How to Comment on This Draft EIR

This Draft EIR is considered a draft under CEQA because it must be reviewed and commented upon by public agencies, organizations, and individuals before being finalized. This document is being distributed for a 45-day (minimum) public review and comment period. Readers are invited to submit written comments on the document. Comments are most helpful when they suggest specific alternatives or measures that would better mitigate significant environmental effects. Hard copies of the Draft EIR are available for review at the Menlo Park Library at 800 Alma Street and Belle Haven Library at 413 Ivy Drive. Electronic copies of the Draft EIR are available for review online at https://menlopark.org/1350AdamsCourt. Written comments should be submitted to:

Tom Smith, Senior Planner
City of Menlo Park
Community Development Department, Planning Division
701 Laurel Street
Menlo Park, CA 94025
Email: tasmith@menlopark.org

Email correspondence is preferred. A public hearing for oral comments on the Draft EIR will be held before the Planning Commission on May 2, 2022. Hearing notices will be mailed to responsible agencies and interested individuals.

ES.8 Summary Tables

Information in Table ES-1, *Summary of Impacts and Mitigation Measures from the Initial Study*, (a) describes impact topics considered in the Initial Study for which the Proposed Project was found to have no impact or a less-than-significant impact not requiring mitigation, (b) identifies topics where the Proposed Project could have a significant impact, (c) recites recommended mitigation measures from the ConnectMenlo Final EIR already adopted by the City as they relate to each environmental topic in the Initial Study, and (d) recites new recommended mitigation measures specific to the Proposed Project for potentially significant impacts not mitigated to less than significant by ConnectMenlo mitigation measures. Table ES-2, *Summary of Impacts and Mitigation Measures from the EIR*, has been organized to correspond with environmental issues discussed in Chapter 3. Tables ES-1 and ES-2 are arranged in four columns: (1) impacts, (2) level of significance without mitigation, (3) mitigation measures, and (4) level of significance with mitigation. Levels of significance are categorized as follows:

NI	No Impact
LTS	Less than Significant
PS	Potentially Significant
LTS/M	Less than Significant with Mitigation
SU	Significant and Unavoidable

For a complete description of potential impacts and recommended mitigation measures, please refer to the specific topic discussion in Chapter 3 and the Initial Study (Appendix 1-1).

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
3.1 Aesthetics			
a. The Proposed Project would not have a substantial adverse effect on a scenic vista.	NI	None required	NI
b. The Proposed Project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	NI	None required	NI
c. The Proposed Project would not substantially degrade the existing visual character or quality of the site and its surroundings.	LTS	None required	LTS
d. The Proposed Project would not create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.	LTS	None required	LTS
3.2 Agricultural and Forestry Resources			
a. The Proposed Project would not 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 nonagricultural use.	NI	None required	NI
b. The Proposed Project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract.	NI	None required	NI

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
c,d,e. The Proposed Project would not conflict with existing zoning for, or cause rezoning of, forestland (as defined in Public Resources Code Section 12220 (g)), timberland (as defined by Public Resources Code 4256), or timberland zoned Timberland Production (as defined by Public Resources Code Section 51104(g)); result in the loss of forestland or conversion of forestland to non-forest use; or involve other changes in the existing environment that, because of their location or nature, could result in the conversion of Farmland to nonagricultural use or conversion of forestland to nonforest use.	NI	None required	NI
3.3 Air Quality			
a. The Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan.	LTS	None required	LTS
e. The Proposed Project would not create objectionable odors affecting a substantial number of people.	NI	None required	NI
3.4 Biological Resources			
a. The Proposed Project could have a substantial adverse effect, either directly or indirectly 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.	PS	***Project Mitigation Measure BR-1, Nesting Bird Avoidance:*** To the extent feasible, construction activities (or at least the commencement of such activities) shall be scheduled to avoid the nesting season. If construction activities are scheduled to take place outside the nesting season, all impacts on nesting birds protected under the MBTA and California Fish and Game Code shall be avoided. The nesting season for most birds in San Mateo County extends from February 1 through August 31.	LTS/M

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		Project Mitigation Measure BR-2, Preconstruction/Pre-disturbance Surveys: If it is not possible to schedule construction activities between September 1 and January 31, preconstruction surveys for nesting birds shall be conducted by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. These surveys shall be conducted no more than 7 days prior to the initiation of construction activities. During this survey, the ornithologist shall inspect all trees and other potential nesting substrates (e.g., trees, shrubs, ruderal grasslands, buildings) in and immediately adjacent to the impact areas for nests. ***Project Mitigation Measure BR-3, Active Nest Buffers:*** If an active nest is found close to work areas that are to be disturbed by construction activities, the qualified ornithologist shall determine the extent of the construction-free buffer zone to be established around the nest (typically 300 feet for raptors and 100 feet for other species) to ensure that no nests of species that are protected by the MBTA and California Fish and Game Code are disturbed during project implementation. ***Project Mitigation Measure BR-4, Inhibition of Nesting:*** If construction activities will not be initiated until after the start of the nesting season, all potential nesting substrates (e.g., bushes, trees, grasses, other vegetation) that are scheduled to be removed by the project shall be removed prior to the start of the nesting season (i.e., before February 1). This will preclude the initiation of nests in such vegetation and prevent the potential delay of the Project because of the presence of active nests in these substrates.	

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
b. The Proposed Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	NI	None required	NI
c. The Proposed Project would not have a substantial adverse effect on federally protected wetlands, as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands), through direct removal, filling, hydrological interruption, or other means.	LTS	None required	LTS
d. The Proposed Project could 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.	PS	Implement ***Project Mitigation Measures BR-1 through BR-4***, above.	LTS/M
e. The Proposed Project would not conflict with any local policies or ordinance protecting biological resources, such as a tree preservation policy or ordinance.	LTS	None required	LTS
f. The Proposed Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.	NI	None required	NI

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
3.5 Cultural Resources			
a. The Proposed Project would not cause a substantial adverse change in the significance of a historical resource, as defined in Section 15064.5.	NI	None required	NI
b. The Proposed Project could cause a substantial adverse change in the significance of an archaeological resource.	PS	***ConnectMenlo Mitigation Measure CULT-2a:*** If a potentially significant subsurface cultural resource is encountered during ground disturbing activities, all construction activities within a 100-foot radius of the find shall cease until a qualified archeologist determines whether the resource requires further study. All developers in the study area shall include a standard inadvertent discovery clause in every construction contract to inform contractors of this requirement. Any previously undiscovered resources found during construction activities shall be recorded on appropriate California Department of Parks and Recreation (DPR) forms and evaluated for significance in terms of the California Environmental Quality Act (CEQA) criteria by a qualified archeologist. If the resource is determined significant under CEQA, the qualified archaeologist shall prepare and implement a research design and archaeological data recovery plan that will capture those categories of data for which the site is significant. The archaeologist shall also perform appropriate technical analyses; prepare a comprehensive report complete with methods, results, and recommendations; and provide for the permanent curation of the recovered resources. The report shall be submitted to the City of Menlo Park, Northwest Information Center (NWIC), and State Historic Preservation Office (SHPO), if required. ***Project Mitigation Measure CR-1, Worker Environmental Training***: Because of the potential for discovery of unknown buried cultural and paleontological resources, prior to the commencement of the first phase, the general contractor and those engaged in	LTS/M

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		ground-disturbing activities shall be given environmental training regarding cultural and paleontological resource protection, resource identification and protection, and the laws and penalties governing such protection. This training may be administered by the Project archaeologist and/or paleontologist as stand-alone training or included as part of the overall environmental awareness training required by the Project. The training shall include, at minimum, the following: ● The types of cultural resources that are likely to be encountered. ● The procedures to be taken in the event of an inadvertent cultural resource discovery. ● The penalties for disturbing or destroying cultural resources. ● The types of fossils that could occur at the Project site. ● The types of lithologies in which the fossils could be preserved. ● The procedures that should be taken in the event of a fossil discovery. ● The penalties for disturbing paleontological resources.	
c. The Proposed Project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	PS	***ConnectMenlo Mitigation Measure CULT-3:*** In the event that fossils or fossil bearing deposits are discovered during ground disturbing activities, excavations within a 50-foot radius of the find shall be temporarily halted or diverted. Ground disturbance work shall cease until a City-approved qualified paleontologist determines whether the resource requires further study. The paleontologist shall document the discovery as needed (in accordance with Society of Vertebrate Paleontology standards [Society of Vertebrate Paleontology 1995]), evaluate the potential resource, and assess the significance of the find under the criteria set forth in CEQA Guidelines Section 15064.5. The paleontologist shall notify the appropriate	LTS/M

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		agencies to determine procedures that would be followed before construction activities are allowed to resume at the location of the find. If avoidance is not feasible, the paleontologist shall prepare an excavation plan for mitigating the effect of construction activities on the discovery. The excavation plan shall be submitted to the City of Menlo Park for review and approval prior to implementation, and all construction activity shall adhere to the recommendations in the excavation plan.	
d. The Proposed Project could disturb human remains, including those interred outside of formal cemeteries.	PS	***ConnectMenlo Mitigation Measure CULT-4:*** Procedures of conduct following the discovery of human remains have been mandated by Health and Safety Code Section 7050.5, Public Resources Code Section 5097.98 and the California Code of Regulations Section 15064.5(e) (CEQA). According to the provisions in CEQA, if human remains are encountered at the site, all work in the immediate vicinity of the discovery shall cease and necessary steps to ensure the integrity of the immediate area shall be taken. The San Mateo County Coroner shall be notified immediately. The Coroner shall then determine whether the remains are Native American. If the Coroner determines the remains are Native American, the Coroner shall notify the NAHC within 24 hours, who will, in turn, notify the person the NAHC identifies as the Most Likely Descendant (MLD) of any human remains. Further actions shall be determined, in part, by the desires of the MLD. The MLD has 48 hours to make recommendations regarding the disposition of the remains following notification from the NAHC of the discovery. If the MLD does not make recommendations within 48 hours, the owner shall, with appropriate dignity, reinter the remains in an area of the property secure from further disturbance. Alternatively, if the owner does not accept the MLD's recommendations, the owner or the descendent may request mediation by the NAHC.	LTS/M

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
3.6 Geology and Soils			
a. The Proposed Project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:		Not a CEQA Impact	
(1) 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.			
(2) Strong seismic ground shaking.		Not a CEQA Impact	
(3) Seismically related ground failure, including liquefaction.	LTS	None required	LTS
(4) Landslides.	NI	None required	NI
b. The Proposed Project would not result in substantial soil erosion or the loss of topsoil.	LTS	None required	LTS
c. The Proposed Project would not 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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse.	LTS	None required	LTS
d. The Proposed Project would not be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	LTS	None required	LTS

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
e. The Proposed Project would not have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater.	NI	None required	NI
3.8 Hazards and Hazardous Materials			
a. The Proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	LTS	None required	LTS
b. The Proposed Project would not 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.	LTS	None required	LTS
c. The Proposed Project would not emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.	LTS	None required	LTS
d. The Proposed Project would not be located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.	NI	None required	NI

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
e. The Proposed Project would not be located within an airport land use plan, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, result in a safety hazard for people residing or working in the project area.	NI	None required	NI
f. The Proposed Project would not be located in the vicinity of a private airstrip and result in a safety hazard for people residing or working in the Project area.	NI	None required	NI
g. The Proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LTS	None required	LTS
h. The Proposed Project would not expose people or structure to a significant risk of loss, injury, or death involving wildland fires, including areas where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.	NI	None required	NI
3.9 Hydrology and Water Quality			
a. The Proposed Project could violate water quality standards or waste discharge requirements due to dewatering involving potentially contaminated groundwater.	PS	***Project Mitigation Measure WQ-1, Implement Construction Dewatering Treatment (if necessary):*** Dewatering treatment would be necessary if groundwater is encountered during excavation activities, if dewatering is necessary to complete the Project, or if the water produced during dewatering is discharged to any storm drain or surface water body. If dewatering activities require discharges into the storm drain system or other water bodies, the water shall be pumped to a tank and tested for water quality using grab samples and sent to a	LTS/M

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		certified laboratory for analysis. If it is found that the water does not meet water quality standards, it should either be treated as necessary prior to discharge so that all applicable water quality objectives (as noted in the San Francisco Bay Basin (Region 2) Water Quality Control Plan [Basin Plan]) are met or hauled offsite instead for treatment and disposal at an appropriate waste treatment facility that is permitted to receive such water. Water treatment methods shall be selected that remove the maximum amount of contaminants from the groundwater and represent the best available technology that is economically achievable. Implemented methods may include the retention of dewatering effluent until particulate matter has settled before it is discharged, the use of infiltration areas, filtration, or other means. The contractor shall perform routine inspections of the construction area to verify that the water quality control measures are properly implemented and maintained, conduct visual observations of the water (i.e., check for odors, discoloration, or an oily sheen on groundwater), and perform other sampling and reporting activities prior to discharge. The final selection of water quality control measures shall be submitted in a report to the San Francisco Bay RWQCB for approval prior to construction. If the results from the groundwater laboratory do not meet water quality standards and the identified water treatment measures cannot ensure that treatment meets all standards for receiving water quality, then the water shall be hauled offsite instead for treatment and disposal at an appropriate waste treatment facility that is permitted to receive such water.	
b. The Proposed Project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the	LTS	None required	LTS

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned land uses for which permits have been granted).			
c. The Proposed Project would not substantially alter the existing drainage pattern of the site or area, including through the alternation of the course of a stream or river, in a manner that would result in substantial erosion or siltation onsite of offsite.	LTS	None required	LTS
d. The Proposed Project could substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite of offsite.	PS	***Project Mitigation Measure WQ-2: Provide Adequate Stormflow Conveyance Capacity at the Project Site***. Prior to or, at a minimum, concurrent with the issuance of the first construction activity permit at the Project site, the Project Sponsor shall provide current documentation in the form of a technical report to ensure that, as a result of Project design features, the storm drain system's existing conveyance capacity is not constricted by stormflows at the outlets, including offsite pump stations, as a result of the Project design.	LTS/M
e. The Proposed Project would not create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	PS	Implement ***Project Mitigation Measure WQ-2***, above.	LTS/M
f. The Proposed Project would not otherwise substantially degrade water quality.	LTS	None required	LTS

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
g. The Proposed Project would not place housing within a 100-year flood hazard area, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other floor hazard delineation map.	Not a CEQA Impact		
h. The Proposed Project would not be placed within a 100-year flood hazard area structures that would impede or redirect floodflows.	LTS	None required	LTS
i. The Proposed Project would not expose people or structure to a significant risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam.	Not a CEQA Impact		
j. The Proposed Project would not contribute to inundation by seiche, tsunami, or mudflow.	Not a CEQA Impact		
3.10 Land Use and Planning			
a. The Proposed Project would not physically divide an established community.	NI	None required	LTS
b. The Proposed Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.	LTS	None required	LTS
c. The Proposed Project would not conflict with any applicable habitat conservation plan or natural community conservation plan.	NI	None required	NI

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
3.11 Mineral Resources			
a. 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.	NI	None required	NI
b. The Proposed Project would not result in the loss of availability of a locally important mineral resource recovery site, as delineated in a local general plan, specific plan, or other land use plan.	NI	None required	NI
3.12 Noise			
a. The Proposed Project could expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.	PS	***ConnectMenlo Mitigation Measure NOISE-1b:*** Stationary noise sources, and landscaping and maintenance activities shall comply with Chapter 8.06, Noise, of the Menlo Park Municipal Code. ***ConnectMenlo Mitigation Measure NOISE-1c:*** Project applicants shall minimize the exposure of nearby properties to excessive noise levels from construction-related activity through CEQA review, conditions of approval and/or enforcement of the City's Noise Ordinance. Prior to issuance of demolition, grading, and/or building permits for development projects, a note shall be provided on development plans indicating that during on-going grading, demolition, and construction, the property owner/developer shall be responsible for requiring contractors to implement the following measures to limit construction-related noise: ● Construction activity is limited to the daytime hours between 8:00 a.m. to 6:00 p.m. on Monday through Friday, as prescribed in the City's municipal code.	LTS/M

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		● All internal combustion engines on construction equipment and trucks are fitted with properly maintained mufflers, air intake silencers, and/or engine shrouds that are no less effective than as originally equipped by the manufacturer. ● Stationary equipment such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses. ● Stockpiling is located as far as feasible from nearby noise sensitive receptors. ● Limit unnecessary engine idling to the extent feasible. ● Limit the use of public address systems. ● Construction traffic shall be limited to the haul routes established by the City of Menlo Park. ***Project Mitigation Measure NOI-1: Implement Noise Control Plan to Reduce Construction Noise during Non-ordinary Construction Hours.*** The Project Sponsor shall develop a noise control plan for construction that would occur outside the normal construction hours in the City of 8:00 a.m. to 6:00 p.m. The plan would require compliance with Section 8.06 of the Menlo Park Municipal Code and would include measures to ensure compliance with the 60 dBA L_{eq} limit during the hours of 7:00 a.m. to 8:00 a.m. Construction contractors shall specify noise-reducing construction practices that will be employed to reduce noise from construction activities during these hours. The measures specified by the Project Sponsor shall be reviewed and approved by the City prior to the issuance of building permits. Measures to reduce noise outside of the normal construction hours of 8:00 a.m. to 6:00 p.m., Monday through Friday include, but are not limited to, the following:	

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		● Conduct the quietest construction activities/restrict the use of loud construction equipment outside of the normal construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday. ● Use best available noise control techniques (e.g., improved mufflers, redesigned equipment, intake silencers, ducts, engine enclosures, acoustically attenuating shields or shrouds) on equipment and trucks used for Project construction, as feasible. ● Locate equipment/conduct construction activities as far as possible from noise-sensitive receptors when conducted outside the normal construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday. ● Use "quiet" gasoline-powered compressors or electric compressors. Use electric rather than gasoline or diesel forklifts for small lifting, to the extent feasible (but especially for construction conducted outside the normal construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday). ● Locate stationary noise sources, such as temporary generators, as far from nearby receptors as possible. Stationary noise sources shall be muffled and within temporary enclosures or shielded by barriers or other measures to the extent feasible (especially for construction conducted outside the normal construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday). ● Install temporary noise barriers 8 feet in height around the construction site to reduce construction noise from equipment for construction occurring outside the normal construction hours of 8:00 a.m. to 6:00 p.m. on weekdays to reduce overall construction noise to less than 60 dBA L_{eq}, as measured at the applicable property lines of the adjacent uses. If the Project Sponsor can demonstrate, through a detailed acoustical analysis, that construction noise would	

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		not exceed 60 dBA L_{eq}, as measured at the applicable property lines of the adjacent uses, then a temporary noise barrier shall not be required. ● Prohibit trucks from idling along streets serving the construction site, especially for construction conducted outside the normal construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday. ● Monitor the effectiveness of noise attenuation measures by taking noise measurements during construction activities to ensure compliance with the 60 dBA L_{eq} standard that applies outside the normal daytime construction hours of 8:00 a.m. and 6:00 p.m. on weekdays. ***Project Mitigation Measure NOI-2: Compliance with Chapter 8.52 of the City of East Palo Alto Municipal Code.*** Project stationary noise sources that may affect receptors within East Palo Alto shall comply with Chapter 8.52 of the City of East Palo Alto Municipal Code. With respect to noise from generator testing, measures to ensure compliance with the applicable standards include: ● Limiting generator testing to daytime hours, ● Testing for shorter periods of time, ● Enclosing the generator, or ● Implementing other forms of shielding, such a localized barriers, around the equipment.	
b. The Proposed Project would not expose persons to generate excessive ground-borne vibration or ground-borne noise levels.	LTS	None required	LTS

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
d. The Proposed Project could result in a substantial construction-related temporary or periodic increase in ambient noise levels in the Project vicinity, above levels existing without the Project.	PS	Implement ***ConnectMenlo Mitigation Measure NOISE-1c and Project Mitigation Measure NOI-1***, above.	LTS/M
e. The Proposed Project would not be located within an airport land use plan area, or where such a plan has not been adopted, within 2 miles of a public airport or public use airport, exposing people residing or working in the project area to excessive noise levels.	NI	None required	NI
f. The Proposed Project would not be located in the vicinity of a private airstrip, exposing people residing or working in the project area to excessive noise levels.	NI	None required	NI
3.14 Public Services			
a. The Proposed Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:	LTS	None required	LTS

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
(a) Fire Protection			
(b) Police Protection	LTS	None required	LTS
(c) Schools	LTS	None required	LTS
(d) Parks	LTS	None required	LTS
(e) Libraries	LTS	None required	LTS
3.15 Recreation			
a. The Proposed Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of a facility would occur or be accelerated.	LTS	None required	LTS
b. The Proposed Project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	LTS	None required	LTS
3.16 Tribal Cultural Resources			
a. The Proposed Project could be listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources, as defined in the Public Resources Code Section 5020.1(k).	PS	Implement ***ConnectMenlo Mitigation Measure CULT-2a and CULT-4, and Project Mitigation Measure CR-1***, above.	LTS/M
b. The Proposed Project could, as determined by the lead agency, in its discretion and supported by substantial evidence, be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.	PS	Implement ***ConnectMenlo Mitigation Measure CULT-2a and CULT-4, and Project Mitigation Measure CR-1***, above.	LTS/M

Table ES-1. Summary of Impacts and Mitigation Measures from the Initial Study

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
3.17 Transportation/Traffic			
c. The Proposed Project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location, that results in substantial safety risks.	NI	None required	NI
3.18 Utilities and Service Systems			
c. The Proposed Project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.	LTS	None required	LTS
f. The Proposed Project would be served by a landfill with sufficient permitted capacity to accommodate the Project's solid waste disposal needs.	LTS	None required	LTS
g. The Proposed Project would comply with federal, state, and local statutes and regulations related to solid waste.	LTS	None required	LTS

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
3.1 Transportation			
TRA-1. The Proposed Project would not conflict with an applicable plan, ordinance, or policy, including the CMP, concerning all components of the circulation system.	LTS	None required	LTS
TRA-2. The Proposed Project could exceed an applicable VMT threshold of significance.	PS	***Project Mitigation Measure TRA-1, Implement TDM Plan:*** The Proposed Project shall be required to implement the TDM plan included in Appendix 3.1 of this EIR. Annual monitoring and reporting, pursuant to Menlo Park Municipal Code Section 16.44.090(2)(B), will be required to ensure a minimum reduction in VMT of 21.1 percent for the life of the Project.	LTS/M
TRA-3. The Proposed Project would not substantially increase hazards due to a design feature or incompatible uses.	LTS	None required	LTS
TRA-4. The Proposed Project would not result in inadequate emergency access.	LTS	None required	LTS
3.2 Air Quality			
AQ-1. The Proposed Project could conflict with or obstruct implementation of the applicable air quality plan.	PS	***Project Mitigation Measure AQ-1.1, Use Clean Diesel-powered Equipment During Construction to Control Construction-Related Emissions:*** The Project Sponsor shall ensure that all off-road diesel-powered equipment greater than 200 horsepower used during construction is equipped with EPA-approved Tier 4 Interim engines to reduce DPM emissions. The construction contractor shall submit evidence of the use of EPA-approved Tier 4 Interim engines, or cleaner, to the City prior to the commencement of Project construction activities.	LTS/M

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
AQ-2. The Proposed Project could result in a cumulative net increase in criteria pollutants for which the Project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard.		***ConnectMenlo Mitigation Measure AQ-2b1:*** As part of the City's development approval process, the City shall require applicants for future development projects to comply with the current Bay Area Air Quality Management District's basic control measures for reducing construction emissions of PM10 (Table 8-2, Basic Construction Mitigation Measures Recommended for All Proposed Projects, of BAAQMD's CEQA Guidelines). ***ConnectMenlo Mitigation Measure AQ-2b2:*** Prior to issuance of building permits, development project applicants that are subject to CEQA and exceed the screening sizes in BAAQMD's CEQA Guidelines shall prepare and submit to the City of Menlo Park a technical assessment evaluating potential project construction-related air quality impacts. The evaluation shall be prepared in conformance with the BAAQMD methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the BAAQMD thresholds of significance, as identified in the BAAQMD CEQA Guidelines, the City of Menlo Park shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities to below the thresholds (e.g., Table 8-2, Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions above the Threshold of the BAAQMD CEQA Guidelines, or applicable construction mitigation measures subsequently approved by BAAQMD). These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Building Division and/or Planning Division.	LTS/M
AQ-3. The Proposed Project could expose sensitive receptors to substantial pollutant concentrations, even with mitigation incorporated.	PS	Implement ***Project Mitigation Measure AQ-1.1***, above.	LTS/M

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
AQ-4. The Proposed Project would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people.	LTS	None required	LTS
3.3 Greenhouse Gas Emissions			
GHG-1a. Construction of the Proposed Project could generate GHG emissions that could have a significant impact on the environment.	PS	Implement ***ConnectMenlo Mitigation Measure AQ-2b1***, above. ***Project Mitigation Measure GHG-1a: Require Implementation of BAAQMD-Recommended Construction Best Management Practices.*** The Project Sponsor shall require its contractors, as a condition of Project approval by the City, to implement measures to minimize the level of GHG emissions associated with Project construction. These shall include, but shall not be limited to, the measures listed below, which are recommended in Appendix B of the 2017 Scoping Plan. ● Instead of using fossil fuel–based generators for temporary jobsite power, grid-sourced electricity from PG&E or Peninsula Clean Energy shall be used to power tools (e.g., drills, saws, nail guns, welders) as well as any temporary office buildings used by construction contractors. This measure shall be required during all construction phases, except site grubbing, site grading, and the installation of electric, water, and wastewater infrastructure. This measure shall be implemented during building demolition, the framing and erection of new buildings, all interior work, and the application of architectural coatings. Electrical outlets shall be designed according to PG&E's Greenbook standards and placed in accessible locations throughout the construction site. The Project Sponsor, or its primary construction contractor, shall coordinate with the utility to activate a temporary service account prior to	LTS/M

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		proceeding with construction. Implementation of this measure shall be required in the contract the Project Sponsor establishes with its construction contractors. ● Use local building materials for at least 10 percent of all building materials used[5](i.e., sourced from within 100 miles of the planning area); and ● Recycle at least 50 percent of construction waste and demolition material. The Project Sponsor shall submit evidence of compliance to the City prior to issuance of each construction permit and every year thereafter during Project construction.	
GHG-1b. The level of GHG emissions associated with operation of the Proposed Project would not have a significant impact on the environment.	LTS	None required	LTS
GHG-2. The Proposed Project could conflict with an applicable, plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.	PS	Implement ***ConnectMenlo Mitigation Measure AQ-2b1 and Project Mitigation Measures TRA-1 and GHG-1a***, above.	LTS/M
3.4 Noise			
NOI-1. The Proposed Project could generate a substantial temporary construction-related increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.	PS	***Modified ConnectMenlo Mitigation Measures NOISE-1c:*** Project applicants shall minimize the exposure of nearby properties to excessive noise levels from construction-related activity through CEQA review, conditions of approval, and/or enforcement of the City's Noise Ordinance. Prior to issuance of demolition, grading, and/or building permits for development projects, a note shall be provided on development plans, indicating that during ongoing grading, demolition,	LTS/M

[5] The 10 percent threshold is based on the total weight of the building material.

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		and construction, the property owner/developer shall be responsible for requiring contractors to implement the following measures to limit construction-related noise: ● All internal-combustion engines on construction equipment and trucks shall be fitted with properly maintained mufflers, air intake silencers, and/or engine shrouds that are no less effective than those originally equipped by the manufacturer. ● Stationary equipment such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses. ● Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors. ● Unnecessary engine idling shall be limited to the extent feasible. ● Limit the use of public address systems. ● Construction traffic shall be limited to the haul routes established by the City. **Project Mitigation Measure NOI-1*: Implement Noise Control Plan to Reduce Construction Noise from development of Lot 3 North***. The Project Sponsor shall develop a noise control plan for construction at the Project site. The plan shall require compliance with Section 8.06 of the Menlo Park Municipal Code and include measures to ensure compliance with the 60 dBA L_{eq} limit during the hours of 7:00 a.m. to 8:00 a.m. and the 50 dBA L_{eq} limit during the hours of 6:00 a.m. to 7:00 a.m. In addition, the plan shall include measures to ensure that construction noise will not result in a 10-dB increase over the ambient noise level at nearby sensitive receptors, which is unlikely to occur at most nearby sensitive uses from Project construction but may occur at the nearest school where existing ambient noise levels from 6:00 a.m. to 8:00 a.m. were not recorded.	

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		The plan shall specify the noise-reducing construction practices that will be employed to reduce noise from construction activities, and shall demonstrate that compliance with these standards will be achievable. If the noise control plan cannot comply with the standards outside the daytime 8:00 a.m. to 6:00 p.m. hours, those activities will be required to occur only during the daytime hours (e.g., pavement breaking with jackhammers and concrete saws). The measures specified by the Project Sponsor shall be reviewed and approved by the City prior to issuance of building permits. The noise control plan shall: ● Demonstrate that noise levels during construction on the Project site will meet the standards of this mitigation measure at sensitive receptors while those receptors are in use. ● Demonstrate that any construction activities taking place outside daytime construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday shall comply with the 60 dBA L_{eq} limit during the hours of 7:00 a.m. to 8:00 a.m. and the 50 dBA L_{eq} limit during the hours of 6:00 a.m. to 7:00 a.m. In addition, the plan shall demonstrate that individual equipment proposed for use would not exceed the 85 dBA L_{eq} at 50 feet limit for powered equipment noise, and that combined construction noise would not result in a 10 dBA increase over the ambient noise level at nearby sensitive receptors. Activities that would produce noise above applicable daytime or nighttime limits shall be scheduled only during normal construction hours. If the noise control plan concludes that a particular piece of equipment will not meet the requirements of this mitigation measure, that equipment shall not be used outside the daytime construction hours.	

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		● Verify construction activities are conducted at adequate distances, or otherwise shielded with sound barriers, as determined through analysis, from noise-sensitive receptors when working outside the daytime construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday, and verify compliance with the Menlo Park Municipal Code though measurement. ● Verify the effectiveness of noise attenuation measures by taking representative noise level measurements at the nearest sensitive receptors (limited to receptors within 1,000 feet of the Project site) during construction activities that occur outside the hours of 8:00 a.m. to 6:00 p.m. Monday through Friday, to verify compliance with the 50 and 60 dBA L_{eq} City noise standards. The final noise monitoring requirements and locations shall be defined in the noise control plan based on predicted equipment use and noise. ● Verify the effectiveness of noise attenuation measures by taking noise level measurements at nearest noise-sensitive land uses (limited to receptors within 1,000 feet of the Project site) during construction to verify compliance with the 10 dB-over-ambient threshold. The final noise monitoring requirements and locations shall be defined in the noise control plan based on predicted equipment use and noise. Measures used to control construction noise may include: ● Upgraded construction equipment mufflers (e.g., improved mufflers, intake silencers, ducts, engine enclosures, acoustically attenuating shields, shrouds) on equipment and trucks used for Project construction.	

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
		• Equipment staging plans, e.g., locating stationary equipment at adequate distances. • Limitations on equipment and truck idling. • Shielding sensitive receptors with sound barriers sufficient to comply with the Menlo Park Municipal Code. As determined in the noise control plan, temporary noise barriers may be required around construction on the Project site to reduce construction noise from equipment used outside the daytime construction hours of 8:00 a.m. to 6:00 p.m. on weekdays. Noise barriers shall be constructed of material with a minimum weight of 2 pounds per square foot with no gaps or perforations. Noise barriers may be constructed of, but are not limited to, 3/4-inch Plexiglas, 5/8-inch plywood, 5/8-inch oriented strand board, or straw bales. If Sound blankets are used, the sound blankets are required to have a minimum breaking and tear strength of 120 pounds and 30 pounds, respectively. The sound blankets shall have a minimum sound transmission classification of 27 and noise reduction coefficient of 0.70.	
NOI-2. The Proposed Project would not expose persons to or generate excessive ground-borne vibration or ground-borne noise levels.	LTS	None required	LTS
3.5 Population and Housing			
POP-1. The Proposed Project would not induce substantial population growth indirectly through job growth, nor would projected growth result in adverse direct impacts on the physical environment.	LTS	None required	LTS

Table ES-2. Summary of Impacts and Mitigation Measures from the EIR

Impacts	Impact Significance without Mitigation	Mitigation Measures	Impact Significance with Mitigation
POP-2. The Proposed Project would not displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere.	LTS	None required	LTS
3.6 Utilities and Energy			
UT-1. The Proposed Project would not require or result in the relocation of existing or construction of new or expanded water or wastewater treatment facilities.	LTS	None required	LTS
UT-2. Sufficient water supplies would be available to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years.	LTS	None required	LTS
UT-3. The Proposed Project would not result in a determination by the wastewater treatment providers that they have inadequate capacity to serve the Proposed Project's projected demand in addition to the provider's existing commitments.	LTS	None required	LTS
UT-4. The Proposed Project would not result in potentially significant environmental impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation.	LTS	None required	LTS
UT-5. The Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	LTS	None required	LTS

Chapter 1
Introduction

1.1 Purpose of This Environmental Impact Report

This draft environmental impact report (Draft EIR) for the 1350 Adams Court Project (Proposed Project) has been prepared by the City of Menlo Park (City), the lead agency, in conformance with the provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines, as amended. The lead agency is the public agency that has principal responsibility for carrying out or approving a project.

This Draft EIR assesses potentially significant environmental impacts that could result from the Proposed Project. As stated in the CEQA Guidelines, an EIR is an "informational document" that is intended to inform public agency decision-makers and the public of the potentially significant environmental effects of a project, identify possible ways to avoid or substantially lessen the significant effects, and describe reasonable alternatives to a project. The purpose of this Draft EIR is to provide the City, responsible and trustee agencies, other public agencies, and the public with detailed information about the environmental effects that could result from implementing the Proposed Project; examine and institute methods for mitigating any adverse environmental impacts, should the Proposed Project be approved; and consider feasible alternatives to the Proposed Project, including the required No-Project Alternative. The City will use the EIR, along with other information in the public record, to determine whether to approve, modify, or deny the Proposed Project as well as specify any applicable environmental conditions or mitigation measures as part of approval.

1.2 Project Overview

Tarlton Properties (Project Sponsor) is proposing to redevelop a portion of the existing Menlo Park Labs Campus (Campus). The Project site consists of both an undeveloped vacant area on the northern portion at 1350 Adams Court (referred to as Lot 3 North) and an approximately 188,100-gross-square-foot (gsf) two-story building on the southern portion at 1305 O'Brien Drive. The Proposed Project would construct a five-story life sciences building at Lot 3 North with three building modules that would be slightly offset from each other, creating a front façade that would step back west to east across the site. Parking would be provided in a podium above an underground parking level and three above-grade parking levels that would be integrated into the proposed building. Landscaping and open space (both public and private) would also be included as part of the Proposed Project. The existing building at 1305 O'Brien Drive, and the Campus property outside the Project site, would remain in its existing condition.

The Project Sponsor would add an approximately 255,000 gsf life sciences building on the Campus that would accommodate approximately 650 employees. The original Project application was for 260,400 gsf, which was later reduced to approximately 255,000 gsf. Although the revised Project would result in a combined floor area ratio (FAR) of 90.7 percent, this EIR will continue to base the analysis on the original application, resulting in a slight overestimation of some environmental effects of the current design. The proposed building would be designed with the flexibility to accommodate a single life sciences tenant or meet the needs of multiple tenants. As previously mentioned, the building would be located on the vacant Lot 3 North and oriented in an east–west direction, with the northern frontage along Adams

Court being the front façade. The proposed building would have five levels. In addition, the Proposed Project would include a Transportation Demand Management (TDM) program to promote alternatives to private automotive travel and reduce the number of single-occupancy vehicle trips as well as the resulting traffic and greenhouse gas emissions.

The Project Sponsor would construct onsite parking under the entire proposed building in one level of the podium and in three above-grade parking levels under the third floor of the west module. The parking would be available to new tenants of the proposed building. In addition, some parking would be available to employees in the adjacent building at 1305 O'Brien Drive because the Proposed Project would remove a portion of the existing surface parking that is currently used by those employees. Limited surface parking would be provided at the visitors' entrance at the rear of the proposed building.

The Project site is zoned Life Sciences-Bonus (LS-B), which has base- and bonus-level development regulations. The LS-B zone permits a maximum and average height for buildings of 35 feet and a maximum FAR of 55 percent, with an additional 10 percent for commercial uses at the base level. At the bonus level, the LS-B zone allows a FAR of up to 125 percent, plus an additional 10 percent for commercial uses; a maximum height of 110 feet; and an average height of 67.5 feet in exchange for community amenities. The Proposed Project would construct an approximately 92-foot-tall building, resulting in the average building height on the Project site becoming 50.6 feet.[1] Therefore, the Project Sponsor would be required to provide community amenities in exchange for bonus-level development, which would be provided consistent with the requirements of Section 16.44.070 of the zoning ordinance. When combined with the existing building, the Proposed Project would result in the Project site having two buildings with a combined floor area of approximately 443,000 gsf and a FAR of 90.7 percent. In addition, the Proposed Project would include upgrades to waterlines at the following locations:

- Under Adams Court, along the interior of the 1350 Adams Court property, connecting to existing lines at the adjacent Menlo Science and Technology Park, and
- Under O'Brien Drive, from the southwest corner of the 1305 O'Brien Drive frontage to the intersection at Willow Road.

1.3 CEQA Process

ConnectMenlo EIR

The Project site is within the General Plan and M-2 Area Zoning Update (ConnectMenlo) study area. ConnectMenlo, which updated the City's General Plan Land Use and Circulation Elements and rezoned land in the M-2 area, now referred to as the Bayfront Area, was approved on November 29, 2016. It serves as the City's comprehensive and long-range guide to land use and infrastructure development. ConnectMenlo's Land Use Element identifies an allowable increase in net new development potential of up to 2.3 million gsf for non-residential uses, up to 4,500 residential units, and up to 400 hotel rooms in the Bayfront Area.

[1] Because the Project site includes an existing building at 1305 O'Brien Drive (the PacBio building), the existing and proposed life sciences buildings are included in calculations that rely on the size of a property, such as FAR and average height. Although the Proposed Project would need to comply with the design standards of the LS-B zoning district, the PacBio building would not because it would remain as is and would be part of the baseline conditions.

Because the City General Plan is a long-range planning document, the ConnectMenlo EIR[2] was prepared as a Program EIR, pursuant to CEQA Guidelines Section 15168. Once a Program EIR has been certified, subsequent activities within the program must be evaluated to determine whether additional CEQA review is needed. However, if the Program EIR addresses a program's effects in adequate detail, subsequent activities could be found to be within the Program EIR's scope, and additional environmental review may not be required, unless one of the thresholds for subsequent environmental review is met (CEQA Guidelines Section 15168[c]). When a Program EIR is relied on for subsequent activities, the lead agency must incorporate feasible mitigation measures into subsequent activities as well as the alternatives developed in the Program EIR (CEQA Guidelines Section 15168[c][3]). If a subsequent activity would have effects that are not within the scope of a Program EIR, the lead agency must prepare a new Initial Study, leading to a negative declaration, a mitigated negative declaration, or an EIR (CEQA Guidelines Section 15168[c][1]). Because the Proposed Project's location and development parameters are consistent with ConnectMenlo, the ConnectMenlo Program EIR serves as the environmental analysis for some of the effects of the Proposed Project (e.g., is incorporated by reference, pursuant to Sections 15150, 15130, and 15183).

Section 15168(d) of the CEQA Guidelines provides for simplifying the preparation of environmental documents by incorporating by reference analyses and discussions. Where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program or plan should be limited to effects that were not analyzed as significant in the prior EIR or that are susceptible to substantial reduction or avoidance (CEQA Guidelines Section 15152[d]). By tiering from the ConnectMenlo EIR, the environmental analysis for this Proposed Project relies on the ConnectMenlo EIR for the following:

- A discussion of general background and setting information for environmental topic areas,
- Overall growth-related issues,
- Issues that were evaluated in detail in the ConnectMenlo EIR for which there is no significant new information or change in circumstances that would require further analysis,
- An assessment of cumulative impacts, and
- Incorporation of mitigation measures adopted by the ConnectMenlo EIR.

On December 29, 2016, the City of East Palo Alto filed suit to challenge certification of the ConnectMenlo Final EIR. The City of East Palo Alto alleged that the City of Menlo Park did not comply with CEQA because the EIR underestimated the amount of new employment and failed to adequately analyze the traffic impacts that would result from the development under ConnectMenlo. To resolve litigation, the City of Menlo Park and the City of East Palo Alto entered into a settlement agreement. The key terms of the settlement agreement are as follows:

- *Reciprocal Environmental Review for Future Development Projects*. Menlo Park will prepare an EIR for any project located in the Office (O), Life Science (LS), or Residential Mixed-Use (R-MU) district that exceeds 250,000 net new square feet and requires a use permit, that proposes bonus-level development, that proposes a master plan project, or that may have a significant environmental impact. Menlo Park may, with the exception of housing and traffic (which were the focus of East Palo Alto's challenge), simplify the environmental review for future development projects by incorporating analysis and discussions from the ConnectMenlo Final EIR, pursuant to CEQA Guidelines Section 15168(d). East Palo Alto will

[2] The ConnectMenlo EIR can be found online at https://www.menlopark.org/1013/Environmental-Impact-Report.

prepare an Initial Study for future development projects to determine the appropriate level of environmental review and will conduct that review, which can be simplified by incorporating by reference analysis and discussions from its general plan, referred to as Vista 2035.

- *Reciprocal Traffic Studies*. Menlo Park and East Palo Alto will work together to ensure that future development projects' potentially significant traffic impacts on the other jurisdiction are analyzed and mitigated.
- *Reciprocal Study of Multiplier Effect*. When the preparation of an EIR is required, as described above, Menlo Park or East Palo Alto, as applicable, will conduct a Housing Needs Assessment, which, to the extent possible, will include an analysis of the multiplier effect for indirect and induced employment.

Pursuant to the settlement agreement in the 2017 *City of East Palo Alto v. City of Menlo Park* case, certain topics have been identified as needing further environmental review. This EIR and the Initial Study (Appendix 1-1) were prepared in accordance with the terms of the settlement agreement, which allows simplification in accordance with CEQA Guidelines Section 15168 for all topic areas, except housing and transportation, and incorporates by reference the information contained in the ConnectMenlo Final EIR, as applicable. Per CEQA Guidelines Section 15168, later activities occurring under a Program EIR may be examined in light of the Program EIR and tier from the Program EIR, as provided for in CEQA Guidelines Section 15152. Per CEQA Guidelines Section 15152, "where an EIR has been prepared and certified for a program [...] consistent with the requirements of this section, any lead agency for a later project pursuant to or consistent with the program [...] should limit the EIR [...] on the later project to effects that:

1) Were not examined as significant effects on the environment in the prior EIR, or
2) Are susceptible to substantial reduction or avoidance by the choice of specific revisions in the project, by the imposition of conditions, or other means."

The analysis provided in this EIR and the Initial Study tier from the ConnectMenlo Final EIR, as appropriate and further described in each topical section.

The Proposed Project would be required to comply with all applicable mitigation measures identified in the ConnectMenlo Mitigation Monitoring and Reporting Program (MMRP), which is an existing and enforceable MMRP prepared for the ConnectMenlo Final EIR and a requirement of any proposed development project in the city. Applicable mitigation measures identified in the Initial Study are provided in Table ES-1 of the *Executive Summary*. For a complete description of potential impacts identified in the Initial Study, please refer to the specific discussion within each topical section of the Initial Study (Appendix 1-1).

Proposed Project EIR Scope

As explained in more detail below, the City circulated a Notice of Preparation (NOP) to notify responsible agencies and interested parties that an EIR would be prepared for the Proposed Project and indicated the environmental topics anticipated to be addressed in the EIR. An Initial Study was circulated with the NOP. Based on the preliminary analysis provided in the Initial Study (see Appendix 1-1), consultation with City staff members, and review of the comments received during the scoping process, the following environmental topics are addressed in Chapter 3, *Environmental Impact Analysis*, of this EIR:

- Section 3.1, *Transportation*
- Section 3.2, *Air Quality*
- Section 3.3, *Greenhouse Gas Emissions*
- Section 3.4, *Noise*
- Section 3.5, *Population and Housing*
- Section 3.6, *Utilities and Energy*

It was determined in the Initial Study that the following potential environmental effects of the Proposed Project would be less than significant or have no impact; therefore, these topics are not studied further in detail in this EIR: aesthetics, agricultural and forestry resources, air quality (conflicts with plans and odors), biological resources, cultural and tribal cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise (all impacts, except for increases in ambient noise levels), public services, recreation, transportation (changes in air traffic patterns), and utilities and service systems (stormwater and solid waste). Each of these topic areas is addressed in the Initial Study (see Appendix 1-1). However, since the Initial Study was released, the Proposed Project has been modified to include construction of a waterline as well as new assumptions for building construction at 1350 Adams Court. Therefore, construction noise and vibration, as well as utilities and service systems, are now evaluated in the EIR.

Notice of Preparation

The NOP was released for the Proposed Project on December 10, 2018, for a 30-day public review period, which was extended to 45 days to account for the winter holidays. A public scoping meeting was held on January 14, 2019, before the Planning Commission. The NOP noted that the Proposed Project may have a significant effect on the environment and that an EIR would be prepared for the Proposed Project. A copy of the NOP is provided in Appendix 1-2 of this Draft EIR.

The NOP was sent to individuals, local interest groups, adjacent property owners, and responsible and trustee state and local agencies that have jurisdiction over or interest in environmental resources and/or conditions in the vicinity of the Project site. The purpose of the NOP was to allow various private and public entities to transmit their concerns and comments on the scope and content of the Draft EIR, focusing on specific information related to each individual's or group's interest or agency's statutory responsibility early in the environmental review process.

In response to the NOP, letters were received from the following agencies:

- California Department of Transportation
- City of East Palo Alto
- Sequoia Union High School District
- San Francisco Public Utilities Commission

In addition, two letters were received from an organization, six letters were received from individuals, and members of the public made oral comments at the Planning Commission hearing. Copies of the NOP comment letters and the comments recorded at the Planning Commission hearing are included in Appendix 1-2 of this Draft EIR.

With respect to CEQA and the Proposed Project, comments in response to the NOP generally identified the following areas of potential concern:

- **Transportation**: Analysis of traffic operations, trip generation, trip distribution, trip assignments, trip reductions, TDM plan, transportation impact fees, study intersections, impacts on surrounding jurisdictions, bicycle and pedestrian routes, and mitigation measures to reduce potential impacts.
- **Greenhouse Gas Emissions**: Evaluation of greenhouse gas emissions, carbon generation, and mitigation strategies.
- **Population and Housing**: Preparation of a Housing Needs Analysis that discusses the jobs/housing ratio, affordable housing, and the employee generation rate.
- **Alternatives**: Analysis of Proposed Project alternatives and potential alternatives to be considered.
- **Others**: Light pollution, sea-level rise, noise from the proposed private deck, population growth related to schools, and mitigation of impacts on public services.

Comments related to transportation are considered and addressed in Section 3.1, *Transportation*, of this EIR. Similarly, impacts related to greenhouse gas emissions and population and housing are addressed in Section 3.3, *Greenhouse Gas Emissions*, and Section 3.5, *Population and Housing*, respectively. Comments related to the impact of sea-level rise and operational noise are addressed in Section 3.9, *Hydrology and Water Quality*, and Section 3.12, *Noise*, of the Initial Study (Appendix 1-1). Comments related to the impact of population growth on schools are addressed in Section 3.14, *Public Services*, of the Initial Study. Comments related to the impact of light pollution are discussed in Section 3.1, *Aesthetics*, and comments regarding bird-friendly building designs are discussed in Section 3.4, *Biological Resources*, of the Initial Study. Alternatives suggested by the commenters are considered in Chapter 6, *Alternatives*, of this EIR.

Draft EIR

Impact Analysis

This Draft EIR analyzes significant effects that could result from the Proposed Project. As explained in Section 15002(g) of the CEQA Guidelines, a significant effect on the environment is defined as a substantial adverse change in the physical conditions that exist in the area affected by a project. Pre-project environmental conditions (the environmental baseline) are considered in determining impact significance. The impact significance thresholds for each environmental resource area presented in this Draft EIR are based on CEQA Guidelines Appendix G, *Environmental Checklist Form*. In addition, this Draft EIR uses City-adopted significance criteria for traffic impacts. When significant impacts are identified, the Draft EIR recommends feasible mitigation measures to reduce, eliminate, or avoid the significant impacts and identifies which significant impacts are unavoidable despite mitigation.

As discussed in more detail in Chapter 3, *Environmental Impact Analysis*, cumulative impacts, which are two or more individual effects that, when considered together, compound or increase other related environmental impacts, are discussed for each environmental resource area. The methodology for assessing cumulative impacts varies by topic; however, CEQA requires cumulative impacts to be analyzed with use of either a list of past, present, or probable future projects with related or cumulative impacts, in addition to the impacts of the project being analyzed in the document, or a summary of the projections contained in an adopted local, regional, or statewide plan or related planning document, such as a general plan, that describes or evaluates the conditions that contributed to the cumulative effect. This document also discusses feasible alternatives to the Proposed Project in Chapter 6, *Alternatives*.

In accordance with Section 15143 of the CEQA Guidelines, this Draft EIR provides an analysis of the potentially significant effects on the environment that could result from construction and operation of the Proposed Project. Section 15131 of the CEQA Guidelines specifies that "the intermediate economic or social changes need not be analyzed in any detail greater than necessary to trace the chain of cause and effect. The focus of the analysis shall be on the physical changes." Therefore, this Draft EIR does not treat economic or social effects of the Proposed Project as significant effects on the environment. In addition, if it is determined that a potential impact is too speculative for evaluation, this condition is noted, and further discussion of the impact is not necessary under CEQA.

Public Review

This Draft EIR is considered a draft under CEQA because it must be reviewed and commented on by public agencies, organizations, and individuals before being finalized. This document is being distributed for a 45-day public review and comment period. Readers are invited to submit written comments on the document. Comments are most helpful when they suggest specific alternatives or measures that would better mitigate significant environmental effects or raise specific questions about details in the Draft EIR. Hard copies of the Draft EIR are available for review at the Menlo Park Library at 800 Alma Street and Belle Haven Library at 413 Ivy Drive. Electronic copies of the Draft EIR are available for review online at https://menlopark.org/1350AdamsCourt.

Written comments should be submitted to:

Tom Smith, Senior Planner
City of Menlo Park
Community Development Department, Planning Division
701 Laurel Street
Menlo Park, CA 94025
Email: tasmith@menlopark.org

Email correspondence is preferred. A public hearing to take oral comments on the Draft EIR will be held before the Planning Commission on May 2, 2022. Hearing notices will be mailed to responsible agencies and interested individuals.

Final EIR and Project Approval

Following the close of the public review period, the City will prepare responses to all substantive comments that relate to potential physical changes to the environment. The Draft EIR, along with the responses to the written and oral substantive comments received during the review period, will make up the Final EIR and be considered by the Planning Commission in making the decision whether to certify the Final EIR and then whether to approve or deny the Proposed Project.

Certification of the Final EIR by the Planning Commission as complete and adequate, in conformance with CEQA, does not grant any land use approvals or entitlements for the Proposed Project. The merits of the Proposed Project will be considered by the Planning Commission in tandem with review of the Final EIR. The CEQA Guidelines require that, for one or more significant and unavoidable impacts that cannot be substantially mitigated, the lead agency must prepare a Statement of Overriding Considerations that balances the social, economic, technological, and legal benefits of approving a project against the significant and unavoidable environmental impacts that would result from project implementation. If significant and unavoidable impacts are identified, the City Council must approve the Statement of Overriding Considerations for the Proposed Project to be approved.

1.4 Report Organization

The Draft EIR is organized into the following sections:

- *Executive Summary*: Provides a summary of the Proposed Project as well as impacts that would result from implementation. It also describes the mitigation measures recommended to reduce, eliminate, or avoid significant impacts. In addition, the Executive Summary discusses alternatives to the Proposed Project.
- *Chapter 1—Introduction*: Discusses the overall purpose of the Draft EIR, provides a summary of the Proposed Project and the CEQA process, and summarizes the organization of the Draft EIR.
- *Chapter 2—Project Description*: Provides a description of the Project site, site development, Proposed Project objectives, the required approval process, and the characteristics of the Proposed Project.
- *Chapter 3—Environmental Impact Analysis*: Describes the following for each technical environmental topic: existing conditions (setting), applicable regulations adopted by the City and other agencies, ConnectMenlo Final EIR impacts and required mitigation measures, potential environmental impacts of the Proposed Project and their level of significance, and mitigation measures recommended to reduce or avoid identified potential impacts. Potential cumulative impacts are also addressed in each topical section. Potential adverse impacts are identified by level of significance as follows: less-than-significant impact (LTS), potentially significant impact (PS), less-than-significant impact with mitigation (LTS/M), and significant and unavoidable impact (SU). The significance of each potential impact is categorized before and after implementation of any recommended mitigation measure(s).
- *Chapter 4—Other CEQA Considerations*: Provides specifically required analyses of the Proposed Project's effects, significant irreversible changes, cumulative impacts, and effects found not to be significant, including Initial Study findings.
- *Chapter 5—Waterline Analysis*: An analysis of the proposed waterlines is provided throughout this document in the respective chapters. However, the waterlines have been added to the Proposed Project since the release of the Initial Study in December 2018. Therefore, for topics that were scoped out in the Initial Study, this chapter evaluates the construction impacts related to the waterline.
- *Chapter 6—Alternatives*: Evaluates alternatives to the Proposed Project, in addition to the No-Project Alternative.
- *Chapter 7—List of Preparers:* Lists the people who prepared the EIR for the Proposed Project.

Chapter 2
Project Description

Tarlton Properties (Project Sponsor) is proposing to construct an approximately 255,000-gross-square-foot (gsf) building for life science (research and development [R&D]) uses as part of the 1350 Adams Court Project (Proposed Project). The Project site (also referred to as Lot 3), within the existing Menlo Park Labs Campus (Campus), consists of both an undeveloped area on the northern portion of the site, located at 1350 Adams Court (referred to as Lot 3 North), and an approximately 188,100 gsf two-story building on the southern portion of the site, located at 1305 O'Brien Drive. The proposed R&D building would be located on Lot 3 North; the existing development on the southern portion of the Project site (1305 O'Brien Drive) would not be altered by the Project, with the exception of new Project landscaping and public open space, which would extend to the southern portion of Lot 3.

Parking for the proposed new R&D building would be provided in a podium level and three above-grade parking levels that would be integrated into the building. The garages would generally be reserved for tenants of the proposed R&D building; however, some parking would be available to employees in the adjacent building at 1305 O'Brien Drive. The proposed R&D building would be composed of three five-story building modules that would be slightly offset from each other, creating a front façade that would step back west to east across the site. Access to the proposed building would be provided via Adams Drive and Adams Court. A public connection to Adams Court through the Menlo Science and Technology Park property to the west may be provided in the future, as identified in the Circulation Element of the City of Menlo Park (City) General Plan and established in the adopted zoning map.[1]

In addition, the Proposed Project would include upgrades to waterlines at the following locations:

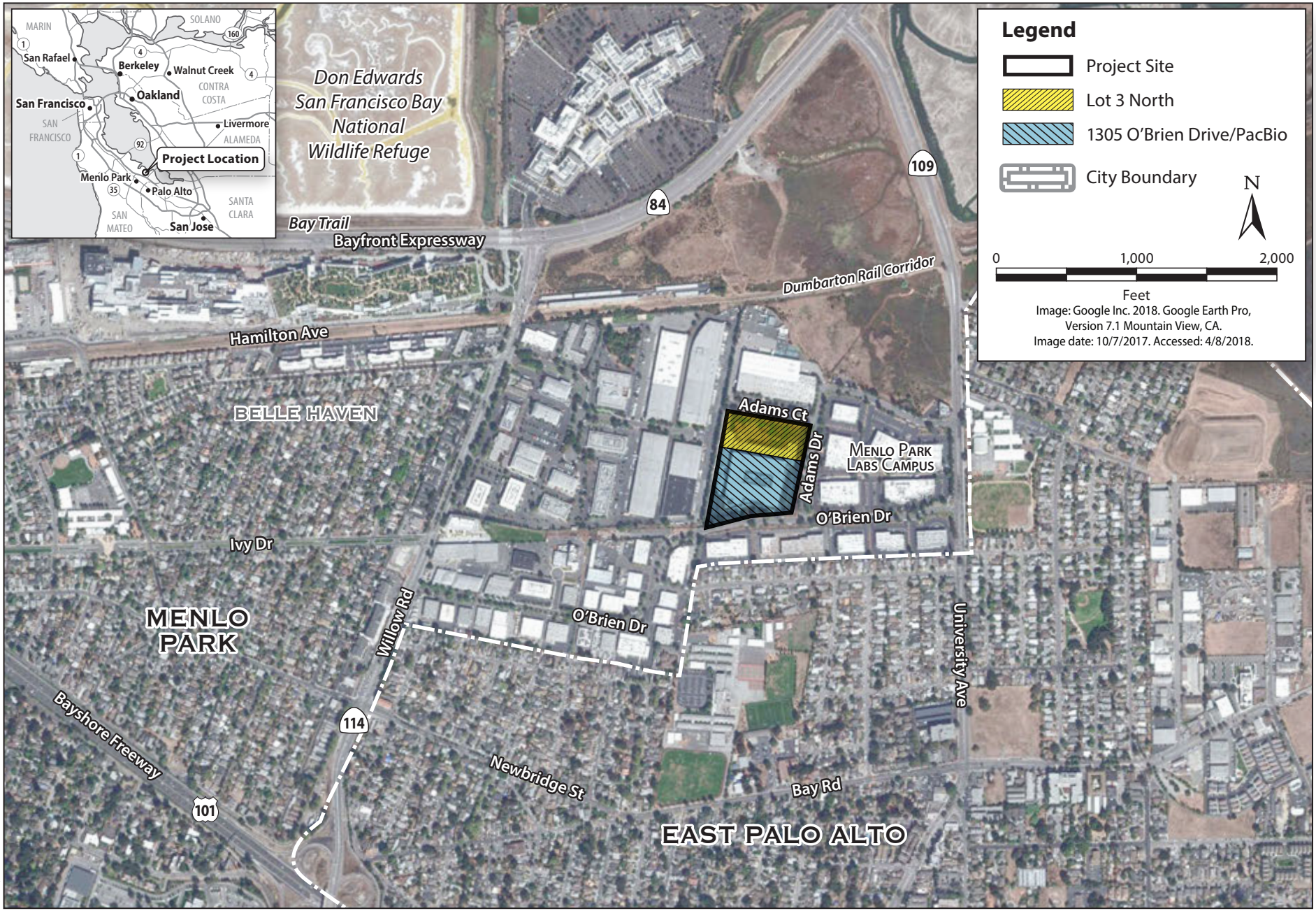
- Under Adams Court, along the interior of the 1350 Adams Court property, connecting to existing lines at the adjacent Menlo Science and Technology Park, and
- Under O'Brien Drive, from the southwest corner of the 1305 O'Brien Drive frontage to the intersection at Willow Road.

2.1 Project Location, Setting, and Background

Project Location

The Project site is north of US 101 in Menlo Park (as shown in Figure 2-1). The site is bounded by Adams Court to the north, Adams Drive to the east, O'Brien Drive to the south, and the Menlo Science and Technology Park to the west. Farther to the north, beyond the Campus, is the inactive Dumbarton Rail

[1] As described below, in the event that future development of the Menlo Science and Technology Park does not include this public connection as a part of a future project, a connection would be built on the property line upon development of both properties, with the Project Sponsor building half of the connection on the Project site and a future developer building the other half of the connection on the Menlo Science and Technology Park site. This contingent connection would result in additional sidewalk, landscape, and seating areas on the west side of the Project site; however, because some existing parking on the Project site would be converted to landscaping with this change, it would result in a small decrease in impervious space compared to the Proposed Project and a de minimis change in the overall environmental impacts of the Project.



ICF Graphics 00089.18 (7-9-2018) tm

Figure 2-1
Project Location
1350 Adams Court Project

Corridor, State Route (SR) 84, tidal mudflats and marshes along San Francisco Bay (Bay), the Don Edwards San Francisco Bay National Wildlife Refuge (Refuge), and Ravenswood Slough. Farther to the east (across University Avenue) and south (across O'Brien Drive) are the neighborhoods of East Palo Alto. Included in these neighborhoods, as close as 0.2 mile from the Project site, are mainly single-family residential units, with some multi-family residential dwellings, neighborhood-serving retail, Cesar Chavez Elementary School, the 4 Corners Civic Hub (including the East Palo Alto Library, City Hall, and post office), Costaño School and the San Francisco 49ers Academy, and Jack Farrell Park. In addition, Open Mind School, a small private school, is southwest of the Project site on O'Brien Drive.

The Belle Haven neighborhood of Menlo Park is west of Willow Road, approximately one-third of a mile from the Project site. The Belle Haven neighborhood includes a mix of uses, including churches, Menlo Park Fire Station No. 77, single-family residences, multi-family residential units, and institutional buildings. The Belle Haven neighborhood's institutional and park uses include Beechwood School, Belle Haven Elementary School, the Belle Haven Pool, Belle Haven Youth Center, Onetta Harris Community Center, Menlo Park Senior Center, the Boys and Girls Club, Hamilton Park, Karl E. Clark Park, the Belle Haven Community Garden, and Kelly Park. The City Council has approved a project to redevelop the Onetta Harris Community Center and Menlo Park Senior Center as a new multi-generational facility, which would incorporate the current Onetta Harris Community Center, Menlo Park Senior Center, Belle Haven Youth Center (for child care), Belle Haven Pool, and a branch library.

Regional highways that provide access to the Project site include US 101, approximately one mile to the south, and SR 84, which is across the Dumbarton Rail Corridor and to the north. The Menlo Park Caltrain station is approximately 2.5 miles southwest of the Project site, and the Palo Alto Caltrain station is approximately 2.7 miles southwest of the Project site, providing weekday service between San Francisco and Gilroy and weekend service between San Francisco and San José. Existing bus routes serve Newbridge Street and Bay Road south of the Project site and Willow Road west of the Project site.

Project Site Setting

The Campus, which includes the Menlo Business Park Portfolio and the O'Brien Drive Portfolio, is home to a variety of life science and biotech companies. The Menlo Business Park Portfolio covers approximately 50 acres and provides 900,000 gsf of space in 18 buildings. The O'Brien Drive Portfolio, which includes the Project site, offers approximately 150,000 gsf of space within nine buildings. The entire Campus, with approximately 1.4 million gsf of space within its buildings, includes landscaping, surface parking lots, onsite food services, and recreational facilities for tenants.[2] Transportation is provided for tenants throughout the Campus by Menlo Park Rides, which offers bike-share, shuttle, and car-share services as well as electric-vehicle (EV) charging stations. Shuttle services are provided to/from San Francisco, the Union City Bay Area Rapid Transit (BART) station, the Millbrae BART/Caltrain station, and the Palo Alto Caltrain station.[3]

The 11.2-acre Project site encompasses Lot 3 North and 1305 O'Brien Drive, which are within the same legal parcel. Lot 3 North is the undeveloped, vacant northern portion of the parcel (assessor's parcel number [APN] 055-472-030). Pacific Biosciences-California (PacBio) occupies the building at

[2] Tarlton Properties. 2020. *Menlo Park Labs – About*. Available: https://www.menloparklabs.com/about/. Accessed: October 9, 2020.

[3] Tarlton Properties. 2020. *Menlo Park Rides*. Available: https://www.menloparkrides.com/. Accessed: October 9, 2020.

1305 O'Brien Drive. In total, the Project site has 373 parking spaces, including seven Americans with Disabilities Act– (ADA-) compliant spaces and 29 EV spaces.

Lot 3 North is currently undeveloped and covered predominantly with dirt, loose vegetation, and concrete paving. This 4.4-acre portion of the Project site has an elevation that ranges from 9 to 12 feet above mean sea level (msl). Two through driveways and parking aisles connect Lot 3 North to 1305 O'Brien Drive. Mature trees line the street frontages, with 44 trees on Lot 3 North. Of the 373 parking spaces at the Project site, 118 are located on Lot 3 North.

The Project site also encompasses 6.8 acres at 1305 O'Brien Drive, directly south of Lot 3 North. The existing 188,100 gsf building at 1305 O'Brien Drive, which was redeveloped in 2015, is currently leased by PacBio. This portion of Lot 3 features 164 trees and 255 parking spaces.

General Plan and Zoning Designations

The site is designated as Life Sciences on the City's General Plan Land Use Designations Map, which was updated as part of the City's General Plan and M-2 Area Zoning Update (referred to as ConnectMenlo). One purpose of ConnectMenlo was to create live/work/play environments within the Bayfront Area and encourage office, R&D, residential, and commercial uses, as well as hotels, in proximity to one another and integrated with one another. The Life Sciences designation provides for new life sciences and R&D uses, along with high-tech office services and supportive sales and personal services. The designation also accommodates existing light industrial uses as well as new light industrial uses that are not in conflict with existing or planned commercial or residential uses in the vicinity.[4]

The site was historically zoned General Industrial (M-2), which permitted office and general industrial uses, such as warehousing, manufacturing, printing, and assembly work. In 2016, the site's zoning was changed to Life Sciences-Bonus (LS-B) as part of the ConnectMenlo process. The updated zoning created three new base zoning districts (Office [O], Residential-Mixed Use [R-MU], and Life Sciences [LS]), with the potential for certain properties (zoned Office-Bonus [O-B], Residential-Mixed Use-Bonus [R-MU-B], and Life Sciences-Bonus [LS-B]) to apply for bonus-level zoning standards that allow increases in density, floor area ratio (FAR), and/or height in exchange for providing community amenities consistent with the requirements of Section 16.44.070 of the zoning ordinance. The updated zoning also established standards for new projects, including Transportation Demand Management (TDM) requirements and restrictions regarding height, density, land use, sustainability, circulation, and open space. The base-level zoning standards allow a FAR of up to 55 percent for life science uses, plus an additional 10 percent for commercial uses, and an average and maximum height of up to 35 feet. The bonus-level zoning standards allow a FAR of up to 125 percent for life science uses, plus an additional 10 percent for commercial uses, and a maximum height of 110 feet, with an average height of 67.5 feet. The Project Sponsor has applied for the "B" bonus development allowance.

[4] City of Menlo Park. 2016. *General Plan—ConnectMenlo, Menlo Park Land Use and Mobility Update*. November 29.

2.2 Project Objectives

This environmental impact report (EIR) addresses the physical impacts of the Proposed Project, as required by the California Environmental Quality Act (CEQA). The City and the Project Sponsor have identified the following objectives, which are relevant to the physical impacts considered in this document:

- Build a new cutting-edge life science building that will cater to the Bay Area and Stanford entrepreneurial community.
- Develop a high-quality aesthetic facility with the flexibility to accommodate a single life science tenant or meet the needs of multiple tenants.
- Create a project that attracts tenants who will grow a broad socioeconomic base of jobs as well as a business-to-business tax base for the City of Menlo Park.
- Achieve Leadership in Energy and Environmental Design (LEED) Gold certification or equivalent for building design and construction.
- Develop space to accommodate life science employers and jobs in the new LS zoning district.
- Provide community amenities for surrounding neighborhoods, consistent with ConnectMenlo goals and policies, by creating open space, actively promoting alternative transportation, and providing amenities to benefit the Belle Haven neighborhood.

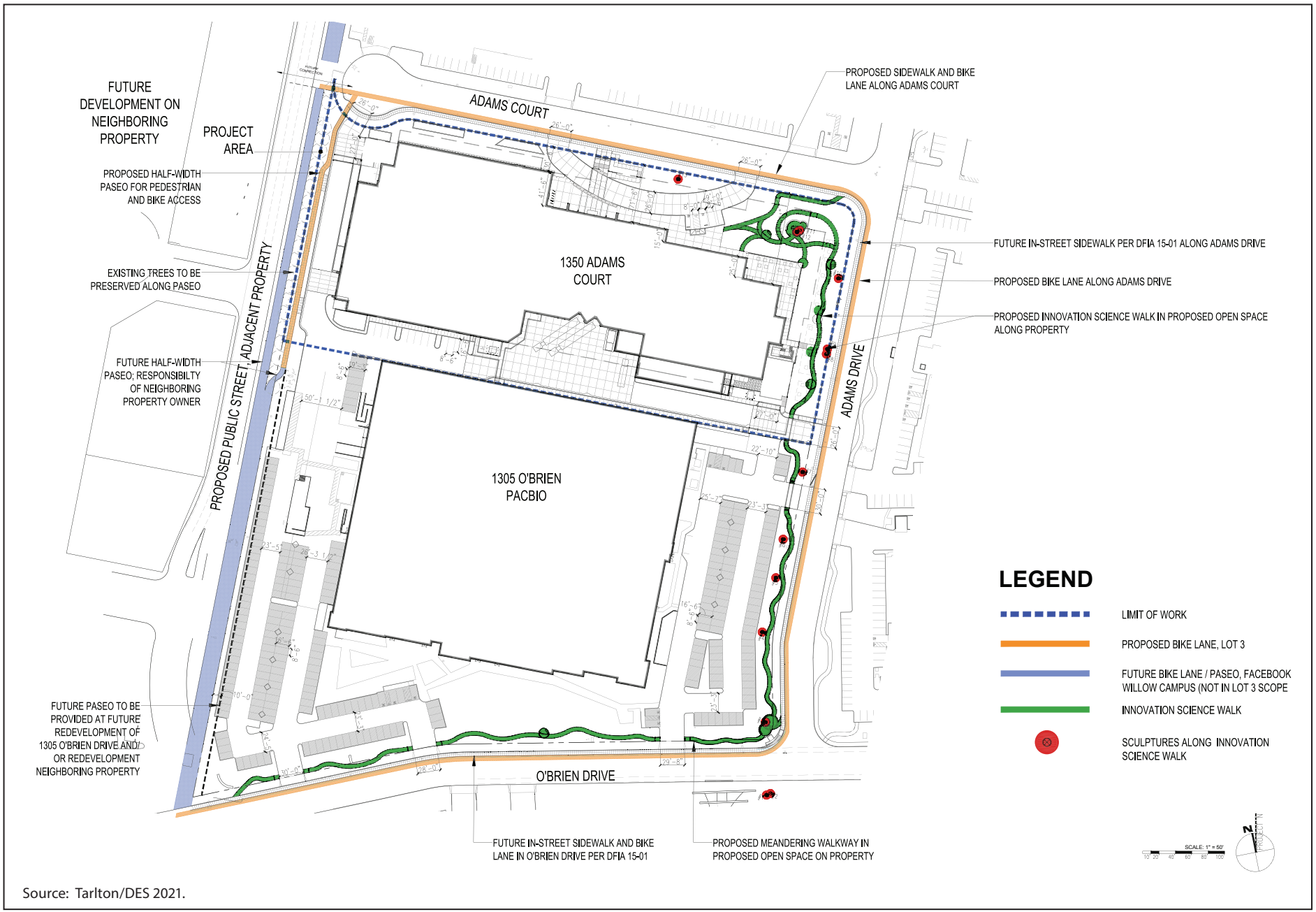
2.3 Project Characteristics

Land Use and Zoning

As mentioned above, the Project site was rezoned LS-B in 2016 through the ConnectMenlo process. At the base level, the maximum and average heights permitted are 35 feet, while the maximum FAR permitted is 55 percent. At the bonus level, the zoning ordinance allows a FAR of up to 125 percent (plus 10 percent for commercial use) and a height of 110 feet (maximum) in exchange for community amenities. The Project site with the Proposed Project, as studied in this EIR, would have a combined FAR of 90.7 percent.[5] The maximum height of the proposed building would be approximately 92 feet. Across the entire Project site, including the PacBio building, the average building height would be 50.6 feet. Therefore, the Proposed Project would require the Project Sponsor to provide community amenities in exchange for bonus-level development.

The Project Sponsor would construct a new 255,000 gsf building using the bonus-level FAR and height permitted by for the zoning district. Figure 2-2 depicts the proposed site plan. When combined with the existing PacBio building to the south, the Proposed Project would provide two buildings at the 11.2-acre Project site with a combined floor area of approximately 443,000 gsf and a FAR of 90.7 percent.

[5] The original Project application was for 260,400 gsf, which was later reduced to approximately 255,000 gsf. Although the revised Proposed Project would result in a combined FAR of 90.7 percent, this EIR will continue to base the analysis on the original application, resulting in the EIR presenting a slight overestimation of some environmental effects of the current design.



Source: Tarlton/DES 2021.

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Figure 2-2
Proposed Site Plan
1350 Adams Court Project

Table 2-1, below, compares allowed development under LS zoning at both the base level and bonus level as well as development under the Proposed Project. Because the Project site is a single parcel that includes both Lot 3 North and the existing building at 1305 O'Brien Drive, both Lot 3 North and 1305 O'Brien Drive are included in the calculations. In addition, all development must consider the development standards for both buildings (i.e., FAR, average height, landscaping, building coverage, open space, etc.). However, although the new building would need to comply with the design standards for the LS zoning district, the existing building would not because it would remain as is under the Proposed Project and be part of the baseline conditions.

Proposed Development

The Proposed Project would be constructed on a vacant parcel (Lot 3 North). The existing building at 1305 O'Brien Drive (the PacBio building) would not be affected by the Proposed Project, with the exception of relocation of some parking to the proposed building's parking structure. Landscaping and open space changes would also occur across the Project site. The Proposed Project would develop the vacant Lot 3 North parcel with an approximately 255,000 gsf building that would be designed with the flexibility to accommodate a single life science tenant or meet the needs of multiple tenants.

Table 2-1. Allowed and Proposed Development at the Project Site

	LS Zoning Requirements (Base Level)	LS Zoning Requirements (Bonus Level)	Proposed Development[a]
Site Area	25,000 sf (min) 100 feet x 100 feet (min)	25,000 sf (min) 100 feet x 100 feet (min)	New construction of 260,400 sf, for a total of 443,000 sf
Floor Area Ratio	55% (+10% commercial)	125% (+10% commercial)	90.7%
Maximum Height[b,c]	35 feet (+10 feet[c])	110 feet (+10 feet[c])	92.1 feet[e]
Height[c,d]	35 feet	67.5 feet	50.6 feet
Open Space	97,580 sf min (20% of total)	97,580 sf min (20% of total)	109,020 sf (22.3%)
Public Open Space	48,790 sf min (10% total)	48,790 sf min (10% total)	48,800 sf (10%)

Source: Tarlton Properties and DES Architects + Engineers, 2021. Lot 3 North—1350 Adams Court Planning Submittal.

Note:

a. The proposed development encompasses the entire Project site, which includes the proposed building at 1350 Adams Court and the existing PacBio building at 1305 O'Brien Drive.

b. Maximum building height refers to the proposed building (not the existing PacBio building).

c. Properties within the flood zone or subject to flooding and sea-level rise are allowed an additional 10 feet in average height and maximum height. The Proposed Project's height does not include the 10 additional feet.

d. Height is defined as the average height of all buildings on one site where a maximum height cannot be exceeded.

e. Measured to the top of parapet from the existing average natural grade.

The building would be oriented in an east–west direction, with the northern frontage, along Adams Court, as the front façade. The building, including the garage, would have a footprint of approximately 88,270 square feet (sf), or approximately 46 percent of Lot 3 North. The proposed building would have five levels and a maximum height of approximately 92 feet, as measured to the top of the parapet. Table 2-2 and Figures 2-3 and 2-4 show the proposed building area by level.

Although one building would be constructed, three offset building modules would be provided for architectural articulation and interest, thereby maximizing the open space at the northeast corner of the Project site (i.e., the corner of Adams Drive and Adams Court). In addition, a 266,325 sf parking garage would be connected to the southwest portion of the proposed building. The building would be set back from the northeast corner to create open space and provide a patio and large outdoor deck on the second floor. It would also provide separate access points for visitors/pedestrians, parking, and service vehicles. The main lobby and first floor would be more than 2 feet above the base flood elevation, as required by the LS zoning district, and oriented toward Adams Court. A curved driveway would ramp up slightly from the street to the entry plaza and visitors parking area.

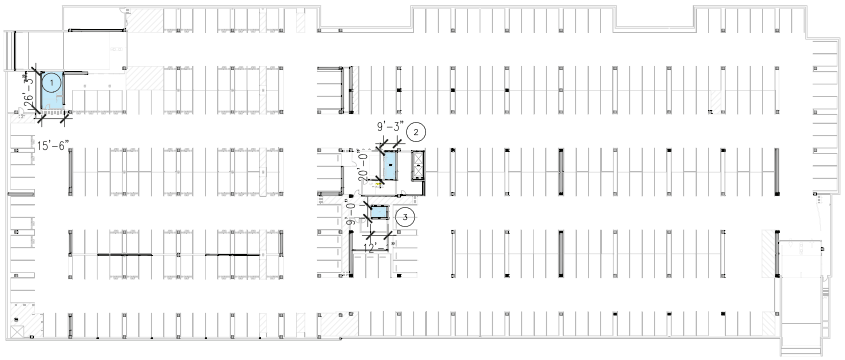
Table 2-2. Proposed Building Area (not including garage)

	Building Area (gsf)
Below Grade (stairs)	705
Level 1	39,485
P2 Intermediate (stairs)	660
Level 2	35,560
Level 3	58,842
Level 4	58,842
Level 5	58,842
Roof	1,682
Total	***254,618***

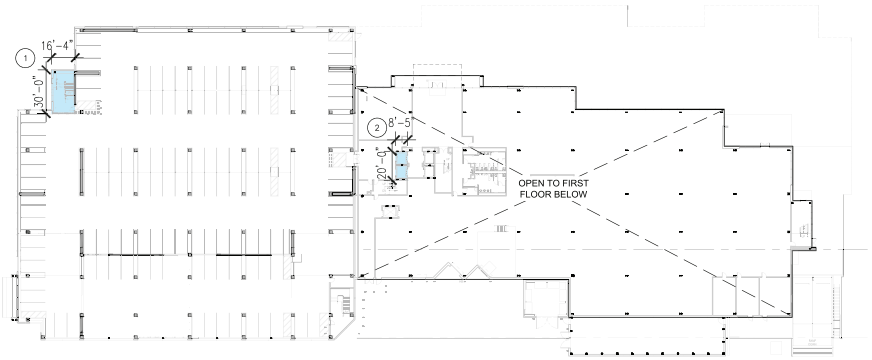
Source: Tarlton Properties and DES Architects + Engineers, 2021. Lot 3 North—1350 Adams Court Planning Submittal.

Site Access, Circulation, and Parking

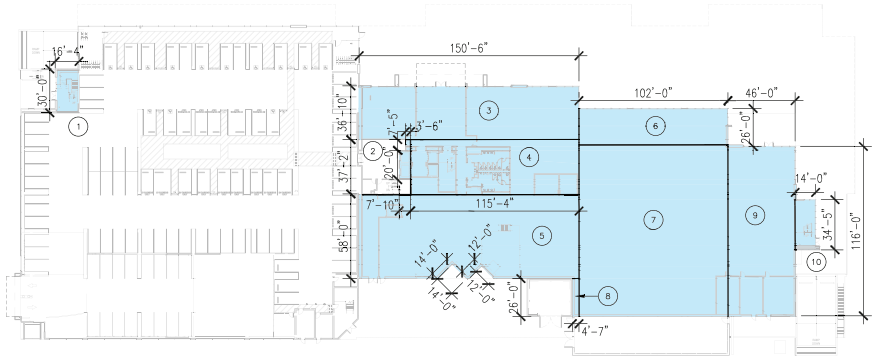
Vehicular Access and Circulation. Operations for the 1305 O'Brien Drive building would not be affected by traffic circulation on Lot 3 North. Lot 3 North would be accessible from a driveway on Adams Drive, a circular one-way driveway from Adams Court for visitors, and another driveway from Adams Court near the northwest corner of the Project site. In addition, vehicular ramps would connect Lot 3 North to the southern portion of the Project site. Employee and service vehicles would enter from the west end of Adams Court or from Adams Drive at the southeast corner of Lot 3 North. These two driveways would be on the west and south sides of the proposed building. Located along this route would be three entrances to the parking garage. Two of the entrances, one at the southeast corner of the building and the other at the northwest corner, would serve the underground parking level. The third entrance, at the southwest corner of the building, would serve parking levels one through three.



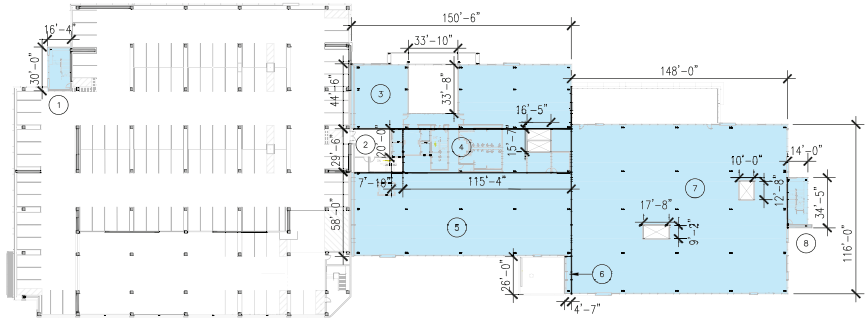
P0 LEVEL PARKING



P2 LEVEL PARKING



LEVEL 1 ENTRANCE, P1 LEVEL PARKING



LEVEL 2 R&D, P3 LEVEL PARKING

Source: Tarlton/DES 2021.

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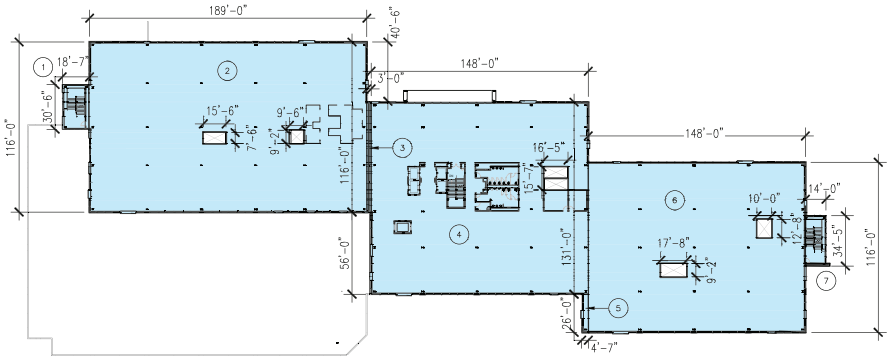
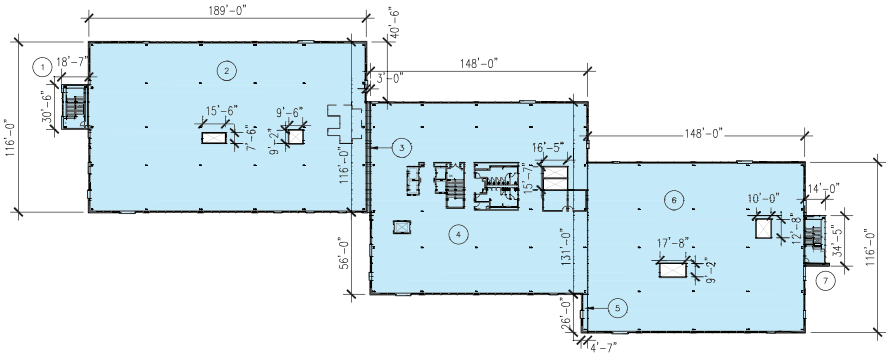
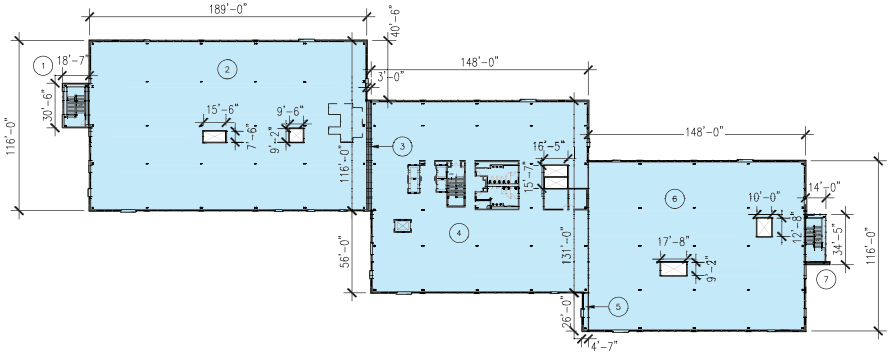
Figure 2-3
Site Plan by Floor (P0 Level Parking through Level 2 R&D/P3 Level Park
1350 Adams Court Project



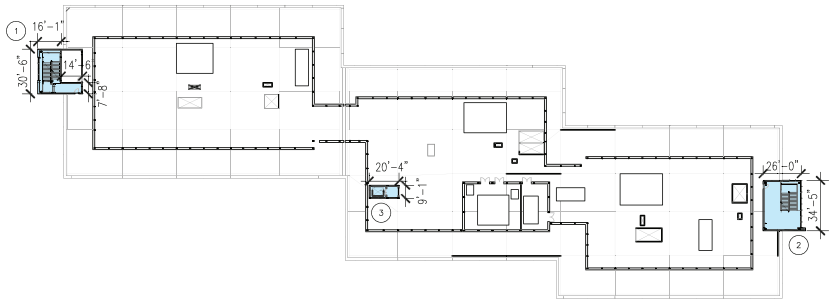
LEVEL 3 R&D



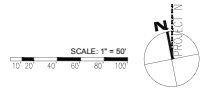
LEVEL 5 R&D



LEVEL 4 R&D



ROOF



Source: Tarlton/DES 2021.

ICF Graphics ... 0008918 (3-11-2022) JC

Figure 2-4
Site Plan by Floor (Level 3 R&D through Roof)
1350 Adams Court Project

A truck loading dock would be on the south side of the building and screened from the street by vegetation and the PacBio facility. It is anticipated that two to six truck deliveries would be made each weekday. The service drive aisle would provide connectivity to parking on the east and west sides of PacBio. Adams Court currently ends at a chain link fence; a gate provides emergency vehicle access as well as intermittent access for vehicles traveling to/from the Menlo Science and Technology Park to the west. However, as part of a separate project (i.e., the Willow Village Master Plan Project), an access point could be provided at Adams Court, as indicated in ConnectMenlo, allowing traffic to flow from a new street just west of the property. Although not part of the Proposed Project, this analysis will consider scenarios with and without this access point. The potential future connection of Adams Court to the Menlo Science and Technology Park is identified on the City's adopted zoning map.

Emergency Access. New emergency access to the Project site would be provided from Adams Drive at the southeast corner of Lot 3 North and from the Adams Court cul-de-sac. Emergency vehicles would travel along the southern and western perimeters of Lot 3 North and exit at the northwest corner at Adams Court. In addition, emergency vehicles would have access to the circular driveway at the front of the proposed building; a fire staging area would be located at this driveway. A second fire staging area would be located at the back of the building, adjacent to the proposed loading dock. Fire hydrants and fire department connections would be provided along the emergency access route. The Proposed Project would not alter existing emergency access for the 1305 O'Brien Drive building but would add additional fire department access and a staging area on the building's north side.

Bicycle and Pedestrian Circulation. Buffered bicycle lanes would be constructed around the perimeter of the Project site. The Class II bicycle lanes would allow cyclists to travel east on Adams Court, south on Adams Drive. Westbound bicycle lanes on O'Brien Drive would be provided as part of a separate project. In addition, a paseo for bicyclists and pedestrians would be located along the western edge of the Project site, connecting Adams Court to O'Brien Drive. The paseo is identified on the adopted zoning map between the Menlo Science and Technology Park and the Project site; however, as currently proposed, the paseo would be located primarily within the Menlo Science and Technology Park site. The Project site would include a publicly accessible pathway that would accommodate a portion of the paseo along the northern portion of Lot 3. Enhanced landscaping would also be provided, along with some publicly accessible landscaping adjacent to the paseo. A condition of approval included with the Proposed Project would require the applicant to connect the proposed portion of the paseo to O'Brien Drive in the event that the paseo is not entirely within the Menlo Science and Technology Park site. If the paseo should be extended along the western boundary, the parking layout would be affected, resulting in a net loss of 10 spaces and a minor reduction in impervious surface area (i.e., approximately 149 sf).

The Proposed Project would provide Class II bicycle lanes on the Project site frontage of Adams Court and Adams Drive. Future Class II bicycle lanes could be implemented as a part of future projects in the area. In addition, there would be 48 Class I secure bicycle lockers for long-term parking on the P1 parking level and 10 Class II bicycle racks for short-term parking near the entry plaza and drop-off area on the north side of the building.

For pedestrian circulation, sidewalks are proposed on the Project site frontage along Adams Court and Adams Drive. The Proposed Project would not construct a sidewalk on O'Brien Drive, which was separately required for the 1305 O'Brien Drive building; however, a meandering sidewalk on the north side of O'Brien Drive could be constructed at a later date, depending on the City's overall design of the O'Brien Drive streetscape improvements. The sidewalks adjacent to the property would connect to the proposed paseo along the western edge of the Project site.

Parking. As stated above, the Project site currently has 373 parking spaces, 118 of which are on Lot 3 North. All 118 parking spaces on Lot 3 North would be removed as part of the Proposed Project; the rest would remain. New onsite parking would be provided under the entire proposed building in one level of the podium and in three above-grade parking levels under the third floor of the west module. The parking would be available to new tenants of the proposed building. In addition, some parking would be available to PacBio employees because the Proposed Project would remove a portion of the existing surface parking that is currently used by these employees. Limited surface parking would be provided at the visitors entrance to the building and at the rear of the building (south side), adjacent to the loading dock. In total, 706 new parking spaces would be provided by the Proposed Project, including 24 ADA-compliant spaces on the first level of the parking garage and three accessible spaces at grade. Table 2-3 summarizes the proposed parking at the Project site.

Table 2-3. Proposed Parking at Lot 3 North

	Parking Spaces
Surface Parking	17
P0 Level (garage)	356
P1 Level (garage)	109
P2 Level (garage)	129
P3 Level (garage)	95
Total	***706***

Source: Tarlton Properties and DES Architects + Engineers, 2021. Lot 3 North—1350 Adams Court Planning Submittal.

TDM Plan

A TDM program would be implemented as part of the Proposed Project, consistent with the requirements of Menlo Park Municipal Code Section 16.44.090. The TDM program would be designed to provide alternatives to single-occupancy automobile travel to and from the Project site. The following is a list of the potential elements of the TDM program:[6]

- Bicycle Storage: Class I and Class II bicycle storage would be provided for up to 58 bicycles. Secure bike storage lockers for 48 bicycles are proposed on the P1 parking level. In addition, bike racks for 10 bicycles are proposed near the entry plaza and drop-off area on the north side of the building.
- Showers/Changing Rooms: Six shower/changing rooms are proposed, providing a dedicated facility where cyclists and those who walk to work can clean up.
- Preferential Carpool Parking: Six preferential carpool parking spaces would be provided. The carpool parking spaces would be close to building entrances to provide an incentive for employees to carpool.
- Commute Assistance Center: A commute assistance center with a computer kiosk would be provided. The center would encourage employees to use transit and determine the optimal mode of transportation.
- Subsidized Transit Tickets: Caltrain Go Passes would be provided to employees at no cost. Caltrain Go Passes allow unlimited rides 7 days a week.

[6] Kimley Horn. 2021. *Transportation Demand Management Memorandum for 1350 Adams Court.* April 8.

- Seventy-two new EV stations and 36 pre-wired stations would be provided in the garage portion of the Proposed Project.
- Bike- and Car-Share Programs: A free bike-share program would be provided campus-wide as well as the Enterprise car-share program.
- Menlo Park Labs Campus shuttle to/from the Project site to Union City BART, Fremont BART, Palo Alto Caltrain, Millbrae Caltrain/BART, and two locations in San Francisco as well as a free Campus-wide bike-share program.

Landscaping

As shown in Figure 2-5, new landscaping would be provided along the Adams Drive and Adams Court street frontages. On the Project site, approximately 60,220 sf of private open space and 48,800 sf of public open space would be provided, a total of approximately 109,020 sf of open space. The private open space under the Proposed Project would be within a patio and large outdoor deck on the second floor of the building. The patio may include sunshades with tables and chairs, solar-panel sunshades with charging stations, planters, green screens, benches, outdoor furniture, and metal fences. The public open space along the street frontage would be landscaped with berms, trees, and California native vegetation. This vegetation would help screen the proposed parking podium from adjacent streets. Furnishings at the public space may include benches, trash receptacles, public art, and bicycle racks.

There are currently 208 trees on Lot 3, 83 of which are on Lot 3 North and along the Adams Drive frontage of Lot 3. Of the trees on Lot 3 North and along the Adams Drive frontage, 15 would be removed; however, 12 of the trees are heritage trees.[7] The remaining 68 trees on Lot 3 North and along the Adams Drive frontage, 48 of which are heritage trees, would remain. The Project Sponsor would be required to plant heritage tree replacements in an amount equal to the appraised value of the removed heritage trees, subject to approval by the City Arborist regarding the locations, sizes, species, and number of heritage tree replacements. In total, Lot 3 North and the Adams Drive frontage of Lot 3 would have approximately 120 trees, including the existing trees that would remain and the replacement trees.

Approximately 42 percent of Lot 3 North is covered with impervious surfaces, consisting of parking lots and driveways/parking aisles. Approximately 58 percent of Lot 3 North is covered with landscaping and other pervious surfaces. Implementation of the Proposed Project would add approximately 77,000 sf of net new impervious surfaces to Lot 3 North, a total of approximately 158,000 sf of newly created or replaced impervious area. As a result, Lot 3 North would be approximately 82 percent impervious surfaces and 18 percent pervious surfaces. Hardscape would comprise concrete paving, decomposed granite paving, and concrete pavers. The landscaped area could include five flow-through planters around the proposed building to treat runoff from the impervious areas. Flows from all proposed impervious areas, both new and replaced, would be directed to the approximately 6,650 sf of treatment facilities in the five planters. Pervious and impervious surface totals on the southern portion of Lot 3 would remain the same. The overall Project site would have 82 percent impervious surfaces and 18 percent pervious surfaces.

[7] City of Menlo Park. 2020. *Menlo Park Municipal Code*. Section 13.24.020(5). July 1. Accessed March 23, 2022.

OPEN SPACE CALCULATIONS

	REQUIRED	PROVIDED
TOTAL SITE AREA	487, 916 SF	-
TOTAL OPEN SPACE (20% OF TOTAL SITE AREA)	97, 584 SF	109,020 SF
TOTAL PUBLIC OPEN SPACE (50% OF OPEN SPACE) (10% OF TOTAL SITE AREA)	48,792 SF	**48,800 SF**
10'-0" PASEO (1/2 PASEO IS ON NEIGHBORING PROPERTY)	-	1,493 SF
6'-0" PASEO PATH	-	1,838 SF
PUBLIC OPEN SPACE WITH SITE FURNISHINGS, LANDSCAPING, AND ART ON BUILDING SITE AND NOT IN PUBLIC RIGHT-OF-WAY	-	45,469 SF
PRIVATE OPEN SPACE (50% OF OPEN SPACE) (10% OF TOTAL SITE AREA)	48,792 SF	60,220 SF
PRIVATE OPEN SPACE		
ADDITIONAL PUBLIC OPEN SPACE AREAS NOT COUNTED TOWARDS TOTAL (OUTSIDE OF RIGHT-OF-WAY LINE)	-	
PUBLIC OPEN SPACE WITHIN PUBLIC ACCESS EASEMENT	-	23,333 SF
TOTAL PUBLIC OPEN SPACE PROVIDED BY PROJECT (INCLUDES AREA OUTSIDE OF RIGHT-OF-WAY LINE)		72,133 SF
PASEO ON NEIGHBORING PROPERTY		

Source: Tarlton/DES 2021.

ICF Graphics ... 00089.18 (3-11-2022) JC

Figure 2-5
Proposed Open Spaces
1350 Adams Court Project

Building Features and Lighting

The proposed building would include three modules that would be offset from each other. The five-story modules would have a cohesive architectural design. A mid-building entrance would be framed by a portal element that would be clad with metal panels. Full-height curtain walls at the northeast corner of all three modules would create a space for conference rooms. Stairs would be provided at the east and west ends of the building to emphasize the east–west orientation and pedestrian circulation. Tall windows on the north side would maximize the use of daylighting. On the south side, the building façade would be balanced with opaque finishes and ribbon windows, along with sunshades to reduce solar heat gain. The first floor of the east module would be pulled forward on the north side to create a second-floor rooftop deck. The roof of the center module and the top deck of the garage at the west end would be designed to accommodate future patios, which are not counted in the open space calculation. Figure 2-6 shows the east–west building sections, and Figure 2-7 depicts the streetscape elevations.

The building would be designed to account for flooding and/or sea-level rise due to the proximity of the Bay. The first floor of the building would be at an elevation of 14 feet above the current msl, which would be approximately 2 feet above the Federal Emergency Management Agency's (FEMA's) current base flood elevation, consistent with the requirements of ConnectMenlo. The ramps into the podium garage would be equipped with gates that would float to close in the event of a flood, and stairs would provide an exit 2 feet above the base flood elevation.

The building would be clad with glass fiber reinforced concrete (GFRC) panels, pre-finished metal panels, and double-glazed high-performance windows in aluminum mullions. Glazing would be tinted and bird safe (i.e., etched or treated in other ways to make it more visible to birds). Rooftop heating, ventilation, and air-conditioning (HVAC) as well as other equipment would be housed within metal screens. The above-ground garage would be constructed from pre-cast concrete, with enhanced finishes on the street side such as perforated metal and glazing. Lighting would be provided throughout Lot 3 North by roadway/driveway lights, area lights, bollards, and in-ground lights. The Proposed Project would seek LEED Gold Building Design and Construction (BD+C) certification, which is a requirement for bonus-level development.

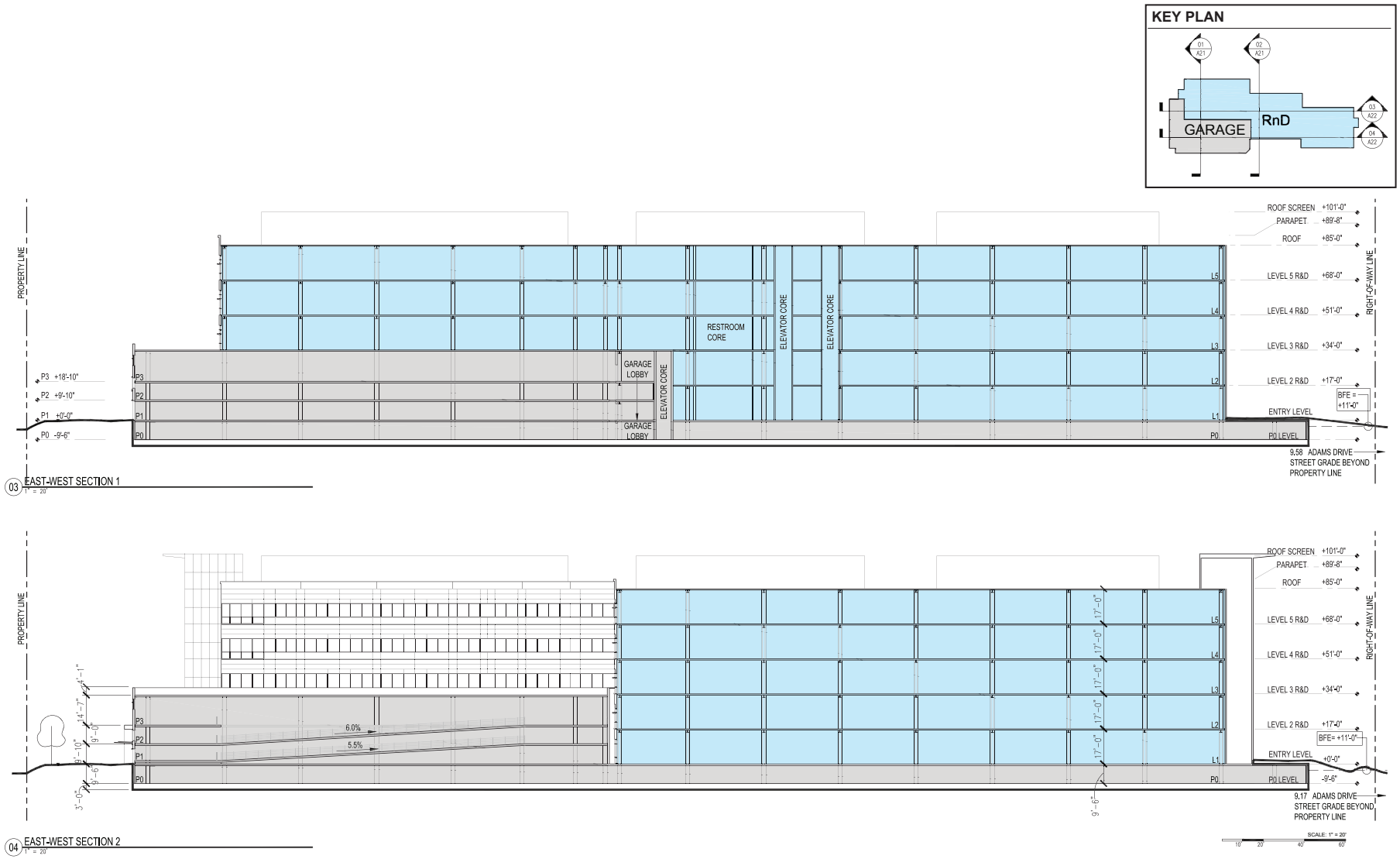
Activity/Employment

In general, biotech and R&D uses require fewer employees than office buildings of the same size. Although administrative areas within biotech and R&D companies generally have an employee density similar to that of a corporate office, research and laboratory spaces have lower employee densities because lab spaces are often used as work areas by employees who also have separate office workstations. It is estimated that approximately 650 employees would occupy the proposed building at full buildout.

Utilities

Onsite utilities would be served by energy (gas and electric), domestic water, wastewater, and storm drain facilities. All onsite utilities would be designed in accordance with applicable codes and current engineering practices.

Energy. The Proposed Project would meet 100 percent of energy demand (electricity and gas), consistent with the requirements of Menlo Park Municipal Code Section 16.44.130, including through the purchase of 100 percent renewable electricity from Peninsula Clean Energy and the purchase of offsets for the



Source: Tarlton/DES 2021.

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Figure 2-6
East-West Building Sections
1350 Adams Court Project

1 WESTSIDE ELEVATION
1" = 20'-0"

2 ADAMS DRIVE STREET ELEVATION
1" = 20'-0"

Source: Tarlton/DES 2021.

ICF Graphics ... 0008918 (3-11-2022) JC

Figure 2-7
Streetscape Elevations
1350 Adams Court Project

natural gas required to heat lab spaces. As needed, Pacific Gas and Electric Company could provide gas and electrical power for proposed facilities. Existing electricity and gas lines in the vicinity of the Project site would continue to serve the Proposed Project.

Telecommunications Facilities. Telecommunications lines may need to be extended or relocated as a result of the Proposed Project. The installation of new or expanded telecommunication lines on the Project site would require excavation, trenching, soil movement, and other activities that are typical during the construction of development projects. These construction impacts are discussed in the appropriate topical sections of this document, as well as the Initial Study (see Appendix 1-1), as part of the assessment of overall Project impacts. However, no offsite telecommunications facilities would need to be constructed or expanded as a result of the Proposed Project.

Domestic Water. Onsite waterlines would connect to Menlo Park Municipal Water District infrastructure. An existing 10-inch water main runs north–south along the property line of the Project site on the west; another 10-inch water main runs east–west under Adams Court. In addition, an existing 12-inch water main runs north–south under Adams Drive. All of these lines are interconnected.

The Proposed Project would include upgrading the existing waterlines under Adams Court; along the interior of the 1350 Adams Court property, connecting to the existing lines on the adjacent Menlo Science and Technology Park; and under O'Brien Drive, from the southwest corner of the 1305 O'Brien Drive frontage to the intersection with Willow Road. The existing 10-inch water mains under Adams Court and through the Project site would be upgraded to 12-inch water mains. In addition, a portion of the existing 10-inch water main in O'Brien Drive would be upgraded to a 12-inch water main. The new lines would be placed next to the existing lines, which would be disconnected rather than removed all together. The analysis presented in this EIR includes replacement of the waterline under Adams Court and O'Brien Drive, as shown in Figure 2-8.

The northern portion of the Project site has three existing water services that are not being used, an 8-inch stub from Adams Court, a second stub from Adams Court of unknown size, and a 10-inch stub from Adams Drive. Because of the locations, none of these services are intended to be used under the Proposed Project. New domestic service to the proposed building would be provided from the Adams Court line, at the northwest corner of the site. In addition, a backflow preventer would be placed at this location. The required size of the new service line has not yet been determined but is expected to be 4 inches.

The Proposed Project would include water-conserving plant material and irrigation practices, in compliance with the guidelines of the Water Efficient Landscape Ordinance. In addition, per Menlo Park Municipal Code Section 16.44.130 (3)(D), although recycled water is not proposed for the Project, the Project would be dual plumbed with purple pipe for recycled water access when it becomes available in the Bayfront Area.

Wastewater. The sanitary sewer system in this area of Menlo Park is owned and operated by the West Bay Sanitary District. An existing 6-inch sanitary sewer runs to the east below Adams Court; another 6-inch sanitary sewer starts at about the midpoint on the Project site and runs to the north, also below Adams Drive. These two sanitary sewers meet in a manhole at the intersection of Adams Court and Adams Drive. From that manhole, an 8-inch sanitary line runs to the north. The northern portion of the Project site has three existing sanitary sewer services, two of which are unused services, a 6-inch service from Adams Court and a 6-inch service from Adams Drive. The third line, a 6-inch service from Adams Court, is currently servicing the rear of the PacBio building; this service would be temporarily interrupted with construction of the proposed building. Temporary facilities (i.e., a single bathroom) would be provided

Source: Menlo Park Labs, 2022.

ICF Graphics ... 00089.18 (3-11-2022) JC

Figure 2-8
Proposed Waterline
1350 Adams Court Project

during construction to address the disruption in the sanitary line. The third line would serve a bathroom in the PacBio building. A 6-inch sanitary sewer line would exit the south side of the Project site. An outlet to a private lift station with a force main would discharge sewage flows to the existing sanitary sewer in Adams Drive. Wastewater from the Project site would ultimately be discharged to the Silicon Valley Clean Water pump station in Redwood City.

Storm Drainage. The existing stormwater infrastructure includes a 48-inch storm drain that runs to the north along the property line of the Project site on the west. An existing 42-inch storm drain runs north along the east side of Adams Drive until crossing the intersection at Adams Court, at which point it becomes a 54-inch storm drain to its outfall. In addition, 6- to 12-inch storm drains on the Project site are used to drain the improvements at 1305 O'Brien Drive. Some of these would be removed or relocated to accommodate the new construction. The proposed building site's drainage would be equally split, discharging to both the existing 42- and 48-inch pipes. Stormwater treatment measures, in compliance with state and County of San Mateo requirements, would be implemented on the site.

2.4 Project Construction

The proposed construction methods are considered conceptual and subject to review and approval by the City. For the purposes of this environmental document, the analysis considers the construction plan described below.

Construction Schedule and Phasing

The Proposed Project would consist of six construction phases, which may occur at the same time or overlap, as shown below:

- Phase 1: Demolition/Utilities Relocation – 42 days
- Phase 2: Dewatering/Grading/Excavation – 100 days
- Phase 3: Mat Foundation/Basement Walls – 60 days
- Phase 4: Parking Garage – 128 days
- Phase 5: Building Shell Structure – 155 days
- Phase 6: All Exterior Skin/Onsite Work – 238 days

Construction would occur over a duration of approximately 29 months. Standard construction work hours would be 7:00 a.m. to 3:30 p.m. Monday through Friday. However, work could start early, at 6:00 a.m., or finish late, at 6:00 p.m. Construction activities taking place between 7:00 a.m. and 8:00 a.m. would be regulated by the daytime noise limits of the Menlo Park Municipal Code, Noise Ordinance, which limits noise to 60 A-weighted decibels at the nearest residential property line. Construction activities taking place between 6:00 a.m. and 7:00 a.m. would be regulated by the nighttime noise limits of the Noise Ordinance, which limits noise to 50 A-weighted decibels at the nearest residential property line. Construction activities taking place between 8:00 a.m. and 6:00 p.m. would be regulated by the construction activities section of the Noise Ordinance (Title 8.06.040[a]). The expected occupancy date for the proposed building would be mid- to late 2023.

Construction for the waterlines would include the following phases: demolition, utility installation, grading, pavement installation, and final pavement, signage, and striping. Construction for the O'Brien

Drive waterline would be approximately 3 months, while construction for the Adams Court waterline would be approximately 2 months.

Construction Spoils and Debris

The Proposed Project would require soil to be excavated and trees to be removed. The first floor of the occupied building would be raised approximately 3 feet above the street level; however, the podium garage and the mat slab would be below that elevation and therefore would require significant excavation. Proposed Project excavation depths would vary, with a maximum depth of 11 feet, 2 inches for the parking garage. The proposed excavation, not including the construction work required for the waterlines, would result in the export of approximately 1,300 cubic yards (cy) of soil during Phase 1, 75 cy during Phase 2, 78,200 cy during Phase 3, and approximately 900 cy during Phase 6. Approximately 25 cy of soil would be imported during Phase 2,500 cy during Phase 3, and 2,100 cy during Phase 6.

For the upgrades to waterlines under Adams Court, the Project site, and O'Brien Drive, the proposed excavation would result in the export of approximately 1,250 cy of soil during Phase 1, including approximately 193 cy for demolition and 1,057 cy for utility installation, as well as approximately 311 cy during Phase 3 for pavement installation. Approximately 1,057 cy of soil would be imported for Phase 1, and approximately 311 cy would be imported for Phase 3. A goal of the Proposed Project is to have a waste diversion program in place to divert 95 percent of the waste, or more, away from landfills. The asphalt parking lot or concrete slab on a portion of Lot 3 North would be recycled, resulting in approximately 1,300 cy of asphalt or concrete being recycled.

Lot 3 North would be graded during Phase 3 (4.4 acres) and Phase 6 (3.3 acres). Approximately 0.5 acre (i.e., 0.25 acre for the Adams Court and Adams Drive line and 0.25 acre for the O'Brien Drive line) would be graded for work associated with installation of the waterline upgrades in Adams Court, Adams Drive, and O'Brien Drive. Truck trips to and from the Project site would range from one round trip per day during Phase 1 to a maximum of 12 round trips per day. The number of haul trips per day would range from one to nine. The anticipated destination would be Dumbarton Quarry, at 9600 Quarry Road in Fremont, which is approximately 7.5 miles from the Project site. Haul routes would extend from University Avenue to O'Brien Drive and Adams Drive.

Construction Equipment and Staging

Typical equipment would be used during Project construction, including dozers, dump trucks, tractors, loaders, backhoes, concrete saws, jack hammers, air compressors, drills, rigs, pile drillers, graders, excavators, welders, cranes, forklifts, concrete mixers, rollers, and pavers. Pile driving would not be required. Potential construction laydown and staging areas would be on the north side of the Project site, along Adams Court.

Construction Employment

The size of the construction workforce would vary during the different phases of construction. The maximum number of construction workers required for construction would be 150 to 250 per day. However, on average, approximately 150 workers would be at the Project site each day.

2.5 Project Approvals

The following City discretionary approvals would be required prior to development:

- **Use Permit.** The Project Sponsor would need a use permit, per Menlo Park Municipal Code Chapter 16.82, for the bonus-level development.
- **Architectural Control,** per Menlo Park Municipal Code Chapter 16.68. The applicant would also be required to obtain an architectural control review and approval of the specific building design from the Planning Commission.
- **Heritage Tree Removal Permit.** A tree removal permit would be required for each heritage tree proposed for removal, per Menlo Park Municipal Code Section 13.24.040.
- **Below-Market-Rate Housing Agreement.** A Below-Market-Rate Housing Agreement would be required, per Menlo Park Municipal Code Section 16.96.030, for the payment of in-lieu fees associated with the City's Below-Market-Rate Housing Program.
- **Environmental Review.** This would include release and certification of the EIR, with approval of a Mitigation Monitoring and Reporting Program and possibly the need for a Statement of Overriding Considerations to the extent the Final EIR discloses any potentially significant impacts that cannot be mitigated to less-than-significant levels.

As part of the Proposed Project review process conducted by the City, a fiscal impact analysis would be prepared as well as an appraisal to determine the value of the community amenity.

Reviews/Approvals by Responsible Agencies

Reviews and approvals from other agencies that may be needed for the Proposed Project to proceed are also identified. Some of these agencies will need to approve certain parts of the Proposed Project prior to full implementation, but their approval is not required for EIR certification. Other agencies will rely on this EIR for environmental review of their approvals, after its certification by the City.

- **Bay Area Air Quality Management District** – Permits for onsite generators, boilers, and other utility equipment.
- **California Department of Transportation** – Review of traffic circulation effects and consultation on potential traffic improvements that may affect state highway facilities, ramps, and intersections.
- **California Regional Water Quality Control Board/San Mateo Countywide Water Pollution Prevention Program** – Approval of National Pollutant Discharge Elimination System permit for stormwater discharges.
- **City/County Association of Governments** – Review of potential effects on Routes of Regional Significance and the proposed TDM program.
- **San Mateo County Transportation Authority** – Review of potential effects on public transit.
- **Menlo Park Fire Protection District** – Approval of proposed fire prevention systems, onsite generators, and emergency vehicle access.
- **San Mateo County Environmental Health Division** – Review of food service functions and onsite generators.

- **West Bay Sanitary District** – Approval of wastewater hookups.
- **Native American Heritage Commission**
- **San Francisco Public Utilities Commission**

Chapter 3
Environmental Impact Analysis

This chapter presents an analysis of the potential impacts the 1350 Adams Court Project (Proposed Project) could have on existing environmental conditions. The environmental analysis has been prepared in accordance with the California Environmental Quality Act (CEQA), as amended (Public Resources Code Section 21000, et seq.), and the CEQA Guidelines.

CEQA Methodology

CEQA Guidelines Section 15151 provides guidance for the preparation of an adequate environmental impact report (EIR).

- An EIR should be prepared with an adequate degree of analysis to provide decision-makers with the information needed to make a decision that intelligently takes account of the environmental consequences.
- An evaluation of the environmental impacts of a project need not be exhaustive, but the adequacy of an EIR is to be reviewed in light of what is reasonably feasible.
- Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts.
- The courts have looked not for perfection but for adequacy, completeness, and a good-faith effort at full disclosure.

In practice, this guidance suggests that EIR preparers should adopt a reasonable methodology upon which to estimate impacts and make reasonable assumptions using the best information reasonably available.

As discussed in Chapter 1, *Introduction*, because the Proposed Project's location and development parameters are consistent with the General Plan and M-2 Area Zoning Update (ConnectMenlo), the ConnectMenlo Program EIR serves as the environmental analysis for some of the effects of the Proposed Project (e.g., is incorporated by reference, pursuant to Sections 15150, 15130, and 15183). Section 15168(d) of the CEQA Guidelines provides for simplifying the preparation of environmental documents by incorporating by reference analyses and discussions. Where an EIR has been prepared or certified for a program or plan, the environmental review for a later activity consistent with the program or plan should be limited to effects that were not analyzed as significant in the prior EIR or that are susceptible to substantial reduction or avoidance (CEQA Guidelines Section 15152[d]). By tiering from the ConnectMenlo EIR, the environmental analysis for this Proposed Project relies on the ConnectMenlo EIR where applicable.

Pursuant to the settlement agreement in the 2017 *City of East Palo Alto v. City of Menlo Park* case, certain topics have been identified as needing further environmental review. This EIR and the Initial Study (Appendix 1-1) were prepared in accordance with the terms of the 2017 settlement agreement, which allows simplification in accordance with CEQA Guidelines Section 15168 for all topic areas, except housing and transportation, and incorporates by reference the information contained in the ConnectMenlo Final EIR, as applicable.

Determination of Significance

In accordance with Section 15022(a) of the CEQA Guidelines, the City of Menlo Park (City) uses the impact significance criteria designated by CEQA and the CEQA Guidelines (Appendix G). These criteria, as well as City-adopted significance criteria for traffic impacts, are used to evaluate Proposed Project impacts throughout this document. The criteria are listed at the beginning of the *Environmental Impacts* subsection under "Thresholds of Significance" throughout this chapter.

In determining whether a project's impacts are significant, an EIR ordinarily compares the environmental conditions associated with a proposed project with existing environmental conditions, which are referred as the "baseline" for the impact analysis. This EIR compares the potential environmental impacts of the Proposed Project with the baseline environmental conditions that were in existence at the time the Notice of Preparation (NOP) was published (December 10, 2018). However, for some resource areas where data were gathered at a later date, that data are considered the baseline and noted in each topical section as needed.

For each impact identified, a level of significance is determined using the classifications listed below. Significance determinations are indicated in ***bold, italicized*** text.

- ***Potentially significant (PS)*** impacts occur in cases in which it is not precisely clear whether a significant effect would occur. The analysis in these instances conservatively assesses the credible worst-case conditions, but the discussion acknowledges that there is some uncertainty regarding the credible extent of the impact. For each impact identified as being potentially significant (PS), the Draft EIR provides mitigation measures to reduce, eliminate, or avoid the adverse effect. Following the analysis of the mitigation measures, a final conclusion is provided, as follows:
    - ***Less-than-Significant Impact with Mitigation (LTS/M)*** is the conclusion when impacts would be significant but implementation of Project-specific mitigation measures and/or mitigation measures from the ConnectMenlo EIR would reduce the impacts to a level of less than significant.
    - ***Significant and Unavoidable (SU)*** is the conclusion if the mitigation measures would not diminish the effects to less-than-significant levels.
- ***Less-than-Significant (LTS)*** impacts are effects that are noticeable but not beyond established or defined thresholds or already mitigated below such thresholds.
- ***No Impact (NI)*** denotes situations in which there is no possibility of an adverse effect on the environment.

Mitigation Measures

Mitigation measures identified in this Draft EIR were developed during the analysis and are designed to reduce, minimize, or avoid potential environmental impacts associated with the Proposed Project. According to CEQA Guidelines Section 15126.4:

> The discussion of mitigation measures shall distinguish between measures that are proposed by the project proponents to be included in the project and other measures proposed by the lead, responsible, or trustee agency or other persons that are not included but the agency determines could reasonably be expected to reduce adverse impacts if required as conditions of approving the project. This discussion shall identify mitigation measures for each significant environmental effect identified in the EIR.

In this Draft EIR, mitigation measures are provided immediately following each potentially significant impact. For mitigation measures from the ConnectMenlo EIR, the titles and numbers correspond to those in the ConnectMenlo EIR. Project-specific mitigation measures are numbered to correspond to the impacts they address. For example, Mitigation Measure NOI-2.1 refers to the first mitigation measure for Impact NOI-2 in the Noise section.

The Proposed Project would be required to comply with all applicable mitigation measures identified in the ConnectMenlo Mitigation Monitoring and Reporting Program (MMRP), which is a requirement of any proposed development project in Menlo Park. In addition, the Initial Study identified a number of potentially significant impacts and proposed mitigation measures to reduce each impact to less than significant, either on its own or combined with ConnectMenlo mitigation measures (refer to Appendix 1-1). Significance determinations are based on compliance with the ConnectMenlo mitigation measures, which are already included in the existing, enforceable MMRP prepared for the ConnectMenlo Final EIR, as well as Project-specific mitigation measures identified in the Initial Study or this EIR. All impacts identified as potentially significant in the Initial Study are described in this EIR in the appropriate section, along with Project-specific mitigation measures proposed in the Initial Study and applicable ConnectMenlo mitigation measures. All required mitigation measures are identified in the Executive Summary and will be included in the MMRP that will be adopted by the City if the Proposed Project is approved.

If the Proposed Project is approved by the Menlo Park City Council, then the MMRP must be adopted. Pursuant to CEQA Guidelines Section 15097, an MMRP is a mechanism for monitoring and reporting revisions to a project or conditions of approval that a public agency has required as mitigation measures to lessen or avoid a significant environmental effect. The City can conduct the reporting or monitoring, or it can delegate the responsibilities to another public agency or private entity that accepts the delegation. The MMRP for the Proposed Project will identify the specific monitoring actions that will be done, the various City departments or other entities that will oversee completion of the mitigation, and a timeline for implementation of the measures. The responsible departments will ensure that due diligence is performed during implementation of the measures. Execution of the MMRP would reduce the severity of or eliminate the significant impacts identified in this EIR.

Issues Addressed in the Draft EIR

Sections 3.1 through 3.6 of this chapter describe the environmental setting of the Proposed Project, as evaluated in the EIR, and the impacts that are expected to result from implementation of the Proposed Project. Mitigation measures are proposed to reduce potential impacts, where appropriate. The environmental issues are addressed in the following sections of this chapter:

- Section 3.1, Transportation (TRA)
- Section 3.2, Air Quality (AQ)
- Section 3.3, Greenhouse Gas Emissions (GHG)
- Section 3.4, Noise (NOI)
- Section 3.5, Population and Housing (POP)
- Section 3.6, Utilities and Energy (UTIL)

The preliminary analysis provided in the Initial Study (Appendix 1-1) determined that development of the Proposed Project would not result in significant impacts related to the following environmental topics: aesthetics, agricultural and forestry resources, air quality (conflicts with plans and odors),

biological resources, cultural and tribal cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise (all impacts, except for increases in ambient noise levels), public services, recreation, transportation (changes in air traffic patterns), and utilities and service systems (stormwater and solid waste). Consequently, these issues are not examined in this EIR but are briefly discussed in Chapter 4, Section 4.3, *Effects Found Not to Be Significant*.

Consistency with the City's land use and planning policies, including the City General Plan and the Zoning Ordinance, are discussed in Section 3.10, *Land Use and Planning*, of the Initial Study (Appendix 1-1). It should be noted that, according to CEQA, policy conflicts do not, in and of themselves, constitute a significant environmental impact. Policy conflicts are considered to be environmental impacts only when they result in direct physical impacts or when the conflicts are related to avoiding or mitigating environmental impacts. Any such associated physical environmental impacts are discussed in the Initial Study or appropriate sections of this EIR. Zoning compliance and other policy considerations will be further evaluated by City decision-makers when considering approval of the Proposed Project.

As stated above, this EIR compares the potential environmental impacts of the Proposed Project with the baseline environmental conditions that were in existence at the time the NOP was published (December 10, 2018). In some cases, in accordance with CEQA Guidelines Section 15125(a), it is appropriate to use a different baseline to identify Project impacts and account for circumstances that changed during the course of the environmental review, such as changes since publication of the NOP or completion of the Initial Study. However, even though 3 years have passed since issuance of the NOP and Initial Study for the Proposed Project, the circumstances, as they relate to existing conditions at the Project site as well as the Proposed Project overall, have not changed; therefore, the conclusions reached in the Initial Study are still applicable, and further analysis of the environmental topics that were scoped out in the Initial Study is not required.

Approach to Cumulative Impacts

In addition to the evaluation of project-specific impacts, CEQA also requires an evaluation of cumulative impacts. CEQA defines *cumulative* as "two or more individual effects that, when considered together, are considerable or can compound to increase other environmental impacts." Section 15130 of the CEQA Guidelines requires an EIR to evaluate potential environmental impacts when the project's incremental effect is cumulatively considerable. *Cumulatively considerable* means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. These impacts can result from a combination of a proposed project together with other projects, thereby causing related impacts. The cumulative impact of several projects is the change in the environment that results from the incremental impact of one project when added to other closely related past, present, and reasonably foreseeable probable future projects.

The methodology for assessing cumulative impacts typically varies, depending on the specific topic being analyzed. CEQA requires cumulative impacts to be analyzed with use of either a list of past, present, and probable future projects with related or cumulative impacts or a summary of the projections contained in an adopted local, regional, or statewide plan, or related planning document, that describes or evaluates the conditions that contributed to the cumulative effect. This analysis employs both the list-based approach and projections-based approach, depending on which approach best suits the resource topic being analyzed.

The cumulative land use assumptions include projections by the Association of Bay Area Governments and the Metropolitan Transportation Commission for 2040, with refinements to reflect development projects that are under construction, approved, or pending in Menlo Park. The cumulative land use assumptions also considered ConnectMenlo, which included changes to the City's zoning map and rezoned specific properties to reflect the City General Plan updates, including the new land uses within the Bayfront Area of the city. ConnectMenlo specifically identified the new development potential in the Bayfront Area (i.e., up to 2.3 million gross square feet of non-residential space, 400 hotel rooms, 4,500 residential units, 11,570 residents, and 5,500 employees).[1] The buildout potential for future development is expected to occur over a 24-year buildout horizon (from approximately 2016 to 2040).[2]

The closely related past, present, and reasonably foreseeable probable future projects in Menlo Park that are considered in this Draft EIR are listed in Table 3.0-1 and depicted in Figure 3.0-1, both of which are provided at the end of this section. These are either projects for which the City has an application on file or projects that have been entitled but have not yet begun construction (i.e., at the time when the EIR analysis was initiated [May 2019]).[3] As shown, these projects include new residential, non-residential, and mixed-use projects. Refer to the appropriate discussion in each topic section for a further discussion of the cumulative assumptions relevant to each issue topic.

East Palo Alto is east (across University Avenue) and south (across O'Brien Drive) of the Project site. For topics where the geographical context for cumulative impacts is regional or broader (i.e., air quality, greenhouse gas emissions, population and housing, traffic noise, transportation, wastewater, and energy), the cumulative impact analysis includes past, present, and reasonably foreseeable probable future projects in East Palo Alto. For topics where the geographical context for cumulative impacts is local or limited to the vicinity of the Project site (i.e., construction noise, water), the cumulative impact analysis does not include past, present, and reasonably foreseeable probable future projects in East Palo Alto because such projects would not have the potential to combine with the Proposed Project and result in cumulative impacts.

Throughout this Draft EIR, cumulative impacts are denoted by a "C" (e.g., Impact C-NOI-1). An analysis of cumulative impacts follows the impact evaluation and recommendation for mitigation measures in each section. An introductory statement that defines the cumulative context being analyzed for each respective section (e.g., the city, the San Francisco Bay Area Air Basin) is included at the beginning of each cumulative impact section. In some instances, an impact may be considered less than significant for the Proposed Project by itself but considered potentially significant in combination with development in the surrounding area. Similarly, a potentially significant Project impact may not result in a cumulatively considerable impact.

[1] The ConnectMenlo Final EIR included an evaluation of 4,500 residential units in the Bayfront Area, consisting of 3,000 unrestricted residential units and 1,500 corporate dormitory-style housing units on the Facebook East Campus (also known as the Classic Campus).

[2] Although the ConnectMenlo Final EIR assumed a buildout horizon of 2040, the maximum development potential may be reached sooner than anticipated. However, the ConnectMenlo Final EIR evaluated the maximum development potential that could occur at any given time and did not consider phased buildout of the development potential; therefore, no new or additional impacts are anticipated as a result of the expedited buildout.

[3] This EIR uses the City's May 2019 list of cumulative projects to be consistent with the transportation studies for other proposed development projects in the immediate vicinity of the Project site. Each of these studies was generally initiated at that time.

Organization of This Chapter

Each CEQA topic or environmental issue in this chapter is given its own section, with each containing the subsections listed below.

- **Environmental Setting**—describes the baseline conditions, including the environmental context and background. As discussed in Chapter 2, *Project Description*, the Project site includes a portion of the Menlo Park Labs Campus property at 1305 O'Brien Drive and Lot 3 North in the city of Menlo Park.
- **Regulatory Setting**—describes the federal, state, and local regulations relevant to the impact topic and applicable to construction and operation of the Proposed Project.
- **Environmental Impacts and Mitigation Measures**—presents a discussion of the potential impacts that could result from implementation of the Proposed Project. The section begins with the criteria of significance, which are the thresholds used to determine whether an impact is potentially significant. The latter part of this section presents the potential impacts of the Proposed Project as well as recommended mitigation measures, if necessary. As previously discussed in Chapter 1, *Introduction*, the analysis refers to, and tiers from, the ConnectMenlo EIR, where appropriate. The potential impacts of the Proposed Project are organized into separate categories, based on the criteria listed in each topical section. Cumulative impacts are also addressed.

Table 3.0-1. Cumulative Projects in the City of Menlo Park[a]

ID	Address	Type of Use	Size	Unit	Project Status as of May 2019
	Office/Retail/Commercial/Life Science/etc.				
1	100–155 Constitution Drive (Menlo Gateway)	Office Restaurant	487,244 7,420	gsf gsf	Under Construction
2	1010–1026 Alma Street	Office Retail	25,156 324	gsf gsf	Under Construction
3	1400 El Camino Real (Pollock Group)	Hotel Hotel	61 33,657	rooms gsf	Occupied
4	301–309 Constitution Drive (Facebook Expansion Project)	Office Office Hotel	450,400 512,000 200	gsf gsf rooms	Under Construction Completed Proposed Construction
5	Demolition of Facebook Buildings 307–309	Office R&D Manufacturing	122,556 9,588 191,007	gsf gsf gsf	Demolished
6	150 Jefferson Drive (New Magnet High School)	School School	40,000 400	gsf students	Under Construction
7	2111–2121 Sand Hill Road (Stanford)	Office	39,010	gsf	Proposed Construction
8	1430 O'Brien Drive	R&D Fitness Café	66,583 10,223 7,652	gsf gsf gsf	Occupied
9	40 Middlefield Road	Office	3,584	gsf	Proposed Construction
10	Guild Theatre 949 El Camino Real (Guild Theatre)	Live Entertainment Venue	10,854	gsf	Proposed Construction
11	1105 O'Brien Drive	R&D	132,500	gsf	Proposed Construction
12	162–164 Jefferson Drive (formerly 151 Commonwealth Drive)	Office	249,500	gsf	Proposed Construction
13	555 Willow Road (Boarding House)	Boarding House	16	rooms	Proposed Construction
14	1704 El Camino Real (Hampton Inn)	Hotel	70	rooms	Proposed Construction
15	250 Middlefield Road	Office	3,853	gsf	Proposed Construction
16	3723 Haven Avenue (Hotel Moxy)	Hotel	167	rooms	Proposed Construction

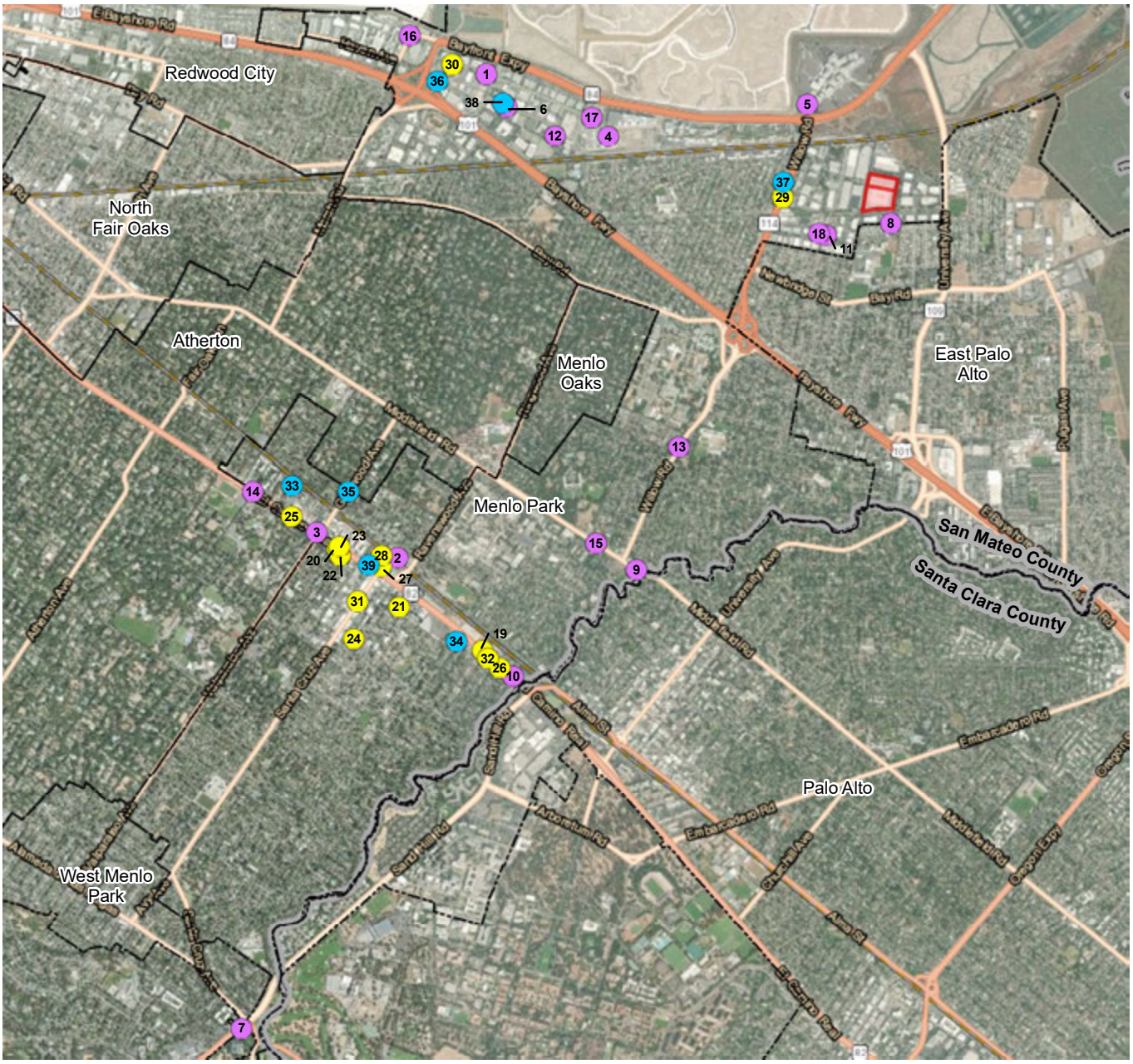
ID	Address	Type of Use	Size	Unit	Project Status as of May 2019
17	301 Constitution Drive (Citizen M Hotel Conditional Development Permit [Amendment])	Hotel	40	rooms	Proposed Construction
18	1075 O'Brien Drive	R&D/Office	100,000	gsf	Proposed Construction
	Mixed Use				
19	500 El Camino Real (Stanford)	Residential Office Retail	215 143,900 10,000	du gsf gsf	Proposed Construction
20	1283–1295 El Camino Real	Residential Office/Retail/Service	15 1,997	du gsf	Under Construction
21	650–660 Live Oak Avenue (Minkoff Group)	Office Residential	16,854 17	gsf du	Under Construction
22	1275 El Camino Real	Residential Office Retail	3 9,334 589	du gsf gsf	Under Construction
23	1300 El Camino Real (Greenheart)	Residential Office Retail/Personal Service	183 203,000 18,600	du gsf gsf	Under Construction
24	840 Menlo Avenue	Residential Office	3 6,610	du gsf	Proposed Construction
25	1540 El Camino Real	Residential Office	27 40,759	du gsf	Proposed Construction
26	115 El Camino Real	Residential Retail	4 1,420	du gsf	Proposed Construction
27	506–556 Santa Cruz Avenue	Residential Retail/Café Office	7 4,617 17,860	du gsf gsf	Under Construction
28	1125 Merrill Street	Residential Office	2 4,366	du gsf	Under Construction

ID	Address	Type of Use	Size	Unit	Project Status as of May 2019
29	1350 Willow Road (Facebook Willow Village)	Residential Office Retail Hotel Community Serving Space	1,735 1,750,000 175,000 250 10,000	du gsf gsf rooms gsf	Proposed Construction
30	110 Constitution Drive and 115 Independence Drive (Menlo Portal)	Residential Office	320 34,708	du gsf	Proposed Construction
31	706–716 Santa Cruz Avenue	Residential Office Retail	4 23,454 12,075	du gsf gsf	Proposed Construction
32	201 El Camino Real	Residential Medical Office Retail Restaurant	14 2,985 2,962 1,200	du gsf gsf gsf	Proposed Construction
	Residential				
33	133 Encinal Avenue (Roger Reynolds)	Residential	24	du	Partially Occupied
34	612 College	Residential	4	du	Occupied
35	409 Glenwood Avenue	Residential	7	du	Proposed Construction
36	111 Independence Drive	Residential	105	du	Proposed Construction
37	1345 Willow Road	Residential	140	du	Proposed Construction
38	141 Jefferson Drive (Menlo Uptown)	Residential	483	du	Proposed Construction
39	1162 El Camino Real	Residential	9	du	Proposed Construction
Total Residential				**3,321**	**du**
Total Non-Residential				**4,783,299**	**gsf**
Total Hotel Rooms				**804**	**rooms**
Total Students				**400**	**students**

Source: City of Menlo Park, 2019. *List of Development Projects Based on Applications Received Before or During May 2019.*

Notes: gsf = gross square feet, du = dwelling unit

[a] Table includes pending and approved projects that have filed a complete development application for five or more net new residential units or 5,000 gsf of net new commercial space.



- Project Site
- City Boundary
- County Boundary

Cumulative Projects

- # Commercial
- # Mixed Use
- # Residential

Commercial

1. 100-155 Constitution Drive (Menlo Gateway)
2. 1010-1026 Alma Street
3. 1400 El Camino Real (Pollock Group)
4. 301-309 Constitution Drive (Facebook Expansion Project)
5. Demolition of Facebook Buildings 307-309
6. 150 Jefferson Drive (New Magnet High School)
7. 2111-2121 Sand Hill Road (Stanford)
8. 1430 O'Brien Drive
9. 40 Middlefield Road
10. 949 El Camino Real (Guild Theatre)
11. 1105 O'Brien Drive
12. 162-164 Jefferson Drive (formerly 151 Commonwealth Drive)
13. 555 Willow Road (Boarding House)
14. 1704 El Camino Real (Hampton Inn)
15. 250 Middlefield Road
16. 3723 Haven Avenue (Hotel Moxy)
17. 301 Constitution Drive (Citizen M Hotel CDP Amendment)
18. 1075 O'Brien Drive

Mixed-Use

19. 500 El Camino Real (Stanford)
20. 1283-1295 El Camino Real
21. 650-660 Live Oak Avenue (Minkoff Group)
22. 1275 El Camino Real
23. 1300 El Camino Real (Greenheart)
24. 840 Menlo Avenue
25. 1540 El Camino Real
26. 115 El Camino Real
27. 506-556 Santa Cruz Avenue
28. 1125 Merrill Street
29. 1350 Willow Road (Facebook Willow Village)
30. 110 Constitution Drive and 115 Independence Drive Menlo Portal
31. 706-716 Santa Cruz Avenue
32. 201 El Camino Real

Residential

33. 133 Encinal Avenue (Roger Reynolds)
34. 612 College Avenue
35. 409 Glenwood Avenue
36. 111 Independence Drive
37. 1345 Willow Road
38. 141 Jefferson Drive (Menlo Uptown)
39. 1162 El Camino Real

0 0.5 1
Miles

N

Figure 3.0-1
Cumulative Projects

Source: Imagery, ESRI 2021; Cumulative Projects, City of Menlo Park 2021.

3.1 Transportation

This section discusses the results of the transportation impact analysis (TIA) conducted for the Proposed Project. Specifically, this section discusses existing and future transportation within the study area, describes the analysis methodology and regulatory framework, identifies the potential transportation-related impacts of the Proposed Project, and outlines recommended mitigation measures for identified significant impacts.

For purposes of disclosing potential transportation impacts, projects in Menlo Park use the City of Menlo Park's (City's) current *Transportation Impact Analysis* (TIA Guidelines) to ensure compliance with both State of California (State) and local requirements.[1] Until July 1, 2020, the City's TIA Guidelines used roadway congestion or level of service (LOS) as the primary study metric for planning and environmental review purposes. However, Senate Bill (SB) 743 required the Governor's Office of Planning and Research (OPR) to establish a new metric for identifying and mitigating transportation impacts under the California Environmental Quality Act (CEQA) in an effort to meet the State's goals to reduce greenhouse gas (GHG) emissions, encourage infill development, and improve public health through more active transportation (e.g., bicycling and walking). CEQA Section 21099(b)(2) states that, upon certification of the revised guidelines for determining transportation impacts, pursuant to CEQA Section 21099(b)(1), automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA. OPR identified vehicle miles traveled (VMT) as the required CEQA transportation metric for determining potentially significant environmental impacts.[2] In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package, including the section regarding implementation of SB 743 (CEQA Guidelines Section 15064.3). OPR developed its *Technical Advisory on Evaluating Transportation Impacts in CEQA* to provide recommendations concerning assessments of VMT, thresholds of significance, and mitigation measures.[3] As of July 1, 2020, VMT, not LOS, is the only legally acceptable threshold for transportation-related environmental impacts, pursuant to CEQA.

Adoption of a local VMT threshold requires Menlo Park City Council (City Council) approval. Therefore, on June 23, 2020, the City Council approved local VMT thresholds for incorporation into the updated TIA Guidelines. The City Council, however, retained a requirement that calls for the TIA to analyze LOS for local planning purposes. Therefore, the TIA includes both an assessment of VMT impacts, using local VMT thresholds included in the updated TIA Guidelines, for purposes of determining potentially significant environmental impacts, pursuant to CEQA, as well as a summary of the LOS analysis for an assessment of local congestion for planning purposes. However, in accordance with SB 743, for purposes of determining potentially significant environmental impacts, this environmental impact report (EIR) will focus on VMT and consider it the only threshold of significance. Because the Menlo Park City Council–approved TIA Guidelines also require an analysis of LOS for local planning purposes, that information is summarized in the non-CEQA analysis at the end of this section.

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1 Menlo Park, City of. 2020a. *Transportation Impact Analysis Guidelines*. July. Available: www.menlopark.org/DocumentCenter/View/302/Transportation-Impact-Analysis-Guidelines?bidId=. Accessed: February 26, 2021.

2 California Office of Planning and Research. 2016. *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* (Implementing Senate Bill 743 [Steinberg, 2013]). January 20.

3 California Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 18. Available: www.opr.ca.gov/docs/ 20190122-743_Technical_Advisory.pdf.

The information in this section is based on travel demand modeling, analyses, and mitigation, if any, developed by Hexagon Transportation Consultants, Inc. The analyses were conducted in accordance with current standards and methodologies, as required by law and set forth by the City of Menlo Park (in its TIA Guidelines), the City of East Palo Alto, and the City/County Association of Governments of San Mateo County (C/CAG). The technical appendices are included in Appendix 3.1, Transportation/Traffic, of this EIR. The appendix includes the LOS analysis summary, turning movement volumes, intersection lane configurations, and intersection and roadway LOS results.

Issues identified in response to the Notice of Preparation (NOP) (Appendix 1-2) were considered in preparing this analysis. The applicable issues involve Project-related trip generation, distribution, and assignment; an expanded list of study intersections; creation of a Transportation Demand Management (TDM) program; mitigation measures; impacts on residents of East Palo Alto; and the Proposed Project's fair-share contribution as part of mitigation measures.

Setting

This section describes existing transportation conditions, including the roadway network, bicycle facilities, pedestrian facilities, and transit service, within the study area. The study area includes properties and transportation network infrastructure within an approximately 0.5-mile radius of the Project site. The applicable regulatory framework is also described.

Existing Transportation and Circulation System

This section describes existing transportation conditions, including the roadway network, bicycle facilities, pedestrian facilities, and transit service, within the study area.

Roadway Network. Primary arterials, minor arterials, collectors, and local streets run through the Project area. Regional access to the Project site is provided via US 101 and State Route (SR) 84. In this transportation analysis, US 101 and all parallel streets are defined as running north to south. Conversely, University Avenue and all parallel streets are defined as running east to west. Descriptions of all roadways in the Project area are provided below, using the roadway classifications from the Menlo Park General Plan and M-2 Area Zoning Update (ConnectMenlo) Circulation Element,[4] followed by the Federal Highway Administration (FHWA) category.

Bayshore Freeway (US 101) is a north–south freeway in the vicinity of the Project site with a posted speed limit of 65 miles per hour (mph). US 101 extends northward through San Francisco and southward through San José. Within Menlo Park and East Palo Alto, US 101 has three general-purpose travel lanes, one high-occupancy vehicle (HOV) lane, and one auxiliary lane in each direction. Access to and from the Project area is provided via full-access interchanges at Willow Road and University Avenue. The Willow Road interchange is partially in Menlo Park and East Palo Alto; the University Avenue interchange is in East Palo Alto.

Bayfront Expressway (SR 84) is a six-lane expressway that extends along the northern edge of Menlo Park with a posted speed limit of 50 mph near the Project site. SR 84 extends eastward across the Dumbarton Bridge into Alameda County and westward through San Mateo County. Bayfront Expressway provides access to the Project area via Willow Road and University Avenue.

Local access to the Project site is provided via Willow Road, University Avenue, O'Brien Drive, Adams Drive, and Adams Court.

[4] Menlo Park, City of. 2016a. *Menlo Park General Plan: ConnectMenlo, Circulation Element*. Table 1. November 29.

University Avenue (SR 109) is an east–west four-lane boulevard (primary arterial) that extends from Stanford University in Palo Alto to Bayfront Expressway in Menlo Park. North of Notre Dame Avenue, University Avenue is a state route with a posted speed limit of 35 mph. Within Menlo Park and East Palo Alto, University Avenue is a four-lane divided roadway with no on-street parking. South of Bay Road, University Avenue has continuous sidewalks on both sides of the street. Between Bay Road and Purdue Avenue, University Avenue has a sidewalk on only one side of the street. Class II bicycle lanes exist on University Avenue, starting just east of Donohoe Street and extending to the location of the future loop road. Between the future loop road and Bayfront Expressway, there is a bike lane on the south side of University Avenue and a separate bikeway on the north side of University Avenue. The posted speed limit on University Avenue east of Notre Dame Avenue is 25 mph. University Avenue provides access to the Project site through Adams Drive and O'Brien Drive.

Willow Road (SR 114) is a four-lane east–west boulevard (primary arterial) that serves as a border between Menlo Park and East Palo Alto in some areas; the majority of the roadway is within the city limits of Menlo Park. Willow Road extends from Alma Street in the west to Bayfront Expressway in the east. Bike lanes are provided on Willow Road between Bayshore Expressway and Bay Road south of US 101. In the vicinity of the Project site, Willow Road is designated as SR 114, with posted speed limit of 40 mph. Willow Road provides access to the Project site via O'Brien Drive.

O'Brien Drive is a north–south two-lane collector street in the Project area, extending from Willow Road in the north to University Avenue in the south. The posted speed limit in the Project area is 30 mph. Sidewalks are missing on most segments of the road, but pedestrian crosswalks are provided at some intersections. Bicycle facilities are not provided. On-street parking is permitted along certain segments of O'Brien Drive. O'Brien Drive provides access to the Project site via Adams Drive.

Adams Drive is a two-lane local street that extends north from University Avenue and then curves to become an east–west street that connects to O'Brien Drive. No sidewalks or bicycle facilities are provided along Adams Drive. The speed limit on Adams Drive is 25 mph. Adams Drive serves as the southern boundary for the Project site and provides direct access to the site.

Adams Court is a two-lane local street that extends from Adams Drive on the south for about 650 feet and ends with a cul-de-sac. There are no sidewalks along Adams Court, and on-street parking is prohibited. Adams Court serves as the eastern boundary for the Project site and provides direct access to the site from a full-access driveway at the end of the cul-de-sac.

Existing Bicycle Facilities

The City's existing bicycle facilities are classified according to the State's system of classification, as identified in the ConnectMenlo Circulation Element:

- Class I (bike path) – A Class I bicycle facility is completely separated from vehicles on a paved right-of-way and commonly known as a bike path.
    - Multi-use Pathway – A Multi-use Pathway is a Class I bicycle facility that allows both bicyclists and pedestrians to use the facility.
- Class II (bike lane) – A Class II bicycle facility is a striped and stenciled lane on an existing right-of-way that is shared with vehicles and commonly known as a bike lane.

- Class III (bike route) – A Class III bicycle facility is identified through signage and/or pavement markings, called "sharrows," indicating that bicyclists and drivers share the same travel lane, and commonly referred to as a bike route.
- Class IV (protected bike lane) – A Class IV bicycle facility is a striped lane with a vertical element, such as bollards or parked cars, physically separating it from the vehicle travel lane and commonly referred to as a protected bike lane.

Existing bicycle facilities near the Project site are shown in Figure 3.1-1.

The San Francisco Bay Trail (Bay Trail), a Class I bike path, runs parallel to University Avenue east of Purdue Avenue. The path provides connections to the East Bay, East Palo Alto, and Redwood City. Class I bike paths are also found on Bayfront Expressway between Marsh Road and Marshlands Road, across the Dumbarton Bridge; Chilco Street between Menlo Park Fire Protection District Station No. 77 and Constitution Drive; and the recreational trails at Bedwell Bayfront Park, the Facebook property along Hacker Way, and the Bay Trail near the Ravenswood Preserve.

Class II facilities (bike lanes) are provided on Willow Road between Bayshore Expressway and Bay Road west of US 101, University Avenue between Donohoe Street and Bayfront Expressway, on both sides of Chilco Street between Constitution Drive and Bayfront Expressway and in the westbound direction between Constitution Drive and Menlo Park Fire Protection District Station No. 77, and Bay Road on the west side of US 101.

Class III facilities (bike routes) are provided on Bay Road in the northbound direction between Fordham Street and Gloria Way, Newbridge Street in the northbound direction between Bay Road and Menalto Avenue, East Bayshore Road between Pulgas Avenue and Embarcadero Road, and Hacker Way.

Class IV facilities (protected bike lanes) are provided on Willow Road between the US 101 northbound and southbound ramps.

Existing Pedestrian Facilities

Pedestrian facilities consist of sidewalks, crosswalks, and pedestrian signals at signalized intersections. The Project site is in a commercial and industrial area. Pedestrian facilities are very limited. There are no sidewalks along any of the surrounding local streets, including Adams Court, Adams Drive, and O'Brien Drive. Sidewalks are provided only along the south side of University Avenue between Notre Dame Avenue and Purdue Avenue. Sidewalks are available on both sides of University Avenue between Notre Dame Avenue and Kavanaugh Drive. West of Kavanaugh Drive, a sidewalk is available only along the north side of University Avenue.

Crosswalks are found on one or more approaches at some of the signalized study intersections. The intersections on University Avenue at Notre Dame Avenue and at Kavanaugh Drive have crosswalks only on the east and west approaches, respectively. The intersection at University Avenue/O'Brien Drive does not have crosswalks. The intersection of University Avenue and Bay Road has crosswalks on all approaches.

Crosswalks are available only at one of the unsignalized intersections in the vicinity of the Project site. The all-way, stop-controlled intersection at Adams Drive and O'Brien Drive has crosswalks on all approaches. The two unsignalized intersections of Adams Drive/Adams Court and University Avenue/Adams Drive do not have crosswalks.

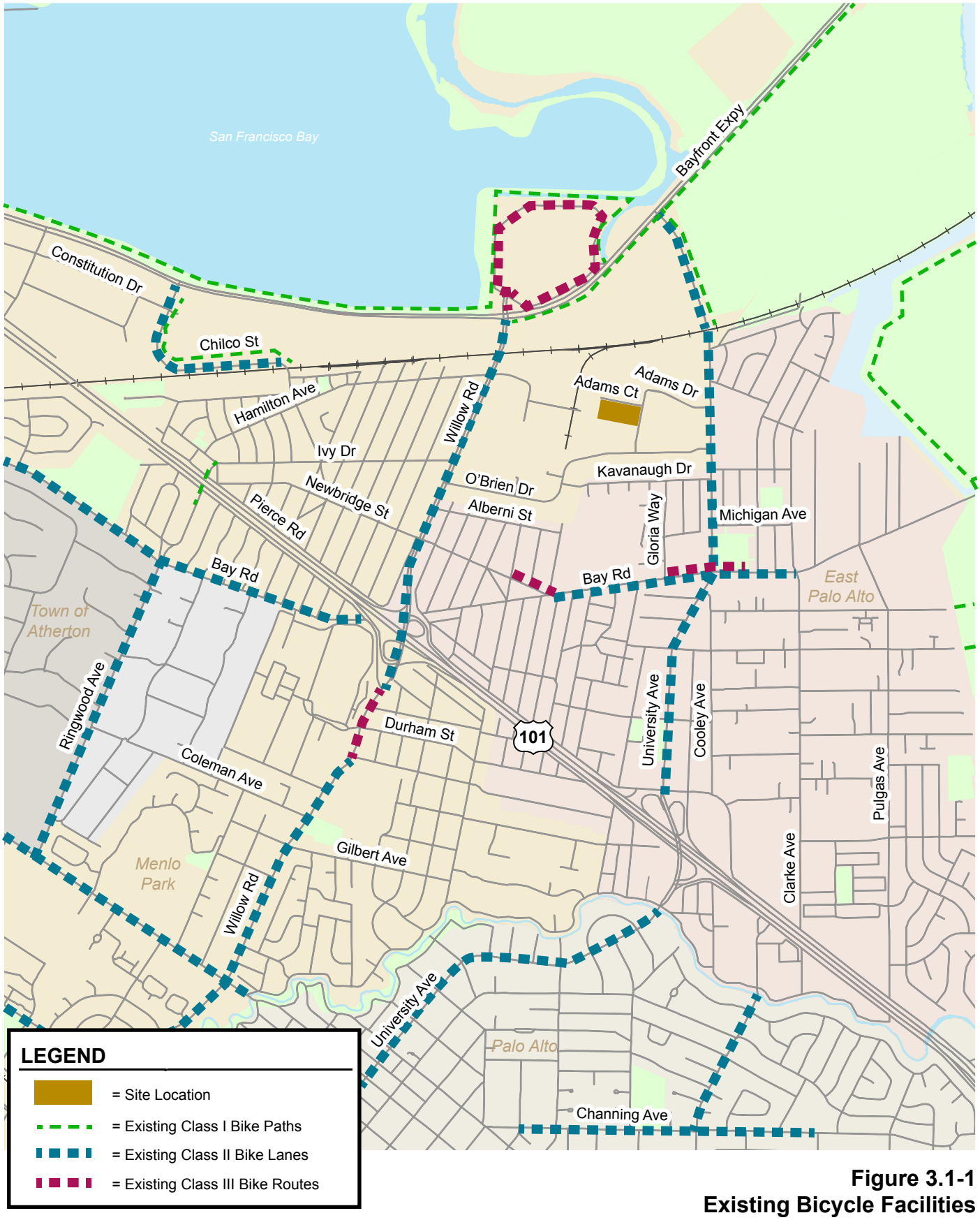


Figure 3.1-1
Existing Bicycle Facilities

Existing bicycle and pedestrian counts were conducted as part of the peak-hour turning movement counts for this study during the weekday a.m. and p.m. peak hours. Pedestrian and bicycle traffic is relatively low within the study area. The counts are included in Appendix 3.1.

Existing Transit Service

Transit service to the study area is provided by the San Mateo County Transit District (SamTrans), AC Transit, and the Menlo Park Shuttle Service. The bus routes that provided services near the Project site in March 2020, prior to the COVID-19 pandemic, are described in Table 3.1-1 and shown in Figure 3.1-2.

Table 3.1-1. Existing Transit Services

Bus Route	Route Description	Traveled Roadways	Closest Bus Stops	Weekday Hours of Operation[a]	Headway
Dumbarton Express Line DB	Union City BART to Stanford University	Dumbarton Bridge, Bayfront Expressway, Willow Road, Middlefield Road	Willow Road and O'Brien Drive	5:20 a.m.–8:45 p.m.	15–75 min
Dumbarton Express Line DB1	Union City BART to Stanford Research Park	Dumbarton Bridge, Bayfront Expressway, Willow Road, US 101	Willow Road and O'Brien Drive	5:25 a.m.–8:35 p.m.	15– 65 min
SamTrans Route 81	Menlo-Atherton High School to Clarke and Bayshore	Middlefield Road, Willow Road, University Avenue, Pulgas Avenue, Kavanaugh Drive, Hamilton Avenue	Kavanaugh Drive and Farrington Way	6:45 a.m.–9:10 a.m. 3:25 p.m.–4:10 p.m.	55– 95 min
SamTrans Route 281	Onetta Harris Center to Stanford Mall	Newbridge Street, Bay Road, University Avenue	Willow Road and Newbridge Street	6:00 a.m.–10:30 p.m.	15–30 min
SamTrans Route 296	Redwood City Transit Center to Palo Alto Transit Center	Middlefield Road, Willow Road, Newbridge Street, Bay Road	Willow Road and Newbridge Street	All Day	20 min
SamTrans Route 397	San Francisco to Palo Alto Transit Center	Middlefield Road, Willow Road, Newbridge Street, Bay Road, University Avenue	Willow Road and Newbridge Street	12:45 a.m.–6:30 a.m.	60 min
M2 Belle Haven Shuttle	Menlo Park Senior Center to Partridge and Kennedy	Middlefield Road, Willow Road, Ivy Drive, Chilco Street, Terminal Avenue	Willow Road and Ivy Drive	6:40 a.m.–5:45 p.m.	90–120 min
M4 Willow Road Shuttle	Menlo Park Caltrain Station to Adams Court	Willow Road, O'Brien Drive, Hamilton Avenue, Hamilton Court, Adams Court	Project site	7:00 a.m.–10:00 a.m. 3:20 p.m.–6:15 p.m.	45–90 min

[a] Approximate weekday hours of operation and headways during peak commute periods in the Project area as of March 2020, prior to the COVID-19 pandemic.

BART = Bay Area Rapid Transit

Analysis Scope and Methodology

For purposes of disclosing potential transportation impacts, projects in Menlo Park use the City's current TIA Guidelines to ensure compliance with both State and local requirements.[5] Until July 1, 2020, the City's TIA Guidelines used roadway congestion or LOS as the primary study metric. However, SB 743 required OPR to establish a new metric for identifying and mitigating transportation impacts under CEQA in an effort to meet the State's goals to reduce GHG emissions, encourage infill development, and improve public health through use of more active transportation (bicycling and walking). Therefore, OPR identified VMT as the required transportation metric. Beginning July 1, 2020, VMT, not LOS, is the legally required threshold for transportation impacts, pursuant to CEQA.

Adoption of a local VMT threshold requires City Council approval. Therefore, on June 23, 2020, the City Council approved VMT thresholds for incorporation into the updated TIA Guidelines. This analysis evaluates VMT impacts using the local VMT thresholds included in the updated TIA Guidelines for purposes of determining potentially significant environmental impacts.

VMT represents the total number of miles of travel generated by a project in a day involving personal motorized vehicles (i.e., cars and light trucks). Specifically, VMT measures the full distance of trips originating or ending within a project site involving personal motorized vehicles. Heavy-duty trucks are not included in VMT modeling. According to OPR guidelines, VMT from heavy-duty trucks can be excluded from the analysis under SB 743.

Project VMT was estimated using the City's 2020 travel demand model, which estimated the Proposed Project's effect on total daily VMT, in accordance with the City's TIA Guidelines. Daily VMT accounts for the entire length of a trip associated with the Proposed Project. For example, the entire length of a trip made by an employee coming from and returning to his or her home would be captured in the daily VMT analysis. In general, the model is used to estimate average daily VMT within Menlo Park's Transportation Analysis Zones (TAZs) and determine VMT thresholds for residential and commercial land uses, as identified in the City's TIA Guidelines.

The Menlo Park travel demand model encompasses the nine Bay Area counties, which are divided into thousands of TAZs. Each TAZ is comprises several streets, neighborhoods, and city blocks, depending on geographical features and surrounding land uses. There are approximately 80 TAZs within the boundaries of Menlo Park. As such, when adding or subtracting a project from a TAZ, internal interactions within the model will affect the entire TAZ as well as surrounding TAZs.

Table 3.1-2 shows existing average daily VMT per employee within Menlo Park (i.e., citywide average) as well as the City's VMT threshold, which is 15 percent below the citywide average. The City adopted this threshold for determining if a project's VMT impacts would be significant. The City's TIA Guidelines outline specific land use types and sizes that are exempt from VMT analysis. The Proposed Project is within the Life Sciences-Bonus (LS-B) zoning district of the Bayfront Area of Menlo Park. The proposed life sciences–related research-and-development (R&D) use would generate more than 100 vehicle trips per day.

The Project site is not categorized as a low VMT area. In addition, it is not within 0.5 mile of an existing "major transit stop" or 0.5 mile of a "high-quality transit corridor." Therefore, the Proposed Projectis not exempt from VMT analysis.

[5] Menlo Park, City of. 2020a. *Transportation Impact Analysis Guidelines*. July. Available: www.menlopark.org/DocumentCenter/View/302/Transportation-Impact-Analysis-Guidelines?bidId=. Accessed: February 26, 2021.

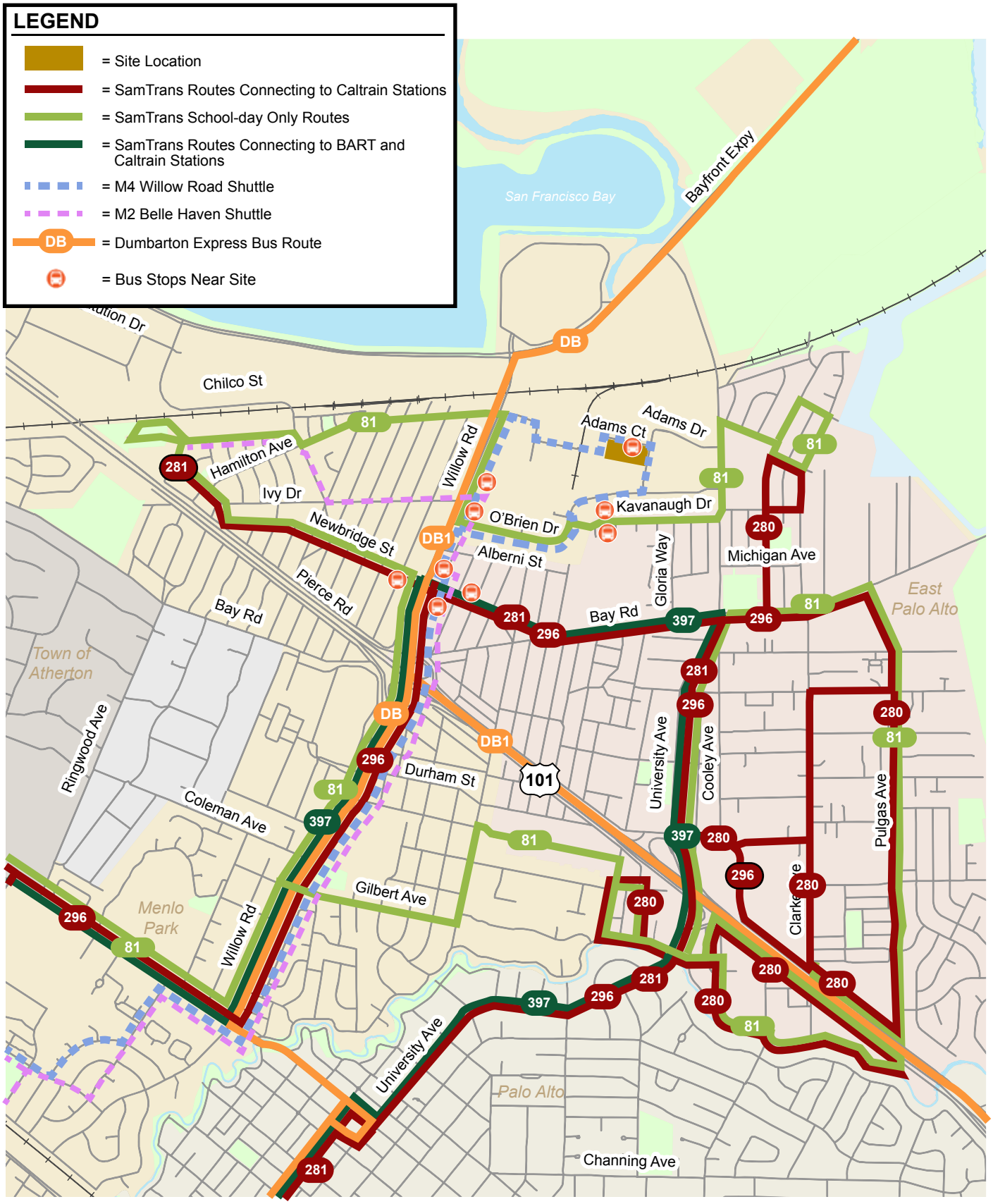


Figure 3.1-2
Existing Transit Services

NORTH
Not to Scale

Table 3.1-2. Average Citywide Vehicle Miles Traveled per Employee

Land Use	Citywide Average	VMT Threshold (15 Percent below Citywide Average)
Office (per employee)	14.9	12.7

Sources:
Menlo Park Travel Demand Model (2020); City of Menlo Park *Transportation Impact Analysis Guidelines* (2020).

Regulatory Framework

The following federal, State, regional, County of San Mateo, and local transportation plans, policies, and regulations guide transportation planning in Menlo Park.

Federal Regulations

This section summarizes applicable federal regulations that guide transportation planning in Menlo Park.

Federal Highway Administration. FHWA is the agency of the U.S. Department of Transportation responsible for the federally funded highway system, including the interstate highway network and portions of the primary State highway network (e.g., Interstate 280, US 101).

Americans with Disabilities Act. The Americans with Disabilities Act (ADA) of 1990 provides comprehensive rights and protection to individuals with disabilities. The goal of the ADA is to ensure equality of opportunity, full participation, independent living, and economic self-sufficiency for people with disabilities. To implement this goal, the U.S. Access Board, an independent federal agency created in 1973 to ensure accessibility for people with disabilities, has created accessibility guidelines for public rights-of-way. Although these guidelines have not been formally adopted, they have been widely followed by jurisdictions and agencies nationwide over the last decade. The guidelines, last revised in July 2011, address various issues, including roadway design practices, slope and terrain issues, and pedestrian access to streets, sidewalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way. The guidelines would apply to proposed roadways in the study area.

State Regulations

This section summarizes applicable State regulations that guide transportation planning in Menlo Park.

California Department of Transportation

The California Department of Transportation (Caltrans) is responsible for the planning, design, construction, and maintenance of all interstate freeways and State routes. Caltrans sets design standards for State roadways, standards that may be used by local governments. Caltrans requirements are described in the agency's *Guide for the Preparation of Traffic Impact Studies*,[6] which covers the information Caltrans needs to review impacts on State highway facilities, including freeway segments, on- and off-ramps, and signalized intersections.

[6] California Department of Transportation. 2002. *Guide for the Preparation of Traffic Impact Studies*. December.

Senate Bill 375

To achieve the statewide emissions reduction goals set by Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, SB 375, the Sustainable Communities and Climate Protection Act of 2008, directs the California Air Resources Board (CARB) to set regional targets for reducing GHG emissions from cars and light trucks. SB 375, using the template provided by the California Regional Blueprint Planning Program, seeks to align transportation and land use planning to reduce VMT through modified land use patterns.

There are five basic directives within SB 375, as follows: 1) the creation of regional targets, which are tied to land use, for GHG emissions reductions; 2) a requirement for regional planning agencies to create a Sustainable Communities Strategy (SCS) to meet the targets, or an alternative planning strategy if the strategies in the SCS would not reach the target set by CARB; 3) a requirement for regional transportation funding decisions to be consistent with the SCS; 4) a requirement for Regional Housing Needs Allocation numbers for municipal general plan housing element updates to conform to the SCS; and 5) CEQA exemptions and streamlining for projects that conform to the SCS. The implementation mechanism for SB 375 that applies to land uses in Menlo Park is Plan Bay Area 2040, adopted by the Association of Bay Area Governments (ABAG) and the Metropolitan Transportation Commission (MTC) in 2017.

Senate Bill 743

SB 743 (CEQA Section 21099[b][1]) requires OPR to develop revisions to the CEQA Guidelines and establish criteria for determining the significance of the transportation impacts of projects that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." CEQA Section 21099(b)(2) states that, upon certification of the revised guidelines for determining transportation impacts, pursuant to CEQA Section 21099(b)(1), automobile delay, as described solely by LOS or similar measures of vehicular capacity or traffic congestion, shall not be considered a significant impact on the environment under CEQA.

In January 2016, OPR published for public review and comment its *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*, recommending that a project's transportation impacts be measured with use of a VMT metric.[7] In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package, including the section regarding implementation of SB 743 (Section 15064.3). OPR developed its *Technical Advisory on Evaluating Transportation Impacts in CEQA* to provide recommendations concerning assessments of VMT, thresholds of significance, and mitigation measures.[8]

Regional Regulations

This section summarizes applicable regional regulations that guide transportation planning in Menlo Park.

[7] California Office of Planning and Research. 2016. *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* (Implementing Senate Bill 743 [Steinberg, 2013]). January 20.

[8] California Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 18. Available: www.opr.ca.gov/docs/ 20190122-743_Technical_Advisory.pdf.

Metropolitan Transportation Commission

The MTC is responsible for planning, coordinating, and financing transportation projects in the nine-county Bay Area. The local agencies within the nine counties help the MTC prioritize projects, based on need, feasibility, and conformance with federal and local transportation policies. In addition to coordinating with local agencies, the MTC distributes federal and State funding through the Regional Transportation Improvement Program (RTIP).

Plan Bay Area 2040

Plan Bay Area 2040 is a state-mandated, integrated long-range transportation and land use plan. As required by SB 375, all metropolitan regions in California must complete a Sustainable Communities Strategy as part of a Regional Transportation Plan. This strategy integrates transportation, land use and housing to meet greenhouse gas reduction targets set by the California Air Resources Board. The plan meets those requirements. In addition, the plan sets a roadmap for future transportation investments and identifies what it would take to accommodate expected growth. The plan neither funds specific transportation projects nor changes local land use policies.

In the Bay Area, the Metropolitan Transportation Commission and the Association of Bay Area Governments adopted the latest plan in 2017. To meet the greenhouse gas reduction targets, the plan identifies priority development areas. The agencies estimate approximately 77 percent of housing and 55 percent of job growth will occur in the priority development areas between 2010 and 2040. The Project site is not located within a priority development area.

City/County Association of Governments of San Mateo County Congestion Management Program

The purpose of the Congestion Management Program (CMP) is to identify strategies to respond to future transportation needs, develop procedures to alleviate and control congestion, and promote countywide transportation solutions. The CMP is required to be consistent with the MTC planning process, which includes regional goals, policies, and projects for the RTIP. To monitor attainment of the CMP, the C/CAG adopted roadway LOS standards. The LOS standards established for San Mateo County vary by roadway segment and conform to current land use plans and development differences in various areas of San Mateo County (e.g., the coast, bayside, older downtown areas). Although the intersections associated with development of the Proposed Project are monitored by the C/CAG for compliance with CMP standards, most of the intersections are within Menlo Park and East Palo Alto city limits and subject to the more stringent standards implemented by the cities.

The CMP also requires new developments that are projected to generate 100 or more peak-hour trips to implement TDM measures to reduce impacts. The Proposed Project would generate more than 100 peak-hour trips, as discussed above. Based on the requirements of the C/CAG, the Proposed Project would be required to develop and implement TDM measures to reduce the number of vehicle trips.

San Mateo County Comprehensive Bicycle and Pedestrian Plan

The San Mateo County Comprehensive Bicycle and Pedestrian Plan was developed by the C/CAG, with support from the San Mateo County Transportation Authority, to address the planning, design, funding, and implementation of bicycle and pedestrian projects countywide. The following are relevant goals and policies:

Goal 2: More People Riding and Walking for Transportation and Recreation

- **Policy 2.6**: Serve as a resource to county employers on promotional information and resources related to bicycling and walking.

Goal 4: Complete Streets and Routine Accommodation of Bicyclists and Pedestrians

- **Policy 4.1**: Comply with the Complete Streets policy requirements of Caltrans and the Metropolitan Transportation Commission concerning safe and convenient access for bicyclists and pedestrians, and assist local implementing agencies in meeting their responsibilities under the policy.
- **Policy 4.5**: Encourage local agencies to adopt policies, guidelines, standards, and regulations that result in truly bicycle-friendly and pedestrian-friendly land use developments, and provide them technical assistance and support in this area.
- **Policy 4.6**: Discourage local agencies from removing, degrading, or blocking access to bicycle and pedestrian facilities without providing a safe and convenient alternative.

City of Menlo Park

This section summarizes applicable City of Menlo Park regulations that guide transportation planning in the city.

ConnectMenlo

Transportation-related policies are included in the Circulation Element of ConnectMenlo. This section was added to provide a framework for transportation planning within the city and most recently updated in 2016 when the City updated its Land Use and Circulation Elements. The framework is based on existing practices and future considerations in land use, population, and regional transportation. The Circulation Element establishes a vision for the city, with goals related to sustainability, reliability, and safety for all modes of transportation. The transportation goals for Menlo Park that relate to the Proposed Project include:

Goal CIRC-1: Provide and maintain a safe, efficient, attractive, user-friendly circulation system that promotes a healthy, safe, and active community and quality of life throughout Menlo Park.

Policy CIRC-1.7: Bicycle Safety. Support and improve bicyclist safety through roadway maintenance and design efforts.

Policy CIRC-1.8: Pedestrian Safety. Maintain and create a connected network of safe sidewalks and walkways within the public right-of-way, ensuring that appropriate facilities, traffic controls, and street lighting are provided for pedestrian safety and convenience, including for sensitive populations.

Goal CIRC-2: Increase accessibility for and use of streets by pedestrian, bicyclists, and transit riders.

Policy CIRC-2.1: Accommodating All Modes. Plan, design, and construct transportation projects to safely accommodate the needs of pedestrians, bicyclists, transit riders, motorists, people with mobility challenges, and persons of all ages and abilities.

Policy CIRC-2.2: Livable Streets. Ensure that transportation projects preserve and improve the aesthetics of the city.

Policy CIRC-2.3: Street Classification. Utilize measurements of safety and efficiency for all travel modes to guide the classification and design of the circulation system, with an emphasis on providing "complete streets" sensitive to neighborhood context.

Policy CIRC-2.4: Equity. Identify low-income and transit-dependent districts that require pedestrian and bicycle access to, from, and within their neighborhoods.

Policy CIRC-2.7: Walking and Biking. Provide for the safe, efficient, and equitable use of streets by pedestrians and bicyclists through appropriate roadway design and maintenance, effective traffic law enforcement, and implementation of the City's Transportation Master Plan (following completion; until such time, the Comprehensive Bicycle Development Plan, Sidewalk Master Plan, and the El Camino Real/Downtown Specific Plan represent the City's proposed walking and bicycling networks).

Policy CIRC-2.8 Pedestrian Access at Intersections. Support full pedestrian access across all legs of signalized intersections.

Policy CIRC-2.9 Bikeway System Expansion. Expand the citywide bikeway system through appropriate roadway design, maintenance, effective traffic law enforcement, and implementation of the City's Transportation Master Plan (following completion; until such time, the Comprehensive Bicycle Development Plan and the El Camino Real/Downtown Specific Plan represent the City's proposed bicycle network).

Policy CIRC-2.10 Green Infrastructure. Maximize the potential to implement green infrastructure by a) reducing or removing administrative, physical, and funding barriers; b) setting implementation priorities, based on stormwater management needs as well as the effectiveness of improvements and the ability to identify funding; and c) taking advantage of opportunities such as grant funding, routine repaving or similar maintenance projects, funding associated with Priority Development Areas, public private partnerships, and other funding opportunities.

Policy CIRC-2.11 Design of New Development. Require new development to incorporate a design that prioritizes safe pedestrian and bicycle travel and accommodates senior citizens, people with mobility challenges, and children.

Policy CIRC-2.14 Impacts of New Development. Require new development to mitigate its impacts on the safety (e.g., collision rates) and efficiency (e.g., VMT per capita) of the circulation system. New development should minimize cut-through and high-speed vehicle traffic on residential streets; minimize the number of vehicle trips; provide appropriate bicycle, pedestrian, and transit connections, amenities, and improvements in proportion with the scale of proposed projects; and facilitate appropriate or adequate response times and access for emergency vehicles.

Goal CIRC-3: Increase mobility options to reduce traffic congestion, greenhouse gas emissions, and commute travel time.

Policy CIRC-3.1 Vehicle Miles Traveled. Support development and transportation improvements that help reduce per capita vehicle miles traveled.

Policy CIRC-3.2 Greenhouse Gas Emissions. Support development, transportation improvements, and emerging vehicle technology that help reduce per capita greenhouse gas emissions.

Policy CIRC-3.4: Level of Service. Strive to maintain LOS D at all City-controlled signalized intersections during peak hours, except at the intersection of Ravenswood Avenue and Middlefield Road and at intersections along Willow Road from Middlefield Road to US 101. The City shall work with Caltrans to ensure that average stop delay on local approaches to State-controlled signalized intersections does not exceed LOS E.

Goal CIRC-4: Improve Menlo Park's overall health, wellness, and quality of life through transportation enhancements.

Policy CIRC-4.1 Global Greenhouse Gas Emissions. Encourage the safer and more widespread use of nearly zero-emission modes, such as walking and biking, and lower-emission modes, such as transit, to reduce greenhouse gas emissions.

Policy CIRC-4.2 Local Air Pollution. Promote non-motorized transportation to reduce exposure to local air pollution, thereby reducing risks associated with respiratory diseases and other chronic illnesses and premature death.

Policy CIRC-4.3 Active Transportation. Promote active lifestyles and active transportation, focusing on the role of walking and bicycling, to improve public health and lower obesity.

Policy CIRC-4.4 Safety. Improve traffic safety by reducing speeds and making drivers more aware of other roadway users.

Goal CIRC-6: Provide a range of transportation choices for the Menlo Park community.

Policy CIRC-6.1 Transportation Demand Management. Coordinate Menlo Park's Transportation Demand Management efforts with other agencies providing similar services within San Mateo and Santa Clara counties.

Policy CIRC-6.4 Employers and Schools. Encourage employers and schools to promote walking, bicycling, carpooling, shuttles, and transit use.

Menlo Park Municipal Code

The Proposed Project is in the LS-B zoning district. The City Zoning Ordinance requires development and implementation of a TDM plan, as follows:

> Chapter 16.45.090, Transportation Demand Management. As stated in Chapter 16.45.090 of the City's Zoning Ordinance, all new construction, regardless of size, and building additions of 10,000 or more square feet of gross floor area, or a change of use of 10,000 or more square feet of gross floor area, shall develop a TDM plan to reduce associated vehicle trips to at least 20 percent below standard generation rates for uses on a project site.
>
> The *Transportation Demand Management Program Guidelines*[9] provide options for the City to mitigate the traffic impacts of new developments. The guidelines include an extensive list of TDM measures, accompanied with the number of trips credited to each measure and the rationale for each measure. The list of recommended measures and the associated trip credit is maintained by the C/CAG as part of the San Mateo County CMP and is as follows:

[9] Menlo Park, City of. 2015. *Transportation Demand Management Program Guidelines*. Adopted: July 21. Available: www.menlopark.org/DocumentCenter/View/303/Transportation-Demand-Management-TDM-Guidelines. Accessed: September 24, 2020.

1. Eligible TDM measures may include, but are not limited to:
    - Participation in a local transportation management association (TMA) that provides documented, ongoing support for alternative commute programs;
    - Appropriately located transit shelter(s);
    - Preferred parking for carpools or vanpools;
    - Designated parking for car-share vehicles;
    - Paid parking;
    - Public and/or private bike-share program;
    - Provision or subsidy of carpool, vanpool, shuttle, or bus service, including transit passes for site occupants;
    - Required alternative work schedules and/or telecommuting;
    - Passenger loading zones for carpools and vanpools at main building entrance;
    - Safe, well-lit, accessible, and direct route to the nearest transit or shuttle stop or dedicated, fully accessible bicycle and pedestrian trail;
    - Car-share membership for employees or residents;
    - Emergency ride-home programs;
    - Green trip certification.
2. Measures receiving TDM credit shall be:
    - Documented in a TDM plan developed specifically for each project and noted on project site plans, if and as appropriate;
    - Guaranteed to achieve the intended reduction over the life of the development, as evidenced by annual reporting provided to the satisfaction of the City's transportation manager;
    - Required to be replaced by appropriate substitute measures if unable to achieve intended trip reduction in any reporting year—failure to do so will result in revocation of permit;
    - Administered by a representative whose updated contact information is provided to the transportation manager.

Complete Streets Policy. The Complete Streets Policy was adopted by the City in 2013. The policy confirms the City's commitment to provide safe, comfortable, and convenient travel along and across streets for all users. Complete Streets infrastructure should be considered for incorporation into all significant planning, funding, design, approval, and implementation processes for new, maintenance, and retrofit construction.

Neighborhood Traffic Management Plan. The Neighborhood Traffic Management Plan was developed to mitigate the adverse effects of increased vehicle speeds and vehicle volumes on neighborhood streets. The primary goal of this plan is to correct unsafe conditions at prioritized locations with higher incidences and higher speeds. The plan recommends two levels of measures, Level I "Express" and Level II. Level I "Express" measures include education and enforcement initiatives, and Level II measures are traffic management features that can be

implemented to divert traffic and restrict access to certain properties. The traffic management measures that need to be implemented are recommended by City staff members at the request of the community.

Transportation Master Plan. The Transportation Master Plan identifies appropriate projects to enhance the transportation network and prioritizes projects based on need for implementation. It includes an update to the City's Bicycle and Sidewalk Plans.

Transportation Impact Fee. The City of Menlo Park initiated a Transportation Impact Fee (TIF), codified in Menlo Park Municipal Code Chapter 13.26, to help fund transportation improvements as new development occurs in the city. New development and redevelopment projects are subject to the TIF to contribute to the cost of new transportation infrastructure associated with the development. The types of developments that are subject to the TIF are:

- All new development in all land use categories identified in the City's Zoning Ordinance,
- Any construction adding additional floor area to a lot with an existing building,
- New single-family and multi-family dwelling units, and
- Changes of use from one land use category to a different land use category that requires Planning Commission approval.

The TIF provides a mechanism to modernize the City's fee program to collect funds toward construction of the improvements identified and prioritized in the Transportation Master Plan.

Transportation Impact Analysis Guidelines. The City's TIA Guidelines specify which projects must complete a TIA prior to obtaining approval from the City. The City requires that a TIA be prepared by a qualified consultant selected by the City and paid for by the Project Sponsor. The TIA Guidelines also specify the requirements of the analyses that must be included in a TIA. The TIA Guidelines require analysis of both VMT and LOS transportation metrics independently, using the methodologies approved by the City for all projects, except those meeting established exemption criteria.

Impacts and Mitigation Measures

This section analyzes the potential of the Proposed Project to result in impacts on the transportation network. The section begins with the criteria of significance, which establish the thresholds used to determine whether an impact would be significant. The analysis below makes reference to, and tiers from, the ConnectMenlo Final EIR, where appropriate. The findings presented in the ConnectMenlo Final EIR are presented prior to the impact analysis. The latter part of this section presents the impacts associated with implementation of the Proposed Project and identifies mitigation measures, as appropriate.

Significance Criteria

The Proposed Project would result in a significant impact related to transportation if it would:

- Conflict with an applicable plan, ordinance, or policy, including the CMP, concerning all components of the circulation system;
- Exceed an applicable VMT threshold of significance;
- Substantially increase hazards due to a design feature or incompatible uses; or
- Result in inadequate emergency access.

ConnectMenlo Final EIR Impacts

The following provides an overview of impacts on transportation and circulation and required mitigation measures, as identified in the ConnectMenlo Final EIR. The assessment of transportation and circulation impacts in the ConnectMenlo Final EIR included the Project site as part of the citywide analysis. The ConnectMenlo Final EIR identified the program-level impacts outlined below related to implementation of the Land Use and Circulation Elements and M-2 Area Zoning Update, which revised the Project site's zoning from M-2 (General Industrial) to LS-B (Life Science, Bonus) in 2016.

Roadway Segments

As noted in the Regulatory Framework discussion above, CEQA no longer considers automobile delay, including roadway segment LOS, to be an environmental impact. Therefore, the following ConnectMenlo Final EIR impact summary is provided for informational purposes.

The ConnectMenlo Final EIR found that implementation of ConnectMenlo would generate additional vehicle trips on the local roadway network, resulting in significant impacts on some study segments. Mitigation Measure TRANS-1a would require the widening of affected roadway segments at appropriate locations throughout the city to add travel lanes and capacity and accommodate the increase in the number of net daily trips. Although implementation of Mitigation Measure TRANS-1a would reduce impacts, the impacts would not be reduced to a less-than-significant level. The mitigation measure could require an additional right-of-way that is not under the jurisdiction of the City and considered infeasible at most locations. In addition, the widening of roadways may lead to secondary impacts, such as induced travel demand. Fully mitigating the impacts to less-than-significant levels would not be feasible because it would require eliminating most of the 2040 traffic growth on affected segments. For these reasons, impacts on roadway segments would be considered significant and unavoidable.

Intersections

As noted in the Regulatory Framework discussion above, CEQA no longer considers automobile delay, including intersection LOS, to be an environmental impact. The ConnectMenlo Final EIR impact summary below is provided for informational purposes.

The ConnectMenlo Final EIR found that implementation of ConnectMenlo would generate additional vehicle trips on the local roadway network, resulting in significant impacts on some study intersections. Mitigation Measure TRANS-1b would update the City's TIF program to secure a funding mechanism for future roadway and infrastructure improvements and mitigate impacts from future projects, based on the current standards at the time the Final EIR is certified. However, the mitigation measure would not reduce the impacts to less-than-significant levels. In addition, the City could not guarantee improvements at the affected intersections because the nexus study had not been prepared, some improvements could cause secondary environmental impacts that would need to be addressed prior to construction, and some affected intersections would be under the jurisdiction of the City of East Palo Alto and Caltrans. For these reasons, impacts on intersections would be considered significant and unavoidable.

Subsequently, the City's TIF program was updated and approved by the City Council. In addition, the City's Transportation Master Plan was updated and adopted by the City Council on November 17, 2020.

Routes of Regional Significance

As noted in the Regulatory Framework discussion above, CEQA no longer considers automobile delay, including routes of regional significance, to be an environmental impact. The following ConnectMenlo Final EIR impact summary is provided for informational purposes.

The ConnectMenlo Final EIR found that implementation of ConnectMenlo would generate additional vehicle trips on the local roadway network, resulting in significant impacts on routes of regional significance. Mitigation Measure TRANS-1a would require the widening of affected roadway segments at appropriate locations throughout the city to add travel lanes and capacity and accommodate the increase in the number of net daily trips. Although implementation of Mitigation Measure TRANS-1a would reduce the impacts, the impacts would not be reduced to a less-than-significant level. The mitigation measure could require an additional right-of-way that is not under the jurisdiction of the City. It would also be limited by downstream capacity on facilities such as US 101 and Dumbarton Bridge. As such, the mitigation was considered infeasible at most locations. For these reasons, impacts on routes of regional significance were considered significant and unavoidable.

Bicycle and Pedestrian Facilities

The ConnectMenlo Final EIR found that implementation of ConnectMenlo would not provide adequate pedestrian or bicycle facilities with the ability to connect to the area-wide circulation system. Mitigation Measure TRANS-6a would update the City's TIF program to secure a funding mechanism for future pedestrian and bicycle improvements and mitigate impacts from future projects, based on the current standards at the time the Final EIR is certified. However, the mitigation measure would not reduce the impacts to less-than-significant levels. In addition, the nexus study had not yet been prepared, the City could not guarantee the improvements, and no additional mitigation measures were feasible and available. For these reasons, impacts on bicycle and pedestrian facilities were considered significant and unavoidable.

Subsequently, the City's TIF program was updated and approved by the City Council. In addition, the City's Transportation Master Plan was updated, and the City Council approved the updated plan on November 17, 2020.

Transit

The ConnectMenlo Final EIR found that implementation of ConnectMenlo would generate a substantial increase in the number of transit riders, a number that could not be adequately serviced by existing public transit services. Furthermore, implementation of ConnectMenlo would generate a demand for transit services at sites more than 0.25 mile from existing public transit routes. Mitigation Measure TRANS-6b would update the City's existing Shuttle Fee program to guarantee funding for operation of the City-sponsored shuttle service, which would be necessary to mitigate impacts from future projects, based on then-current City standards. Implementation of Mitigation Measure TRANS-6b would reduce impacts but not to a less-than-significant level. In addition, the nexus study had not yet been prepared, the City could not guarantee the improvements, and no additional mitigation measures were feasible and available. For these reasons, impacts on transit were considered significant and unavoidable.

The ConnectMenlo Final EIR found that implementation of ConnectMenlo would increase peak-hour traffic delay at intersections on Bayfront Expressway, University Avenue, and Willow Road, which could decrease the performance of transit service and increase the cost of transit operations. Mitigation Measure TRANS-6c could result in the provision of transit service on the Dumbarton Corridor and mitigate

the impact. However, because the provision of Dumbarton transit service would require approval of other public agencies and would not be under the jurisdiction of the City, implementation of this mitigation could not be guaranteed. No additional mitigation measures were feasible and available. For these reasons, impacts on transit were considered significant and unavoidable.

Vehicle Miles Traveled

Until July 1, 2020, the City's TIA Guidelines used roadway congestion or LOS as the primary study metric. However, on June 23, 2020, the City Council approved VMT thresholds for incorporation into the updated TIA Guidelines. Although the ConnectMenlo Final EIR did include an evaluation of VMT impacts, the VMT standards applied in the ConnectMenlo Final EIR differed from those adopted under the updated TIA Guidelines.

The ConnectMenlo Final EIR found that implementation of ConnectMenlo would not exceed the VMT threshold of significance and would result in less-than-significant impacts with respect to VMT.

Hazards

The ConnectMenlo Final EIR found that future developments and roadway improvements would be designed according to City standards and subject to existing regulations, which are aimed at reducing hazardous conditions as they relate to circulation. Adoption of ConnectMenlo would result in less-than-significant impacts with respect to hazards due to design features or incompatible uses.

Emergency Access

The ConnectMenlo Final EIR found that ConnectMenlo policies that would ensure efficient circulation and adequate access in the city, which would facilitate emergency response operations. Implementation of ConnectMenlo would result in less-than-significant impacts with respect to inadequate emergency access.

Cumulative Conditions

The ConnectMenlo Final EIR found that cumulative impacts on the transportation network would be the same as those identified above for each topic.

Proposed Project

As discussed in Chapter 2, *Project Description*, the Project proposes to construct up to 260,400[10] square feet of building area for life science–related R&D uses. Parking would be provided in two parking garages, a three-level aboveground garage and a one-level basement garage. Vehicular access to the Project site would be provided from full-access driveways on Adams Drive and at the end of Adams Court. A curved driveway leading from Adams Court to the entry plaza and visitors' parking area would also be provided.

[10] Preparation of the transportation analysis was based on an earlier project description that included a 260,400-square-foot building area. In subsequent iterations of the project plans, the size of the project has varied between 255,000 and 260,400 square feet. This variation in project size does not affect the analysis provided in the report's conclusions regarding project impacts related to VMT or the project's effect on intersection operations. To provide a more conservative analysis, evaluation of the project will continue to be based on the potential for 260,400 square feet of gross floor area.

Proposed Transportation Demand Management Plan

The Project Sponsor would implement a TDM plan as part of the Proposed Project in an effort to reduce Project-generated vehicle trips and encourage travel by modes other than cars and light trucks.[11] In compliance with Chapter 16.45.090 of the City's Zoning Ordinance and the City's TIA Guidelines, the TDM plan would include the following to reduce the number of Project-generated vehicle trips and encourage travel by other modes:

- Bicycle storage
- Showers/changing rooms
- Subsidized transit tickets (Go Pass for Caltrain)
- Preferential carpool parking
- Commute assistance center (computer kiosk connected to internet)
- Bike-share program
- Enterprise car-share program
- Shuttle stop
- Electric-vehicle charging stations

The Project Sponsor has prepared TDM plans for buildings in the vicinity that are similar to the building proposed by the Project. Furthermore, it has managed TDM programs for multiple buildings, which may result in increased effectiveness for individual projects. However, to maintain a conservative approach, no assumptions were made regarding increased efficiency due to centralized operations when modeling the Proposed Project's TDM plan. Section 16.44.090(2)(B) of the Menlo Park Municipal Code requires monitoring and preparation of an annual report for the City's transportation manager to ensure the continued effectiveness of the TDM program.

TDM effectiveness for the building at 1305 O'Brien Drive, which is operated by the Project Sponsor for the Proposed Project, has been monitored since 2018. Vehicular traffic at each driveway was counted in 2018, 2019, and 2020 as part of the TDM monitoring process. According to the monitoring, the TDM plan for 1305 O'Brien Drive achieved a 32 to 40 percent reduction in the number of trips in the a.m. and p.m. peak hours in 2018 and 2019. Results from 2020 TDM monitoring were not used because of the impact of COVID-19. A similar project from Tarlton Properties achieved a 40 percent reduction in the number of trips, suggesting that a high trip reduction is achievable. Modeling for the TDM plan showed that, although not precisely equal, TDM measures have a similar effect on both VMT reduction and trip reduction, suggesting that a high VMT reduction is also achievable (Appendix 3.1). However, to maintain a conservative analysis for the Proposed Project, although the TDM memorandum shows a trip generation reduction in the neighborhood of 27 to 33 percent, the analysis in this section uses 20 percent for trip reduction, as required by Menlo Park Municipal Code.

Trip Generation

Through empirical research, data have been collected that quantify the amount of traffic produced by various types of land uses. The data are compiled in the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, tenth Edition (2017). The magnitude of traffic added to the roadway system by a development is estimated by multiplying the applicable trip generation rates by the size of the

[11] Kimley Horn, Inc. 2021. *Transportation Demand Management Memorandum for 1350 Adams Court*. April 8.

development. The trip generation rates published for "research and development center" (Land Use Code 760) were used to estimate the number of trips generated by the Proposed Project. Based on the ITE rates, the Proposed Project would generate 109 gross new a.m. peak-hour trips and 128 gross new p.m. peak-hour trips.

The Proposed Project would be required to develop a comprehensive TDM plan to reduce the number of vehicle trips by 20 percent, per the Menlo Park Municipal Code (Chapter 16.45.090, Transportation Demand Management). Therefore, this analysis assumes that the Project site will achieve, at a minimum, a 20 percent reduction in the number of peak-hour trips. After applying the minimum TDM trip reductions required by the Menlo Park Municipal Code, the Proposed Project would be expected to generate a net total of 2,346 daily trips, with 87 trips (66 in and 21 out) during the a.m. peak hour and 102 trips (15 in and 87 out) during the p.m. peak hour (see Table 3.1-3).

Table 3.1-3. Project Trip Generation Estimates

Land Use	Size	Unit	Daily Rate	Daily Trips	Peak Rate	Trips In	Trips Out	Total Trips	Peak Rate	Trips In	Trips Out	Total Trips
Proposed Project												
R&D[a]	260.4	ksf	11.26	2,932	0.42	82	27	109	0.49	19	109	128
Reductions												
20% TDM Trip Reduction				(586)		(16)	(6)	(22)		(4)	(22)	(26)
Project Total				2,346		66	21	87		15	87	102

Source: Institute of Transportation Engineers, *Trip Generation*, 10th edition.

a. Land Use Code 760: Research and Development Center (average rates, expressed in trips per 1,000 square feet of gross floor area).

ksf = thousand square feet

Project Impacts

This section analyzes potential Project-specific and cumulative impacts on the transportation and circulation network in the study area.

Impact TRA-1. The Proposed Project would not conflict with an applicable plan, ordinance, or policy, including the CMP, concerning all components of the circulation system. (LTS)

This section discusses the Proposed Project's impacts related to conflicts with applicable plans, ordinances, and policies. As discussed in more detail below, for CEQA purposes, the Proposed Project would be consistent with applicable plans, ordinances, and policies concerning the circulation system, as shown in Table 3.1-4. Therefore, impacts would be less than significant.

Table 3.1-4. Project Compliance with Applicable Transportation-Related Plans, Ordinances, and Policies

Plan/Ordinance/Policy	Project Consistency
Plan Bay Area 2040	***Consistent.*** The Proposed Project would be consistent with Plan Bay Area 2040 goals and performance targets for transportation system effectiveness. Specifically, the Proposed Project would increase non-auto mode share. The Proposed Project would develop a new R&D facility near existing residential and commercial uses, thereby reducing the demand for travel by single-occupancy vehicles. The Proposed Project would also develop and implement a TDM plan to provide trip reduction measures and reduce vehicle traffic in and around the Project site. In addition, the Project area is served by public transit facilities, and bicycle and pedestrian facilities would be provided, which would also help to reduce the demand for travel by single-occupancy vehicles.
C/CAG Congestion Management Program	***Consistent.*** The Proposed Project is evaluated in this section for compliance with the C/CAG CMP roadway LOS standard. At locations where implementation of the Proposed Project would cause intersections to operate in non-compliance, measures have been identified that could bring the Proposed Project into conformance. LOS is no longer a CEQA threshold. This analysis is provided for informational and planning purposes only. The Proposed Project would generate more than 100 peak-hour trips. Therefore, it would be required to implement a TDM plan.
San Mateo County Comprehensive Bicycle and Pedestrian Plan	
Policy 2.6: Serve as a resource to county employers on promotional information and resources related to bicycling and walking.	***Consistent***. The Proposed Project would implement a TDM plan,[12] including an online kiosk with information regarding transportation, carpool/vanpool services, bike storage spaces and lockers, showers/changing rooms, subsidized transit tickets (Caltrain), and preferential carpool parking. As such, the Proposed Project would serve as a resource for employers through its promotional information and resources related to bicycling and walking.
Policy 4.1: Comply with the Complete Streets policy requirements of Caltrans and the Metropolitan Transportation Commission concerning safe and convenient access for bicyclists and pedestrians and assist local implementing agencies in meeting their responsibilities under the policy	***Consistent.*** The Proposed Project would provide safe and convenient access for bicyclists and pedestrians and comply with the Complete Streets policy requirements of Caltrans and the MTC.

[12] Ibid.

Plan/Ordinance/Policy	Project Consistency
City of Menlo Park Circulation Element of the General Plan, Transportation Element	
Circ-1.7: Bicycle Safety. Support and improve bicyclist safety through roadway maintenance and design efforts.	***Consistent.*** The Proposed Project would provide safe and convenient access for bicyclists and improve bicyclist safety through design efforts, including provision of secure short- and long-term onsite parking.
Circ-1.8: Pedestrian Safety. Maintain and create a connected network of safe sidewalks and walkways within the public right-of-way and ensure that appropriate facilities, traffic control, and street lighting are provided for pedestrian safety and convenience, including for sensitive populations.	***Consistent.*** The Proposed Project would provide safe and convenient access for pedestrians and improve pedestrian safety through design efforts, including construction of a new section of public sidewalk along Adams Drive and Adams Court. Within the site, pedestrian walkways would be incorporated around the building to connect the site to public streets.
Circ-2.1: Accommodating All Modes. Plan, design, and construct transportation projects to safely accommodate the needs of pedestrians, bicyclists, transit riders, motorists, people with mobility challenges, and persons of all ages and abilities.	***Consistent.*** The Proposed Project would plan, design, and construct site access and circulation to provide safe and convenient access for pedestrians, bicyclists, transit riders, drivers, people with mobility challenges, and people of all ages and abilities.
Circ-2.2: Livable Streets. Ensure that transportation projects preserve and improve the aesthetics of the city.	***Consistent.*** The Proposed Project would plan, design, and construct site improvements that would preserve and improve the aesthetics of the site.
Circ-2.7: Walking and Biking. Provide for the safe, efficient, and equitable use of streets by pedestrians and bicyclists through appropriate roadway design and maintenance, effective traffic law enforcement, and implementation of the Transportation Master Plan.	***Consistent.*** The Proposed Project would provide for the safe, efficient, and equitable use of streets by pedestrians and bicyclists through appropriate design and maintenance. The Proposed Project would provide safe and convenient access for bicyclists and improve bicyclist safety through design efforts, including the provision of short- and long-term onsite parking and the construction of a new section of public sidewalk along Adams Drive and Adams Court. Within the site, pedestrian walkways would be incorporated around the building to connect the site to public streets.
Circ-2.8: Pedestrian Access at Intersections. Support full pedestrian access across all legs of signalized intersections.	***Consistent.*** The Proposed Project would not introduce features that would preclude or interfere with pedestrian access at signalized intersections.

Plan/Ordinance/Policy	Project Consistency
Circ-2.10: Green Infrastructure. Maximize the potential to implement green infrastructure by a) Reducing or removing administrative, physical, and funding barriers; b) setting implementation priorities, based on stormwater management needs, as well as the effectiveness of improvements and the ability to identify funding; and c) taking advantage of opportunities such as grant funding, routine repaving or similar maintenance projects, funding associated with Priority Development Areas, public private partnerships, and other funding opportunities.	***Consistent.*** The Proposed Project would maximize the potential to implement green infrastructure through landscaping and open space onsite.
Circ-2.11: Design of New Development. Require new development to incorporate a design that prioritizes safe pedestrian and bicycle travel and accommodates senior citizens, people with mobility challenges, and children.	***Consistent.*** The Proposed Project would plan, design, and construct site access and circulation that would provide safe and convenient access for pedestrians, bicyclists, transit riders, drivers, people with mobility challenges, and people of all ages and abilities.
Circ-2.14: Impacts of New Development. Require new development to mitigate its impacts on the safety (e.g., collision rates) and efficiency (e.g., VMT per capita) of the circulation system. New development should minimize cut-through and high-speed vehicle traffic on residential streets; minimize the number of vehicle trips; provide appropriate bicycle, pedestrian, and transit connections, amenities, and improvements in proportion with the scale of proposed projects; and facilitate appropriate or adequate response times and access for emergency vehicles.	***Consistent.*** The Proposed Project is evaluated in this EIR for impacts on safety through an assessment of site access and circulation for all modes as well as impacts on VMT and emergency response times. As discussed, impacts on VMT would be considered significant; impacts on safety would be considered less than significant. The Proposed Project would implement a TDM plan to provide trip reduction measures and reduce vehicle traffic in and around the Project site. The Proposed Project would provide bicycle and pedestrian facilities, which would also help to reduce the demand for travel by single-occupancy vehicles.

Plan/Ordinance/Policy	Project Consistency
Circ-3.1: Vehicle Miles Traveled. Support development and transportation improvements that help reduce per capita vehicle miles traveled.	***Consistent.*** The Proposed Project would develop a new R&D building that would locate employees near existing and planned residential and commercial uses, reducing the demand for travel by single-occupancy vehicles and reduce VMT to and from the Project site. The Proposed Project would also develop and implement a TDM plan to provide trip reduction measures and reduce vehicle traffic in and around the Project site. In addition, the Proposed Project would provide bicycle and pedestrian facilities, which would also help to reduce the demand for travel by single-occupancy vehicles.
Circ-3.2: Greenhouse Gas Emissions. Support development, transportation improvements, and emerging vehicle technology that help reduce per capita greenhouse gas emissions.	***Consistent.*** The Proposed Project is evaluated for compliance with SB 375 requirements through an analysis of GHG emissions in Section 4.4, Greenhouse Gas Emissions, of this EIR. All impacts related to GHG emissions would be less than significant.
Circ-4.1: Global Greenhouse Gas Emissions. Encourage the safer and more widespread use of nearly zero-emission modes, such as walking and biking, and lower-emission modes, such as transit, to reduce greenhouse gas emissions.	***Consistent.*** The Proposed Project would develop and implement a TDM plan and provide bicycle and pedestrian facilities to encourage the safer and more widespread use of nearly zero-emission modes, such as walking and biking, and lower-emission modes, such as transit, to reduce GHG emissions.
Circ-4.2: Local Air Pollution. Promote non-motorized transportation to reduce exposure to local air pollution, thereby reducing risks of respiratory diseases, other chronic illnesses, and premature death.	***Consistent.*** The Proposed Project would develop and implement a TDM plan and provide bicycle and pedestrian facilities to promote non-motorized transportation to reduce exposure to local air pollution, thereby reducing risks of respiratory diseases, other chronic illnesses, and premature death.
Circ-4.3: Active Transportation. Promote active lifestyles and active transportation, focusing on the role of walking and bicycling, to improve public health and lower obesity.	***Consistent.*** The Proposed Project would develop and implement a TDM plan and provide bicycle and pedestrian facilities to promote active lifestyles and active transportation, focusing on the role of walking and bicycling, to improve public health and lower obesity rates.
Circ-4.4: Safety. Improve traffic safety by reducing speeds and making drivers more aware of other roadway users.	***Consistent.*** The Proposed Project would include construction of a new section of public sidewalk along Adams Court and Adams Drive. Within the site, pedestrian walkways would be incorporated around the office building that would connect to public streets and be constructed to increase the visibility of people walking and improve traffic safety.
Circ-6.1: Transportation Demand Management. Coordinate Menlo Park's Transportation Demand Management efforts with other agencies providing similar services within San Mateo and Santa Clara counties.	***Consistent.*** The Proposed Project would develop and implement a TDM plan that would include bicycle storage and parking, showers/changing rooms, public sidewalks, subsidized transit tickets, carpool parking, and an online kiosk for assistance with alternative modes of transportation.

Plan/Ordinance/Policy	Project Consistency
Circ-6.4: Employers and Schools. Encourage employers and schools to promote walking, bicycling, carpooling, shuttles, and transit use.	***Consistent.*** The Proposed Project would develop and implement a TDM plan that would include measures that would encourage employees of tenants to walk, bike, carpool, and use transit.
Menlo Park Municipal Code, Section 16, 45.090	***Consistent.*** The Proposed Project would develop and implement a TDM plan that would reduce the number of vehicle trips to at least 20 percent below standard generation rates for uses on the Project site. The plan would include an online kiosk with transportation information, carpool services, long-term bicycle parking spaces in secured bike storage rooms, short-term outdoor bicycle parking spaces, subsidized transit tickets, showers and changing rooms, and new sidewalks with street trees along Adams Court and Adams Drive.
City of Menlo Park Transportation Master Plan	***Consistent.*** The Proposed Project would not include any modifications that would conflict with projects and recommendations identified in the Transportation Master Plan. At locations where the Proposed Project would cause an intersection to operate in non-compliance with Policy CIRC-3.4, modifications are identified, consistent with recommendations identified in the Transportation Master Plan.
City of Menlo Park Transportation Impact Fee	***Consistent.*** The Proposed Project would be subject to the TIF and would contribute to the cost of new transportation infrastructure associated with the development.

As part of the City's entitlement process, the Proposed Project would be required to comply with existing regulations, including general plan policies and zoning regulations. The Proposed Project would be reviewed in accordance with the Transportation Program standards and guidelines of the City's Public Works Department, which would provide oversight during the engineering review to ensure that the Proposed Project would be constructed according to City specifications.

The Proposed Project would provide adequate bicycle and pedestrian infrastructure and represent an overall improvement to bicycle and pedestrian access and circulation. The Proposed Project would include construction of a public sidewalk along Adams Court and Adams Drive. Within the Project site, pedestrian walkways would be incorporated around the office building.

The Proposed Project would promote bicycle use by providing long-term and short-term bicycle parking spaces as well as showers/changing rooms. The Proposed Project would meet zoning ordinance requirements for vehicle and bicycle parking and implement TDM measures in an effort to reduce Project-generated vehicle trips and encourage travel by other modes.

For these reasons, the Proposed Project would be consistent, for CEQA purposes, with the applicable plans, ordinances, and policies outlined above. This impact would be ***less than significant***.

Impact TRA-2. The Proposed Project would not exceed an applicable VMT threshold of significance. (LTS/M)

This section discusses the Proposed Project's impacts related to VMT. As discussed in more detail below, implementation of the Proposed Project without mitigation would exceed an applicable VMT threshold of significance. This impact would be significant.

The City uses the following quantitative thresholds of significance to address the substantial additional VMT significance criterion:

- A residential-type project would exceed the existing regional household VMT per capita minus 15 percent.
- An office-type project would exceed the existing citywide employee VMT per capita minus 15 percent.
- A retail-type project would result in a net increase in total VMT.
- For mixed-use projects, components are analyzed independently against the appropriate threshold.

For the purposes of the VMT analysis, the Proposed Project is considered to be an office-type use because travel would involve employees, just like an office use.

Project VMT

Table 3.1-5 shows existing average daily VMT per employee citywide, the VMT threshold (15 percent below the citywide average), and existing VMT for TAZ 3075, the TAZ in which the Project site is located. It was assumed that office/R&D land uses within the same area will exhibit essentially the same characteristics in terms of VMT, based on their locations.

Table 3.1-5. Existing Average Daily VMT

Land Use	Citywide Average[a]	VMT Threshold (15 Percent below Citywide Average)	Project Transportation Analysis Zone (TAZ 3075)
Employment (per employee)	14.9	12.7	16.1

Source:
Menlo Park Travel Demand Model (2020).

a. Citywide average is below the regional average of 15.8; the City's threshold is therefore consistent with OPR guidance (https://menlopark.org/DocumentCenter/View/25433/J3-TIA-guidelines).

As shown in Table 3.1-5, current daily VMT per employee for office uses within the Project site's TAZ is estimated to be 16.1, which is higher than the citywide average for daily VMT of 14.9. A 21.1 percent reduction in Project VMT is needed to get below the VMT threshold of 12.7. However, estimated VMT does not account for the Project's proposed TDM plan. Without TDM measures, the Proposed Project could cause substantial additional VMT, and impacts would be potentially significant. As explained above, the Proposed Project is required to reduce the number of trips by 20 percent, pursuant to the Menlo Park Municipal Code. TDM measures that reduce Project trips also reduce VMT by a similar, although not identical, amount. A mitigation measure is therefore required to reduce VMT impacts by an additional amount in order to reduce Project VMT by at least 21.1 percent. A TDM plan was prepared for the Proposed Project by Kimley-Horn, Inc. (see Appendix 3.1), to reduce both the number of Project trips and VMT. The Proposed Project would provide the following TDM measures:

- Bicycle storage
- Showers/changing rooms
- Subsidized transit tickets (Go Pass for Caltrain)
- Preferential carpool parking
- Commute assistance center (computer kiosk connected to internet)

- Bike-share program
- Enterprise car-share program
- Shuttle stop
- Electric-vehicle charging stations

The proposed TDM measures were designed to reduce employee VMT for short-, medium-, and long-distance trips. Table 3.1-6 categorizes the proposed TDM measures by trip length. Most of the proposed TDM measures could reduce medium- to long-distance trips, except for the three measures related to bicycle facilities.

Table 3.1-6. Proposed TDM Measures and Aimed Trips by Trip Length

Proposed TDM Measures	Aimed Trips
Bike Storage	short trips
Showers/Changing Rooms	short trips
Subsidized Transit Tickets (Go Pass for Caltrain)	medium to long trips
Preferential Carpool Parking	medium to long trips
Commute Assistance Center	medium to long trips
Bike-share Program	short, medium, and long trips
Car-share Membership	medium to long trips
Employer-sponsored Vanpool/Shuttle Program	long trips

Estimated VMT Reductions

The effectiveness of the TDM plan was evaluated to determine the VMT reduction. A California Air Pollution Control Officers Association (CAPCOA) report, *Quantifying Greenhouse Gas Mitigation Measures*, estimates VMT reduction relative to a project's design features and applicable TDM measures. In addition, the Bay Area Air Quality Management District (BAAQMD) released its TDM Tool, based on CAPCOA research, which assists with calculating VMT reductions resulting from TDM measures. The TDM Tool determines, for a specific project in a specific location, a TDM plan's ability to reduce VMT. Specifically, the TDM Tool provides an estimate of the reduction in VMT, given a project's location and land use characteristics, its site enhancements, and the measures taken to reduce the number of trips related to commuting. According to the TDM Tool, with implementation of TDM measures, the Proposed Project would reduce VMT by 34 percent, which is more than the 21.1 percent VMT reduction needed.

The VMT reduction calculated by the BAAQMD TDM Tool is based on the following factors:

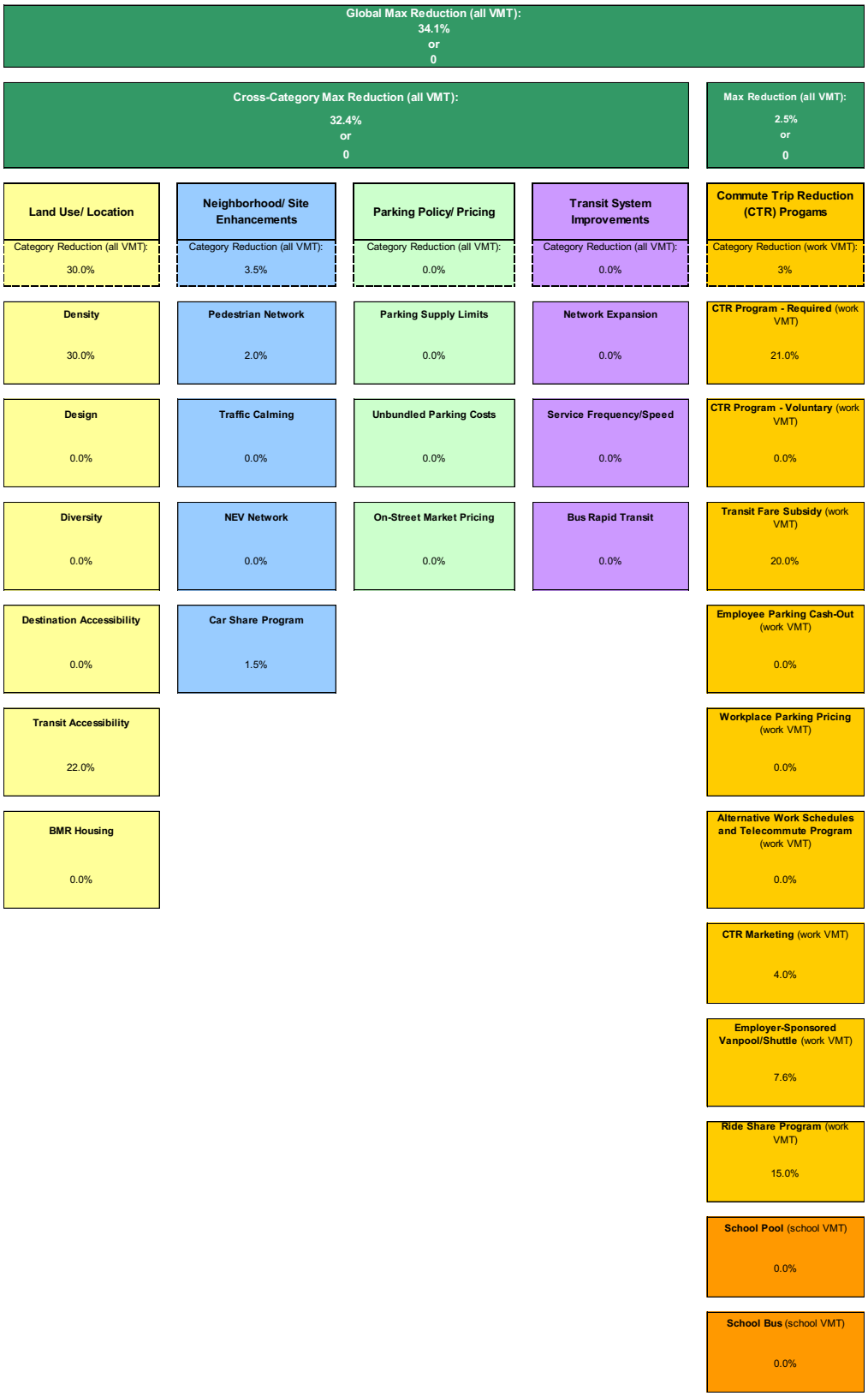
- **Pedestrian Network**. The Proposed Project would improve pedestrian facilities by constructing new sidewalks along Adams Drive, between Adams Court and O'Brien Drive; Adams Court; and the western edge of the Project site. In addition, a future sidewalk is planned along the frontage of 1305 O'Brien Drive. Pedestrian walkways would be provided within the northeast section of the Project site to access the building and public amenities. The TDM Tool gives the Proposed Project credit for improving pedestrian accommodations onsite and offsite.
- **Car-sharing Program**. The proposed TDM plan includes a car-share program, provided by Enterprise, that would give employees of tenants in the business park access to vehicles. The vehicles would be located at the corner of O'Brien Drive and Adams Drive. This program would give people on-demand access to a shared fleet of vehicles on an as-needed basis, providing a means for alternative-mode commuters to make business/day trips.

- **Subsidized Transit Tickets**. Caltrain Go Passes would be provided to employees of tenants at no cost. The Go Pass allows unlimited rides 7 days a week. The cost of the Go Pass is $237.50 per person, with a minimum of $19,950 per employer. A Go Pass would be provided to every employee who works 20 hours or more per week. This equates to a minimum of 84 Go Passes, which would be distributed to all employees. Providing employees with transit passes may encourage them to use transit rather than drive to work.
- **TDM Program with Monitoring and Reporting Requirements**. The TDM Tool provides more credit to TDM programs that include a performance standard (e.g., a trip reduction goal or VMT reduction goal) and requirements for monitoring and reporting than those that do not. The rationale for this is a belief that properties that are required to monitor their results and report them to a city or other authority, as well as meet a specific target, will take their responsibilities to implement the TDM programs more seriously.
- **Marketing Program for the TDM Plan**. A commute assistance center would be provided, including a computer kiosk with internet connection. The building owner would be responsible for providing tenants with information about resources and programs included in the TDM plan and distributing information packets to new employees when they start work at the site. The TDM Tool provides credit for this level of marketing activity.
- **Carpool/Ridesharing Program**. Six preferential carpool parking spaces would be provided in the parking garage. The carpool parking spaces would be close to building entrances to provide an incentive for employees to carpool. The TDM Tool gives credit for ridesharing programs that include a passenger loading zone where rideshare participants can wait comfortably for their ride or be conveniently dropped off. Credit is also given for programs that provide ride-matching assistance and/or a link to websites for coordinating rides.
- **Employee-Sponsored Vanpool/Shuttle Program**. The Proposed Project would have access to Menlo Park Rides, an existing shuttle service for the Menlo Business Park. The nearest shuttle stop to the Project site is at 1505 O'Brien Drive. This shuttle stop would provide a convenient location for employees and visitors at the Project site to access the Menlo Business Park shuttle system. The shuttle system provides commuters access to the Project site from the Union City/Fremont BART stations, Palo Alto Caltrain station, and various stops in San Francisco. Shuttle service times are coordinated with train schedules in order to ensure an efficient commuter experience and minimal wait times. It should be noted that this is an existing shuttle service. If future changes would affect the availability of this service, the Proposed Project should sponsor its own vanpool or shuttle program and guarantee access for employees on the Project site.

The BAAQMD Tool calculates a TDM plan's total VMT reduction to ensure that similar measures are not double counted. It also accounts for a project's location (i.e., urban or suburban). As noted, the TDM Tool estimates that implementation of the TDM measures, together with the Proposed Project's location, land use characteristics, and site enhancements, would achieve more than the required 21.1 percent reduction in VMT. Output from the BAAQMD TDM Tool is shown in Figure 3.1-3.

As mentioned previously, a similar nearby project, owned by the same Project Sponsor, has implemented a TDM plan and achieved a reduction in VMT of 32 to 40 percent. Therefore, a 34 percent VMT reduction, as estimated by the Project's TDM plan, is feasible.

Figure 3.1-3. BAAQMD TDM Tool Output



As shown in Table 3.1-5, current daily VMT per employee for office uses within the Project site's TAZ is estimated to be 16.1, which is higher than daily VMT citywide of 14.9 and above the threshold of significance of 12.7. Therefore, the Proposed Project would result in a ***potentially significant*** impact.

MITIGATION MEASURE. The BAAQMD TDM Tool estimates VMT generated by the Proposed Project with implementation of TDM measures. Considering its land use characteristics and site enhancements, the Proposed Project's VMT would be 12.3, which is below the City threshold of 12.7. Implementation of Project-specific Mitigation Measure TRA-1 would reduce the impact to ***less than significant with mitigation***.

> **Project Mitigation Measure TRA-1: Implement TDM Plan.** The Proposed Project shall be required to implement the TDM plan included in Appendix 3.1of this EIR. Annual monitoring and reporting, pursuant to Menlo Park Municipal Code Section 16.44.090(2)(B), will be required to ensure a minimum reduction in VMT of 21.1 percent for the life of the Project.

Impact TRA-3. The Proposed Project would not substantially increase hazards due to a design feature or incompatible uses. (LTS)

This section discusses the Proposed Project's potential to substantially increase hazards due to a design feature or incompatible use. For purposes of CEQA, the term *hazards* refers to the engineering aspects of a project, such as speed, turning movements, design, distance between street crossings, or sight lines. Hazards may increase risks related to collisions and result in serious or fatal physical injuries. This analysis focuses on hazards that could reasonably stem from the Proposed Project itself, beyond the hazards related to the non-engineering aspects of the Proposed Project or the transportation system as a whole. Therefore, the methodology qualitatively addresses issues concerning the Proposed Project's potential to exacerbate an existing hazardous condition or create a new hazardous condition for people bicycling, walking, or driving or for the public transit system.

The Proposed Project would not involve any changes to the roadway network outside the Project limits. Furthermore, it would not include design features that could cause potentially hazardous conditions. The Proposed Project would add sidewalks along Adams Drive, between Adams Court and O'Brien Drive; Adams Court; and the western edge of the Project site. A future sidewalk is planned along the frontage of 1305 O'Brien Drive. Pedestrian walkways would be provided within the northeast section of the Project site to access the building and public amenities. Finally, the Proposed Project would provide full-access driveways on Adams Drive and Adams Court. The driveway designs would comply with applicable standards and therefore would not present a hazard.

The Proposed Project would provide adequate bicycle and pedestrian infrastructure and represent an overall improvement in bicycle and pedestrian access and circulation. Furthermore, it would not generate activities that would create potentially hazardous conditions for people bicycling, walking, or driving or for the public transit system. In addition, as with current practice, the Proposed Project would be designed and reviewed in accordance with the Transportation Program of the City's Public Works Department, which would provide oversight during the engineering review to ensure that the Proposed Project would be constructed according to City specifications. For these reasons, the Proposed Project would have a ***less-than-significant*** impact with respect to design features or incompatible uses.

Impact TRA-4. The Proposed Project would not result in inadequate emergency access. (LTS)

This section discusses the Proposed Project's potential to result in inadequate emergency access. Emergency access to the Project site and nearby hospitals would be similar to access under existing conditions. Menlo Park Fire Protection District Station No. 77 is located on Chilco Street, approximately

1.2 miles north of the Project site. Although there would be a general increase in traffic, the Proposed Project would not inhibit emergency access to the Project site or materially affect an emergency response from the station. Development of the Project site, as well as associated increases in the number of vehicles, bicyclists, and pedestrians, would not substantially affect emergency vehicle response times or access to other buildings or land uses in the area, including hospitals. The Proposed Project would be designed and built according to local fire district codes and the California Building Code Standards. Building and site plans would be reviewed by the City Planning, Engineering, and Building divisions and the Menlo Park Fire Protection District for compliance with zoning, engineering, and building codes, as well as fire codes, ensuring that access for emergency services personnel would not be impaired.

For these reasons, the Proposed Project would have a ***less-than-significant*** impact with respect to emergency access or circulation.

Cumulative Impacts

Impacts C-TRA-1. The Proposed Project in combination with other foreseeable projects would not conflict with an applicable plan, ordinance, or policy, including the CMP, concerning all components of the circulation system. (LTS)

Future development would be required to comply with existing regulations, including general plan policies and zoning regulations that have been enacted to minimize impacts related to transportation and circulation. The City, through the 2040 buildout horizon, would implement general plan programs that require it to update the Capital Improvement Program annually to reflect City and community priorities for projects related to transportation for all travel modes and bi-annually update data regarding travel patterns for all modes to measure circulation system efficiency (e.g., VMT per capita, traffic volumes) and safety (e.g., collision rates). Furthermore, implementation of zoning regulations would support the provision of adequate facilities and access to transportation, and future development would be consistent with the City's Transportation Master Plan. For these reasons, the Proposed Project in combination with cumulative projects would have a ***less-than-significant*** cumulative impact with respect to conflicting with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities.

Impacts C-TRA-2. The Proposed Project in combination with other foreseeable projects would not exceed an applicable VMT threshold of significance. (LTS/M)

Consistent with OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA*,[13] the determination of a project's cumulative impacts is based on an assessment of whether the "incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." A project that falls below an efficiency-based threshold (i.e., applying per capita and per employee VMT standards) and is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact.

The Proposed Project would be consistent with the development assumptions included in ConnectMenlo. Furthermore, implementation of the land use and transportation changes described in ConnectMenlo would create a built environment that supports a live/work/play environment with increased density and a diversity of uses, along with a street network that supports safe and sustainable travel. The Proposed

[13] California Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 18. Available: www.opr.ca.gov/docs/ 20190122-743_Technical_Advisory.pdf.

Project would be expected to reduce VMT per employee within the study area where the Project site is located. Consistent with the findings of the ConnectMenlo Final EIR, the cumulative impact of the Proposed Project with respect to VMT would be ***less-than-significant with mitigation***.

Impacts C-TRA-3. The Proposed Project in combination with other foreseeable projects would not substantially increase hazards due to a design feature or incompatible uses. (LTS)

Overall, cumulative land use development and transportation projects would promote accessibility for people walking to and through the site by conforming to general plan policies and zoning regulations and adhering to planning principles that emphasize providing convenient connections and safe routes for people bicycling, walking, driving, or taking transit. In addition, as with current practice, projects would be designed and reviewed in accordance with the Transportation Program of the City's Public Works Department, which would provide oversight through an engineering review to ensure that the projects are constructed according to City specifications. As a result, cumulative projects would not generate activities that would increase hazards due to a design feature or incompatible use. For these reasons, the Proposed Project in combination with cumulative projects would have a ***less-than-significant*** cumulative impact with respect to design features or incompatible uses.

Impacts C-TRA-4. The Proposed Project in combination with other foreseeable projects would not result in inadequate emergency access. (LTS)

Future development, as part of the City's project approval process, would be required to comply with existing regulations, including general plan policies and zoning regulations that have been enacted to minimize impacts related to emergency access. The City, throughout the 2040 buildout horizon, would implement general plan programs that require the City's continued coordination with Menlo Park Police Department and Menlo Park Fire Protection District to establish circulation standards, adopt an emergency response routes map, and equip all new traffic signals with pre-emptive devices for emergency services. Furthermore, implementation of zoning regulations would help minimize traffic congestion that could affect emergency access.

For these reasons, the Proposed Project in combination with cumulative projects would have a ***less-than-significant*** cumulative impact with respect to emergency access.

Non-CEQA Analysis

Intersection Level-of-Service Analysis

The findings of the intersection LOS compliance analysis are presented in this section for informational purposes. The scope and methodology of the analysis, analysis scenarios, data collection efforts, and LOS policy standards are detailed in Appendix 3.1 of this EIR.

As stated above, LOS is no longer a CEQA threshold. However, the City's TIA Guidelines require the TIA to analyze LOS for local planning purposes. The LOS analysis determines whether a project's traffic would cause intersection LOS to exceed City LOS thresholds or either average delay or average critical delay to exceed City intersection delay thresholds under near-term and cumulative conditions. The LOS and delay thresholds vary, depending on the street classifications and whether the intersection is a State route. The City's TIA Guidelines further require an analysis of a project in relation to relevant policies of the Circulation Element and consideration of specific measures to address noncompliance with local policies that may occur as a result of the addition of project traffic. The TIA identifies measures that could be applied as conditions of approval to bring operations back to pre-project levels. Although not included in

the TIA for purposes of this EIR, an analysis may be prepared separately to determine if there are potential measures that could bring the Proposed Project into conformance with Circulation Policy 3.4 (i.e., strive to maintain an acceptable LOS at all City-controlled intersections). Implementation of any such measures would require review and approval by City decision-makers.

Near-Term (2022) Plus-Project Conditions

The results of the intersection LOS analysis under near-term (2022) plus-Project conditions are summarized in Table 6 of Appendix 3.1. Under near-term plus-Project conditions, the following eight intersections would be non-compliant with respect to local policies during either the a.m. or the p.m. peak hour compared to near-term conditions:

- **Intersection #2:** University Avenue (SR 109) and Adams Drive (unsignalized) [East Palo Alto] [Caltrans] – p.m. peak hour
- **Intersection #8:** US 101 northbound off-ramp/University Plaza driveway and Donohoe Street [East Palo Alto] [Caltrans] – a.m. peak hour
- **Intersection #13:** Willow Road (SR 114) and O'Brien Drive [Menlo Park] [Caltrans] – a.m. and p.m. peak hours
- **Intersection #14:** Willow Road (SR 114) and Newbridge Street [Menlo Park] [Caltrans] – p.m. peak hour
- **Intersection #21:** Adams Drive and O'Brien Drive (unsignalized) [Menlo Park] – p.m. peak hour
- **Intersection #22:** Willow Road (SR 114) and US 101 northbound ramps [Caltrans] – a.m. peak hour
- **Intersection #25:** US 101 northbound on-ramp and Donohoe Street (unsignalized) [East Palo Alto] [Caltrans] – a.m. peak hour
- **Intersection #27:** University Avenue (SR 109) and Woodland Avenue [East Palo Alto] [Caltrans] – p.m. peak hour

University Avenue and Adams Drive would meet the *Manual on Uniform Traffic Control Devices* peak-hour signal warrant during the p.m. peak hour under near-term plus-Project conditions. Other unsignalized intersections would not meet the signal warrant.

It should be noted that average delay at some intersections decreases with the addition of Project traffic. This occurs because intersection delay is a weighted average of all intersection movements. When traffic is added to movements with delays below average intersection delay, average delay for the entire intersection can decrease. Furthermore, congestion and queue spillback at an adjacent intersection can constrain the traffic volume at some intersections, resulting in a small decrease in average delay.

Intersection effects and recommended modifications to return the intersections to pre-Project conditions are described below.

#2 University Avenue (SR 109) and Adams Drive

This intersection is expected to operate at an unacceptable LOS of F during the a.m. and p.m. peak hours under near-term conditions. The addition of Project traffic would cause delay at the intersection to increase by 5 or more seconds during the a.m. and p.m. peak hours under near-term (2022) plus-Project conditions. Near-term traffic volumes at this intersection with or without the Proposed Project would meet the peak-hour volume warrant during the p.m. peak hour. This constitutes non-compliance, according to the thresholds established by the City of East Palo Alto.

Enhanced TDM measures to reduce Project trip generation by more than 20 percent could reduce delay and improve intersection operations. However, the intersection would continue to be non-compliant under Project conditions.

The recommended modification for this location is the installation of a new traffic signal. The new signal would be consistent with the recommended University Avenue and Adams Drive Project in the City of Menlo Park's Transportation Master Plan. Along with a new traffic signal, appropriate bicyclist and pedestrian accommodations should be provided. This includes pedestrian countdown timers, ADA-compliant curbs, and bicycle detection loops. With these improvements, the intersection would operate acceptably at LOS A during the a.m. peak hour and LOS C during the p.m. peak hour under near-term (2022) plus-Project conditions. This improvement is in the City's TIF program; the Proposed Project would be required to pay traffic impact fees according to the City's current TIF schedule. Therefore, payment into the TIF program would address the adverse effect on traffic operations at this intersection as a result of Project traffic.

#8 US 101 Northbound Off-Ramp/University Plaza Driveway and Donohoe Street

The intersection is expected to operate at an unacceptable LOS of F during the a.m. and p.m. peak hours under near-term (2022) conditions. With the Proposed Project, average delay would increase by more than 4 seconds during the a.m. peak hours. This constitutes non-compliance, according to the thresholds established by the City of East Palo Alto.

Enhanced TDM measures to reduce Project trip generation by more than 20 percent could reduce delay and improve intersection operations. However, the intersection would continue to be non-compliant under Project conditions.

The City of East Palo Alto plans to widen the northbound approach on Donohoe Street at the US 101 northbound off-ramp to accommodate four through lanes and improve vehicular throughput at this intersection. This improvement would require median modifications and narrowing of the southbound Donohoe Street approach to Cooley Avenue to provide two through lanes and a full-length left-turn lane. In addition, traffic signals would be coordinated with adjacent traffic signals on Donohoe Street. With these improvements, the intersection would be in compliance with the City of East Palo Alto's LOS policy. The proposed improvements at this intersection would be part of the improvements at intersections around the University Avenue and US 101 interchange included in Menlo Park's TIF program. The Proposed Project would pay traffic impact fees, according to the City of Menlo Park 's current TIF schedule, that would contribute to improvements at this intersection.

#13 Willow Road (SR 104) and O'Brien Drive

This intersection is expected to operate at an unacceptable LOS of F during the a.m. peak hour and LOS E during the p.m. peak hour under near-term (2022) conditions. The addition of Project traffic would cause critical movement delay for the northbound shared left-right movement to increase by more than 0.8 second during both peak hours. This constitutes non-compliance, according to the thresholds established by the City of Menlo Park. The unacceptable LOS is due primarily to existing congestion on Willow Road.

Enhanced TDM measures to reduce Project trip generation by more than 20 percent could reduce delay and improve intersection operations. However, the intersection would continue to be non-compliant under Project conditions.

The City of Menlo Park is implementing an adaptive coordination system for traffic signals on the Willow Road corridor to improve traffic flow. Adaptive traffic control is a technology that automatically adjusts traffic signal timing according to actual traffic demand at an intersection. This measure would improve intersection operations and could reduce intersection delay. It is expected that this improvement would reduce critical movement delay on the local approach and avoid adverse effects during the a.m. peak hour. However, it is not expected that this improvement would be enough to avoid the adverse effect of the Project at this intersection during the p.m. peak hour or bring the intersection into compliance with the City's LOS policy. Other physical intersection improvements are considered infeasible because of right-of-way constraints and/or adverse effects on bicyclist and pedestrian travel. The Proposed Project would pay traffic impact fees, according to the City's current TIF schedule, to contribute to other transportation improvements in the area.

#14 Willow Road (SR 104) and Newbridge Street

This intersection is expected to operate at an unacceptable LOS of F during the a.m. and p.m. peak hours under near-term (2022) conditions. The addition of Project traffic would cause critical movement delay for local westbound through movement to increase by more than 0.8 second during the p.m. peak hour. This constitutes non-compliance, according to the thresholds established by the City of Menlo Park.

Enhanced TDM measures to reduce Project trip generation by more than 20 percent could reduce delay and improve intersection operations. However, the intersection would still be non-compliant under Project conditions.

To bring this intersection back to pre-Project conditions, the recommendation is to modify signal timing through a protected left-turn phasing operation on Newbridge Street, provide a leading left-turn phase on southbound Newbridge Street and a lagging left-turn phase on northbound Newbridge Street, and optimize overall signal timing. Signal modification would be consistent with the recommended Willow Road Corridor Improvement Project in the City's Transportation Master Plan. No widening or additional rights-of-way would be required. This improvement is in the City's TIF program. The Project Sponsor would be responsible for design and implementation of the modifications. With implementation of the modifications, the intersection would operate at better than near-term conditions, and the northbound through movement would no longer be a critical movement.

#21 Adams Drive and O'Brien Drive

This intersection is expected to operate at an unacceptable LOS of D during the p.m. peak hour under near-term conditions. The addition of Project traffic would cause delay for the stop-controlled movement to increase by more than 0.8 second during the p.m. peak hour. This constitutes non-compliance, according to the thresholds established by the City of Menlo Park.

Enhanced TDM measures to reduce Project trip generation by more than 20 percent could reduce delay and improve intersection operations. However, the intersection would still be non-compliant under Project conditions.

One potential modification to bring the intersection to pre-Project conditions would be to make it all-way stop controlled. However, the intersection does not meet the *Manual on Uniform Traffic Control Devices* all-way stop-controlled warrant during the p.m. peak hour under near-term (2022) plus-Project conditions. No other improvements are recommended at this time. In lieu of an improvement at this intersection, the Proposed Project would pay traffic impact fees, according to the City's current TIF schedule, to contribute to other transportation improvements in the area.

#22 Willow Road (SR 114) and US 101 Northbound Ramps

This intersection is expected to operate at an unacceptable LOS of F during the a.m. peak hour under near-term (2022) conditions. The addition of Project traffic would cause delay at this intersection to increase by more than 4 seconds during the a.m. peak hour. This constitutes non-compliance, according to the thresholds established by Caltrans.

Enhanced TDM measures to reduce Project trip generation by more than 20 percent could reduce delay and improve intersection operations. However, the intersection would still be non-compliant under Project conditions.

The delay caused at this intersection is due to congestion on Willow Road. The City of Menlo Park is implementing an adaptive coordination system for traffic signals on the Willow Road corridor to improve traffic flow. Adaptive traffic control is a technology that automatically adjusts traffic signal timing according to actual traffic demand at an intersection. This measure would improve intersection operations and could reduce intersection delay. The reduction in delay due to adaptive signal coordination is not expected to bring the intersection into compliance with the City's LOS policy. Other physical intersection improvements are considered infeasible because of right-of-way constraints and/or adverse effects on bicyclist and pedestrian travel. The Proposed Project would pay traffic impact fees, according to the City's current TIF schedule, to contribute to other transportation improvements in the area.

#25 US 101 Northbound On-Ramp and Donohoe Street

The intersection is expected to operate at an unacceptable LOS of F during the a.m. peak hour under near-term conditions. With the Proposed Project, average delay would increase by more than 4 seconds during the a.m. peak hour. This constitutes non-compliance, according to the thresholds established by the City of East Palo Alto.

Enhanced TDM measures to reduce Project trip generation by more than 20 percent could reduce delay and improve intersection operations. However, the intersection would still be non-compliant under Project conditions.

The City of East Palo Alto plans to install a new traffic signal at this intersection and coordinate the timing of closely spaced signals along Donohoe Street. Along with the new traffic signal, appropriate bicyclist and pedestrian accommodations would be provided. This includes pedestrian countdown timers, ADA-compliant curbs, and bicycle detection loops. To align with the proposed driveway for the University Plaza Phase II site on the north side of Donohoe Street, the US 101 on-ramp would be shifted approximately 30 feet to the south. In addition, the southbound approach on Donohoe Street would be restriped to accommodate a short, exclusive left-turn pocket, approximately 60 feet in length; a shared left/through lane; and a shared through right lane. These improvements would require widening of the US 101 northbound on-ramp to accommodate two lanes, which would taper down to a single lane before connecting to the loop on-ramp from eastbound University Avenue. With these improvements, the intersection would be in compliance with the City of East Palo Alto's LOS policy. The Proposed Project would reduce its adverse effect on traffic operations at this intersection by making a fair-share monetary contribution toward the improvements. The US 101 northbound on-ramp and Donahoe Street intersection is part of a planned coordinated signal system that also includes intersections at University Avenue/Donahoe Street, the US 101 northbound off-ramp/Donahoe Street, Cooley Avenue/Donahoe Street, University Avenue/the US 101 southbound off-ramp, and University Avenue/Woodland Avenue. The City of Menlo Park TIF includes improvements at the University Avenue/Donahoe intersection; funding would go toward the planned coordinated signal system. Therefore, payment toward the City of Menlo Park TIF would constitute the Project's fair-share contribution toward the improvements.

#27 University Avenue (SR 109) and Woodland Avenue

The intersection is expected to operate at an unacceptable LOS of E during the a.m. peak hour and LOS F during the p.m. peak hour under near-term (2022) conditions. With the Proposed Project, average delay would increase by more than 4 seconds during the p.m. peak hour. This constitutes non-compliance, according to the thresholds established by the City of East Palo Alto.

Enhanced TDM measures to reduce Project trip generation by more than 20 percent could reduce delay and improve intersection operations. However, the intersection would still be non-compliant under Project conditions.

The recommended Donohoe Street improvements at Euclid Avenue and the US 101 northbound on-ramp would improve traffic flow on University Avenue and eliminate the queue spillback that extends from Donohoe Street past Woodland Avenue. Although the University Avenue/Woodland Avenue intersection is expected to continue to operate at LOS F during the a.m. peak hour, the Donohoe Street improvements would reduce average delay at the University Avenue/Woodland Avenue intersection to a level below that under near-term (2022) conditions without the Proposed Project. With the improvements, the intersection would be in compliance with the City of East Palo Alto's LOS policy. The Proposed Project would reduce its adverse effect on traffic operations at this intersection by making a fair-share monetary contribution toward the improvements.

Cumulative (2040) Conditions Intersection Level of Service

Intersection LOS calculation sheets are included in Appendix 3.1. The results of the intersection LOS analysis under cumulative (2040) plus-Project conditions are summarized in Table 7 in Appendix 3.1. Under cumulative (2040) plus-Project conditions, the following seven intersections would be non-compliant with respect to local policies during either the a.m. or p.m. peak hour compared with cumulative (2040) conditions:

- **Intersection #2:** University Avenue (SR 109) and Adams Drive (unsignalized) [East Palo Alto] [Caltrans] – a.m. and p.m. peak hours
- **Intersection #8:** US 101 northbound off-ramp/University Plaza driveway and Donohoe Street [East Palo Alto] [Caltrans] – a.m. and p.m. peak hours
- **Intersection #13:** Willow Road (SR 114) and O'Brien Drive [Menlo Park] [Caltrans] – p.m. peak hour
- **Intersection #21:** Adams Drive and O'Brien Drive (unsignalized) [Menlo Park] – p.m. peak hour
- **Intersection #22:** Willow Road (SR 114) and US 101 northbound ramps [Caltrans] – a.m. peak hour
- **Intersection #25:** US 101 northbound on-ramp and Donohoe Street (unsignalized) [East Palo Alto][Caltrans] – a.m. and p.m. peak hours
- **Intersection #27:** University Avenue (SR 109) and Woodland Avenue [East Palo Alto][Caltrans] – a.m. and p.m. peak hours

The results show that the Proposed Project would not cause any additional intersections to be potentially non-compliant with respect to local policies during either the a.m. or p.m. peak hour under cumulative (2040) plus-Project conditions compared with near-term (2022) plus-Project conditions. The improvements proposed under near-term (2022) plus-Project conditions would be enough to address cumulative non-compliance issues.

Construction Traffic Analysis of the Waterline Upgrade

As described in Chapter 2, Project Description, in order for new projects in the O'Brien area to be approved, the City needs to upgrade the waterlines. It is expected that the construction schedule would be approximately two months per segment. Based on the information provided by the applicant, no roadway complete closures would be needed during construction, but some lanes of the road would be closed with the traffic diverted around it (potentially in a single lane). As a condition of approval, a traffic control plan would be needed for any sidewalk or street/lane closures during construction of the waterline upgrade. Based on the estimated number of construction workers per day, there would be a maximum of 6 trips (arriving at the site) during the AM peak hour and 6 trips (leaving the site) during the PM peak hour during the utility installation phase. In addition, there would be a maximum of three construction truck trips per day. It is not expected that this small number of trips related to the waterline upgrade work would cause transportation operational issues.

There are nearby parking spaces available for the waterline construction workers. Some would park at 1350 Adams Court, and overflow parking would be provided nearby, as needed, by agreement with other property owners.

3.2 Air Quality

This section describes the environmental and regulatory setting for air quality. It also describes impacts related to air quality that would result from implementation of the Proposed Project and mitigation for significant impacts where feasible and appropriate. This section has been prepared using methods and assumptions recommended in the air quality impact assessment guidelines of the Bay Area Air Quality Management District (BAAQMD).[1] The section describes existing air quality in the region, the Proposed Project's contribution to localized concentrations of carbon monoxide (CO), impacts from vehicular emissions that have regional effects, and the exposure of sensitive receptors to Project-generated toxic air contaminants (TACs). A health risk assessment (HRA) was also performed; the HRA is included in this section. The emission calculations and modeling data used to support the analyses are provided in Appendix 3.2.

No comments regarding air quality were received in response to the Notice of Preparation (NOP).

Existing Conditions

Environmental Setting

This section provides a discussion of existing conditions related to air quality in the study area. The information below is drawn from the relevant oversight agencies, which are BAAQMD, the California Air Resources Board (CARB), and the U.S. Environmental Protection Agency (EPA).

The Project area is within the larger San Francisco Bay Area Air Basin (SFBAAB); the air basin comprises the study area for the Proposed Project. Ambient air quality in the study area is affected by climatological conditions, topography, and the types of pollutants emitted and the amounts.

The following discussion describes relevant characteristics of the SFBAAB, describes key pollutants of concern, summarizes existing ambient pollutant concentrations, and identifies sensitive receptors.

Regional Climate and Meteorology

Menlo Park is in the southern part of the SFBAAB, a large shallow air basin ringed by hills that taper into a number of sheltered valleys around the perimeter. Two primary atmospheric outlets exist.[2] One is the strait known as the Golden Gate, a direct outlet to the Pacific Ocean. The second extends to the northeast, along the West Delta region of the Sacramento and San Joaquin Rivers.

The city is within the jurisdiction of BAAQMD, which regulates air quality in the San Francisco Bay Area (Bay Area). Air quality conditions in the Bay Area have improved significantly since BAAQMD was created in 1955. Ambient concentrations of air pollutants and the number of days during which the region exceeds air quality standards have fallen dramatically. Neither state nor national ambient air quality standards for the following pollutants have been violated in recent decades: nitrogen dioxide (NO_2), sulfur dioxide (SO_2), sulfates, lead, hydrogen sulfide, and vinyl chloride. Exceedances of air quality standards that do occur happen primarily during periods when meteorological conditions are conducive to high levels of pollution, such as cold, windless nights or hot, sunny summer afternoons.

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1 Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: April 14, 2021.

2 An atmospheric outlet is a gap between land formations that allows air to flow in and out of an area.

Air quality is a function of both local climate and local sources of air pollution. Air quality is the balance of the natural dispersal capacity of the atmosphere and emissions of air pollutants from human uses of the environment. Two meteorological factors affect air quality in Menlo Park: wind and temperature. Winds affect the direction of transport for air pollution emissions; wind also controls the volume of air into which pollution is mixed over a given period of time. Although winds govern horizontal mixing processes, temperature inversions determine the vertical mixing depth of air pollutants.

Menlo Park is located in San Mateo County, which lies in the middle of the San Francisco Peninsula, south of San Francisco County and north of Santa Clara and Santa Cruz Counties. San Mateo County is bounded by the Pacific Ocean to the west and San Francisco Bay to the east. Cool, foggy weather is prevalent along the western coast of the peninsula, particularly during the summer. Summertime average daily temperatures are moderate along the western coast and warm on the county's east side. In the winter, average daily temperatures across the county range from mild to moderate. Winds are mild, with the highest wind speeds along the western coast. Rainfall averages about 20 to 25 inches per year at lower elevations and up to 36 inches in the Santa Cruz Mountains.[3]

Ozone (O_3) and fine particle pollution (i.e., particulate matter no more than 2.5 microns in diameter, or $PM_{2.5}$) are the major regional air pollutants of concern in the Bay Area. O_3 is primarily a problem in the summer; fine particle pollution is a problem in the winter.[4] In San Mateo County, O_3 levels almost never exceed health standards. $PM_{2.5}$ concentrations exceed the national standard about 1 day each year. San Mateo County frequently receives fresh marine air from the Pacific Ocean. The air passes over the coastal hills as it moves into the county. In winter, $PM_{2.5}$ may be transported into San Mateo County from other parts of the Bay Area. $PM_{2.5}$ may combine with wood smoke, which may lead to elevated concentrations. However, the concentrations are rarely high enough to exceed health standards.[5]

Pollutants of Concern

Criteria Pollutants

Both state and federal governments have established health-based ambient air quality standards for six criteria air pollutants: CO, O_3, NO_2, SO_2, lead, and suspended particulate matter. In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety. Two criteria pollutants, O_3 and NO_2, are considered regional pollutants because they (or their precursors) affect air quality on a regional scale. Pollutants such as CO, SO_2, and lead are considered local pollutants and tend to accumulate in the air locally.

The primary pollutants of concern in the Project area are O_3, CO, and suspended particulate matter. Significance thresholds established by an air district are used to manage total regional and local emissions within an air basin, based on the air basin's attainment status for criteria pollutants. The emission thresholds were established for individual development projects that could contribute to regional and local emissions and adversely affect or delay the air basin's projected attainment target goals for nonattainment criteria pollutants.

[3] Bay Area Air Quality Management District. 2019. *Climate and Air Quality in San Mateo County*. Available: https://www.baaqmd.gov/about-the-air-district/in-your-community/san-mateo-county. Accessed: April 14, 2021.

[4] Ibid.

[5] Ibid.

Because of the conservative nature of the significance thresholds, as well as the basin-wide context of individual development project emissions, there is no direct correlation between a single project and localized air quality–related health effects. One individual project that generates emissions that exceed a threshold does not necessarily result in adverse health effects for residents in the vicinity. This condition is especially true when the criteria pollutants that exceed thresholds are those with regional effects, such as O_3 precursors (e.g., nitrogen oxides [NO_X] and reactive organic gases [ROGs]). Furthermore, by its very nature, air pollution is largely a cumulative impact. No single project is large enough by itself to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions 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. In developing thresholds of significance for air pollutants, the air districts have considered the emission levels at which a project's individual emissions would be cumulatively considerable. If a project exceeds the identified significance thresholds, its emissions would be cumulatively considerable, resulting in significant adverse air quality impacts on the region's existing air quality conditions.

Occupants of facilities such as schools, day-care centers, parks and playgrounds, hospitals, and nursing and convalescent homes are considered more sensitive to air pollutants than the general public because of their increased susceptibility to respiratory disease. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. Residential areas are considered more sensitive to air quality conditions than commercial and industrial areas because people generally spend longer periods of time at their residences and have a greater associated exposure to ambient air quality conditions. Recreational uses are also considered sensitive compared with commercial and industrial uses because of the greater exposure to ambient air quality conditions associated with exercise. These populations are referred to as *sensitive receptors*. Air pollutants and their health effects, as well as other air pollution–related considerations, are summarized in Table 3.2-1 and described in more detail below.

Table 3.2-1. Sources and Health Effects of Air Pollutants

Pollutant	Sources	Primary Effects
Ozone (O_3)	• Precursor sources: motor vehicles, industrial emissions, and consumer products.[a]	• Respiratory symptoms. • Worsening of lung disease, leading to premature death. • Damage to lung tissue. • Crop, forest, and ecosystem damage. • Damage to a variety of materials, including rubber, plastics, fabrics, paints, and metals.
Particulate Matter Less than 2.5 Microns in Aerodynamic Diameter ($PM_{2.5}$)	• Cars and trucks (especially diesel vehicles). • Fireplaces and wood stoves. • Windblown dust from roadways, agriculture, and construction.	• Premature death. • Hospitalization for worsening of cardiovascular disease. • Hospitalization for respiratory disease. • Asthma-related emergency room visits. • Increased symptoms and increased inhaler usage.
Particulate Matter Less than 10 Microns in Aerodynamic Diameter (PM_{10})	• Cars and trucks (especially diesel vehicles). • Fireplaces and wood stoves. • Windblown dust from roadways, agriculture, and construction.	• Premature death and hospitalization, primarily from worsening of respiratory disease. • Reduced visibility and material soiling.

Pollutant	Sources	Primary Effects
Nitrogen Oxides (NO_X)	• Any source that burns fuel, such as cars, trucks, construction and farming equipment, and residential heaters and stoves.	• Lung irritation. • Enhanced allergic responses.
Carbon Monoxide (CO)	• Any source that burns fuel, such as cars, trucks, construction and farming equipment, and residential heaters and stoves.	• Chest pain in patients with heart disease. • Headaches. • Light-headedness. • Reduced mental alertness.
Sulfur Oxides (SO_x)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Worsening of asthma (e.g., increased symptoms, increased medication usage, emergency room visits).
Lead (Pb)	• Contaminated soil. • Lead-based paints.	• Impaired mental functioning in children. • Learning disabilities in children. • Brain and kidney damage.
Toxic Air Contaminants (TACs)	• Cars and trucks (especially diesel vehicles). • Industrial sources, such as chrome platers. • Neighborhood businesses, such as dry cleaners and service stations. • Building materials and products.	• Cancer. • Reproductive and developmental effects. • Neurological effects.

Source: California Air Resources Board. 2021. *Common Air Pollutants*. Available: https://ww2.arb.ca.gov/resources/common-air-pollutants. Accessed: April 14, 2021.

Notes:

[a] O_3 is not generated directly by these sources. Rather, precursor pollutants from these sources (ROG and NO_X) react with sunlight to form O_3 in the atmosphere.

Ozone

O_3, a secondary air pollutant, is produced in the atmosphere through a complex series of photochemical reactions involving ROG and NO_X. The main sources of ROG and NO_X, often referred to as O_3 precursors, are combustion processes, including combustion in motor vehicle engines, and the evaporation of solvents, paints, and fuels. In the Bay Area, automobiles are the largest source of O_3 precursors. O_3 is referred to as a regional air pollutant because its precursors are transported and diffused by wind concurrently with O_3 production through the photochemical reaction process. O_3 causes eye irritation, airway constriction, and shortness of breath and can aggravate existing respiratory diseases such as asthma, bronchitis, and emphysema.

Carbon Monoxide

CO, an odorless, colorless gas, is usually formed as the result of incomplete combustion in fuels. The largest source of CO is the motor vehicle. CO transport is limited; it disperses with distance from a source under normal meteorological conditions. However, under certain extreme meteorological conditions, CO concentrations near congested roadways or intersections may reach unhealthful levels and adversely affect local sensitive receptors (e.g., residents, schoolchildren, the elderly, and hospital patients). Typically, high CO concentrations are associated with roadways or intersections that operate at unacceptable levels of service (LOS) or with extremely high traffic volumes. Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause headaches, nausea,

dizziness, and fatigue; impair central nervous system function; and induce angina (chest pain) in persons with serious heart disease. Extremely high levels of CO, such as those generated when a vehicle is running in an unventilated garage, can be fatal.

Particulate Matter

Particulate matter is a class of air pollutants that consists of heterogeneous solid and liquid airborne particles from man-made and natural sources. Particulate matter is categorized according to two size ranges: PM_{10} for particles less than 10 microns in diameter and $PM_{2.5}$ for particles less than 2.5 microns in diameter. In the Bay Area, motor vehicles generate about half of the air basin's particulate matter through tailpipe emissions as well as brake wear and tire wear; travel over paved and unpaved roads also results in particulate matter in the form of suspended dust particles. Fireplaces and stoves that burn wood, industrial facilities, and construction involving ground-disturbing activities are other sources of such fine particulates, which are small enough to be inhaled into the deepest parts of the human lung and cause adverse health effects. According to CARB, studies in the United States and elsewhere have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks. Studies of children's health in California have demonstrated that particle pollution may significantly reduce lung function in children.[6] Statewide attainment of particulate matter standards could reduce the number of premature deaths, hospital admissions for cardiovascular and respiratory disease, asthma-related emergency room visits, and episodes of respiratory illness in California.

Nitrogen Dioxide

NO_2, a reddish-brown gas, is a byproduct of combustion processes. Automobiles and industrial operations are the main sources of NO_2. Aside from its contribution to O_3 formation, NO_2 also contributes to other pollution problems, including high concentrations of fine particulate matter, poor visibility, and acid deposition. NO_2 may be visible as a coloring component on days with high levels of pollution, especially in conjunction with high O_3 levels. NO_2 decreases lung function and may reduce resistance to infection.

Sulfur Dioxide

SO_2 is a colorless acidic gas with a strong odor. It is produced from the combustion of sulfur-containing fuels such as oil, coal, and diesel. SO_2 has the potential to damage materials and can cause health effects at high concentrations. It can irritate lung tissue and increase the risk of acute and chronic respiratory disease. SO_2 also reduces visibility and the level of sunlight at the ground surface.

Lead

Lead, a metal, is found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been mobile and industrial sources. As a result of the phase-out of leaded gasoline, metal processing is currently the primary source of lead emissions. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery factories. Twenty years ago, mobile sources were the main contributor to ambient lead concentrations in the air. In the early 1970s, the EPA established national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor

[6] California Air Resources Board. 2021. *Inhalable Particulate Matter and Health ($PM_{2.5}$ and PM_{10}).* Available: https://ww2.arb.ca.gov/resources/inhalable-particulate-matter-and-health. Accessed: April 14, 2021.

vehicles equipped with catalytic converters. The EPA banned the use of leaded gasoline in highway vehicles in December 1995. As a result of EPA regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector and levels of lead in the air have decreased dramatically.

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, TACs are another group of pollutants of concern. Some examples of TACs include benzene, butadiene, formaldehyde, and hydrogen sulfide. Potential TAC-related health effects include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs, with varying degrees of toxicity. Individual TACs vary greatly with respect to the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

TACs do not have ambient air quality standards but are regulated by the EPA and CARB. In 1998, CARB identified particulate matter from diesel-fueled engines as a TAC. CARB completed a risk management process that identified potential cancer risks for a range of activities and land uses that are affected by the use of diesel-fueled engines.[7] High-volume freeways, stationary diesel engines, and facilities that attract constant and heavy volumes of diesel vehicle traffic (e.g., distribution centers, truck stops) were identified as areas that pose the highest risk for adjacent receptors. Other facilities associated with increased risk include warehouse distribution centers, large retail or industrial facilities, high-volume transit centers, and schools with a high volume of bus traffic. Health risks from TACs are a function of both the concentration and the duration of exposure. BAAQMD regulates TACs with a risk-based approach that uses an HRA to determine which sources and which pollutants to control as well as the degree of control. An HRA is an analysis in which human exposure to toxic substances is estimated and considered together with information regarding the toxic potency of the substances in order to provide a quantitative estimate of health risks.[8] As part of ongoing efforts to identify and assess potential health risks to the public, BAAQMD has collected and compiled air toxics emissions data from industrial and commercial sources of air pollution throughout the Bay Area.

Monitoring data and emissions inventories of TACs help BAAQMD determine health risks to Bay Area residents. Ambient monitoring concentrations of TACs indicate that pollutants emitted primarily from motor vehicles (1,3-butadiene and benzene) account for a substantial portion of the ambient background risk in the Bay Area.[9] According to BAAQMD, ambient benzene levels declined dramatically in 1996 with the advent of reformulated Phase 2 gasoline. Because of this reduction, the calculated average cancer risk, based on monitoring results, has also been reduced.

Unlike TACs emitted from industrial and other stationary sources, most diesel particulate matter (DPM) is emitted from mobile sources, primarily diesel-powered construction and mining equipment, agricultural equipment, truck-mounted refrigeration units, and trucks and buses traveling on freeways and local roadways. Agricultural and mining equipment is not commonly used in the urban parts of the Bay Area, and construction equipment typically operates at various locations for only a limited time. As a result, the readily

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7 California Air Resources Board. 2000. *Fact Sheet-California's Plan to Reduce Diesel Particulate Matter Emissions*. October. Available: https://ww3.arb.ca.gov/diesel/factsheets/rrpfactsheet.pdf. Accessed: April 14, 2021.

8 In general, a health risk assessment is required if BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggests a potential public health risk. Such an assessment generally evaluates chronic, long-term effects, including the increased risk of cancer as a result of exposure to one or more TACs.

9 Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_ may2017-pdf.pdf?la=en. Accessed: April 14, 2021.

identifiable locations where DPM is emitted in the Bay Area include high-traffic roadways and other areas with substantial truck traffic. CARB estimated that about 70 percent of the total known cancer related to air toxics is attributable to DPM.[10] Within the Bay Area, BAAQMD found that, of all controlled TACs, emissions of DPM are responsible for about 82 percent of the total ambient cancer risk.[11]

CARB's Diesel Risk Reduction Plan is intended to reduce DPM emissions and associated health risks substantially through the introduction of ultra-low-sulfur diesel fuel, a step that has already been implemented, and cleaner diesel engines.[12] The technology for reducing DPM emissions from heavy-duty trucks is well established, and both state and federal agencies are moving aggressively to regulate engines and emission control systems to reduce and remediate diesel emissions. CARB's plan also established airborne toxic control measures (ATCMs) for mobile sources, including on-road and off-road vehicles, and stationary sources. With implementation of ATCMs, statewide DPM concentrations decreased from approximately 1.8 $\mu g/m^3$ to approximately 0.61 $\mu g/m^3$ between 1990 and 2012, resulting in a 66 percent reduction over that period.[13] CARB continues to explore strategies to reduce DPM emissions through engine retrofits, cleaner diesel fuel, advanced engine technologies, and alternative fuels. By 2035, CARB estimates that DPM emissions will be less than half of what they were in 2010.[14]

High-Volume Roadways. Air pollutant exposures and their associated health burdens vary considerably at particular locations in relation to the sources of the air pollutants. Motor vehicle traffic is perhaps the most important source of air pollution in urban areas. Air quality research consistently demonstrates that pollutant levels are substantially higher near freeways and busy roadways, and human health studies have consistently demonstrated that children living within 100 to 200 meters (328 to 656 feet) of freeways or busy roadways have reduced lung function and higher rates of respiratory disease.[15] At present, it is not possible to attribute the effects of roadway proximity on non-cancer health effects to one or more specific vehicle type or vehicle pollutant. Engine exhaust from diesel, gasoline, and other combustion engines is a complex mixture of particles and gases with collective and individual toxicological characteristics.

Odors

Although offensive odors rarely cause physical harm, they can be unpleasant and lead to considerable distress among the public. This distress often generates citizen complaints to local governments and air districts. According to BAAQMD's California Environmental Quality Act (CEQA) Guidelines and CARB's *Air Quality and Land Use Handbook*, land uses associated with odor complaints typically include wastewater treatment plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, chemical plants, petroleum refineries, auto body shops, coating operations, fiberglass manufacturing plants, foundries, rendering plants, and livestock operations. BAAQMD provides recommended screening distances for citing new receptors near existing odor sources.

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[10] California Air Resources Board. 2021. *Overview: Diesel Exhaust and Health*. Available: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed: April 16, 2021.

[11] Bay Area Air Quality Management District. 2017. *Final 2017 Clean Air Plan*. April. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed: April 16, 2021.

[12] California Air Resources Board. 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.* Available: https://ww2.arb.ca.gov/sites/default/files/classic//diesel/documents/rrpfinal.pdf. Accessed: April 14, 2021.

[13] California Air Resources Board. 2021. *Overview: Diesel Exhaust and Health*. Available: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed: April 16, 2021.

[14] Ibid.

[15] California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April. Available: https://ww3.arb.ca.gov/ch/handbook.pdf. Accessed: May 13, 2021.

Existing Air Quality Conditions

CARB and the EPA maintain ambient air quality monitoring stations within California. The air quality monitoring station closest to the Project site is the 897 Barron Avenue monitoring station in Redwood City, which monitors criteria air pollutants. The air quality trends from this station are used to represent ambient air quality in the Project area. Ambient air quality in the Project area from 2017 to 2019 (the most recent available period) is shown in Table 3.2-2. The pollutants monitored at the Redwood City station are O_3, CO, NO_2, and $PM_{2.5}$. Air quality trends for PM_{10} are not monitored in San Mateo County; therefore, the air quality trends for PM_{10} are from the 158 Jackson Street monitoring station in San José.

Table 3.2-2. Ambient Air Quality Data for the Project Area (2017–2019)

Pollutant Standards	2017	2018	2019
Ozone (O_3) at Redwood City station			
Maximum 1-hour concentration (ppm)	0.115	0.067	0.083
Maximum 8-hour concentration (ppm)	0.086	0.049	0.077
Fourth highest 8-hour concentration (ppm)	0.055	0.048	0.054
Number of days standard exceeded			
CAAQS 1-hour standard (> 0.09 ppm)	2	0	0
CAAQS 8-hour standard (> 0.070 ppm)	2	0	2
NAAQS 8-hour standard (> 0.070 ppm)	2	0	2
Carbon Monoxide (CO) at Redwood City station			
Maximum 8-hour concentration (ppm)	1.4	1.7	1.1
Maximum 1-hour concentration (ppm)	2.8	2.5	2.0
Number of days standard exceeded			
NAAQS 8-hour standard ($\geq$ 9 ppm)	0	0	0
CAAQS 8-hour standard ($\geq$ 9.0 ppm)	0	0	0
NAAQS 1-hour standard (> 35 ppm)	0	0	0
CAAQS 1-hour standard ($\geq$ 20 ppm)	0	0	0
Nitrogen Dioxide (NO_2) from Redwood City station			
Maximum state 1-hour concentration (ppm)	0.067	0.077	0.054
Annual average concentration (ppm)	0.010	0.010	0.009
Number of days standard exceeded			
CAAQS 1-hour standard (0.18 ppm)	0	0	0
NAAQS 1-hour standard (0.100 ppm)	0	0	0
Particulate Matter (PM_{10}) at Jackson Street station			
Maximum state 24-hour concentration ($\mu g/m^3$)	69.8	121.8	77.1
Maximum national 24-hour concentration ($\mu g/m^3$)	69.4	115.4	75.4
National annual average concentration	20.7	20.9	18.4
Measured number of days standard exceeded			
CAAQS 24-hour standard (50 $\mu g/m^3$)	6	4	4
NAAQS 24-hour standard (150 $\mu g/m^3$)	0	0	0

Pollutant Standards	2017	2018	2019
Particulate Matter ($PM_{2.5}$) at Redwood City station			
Maximum state 24-hour concentration (μg/m³)	60.8	120.9	29.5
Maximum national 24-hour concentration (μg/m³)	60.8	120.9	29.5
National annual average concentration	9.0	10.5	7.0
Measured number of days standard exceeded			
NAAQS 24-hour standard (> 35 μg/m³)	6	13	0

Sources:
California Air Resources Board. 2021. *iADAM: Air Quality Data Statistics.* Top 4 Summary. Available: https://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed: April 2021.
U.S. Environmental Protection Agency. 2021. *Monitor Values Report*. Available: https://www.epa.gov/outdoor-air-quality-data/monitor-values-report. Accessed: April 2021.
Notes:
NAAQS = National Ambient Air Quality Standard; CAAQS = California Ambient Air Quality Standard; ppm = parts per million; μg/m³ = micrograms per cubic meter
An exceedance is not necessarily a violation.
State statistics are based on local conditions data; state statistics are based on California-approved samplers.
National statistics are based on standard conditions data. In addition, national statistics are based on samplers, using federal reference or equivalent methods.
State criteria for ensuring data are adequate for calculating valid annual averages are more stringent than national criteria.

Existing TAC Sources and Health Risks

BAAQMD maintains an inventory of health risks associated with all permitted stationary sources within the SFBAAB. The inventory was last updated in 2020 and is publicly available online.[16] Within 1,000 feet of the Project site there are five permitted facilities that have a background health risk associated with them. Detailed information on these facilities is included in Appendix 3.2. Aside from stationary sources, emissions of TACs around the Project site are also generated from mobile sources and railways. BAAQMD considers roadways with an average daily traffic (ADT) level of more than 10,000 to be "high-volume roadways" and recommends they be included in the analysis of health risks.

Regional Attainment Status

Local monitoring data are used to designate areas as nonattainment, maintenance, attainment, or unclassified areas for ambient air quality standards. The four designations are defined below. Table 3.2-3 summarizes the attainment status of San Mateo County.

- Nonattainment—assigned to areas where monitored pollutant concentrations consistently violate the standard in question.
- Maintenance—assigned to areas where monitored pollutant concentrations exceeded the standard in question in the past but are no longer in violation of that standard.
- Attainment—assigned to areas where pollutant concentrations meet the standard in question over a designated period of time.
- Unclassified—assigned to areas where data are insufficient to determine whether a pollutant is violating the standard in question.

[16] Bay Area Air Quality Management District. 2020. *Permitted Stationary Sources Risks and Hazards*. Available: https://baaqmd.maps.arcgis.com/apps/webappviewer/index.html?id=2387ae674013413f987b1071715daa65. Accessed: March 23, 2022.

Table 3.2-3. Federal and State Attainment Status for San Mateo County Portion of the SFBAAB

Criteria Pollutant	Federal Designation	State Designation
Ozone (8-hour)	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Unclassified/Attainment	Attainment
Particulate Matter (PM_{10})	Unclassified	Nonattainment
Fine Particulate Matter ($PM_{2.5}$)	Attainment	Nonattainment
Nitrogen Dioxide (NO_2)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO_2)	Unclassified/Attainment	Attainment
Lead	Unclassified/Attainment	Attainment
Sulfates	(No Federal Standard)	Attainment
Hydrogen Sulfide	(No Federal Standard)	Unclassified
Visibility-Reducing Particles	(No Federal Standard)	Unclassified

Source:
California Air Resources Board. 2020. *State Area Designations Regulations*. Appendix C: Maps and Tables of Area Designations for State and National Ambient Air Quality Standards. October. Available: https://ww3.arb.ca.gov/regact/2021/sad20/appc.pdf. Accessed: April 16, 2021.

Sensitive Receptors

Sensitive land uses are generally considered to include those land uses where exposure to pollutants could result in health-related risks to sensitive individuals, including children and the elderly. Per BAAQMD, typical sensitive land uses include residences, hospitals, and schools. Parks and playgrounds where sensitive receptors (e.g., children and seniors) are present are also considered sensitive land uses.[17] Places of employment (e.g., commercial/industrial uses) are not considered sensitive land uses because health-sensitive individuals (e.g., children and seniors) are not present.

Sensitive receptors located near the Project site include the single-family residences along Kavanaugh Drive, which are approximately 760 feet south of the site, and the single-family residences east of University Avenue, the nearest of which is approximately 1,130 feet east of the Project site. Schools in the vicinity of the Project site include Costaño Elementary School, which is east of University Avenue and approximately 1,140 feet southeast of the Project site; Cesar Chavez Ravenswood Middle School, which is approximately 1,160 feet south of the Project site; Wund3rSCHOOL/Open Mind School, which is approximately 920 feet southwest of the Project site; and Mid-Peninsula High School, which is approximately 1,800 feet west-southwest of the Project site.

For the proposed waterline installation, the nearest sensitive receptors are the single-family residences along Carlton Avenue, approximately 210 feet west of Willow Road, and along Alberni Street, approximately 285 feet to the east. The nearest school to the proposed waterline installation is the Wund3rSCHOOL/Open Mind School, approximately 65 feet to the west.

[17] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: April 14, 2021.

Regulatory Setting

The federal Clean Air Act (CAA) and its subsequent amendments form the basis for the nation's air pollution control effort. The EPA is responsible for implementing most aspects of the CAA. The National Ambient Air Quality Standards (NAAQS) for criteria pollutants are a key element of the CAA, which delegates enforcement of the NAAQS to the states. In California, CARB is responsible for enforcing air pollution regulations and ensuring that the NAAQS and California Ambient Air Quality Standards (CAAQS) are met. CARB, in turn, delegates regulatory authority for stationary sources and other air quality management responsibilities to local air agencies. BAAQMD is the local air agency for the Project area.

The following sections provide more detailed information on federal, state, and local air quality regulations that apply to the Proposed Project.

Federal

Clean Air Act and National Ambient Air Quality Standards

The federal CAA was enacted in 1963 and amended numerous times in subsequent years (1965, 1967, 1970, 1977, and 1990). The federal CAA establishes federal air quality standards, known as NAAQS, and specifies future dates for achieving compliance. The federal CAA also requires each state to submit and implement a State Implementation Plan (SIP) for local areas that fail to meet the standards. The plan must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the federal CAA identify specific emission reduction goals for areas that fail to meet the NAAQS. These amendments require both a demonstration of reasonable progress toward attainment and incorporation of additional sanctions for failure to attain or meet interim milestones. The sections of the federal CAA that would affect development of the Proposed Project include Title I (Nonattainment Provisions) and Title II (Mobile-Source Provisions).

Table 3.2-4 shows the NAAQS that are currently in effect for each criteria pollutant. The CAAQS (discussed below) are provided for reference.

Non-Road Diesel Rule

The EPA has established a series of increasingly strict emissions standards for new off-road diesel equipment, on-road diesel trucks, and locomotives. New construction equipment used for the Proposed Project, including heavy-duty trucks and off-road construction equipment, would be required to comply with the emissions standards.

Corporate Average Fuel Economy Standards

The National Highway Traffic Safety Administration (NHTSA) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in emissions of criteria air pollutants and precursors, as well as greenhouse gases, from all light-duty vehicles sold in the United States. On August 2, 2018, NHTSA and the EPA proposed an amendment to the fuel efficiency standards for passenger cars and light trucks and established new standards for model years 2021 through 2026 that would maintain the then-current 2020 standards through 2026—this was known as the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule. On September 19, 2019, NHTSA and the EPA issued a final action on the One National Program Rule, which is considered Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables NHTSA and

Table 3.2-4. Federal and State Ambient Air Quality Standards

Criteria Pollutant	Average Time	California Standards	National Standards[a]	
			Primary	Secondary
Ozone	1 hour	0.09 ppm	None[b]	None[b]
	8 hours	0.070 ppm	0.070 ppm	0.070 ppm
Particulate Matter (PM_{10})	24 hours	50 μg/m³	150 μg/m³	150 μg/m³
	Annual mean	20 μg/m³	None	None
Fine Particulate Matter ($PM_{2.5}$)	24 hours	None	35 μg/m³	35 μg/m³
	Annual mean	12 μg/m³	12.0 μg/m³	15.0 μg/m³
Carbon Monoxide	8 hours	9.0 ppm	9 ppm	None
	1 hour	20 ppm	35 ppm	None
Nitrogen Dioxide	Annual mean	0.030 ppm	0.053 ppm	0.053 ppm
	1 hour	0.18 ppm	0.100 ppm	None
Sulfur Dioxide[c]	Annual mean	None	0.030 ppm	None
	24 hours	0.04 ppm	0.14 ppm	None
	3 hours	None	None	0.5 ppm
	1 hour	0.25 ppm	0.075 ppm	None
Lead	30-day average	1.5 μg/m³	None	None
	Calendar quarter	None	1.5 μg/m³	1.5 μg/m³
	3-month average	None	0.15 μg/m³	0.15 μg/m³
Sulfates	24 hours	25 μg/m³	None	None
Visibility-Reducing Particles	8 hours	—[d]	None	None
Hydrogen Sulfide	1 hour	0.03 ppm	None	None
Vinyl Chloride	24 hours	0.01 ppm	None	None

Source: California Air Resources Board. 2016. *Ambient Air Quality Standards*. Available: https://ww2.arb.ca.gov/sites/default/files/2020-07/aaqs2.pdf. Accessed: April 16, 2021.

PM_{10} = particulate matter with an aerodynamic diameter of 10 microns or less

$PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 microns or less

μg/m³ = micrograms per cubic meter

ppm = parts per million

a. National standards are divided into primary and secondary standards. Primary standards are intended to protect public health, whereas secondary standards are intended to protect public welfare and the environment.

b. The federal 1-hour standard of 12 parts per hundred million was in effect from 1979 through June 15, 2005. The revoked standard is referenced because it was employed for such a long period and is a benchmark for SIPs.

c. The annual and 24-hour NAAQS for sulfur dioxide apply for only 1 year after designation of the new 1-hour standard in areas that were previously nonattainment areas for the 24-hour and annual NAAQS.

d. The CAAQS for visibility-reducing particles is defined by an extinction coefficient of 0.23 per kilometer (visibility of 10 miles or more due to particles when relative humidity is less than 70 percent).

the EPA to provide nationwide uniform fuel economy and air pollutant standards by 1) clarifying that federal law preempts state and local tailpipe standards, 2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and 3) withdrawing California's CAA preemption waiver to set state-specific standards.

NHTSA and the EPA published their decision to withdraw California's waiver and finalize the regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on

September 20, 2019 (*California et al. v. United States Department of Transportation et al.,* 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to transfer the suit to the District of Columbia (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). The lawsuit filed by California and others has been stayed, pending resolution of the petition.

NHTSA and the EPA published final rules on April 30, 2020, to amend and establish national air pollutant and fuel economy standards (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 46.7 miles per gallon (mpg) to 40.4 mpg in future years. California, 22 other states, and the District of Columbia filed a petition for review of the final rule on May 27, 2020.[18]

On January 20, 2021, the president issued an executive order, directing NHTSA and the EPA to review the SAFE Vehicles Rule, Part One, and propose a new rule for suspending, revising, or rescinding it by April 2021. The executive order also requires NHTSA and the EPA to propose a new rule for suspending, revising, or rescinding Part Two by July 2021. On April 22, 2021, NHTSA announced that it proposes to repeal the SAFE Vehicles Rule, Part One, allowing California the right to set its own standards.[19]

State

California Clean Air Act and California Ambient Air Quality Standards

In 1988, the state legislature adopted the California CAA, which established a statewide air pollution control program. The California CAA requires all air districts in the state to endeavor to meet the CAAQS by the earliest practical date. Unlike the federal CAA, the California CAA does not set precise attainment deadlines. Instead, the California CAA establishes increasingly stringent requirements for areas that require more time to achieve the standards. The CAAQS are generally more stringent than the NAAQS and incorporate additional standards for sulfates, hydrogen sulfide, visibility-reducing particles, and vinyl chloride. The CAAQS and NAAQS are listed together in Table 3.2-4.

CARB and local air districts bear responsibility for achieving California's air quality standards. The standards are to be achieved through district-level air quality management plans, which are incorporated into the SIP. In California, EPA has delegated authority to prepare SIPs to CARB, which, in turn, has delegated that authority to individual air districts. CARB has traditionally established state air quality standards, maintained oversight authority for air quality planning, developed programs for reducing emissions from motor vehicles, developed air emissions inventories, collected air quality and meteorological data, and approved SIPs.

The California CAA substantially increases the authority and responsibilities of air districts. The California CAA designates air districts as lead air quality planning agencies, requires air districts to prepare air quality plans, and grants air districts authority to implement transportation control measures. The California CAA also emphasizes control of "indirect and area-wide sources" of air pollutant emissions. The California CAA gives local air pollution control districts explicit authority to regulate indirect sources and establish traffic control measures.

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[18] *California et al. v. United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia.

[19] U.S. Department of Transportation, National Highway Transportation Safety Administration. 2021. *Corporate Average Fuel Economy Preemption.* Available: https://www.nhtsa.gov/sites/nhtsa.gov/files/documents/cafe_preemption_nprm_04222021_1.pdf. Accessed: March 23, 2022.

Statewide Truck and Bus Regulation

CARB adopted the Truck and Bus Regulation in 2008 to focus its efforts on reducing emissions of DPM, NO_X, and other criteria pollutants from diesel-fueled vehicles. This regulation applies to any diesel-fueled vehicle as well as any dual-fuel or alternative-fuel diesel vehicle that travels on public highways; yard trucks with on-road engines; yard trucks with off-road engines used for agricultural operations; school buses; and vehicles with a gross vehicle weight rating (GVWR) of more than 14,000 pounds. The purpose of the regulation is to require trucks and buses registered in the state to have 2010 or newer engines by 2023. Compliance schedules have been established for lighter vehicles (GVWR of 14,000–26,000 pounds) and heavier vehicles (GVWR of more than 26,001 pounds).[20] As of January 1, 2020, only vehicles that met the requirements of the Trucks and Bus Regulation were allowed to register with the California Department of Motor Vehicles.

Air Toxic Control Measure

In 2004, CARB developed multiple measures under its Air Toxic Control Measure (ATCM) to address specific mobile- and stationary-source issues that have an impact on public health. The ATCMs focused on reducing the public's exposure to DPM and TAC emissions. The "Limit Diesel-Fueled Commercial Motor Vehicle Idling" ATCM required drivers of heavy-duty trucks with a GVWR of more than 10,000 pounds to not idle the primary engine for more than 5 minutes at any given time or operate an auxiliary power system for more than 5 minutes within 100 feet of a restricted area.[21] In addition, CARB set operating requirements for new emergency standby engines (i.e., diesel-fueled compression-ignition engines of less than 50 brake horsepower). Specifically, new engines shall not operate more than 50 hours per year for maintenance and testing purposes. This does not limit engine operation for emergency use or emission testing required to show compliance with ATCM Section 93115.6(a)(3).

Toxic Air Contaminant Regulation

California regulates TACs primarily through the Toxic Air Contaminant Identification and Control Act (Tanner Act) and the Air Toxics "Hot Spots" Information and Assessment Act of 1987 ("Hot Spots" Act). In the early 1980s, CARB established a statewide comprehensive air toxics program to reduce exposure to air toxics. The Tanner Act created California's program to reduce the public's exposure to air toxics. The "Hot Spots" Act supplements the Tanner Act by requiring a statewide air toxics inventory, notification for people who were exposed to a significant health risk, and facility plans to reduce risks.

In August 1998, CARB identified DPM from diesel-fueled engines as a TAC. In September 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce emissions from both new and existing diesel-fueled engines and vehicles. As discussed previously, implementation of ATCMs helped reduce statewide DPM concentrations substantially. CARB plans to continue its efforts to reduce DPM emissions and estimates that, by 2035, DPM emissions will be less than half of what they were in 2010.[22]

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[20] California Air Resources Board. 2020. *CARB Truck Rule Compliance Required for DMV Registration*. July. Available: https://ww3.arb.ca.gov/msprog/truckstop/pdfs/sb1_faqeng.pdf. Accessed: April 16, 2021.

[21] California Air Resources Board. 2005. *Final Regulation Order, Regulation for In-Use Off-Road Diesel Vehicles.* Available: https://ww3.arb.ca.gov/regact/2007/ordiesl07/frooal.pdf. Accessed: April 16, 2021.

[22] California Air Resources Board. 2021. *Overview: Diesel Exhaust and Health*. Available: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed: April 16, 2021.

Off-Road Diesel Vehicle Regulation

Off-road vehicles include, but are not limited to, diesel compression-ignition equipment; spark-ignition gasoline and liquified petroleum gas equipment; support equipment at ports, airports, and railways; and marine vehicles. In 2007, CARB aimed to reduce emissions of DPM, NO_X, and other criteria pollutants from off-road diesel-fueled equipment with adoption of the In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation). The Off-Road Regulation applies to all diesel-fueled equipment or alternative-fuel diesel equipment with a compression-ignition engine greater than 25 horsepower (e.g., tractors, bulldozers, backhoes) as well as dual-fuel equipment. The regulation also applies to all equipment that is rented or leased.[23] The purpose of the regulation is to reduce emissions by retiring, repowering, or replacing older, dirtier engines with newer, cleaner engines. The regulation established a compliance schedule for owners of small, medium, and large fleets. The schedule for large and medium fleets requires full implementation by 2023; small fleets have until 2028.[24]

Local

Bay Area Air Quality Management District

BAAQMD seeks to attain and maintain air quality conditions in the SFBAAB through a comprehensive program of planning, regulation, enforcement, technical innovation, and education. Its clean air strategy includes the preparation of plans for the attainment of ambient air quality standards, adoption and enforcement of rules and regulations, and issuance of permits for stationary sources. BAAQMD also inspects stationary sources and responds to citizen complaints, monitors ambient air quality and meteorological conditions, and implements programs and regulations, as required by law.

2017 Bay Area Clean Air Plan

The 2017 Bay Area Clean Air Plan (Clean Air Plan) guides the region's air quality planning efforts to attain the CAAQS.[25] The current plan, adopted on April 19, 2017, by the BAAQMD Board of Directors, contains district-wide control measures to reduce O_3 precursor emissions (e.g., ROGs and NO_X), particulate matter, and greenhouse gas (GHG) emissions. Specifically, the Clean Air Plan:

- Describes the BAAQMD plan for attaining all state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities;
- Defines a vision for transitioning the region to the post-carbon economy needed to achieve ambitious GHG reduction targets for 2030 and 2050;
- Provides a regional climate protection strategy that will put the Bay Area on a pathway to achieving GHG reduction targets; and
- Includes a wide range of control measures to decrease emissions of the air pollutants that are most harmful to Bay Area residents, such as particulate matter, O_3, and TACs; reduce emissions of methane and other GHGs with high global warming potential that are potent climate pollutants in the near term; and decrease emissions of CO by reducing fossil fuel combustion.

[23] California Air Resources Board. 2008. *Final Regulation Order, Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.* Available: https://ww3.arb.ca.gov/regact/idling/fro1.pdf. Accessed: April 16, 2021.

[24] Ibid.

[25] Bay Area Air Quality Management District. 2017. *Final 2017 Clean Air Plan*. April. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed: April 14, 2021.

BAAQMD CARE Program

The Community Air Risk Evaluation (CARE) program was initiated in 2004 to evaluate and reduce health risks associated with exposures to outdoor TACs in the Bay Area. The program examines TAC emissions from point sources, area sources, and on-road and off-road mobile sources, with an emphasis on diesel exhaust, which is a major contributor to airborne health risks in California. The CARE program is an ongoing program that encourages community involvement and input. The technical analysis portion of the CARE program is being implemented in three phases: an assessment of the sources of TAC emissions, modeling and measurement programs to estimate concentrations of TACs, and an assessment of exposures and health risks. Throughout the program, information derived from the technical analyses will be used to focus emission reduction measures in areas with high TAC exposures and a high density of sensitive populations. Risk reduction activities associated with the CARE program are focused on the most at-risk communities in the Bay Area.

For commercial and industrial sources, BAAQMD regulates TACs using a risk-based approach. This approach uses an HRA to determine what sources and pollutants to control as well as the degree of control. An HRA is an analysis in which human health exposure to toxic substances is estimated and considered together with information regarding the toxic potency of the substances in order to provide a quantitative estimate of health risks.[26] As part of ongoing efforts to identify and assess potential health risks to the public, BAAQMD has collected and compiled air toxics emissions data from industrial and commercial sources of air pollution throughout the Bay Area. BAAQMD has identified seven affected communities; Menlo Park has not been identified as an affected community.[27,28]

BAAQMD CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines were prepared to assist in the evaluation of the air quality impacts of projects and plans proposed within the Bay Area. The guidelines provide recommended procedures for evaluating potential air impacts during the environmental review process, consistent with CEQA requirements, and include recommended thresholds of significance, mitigation measures, and background air quality information. They also include recommended assessment methodologies for air toxics, odors, and GHG emissions.

In June 2010, BAAQMD adopted updated CEQA Air Quality Guidelines and finalized them in May 2011. The guidelines, which superseded the previously adopted agency air quality guidelines of 1999, were intended to advise lead agencies on how to evaluate potential air quality impacts. In May 2017, BAAQMD published an updated version of the CEQA Air Quality Guidelines. The 2017 CEQA Air Quality Guidelines included thresholds for evaluating a project's impact on air quality. These protective thresholds are appropriate to the size, scale, and location of the Proposed Project.

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[26] In general, a health risk assessment is required if BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggests a potential public health risk. Such an assessment generally evaluates chronic, long-term effects, including the increased risk of cancer as a result of exposure to one or more TACs.

[27] The affected communities are Richmond/San Pablo; eastern San Francisco, including Treasure Island; San José; western Alameda County; Concord, Vallejo; and Pittsburg/Antioch.

[28] Bay Area Air Quality Management District. 2015. *Identifying Areas with Cumulative Impacts from Air Pollution in the San Francisco Bay Area*. March. Available: https://www.baaqmd.gov/~/media/Files/Planning%20and%20Research/CARE%20Program/Documents/ImpactCommunities_2_Methodology.ashx. Accessed: April 14, 2021.

City of Menlo Park

The City of Menlo Park (City) addresses air quality issues in the Open Space, Conservation, Noise, and Safety Elements of the Menlo Park General Plan.[29] The Open Space, Conservation, Noise, and Safety Elements set goals, policies, and implementing programs that work to ensure healthy air quality. The following policies are applicable to the Proposed Project:

> **Policy OSC5.1: Air and Water Quality Standards**. Continue to apply standards and policies established by BAAQMD, the San Mateo Countywide Water Pollution Prevention Program, and City of Menlo Park Climate Action Plan through the CEQA process and other means as applicable.
>
> **Policy OSC5.2: Development in Industrial Areas.** Evaluate development projects in industrial areas for impacts on air and water resources in relation to truck traffic, hazardous material use, and production-level manufacturing per CEQA and require measures to mitigate potential impacts to less-than-significant levels.

ConnectMenlo General Plan

The General Plan and M-2 Area Zoning Update (ConnectMenlo), which updated the Land Use Element and Circulation Element of the Menlo Park General Plan, was adopted in November 2016. The following goal and policy from ConnectMenlo are most relevant to the Proposed Project:[30]

Goal CIRC-3: Sustainable Transportation. Increase mobility options to reduce traffic congestion, greenhouse gas emissions, and commute travel time.

> **Policy CIRC-4.2: Local Air Pollution**. Promote non-motorized transportation to reduce exposure to local air pollution, thereby reducing risks of respiratory diseases, other chronic illnesses, and premature death.

Environmental Impacts

This section describes the impact analysis related to air quality for the Proposed Project. It describes the methods used to determine the impacts of the Proposed Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, as necessary.

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Proposed Project would have a significant effect if it would result in any of the conditions listed below.

- Conflict with or obstruct implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase in any criteria pollutant for which the project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people.

[29] Menlo Park, City of. 2013. *City of Menlo Park General Plan, Open Space Conservation, Noise and Safety Elements*. May 21. Available: https://www.menlopark.org/DocumentCenter/View/234/Open-Space-and-Conservation-Noise-and-Safety-Elements?bidId=. Accessed: April 14, 2021.

[30] Menlo Park, City of. 2016. *City of Menlo Park General Plan, Land Use and Circulation Elements.* November 29. Available: https://www.menlopark.org/DocumentCenter/View/15013/Land-Use-and-Circulation-Element_adopted-112916_final_figures?bidId=. Accessed: April 14, 2021.

The sections that follow discuss thresholds and analysis considerations for regional and local Project-generated criteria pollutants with respect to their human health implications as well as a discussion regarding potential odor emissions from the Proposed Project.

Local Air District Thresholds

Regional Thresholds for Air Basin Attainment of State and Federal Ambient Air Quality Standards

BAAQMD has adopted thresholds for regional air pollutants to assist lead agencies in determining the significance of environmental effects with respect to local attainment of state and federal ambient air quality standards. (As discussed above, ROG and NO_X are regional pollutants, whereas particulate matter is both a regional and local pollutant.) The thresholds are based on emissions levels identified under the New Source Review (NSR) program, which is a permitting program established by Congress as part of the CAA amendments of 1990 to ensure that air quality is not significantly degraded by new sources of emissions. The NSR program requires stationary sources to receive permits before construction and/or the use of equipment. By permitting large stationary sources, the NSR program ensures that new emissions will not slow regional progress toward attaining the NAAQS. BAAQMD concluded that the stationary pollutants described under the NSR program are equal in significance to those generated with land use projects.

BAAQMD's regional thresholds identified in Table 3.2-5 were set as the total emission thresholds associated within the NSR program to help attain the NAAQS.[31]

Table 3.2-5. BAAQMD Project-Level Regional Criteria Pollutant Emission Thresholds

Analysis	Thresholds
Regional Criteria Pollutants (Construction)	• Reactive Organic Gases: 54 pounds/day • Nitrogen Oxides: 54 pounds/day • Particulate Matter: 82 pounds/day (exhaust only); compliance with best management practices (fugitive dust) • Fine Particulate Matter: 54 pounds/day (exhaust only); compliance with best management practices (fugitive dust)
Regional Criteria Pollutants (Operations)	• Reactive Organic Gases: 54 pounds/day • Nitrogen Oxides: 54 pounds/day • Particulate Matter: 82 pounds/day (exhaust + fugitive dust) • Fine Particulate Matter: 54 pounds/day (exhaust +fugitive dust)

Source: Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: April 14, 2021.

Health-Based Thresholds for Project-Generated Pollutants of Human Health Concern

The California Supreme Court's 2018 decision in *Sierra Club v. County of Fresno* (6 Cal. 5th 502), hereafter referred to as the Friant Ranch Decision, included review of the long-term regional air quality analysis contained in the environmental impact report (EIR) for the proposed Community Plan Update and Friant Ranch Specific Plan (Friant Ranch Project). The Friant Ranch Project proposed a 942-acre master-plan

[31] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines.* May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: April 14, 2021.

development in unincorporated Fresno County, within the San Joaquin Valley Air Basin, which is currently designated as a nonattainment area with respect to the NAAQS and CAAQS for O_3 and $PM_{2.5}$. The court found that the EIR's air quality analysis was inadequate because it failed to provide enough detail "for the public to translate the bare [criteria pollutant emissions] numbers provided into adverse health impacts or to understand why such a translation is not possible at this time." The court's decision notes that environmental documents must attempt to connect a project's air quality impacts to specific health effects or explain why it is not technically feasible to perform such an analysis.

All criteria pollutants generated by the Proposed Project would be associated with some form of health risk (e.g., asthma, lower respiratory problems). Criteria pollutants can be classified as either regional pollutants or localized pollutants. Regional pollutants can be transported over long distances and affect ambient air quality far from the emissions source. Localized pollutants affect ambient air quality near the emissions source. O_3 is considered a regional criteria pollutant, whereas CO, NO_2, SO_2, and lead are localized pollutants. Particulate matter can be both a local and a regional pollutant, depending on its composition. The primary criteria pollutants of concern generated by the Proposed Project would be O_3 precursors (ROG and NO_X), CO, and particulate matter, including DPM.

The sections that follow discuss thresholds and analysis considerations for regional and local Project-generated criteria pollutants with respect to their human health implications.

Regional Project-Generated Criteria Pollutants (Ozone Precursors and Regional PM)

Adverse health effects from regional criteria pollutant emissions, such as O_3 precursors and particulate matter, generated by the Proposed Project are highly dependent on a multitude of interconnected variables (e.g., cumulative concentrations, local meteorology and atmospheric conditions, the number and character of exposed individuals [e.g., age, gender]). Therefore, O_3 precursors (ROG and NO_X) contribute to the formation of ground-borne O_3 on a regional scale. Emissions of ROG and NO_X generated in an area may not correlate to a specific O_3 concentration in that same area. Similarly, some types of particulate pollutant may be transported over long distances or formed through atmospheric reactions. As such, the magnitude and locations of specific health effects from exposure to increased O_3 or regional particulate matter concentrations are the product of emissions generated by numerous sources throughout a region, as opposed to a single individual project. Moreover, exposure to regional air pollution does not guarantee that an individual will experience an adverse health effect. As discussed above, there are large individual differences in the intensity of symptomatic responses to air pollutants. These differences are influenced, in part, by the underlying health condition of an individual, which cannot be known.

Models and tools have been developed to correlate regional criteria pollutant emissions to potential community health impacts. Although models are capable of quantifying O_3 and any secondary particulate matter formation and associated health effects, these tools were developed to support large-scale regional planning and policy analysis and have limited sensitivity to small changes in criteria pollutant concentrations induced by individual projects. Therefore, translating Project-generated criteria pollutants to the locations where specific health effects could occur or the resultant number of additional days of nonattainment is not possible with any degree of accuracy.

The technical limitations of existing models (e.g., for correlating Project-level regional emissions to specific health consequences) are recognized by air quality management districts throughout the state, including the San Joaquin Valley Air Pollution Control District (SJVAPCD) and SCAQMD, which provided amici curiae briefs for the Friant Ranch Project's legal proceedings. In its brief, the SJVAPCD acknowledged that HRAs for localized air toxics, such as DPM, are common; however, "it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not

equipped for this task."[32] The SJVAPCD further notes that emissions solely from the Friant Ranch Project, which equate to less than one-tenth of one percent of total NO_X and volatile organic compounds in the valley, is not likely to yield valid information and that any such information would not be "accurate when applied at the local level." SCAQMD presents similar information in its brief, stating that "it takes a large amount of additional precursor emissions to cause a modeled increase in ambient O_3 levels."[33,34] As of December 2021, BAAQMD has not approved a quantitative method for accurately correlating criteria pollutant emissions generated by an individual project to specific health outcomes or changes in nonattainment days.

As discussed above, air districts develop region-specific CEQA thresholds of significance in consideration of existing air quality concentrations as well as attainment or nonattainment designations under the NAAQS and CAAQS. The NAAQS and CAAQS are informed by a wide range of scientific evidence that demonstrates that there are known safe concentrations of criteria pollutants. Although recognizing that air quality is a cumulative problem, air districts typically consider projects that generate criteria pollutant and O_3 precursor emissions that are below the thresholds to be minor in nature. Such projects would not adversely affect air quality or exceed the NAAQS or CAAQS. Emissions generated by the Proposed Project could increase photochemical reactions and the formation of tropospheric O_3 and secondary particulate matter, which, at certain concentrations, could lead to increased incidences of specific health consequences. Although these health effects are associated with O_3 and particulate pollution, the effects are a result of cumulative and regional emissions. Therefore, the Proposed Project's incremental contribution cannot be traced to specific health outcomes on a regional scale, and a quantitative correlation of Project-generated regional criteria pollutant emissions to specific human health impacts is not included in this analysis.

Localized Project-Generated Criteria Pollutant Emissions (CO and Particulate Matter) and Air Toxics (DPM and Asbestos)

Localized pollutants generated by a project can affect populations near the emissions source. Because these pollutants dissipate with distance, emissions from individual projects can result in direct and material health impacts on adjacent sensitive receptors. The localized pollutants of concern that would be generated by the Proposed Project are CO, particulate matter, DPM, and asbestos. The applicable thresholds for each pollutant are described below.

Localized Carbon Monoxide Concentrations

Heavy traffic congestion can contribute to high levels of CO, and individuals exposed to such hot spots may have a greater likelihood of developing adverse health effects. BAAQMD has adopted screening criteria that provide a conservative indication of whether Project-generated traffic would cause a potential CO hot spot. If the screening criteria are not met, a quantitative analysis through site-specific dispersion modeling of Project-related CO concentrations would not be necessary, and the Proposed

[32] San Joaquin Valley Air Pollution Control District. 2015. *Amicus Curiae Brief of San Joaquin Valley Unified Air Pollution Control District in Support of Defendant and Respondent, County of Fresno and Real Party in Interest and Respondent, Friant Ranch, L.P.* Available: https://www.courts.ca.gov/documents/7-s219783-ac-san-joaquin-valley-unified-air-pollution-control-dist-041315.pdf. Accessed: April 14, 2021.

[33] South Coast Air Quality Management District. 2015. *Application of the South Coast Air Quality Management District for Leave to File Brief of Amicus Curiae in Support of Neither Party and [Proposed] Brief of Amicus Curiae.* Available: https://www.courts.ca.gov/documents/9-s219783-ac-south-coast-air-quality-mgt-dist-041315.pdf. Accessed: April 15, 2021.

[34] For example, SCAQMD's analysis of its 2012 Air Quality Attainment Plan showed that the modeled NO_x and ROG reductions of 432 and 187 tons per day, respectively, reduced ozone levels by only 9 parts per billion.

Project would not cause localized violations of the CAAQS for CO. Projects that do not generate CO concentrations in excess of the health-based CAAQS would not contribute a significant level of CO such that localized air quality and human health would be substantially degraded. BAAQMD's CO screening criteria are summarized below.

1. Project traffic would not increase traffic volumes at affected intersections beyond 44,000 vehicles per hour.
2. Project traffic would not increase traffic volumes at affected intersections beyond 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., a tunnel, parking garage, bridge underpass, natural or urban street canyon, below-grade roadway).
3. The project would be consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, a regional transportation plan, and local congestion management agency plans.

Localized Particulate Matter Concentrations

BAAQMD adopted an incremental $PM_{2.5}$ concentration-based significance threshold in which a "substantial" contribution at the project level for an individual source is defined as total $PM_{2.5}$ concentrations (i.e., exhaust and fugitive) exceeding 0.3 $\mu g/m^3$. This is the same threshold used to evaluate the placement of new receptors that would be exposed to individual $PM_{2.5}$ emissions sources. In addition, BAAQMD considers projects to have a cumulatively considerable $PM_{2.5}$ impact if sensitive receptors are exposed to $PM_{2.5}$ concentrations from local sources within 1,000 feet, including existing sources, project-related sources, and reasonably foreseeable future sources, that exceed 0.8 $\mu g/m^3$.

BAAQMD has not established PM_{10} thresholds of significance. BAAQMD's $PM_{2.5}$ thresholds apply to both new receptors and new sources. However, BAAQMD considers fugitive PM_{10} from earthmoving activities to be less than significant with application of BAAQMD's best management practices (BMPs).

Localized Toxic Air Contaminant Concentrations

DPM has been identified as a TAC. DPM is particularly concerning because long-term exposure can lead to cancer, birth defects, and damage to the brain and nervous system. BAAQMD has adopted incremental cancer and hazard thresholds to evaluate receptor exposure to single sources of DPM emissions. The "substantial" DPM threshold, as defined by BAAQMD, is exposure of a sensitive receptor to an individual emissions source that results in an excess cancer risk level of more than 10 in 1 million or a non-cancer (i.e., chronic or acute) hazard index (HI) greater than 1.0.

The air district considers projects to have a cumulatively considerable DPM impact if they contribute DPM emissions that, when combined with cumulative sources within 1,000 feet of sensitive receptors, result in excess cancer risk levels of more than 100 in 1 million or an HI greater than 10.0. BAAQMD considers a project to have a significant cumulative impact if it introduces new receptors at a location where the combined exposure to all cumulative sources within 1,000 feet is in excess of the cumulative thresholds.

Asbestos

BAAQMD considers a project to have a significant impact if it does not comply with the applicable regulatory requirements outlined in Regulation 11, Rule 2, Asbestos Demolition, Renovation, and Manufacturing.

Methods for Analysis

Air quality impacts associated with construction and operation of the Proposed Project were assessed and quantified using standard and accepted software tools, calculations, and emission factors. A summary of the methodology is provided below.

Construction

Construction of the Proposed Project is estimated to have a duration of approximately 29 months. In addition to the main development, the Proposed Project would include two waterlines along Adams Court and O'Brien Drive. See Chapter 2, *Project Description,* for details on the waterlines. Construction would generate ROG, NO_X, PM_{10}, and $PM_{2.5}$ that could result in short-term air quality effects during the construction period. Emissions would be associated with exhaust from off-road equipment, exhaust from employees' vehicles and haul trucks, fugitive dust from site grading and earthmoving, suspended road dust from vehicle travel, and off-gassing emissions from architectural coatings and paving. The BAAQMD regional construction thresholds require evaluation of only exhaust emissions; however, the air quality analysis also estimated fugitive dust emissions for the $PM_{2.5}$ analysis. Emissions were estimated using a combination of emission factors and methodologies from the California Emissions Estimator Model (CalEEMod), version 2016.3.2; CARB's EMission FACtor 2021 (EMFAC2021) model; and EPA's AP-42: Compilation of Air Pollutant Emission Factors. The estimates relied on a combination of CalEEMod default data as well as Project-specific information provided by the Project Sponsor. A detailed description of model input and output parameters and assumptions is provided in Appendix 3.2.

Operation

Operation of the Proposed Project would generate emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$. Criteria pollutant emissions from motor vehicles associated with development of the Proposed Project were evaluated using CalEEMod, emission factors from EMFAC2021, and trip generation rates and trip lengths provided in the Transportation Impact Analysis (TIA) prepared for the Proposed Project.[35] Area-, energy-, and stationary-source emissions associated with the Proposed Project were also estimated using CalEEMod and included in Appendix 3.2. Area-source emissions would result from the reapplication of architectural coatings as part of ongoing building maintenance, the use of consumer products, and the use of landscaping equipment. Energy-source emissions would result from the combustion of natural gas for space heating. Stationary-source emissions would result from the maintenance and testing of a diesel-powered emergency generator with a rating of 2,218 horsepower that would operate for 15 minutes each week. The Proposed Project would be fully operational by 2024. A detailed description of model input and output parameters and assumptions is provided in Appendix 3.2.

Health Risk Analysis

An HRA was prepared to quantify the levels of exposure at nearby sensitive receptors from emissions of TACs and $PM_{2.5}$ generated during both Project construction and operation.

Diesel Particulate Matter and $PM_{2.5}$

The Proposed Project would generate DPM and $PM_{2.5}$ emissions during construction and operations. Because the Proposed Project would introduce DPM and $PM_{2.5}$ emissions in an area near existing sensitive receptors, an HRA was conducted. The HRA used EPA's most recent air dispersion model, AERMOD

[35] Hexagon Transportation Consultants. 2022. *1350 Adams Court Transportation Impact Analysis*.

(version 21112); cancer and chronic risk assessment values for DPM provided by the Office of Environmental Health Hazard Assessment (OEHHA); and other assumptions for model inputs recommended in BAAQMD's Health Risk Assessment Modeling Protocol.[36] The HRA applies the most recent guidance and calculation methods from OEHHA's *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments*.[37] The HRA consists of three parts: an emissions inventory, air dispersion modeling, and risk calculations. A description of each of these parts follows.

Emissions Inventory

The emissions inventory includes DPM and $PM_{2.5}$ emissions from construction and operations. During construction, DPM emissions would be generated by off-road equipment and on-road travel by heavy-duty trucks. The construction $PM_{2.5}$ inventory consists of $PM_{2.5}$ exhaust and fugitive dust emissions from off-road equipment, onsite soil movement, and on-road travel by heavy-duty trucks and workers' vehicles.

The operational DPM inventory includes emissions from maintenance and testing of the emergency generator and on-road travel by diesel-powered delivery trucks. The operational $PM_{2.5}$ inventory consists of $PM_{2.5}$ exhaust emissions from the emergency generator and $PM_{2.5}$ exhaust and fugitive dust emissions from on-road travel by employee vehicles and delivery trucks.

Air Dispersion Modeling

The HRA used EPA's AERMOD model, version 21112, to model annual average DPM and $PM_{2.5}$ concentrations at nearby receptors. Modeling inputs, including emission rates in grams of pollutant emitted per second, and source characteristics (e.g., release height, stack diameter, plume width) were based on guidance provided by OEHHA, BAAQMD, and the SCAQMD. Meteorological data were obtained from CARB for the Santa Clara County station at Palo Alto Airport. This meteorological station is the nearest monitoring station (2.4 miles south of the Project site).

Construction

Onsite construction emissions from off-road equipment were characterized as a polygon area source that outlined the footprint of the Project site. A release height of 5.0 meters represented exhaust emissions, and a release height of 0 meters represented onsite fugitive dust emissions.[38] The release height represents the height above the ground at which pollutants are emitted. On-road travel emissions from haul and vendor trucks, as well as workers' vehicles for $PM_{2.5}$ analysis, were characterized as line volume sources with release heights of 0.9 meters for fugitive dust emissions and 3.4 meters for exhaust emissions. Line volume sources represent a series of individual volumes sources.

To account for the plume rise associated with mechanically generated air turbulence from construction emissions for the AERMOD run, the initial vertical dimension of the area source was modeled at 1.4 meters for exhaust and at 1.0 meters for fugitive dust; for the line volume, the initial vertical dimensions

[36] Bay Area Air Quality Management District. 2020. *Health Risk Assessment Modeling Protocol*. December. Available: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol_august_2020-pdf.pdf?la=en. Accessed: April 15, 2021.

[37] Office of Environmental Health Hazard Assessment. 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments*. February. Available: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed: April 15, 2021.

[38] South Coast Air Quality Management District. 2008. *Final Localized Significance Threshold Methodology*. Revised July. Available: https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/final-lst-methodology-document.pdf?sfvrsn=2. Accessed: April 15, 2021.

were 3.2 meters for exhaust and 0.8 meters for fugitive dust. Plume rise is the height that pollutants rise above a release height. For exhaust, plume rise occurs because of the temperature of the exhaust gas. Exhaust gas temperatures can be high, which causes the plume to rise. For dust, plume rise accounts for the mechanical entrainment of dust in the wheels of equipment and trucks. Emissions from off-road equipment were assumed to be generated throughout the construction footprint. Emissions from offsite trucks were modeled along the road segments adjacent to the construction footprint.

The modeling of emissions from construction activities was based on typical construction hours and number of days (8 hours per day, 5 days per week). The urban dispersion option was used in the analysis because of the Project site's characteristics and because surrounding areas are developed with buildings and paved surfaces that can influence how pollutants are dispersed in the area. Offsite sensitive receptors were placed at individual homes in all directions within 1,000 feet of the Project site using a 10-by-10-meter receptor grid. Receptors were given a height of 1.5 meters to represent the average human breathing zone.[39]

Operations

Operations would generate DPM and $PM_{2.5}$ from vehicle travel and testing and maintenance of an emergency generator. On-road travel emissions from delivery trucks, as well as workers' vehicles for $PM_{2.5}$ analysis, were characterized as line volume sources with release heights of 0.9 meters for fugitive dust emissions and 3.4 meters for exhaust emissions. To account for plume rise associated with mechanically generated air turbulence from operational emissions sources for the AERMOD run, the initial vertical dimension for the line volume sources was 3.2 meters for exhaust and 0.8 meters for fugitive dust. The emergency generator would generate both DPM and $PM_{2.5}$ emissions. The emergency generator was represented with use of a point source with a release height of 3.05 meters and an exhaust flow rate of 11,689 cubic feet per minute.

Similar to construction, the urban dispersion option used considered the Project site's characteristics. Offsite sensitive receptors were placed at individual homes in all directions within 1,000 feet of the Project site using a 10-by-10-meter receptor grid; the same grid from the construction analysis was also used for operations. Receptors were given a height of 1.5 meters to represent the average human breathing zone.[40] A complete list of dispersion modeling inputs is provided in Appendix 3.2.

Risk Calculations

The risk calculations incorporate OEHHA's age sensitivity factors, which account for increased sensitivity to carcinogens during early-in-life exposure. The approach for estimating cancer risk from long-term inhalation, including exposure to carcinogens, requires calculating a range of potential doses and multiplying by cancer potency factors in units corresponding to the inverse dose to obtain a range of cancer risks. For cancer risk, the risk for each age group is calculated using the appropriate daily breathing rates, age sensitivity factors, and exposure durations. The cancer risks calculated for individual age groups are summed to estimate the cancer risk for each receptor. Chronic cancer and hazard risks were calculated

[39] Bay Area Air Quality Management District. 2020. *Health Risk Assessment Modeling Protocol*. December. Available: https://www.baaqmd.gov/~/media/files/ab617-community-health/facility-risk-reduction/documents/baaqmd_hra_modeling_protocol_august_2020-pdf.pdf?la=en. Accessed: April 15, 2021.

[40] Ibid.

using values from OEHHA's 2015 HRA guidance.[41] In accordance with BAAQMD guidance, residential cancer risks assumed a 30-year exposure duration. Two cancer risk scenarios were evaluated for the Proposed Project. Scenario 1 evaluates a receptor beginning in the third trimester of pregnancy and being exposed to the full construction duration of 2.40 years and then 27.60 years of operations, for a total exposure duration of 30 years. Scenario 2 evaluates a receptor beginning in the third trimester of pregnancy and being exposed to 30 years of operations. Refer to Appendix 3.2 for the risk calculations and additional assumptions.

Summary of Analysis in the ConnectMenlo EIR

An overview of the air quality impacts and required mitigation measures, as identified in the ConnectMenlo Final EIR, is provided below.

Clean Air Plan

The ConnectMenlo Final EIR determined that ConnectMenlo would be consistent with the goals and applicable control measures of the 2010 Bay Area Clean Air Plan. In addition, the ConnectMenlo Final EIR determined that regional growth projections for vehicle miles traveled (VMT), population, and employment would not exceed forecasts in the Association of Bay Area Governments/Metropolitan Transportation Commission 2010 Plan Bay Area, which was the current version of Plan Bay Area at the time when the EIR was prepared. For these reasons, the ConnectMenlo Final EIR determined that implementation of ConnectMenlo would be consistent with air quality planning efforts in the SFBAAB, and this impact would be less than significant.

Criteria Pollutants

The ConnectMenlo Final EIR found that construction emissions associated with individual development projects could generate emissions of criteria air pollutants and TACs. This would require subsequent environmental review of future development projects to assess potential impacts relative to BAAQMD-recommended project-level thresholds. Construction emissions from buildout of future projects within Menlo Park, including the Proposed Project, would include 1) exhaust emissions from off-road diesel-powered construction equipment; 2) dust generated by demolition, grading, earthmoving, and other construction activities; 3) exhaust emissions from on-road vehicles; and 4) off-gas emissions of ROG associated with the application of asphalt, paint, and architectural coatings. The ConnectMenlo Final EIR found that construction-related impacts would be significant and identified Mitigation Measures AQ-2b1 and AQ-2b2 to reduce impacts to the extent feasible. Mitigation Measure AQ-2b1 requires the implementation of BAAQMD Basic Construction Mitigation Measures for all construction projects in the city, and Mitigation Measure AQ-2b2 requires implementation of BAAQMD-approved mitigation measures if subsequent environmental review determines that future individual development projects in Menlo Park could generate construction exhaust emissions in excess of the BAAQMD-recommended significance thresholds. Even with implementation of these measures, the ConnectMenlo Final EIR determined that construction-period impacts associated with buildout of ConnectMenlo would be significant and unavoidable.

[41] Office of Environmental Health Hazard Assessment. 2015. *Air Toxics Hot Spots Program Guidance Manual for the Preparation of Risk Assessments.* February. Available: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed: April 15, 2021.

The ConnectMenlo Final EIR found that emissions of criteria air pollutants and precursors associated with the operation of new development under ConnectMenlo would generate a substantial net increase in emissions that would exceed the BAAQMD regional significance thresholds. Because emissions generated by cumulative development within the city could exceed the regional significance thresholds, any development project could contribute to an increase in adverse health effects in the SFBAAB until the attainment standards are met. Criteria air pollutant emissions would be generated from onsite area sources (e.g., landscaping fuel, consumer products), vehicle trips generated by individual projects, and onsite combustion of natural gas for space and water heating. The ConnectMenlo Final EIR identified Mitigation Measure AQ-2a, which requires implementation of BAAQMD-approved mitigation measures if subsequent environmental review determines that future development projects in Menlo Park could generate operational emissions in excess of the BAAQMD significance thresholds.

Finally, the ConnectMenlo Final EIR determined that the increase in traffic associated with buildout under ConnectMenlo would not result in, or contribute to, localized concentrations of CO that would exceed applicable federal and state ambient air quality standards.

Exposure of Sensitive Receptors to Pollutant Concentrations

The ConnectMenlo Final EIR required implementation of Mitigation Measure AQ-3a to reduce impacts associated with the generation of DPM emissions from non-residential land uses in the city. This mitigation measure would apply to the Proposed Project. The ConnectMenlo Final EIR also determined that the placement of new sensitive land uses, such as residential units, near major sources of air pollution could expose sensitive receptors to elevated concentrations of such pollutants. As such, the ConnectMenlo Final EIR identified Mitigation Measure AQ-3b to ensure that air pollution levels at sensitive receptors meet the incremental risk thresholds established by BAAQMD. With implementation of ConnectMenlo Mitigation Measure AQ-3b, the ConnectMenlo Final EIR concluded that impacts would be less than significant.

Impacts and Mitigation Measures

Impact AQ-1: Conflict with or Obstruct Implementation of the Applicable Air Quality Plan. The Proposed Project would not conflict with or obstruct implementation of the applicable air quality plan. (LTS/M)

Since publication of the ConnectMenlo Final EIR, BAAQMD adopted its most recent Bay Area Clean Air Plan.[42] The 2017 Clean Air Plan is a comprehensive plan to improve air quality and protect public health in the SFBAAB. It defines control strategies to reduce emissions and ambient concentrations of air pollutants; safeguard public health by reducing exposure to air pollutants that pose the greatest health risk, with an emphasis on protecting the communities most heavily affected by air pollution; and reduce GHG emissions to protect the climate. A project would be consistent with the Clean Air Plan if it 1) supports the goals of the Clean Air Plan, 2) includes applicable control measures from the Clean Air Plan, and 3) would not disrupt or hinder implementation of any control measure included in the Clean Air Plan.

The sections that follow provide an evaluation of the Proposed Project's consistency with each of the criteria.

[42] Bay Area Air Quality Management District. 2017. *Final 2017 Clean Air Plan*. April 17. Available: https://www.baaqmd.gov/ ~/media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en. Accessed: April 15, 2021.

Clean Air Plan Goals

The primary goals of the Clean Air Plan are to attain air quality standards, reduce the population's exposure to pollutants, protect public health in the Bay Area, reduce GHG emissions, and protect the climate. BAAQMD has established mass emissions thresholds of significance for determining whether emissions associated with construction or operation of a project would represent a cumulatively considerable contribution to adverse air quality in the SFBAAB and conflict with planning efforts to attain or maintain ambient air quality standards. The health and hazard thresholds were established to protect public health. As discussed under Impact AQ-2, implementation of the Proposed Project would result in less-than-significant impacts related to operational emissions.

Development of the 2017 Clean Air Plan strategy was based on regional population and employment projections for the Bay Area compiled by the Association of Bay Area Governments during preparation of Plan Bay Area. Demographic trends incorporated into Plan Bay Area were used to determine VMT in the Bay Area; BAAQMD uses the trends to forecast future air quality. The SFBAAB is currently designated a nonattainment area for O_3 (federal and state ambient air quality standards), $PM_{2.5}$ (federal and state ambient air quality standards), and PM_{10} (state ambient air quality standards only). The 2017 Clean Air Plan is based on Plan Bay Area; according to the ConnectMenlo EIR, the 2017 Clean Air Plan's growth projections would exceed the projections of the Association of Bay Area Governments. Despite the additional growth, the Proposed Project would be consistent with the goals and policies of the ConnectMenlo EIR. Furthermore, Section 3.5, *Population and Housing,* notes that it was later determined that the ConnectMenlo growth projections would align with regional projections. Therefore, the Proposed Project would not conflict with the goals of the Clean Air Plan.

Clean Air Plan Control Measures

Control strategies in the Clean Air Plan include measures in the following categories: Stationary-Source Control Measures, Transportation Control Measures, Energy Control Measures, Building Control Measures, Agriculture Control Measures, Natural and Working Lands Control Measures, Waste Management Control Measures, and Water Control Measures. The Proposed Project's consistency with each of these strategies is discussed below.

Stationary-Source Control Measures

The stationary-source control measures, which are designed to reduce emissions from stationary sources such as metal melting facilities, cement kilns, refineries, and glass furnaces, are incorporated into rules adopted by BAAQMD and then enforced by BAAQMD permit and inspection programs. The Proposed Project would include a diesel-powered emergency generator, which would require a permit from BAAQMD to operate. As part of the permit review process, operation of the emergency generator would be required to comply with BAAQMD permitting requirements, which incorporate stationary-source control measures from the Clean Air Plan; therefore, the Proposed Project would be consistent with the Clean Air Plan.

Transportation Control Measures

As part of the Clean Air Plan, BAAQMD identifies transportation control measures to decrease emissions of criteria pollutants, TACs, and GHGs by reducing demand for motor vehicle travel, promoting efficient vehicles and transit service, decarbonizing transportation fuels, and electrifying motor vehicles and equipment. The Proposed Project would develop a research-and-development (R&D) building in the existing Menlo Business Park Portfolio and the O'Brien Drive Portfolio. The Proposed Project would also

develop a transportation demand management (TDM) plan to provide trip reduction measures and reduce vehicle traffic in and around the Project site, as discussed in Section 3.1, *Transportation*. In addition, the Proposed Project would not exceed the VMT threshold of 12.7 for Transportation Analysis Zone 3075 with implementation of Project-specific Mitigation Measure TRA-1. Mitigation Measure TRA-1 would reduce the Proposed Project's VMT a minimum of 21.1 percent by limiting the parking supply, providing paid parking, providing a parking cash-out program, providing car-share and bike-share programs, implementing alternative hours, or offering telework options, among other Menlo Park Municipal Code TDM plan options, as described in Section 3.1, *Transportation*. Furthermore, the Proposed Project would provide adequate bicycle and pedestrian infrastructure and represent an overall improvement to bicycle and pedestrian access and circulation. Within the Project site, pedestrian walkways would be incorporated around the office building. The Proposed Project would also be subject to regulatory programs related to fuel and vehicle efficiency as well as vehicle electrification, all of which would result in emissions reductions. Therefore, the Proposed Project would promote BAAQMD initiatives to reduce vehicle trips and VMT and increase the use of alternative means of transportation. The Proposed Project would be consistent with the Clean Air Plan.

Energy Control Measures

The Clean Air Plan also includes energy control measures, which are designed to reduce emissions of criteria air pollutants, TACs, and GHGs by decreasing the amount of electricity consumed in the Bay Area as well as the carbon intensity of electricity used by switching to less GHG-intensive fuel sources for electricity generation. Because these measures apply to electrical utility providers and local government agencies, and not individual projects, the energy control measures of the Clean Air Plan are not applicable to the Proposed Project. However, as required under Section 16.44.130 of the Menlo Park Municipal Code, the Proposed Project would meet 100 percent of its energy demand by purchasing renewable electricity through either Peninsula Clean Energy or Pacific Gas and Electricity Company.

Although the Proposed Project would provide natural gas connections, natural gas would be consumed only for space heating within laboratories. Furthermore, the Proposed Project would be consistent with Section of 16.44.130 of the Menlo Park Municipal Code, and purchase certified renewable energy credits and/or certified renewable energy offsets annually in an amount equal to the annual natural gas demand of the Proposed Project. The purchase of these verified energy credits and/or offsets would net out any of the Proposed Project's GHG emissions from natural gas usage. In addition, the Proposed Project would install electric-vehicle charging stations. Therefore, the Proposed Project would comply with applicable energy control measures and be consistent with the Clean Air Plan.

Building Control Measures

BAAQMD has authority to regulate emissions from certain sources in buildings, such as boilers and water heaters, but has limited authority to regulate buildings themselves. Therefore, the strategies in the control measures for this sector focus on working with local governments that do have authority over local building codes to facilitate adoption of best management practices and policies related to GHGs. Therefore, the building control measures of the Clean Air Plan are not applicable to the Proposed Project. However, the Proposed Project would comply with California Green Building Standards Code (CALGreen) standards and other code amendments, such as local Reach Codes. In addition, the Proposed Project would be designed to achieve Leadership in Energy and Environmental Design (LEED) Gold certification for building design and construction. Therefore, the Proposed Project would comply with applicable building control measures and be consistent with the Clean Air Plan.

Agriculture Control Measures

The agriculture control measures are designed to reduce primarily emissions of methane. Because the Proposed Project would not include any agricultural activities, the agriculture control measures of the Clean Air Plan are not applicable to the Proposed Project.

Natural and Working Lands Control Measures

The natural and working lands control measures focus on increasing carbon sequestration on rangelands and wetlands. They also encourage local governments to adopt ordinances that promote urban tree planting. Because the Proposed Project would not disturb rangelands or wetlands, the natural and working lands control measures of the Clean Air Plan are not applicable to the Proposed Project.

Waste Management Control Measures

The waste management control measures focus on reducing or capturing methane emissions from landfills and composting facilities, diverting organic materials away from landfills, and increasing waste diversion rates through efforts to reduce, reuse, and recycle. The Proposed Project would comply with local requirements for waste management (e.g., recycling and composting). Therefore, the Proposed Project would be consistent with the waste management control measures of the Clean Air Plan.

Water Control Measures

The water control measures focus on reducing emissions of criteria pollutants, TACs, and GHGs by encouraging water conservation, limiting GHG emissions from publicly owned treatment works, and promoting the use of biogas recovery systems. Because these measures apply to publicly owned treatment works and local government agencies, and not individual projects, the water control measures are not applicable to the Proposed Project.

MITIGATION MEASURES. As discussed above, the agriculture control measures, natural and working lands control measures, and water control measures of the Clean Air Plan would not be applicable to the Proposed Project. The Proposed Project would be consistent with the applicable stationary-source control measures, energy control measures, building control measures, and waste control measures included in the Clean Air Plan. As discussed further in Impact AQ-3, the Proposed Project would exceed BAAQMD's cancer risk threshold under Scenario 1, which includes construction and operations, with construction being the primary contributor to the cancer risk. To reduce the cancer risk, the Proposed Project would implement Project-specific Mitigation Measure AQ-1.1.

With implementation of Mitigation Measure AQ-1.1, the Proposed Project would result in less-than-significant impacts related to TAC exposures. The Proposed Project would also be consistent with the transportation control measures with implementation of Project-specific Mitigation Measure TRA-1. Therefore, the Proposed Project would not disrupt or hinder implementation of the current Clean Air Plan, and this impact would be ***less than significant with mitigation***.

> **Project Mitigation Measure AQ-1.1: Use Clean Diesel-powered Equipment during Construction to Control Construction-related Emissions.** The Project Sponsor shall ensure that all off-road diesel-powered equipment greater than 200 horsepower used during construction is equipped with EPA-approved Tier 4 Interim engines to reduce DPM emissions. The construction contractor shall submit evidence of the use of EPA-approved Tier 4 Interim engines, or cleaner, to the City prior to the commencement of Project construction activities.

Impact AQ-2: Cumulatively Considerable Net Increase in Criteria Pollutants. The Proposed Project would not result in a cumulative net increase in any criteria pollutant for which the Project region is classified as a nonattainment area under an applicable federal or state ambient air quality standard. (LTS/M)

According to the BAAQMD CEQA Guidelines, to meet air quality standards for criteria air pollutant and air precursor impacts, the Proposed Project must not:

- Contribute to CO concentrations that exceed the state ambient air quality standards;
- Generate daily construction emissions of ROG, NO_X, or $PM_{2.5}$ (exhaust) greater than 54 pounds per day or PM_{10} exhaust emissions greater than 82 pounds per day; or
- Generate operational emissions of ROG, NO_X, or $PM_{2.5}$ greater than 10 tons per year, or 54 pounds per day, or PM_{10} emissions greater than 15 tons per year, or 82 pounds per day.

Construction

Construction activities would generate criteria pollutant emissions from off-road equipment exhaust, construction workers' vehicles and heavy-duty trucks traveling to and from the Project site and waterline installation areas, the application of architectural coatings, and paving activities. Fugitive PM_{10} and $PM_{2.5}$ dust would also be generated during soil movement and disturbance. The amount of emissions generated on a daily basis would vary, depending on the intensity and types of construction activities occurring simultaneously. To provide the most conservative analysis, maximum daily emissions estimates were calculated to assess construction impacts. Maximum daily emissions typically occur during phases with the greatest intensity of construction activities as well as when multiple construction phases take place on the same day. The unmitigated maximum daily criteria air pollutant emissions that would be generated during Proposed Project construction are shown in Table 3.2-6. Please refer to Appendix 3.2 for air quality modeling input and output parameters, detailed assumptions, and daily construction-related emissions estimates.

As shown in Table 3.2-6, below, construction of the Proposed Project would result in emissions that would not exceed BAAQMD's recommended threshold for any pollutant. Therefore, Project-related construction activities would not result in a cumulatively considerable net increase in any criteria air pollutant for which the SFBAAB is designated as a nonattainment area with respect to federal or state ambient air quality standards. This impact would be ***less than significant.***

Table 3.2-6. Estimated Unmitigated Maximum Daily Construction Emissions of Criteria Air Pollutants and Precursors

	Maximum Daily Emissions (lb/day)[a]					
Individual Construction Phase	**ROG**	**NO_X**	**PM_{10} Fugitive**	**PM_{10} Exhaust**	**$PM_{2.5}$ Fugitive**	**$PM_{2.5}$ Exhaust**
Demolition/Relocate Utilities Phase	1.7	15.5	5.7	0.8	1.6	0.8
Dewatering/Grading/Excavation/Shoring Phase	2.8	**32.3**	**7.5**	**1.1**	**2.3**	**1.0**
Mat Foundation/Basement Walls Phase	2.1	**16.7**	**2.6**	**0.8**	**0.6**	**0.7**
Parking Garage Structure Phase	2.5	17.3	3.4	0.8	0.8	0.7
Building Shell Structure Phase	**3.2**	20.9	3.7	1.0	0.9	1.0
All Exterior Skin/Warm S&C Finishes/Onsite Work Phase	**12.6**	17.0	3.9	0.7	0.9	0.7
O'Brien Waterline – Demolition	0.2	2.2	0.7	0.1	0.1	0.1
O'Brien Waterline – Utility Installation	0.4	4.5	1.3	0.2	0.3	0.2
O'Brien Waterline – Grading	0.5	5.0	0.7	0.2	0.1	0.2
O'Brien Waterline – Pavement Installation	0.6	6.5	1.6	0.2	0.3	0.2
O'Brien Waterline – Final Pavement/Signage/Striping	0.5	4.7	0.6	0.2	0.1	0.2
Adams Waterline – Demolition	1.1	8.3	0.7	0.4	0.1	0.4
Adams Waterline – Utility Installation	1.1	10.1	1.3	0.5	0.3	0.4
Adams Waterline – Grading	0.4	3.4	0.6	0.1	0.1	0.1
Adams Waterline – Pavement Installation	0.9	9.0	1.2	0.4	0.3	0.3
Adams Waterline – Final Pavement/Signage/Striping	1.1	10.8	0.6	0.5	0.1	0.5
Maximum Daily Emissions	**15.8**	**49.0**	**10.1**	**1.8**	**2.9**	**1.7**
BAAQMD Significance Thresholds	54	54	**n/a**	82	**n/a**	54
Exceeds Threshold?	**No**	**No**	**—**	**No**	**—**	**No**

Source: Modeling files provided in Appendix 3.2.

Notes:

lb/day = pounds per day; ROG = reactive organic gases; NO_X = oxides of nitrogen; PM_{10} = particulate matter with an aerodynamic diameter of 10 microns or less; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less; n/a = BAAQMD has not developed a mass emission threshold for this pollutant; S&C = Shell & Core

[a.] BAAQMD construction thresholds for PM_{10} and $PM_{2.5}$ evaluate only exhaust emissions. Fugitive dust emissions would be controlled using best management practices.

[b.] Bolded and underlined values indicate phases that contribute the maximum level of daily emissions. In each case, the maximum level of daily emissions would occur when two construction phases overlap.

MITIGATION MEASURES. The following mitigation measures from the ConnectMenlo EIR would apply to the Proposed Project:

> **ConnectMenlo AQ-2b1:** As part of the City's development approval process, the City shall require applicants for future development projects to comply with the current Bay Area Air Quality Management District's basic control measures for reducing construction emissions of PM_{10} (Table 8-2, Basic Construction Mitigation Measures Recommended for All Proposed Projects, of BAAQMD's CEQA Guidelines).

> **ConnectMenlo AQ-2b2:** Prior to issuance of building permits, development project applicants that are subject to CEQA and exceed the screening sizes in BAAQMD's CEQA Guidelines shall prepare and submit to the City of Menlo Park a technical assessment evaluating potential project construction-related air quality impacts. The evaluation shall be prepared in conformance with the BAAQMD methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the BAAQMD thresholds of significance, as identified in the BAAQMD CEQA Guidelines, the City of Menlo Park shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during construction activities to below the thresholds (e.g., Table 8-2, Additional Construction Mitigation Measures Recommended for Projects with Construction Emissions above the Threshold of the BAAQMD CEQA Guidelines, or applicable construction mitigation measures subsequently approved by BAAQMD). These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Building Division and/or Planning Division.

BAAQMD's CEQA Guidelines consider fugitive dust impacts to be less than significant with application of BMPs. If BMPs are not implemented, then dust impacts would be potentially significant. Therefore, BMPs would be required and implemented to reduce impacts from construction-related fugitive dust emissions, including any cumulative impacts. The basic construction mitigation measures are shown in Table 3.2-7. In addition, fugitive dust emissions would be controlled with implementation of ConnectMenlo AQ-2b1 and ConnectMenlo AQ-2b2. With implementation of BAAQMD-recommended BMPs, ConnectMenlo AQ-2b1, and ConnectMenlo AQ-2b2, fugitive dust emissions would be reduced, and the impact would be ***less than significant***.

Operation

The criteria pollutant emissions that would be generated during Project operations were quantified using CalEEMod and EMFAC2021. Long-term emissions would be caused primarily by vehicle trips associated with employee commute trips and delivery truck trips, with additional emissions from area sources (e.g., cleaning supplies, architectural coatings, landscape maintenance equipment) and the onsite combustion of natural gas. Stationary-source emissions would be associated with intermittent use of a diesel-powered emergency generator with a rating of 2,208 horsepower that would be tested approximately 15 minutes each week.

The Proposed Project's estimated daily operational emissions for buildout year 2024 are presented in Table 3.2-8 and compared to BAAQMD's recommended mass emission thresholds. Please refer to Appendix 3.2 for air quality modeling input and output parameters, detailed assumptions, and daily operational emissions estimates.

As shown in Table 3.2-8, operation of the Proposed Project would not generate levels of ROG, NO_X, or particulate matter that would exceed BAAQMD-recommended mass emission thresholds. Therefore, operation of the Proposed Project would not result in a cumulatively considerable net increase in any criteria air pollutant for which the SFBAAB is designated as a nonattainment area with respect to the federal or state ambient air quality standards. Mitigation measures, including implementation of ConnectMenlo Final EIR Mitigation Measure AQ-2a, would not be required. This impact would be ***less than significant.***

Table 3.2-7. BAAQMD Basic Construction Mitigation Measures Recommended for ALL Proposed Projects

Basic Construction Mitigation Measures
1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material offsite shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading, unless seeding or soil binders are used.
6. Idling times shall be minimized, either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California Airborne Toxics Control Measure, Title 13, Section 2485 of California Code of Regulations [CCR]).
7. Clear signage shall be provided for construction workers at all access points.
8. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
9. A publicly visible sign with the name and telephone number of the person to contact at the lead agency regarding dust complaints shall be posted. This person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations.

Source: Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_ may2017-pdf.pdf?la=en. Accessed: April 14, 2021.

Table 3.2-8. Estimated Unmitigated Maximum Daily Operational Emissions

	Maximum Daily Emissions (lb/day)			
Emissions Source	**ROG**	**NO_X**	**PM_{10}[a]**	**$PM_{2.5}$[a]**
Area Sources	6	< 1	< 1	< 1
Onsite Natural Gas Combustion	< 1	5	< 1	< 1
Vehicle Trips (Mobile Sources)	5	5	11	3
Backup Diesel Generator	< 1	4	< 1	< 1
Total Operational Emissions	**13**	**14**	**11**	**3**
BAAQMD Significance Threshold	54	54	82	54
Exceeds Threshold?	**No**	**No**	**No**	**No**

Modeling files provided in Appendix 3.2.

Notes:

lb/day = pounds per day; ROG= reactive organic gases; NO_X = nitrogen oxide; PM_{10} = particulate matter no more than 10 microns in diameter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter

[a] BAAQMD operational thresholds for PM_{10} and $PM_{2.5}$ include both fugitive dust and exhaust emissions.

Impact AQ-3: Expose Sensitive Receptors to Substantial Pollutant Concentrations. The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations with mitigation incorporated. (LTS/M)

Sensitive land uses are generally considered to include those uses where exposure to pollutants could result in health-related risks for sensitive individuals, including children and the elderly. Per BAAQMD, typical sensitive receptors are residences, hospitals, and schools. Parks and playgrounds where sensitive receptors (e.g., children and seniors) are present would also be considered sensitive receptors.[43] The nearest sensitive land uses are the residences south and east of the Project site.

The primary pollutants of concern with regard to health risks for sensitive receptors are criteria pollutants, specifically CO at potential intersection hot spots, asbestos, DPM, and localized $PM_{2.5}$. Each of these topics is analyzed in the paragraphs that follow.

Localized Carbon Monoxide Hot Spots

Continuous engine exhaust may elevate localized CO concentrations, resulting in hot spots. Receptors exposed to these CO hot spots may have a greater likelihood of developing adverse health effects. CO hot spots are typically observed at heavily congested intersections where a substantial number of gasoline-powered vehicles idle for prolonged durations.

Peak-hour traffic volumes at 27 intersections in the Project vicinity were analyzed to determine whether CO emitted by Project-generated traffic would exceed BAAQMD screening criteria. Maximum traffic volumes at the intersections under all scenarios would be less than BAAQMD's recommended screening criterion of 44,000 vehicles per hour. Also, intersection traffic volumes under all scenarios would not exceed the screening criterion of 24,000 vehicles per hour that BAAQMD recommends for areas where vertical and/or horizontal mixing is substantially limited. For these reasons, the Proposed Project would be consistent with the requirements of the City/County Association of Government's Congestion Management Plan as discussed in Section 3.1, *Transportation*. The Proposed Project would not result in, or contribute to, a localized concentration of CO that would exceed the applicable NAAQS or CAAQS. This impact would be ***less than significant***.

Toxic Air Contaminants

Asbestos

Asbestos is a naturally occurring mineral that was previously used in building construction because of its heat resistance and strong insulating properties. Exposure to asbestos, however, has been shown to cause many disabling and fatal diseases, including lung cancer, mesothelioma, and pleural plaques. Demolition of the existing hardscape (asphalt and concrete) on the Project site may expose workers and nearby receptors to asbestos if the material was used during construction of the original hardscape. However, the Proposed Project would comply with BAAQMD Regulation 11, Rule 2, Asbestos, Demolition, Renovation, and Manufacturing. The purpose of this of the rule is to control emissions of asbestos to the atmosphere during demolition and building renovation. Because the applicant would be required to control asbestos emissions according to BAAQMD regulations, receptors would not be exposed to substantial asbestos risks, and impacts associated with asbestos emissions would be ***less than significant.***

[43] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act Air Quality Guidelines.* May. Available: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: April 2021.

Diesel Particulate Matter and Localized $PM_{2.5}$

DPM is a carcinogen contained in the exhaust of diesel internal-combustion engines. Project-related construction activities would generate DPM ($PM_{2.5}$ exhaust)[44] from off-road equipment and heavy-duty trucks. $PM_{2.5}$ exhaust and fugitive dust emissions would be generated from off-road equipment, onsite soil movement, and on-road travel of heavy-duty trucks and workers' vehicles.

Operational activities would generate DPM from delivery trucks and the emergency generator. $PM_{2.5}$ exhaust and fugitive dust emissions would be generated from on-road travel of employees' vehicles and delivery trucks as well as the emergency generator. These activities could expose offsite receptors to incremental increases in health risks. In addition, any future exhaust from fume hoods in laboratories with the potential to emit TACs would be subject to BAAQMD Regulation 2, Rule 5, New Source Review of Toxic Air Contaminants.

Health impacts from exposure to DPM include cancer risks and chronic non-cancer risks. The HRA for the Proposed Project included an evaluation of annual concentrations of $PM_{2.5}$ from exhaust and fugitive dust sources. As discussed previously, the cancer risk was evaluated for two scenarios, 1) construction (including water line construction) and operations and 2) operations only. Table 3.2-9 and Table 3.2-10 present the unmitigated incremental increases in health risk for the maximum exposed offsite residential receptor within 1,000 feet of the Proposed Project.

Table 3.2-9. Estimated Unmitigated Project-Level Health Risk Results from Construction plus Operations

Scenario	Cancer Risk (cases per million)[a]	Non-Cancer Chronic Risk[b]	Annual $PM_{2.5}$ Concentrations ($\mu g/m^3$)[b]
Construction plus Operations	10.1	0.01	0.03
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**Yes**	**No**	**No**

See Appendix 3.2 for detailed modeling files.
$\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less
a. The evaluation of cancer risk was based on an exposure duration of 2.40 years for construction and 27.60 years for operations.
b. Non-cancer hazard index and annual $PM_{2.5}$ concentrations were based solely on annual construction emissions.

Table 3.2-10. Estimated Mitigated Project-Level Health Risk Results from Construction plus Operations

Scenario	Cancer Risk (cases per million)[a]	Non-Cancer Chronic Risk[b]	Annual $PM_{2.5}$ Concentrations ($\mu g/m^3$)[b]
Construction plus Operations	8.7	0.01	0.03
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**No**	**No**	**No**

See Appendix 3.2 for detailed modeling files.
$\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter
a. The evaluation of cancer risk was based on an exposure duration of 2.40 years for construction and 27.60 years for operations.
b. Non-cancer hazard index and annual $PM_{2.5}$ concentrations were based solely on annual construction emissions.

[44] Per BAAQMD guidance, $PM_{2.5}$ exhaust is used as a surrogate for DPM.

Scenario 1: Construction plus Operations

Table 3.2-9, above, presents the maximum health risks for residential receptors. The evaluation of cancer risk was based on an exposure duration of 2.40 years for construction and 27.60 years for operations. For this scenario, the non-cancer hazard index and annual $PM_{2.5}$ concentrations were based solely on construction emissions because the annual DPM and $PM_{2.5}$ emissions were highest for construction activities in years that did not overlap with operations. As shown in Table 3.2-9, the unmitigated health risk results would not exceed BAAQMD's recommended health risk thresholds for the non-cancer hazard index and for annual $PM_{2.5}$ concentrations; however, the Proposed Project would exceed the cancer risk threshold. Therefore, impacts would be potentially significant without mitigation.

To mitigate the cancer risk exceedance, Mitigation Measure AQ-1.1 would be implemented. Although the Proposed Project would not trigger the requirement for ConnectMenlo EIR Mitigation Measure AQ-3a, the Proposed Project would be consistent with Mitigation Measure AQ-3a. In addition, ConnectMenlo EIR Mitigation Measure AQ-3b would not apply to the Proposed Project. As shown in Table 3.2-10, above, with implementation of Mitigation Measure AQ-1.1, the incremental increase in health risk would be less than all BAAQMD-recommended health risk thresholds. Therefore, mitigated construction and operational emissions would not expose sensitive receptors to substantial pollutant concentrations and associated health risks, and impacts would be ***less than significant with mitigation*****.**

Scenario 2: Operations Only

Table 3.2-11 presents the incremental increase in health risks for maximally affected residential receptors with respect to operational emissions only. As shown in Table 3.2-11, the unmitigated health risk from operations would be less than all BAAQMD-recommended health risk thresholds. Although the Proposed Project would not trigger the requirement for ConnectMenlo EIR Mitigation Measure AQ-3a, the Proposed Project would be consistent with Mitigation Measure AQ-3a. In addition, ConnectMenlo EIR Mitigation Measure AQ-3b would not apply to the Proposed Project. Therefore, unmitigated operational emissions would not expose sensitive receptors to substantial pollutant concentrations, and impacts would be ***less than significant***.

Table 3.2-11. Estimated Unmitigated Project-Level Health Risk Results from Operations Only

Scenario	Cancer Risk (cases per million)[a]	Non-Cancer Chronic Risk[b]	Annual $PM_{2.5}$ Concentrations ($\mu g/m^3$)[b]
Operations Only	0.46	0.0001	0.11
BAAQMD Significance Threshold	10.0	1.0	0.3
Exceeds Threshold?	**No**	**No**	**No**

See Appendix 3.2 for detailed modeling files.
Notes:
$\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter

Impact AQ-4: Other Air Emissions. The Proposed Project would not result in other emissions (such as those leading to odors) that would adversely affect a substantial number of people. (LTS)

Although offensive odors rarely cause any physical harm, they can be unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and air districts. According to BAAQMD, land uses associated with odor complaints typically include wastewater treatment

plants, landfills, confined animal facilities, composting stations, food manufacturing plants, refineries, and chemical plants.[45] Odor impacts on residential areas and other sensitive receptors, such as hospitals, day-care centers, and schools, warrant the closest scrutiny, but consideration should also be given to other land uses where people may congregate, such as recreational facilities, work sites, and commercial areas.

Potential odor emitters during construction include diesel exhaust and evaporative emissions generated by asphalt paving and the application of architectural coatings. Construction-related activities near existing receptors would be temporary in nature, and construction activities would not result in nuisance odors. Potential odor emitters during operations would include exhaust from vehicles and fumes from the reapplication of architectural coatings. However, odor impacts would be limited to circulation routes, parking areas, and areas immediately adjacent to recently painted structures. Although such brief exhaust- and paint-related odors may be considered adverse, they would not be atypical of developed urban areas and would not affect a substantial number of people or rise to the level of a significant impact under CEQA. In addition, any future exhaust from fume hoods in laboratories with the potential to release odorous substances would be subject to BAAQMD Regulation 7, Odorous Substances. Because the Proposed Project would not result in a new substantial or long-term source of odors, this impact would be **less than significant.**

Cumulative Impacts

According to BAAQMD's CEQA Guidelines, combined risk levels should be determined for all TAC sources within 1,000 feet of a project site and compared to BAAQMD's cumulative health risk thresholds.[46]

Nearby TAC sources as well as Proposed Project's construction and operational emissions could contribute to a cumulative health risk for sensitive receptors near the Project site. BAAQMD's inventory of stationary health risks were used to estimate the combined levels of health risk from existing stationary sources in combination with the Proposed Project. Geographic information system (GIS) raster files provided by BAAQMD were used to estimate roadway and railway emissions.[47] The methods used to estimate Project-related TAC emissions are described under Impact AQ-3 and in Appendix 3.2. The results of the cumulative impact assessment are summarized in Table 3.2-12. This table shows the health risk values for the Proposed Project's maximally affected receptors and the health risk contributions from existing sources. The sum of the Proposed Project's and existing background health risk values were compared to BAAQMD cumulative thresholds. Individual background contributions from existing sources are included in Appendix 3.2.

As shown in Table 3.2-12, below, the combined level of health risks from the Proposed Project and other local sources of TACs would be less than all BAAQMD-recommended cumulative health risk thresholds. Therefore, the levels of health risk associated with TACs emitted by the Proposed Project in combination with the level of health risk associated with other nearby TAC sources would not result in a cumulative local health risk at any nearby sensitive land uses. This impact would be ***less than significant*.**

[45] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act, Air Quality Guidelines*. May. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: April 14, 2021.

[46] Ibid.

[47] Winkel, Jackie. Principal environmental planner, Bay Area Air Quality Management District. April 12, 2018—email to Darrin Trageser, ICF, Sacramento, CA, regarding GIS files containing data regarding background health risks from railroads, major roads, and highway sources within BAAQMD jurisdiction.

Table 3.2-12. Maximum Mitigated Cumulative Health Risks

Source	Maximum Affected Residential Receptor		
	Cancer Risk (per million)	Non-Cancer Chronic Hazard Index[a]	Annual $PM_{2.5}$ Concentration ($\mu g/m^3$)
Contribution from Existing Sources for Scenario 1			
Stationary	23.8	0.07	0.02
Roadway	9.5	—	0.20
Rail	2.5	—	0.00
Existing Total	35.7	0.07	0.22
Contribution from Project for Scenario 1			
Project Construction (2.40-year exposure duration)	8.5	0.006	0.03
Project Operations (27.60-year exposure duration)	0.2	—	—
Existing + Construction + Operations (cancer only)	44.47	—	—
Existing + Construction (chronic HI/annual $PM_{2.5}$)	—	0.077	0.25
BAAQMD Cumulative Thresholds	100	10.0	0.8
Exceeds Thresholds?	**No**	**No**	**No**
Contribution from Existing Sources for Scenario 2			
Stationary	23.8	0.07	0.02
Roadway	9.2	0.00	0.18
Rail	2.5	0.00	0.005
Existing Total	35.5	0.07	0.21
Contribution from Project for Scenario 2			
Project Operations (30-year exposure duration)	0.5	0.0001	0.11
Existing + Operations	36.0	0.07	0.32
BAAQMD Cumulative Thresholds	100	10.00	0.8
Exceeds Thresholds?	**No**	**No**	**No**

See Appendix 3.2 for detailed modeling files.

Notes:

$\mu g/m^3$ = micrograms per cubic meter; $PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 or less

[a] Data were not available for chronic values for roadway and rail sources.

3.3 Greenhouse Gas Emissions

This section presents a summary of the current state of climate change science, a summary of greenhouse gas (GHG) emission sources in California, a summary of applicable regulations, quantification of Project-generated GHG emissions, a discussion about the potential contribution of Project-generated GHG emissions to global climate change, a qualitative analysis of the Proposed Project's consistency with plans to reduce GHG emissions, and mitigation for significant impacts where feasible. Supporting GHG calculations are presented in Appendix 3.3.

Issues identified in response to the Notice of Preparation (NOP), provided in Appendix 1-2, were considered in this analysis. Scoping comments pertaining to GHGs included a request for a full evaluation of the Proposed Project's potential contribution to climate change as well as the Proposed Project's potential GHG reduction strategies. That analysis is provided below.

Existing Conditions

Environmental Setting

Global Climate Change

The process known as the *greenhouse effect* keeps the atmosphere near Earth's surface warm enough for the successful habitation of humans and other life forms. The greenhouse effect is created by sunlight that passes through the atmosphere. Some of the sunlight striking Earth is absorbed and converted to heat, which warms the surface. The surface emits a portion of this heat as infrared radiation, some of which is re-emitted toward the surface by GHGs. Human activities that generate GHGs increase the amount of infrared radiation absorbed by the atmosphere, thereby enhancing the greenhouse effect and amplifying the warming of Earth.

Increases in fossil fuel combustion and deforestation have exponentially increased concentrations of GHGs in the atmosphere since the Industrial Revolution.[1] Rising atmospheric concentrations of GHGs, in excess of natural levels, have resulted in increasing global surface temperatures—a process commonly referred to as *global warming*. Higher global surface temperatures have, in turn, resulted in changes to Earth's climate system, including increases in ocean temperature and acidity, reduced sea ice, variable precipitation, and increases in the frequency and intensity of extreme weather events.[2] Large-scale changes to Earth's system are collectively referred to as *climate change.*

The Intergovernmental Panel on Climate Change (IPCC) was established by the World Meteorological Organization and United Nations Environment Programme to assess scientific, technical, and socioeconomic information relevant to the understanding of climate change, its potential impacts, and options for adaptation and mitigation. The IPCC estimates that human-induced warming reached

[1] Intergovernmental Panel on Climate Change. 2007. *Climate Change 2007: The Physical Science Basis*. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. Available: https://www.ipcc.ch/site/assets/uploads/2018/05/ar4_wg1_full_report-1.pdf. Accessed: April 1, 2021.

[2] Intergovernmental Panel on Climate Change. 2018. *Global Warming of 1.5°C.* Contribution of Working Group I, II, and III (Summary for Policy Makers). Available: https://www.ipcc.ch/site/assets/uploads/sites/2/2019/05/SR15_SPM_version_report_LR.pdf. Accessed: April 1, 2021.

approximately 1 degree Celsius (°C) above pre-industrial levels in 2017 and is increasing at a rate of 0.2°C per decade. Under the current nationally determined contributions of mitigation from each country until 2030, global warming is expected to rise to 3°C by 2100 and continue afterward.[3] Large increases in global temperatures could have substantial adverse effects on the natural and human environments in California and worldwide.

Greenhouse Gases

The principle anthropogenic (human-made) GHGs are carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated compounds, including sulfur hexafluoride, hydrofluorocarbons (HFCs), and perfluorocarbons. The primary GHGs that would be emitted by Project-related construction and operations include CO_2, CH_4, and N_2O. The principal characteristics of these pollutants are discussed below.

Carbon dioxide enters the atmosphere through the combustion of fossil fuel (i.e., oil, natural gas, coal), solid waste decomposition, plant and animal respiration, and chemical reactions (e.g., from manufacturing cement). CO_2 is also removed from the atmosphere, or *sequestered*, when it is absorbed by plants as part of the biological carbon cycle.

Methane is emitted during the production and transport of coal, natural gas, and oil. CH_4 emissions also result from livestock and agricultural practices as well as the anaerobic decay of organic waste in municipal solid waste landfills.

Nitrous oxide is emitted by agricultural and industrial activities as well as the combustion of fossil fuels and solid waste.

Methods have been set forth to describe emissions of GHGs in terms of a single gas to simplify reporting and analysis. The most commonly accepted method for comparing GHG emissions is the global warming potential (GWP) methodology defined in IPCC reference documents. IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of carbon dioxide equivalent (CO_2e), which compares the gas in question to that of the same mass of CO_2. By definition, CO_2 has a GWP of 1.

Table 3.3-1 lists the global warming potential of CO_2, CH_4, and N_2O and their lifetimes in the atmosphere.

Table 3.3-1. Lifetimes and Global Warming Potentials of Key Greenhouse Gases

Greenhouse Gas	Global Warming Potential (100 years)	Lifetime (years)
Carbon Dioxide (CO_2)	1	—[a]
Methane (CH_4)	25	12
Nitrous Oxide (N_2O)	298	114

Source: California Air Resources Board. 2020a. *GHG Global Warming Potentials*. Available: https://ww2.arb.ca.gov/ ghg-gwps. Accessed: April 1, 2021.

[a] No lifetime (years) for carbon dioxide was presented by the California Air Resources Board.

[3] Ibid.

The California Air Resources Board (CARB) recognizes the importance of reducing emissions of short-lived climate pollutants, as described in the *Regulatory Setting,* to achieve the state's overall climate change goals. Short-lived climate pollutants have atmospheric lifetimes on the order of a few days to a few decades, and their relative climate-forcing impacts, when measured in terms of how they heat the atmosphere, can be tens, hundreds, or even thousands of times greater than that of CO_2.[4] Given their short-term lifespan and warming impact, short-lived climate pollutants are measured in terms of CO_2e using a 20-year time period. The use of GWPs with a time horizon of 20 years captures the importance of the short-lived climate pollutants and gives a better perspective as to the speed at which emission controls will affect the atmosphere relative to CO_2 emission controls. The Short-Lived Climate Pollutant Reduction Strategy (SLCP Reduction Strategy), as discussed in the *Regulatory Setting*, addresses CH_4, HFC gases, and anthropogenic black carbon. CH_4 has lifetime of 12 years and a 20-year GWP of 72. HFC gases have lifetimes of 1.4 to 52 years and a 20-year GWP of 437 to 6,350. Anthropogenic black carbon has a lifetime of a few days to weeks and a 20-year GWP of 3,200.[5]

Greenhouse Gas Reporting

A GHG inventory is a quantification of all GHG emissions and sinks[6] within a selected physical and/or economic boundary. GHG inventories can be performed on a large scale (e.g., for global and national entities) or on a small scale (e.g., for a building or person). Several agencies have developed tools for quantifying emissions from certain sources.

Potential Climate Change Effects

Climate change is a complex process that has the potential to alter local climatic patterns and meteorology. Although modeling indicates that climate change will result in sea-level rise, both globally and in San Francisco Bay, as well as changes in climate and rainfall, among other effects, there remains uncertainty about characterizing precise local climate characteristics and predicting precisely how various ecological and social systems will react to changes in the existing climate at the local level. Regardless of this uncertainty, it is widely understood that substantial climate change has occurred and will continue to occur in the future, although the precise extent will take further research to define. Specifically, the effects from global climate change in California and worldwide include the following:

- Declining sea ice and mountain snowpack levels, thereby increasing sea levels and sea surface evaporation rates, with a corresponding increase in atmospheric water vapor due to the atmosphere's ability to hold more water vapor at higher temperatures.[7]
- Rising average global sea levels, due primarily to thermal expansion in the oceans and the melting of glaciers, ice caps, and the Greenland and Antarctic ice sheets.[8]

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4 California Air Resources Board. 2017. *Short-Lived Climate Pollutant Reduction Strategy*. Available: https://ww2.arb.ca.gov/sites/default/files/2018-12/final_slcp_report%20Final%202017.pdf. Accessed: April 6, 2021.

5 Ibid.

6 A GHG sink is a process, activity, or mechanism that removes a GHG from the atmosphere.

7 California Natural Resources Agency. 2018. *California's Fourth Climate Change Assessment Statewide Summary Report*. Available: https://www.energy.ca.gov/sites/default/files/2019-07/Statewide%20Reports-%20SUM-CCCA4-2018-013%20Statewide%20Summary%20Report.pdf. Accessed: April 13, 2021.

8 Intergovernmental Panel on Climate Change. 2018. *Global Warming of 1.5°C.* Contribution of Working Group I, II, and III (Summary for Policy Makers). Available: https://www.ipcc.ch/site/assets/uploads/sites/ 2/2019/05/SR15_SPM_version_report_LR.pdf. Accessed: April 13, 2021.

- Changing weather patterns, including changes in precipitation and wind patterns, and more energetic episodes of extreme weather, including droughts, heavy precipitation, heat waves, extreme cold, and intense tropical cyclones.[9]
- Declining Sierra Nevada snowpack levels, which account for approximately half of the surface water storage in California. Snow levels could decline by 70 to as much as 90 percent over the next 100 years.[10]
- Increases in the number of days that could be conducive to ground-level ozone formation (e.g., clear days with intense sunlight) by the end of the 21st century in areas with high levels of ozone. The number of days could increase by 25 to 85 percent, depending on the future temperature scenario.[11]
- Increases in the potential for erosion of California's coastlines as well as seawater intrusion into the Sacramento Delta and associated levee systems due to the rise in sea level.[12]
- The severity of drought conditions in California could be exacerbated (e.g., durations and intensities could be amplified, ultimately increasing the risk of wildfires and consequential damage).[13]
- Under changing climate conditions, agricultural operations are forecast to experience lower crop yields due to extreme heat waves, heat stress, increased water needs of crops and livestock (particularly during dry and warm years), and new and changing pest and disease threats.[14]

The impacts of climate change, such as increases in the number of heat-related events, droughts, and wildfires, pose direct and indirect risks to public health, with people experiencing worsening episodes of illness and an earlier death. Indirect impacts on public health include increases in incidents of vector-borne diseases, stress and mental trauma due to extreme events and disasters, economic disruptions, and residential displacement.[15]

Regulatory Setting

Federal

There is currently no federal overarching law specifically related to climate change or reductions in GHG emissions. Under the Obama administration, the U.S. Environmental Protection Agency (EPA) had been developing regulations under the Clean Air Act (CAA). There have also been settlement agreements between EPA, several states, and nongovernmental organizations to address GHG emissions from electric generating plants and refineries. In addition, EPA issued an Endangerment Finding and a Cause or Contribute Finding. EPA also adopted a Mandatory Reporting Rule and Clean Power Plan. Under the Clean Power Plan, EPA issued regulations to control CO_2 emissions from new and existing coal-fired power

[9] Ibid.
[10] California Natural Resources Agency. 2018. *California's Fourth Climate Change Assessment Statewide Summary Report*. Available: http://www.climateassessment.ca.gov/state/docs/20190116-StatewideSummary.pdf. Accessed: April 13, 2021.
[11] Ibid.
[12] Ibid.
[13] Ibid.
[14] Ibid.
[15] Ibid.

plants. However, on February 9, 2016, the Supreme Court issued a stay regarding these regulations pending litigation. In addition, former EPA Administrator Scott Pruitt signed a measure to repeal the Clean Power Plan.

Corporate Average Fuel Economy Standards

The National Highway Traffic Safety Administration's (NHTSA's) Corporate Average Fuel Economy (CAFE) standards require substantial improvements in fuel economy and reductions in GHG emissions generated by passenger cars and light-duty trucks sold in the United States. On August 2, 2018, NHTSA and EPA proposed amendments to the current fuel efficiency standards for passenger cars and light-duty trucks and new standards for model years 2021 through 2026. Under the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, current 2020 standards would be maintained through 2026. On September 19, 2019, EPA and NHTSA issued a final action on the One National Program Rule, which is considered Part One of the SAFE Vehicles Rule and a precursor to the proposed fuel efficiency standards. The One National Program Rule enables EPA/NHTSA to provide nationwide uniform fuel economy and GHG vehicle standards by 1) clarifying that federal law preempts state and local tailpipe GHG standards, 2) affirming NHTSA's statutory authority to set nationally applicable fuel economy standards, and 3) withdrawing California's CAA preemption waiver to set state-specific standards.

EPA and NHTSA published their decision to withdraw California's waiver and finalize regulatory text related to the preemption on September 27, 2019 (84 *Federal Register* 51310). California, 22 other states, the District of Columbia, and two cities filed suit against Part One of the SAFE Vehicles Rule on September 20, 2019 (*California et al. v. United States Department of Transportation et al.,* 1:19-cv-02826, U.S. District Court for the District of Columbia). On October 28, 2019, the Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to transfer the suit to the D.C. Circuit (*Union of Concerned Scientists v. National Highway Traffic Safety Administration*). The lawsuit filed by California and others is stayed pending resolution of the petition.

EPA and NTHSA published final rules to amend and establish national CO_2 and fuel economy standards on April 30, 2020 (Part Two of the SAFE Vehicles Rule) (85 *Federal Register* 24174). The revised rule changes the national fuel economy standards for light-duty vehicles from 46.7 to 40.4 miles per gallon in future years. California, 22 other states, the District of Columbia filed a petition for review of the final rule on May 27, 2020.[16]

On January 20, 2021, the president issued an executive order, directing EPA and NHTSA to review the SAFE Vehicles Rule, Part One, and propose a new rule for suspending, revising, or rescinding it by April 2021. The executive order also requires EPA and NHTSA to propose a new rule for suspending, revising, or rescinding Part Two by July 2021.

State

Statewide GHG Emission Targets and the Climate Change Scoping Plan

Reducing GHG emissions in California has been the focus of the state government for approximately two decades. GHG emission targets established by the state legislature include reducing statewide GHG emissions to 1990 levels by 2020 (Assembly Bill [AB] 32 of 2006) and then reducing them to 40 percent below 1990 levels by 2030 (Senate Bill [SB] 32 of 2016). Executive Order S-3-05 calls for statewide GHG

[16] *California et al. v. United States Department of Transportation et al.*, 1:19-cv-02826, U.S. District Court for the District of Columbia,

emissions to be reduced to 80 percent below 1990 levels by 2050. These targets are in line with the scientifically established levels needed in the United States to limit the rise in global temperature to no more than 2°C, the warming threshold at which major climate disruptions, such as super droughts and rising sea levels, are projected.[17] Executive Order B-55-18 further recognizes the climate stabilization goal adopted by 194 states and the European Union under the Paris Agreement. Based on the worldwide scientific agreement that carbon neutrality must be achieved by midcentury, Executive Order B-55-18 establishes a state goal to achieve carbon neutrality as soon as possible but no later than 2045 and achieve and maintain net negative emissions thereafter. Executive Order B-55-18 charges CARB with developing a framework for implementing and tracking progress toward these goals. This executive order extends Executive Order S-3-05 and acknowledges the role of increased carbon sequestration on natural and working lands for the state to achieve carbon neutrality and become net carbon negative.

California's 2017 Climate Change Scoping Plan (2017 Scoping Plan), prepared by CARB, outlines the main strategies California will implement to achieve the legislated GHG emissions target for 2030 and "substantially advance toward our 2050 climate goals."[18] It identifies the reductions needed by each GHG emission sector (e.g., industry, transportation, electricity generation). The state has also passed more detailed legislation to address GHG emissions associated with industrial sources, transportation, electricity generation, and energy consumption, as summarized below.

Transportation-related Standards and Regulations

As part of its Advanced Clean Cars program, CARB established more stringent GHG emissions standards and fuel efficiency standards for fossil fuel–powered on-road vehicles. These regulations are projected to reduce GHG emissions from new vehicles by approximately 40 percent in 2025 relative to 2012 model year vehicles.[19] In addition, the program's zero-emission vehicle (ZEV) regulation requires battery, fuel cell, and plug-in hybrid electric vehicles to make up a growing percentage of California's new vehicle sales. By 2025, when the rules are fully implemented, the statewide fleet of new cars and light-duty trucks will emit 75 percent less smog-forming pollution than the statewide fleet in 2012.[20]

Executive Order B-48-18, signed into law in January 2018, requires all state entities to work with the private sector to have at least 5 million ZEVs on the road by 2030, 200 hydrogen fueling stations available, and 250,000 electric-vehicle (EV) charging stations installed by 2025. Furthermore, it specifies that 10,000 of these charging stations must be direct-current fast chargers.

In 2007, CARB adopted the Low-Carbon Fuel Standard to reduce the carbon intensity of California's transportation fuels. The Low-Carbon Fuel Standard applies to fuels used by on-road motor vehicles as well as off-road vehicles, including construction equipment. In addition to regulations to address issues related to tailpipe emissions and transportation fuels, the state legislature has passed regulations to address issues related to the number of miles driven in on-road vehicles.

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[17] United Nations. 2015. *Historic Paris Agreement on Climate Change: 195 Nations Set Path to Keep Temperature Rise Well below 2 Degrees Celsius.* December 13. Available: https://unfccc.int/news/finale-cop21. Accessed: April 14, 2021.

[18] California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. November. Pages 1, 3, 5, 20, 25, and 26. Available: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed: April 14, 2021.

[19] California Air Resources Board. 2021. *Advanced Clean Cars Program*. Available: https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/about. Accessed: April 16, 2021.

[20] Ibid.

Since passage of SB 375 in 2008, CARB has required metropolitan planning organizations to adopt plans that show reductions in GHG emissions from passenger cars and light-duty trucks in their respective regions for 2020 and 2035.[21] These plans link land use and housing allocations to transportation planning and related mobile-source emissions. The Metropolitan Transportation Commission (MTC) serves as the metropolitan planning organization for the nine counties in the Bay Area region, including San Mateo County, which is where the Project site is located. In 2014, the MTC adopted Plan Bay Area, the area's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). MTC was asked by CARB to achieve a 10 percent per capita reduction in emissions compared to 2005 levels by 2020 and a 16 percent per capita reduction by 2035. CARB confirmed that the region would achieve the targets by implementing the SCS.[22] In March 2018, CARB approved the proposed update for the SB 375 targets.[23]

Under SB 743, in 2013, the Governor's Office of Planning and Research (OPR) implemented changes to the California Environmental Quality Act (CEQA) Guidelines, including the addition of Section 15064.3, which requires CEQA transportation analyses to move away from a focus on vehicle delay and level of service.[24] In support of these changes, OPR published its *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which recommends that the determination of the transportation impact of a project be based on whether project-related vehicle miles traveled (VMT) per capita (or VMT per employee) would be 15 percent lower than that of existing development in the region.[25] OPR's technical advisory explains that this criterion is consistent with Section 21099 of the California Public Resources Code, which states that the criteria for determining significance must "promote the reduction in greenhouse gas emissions."[26] This metric is intended to replace the use of vehicle delay and level of service to measure transportation-related impacts. More detail about SB 743 is provided under *Regulatory Setting* in Section 3.1, *Transportation*. At the time when the environmental impact report (EIR) for the General Plan and M-2 Area Zoning Update (Connect Menlo) was prepared, the California Natural Resources Agency had not yet adopted OPR's proposed addition of Section 15064.3 to the CEQA Guidelines.

Legislation Associated with Electricity Generation

The state passed legislation that requires increasing use of renewables to produce electricity for consumers. Specifically, California utilities are required to generate 33 percent of their electricity from renewables by 2020 (SB X1-2 of 2011), 52 percent by 2027 (SB 100 of 2018), 60 percent by 2030 (also SB 100 of 2018), and 100 percent by 2045 (also SB 100 of 2018).

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[21] California Air Resources Board. 2018a. *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*. Approved by the California Air Resources Board on March 22, 2018. Available: https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf. Accessed: April 2021.

[22] California Air Resources Board. 2018. *Technical Evaluation of the Greenhouse Gas Emissions Reduction Quantification for the Association of Bay Area Governments' and Metropolitan Transportation Commission's SB 375 Sustainable Communities Strategy*. June. Available: https://ww3.arb.ca.gov/cc/sb375/mtc_final_staff_report_0718.pdf. Accessed: April 21, 2021.

[23] California Air Resources Board. 2018a. *SB 375 Regional Greenhouse Gas Emissions Reduction Targets*. Approved by the California Air Resources Board on March 22, 2018. Available: https://www.arb.ca.gov/cc/sb375/finaltargets2018.pdf. Accessed: April 2021.

[24] Governor's Office of Planning and Research. 2017a. *Proposed Updates to the CEQA Guidelines*. November. Available: http://opr.ca.gov/docs/20171127_Comprehensive_CEQA_Guidelines_Package_Nov_2017.pdf. Accessed: April 2021.

[25] Governor's Office of Planning and Research. 2017b. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. November. Available: http://www.opr.ca.gov/docs/20171127_Transportation_Analysis_TA_Nov_2017.pdf. Accessed: April 2021.

[26] Ibid.

Building Energy Efficiency Standards (Title 24, Part 6)

The energy consumption of new residential and nonresidential buildings in California is regulated by the California Code of Regulations (CCR), Title 24, Part 6, Building Energy Efficiency Standards (California Energy Code). The California Energy Commission (CEC) updates the California Energy Code every 3 years with more stringent design requirements to reduce energy consumption, resulting in lower GHG emissions. The 2019 California Energy Code, which took effect on January 1, 2020, requires builders to use more energy-efficient building technologies to comply with requirements regarding energy use. New residential units are required to include solar panels to offset the estimated electrical demands of each unit (CCR, Title 24, Part 6, Section 150.1[c]14). CEC estimates that the 2019 California Energy Code's combination of required energy-efficiency features and mandatory solar panels will result in new residential units that use 53 percent less energy than those that were designed to meet the 2016 California Energy Code. CEC also estimates that the 2019 California Energy Code will result in new commercial buildings that use 30 percent less energy than those that were designed to meet the 2016 California Energy Code, primarily through the transition to high-efficacy lighting.[27]

Clean Energy and Pollution Reduction Act of 2015

SB 350 was approved by the California legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions require the following by 2030: 1) a Renewables Portfolio Standard (RPS) of 50 percent and 2) a doubling of energy efficiency by 2030, including improvements to the efficiency of existing buildings. These provisions will be implemented by future actions of the California Public Utilities Commission and CEC.

Solid Waste Diversion Regulations

To minimize the amount of solid waste that must be disposed of in landfills, the state legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties were required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995, and 50 percent by January 1, 2000. Through other statutes and regulations, this 50 percent diversion rate also applies to state agencies. In order of priority, waste reduction efforts must promote source reduction, recycling and composting, and environmentally safe transformation and land disposal.

In 2011, AB 341 modified the California Integrated Waste Management Act and directed the California Department of Resources Recycling and Recovery (CalRecycle) to develop and adopt regulations for mandatory commercial recycling. As of July 1, 2012, the resulting mandatory commercial recycling required certain businesses that generate 4 cubic yards or more of commercial solid waste per week to arrange recycling services. To comply with this requirement, businesses could either separate recyclables and self-haul them or subscribe to a recycling service with mixed-waste processing. AB 341 also established a statewide recycling goal of 75 percent; under AB 939, the 50 percent disposal reduction mandate still applied to cities and counties.

[27] California Energy Commission. 2018. *2019 Building Energy Efficiency Standards: Frequently Asked Questions.* March. Available: https://www.energy.ca.gov/sites/default/files/2020-03/Title_24_2019_Building_Standards_FAQ_ada.pdf. Accessed: April 14, 2021.

Cap-and-Trade Program

CARB administers the state's cap-and-trade program, which covers GHG sources that emit more than 25,000 metric tons of carbon dioxide equivalent per year ($MTCO_2e$/year), such as refineries, power plants, and industrial facilities. This market-based approach to reducing GHG emissions provides economic incentives for achieving GHG emission reductions.

Short-Lived Climate Pollutant Reduction Strategy

In 2014, SB 605 directed CARB, in coordination with other state agencies and local air districts, to develop a comprehensive SLCP Reduction Strategy. In 2016, SB 1383 directed CARB to approve and implement the SLCP Reduction Strategy to achieve the following reductions in SLCPs:

- 40 percent reduction in CH4 relative to 2013 levels by 2030,
- 40 percent reduction in HFC gases relative to 2013 levels by 2030, and
- 50 percent reduction in anthropogenic black carbon relative to 2013 levels by 2030.

SB 1383 also establishes the following targets for reducing organic waste in landfills as well as CH_4 emissions from dairy and livestock operations, as follows:

- 50 percent reduction in organic waste disposal relative to 2014 levels by 2020,
- 75 percent reduction in organic waste disposal relative to 2014 levels by 2025, and
- 40 percent reduction in CH_4 emissions from livestock and dairy manure management operations relative to the livestock and dairy sectors' 2013 levels by 2030.

CARB and CalRecycle are currently developing regulations to achieve the organic waste reduction goals under SB 1383. In January 2019 and June 2019, CalRecycle proposed new and amended regulations to CCR Title 14 and Title 27. Among other things, the regulations set forth minimum standards for organic waste collection, hauling, and composting. The final regulations will take effect on or after January 1, 2022.

CARB adopted the SLCP Reduction Strategy in March 2017 as a framework for achieving the CH_4, HFC, and anthropogenic black carbon reduction targets set by SB 1383. The SLCP Reduction Strategy includes 10 measures to reduce SLCPs, which fit within a wide range of ongoing planning efforts throughout the state, including CARB's and CalRecycle's proposed rulemaking on organic waste diversion (discussed above).

Water Conservation Act of 2009

The overall goal of SB X7-7, the Water Conservation Act of 2009, was to reduce per capita urban water use by 20 percent as of December 31, 2020. The state was required to make incremental progress toward this goal by reducing per capita water use by at least 10 percent by December 31, 2015. This act is an implementing measure of the 2017 Scoping Plan that will continue to be implemented beyond 2020. Reductions in water consumption reduce the amount of energy, as well as the emissions, associated with conveying, treating, and distributing the water; emissions from wastewater treatment are also reduced.

Regional

Metropolitan Transportation Commission

The MTC is the metropolitan planning organization for the nine counties that make up the San Francisco Bay Area and the San Francisco Bay Area Air Basin (SFBAAB), including the city of Menlo Park. The first per capita GHG emissions reduction targets for the SFBAAB were 7 percent by 2020 and 15 percent by

2035 relative to 2005 levels. In 2013, MTC adopted an SCS as part of its RTP for the SFBAAB. This was known as Plan Bay Area. The plan goes beyond regional per capita targets and calls for 10 and 16 percent reductions in per capita GHG emissions by 2020 and 2035, respectively.[28] On July 26, 2017, the strategic update to this plan, known as Plan Bay Area 2040, was adopted by the Association of Bay Area Governments and the MTC. As a limited and focused update, Plan Bay Area 2040 builds upon the growth pattern and strategies developed in the original Plan Bay Area but with updated planning assumptions that incorporate the key economic, demographic, and financial trends since 2013.[29] As required by SB 375, CARB updated the per capita GHG emissions reduction targets in 2018. The new targets (i.e., reductions in per capita GHG emissions of 10 percent by 2020 and 19 percent by 2035 relative to 2005 levels) will be addressed in MTC's forthcoming RTP/SCS.[30] The next update to Plan Bay Area, Plan Bay Area 2050, which is currently in its early planning stages, will outline strategies for growth and investment through 2050.

Bay Area Air Quality Management District

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for addressing air quality concerns in the San Francisco Bay Area, including San Mateo County. Its role is discussed further in Section 3.2, *Air Quality*. BAAQMD also recommends methods for analyzing project-related GHGs in CEQA analyses as well as multiple GHG reduction measures for land use development projects. BAAQMD developed thresholds of significance that align with the statewide GHG target mandated by AB 32 to provide a uniform scale for determining the CEQA significance of GHG emissions associated with land use and stationary-source projects. In developing GHG thresholds, BAAQMD's goals included ease of implementation, the use of standard analysis tools, and emissions mitigation that would be consistent with AB 32 of 2006. However, BAAQMD has not adopted thresholds of significance or guidance for determining whether a project's GHG emissions would be consistent with the statewide GHG target established by SB 32 in 2016 (i.e., 40 percent below 1990 levels by 2030).

Local

Menlo Park Climate Action Plan

The City of Menlo Park's (City's) Climate Action Plan (CAP)[31] identifies local emissions reduction strategies to help meet AB 32 targets. The CAP provides the emissions inventory for 2005 and 2013, the emissions forecast for 2020, a reduction goal for 2020, and a recommendation for GHG reduction strategies. Given the emissions inventory and forecast for 2020, the City adopted a GHG emissions reduction target in June 2013 of 27 percent below 2005 levels by 2020 to align with the goals of AB 32. The CAP recommends various community and municipal strategies for near-term and mid-term implementation. The emissions reduction strategies are generally focused on community actions because more than 99 percent of the emissions are from sources that are not directly controlled by the City.

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[28] Metropolitan Transportation Commission and Association of Bay Area Governments. 2013. *Plan Bay Area.* Adopted: July 18. Available: http://files.mtc.ca.gov/library/pub/28536.pdf. Accessed: April 13, 2021.

[29] Metropolitan Transportation Commission and Association of Bay Area Governments. 2017. *Plan Bay Area 2040.* Adopted: July 26. Available: http://2040.planbayarea.org/cdn/ff/buje2Q801oUV3Vpib-FoJ6mkOfWC9S9sgr SgJrwFBgo/1510696833/public/2017-11/Final_Plan_Bay_Area_2040.pdf. Accessed: April 13, 2021.

[30] California Air Resources Board. 2020c. *SB 375 Regional Plan Climate Targets.* Available: https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets. Accessed: April 13, 2021.

[31] City of Menlo Park. 2020. *Climate Change Action Plan*. Available: http://www.menlopark.org/305/Climate-Action-Plan. Accessed: April 13, 2021.

In October 2015, the City provided an update on the progress of the projects selected in the previous CAP update and provided a list of CAP projects for fiscal years 2015/2016 through 2019/2020. Minor amendments were made to the updated CAP in May 2018 to update the status of GHG reduction strategies implemented during fiscal years 2015/2017 and revise the proposed GHG reduction strategies for fiscal years 2018–2020 and beyond. Included in the near-term (2017–2020) projects are strategies that consider the following:

- Extending and increasing ConnectMenlo EV charging station requirements to other areas of the community;
- Adopting a Community Zero-Waste Plan;
- Conducting EV charging policy options and gap analyses;
- Integrating green design standards, similar to ConnectMenlo, in the Downtown Specific Plan Update;
- Developing a Transportation Master Plan to reduce congestion and GHG emissions;
- Developing a Transportation Management Association to reduce driving-alone behavior and encourage sustainable forms of transportation;
- Developing standard operating procedures for implementing the green and sustainable building requirements in the ConnectMenlo area;
- Incorporating GHG reduction and zero-waste strategies in the Parks and Recreation Facilities Master Plan;
- Protecting Menlo Park land in the projected Sea-Level Rise Zone through additional resiliency strategies; and
- Conducting a robust community engagement program for the CAP update to craft Menlo Park's strategy by looking forward to 2040.

The most recent update to the City's CAP, the 2030 CAP, was adopted in April 2021.[32] The 2030 CAP updated emissions inventories and adopted a climate goal that calls for zero carbon by 2030. The CAP also aims for a 90 percent reduction in CO_2e emissions from 2005 levels by 2030. Table 3.3-2 highlights the City's GHG emissions inventory for 2005, 2017, and 2030.

Table 3.3-2. City of Menlo Park Community Greenhouse Gas Emissions Inventory ($MTCO_2e$)

Emissions Sources	2005	2017	2030
Vehicle Travel (mobile-source)	137,628	158,686	18,373
Natural Gas Combustion	102,295	95,742	13,656
Electricity Consumption	87,617	21,528	—
Solid Waste Generation	21,745	8,424	2,903
Total Greenhouse Gas Emissions (metric tons CO_2e)	**349,285**	**284,380**	**34,933**

Source: City of Menlo Park. 2020. *Climate Change Action Plan*. Available: http://www.menlopark.org/305/Climate-Action-Plan. Accessed: April 13, 2021.
Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent

[32] Ibid.

CEQA authorizes reliance on a previously approved GHG emissions reduction plan (e.g., a CAP) that was prepared as a "plan for the reduction of greenhouse gas emissions," per Section 15183.5 of the CEQA Guidelines. This section of the CEQA Guidelines establishes opportunities for CEQA tiering when projects are consistent with adopted GHG emissions reduction plans and their impacts can be determined to be less than significant, provided the GHG emissions reduction plans meet specific criteria established under Section 15183.5.

The City adopted the CAP in April 2021; however, the CAP does not meet the requirements for tiering because environmental review showed that the draft 2030 CAP was intended to serve as a policy framework for future actions. Therefore, it is exempt under Section 15262 of the CEQA Guidelines.[33,34] Consequently, because the City's 2030 CAP does not satisfy the tiering requirements established in Section 15183.5 of the CEQA Guidelines, it cannot be used to determine the significance of an individual project's GHG emissions. However, the 2030 CAP is a relevant plan for the purpose of reducing GHG emissions within Menlo Park; therefore, consistency with applicable 2030 CAP policies is analyzed in Impact GHG-2.

Menlo Park General Plan

The Menlo Park General Plan guides development and use of land within the city. Several goals and policies from the Open Space and Conservation Element of the Menlo Park General Plan apply broadly to GHG emissions, as presented below.

Goal OSC4: Promote Sustainability and Climate Action Planning.

> **Policy OSC4.1: Sustainable Approach to Land Use Planning to Reduce Resource Consumption**. Encourage, to the extent feasible, (1) a balance and match between jobs and housing, (2) higher-density residential and mixed-use development adjacent to commercial centers and transit corridors, and (3) retail and office areas within walking and biking distance of transit or existing and proposed residential developments.
>
> **Policy OSC4.2: Sustainable Building**. Promote and/or establish environmentally sustainable building practices or standards in new development that would conserve water and energy, prevent stormwater pollution, reduce landfilled waste, and reduce fossil fuel consumption from transportation and energy activities.
>
> **Policy OSC4.*3:* Renewable Energy**. Promote the installation of renewable energy technology, such as in residences and businesses, by supporting education, employing social marketing methods, establishing standards, and/or providing incentives.
>
> **Policy OSC4.*4:* Vehicles Using Alternative Fuel**. Explore the potential for installing infrastructure for vehicles that use alternative fuel, such as electric plug-in recharging stations.

[33] City of Menlo Park. 2020. *Staff Report 20-152-CC: Receive and File the Environmental Quality Commission's 2030 Climate Action Plan and Adopt Resolution No. 6575 to Adopt the Climate Action Plan as Amended with the Staff's Implementation Strategy.* June. Available: https://menlopark.org/DocumentCenter/View/25680/F1-20200714-CC-CAP. Accessed: October 2021.

[34] CEQA Guidelines Section 15262 specifically states the following: "A project involving only feasibility or planning studies for possible future actions that the agency, board, or commission has not approved, adopted, or funded does not require the preparation of an EIR or negative declaration but does require consideration of environmental factors. This section does not apply to the adoption of a plan that will have a legally binding effect on later activities."

Policy OSC4.*5:* Energy Standards in Residential and Commercial Construction. Encourage projects to achieve a high level of energy conservation, exceeding standards set forth in the California Energy Code for residential and commercial development.

Policy OSC4.6: Waste Reduction Target. Strive to meet the California State Integrated Waste Management Board per-person target of waste generation per person per day through source reduction, reuse, and recycling programs.

Policy OSC4.7: Waste Management Collaboration. Continue to support and participate in efforts such as those from the South Bayside Waste Management Authority, which provides waste reduction, recycling, and solid waste programs and solutions.

Policy OSC4.8: Waste Diversion. Develop and implement a zero-waste policy or implement standards, incentives, or other programs that would lead the community toward a zero-waste goal.

Policy OSC4.10: Energy Upgrade California. Consider actively marketing and providing additional incentives for residents and businesses to participate in local, state, and/or federal renewable energy or energy conservation programs.

The following programs, policies, and goals in the approved Menlo Park General Plan Land Use and Circulation Elements, the scope of which includes the former M-2 Area, would be applicable to the Proposed Project:

Goal LU-7: Promote the implementation and maintenance of sustainable development, facilities, and services to meet the needs of Menlo Park's residents, businesses, workers, and visitors.

Policy LU-7.1: Sustainability. Promote sustainable site planning, development, landscaping, and operational practices that conserve resources and minimize waste.

Policy LU-7.5: Reclaimed Water Use. Implement use of adequately treated "reclaimed" water (i.e., recycled/nonpotable water sources, including graywater, blackwater, rainwater, stormwater, foundation drainage, etc.) through dual plumbing systems for outdoor and indoor uses, as feasible.

Policy LU-7.9: Green Building. Support sustainability and green building best practices through the orientation, design, and placement of buildings and facilities to optimize their energy efficiency in preparation of state zero net energy requirements for residential construction in 2020 and commercial construction in 2030.

Program LU-7.A: Green Building Operation and Maintenance. Employ green building as well as operation-and-maintenance best practices, such as increasing energy efficiency, using renewable energy and reclaimed water, and installing drought-tolerant landscaping, for all projects.

Goal CIRC-3: Increase mobility options to reduce traffic congestion, greenhouse gas emissions, and commute travel time.

Policy CIRC-3.1: Vehicle Miles Traveled. Support development and transportation improvements that help reduce per-service-population (or other efficiency metric) vehicle miles traveled.

Policy CIRC-4.1: Global Greenhouse Gas Emissions. Encourage the safer and more widespread use of nearly zero emission modes, such as walking and biking, and lower-emission modes, such as transit, to reduce greenhouse gas emissions.

Policy CIRC-5.1: Transit Service and Ridership. Promote improved public transit service and increased transit ridership, especially to employment centers, commercial destinations, schools, and public facilities.

Menlo Park Municipal Code

As discussed in Chapter 2, *Project Description*, the Project site is in the Life Sciences, Bonus (LS-B) zoning district. Consistent with the goals identified in ConnectMenlo, the City passed Ordinance No. 1025 for the Life Science (LS) zoning district under Title 16 of the Menlo Park Municipal Code. Ordinance No. 1025 includes the following requirements that would be applicable to GHG-emitting activities associated with the Proposed Project:

Section 16.44.130, Green and Sustainable Building

In addition to meeting all applicable regulations specified in Title 12 (Buildings and Construction), the following provisions shall apply to projects (implementation of these provisions may be subject to separate discretionary review and environmental review pursuant to CEQA):

(1) Green Building.

(A) Any new construction, addition, or alteration of a building shall be required to comply with Table 16.44.130(1)(B). (This table summarizes green building requirements for new construction or alternations to non-residential buildings. The requirements vary, based on the size of the building. Because the proposed building would be more than 100,000 gross square feet, it would be required to meet Leadership in Energy and Environmental Design Gold requirements for Building Design and Construction. These include installing prewiring for EV charging stations at a minimum of 5 percent of the total number of parking stalls, installing EV charging stations at a minimum of six parking stalls plus 1 percent of the total number of parking stall in the prewired locations, enrolling in EPA's Energy Star Portfolio Manager, and submitting documentation of compliance, as required by the City.)

(2) Energy.

(A) For all new construction, the project will meet 100 percent of energy demand (electricity and natural gas) through any combination of the following measures:

(i) Onsite energy generation,

(ii) Purchase of 100 percent renewable electricity through Peninsula Clean Energy or Pacific Gas and Electric Company (PG&E) in an amount equal to the annual energy demand of the project,

(iii) Purchase of local renewable energy generation in Menlo Park in an amount equal to the annual energy demand of the project, and

(iv) Purchase of certified renewable energy credits and/or certified renewable energy offsets annually in an amount equal to the annual energy demand of the project. (For the GHG impact analysis in this CEQA document, it is assumed that this measure refers to carbon offsets from a CARB-approved registry or the California Air Pollution Control Officers Association's GHG Reduction Exchange and that the carbon offsets would be real, additional, permanent, verifiable, and enforceable, as defined in 17 CCR Section 95802.)

If a local amendment to the California Energy Code is approved by the CEC, the following provision becomes mandatory:

The project will meet 100 percent of energy demand (electricity and natural gas) through a minimum of 30 percent of the maximum feasible onsite energy generation, as determined by an onsite renewable energy feasibility study and any combination of the measures in Subsections (2)(A)(ii) to (iv). The onsite renewable energy feasibility study shall demonstrate the following cases at a minimum:

a. Maximum onsite generation potential;

b. Solar feasibility for roof and parking areas, excluding roof-mounted heating, ventilation, and air-conditioning equipment; and

c. Maximum solar generation potential solely on the roof area.

At the time of preparation for this CEQA document, no such local amendment, sometimes referred to as a "reach code," had been approved by the CEC, and the City is not actively engaged in implementation of such an amendment.[35]

Environmental Impacts

Methods of Analysis

The level of GHG emissions associated with construction and operation of the Proposed Project was assessed and quantified using the California Emissions Estimator Model (CalEEMod), version 2106.3.2, and CARB's 2021 EMission FACtor (EMFAC) model, consistent with BAAQMD guidance. A summary of the methodology is provided below. A full list of assumptions regarding modeling input parameters is provided in Appendix 3.3.

Zoning Ordinance Consistency

To ensure consistency with Menlo Park Municipal Code requirements for the LS Zoning District, the Menlo Park General Plan, and the 2017 Scoping Plan, the Proposed Project would incorporate the following required zoning ordinances that would help reduce GHG emissions. The zoning ordinances concern 100 percent renewable electricity, natural gas energy credits, and EV parking spaces, which would help reduce the level of GHG emissions associated with operation of the Proposed Project. The zoning ordinances are described in detail**.**

Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(A)(ii), Green and Sustainable Building, 100 Percent Renewable Electricity. The Project Sponsor, or its building manager, will purchase 100 percent renewable electricity through Peninsula Clean Energy or PG&E in an amount equal to its annual onsite demand for electricity. A minimum of once per calendar year, the Project Sponsor, or its building manager, will provide the City with documentation that adequately demonstrates implementation of this requirement, as determined by the City.

Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(II), *Green and* Sustainable Building, Purchase and Retire Carbon Credits to Offset Onsite Consumption of Natural Gas. The Project Sponsor, or its building manager, will purchase and retire carbon credits to offset fully the GHG emissions associated with all onsite combustion of natural gas (e.g., space heating, water heating, equipment sterilization, cooking). A minimum of once per calendar year, the Project Sponsor, or its building manager, will provide the City with documentation that adequately demonstrates implementation of this requirement. The reporting shall document the volume of natural gas consumed, using records from PG&E; estimate the level of CO_2e associated with this consumption; and include proof that the GHG emissions have been fully offset through the purchase and retirement of carbon offsets. All carbon offsets must be obtained from a CARB-approved registry or the California Air Pollution Control Officers Association's GHG Reduction Exchange. The carbon offsets will be real, additional, permanent, verifiable, and enforceable, as defined in 17 CCR Section 95802.)

[35] Smith, Tom A. Senior planner, City of Menlo Park. April 16, 2021—email to Kirsten Chapman, Greta Brownlow, and Austin Kerr of ICF regarding whether the City has developed a local amendment to the California Energy Code that has been approved.

Menlo Park Municipal Code Chapter 5, Section 5.106.5.3, Electric-Vehicle Charging. The Project Sponsor shall ensure that at least 15 percent of the parking stalls for passenger vehicles meet California Green Building Standards Code (CALGreen) Tier 2 standards for EVs and that all EV-capable spaces are EV ready, as defined in California Building Energy Efficiency Standards Title 24, Part 11. Making parking stalls EV ready requires the installation of dedicated branch circuits, circuit breakers, and other electrical components, including receptacles or blank covers, to support the future installation of one or more charging stations.

Construction-related Emissions

Short-term construction-generated GHG emissions were calculated using methodologies consistent with CalEEMod, version 2020.4.0,[36] as recommended by BAAQMD and other air districts in California. Modeling was based on Project-specific information, such as information regarding demolition, building size, the area to be graded, and the area to be paved, where available; assumptions regarding typical construction activities; and default values from CalEEMod, which consider a project's location, land use type, and expected duration of construction. In addition, the construction-related GHG emissions would include the proposed upgrades to waterlines at the following locations:

- Under Adams Court, along the interior of the 1350 Adams Court property, connecting to existing lines at the adjacent Menlo Science and Technology Park, and
- Under O'Brien Drive, from the southwest corner of the 1305 O'Brien Drive frontage to the intersection at Willow Road.

Detailed model assumptions and inputs for the calculations can be found in Appendix 3.3.

Operational Emissions

GHG emissions emitted by motor vehicles traveling to and from the Project site were estimated with use of the vehicle emission factors from CARB's EMFAC2021;[37] traffic data, including daily VMT and the number of daily trips, from a transportation analysis conducted by Hexagon; and CalEEMod software. The traffic data, along with the EMFAC201 vehicle emission factors, were entered into the mobile-source module of CalEEMod to determine the mass of GHG emitted by Project-related vehicle trips.

GHG emissions associated with landscape maintenance and backup diesel generator operation were estimated using the applicable modules in CalEEMod. GHG emissions associated with the consumption of water as well as the generation of wastewater and solid waste were estimated using the applicable modules in CalEEMod and the volume estimates prepared by Integral Group for the Project Sponsor.[38] The consumption estimates are provided in Appendix 3.3. GHG emissions associated with the onsite consumption of electricity and natural gas were assumed to be zero with implementation of Menlo Park Municipal Code Section 16.44.130(2)(A)(ii) and Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(II). All GHG calculations and modeling data, including data entered into CalEEMod and associated output files, are provided in Appendix 3.3.

[36] California Air Pollution Control Officers Association. 2020. *CalEEMod, Version 4.0*. Available: http://www.caleemod.com/. Accessed: October 2021.

[37] California Air Resources Board. 2021. *California Emission FACtor Model*. Available: https://arb.ca.gov/emfac/. Accessed: April 2021.

[38] Integral Group. August 13, 2019—memorandum to Kyle Perata, senior planner, "1350 Adams Court, Energy, Water, and Waste Estimates for EIR."

Thresholds of Significance

CEQA Guidelines Section 15064 and relevant portions of Appendix G of the CEQA Guidelines recommend that a lead agency consider a project's consistency with relevant adopted plans and discuss any inconsistencies with applicable regional plans, including plans to reduce GHG emissions. In Appendix G of the CEQA Guidelines, two questions are provided to help assess whether a project would result in a potentially significant impact related to climate change. These questions ask whether a project would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or
- Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs.

CEQA Guidelines Section 15064.4(b) also states that, when assessing the significance of impacts from GHG emissions, a lead agency should consider 1) the extent to which a project may increase or reduce GHG emissions compared with existing conditions, 2) whether a project's GHG emissions would exceed a threshold of significance that the lead agency has determined to be applicable to the project, and 3) the extent to which a project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

Construction-generated Emissions of Greenhouse Gases

BAAQMD's CEQA Guidelines do not identify a GHG emission threshold for construction-related emissions. Instead, BAAQMD recommends that GHG emissions from construction be quantified and disclosed and that a determination regarding the significance of the GHG emissions be made with respect to whether a project would be consistent with emission reduction goals. BAAQMD further recommends incorporation of best management practices (BMPs) to reduce GHG emissions during construction, as feasible and applicable. This approach is used to evaluate construction-generated emissions.

Operational Emissions of Greenhouse Gases

At the time of preparation for this CEQA document, the most recent version of BAAQMD's CEQA guidance was published in May 2017.[39] In its 2017 guidance, BAAQMD recommended that land use development projects be evaluated using a GHG efficiency metric that can be expressed in $MTCO_2e$ per service population per year ($MTCO_2e$/SP/year); the service population is the sum of the number of residents and full-time-equivalent employees supported by a project. More specifically, BAAQMD's 2017 guidance recommends a significance threshold of 4.6 $MTCO_2e$/SP/year. BAAQMD substantiated this efficiency threshold in the justification report it published in October 2009.[40] BAAQMD determined that land use development projects with an operational GHG efficiency level that does not exceed 4.6 $MTCO_2e$/SP/year would be consistent with the statewide GHG target of achieving 1990 GHG emission levels by 2020, as mandated by AB 32. However, the GHG efficiency threshold of 4.6 $MTCO_2e$/SP/year is not an indicator as to whether a land use development project would be aligned with the statewide GHG target mandated by SB 32 (i.e., 40 percent below 1990 emissions levels by 2030).

[39] Bay Area Air Quality Management District. 2017. *California Environmental Quality Act Air Quality Guidelines.* May 2017 update. Available: http://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/ceqa_guidelines_may2017-pdf.pdf?la=en. Accessed: April 15, 2021.

[40] Bay Area Air Quality Management District. 2009. *Revised Draft Options and Justification Report: California Environmental Quality Act Thresholds of Significance.* October. Available: https://www.baaqmd.gov/~/media/files/planning-and-research/ceqa/revised-draft-ceqa-thresholds-justification-report-oct-2009.pdf?la=en. Accessed: April 15, 2021.

Note that the GHG thresholds recommended in BAAQMD's 2017 document originate from 2010. Although the 2017 version of BAAQMD's guidance contains revisions to its June 2010 guidance, none of the revisions pertain to BAAQMD's guidance regarding how to analyze the GHG emissions of a project. This timing is notable because, as explained in the *Regulatory Setting*, above, AB 32, which was passed in 2006, established a mandate to reduce statewide GHG emissions to 1990 levels by 2020, but SB 32, from 2016, which established a mandate to reduce statewide GHG emissions to 40 percent below 1990 levels by 2030, had not yet been passed. In short, BAAQMD has not developed a quantitative GHG threshold that is aligned with the statewide effort to reduce GHG emissions to 40 percent below 1990 levels by 2030.

Pursuant to CEQA Guidelines Section 15064.4(a), the City has the discretion to develop a project-specific threshold of significance, whether quantitative or qualitative, to determine the significance of a project's GHG emissions. For the purpose of this CEQA document, the City is relying on a qualitative threshold (i.e., consistency with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions) to determine the significance of the Project's GHG impacts. The City has also developed a quantitative GHG efficiency threshold to evaluate whether the Proposed Project's GHG emissions would constitute a cumulatively considerable contribution to the impact of climate change and/or conflict with the legislated statewide GHG targets mandated by SB 32 (i.e., 40 percent below 1990 levels by 2030). This quantitative analysis provides separate evidence that supports the City's determination regarding the significance of the Project's GHG impacts.

Given that BAAQMD has shown that the threshold of 4.6 $MTCO_2e$/SP/year is aligned with the statewide GHG target for 2020 and that the statewide GHG target for 2030 is 40 percent lower than the statewide GHG target for 2020, the City considers a threshold that is 40 percent lower (i.e., 2.76 $MTCO_2e$/SP/year) to be aligned with the statewide target for 2030. To analyze the Proposed Project's buildout year of 2024, an interpolated $MTCO_2e$/SP/year threshold for 2024 was calculated, based on 2020 and 2030 thresholds (i.e., 3.86 $MTCO_2e$/SP/year). This analysis estimates the Proposed Project's operational GHG emissions and compares its projected service population–based efficiency to this scaled threshold. Given the projected construction schedule, the earliest year the Proposed Project would become operational would be 2024. Details about how these values are estimated are provided under *Method of Analysis*, below.

The GHG analysis also includes a qualitative assessment of whether the Proposed Project would conflict with applicable plans, policies and regulations adopted for the purpose of reducing GHG emissions. The primary focus of this qualitative assessment is whether the Proposed Project would conflict with CARB's 2017 Scoping Plan, which, as explained in the *Regulatory Setting*, above, outlines the main strategies California will implement to achieve the legislated GHG emissions target for 2030 and "substantially advance toward our 2050 climate goals."[41] Where applicable, guidance from CARB, OPR, and other agencies related to long-term emissions reduction requirements is considered in the analysis.

Although statewide targets beyond 2030 have been proclaimed in Executive Orders S-3-05 and B-55-18, the subsequent targets have not been codified by the state legislature, and no plans have been formally adopted (or are subject to CEQA review) that lay out how these targets will be achieved, which emissions sectors in California will be responsible for achieving substantial reductions, or the role carbon sequestration efforts will play in achieving the targets. As discussed above, consistency with the City's 2030 CAP is analyzed in Impact GHG-2.

[41] California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*. November. Pages 1, 3, 5, 20, 25, and 26. Available: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed: April 14, 2021.

Summary of Analysis in the ConnectMenlo Final EIR

The City adopted the ConnectMenlo Final EIR in 2016. The EIR included an emissions inventory for ConnectMenlo scenarios in 2020 and 2040. Emissions were estimated for 2020 to evaluate consistency with AB 32, which established a statewide target for 2020. Emissions were also estimated for 2040, which is the planning horizon year for ConnectMenlo. The ConnectMenlo Final EIR found that GHG emissions would increase substantially compared with existing conditions (pre-2020 target) by the horizon year (2040) and would not achieve the 2040 efficiency target (per service population), which is based on a trajectory that leads to the 2050 goal of 80 percent below 1990 levels. The policies identified in the Menlo Park General Plan, as well as the Transportation Demand Management (TDM) program and other green building sustainability measures in the Menlo Park Zoning Ordinance, would reduce GHG emissions to the extent feasible. However, additional state and federal actions will be necessary to ensure that regulated state and federal sources (i.e., sources outside the City's jurisdictional) take measures to ensure the deep reductions needed to achieve the 2050 target. Therefore, the ConnectMenlo Final EIR considered GHG emissions to be significant and unavoidable.

The ConnectMenlo Final EIR also evaluated ConnectMenlo's consistency with the state's GHG emissions reductions objectives, which are embodied in AB 32, Executive Order B-30-15, Executive Order S-03-05, and SB 375. The ConnectMenlo Final EIR determined that the applicable plans adopted for the purpose of reducing GHG emissions include the 2017 Scoping Plan, Plan Bay Area, and the City's 2030 CAP. The ConnectMenlo Final EIR found that ConnectMenlo would be consistent with the regional objectives of Plan Bay Area and the City's CAP, but it could not be shown to be consistent with CARB's most recent scoping plan for reducing statewide GHG emissions and/or the statewide GHG reduction target established by SB 32, which was signed in September 2016. However, the ConnectMenlo Final EIR pointed out that CARB had not yet drafted a plan to achieve the statewide GHG emissions targets stated in Executive Order S-03-05; therefore, although ConnectMenlo supports progress toward the long term-goals identified in Executive Order B-30-15 and Executive Order S-03-05, it cannot yet be demonstrated that Menlo Park would achieve GHG emissions reductions that would be consistent with a 40 percent reduction below 1990 levels by 2030 or be on the path to achieving further GHG reductions beyond 2030. Therefore, the ConnectMenlo Final EIR determined that the level of GHG emissions associated with implementation of ConnectMenlo would be significant and unavoidable.

Project Impacts and Mitigation Measures

Impact GHG-1a: Generation of GHG Emissions during Construction. Construction of the Proposed Project could generate GHG emissions that could have a significant impact on the environment. (LTS/M)

Project-related construction activities, including parking lot demolition, upgrades to the waterlines under Adams Court and O'Brien Drive, building construction, and other offsite improvements, would generate GHG emissions. Specifically, heavy-duty off-road equipment operation, material transport, and workers' commutes during construction of the Proposed Project would result in GHG emissions from exhaust. Based on modeling conducted with CalEEMod, it is estimated that Project-related construction would generate approximately 1,690 $MTCO_2e$ over the construction period (2021–2024) (see Appendix 3.3 for detailed input parameters and modeling results).

Demolition and construction activities for the Proposed Project would result in the temporary generation of GHG emissions. Emissions would originate from the exhaust of both mobile and stationary construction equipment as well as exhaust from employees' vehicles and haul trucks. Construction-related GHG emissions from each specific source would vary substantially, depending on the level of activity, length of the construction period, specific construction operations, types of equipment, and number of personnel.

Construction of the Proposed Project would include parking lot demolition, onsite and offsite improvements, and building construction. These activities would require mobile and stationary construction equipment as well as on-road vehicles such as haul trucks for demolition debris removal and vendors' trucks for deliveries. Site grading and excavation would be required for building foundations, utility infrastructure installation, and landscaping.

As described above, BAAQMD has not established a quantitative threshold for assessing construction-related GHG emissions. Rather, BAAQMD recommends evaluating whether construction activities would conflict with statewide emission reduction goals, based on whether feasible BMPs for reducing GHG emissions would be implemented. If a project fails to implement feasible BMPs identified by BAAQMD, its GHG emissions could conflict with statewide emission goals and represent a cumulatively considerable contribution to climate change, which would be a potentially significant impact.

MITIGATION MEASURES. Implementation of ConnectMenlo EIR Mitigation Measure AQ-2b1, which requires implementation of BAAQMD-recommended BMPs, and Project Mitigation Measure GHG-1a, which requires implementation of applicable construction-related measures from the 2017 Scoping Plan (Appendix B) would reduce the level of GHGs associated with construction of the Proposed Project and avoid any conflict with statewide GHG reduction goals, thereby reducing this impact to ***less than significant with mitigation.***

Because ConnectMenlo EIR Mitigation Measure AQ-2b1 and Project Mitigation Measure GHG-1a would require implementation of all construction-related GHG reduction measures recommended in BAAQMD's CEQA guidance and CARB's 2017 Scoping Plan, construction of the Proposed Project would not generate GHG emissions that could have a significant impact on the environment.

The following mitigation measures from the ConnectMenlo Final EIR would apply to the Proposed Project:

> **ConnectMenlo Mitigation Measure AQ-2b1:** As part of the City's development approval process, the City shall require applicants for future development projects to comply with the current Bay Area Air Quality Management District's basic control measures for reducing construction emissions of PM_{10} [particulate matter less than 10 microns in aerodynamic diameter] (Table 8-2, Basic Construction Mitigation Measures Recommended for All Proposed Projects, of BAAQMD's CEQA Guidelines).

In addition to ConnectMenlo EIR Mitigation Measure AQ-2b1, the following Project-specific mitigation measure would be implemented:

> **Project Mitigation Measure GHG-1a: Require Implementation of BAAQMD-recommended Construction Best Management Practices.** The Project Sponsor shall require its contractors, as a condition of Project approval by the City, to implement measures to minimize the level of GHG emissions associated with Project construction. These shall include, but shall not be limited to, the measures listed below, which are recommended in Appendix B of the 2017 Scoping Plan.[42]
>
> - Instead of using fossil fuel–based generators for temporary jobsite power, grid-sourced electricity from PG&E or Peninsula Clean Energy shall be used to power tools (e.g., drills, saws, nail guns, welders) as well as any temporary office buildings used by construction contractors. This measure shall be required during all construction phases, except site grubbing, site grading, and the installation of electric, water, and wastewater infrastructure. This measure shall be implemented during building demolition, the framing and erection of

[42] Ibid.

new buildings, all interior work, and the application of architectural coatings. Electrical outlets shall be designed according to PG&E's Greenbook standards and placed in accessible locations throughout the construction site. The Project Sponsor, or its primary construction contractor, shall coordinate with the utility to activate a temporary service account prior to proceeding with construction. Implementation of this measure shall be required in the contract the Project Sponsor establishes with its construction contractors.

- Use local building materials for at least 10 percent of all building materials used[43](i.e., sourced from within 100 miles of the planning area); and
- Recycle at least 50 percent of construction waste and demolition material.

The Project Sponsor shall submit evidence of compliance to the City prior to issuance of each construction permit and every year thereafter during Project construction.

Impact GHG-1b: Generation of GHG Emissions during Operation. The level of GHG emissions associated with operation of the Proposed Project would not have a significant impact on the environment. (Less than Significant)

Operation of the Proposed Project would result in mobile-source GHG emissions associated with vehicle trips to and from the Project site (i.e., Project-generated VMT), landscape maintenance, periodic testing and operation of backup diesel generators, offsite electricity consumption associated with supplying water as well as conveying and treating wastewater, and the generation of solid waste. GHG emissions associated with onsite consumption of electricity and natural gas would be zero with implementation of Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(A)(ii), and Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(II). Emissions associated with the first year of Proposed Project operation are summarized in Table 3.3-3. All detailed calculations are provided in Appendix 3.3.

As shown in Table 3.3-3, below, operation of the Proposed Project would generate approximately 1,511 $MTCO_2e$ during its first year of operation, which is projected to be in 2024. Most of the Proposed Project's operational emissions would be associated with vehicle trips to and from the Project site. As also shown in Table 3.3-3, the Proposed Project's operational GHG efficiency would be approximately 2.32 $MTCO_2e$/SP/year, which is below the BAAQMD SP-based GHG efficiency threshold for 2024. Both the proposed Project's mass emissions per year and per-service-population efficiency would decrease in subsequent years as older vehicles are replaced with newer, more GHG-efficient vehicles because of ongoing implementation of more stringent fuel efficiency standards.

For instance, using the same methods discussed above, it is estimated that, in 2030, the Proposed Project's operational emissions would be approximately 1,398 $MTCO_2e$/SP/year, and the Proposed Project's GHG efficiency would be 2.15 $MTCO_2e$/SP/year (refer to Table 3.3-4). Moreover, by following Menlo Park Municipal Code Chapter 5, Section 5.106.5.3, the Proposed Project would ensure that 15 percent of the parking stalls for passenger vehicles would be EV ready, thereby supporting the projected future vehicle fleet.

[43] The 10 percent threshold is based on the total weight of the building material.

Table 3.3-3. Operational Greenhouse Emissions by Sector for 2024 ($MTCO_2e$)

Emissions Source	Annual $MTCO_2e$
Landscape Maintenance (area source)	< 1
Electricity Consumption (onsite)[b]	0
Natural Gas Consumption (onsite)[c]	0
Vehicle Trips (mobile sources)[d]	1,455
Backup Generators (stationary sources)	11
Solid Waste Disposal[a]	20
Water Consumption and Wastewater Treatment	25
Total Operational Emissions (*$MTCO_2e$/year*)	1,511
Total Service Population	650
Total Annual Service Population GHG Emissions ($MTCO_2e$/SP/year)	2.32[e]
Service Population–based GHG Efficiency Threshold for 2024	3.86

Source: See Appendix 3.3 for detailed input parameters and modeling results.

Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent; SP = service population

a. The level of GHG emissions associated with solid waste disposal accounts for the waste diversion requirements mandated by state regulations (e.g., AB 341).

b. The level of GHG emissions associated with onsite consumption of electricity would be zero because of implementation of Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(A)(ii), which requires the Project Sponsor, or its building manager, to purchase 100 percent renewable electricity through Peninsula Clean Energy or PG&E in an amount equal to its entire onsite demand for electricity.

c. The level of GHG emissions associated with onsite consumption of natural gas would be zero because of implementation of Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(II), which requires the Project Sponsor, or its building manager, to purchase and retire carbon credits to offset fully the GHG emissions associated with all onsite combustion of natural gas.

d. The Proposed Project's mobile-source emissions account for the 20 percent trip reduction from the TDM measure as well as VMT reductions from Mitigation Measure TRA-1.

e. Values may not add up because of rounding.

Table 3.3-4. Operational Greenhouse Emissions by Sector for 2030 ($MTCO_2e$)

Emissions Source	Annual $MTCO_2e$
Landscape Maintenance (area source)	< 1
Electricity Consumption (onsite)[b]	0
Natural Gas Consumption (onsite)[c]	0
Vehicle Trips (mobile sources)[d]	1,302
Backup Generators (stationary sources)	11
Solid Waste Disposal[a]	20
Water Consumption and Wastewater Treatment	25
Total Operational Emissions (*$MTCO_2e$/year*)	1,358
Total Service Population	650
Total Annual Service Population GHG Emissions ($MTCO_2e$/SP/year)	2.09[e]
Service Population–based GHG Efficiency Threshold for 2030	2.76

Source: See Appendix 3.3 for detailed input parameters and modeling results.

Notes: $MTCO_2e$ = metric tons of carbon dioxide equivalent; SP = service population

a. The level of GHG emissions associated with solid waste disposal accounts for the waste diversion requirements mandated by state regulations (e.g., AB 341).

b. The level of GHG emissions associated with onsite consumption of electricity would be zero because of implementation of Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(A)(ii), which requires the Project Sponsor, or its building manager, to purchase 100 percent renewable electricity through Peninsula Clean Energy or PG&E in an amount equal to its entire onsite demand for electricity.

c. The level of GHG emissions associated with onsite consumption of natural gas would be zero because of implementation of Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(II), which requires the Project Sponsor, or its building manager, to purchase and retire carbon credits to offset fully the GHG emissions associated with all onsite combustion of natural gas.

d. The project's mobile-source emissions account for the 20 percent trip reduction from the TDM measure as well as VMT reductions from Mitigation Measure TRA-1.

e. Values may not add up because of rounding.

Conclusion

In summary, because the Proposed Project's GHG efficiency would not exceed the BAAQMD service population–based GHG threshold for the opening year 2024 and 2030, which are aligned with the statewide targets for 2030 mandated by SB 32, the Proposed Project's operational GHG emissions would not constitute a cumulatively considerable contribution to climate change. Therefore, this impact would be ***less than significant***.

Impact GHG-2: Conflicts with Applicable Plans and Policies. The Proposed Project could conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs. (LTS/M)

Statewide Greenhouse Gas Reduction Targets and Plans

AB 32 and SB 32 outline the state's GHG emissions reduction targets for 2020 and 2030, respectively. Although not legislatively adopted, Executive Order S-03-05 establishes a long-term statewide goal to reduce GHG emissions to 80 percent below 1990 levels by 2050. Executive Order B-55-18 sets a more ambitious state goal of net zero GHG emissions by 2045 while acknowledging the important role of carbon sequestration to meet this target.

Consistency with the CARB 2017 Scoping Plan

As explained in the *Regulatory Setting*, above, CARB's 2017 Scoping Plan outlines the main strategies for California to achieve the legislated GHG emissions target for 2030 and "substantially advance toward our 2050 climate goals."[44] It identifies the reductions needed by each GHG emissions sector (e.g., industry, transportation, electricity generation).

There are multiple ways to demonstrate that operation of the Proposed Project would be qualitatively consistent with CARB's 2017 Scoping Plan. For example, Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(A)(ii), would require the Proposed Project to use 100 percent renewable electricity. This requirement would be consistent with the 2017 Scoping Plan's call for the state to transition from fossil fuels to electricity from renewable sources. Furthermore, Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(II), would require the Proposed Project to purchase carbon credits to offset the onsite consumption of natural gas. This requirement recognizes that the 2017 Scoping Plan calls for the state to be less reliant on natural gas (e.g., by designing buildings that are all electric or requiring all GHG emissions generated from onsite consumption of natural gas to be fully offset). The 2017 Scoping Plan recognizes carbon offsets as an important mechanism for achieving statewide GHG emissions targets. In addition, the Proposed Project would follow Menlo Park Municipal Code Chapter 5, Section 5.106.5.3, ensuring that a minimum of 15 percent of the parking spaces for passenger vehicles would be EV spaces, with another 10 percent designated as electric-vehicle supply equipment (EVSE), thereby supporting the projected future vehicle fleet. The 2017 Scoping Plan outlines the importance of converting the state's vehicle fleet to EVs and other types of zero-emission technologies as well as building the infrastructure needed to support these vehicles. Furthermore, a consistency analysis that considers the primary objectives found in the 2017 Scoping Plan is provided in Table 3.3-5. As demonstrated in Table 3.3-5, the Proposed Project would be consistent with the objectives.

Table 3.3-5. Project Consistency with Applicable Policies from the 2017 Scoping Plan and Other Applicable Statewide Measures

Policy	Primary Objective	Project Consistency Analysis
SB 350 (superseded by SB 100)	Reduce GHG emissions in the electricity sector by implementing the 50 percent RPS, doubling energy savings, and taking other actions as appropriate to achieve the planning targets regarding GHG emissions reductions in the Integrated Resource Plan process.	**Consistent.** This is a state program that requires no action at the local or project level. Benefits Project-related electricity and water consumption. The Proposed Project would implement Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(A)(ii), which would require 100 percent renewable energy and therefore would help reduce GHG emissions from electrical sources.
Low-Carbon Fuel Standard	Transition to cleaner/less-polluting fuels that have a lower carbon footprint.	**Consistent.** This is a state program that requires no action at the local or project level. Benefits Project-related employee travel and haul trucks. The Proposed Project would follow Menlo Park Municipal Code Chapter 5, Section 5.106.5.3, which requires 15 percent of parking spaces to be EV spaces and 10 percent to be EVSE spaces.

[44] Ibid.

Policy	Primary Objective	Project Consistency Analysis
Mobile-Source Strategy (Cleaner Technologies and Fuels Scenario)	Reduce GHGs and other pollutants from the transportation sector through a transition to zero- and low-emission vehicles, cleaner transit systems, and reductions in VMT.	**Consistent.** This is a state program that requires no action at the local or project level. The Proposed Project would incorporate TDM measures and Mitigation Measure TRA-1 to reduce the number of trips by approximately 20 percent and VMT by 34 percent. With implementation of Mitigation Measure TRA-1, the Proposed Project's VMT would be below the City's average VMT. The 34 percent VMT reduction would be significantly more than the required 15 percent under SB 743.
SB 1383	Approve and implement an SLCP strategy to reduce highly potent GHGs.	**Consistent.** This is a state program that requires no action at the local or project level. The Proposed Project would implement Project Mitigation Measure GHG-1a to recycle at least 50 percent of construction waste and demolition materials. The Proposed Project would also be consistent with AB 341, which requires 75 percent of the Proposed Project's solid waste to be reduced, recycled, or composted.
California Sustainable Freight Action Plan	Improve freight efficiency, transition to zero-emission technologies, and increase the competitiveness of California's freight system.	**Consistent.** This is a state program that requires no action at the local or project level. This program aims to improve freight efficiency by 25 percent, deploy more than 100,000 zero-emission freight vehicles, and increase the competitiveness of California's freight system. The Proposed Project would not involve freight vehicles.
Post-2020 Cap-and-Trade Program	Reduce GHGs across the largest GHG emission sources.	**Consistent.** This a state program that requires no action at the local or project level. This program is not directly applicable to the Proposed Project because the Proposed Project is not a gross emitter of non-mobile-source GHG emissions and does not fall under the Cap-and-Trade Program.

Source: California Air Resources Board. 2017. *California's 2017 Climate Change Scoping Plan*. November. Available: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/scoping_plan_2017.pdf. Accessed: November 2021.

As shown under Impact GHG-1b and in Table 3.3-4, the Proposed Project's operational 2030 GHG emissions would not exceed the GHG efficiency threshold of 2.76 $MTCO_2e$/SP/year, which is aligned with the statewide target for 2030 mandated by SB 32. Moreover, the Proposed Project's GHG efficiency level would not exceed this efficiency-based threshold in the Project's opening year (refer to Table 3.3-4). In addition, as shown in Table 3.3-5, the Proposed Project would be consistent with the primary objectives of the 2017 Scoping Plan. Furthermore, any laboratory or research space associated with the Proposed Project would be required to comply with the CARB Refrigerant Management Program,[45] which would minimize impacts associated with the use of refrigerants with a high GWP. The analysis presented under Impact GHG-1b indicates that operation of the Proposed Project would not conflict with implementation of CARB's 2017 Scoping Plan or attainment of the statewide GHG target for 2030 mandated by SB 32.

[45] The Refrigerant Management Program requires facilities with refrigeration systems that contain more than 50 pounds of refrigerant with a high GWP to conduct periodic leak inspections and report the results, promptly repair leaks, and keep service records onsite.

Consistency with Plan Bay Area 2040

Plan Bay Area 2040, the RTP/SCS for the San Francisco Bay Area, was prepared by the MTC pursuant to the requirements of SB 375, as discussed in the *Regulatory Setting*, above. Plan Bay Area 2040 is a state-mandated, integrated long-range transportation and land use plan that demonstrates reductions in GHG emissions from passenger cars and light-duty trucks.[46] As explained in Section 3.1, *Transportation*, the Proposed Project would be consistent with Plan Bay Area 2040 goals and performance targets for transportation system effectiveness. Specifically, the Proposed Project would increase the mode share for non-auto forms of transportation.

The Proposed Project would develop a new life science/research-and-development office near existing residential and commercial uses, thereby reducing the demand for travel by single-occupancy vehicles. In addition, the Project area is served by public transit. Furthermore, the Proposed Project would develop and implement a TDM program with trip reduction measures that would reduce vehicle traffic in and around the Project site. Together, the TDM measures and Mitigation Measure TRA-1 would reduce the number of trips by 20 percent and VMT by 34 percent. The Proposed Project's bicycle and pedestrian facilities would also help reduce the demand for travel in single-occupancy vehicles. Through consistency with Plan Bay Area 2040, the Proposed Project would fulfill one of the strategies identified in the 2017 Scoping Plan related to reducing GHG emissions from passenger vehicles.

Consistency with the City of Menlo Park Climate Action Plan

The most recent update to the City's CAP, the 2030 CAP, was adopted in April 2021.[47] The 2030 CAP updated emissions inventories and adopted a climate goal that calls for zero carbon by 2030. The CAP also aims for a 90 percent reduction in CO_2e emissions from 2005 levels by 2030. To achieve GHG reductions, the CAP promotes six different goals. Table 3.3-6 discusses the Project's consistency with the six 2030 CAP goals. As discussed in Table 3.3-6, the Proposed Project would be consistent with the goals of the 2030 CAP.

Table 3.3-6. City of Menlo Park Community Greenhouse Gas Emissions Inventory

2030 Climate Action Plan Goals	Project Consistency
1. Explore policy/program options to convert 95 percent of existing buildings to all-electric buildings by 2030.	**Consistent.** The Proposed Project involves new construction and not the conversion of an existing building. However, the Proposed Project would be consistent with Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(A)(ii), which requires the Project Sponsor to purchase 100 percent of all electricity from a renewable source. Furthermore, the Proposed Project would follow Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(II), which requires the Project Sponsor to purchase carbon credits to offset fully GHG emissions associated with onsite combustion of natural gas (e.g., space heating, water heating, equipment sterilization, cooking).

[46] California Air Resources Board. 2018a. *SB 375 Regional Greenhouse Gas Emissions Reduction Targets.* Approved: March 22, 2018. Available: https://www.arb.ca.gov/cc/sb375/ finaltargets2018.pdf. Accessed: April 2021.

[47] Ibid.

2030 Climate Action Plan Goals	Project Consistency
2. Set citywide goals for increasing electric-vehicle sales to 100 percent of new vehicle sales by 2025 and decreasing gasoline sales 10 percent a year from a 2018 baseline.	**Consistent.** The Proposed Project would follow Menlo Park Municipal Code Chapter 5, Section 5.106.5.3, which requires 15 percent of all parking spaces to be EV spaces and 10 percent to be designated EVSE.
3. Expand access to electric-vehicle charging for multi-family and commercial properties.	**Consistent**. As discussed in Goal 2, 15 percent of the Proposed Project's parking spots would be EV spaces, with 10 percent designated EVSE.
4. Reduce vehicle miles traveled by 25 percent or an amount recommended by the Complete Streets Commission	**Consistent.** As discussed in more detail in Section 3.1, *Transportation*, the Proposed Project would incorporate TDM measures and Mitigation Measure TRA-1 to reduce the number of trips and VMT. The TDM measures would reduce the number of trips by 27 to 33 percent (20 percent was adopted as a conservative number). Furthermore, the proposed TDM measures would reduce VMT by 34 percent, which is more than the SB 743 requirement of 15 percent and has been shown to be necessary for the state to meet its long-term GHG reduction goals.
5. Eliminate the use of fossil fuels from municipal operations.	**Consistent/Not Applicable.** The Proposed Project has no control over municipal operations and therefore would not conflict with this measure.
6. Develop a climate adaption plan to protect the community from sea-level rise and flooding.	**Consistent/Not Applicable.** The Proposed Project would not conflict with the City's goal to develop a climate adaption plan. In addition, the Proposed Project would be consistent with the City's sea-level rise resiliency requirements, as stated in Section 16.44.130(4)(A) of the zoning ordinance. As required by the zoning ordinance, the first floor of the proposed building would be a minimum of 24 inches above the base flood elevation.

Source: City of Menlo Park. 2020. *Climate Change Action Plan*. Available: http://www.menlopark.org/305/Climate-Action-Plan. Accessed: November 2021.

Consistency with the City of Menlo Park General Plan and Reach Codes

As discussed above, the Proposed Project would be consistent with the ConnectMenlo EIR and reach codes. Specifically, for GHG emissions, the Proposed Project would follow Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(A)(ii), which requires the purchase of 100 percent renewable electricity through Peninsula Clean Energy or PG&E in an amount equal to annual onsite demand for electricity. The Proposed Project would also follow Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(II), which requires the purchase and retire carbon credits to offset fully the GHG emissions associated with all onsite combustion of natural gas (e.g., space heating, water heating, equipment sterilization, cooking). In addition, the Proposed Project would follow Menlo Park Municipal Code Chapter 5, Section 5.106.5.3, which requires 15 percent of the parking spaces to be EV spaces and 10 percent to be designated EVSE, which is consistent with CALGreen Tier 2 EV requirements. Therefore, the Proposed Project would be consistent with City General Plan goals and reach codes.

Conclusion

In summary, the quantitative efficiency of operations associated with the Proposed Project would be aligned with the statewide GHG target for 2030 mandated by SB 32, as would the Menlo Park Municipal Codes that require the use of 100 percent renewable electricity, the purchase of qualified carbon credits to offset GHG emissions generated by onsite combustion of natural gas, and the provision of parking stalls for passenger vehicles that are EVSE ready (i.e., a minimum of 10 percent). Also, the Proposed Project would be consistent with Plan Bay Area 2040, which is the regional plan to reduce per-service-population VMT in the San Francisco Bay Area. However, without implementation of the construction-related GHG emissions reduction measures recommended by BAAQMD, construction of the Proposed Project would not be consistent with the 2017 Scoping Plan. For these reasons, construction of the Proposed Project would conflict with CARB's 2017 Scoping Plan for achieving statewide GHG targets. This would be a ***potentially significant impact***.

MITIGATION MEASURES. Implementation of ConnectMenlo EIR Mitigation Measure AQ-2b1 and Project Mitigation Measure GHG-1a, above, would reduce the level of GHG emissions generated during construction. In addition, Mitigation Measure TRA-1, which is presented in Section 3.1, *Transportation*, would ensure that operation of the Proposed Project would achieve the City's VMT threshold, thereby reducing associated mobile-source emissions.

Construction of the Proposed Project would be consistent with all applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions. Implementation of Mitigation Measure TRA-1 would ensure that operation of the Proposed Project would generate a level of VMT per service population that would meet the City's VMT threshold. For these reasons, implementation of Mitigation Measures GHG-1a and TRA-1 would result in the Proposed Project being consistent with all applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions, thereby reducing this impact to ***less than significant with mitigation***.

Cumulative Impacts

Climate change is a global problem, and GHG impacts are inherently cumulative. This is because GHGs contribute to the global phenomenon that is climate change, regardless of where they are emitted. Climate change is the result of the individual contributions of countless past, present, and future sources. Therefore, GHG impacts are inherently cumulative, and the analysis above is inclusive of cumulative impacts.

3.4 Noise

This section describes existing noise conditions in the Project area, sets forth criteria for determining the significance of noise impacts, and estimates the noise impacts that would result from operation of the Proposed Project.

As discussed in Section XII, *Noise*, of the Initial Study prepared for the Proposed Project (Appendix 1-1), with implementation of General Plan and M-2 Area Zoning Update (ConnectMenlo) Environmental Impact Report (EIR) Mitigation Measures NOISE-1c and NOISE-2a, the Proposed Project would result in less-than-significant construction-period noise and vibration impacts. The Initial Study also found that the Proposed Project would not expose people residing or working in the Project area to excessive noise levels from aircraft activity. However, since the Initial Study was released, the Proposed Project has been modified to include construction of a waterline as well as new assumptions for building construction at 1350 Adams Court. Therefore, construction noise and vibration are now evaluated in the EIR.

Issues identified in response to the Notice of Preparation (NOP) (Appendix 1-2) were considered during preparation of this analysis. The one NOP comment pertaining to noise expressed concerns about noise from a deck that would be constructed as part of the Proposed Project. (Note that events with amplified music or speech are not proposed at the private deck.) Please refer to Appendix 1-1 for the full Initial Study and the analysis of construction and other operational noise.

Overview: Noise and Sound

A brief description of the noise and vibration concepts and terminology used in this assessment is provided below. Some of these are technical terms used in measuring sound and its effects, which are not easily explained in layman's terms.

- **Sound**. A vibratory disturbance transmitted by pressure waves through a medium such as air or water and capable of being detected by a receiving mechanism, such as the human ear or a microphone. Sound is characterized by various parameters, including the rate of oscillation of the sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). The sound pressure level is the most common descriptor used to characterize the loudness of an ambient (existing) sound level.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable. Commonly defined as unwanted sound that annoys or disturbs people and potentially has an adverse psychological or physiological effect on human health.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale that indicates the squared ratio of the sound pressure amplitude to a reference sound pressure amplitude. The reference pressure is 20 micropascals. Although the dB scale is used to quantify sound intensity, it does not accurately describe how sound intensity is perceived by human hearing.
- **A-weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear. The dBA scale is the most widely used scale for environmental noise assessments. Table 3.4-1 summarizes typical A-weighted sound levels for different noise sources.

- **Maximum Sound Levels (L_{max}).** The maximum sound level measured during the measurement period.
- **Minimum Sound Levels (L_{min}).** The minimum sound level measured during the measurement period.
- **Equivalent Sound Level (L_{eq})**. The equivalent steady-state sound level containing the same acoustical energy over a stated period of time. The 1-hour A-weighted equivalent sound level (L_{eq} 1h) is the energy average of A-weighted sound levels occurring during a 1-hour period.
- **Day-Night Level (L_{dn}).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with a 10 dB penalty added to sound levels between 10:00 p.m. and 7:00 a.m.
- **Community Noise Equivalent Level (CNEL).** The energy average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the sound levels occurring during the period from 7:00 p.m. to 10:00 p.m. and 10 dB added to the sound levels occurring during the period from 10:00 p.m. to 7:00 a.m. L_{dn} and CNEL are typically within 1 dBA of each other and, for all intents and purposes, interchangeable.
- **Vibration Velocity Level (or Vibration Decibel Level, VdB).** The root-mean-square velocity amplitude for measured ground motion, expressed in dB.
- **Peak Particle Velocity (PPV).** A measurement of ground vibration, defined as the maximum speed at which a particle in the ground is moving, expressed in inches per second (in/sec).
- **Sensitive Receptor.** Noise- and vibration-sensitive receptors include land uses where quiet environments are necessary for enjoyment as well as public health and safety. Residences, schools, motels and hotels, libraries, religious institutions, hospitals, and nursing homes are examples.

Human sound perception, in general, is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change in sound level of 3 dB is just noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level. A doubling of actual sound energy is required to result in a 3 dB (i.e., barely noticeable) increase in noise; in practice, this means that the volume of traffic on a roadway would typically need to double to result in a noticeable increase in noise.

The decibel level of a sound decreases (or attenuates) exponentially as the distance from the source of that sound increases. For a point source, such as a stationary compressor or construction equipment, sound attenuates at a rate of 6 dB per doubling of distance. For a line source, such as free-flowing traffic on a freeway, sound attenuates at a rate of 3 dB per doubling of distance. Atmospheric conditions, including wind, temperature gradients, and humidity, can change how sound propagates, or spreads, over distance and affect the level of sound received at a given location. The degree to which the ground surface absorbs acoustical energy also affects sound propagation. Sound that travels over an acoustically absorptive surface, such as grass, attenuates at a greater rate than sound that travels over a hard surface, such as pavement. The increased attenuation is typically in the range of 1 to 2 dB per doubling of distance. Barriers, such as buildings and topography, that block the line of sight between a source and receiver also increase the attenuation of sound over distance.

Table 3.4-1. Typical A-weighted Sound Levels

Common Outdoor Activities	Sound Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1,000 feet		
	100	
Gas lawnmower at 3 feet		
	90	
Diesel truck at 50 mph at 50 feet		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawnmower at 100 feet	70	Vacuum cleaner at 3 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large office
Quiet urban area, daytime	50	Dishwasher in next room
Quiet urban area, nighttime	40	Theater, large conference room (background)
Quiet suburban area, nighttime		
	30	Library
Quiet rural area, nighttime		Bedroom at night, concert hall (background)
Rustling of leaves	20	
		Broadcast/recording studio
	10	
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: California Department of Transportation. 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol.* September. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf. Accessed: August 22, 2021.

Overview of Ground-borne Vibration

Vibration is an oscillatory motion, meaning a motion with a repetitive rhythm, through a solid medium. Vibration can be quantified in terms of velocity or acceleration. Variations in geology and distance result in different vibration levels. In all cases, vibration amplitudes decrease with increased distance. The amplitude of a seismic or sound wave is the maximum displacement, or distance, between the peak and valley of the wave.

Operation of heavy construction equipment, particularly pile-driving equipment and other impact devices (e.g., pavement breakers), creates seismic waves that radiate along the surface of and downward into the ground. (Note that pile drivers are not proposed for use during Project construction.) The surface waves can be felt as ground vibration. Vibration from the operation of construction equipment can result in effects that range from annoyance for people to damage for structures.

Perceptible ground-borne vibration is generally limited to areas within a few hundred feet of construction activities. As seismic waves travel outward from a vibration source, they cause rock and soil particles to oscillate. The actual distance that these particles move is usually only a few ten-thousandths to a few thousandths of an inch. The rate or velocity (in inches per second) at which these particles move (in inches per second) is the commonly accepted descriptor of vibration amplitude, referred to as peak particle velocity (PPV). Table 3.4-2 summarizes typical vibration levels generated by construction equipment at a reference distance of 25 feet as well as other distances.

Table 3.4-2. Vibration Source Levels for Construction Equipment

Equipment	PPV at 25 Feet	PPV at 50 Feet	PPV at 75 Feet	PPV at 100 Feet	PPV at 175 Feet
Pile driver (sonic/vibratory)	0.734	0.2595	0.1413	0.0918	0.0396
Hoe ram	0.089	0.0315	0.0171	0.0111	0.0048
Large bulldozer	0.089	0.0315	0.0171	0.0111	0.0048
Loaded truck	0.076	0.0269	0.0146	0.0095	0.0041
Jackhammer	0.035	0.0124	0.0067	0.0044	0.0019
Small bulldozer	0.003	0.0011	0.0006	0.0004	0.0002

Source: Federal Transit Administration. 2006. *Transit Noise and Vibration Impact Assessment.* FTA-VA-90-1003-06. Office of Planning and Environment. May. Available: https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed: August 22, 2021.

Tables 3.4-3 and 3.4-4 summarize the guidelines developed by the California Department of Transportation (Caltrans) for damage and annoyance potential from the transient and continuous vibration that is usually associated with construction activity. The activities that are typical of continuous vibration include the use of excavation equipment, static compaction equipment, tracked vehicles, vehicles on a highway, vibratory pile drivers, pile-extraction equipment, and vibratory compaction equipment. Should the vibration levels defined in these tables be exceeded at a given structure or sensitive use, vibration-related damage or annoyance impacts may be considered significant.

Table 3.4-3. Vibration Damage Potential Threshold Criteria Guidelines

	Maximum PPV (in/sec)	
Structure and Condition	Transient Sources[a]	Continuous/Frequent Intermittent Sources[b]
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual.* April. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf. Accessed: November 12, 2021.

Notes:

a. Transient sources create a single, isolated vibration event (e.g., blasting or drop balls).

b. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Table 3.4-4. Vibration Annoyance Potential Criteria Guidelines

Human Response	Maximum PPV (in/sec)	
	Transient Sources[a]	Continuous/Frequent Intermittent Sources[b]
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.10
Severe	2.0	0.4

Source: California Department of Transportation. 2020. *Transportation and Construction Vibration Guidance Manual.* April. Available: https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tcvgm-apr2020-a11y.pdf. Accessed: November 12, 2021.

Notes:

a. Transient sources create a single, isolated vibration event (e.g., blasting or drop balls).

b. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Existing Conditions

Environmental Setting

Principal Noise Sources in the Project Area

The ambient noise environment in Menlo Park is affected by a variety of sources, including vehicle traffic, train noise, aircraft noise, and stationary-source noise. The section that follows describes the existing noise environment and identifies the primary noise sources in the vicinity of the Project site.

Existing Traffic Noise. Motor vehicles, with their distinctive noise characteristics, are a major source of noise in Menlo Park. The level of noise varies according to factors such as the volume of traffic, vehicle mix (i.e., percentage of cars and trucks), average traffic speed, and distance from the observer. Menlo Park is exposed to noise generated by traffic on US 101, Interstate 280 (I-280), State Route 84 (SR 84), El Camino Real, Middlefield Road, Willow Road, Ravenswood Avenue, Santa Cruz Avenue, and Sand Hill Road. Traffic is the main source of noise in the Project area. Significant roadways in the vicinity of the Project site include US 101 (1 mile to the southwest), SR 84 (0.35 mile to the north), and Willow Road (0.35 mile to the west). However, according to Figure 4.10-2 of the ConnectMenlo EIR, the Project site is not within a 60 dBA L_{dn} or CNEL, or greater, noise contour of US 101, SR 84, or Willow Road. Note that noise levels up to 60 dBA L_{dn}/CNEL are considered normally acceptable for single-family residential land uses, according to the land use compatibility noise guidelines included in the City of Menlo Park (City) General Plan Noise Element. Noise levels of up to 70 dBA L_{dn}/CNEL are considered normally acceptable for office- and commercial-type buildings, such as those proposed by the Project.

Existing Train Noise. Two rail lines traverse Menlo Park, the Dumbarton Rail Corridor and the Caltrain rail line. Although the Dumbarton Rail Corridor is within 0.25 mile of the Project site, it is currently not used and not an active noise source. Although the Caltrain rail line is active, the tracks are more than 2 miles from the Project site. Therefore, train noise is not expected to dominate in the Project area.

Aircraft Noise. Menlo Park is approximately 6 miles northwest of Moffett Federal Airfield, 14 miles northwest of San José International Airport, 15 miles southeast of San Francisco International Airport, and 18 miles south of Oakland International Airport. In addition, San Carlos Airport is almost 6 miles northwest of the Project site. The closest airport to the Project site is Palo Alto Airport, which is approximately 1.6 miles away. According to the ConnectMenlo EIR, although Menlo Park does receive some noise from aircraft that use these facilities, Menlo Park, including the Project site, does not fall within the airport land use planning areas, runway protection zones, or the 55 dBA CNEL noise contours of any of the airports. According to the San José International Airport Land Use Compatibility Plan, all land uses, including office, school, residential, etc., are considered compatible with airport noise levels in the 55 to 60 dBA CNEL range.

Existing Stationary-Source Noise. Stationary sources of noise may occur with all types of land uses. Menlo Park is developed with mostly residential, commercial, and light industrial uses. Stationary sources at commercial and light industrial uses include heating, ventilation, and air-conditioning (HVAC) systems; loading docks; and the machinery required for manufacturing processes. Noise generated by commercial uses is generally short and intermittent. Industrial uses may generate noise continuously or intermittently, depending on the processes and types of machinery involved. The majority of Menlo Park's limited industrial operations are north of the city and separated from sensitive uses such as residences by rail lines or major roadways. Distance serves to decrease the noise perceived at a given receptor.

Surrounding Land Uses

Certain land uses are considered more sensitive to noise than others. Examples of sensitive receptors include residences, educational facilities, hospitals, child-care facilities, and senior housing. Land uses in the immediate vicinity of the Project site are primarily industrial and commercial uses. The nearest residential land uses are in the city of East Palo Alto. These residences are more than 700 feet south of Lot 3 North and more than 350 feet south of the limits of the Project-related bicycle lane on O'Brien Drive. In addition, the Open Mind School, located at 1215 O'Brien Drive, is approximately 920 feet southeast of Lot 3 North.

Existing Noise Levels

The ambient (i.e., existing pre-Project) noise levels in the Project vicinity are dominated largely by traffic on the major roadways in the area. Ambient noise is often monitored or measured to characterize ambient noise levels in the vicinity of a given project. The ConnectMenlo EIR included ambient noise monitoring data from various locations within the ConnectMenlo area. Additional noise monitoring was conducted in 2021 to provide further information about existing ambient noise levels in this area.

Project Specific Noise Measurement Survey (2021)

Existing ambient noise levels in the Project vicinity are dominated largely by traffic on major roadways in the area. To quantify existing ambient noise levels in the vicinity of the Project area, long- (24-hour) and short-term (15-minute) ambient noise measurements were conducted by ICF between Tuesday, July 27, 2021, and Wednesday, July 28, 2021. Weather conditions were clear and sunny when the measurements were conducted, and wind speeds were low, with an average speed of 1.7 miles per hour. Long-term measurements were conducted using Piccolo II Type 2 sound level meters. The meters measure 1-minute-equivalent noise levels (L_{eq}). The 1-minute data can be adjusted to

generate hourly average and 24-hour average sound data. Short-term measurements were conducted using a Larson Davis LxT Type 1 sound level meter. This meter measured equivalent noise levels (L_{eq}) every 10 seconds for 15 minutes as well as overall L_{eq} (averaged over the 15-minute measurement interval).

Monitoring locations were selected to capture noise levels in areas that are sensitive to noise or representative of ambient levels throughout the day and night near the Project site. Long-term data were used to calculate day-night noise levels (L_{dn}), community noise equivalent levels (CNEL), and average 12-hour L_{eq} noise levels for the daytime hours of 7:00 a.m. to 7:00 p.m. In addition, recorded data were analyzed to determine the highest and lowest 1-hour L_{eq} level recorded during the measurement window.

Three long-term monitoring locations near the Project site were selected to collect long-term ambient noise data. L_{dn} noise levels from the long-term measurements ranged from 59.8 to 77.1 dBA L_{dn}, with higher noise levels generally being captured close to major roadways and lower noise levels generally being captured in areas that were farther from major roadways. The long-term noise measurement locations were selected to represent existing noise conditions in nearby residential neighborhoods in East Palo Alto, to the south, and Belle Haven, to the west.

Five short-term monitoring locations near the Project site were selected for collecting short-term ambient noise data. Measured short-term noise levels ranged from 55.9 to 73.7 dBA L_{eq}, depending on the proximity of the measurement site to major roadways. Short-term noise measurement locations were selected to represent baseline noise conditions along heavily traveled corridors and locations with potentially sensitive receptors, such as the residences along Willow Road and the Open Mind School.

Refer to Figure 3.4-1 for the locations of the noise measurements. Table 3.4-5 summarizes the results of the long-term noise measurements; Table 3.4-6 summarizes the short-term measurement results. Refer to Appendix 3.4 for the complete dataset of noise measurement data from the field survey.

Table 3.4-5. Long-Term Noise Level Measurements in and around the Project Site

Site	Site Description	Time Period	L_{dn}	CNEL	Highest Recorded 1-hour L_{eq}[a]	Lowest Record 1-hour L_{eq}[b]	12-hour L_{eq}[c]
LT-1	1439 Kavanaugh Drive	07/27/2021–07/28/2021	67.4	67.9	66.8	53.3	64.8
LT-2	1360 Willow Road	07/27/2021–07/28/2021	77.1	77.5	75.6	64.0	74.5
LT-3	1125 Alberni Street	07/27/2021–07/28/2021	61.1	61.9	62.5	44.3	59.3

Note: See Appendix 3.4 for full noise measurement survey data.
LT = long-term (24-hour) ambient noise measurement.
All noise levels are reported in A-weighted decibels (dBA).
a. Highest L_{eq} is the highest calculated L_{eq} level during a 24-hour period.
b. Lowest L_{eq} is the lowest calculated L_{eq} level during a 24-hour period.
c. The 12-hour average L_{eq} from 7:00 a.m. to 7:00 p.m.

Table 3.4-6. Short-Term Noise Level Measurements in and around the Project Site

Site	Site Description	Measurement Start Time	L_{eq}	L_{max}	L_{min}	Dominant Noise Source
ST-1	1380 Willow Road	07/27/2021 1:32 p.m.	65.2	78.9	54.3	Roadway traffic noise primarily from Willow Road
ST-2	1350 Willow Road	07/28/2021 12:14 p.m.	67.3	79.1	47.5	Roadway traffic noise primarily from Willow Road
ST-3	1215 O'Brien Drive	07/27/2021 2:45 p.m.	55.8	74.3	48.2	Mechanical hum, possibly from nearby equipment
ST-4	1530 O'Brien Drive	07/27/2021 2:08 p.m.	55.9	71.5	49.4	Light traffic noise primarily from University Avenue and O'Brien Drive
ST-5	1221 Willow Road	07/28/2021 11:44 a.m.	59.5	72.0	45.4	Roadway traffic noise primarily from Willow Road

Note: See Appendix 3.4 for full noise measurement survey data.
ST = long-term (15-minute) ambient noise measurement.
All noise levels are reported in A-weighted decibels (dBA).

ConnectMenlo EIR Noise Measurements (2012)

For the ConnectMenlo EIR, existing ambient noise levels were measured at 16 locations in the city to document representative noise levels at various locations. The ConnectMenlo EIR locations closest to the Project site are shown in Figure 3.4-2. Short- and long-term measurements were taken. Short-term measurements provide a "snapshot" of noise data at a given location at a given time (typically 10 to 20 minutes), whereas long-term measurements provide data for a longer period of time (e.g., hourly or 24-hour periods). When considered in conjunction with nearby long-term measurements, the patterns of 24-hour noise in the vicinity of a short-term measurement can often be inferred.

The closest short-term measurement locations were ST-3 and ST-4, each approximately 0.3 to 0.4 mile west of the Project site along Willow Road. The closest long-term measurement locations were LT-1 and LT-2, approximately 2 miles west and southwest, respectively, of the Project site. Data from these measurement locations are presented in Table 3.4-7. Short- and long-term measurements were taken on December 6 and 10, 2012; long-term noise level measurements were taken for a period of 24 hours on December 10 and 11, 2012.

Table 3.4-7. 2012 Noise Measurement Results

Monitoring Site	L_{min}	L_{eq}	L_{max}	CNEL[a]
ST-3	50.6	56.5	60.9	—
ST-4	50.9	59.5	72.3	—
LT-1	—	—	—	67.1
LT-2	—	—	—	68.6

Source: City of Menlo Park. 2016. ConnectMenlo: General Plan Land Use and Circulation Elements and M-2 Area Zoning Update for the City of Menlo Park EIR.

[a] L_{dn} and CNEL are typically within 1 dBA of each other and, for all intents and purposes, interchangeable.

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Figure 3.4-1
Noise Measurement Locations

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Figure 3.4-2
Relevant ConnectMenlo Noise Monitoring Locations

Traffic noise modeling can help estimate existing ambient noise levels in the vicinity of a project because traffic is often the dominating noise source and the one that affects ambient noise levels in urban environments. To estimate existing ambient noise levels in the Project area, traffic noise levels were modeled for existing conditions using a spreadsheet model, which was based on the Federal Highway Administration Traffic Noise Model, and the traffic volumes, posted speeds, and heavy truck percentages provided by Hexagon Transportation Consultants, the traffic engineer for the Proposed Project. Table 3.4-8 summarizes the modeled existing noise levels along roadway segments in the general Project area.

Table 3.4-8. Modeled Existing Traffic Noise Levels

Roadway	Segment	Existing ADT[a,b]	Posted Speed Limits	Existing dBA L_{dn}[c]
Adams Court	West of Adams Drive	1,710	25	55.3
Adams Drive	North of Adams Court	2,535	25	56.9
Adams Drive	North of O'Brien Drive	2,960	25	57.6
Adams Drive	South of Adams Court	2,635	25	57.1
Adams Drive	West of University Avenue	2,640	25	57.1
Bayfront Expressway	East of Willow Road	44,245	50	75.5
Bayfront Expressway	North of University Avenue	57,635	50	76.7
Bayfront Expressway	South of University Avenue	40,805	50	75.2
Bayfront Expressway	West of Willow Road	32,125	50	74.1
O'Brien Drive	East of Adams Drive	3,925	30	59.8
O'Brien Drive	West of Adams Drive	5,435	30	61.2
O'Brien Drive	East of Willow Road	6,970	30	62.3
O'Brien Drive	West of University Avenue	3,890	30	59.8
University Avenue	East of Bayfront Expressway	20,430	35	68.2
University Avenue	North of Adams Drive	23,925	35	68.9
University Avenue	North of Bay Road	20,570	35	68.2
University Avenue	North of Donohoe Street	16,425	35	67.2
University Avenue	North of Kavanaugh Drive	23,270	35	68.7
University Avenue	North of Notre Dame Avenue	21,705	35	68.4
University Avenue	North of O'Brien Drive	22,020	35	68.5
University Avenue	North of Purdue Avenue	22,355	35	68.6
University Avenue	North of US 101 southbound off-ramp	31,130	35	70.0
University Avenue	South of Adams Drive	22,735	35	68.6
University Avenue	South of Bay Road	17,685	35	67.6
University Avenue	South of Donohoe Street	25,505	35	69.1
University Avenue	South of Kavanaugh Drive	22,345	35	68.6
University Avenue	South of Notre Dame Avenue	22,155	35	68.5
University Avenue	South of O'Brien Drive	20,900	35	68.3
University Avenue	South of Purdue Avenue	21,485	35	68.4
Willow Road	North of Hamilton Avenue	23,235	40	70.1

Roadway	Segment	Existing ADT[a,b]	Posted Speed Limits	Existing dBA L_{dn}[c]
Willow Road	North of Ivy Drive	23,695	40	70.2
Willow Road	North of Newbridge Street	29,045	40	71.1
Willow Road	North of O'Brien Drive	24,180	40	70.3
Willow Road	North of US 101 northbound ramps	37,825	40	72.2
Willow Road	North of US 101 southbound ramps	29,685	40	71.2
Willow Road	South of Bayfront Expressway	23,415	40	70.1
Willow Road	South of Hamilton Avenue	22,345	40	69.9
Willow Road	South of Ivy Drive	24,800	40	70.4
Willow Road	South of Newbridge Street	35,540	40	71.9
Willow Road	South of O'Brien Drive	29,260	40	71.1

a. ADT = average daily traffic. ADT volumes were estimated by multiplying a.m. and p.m. peak-hour volumes by 10, based on guidance from Hexagon Transportation Consultants.
b. Existing year = 2019
c. Estimated existing dBA L_{dn} noise levels based on a fixed distance of 50 feet from the roadway centerline for all modeled roadway segments.

Regulatory Setting

This section provides a summary of noise and vibration plans and policies that are relevant to the Proposed Project. Federal, state, and local agencies regulate different aspects of environmental noise. Generally, the federal government sets noise standards for transportation-related noise sources that are closely linked to interstate commerce. These sources include aircraft, locomotives, and trucks. No federal noise standards are directly applicable to the Proposed Project. The state government sets noise standards for transportation noise sources such as automobiles, light trucks, and motorcycles. Noise sources associated with industrial, commercial, and construction activities are generally subject to local control through noise ordinances and general plan policies. Local general plans provide goals that are intended to guide and influence development plans. The state and local noise policies and regulations that are applicable to the Proposed Project are described below.

State Regulations

California Noise Insulation Standards (California Code of Regulations Title 24)

California Code of Regulations Title 24, Part 2, Sound Transmission, establishes minimum noise insulation standards to protect persons within new hotels, motels, dormitories, long-term care facilities, apartment houses, and dwellings other than single-family residences. Under this regulation, interior noise levels attributable to exterior noise sources cannot exceed 45 dB in any habitable room. The noise metric is either the L_{dn} or the CNEL. Compliance with Title 24 interior noise standards, as established during the permit review process, generally protects a project's users from existing ambient outdoor noise levels.

Local Regulations

City of Menlo Park General Plan

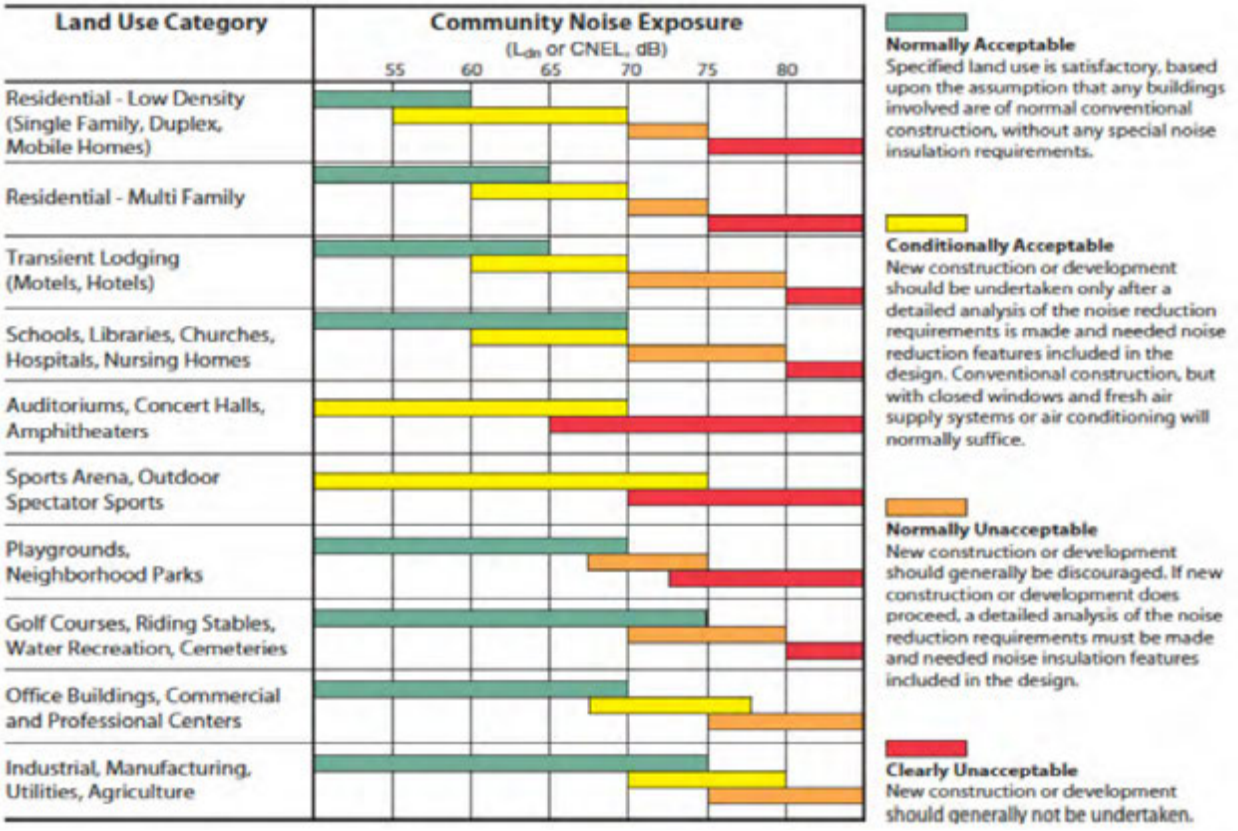
The City General Plan contains general goals, policies, and programs that require local planning and development decisions to consider noise impacts. The Noise and Safety Element sets goals, policies, and implementing programs that work to achieve acceptable noise levels. In addition, the Noise and Safety Element sets land use compatibility noise standards for new developments. The following City General Plan goals, policies, and programs would serve to minimize potential adverse impacts related to noise:

Goal N1: Achieve Acceptable Noise Levels.

Policy N1.1: Compliance with Noise Standards. Consider the compatibility of proposed land uses with the noise environment when preparing or revising community and/or specific plans. Require new projects to comply with the noise standards of local, regional, and building code regulations, including, but not limited to, the Menlo Park Municipal Code, Title 24 of the California Code of Regulations, and subdivision and zoning codes.

Policy N1.2: Land Use Compatibility Noise Standards. Protect people in new development from excessive noise by applying the City's Land Use Compatibility Noise Standards for New Development to the siting and required mitigation for new uses in existing noise environments (refer to Table 3.4-9, below).

Table 3.4-9. Land Use Compatibility Noise Standards for New Development



Policy N1.4: Noise-Sensitive Uses. Protect existing residential neighborhoods and noise-sensitive uses from unacceptable noise levels and vibration impacts. Noise-sensitive uses include, but are not limited to, hospitals, schools, religious facilities, convalescent homes, and businesses with highly sensitive equipment. Discourage the siting of noise-sensitive uses in areas in excess of 65 dBA CNEL without appropriate mitigation, and locate noise-sensitive uses away from noise sources unless mitigation measures are included in development plans.

Policy N1.6: Noise Reduction Measures. Encourage the use of construction methods, state-of-the-art noise-abating materials and technology, and creative site design, including, but not limited to, open space, earthen berms, parking, accessory buildings, and landscaping, to buffer new and existing development from noise and reduce potential conflicts between ambient noise levels and noise-sensitive land uses. Use sound walls only when other methods are not practical or when recommended by an acoustical expert.

Policy N1.7: Noise and Vibration from New Non-Residential Development. Design non-residential development to minimize noise impacts on nearby uses. Where vibration impacts may occur, reduce impacts on residences and businesses through the use of setbacks and/or structural design features that reduce vibration to levels at or below the guidelines of the Federal Transit Administration near rail lines and industrial uses.

Policy N1.8: Annoying or Harmful Noise. Preclude the generation of annoying or harmful noise from stationary noise sources, such as construction and property maintenance activity and mechanical equipment.

Policy N1.9: Transportation-Related Noise Attenuation. Strive to minimize traffic noise through land use policies, traffic-calming methods to reduce traffic speed, and law enforcement and street improvements, and encourage other agencies to reduce noise levels generated by roadways, railways, rapid transit, and other facilities.

Policy N1.10: Nuisance Noise. Minimize impacts from noise levels that exceed community sound levels through enforcement of the City's Noise Ordinance. Control unnecessary, excessive, and annoying noises within the city where not preempted by federal and state control through implementation and updating of the noise ordinance.

Land use compatibility noise standards are included in the City General Plan Noise Element. According to the Noise Element, noise levels up to 60 dBA L_{dn} are considered normally acceptable for single-family residential land uses; noise levels are conditionally acceptable up to 70 dBA L_{dn} for such uses as long as noise insulation is included in the design to reduce interior noise levels. For multi-family residential and hotel uses, noise levels of up to 65 dBA L_{dn} are considered normally acceptable; noise levels of 70 dBA L_{dn} considered conditionally acceptable. For office buildings and commercial uses, noise levels of up to 70 dBA L_{dn} are considered normally acceptable; noise levels of up to 77.5 dBA L_{dn} considered conditionally acceptable. For industrial uses, noise levels up to 75 dBA L_{dn} are considered normally acceptable; noise levels of up to 80 dBA L_{dn} are considered conditionally acceptable. For schools and churches, playgrounds, and neighborhood parks, noise levels up to 70 dBA L_{dn} are considered normally acceptable; there are no separate conditionally acceptable noise limits for these uses.

Menlo Park Municipal Code

In addition to the City General Plan, the Menlo Park Municipal Code also contains noise regulations. Chapter 8.06 of the Menlo Park Municipal Code contains noise limitations and exclusions for land uses within Menlo Park. The code concerns noise that constitutes a disturbance, as measured primarily at residential land uses. The regulations below from the Menlo Park Municipal Code would be applicable to the Proposed Project.

8.06.030, Noise Limitations

Except as otherwise permitted in this chapter, any source of sound in excess of the sound-level limits set forth in Section 8.06.030 shall constitute a noise disturbance. For purposes of determining sound levels from any source of sound, sound level measurements shall be made at a point on the receiving property nearest where the sound source at issue generates the highest sound level.

1. For all sources of sound measured from any residential property:
    A. Nighttime hours (10:00 p.m. to 7:00 a.m.): 50 dBA
    B. Daytime hours (7:00 a.m. to 10:00 p.m.): 60 dBA

8.06.040, Exceptions

a. Construction Activities
    1. Construction activities between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday.
    4. Notwithstanding any other provision set forth above, all powered equipment shall comply with the limits set forth in Section 8.06.040(b).

b. Powered Equipment
    1. Powered equipment used on a temporary, occasional, or infrequent basis and operated between the hours of 8:00 a.m. and 6:00 p.m. Monday through Friday. No piece of equipment shall generate noise in excess of 85 dBA at 50 feet.

c. Deliveries
    1. Deliveries to food retailers and restaurants.
    2. Deliveries to other commercial and industrial businesses between the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday and between the hours of 9:00 a.m. and 5:00 p.m. Saturdays, Sundays, and holidays.

8.06.050, Exemptions

a. Sound Generated by Motor Vehicles. Sound generated by motor vehicles, trucks, and buses operated on streets and highways; aircraft; trains; and other public transport.
    1. This exemption shall not apply to the operation of any vehicle, including any equipment attached to any vehicle (such as attached refrigeration and/or heating units or any attached auxiliary equipment), for a period in excess of 10 minutes in any hour while the vehicle is stationary for reasons other than traffic congestion.

Furthermore, the zoning ordinance contains regulations related to roof-mounted equipment.

> **16.08.095, Roof-mounted Equipment**
>
> Mechanical equipment, such as air-conditioning equipment, ventilation fans, vents, ducting, or similar equipment, may be placed on the roof of a building, provided that such equipment is screened from view as observed at an eye level horizontal to the top of the roof-mounted equipment, except for the SP-ECR/D district, which has unique screening requirements, and all sounds emitted by such equipment shall not exceed fifty (50) decibels at a distance of fifty (50) feet from such equipment (Ord. 979, Section 3 [part], 2012: Ord. 819 Section 1 [part], 1991).

Environmental Impacts

This section discusses potential noise and vibration impacts that could result from implementation of the Proposed Project. The section begins with the criteria of significance, which establish the thresholds used to determine whether an impact would be significant. A summary of ConnectMenlo EIR impacts and mitigation measures is then provided. As previously discussed in Chapter 1, *Introduction*, the analysis below makes reference to, and tiers from, the ConnectMenlo Final EIR, where appropriate. A brief summary of the Project-related noise impacts that were scoped out in the Initial Study (Appendix 1-1) is also included. The latter part of this section identifies the potential impacts of the Proposed Project as well as mitigation measures, as appropriate.

Thresholds of Significance

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project would have a significant effect if it would result in any of the conditions listed below.

- Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies.
- Generate excessive ground-borne vibration or ground-borne noise levels.
- For a project in the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

Summary of Analysis in the ConnectMenlo EIR

The exposure of persons to or the generation of noise levels in excess of local and/or applicable standards was analyzed in the ConnectMenlo EIR as Impact NOISE-1 (pages 4.10-19 to 4.10-24); it was determined that the impact would be less than significant with the application of mitigation measures as well as compliance with City General Plan goals and policies. Projects that would result in the development of sensitive land uses, which the Project would not, must maintain an indoor L_{dn} of 45 dBA or less, as required by ConnectMenlo EIR Mitigation Measure NOISE-1a and existing regulations. Projects that could expose existing sensitive receptors to excessive noise must comply with ConnectMenlo EIR Mitigation Measures NOISE-1b and NOISE-1c to minimize both construction-related and operational noise.

The exposure of persons to or generation of excessive ground-borne vibration was analyzed in the ConnectMenlo EIR as Impact NOISE-2 (pages 4.10-25 to 4.10-29). The impact was determined to be potentially significant. With implementation of Mitigation Measures NOISE-2a and NOISE-2b, this impact would be reduced to a less-than-significant level. The analysis concluded that, overall, vibration impacts related to construction would be short term, temporary, and generally restricted to areas in the immediate vicinity of construction activity. However, because Project-specific information was not available, the analysis did not quantify the construction-related vibration impacts on sensitive receptors. Implementation of Mitigation Measure NOISE-2a would reduce construction-related vibration impacts to a less-than-significant level through preparation of a vibration analysis to assess vibration levels; alternative construction techniques would be used to reduce vibration, if necessary. Specifically, according to Mitigation Measure NOISE-2a from the ConnectMenlo EIR, vibration levels must be limited to a PPV of 0.126 in/sec at the nearest workshop, 0.063 in/sec at the nearest office, and 0.032 in/sec at the nearest residence during daytime hours and 0.016 in/sec at the nearest residence during nighttime hours. Regarding long-term construction impacts, ConnectMenlo requires projects to comply with Mitigation Measure NOISE-2b, which, in turn, requires the City to implement best management practices as part of a project's approval process.

Topics Evaluated in the Initial Study

The Initial Study (Appendix 1-1) analyzed the potential impacts of the Proposed Project related to construction noise and construction vibration. With application of ConnectMenlo mitigation measures, impacts related to construction noise and vibration were determined to be less than significant. However, since the Initial Study was released, the Proposed Project has been modified to include construction of a waterline as well as new assumptions for building construction at 1350 Adams Court. Therefore, construction noise and vibration topics are now evaluated in the EIR.

Operational noise from stationary sources (e.g., HVAC equipment) was evaluated in the Initial Study. With implementation of ConnectMenlo mitigation measures, impacts related to operational noise from stationary sources were determined to be ***less than significant***.

A summary of the analysis for each noise topic that was scoped out of the EIR is included below.

Operational Noise. The Proposed Project would include the use of noise-generating equipment such as HVAC units, emergency generators, and other mechanical equipment. According to the impact analysis presented in the Initial Study, noise from operational equipment could result in noise levels in excess of thresholds at nearby sensitive land uses. Mitigation Measure NOISE-1b from the ConnectMenlo EIR states that stationary noise sources, as well as landscaping and maintenance activities, shall comply with Chapter 8.06, Noise, of the Menlo Park Municipal Code. Because the sensitive receptors that may be affected by generator noise are in East Palo Alto, Project Mitigation Measure NOI-2 was also determined to be required.

Compliance with the mitigation measures would ensure compliance with Chapter 8.06 of the Menlo Park Municipal Code and Chapter 8.52 of the East Palo Alto Municipal Code, both of which contain relevant noise limitations for the Proposed Project. Impacts related to operational equipment noise would be less ***than significant with mitigation.***

ConnectMenlo Mitigation Measure NOISE-1b: Stationary noise sources, and landscaping and maintenance activities, shall comply with Chapter 8.06, Noise, of the Menlo Park Municipal Code.

Project Mitigation Measure NOI-2: Compliance with Chapter 8.52 of the East Palo Alto Municipal Code. Stationary noise sources that may affect receptors within East Palo Alto shall comply with Chapter 8.52 of the East Palo Alto Municipal Code. With respect to noise from generator testing, measures to ensure compliance with the applicable standards include:

- Limiting generator testing to daytime hours,
- Testing for shorter periods of time,
- Enclosing the generator, or
- Implementing other forms of shielding, such a localized barriers, around the equipment.

Aircraft Noise. The Initial Study analyzed the potential for aircraft-related noise impacts, given the Proposed Project's proximity to a public airport or private airstrip. According to both the ConnectMenlo EIR and the Initial Study for the Proposed Project, the Proposed Project is within the ConnectMenlo study area. There would be ***no impact*** related to aircraft noise for projects within this study area. No further analysis is required.

Methods for Analysis

Construction Noise

The Menlo Park Municipal Code generally exempts construction noise occurring during the daytime hours of 8:00 a.m. to 6:00 p.m. from quantitative noise thresholds, except for a limitation that states that no piece of powered equipment shall generate noise that exceeds 85 dBA L_{eq} at 50 feet. Construction is proposed to begin as early as 6:00 a.m., which is 2 hours before the daytime exemption occurs in Menlo Park.

To determine if construction at the Project site would result in noise impacts, a screening analysis was conducted to determine which subphases of construction would require the loudest equipment, based on an equipment list provided by the Project Sponsor, and result in the greatest combined noise levels. Then, construction noise modeling was conducted for the loudest subphase(s) of construction, assuming that the three loudest pieces of equipment expected to be used during a given phase of construction would be operating simultaneously and close to one another on the Project site. Combined construction noise outside exempt daytime hours for construction is compared to the applicable Menlo Park Municipal Code noise standards. Specifically, estimated construction noise levels at nearby sensitive uses were compared to the 50 dBA L_{eq} noise threshold, which applies during nighttime hours in Menlo Park (i.e., until 7:00 a.m.), and the 60 dBA L_{eq} noise threshold, which applies to construction noise occurring between 7:00 a.m. and 8:00 a.m.

To determine sustained construction noise impacts during daytime hours (8:00 a.m. to 6:00 p.m.), two tests are applied. The first test is applied to determine if any individual piece of equipment would exceed the threshold of 85 dBA L_{eq} at 50 feet. In addition, notwithstanding the general daytime exemption, construction noise is compared to the existing ambient noise level at nearby noise-sensitive uses to estimate the temporary increase in noise and determine if a 10 dB increase would be expected to occur. The Federal Transit Administration construction noise guidelines state that each A-weighted sound-level increase of 10 dB corresponds to an approximate doubling of subjective loudness. As a result, a 10 dB increase in the ambient noise level is often used as the threshold in determining if an increase in the ambient noise level as a result of sustained construction would be considered substantial. With regard to construction of the proposed waterline, the same procedure was followed, including a screening

analysis followed by modeling of combined construction noise from the loudest construction subphase and a comparison to the applicable local standards and the existing ambient noise level in the vicinity of the nearest noise-sensitive uses.

Pipeline projects of less than 1 mile in a public right-of-way are generally statutorily exempt from CEQA (Section 21080.21; CEQA Guidelines Section 15282[k]). In this case, the proposed water pipeline is required to serve the Project. To provide a conservative CEQA analysis of the Project's effects, the pipeline is included in Chapter 2, *Project Description*, and evaluated as part of the Proposed Project in this EIR.

Operational Traffic Noise

To determine if the Proposed Project would result in a substantial permanent increase in traffic noise, vehicular traffic data provided by Hexagon Transportation Consultants (2021) regarding hourly turning movements were analyzed. The traffic data were converted into segment average daily traffic (ADT) volumes. Specifically, a.m. and p.m. peak-hour volumes were calculated, based on the provided turning movement data. The average for the a.m. and p.m. peak-hour volumes for a given segment were then multiplied by 10 to estimate ADT, based on guidance from Hexagon Transportation Consultants. Traffic volumes for no-Project and with-Project conditions were then compared to determine if traffic increases associated with the Proposed Project would result in significant traffic noise impacts. Estimates of traffic noise increases were based on a ratio analysis that compared existing traffic volumes to existing plus-Project traffic volumes.

Construction Vibration

The evaluation of potential vibration-related effects from construction of the Proposed Project was based on the construction equipment list provided by the Project Sponsor and the estimated construction equipment noise levels contained in both the Federal Transit Administration's Transit Noise and Vibration Impact Assessment (2006) and Caltrans' Transportation and Construction Vibration Guidance Manual (2020). Estimated vibration levels at sensitive uses from construction of the Proposed Project were then compared to the Caltrans damage and annoyance vibration criteria (contained in Tables 3.4-3 and 3.4-4, presented previously) to determine if a vibration impact would be expected. After this analysis was conducted, estimated vibration levels were compared to the criteria outlined in ConnectMenlo Mitigation Measure NOISE-2a.

Project Impacts and Mitigation Measures

Impact NOI-1: Substantial Temporary or Permanent Increase in Noise. The Proposed Project could generate a substantial temporary or permanent increase in ambient noise levels in the vicinity in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies. (LTS/M)

Construction

Project Site Construction

Construction of the Proposed Project at Lot 3 North, with an estimated duration of 29 months, would have the potential to generate noise. Construction-related noise impacts could result from operation of heavy-duty construction equipment, such as graders, loaders, and excavators. The highest noise levels would be expected at the beginning of Project construction, during the demolition/utility relocation subphase.

The standard construction work hours proposed for the Project are 7:00 a.m. to 3:30 p.m. Monday through Friday. However, work could start as early as at 6:00 a.m. and finish as late as 6:00 p.m. Some hours are outside the normal construction hours provided in the Menlo Park Municipal Code (i.e., 8:00 a.m. to 6:00 p.m. Monday through Friday), during which time construction noise is considered generally exempt from the quantitative code noise restrictions, except for the noise limit on individual pieces of powered equipment. Outside these hours, the regular noise restrictions apply to construction noise. Specifically, according to the Menlo Park Municipal Code, noise from any source is limited to 60 dBA L_{eq} between the hours of 7:00 a.m. and 10:00 p.m., which would apply to construction that takes place between 7:00 a.m. and 8:00 a.m.; noise from any source is limited to 50 dBA L_{eq} during the hours of 10:00 p.m. to 7:00 a.m., which would apply to construction noise occurring during these nighttime hours.

Construction noise from activities occurring between 8:00 a.m. and 6:00 p.m. weekdays is subject to two tests. Noise from any individual piece of equipment is limited to 85 dBA L_{eq} at 50 feet. In addition, estimated combined (overall) construction noise is compared to the existing ambient noise level to approximate temporary increases in noise. Should a 10 dB increase compared to the existing ambient noise level, perceived as a doubling of loudness, be predicted to occur, the temporary increase in noise resulting from construction may be considered substantial.

During the construction window for the Proposed Project, temporary increases in noise levels in the vicinity would occur from the operation of various pieces of construction equipment. Noise levels for the equipment, as specified by the Project Sponsor, expected to be used for construction of the Proposed Project are included in Table 3.4-10, below.

Table 3.4-10. Construction Equipment Noise Levels

Equipment	L_{eq}[a]
Dozer	78
Dump Truck	72
Tractor	80
Concrete Saw	83
Jackhammer	82
Auger Drill Rig	77
Grader	81
Excavator	77
Welder/Torch	70
Generator	78
Crane	73
Concrete Mixer Truck	75
Concrete Pump Truck	74
Paver	74
Compactor	76
Roller	73
Vacuum Excavator (Vac-Truck)	81

Source: Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054. January. Available: https://www.fhwa.dot.gov/ENVIRonment/noise/construction_noise/rcnm/rcnm.pdf. Accessed: November 10, 2021.

a. Based on standard estimated utilization rates from the Federal Highway Administration. Rounded to the nearest whole number.

During daytime hours, noise from individual pieces of construction equipment would be limited to the noise criterion (85 dBA L_{eq} at 50 feet). As shown in Table 3.4-10, above, all equipment proposed for Project construction would be in compliance with this limit. Therefore, impacts related to noise exceedances from individual pieces of equipment would be less than significant.

To assess the potential for combined equipment noise during construction to result in substantial temporary increases in noise, a comparison to the local ambient noise level is necessary to determine if a 10 dB increase, perceived as a doubling of loudness, would occur. In addition, construction occurring between the hours of 6:00 a.m. and 7:00 a.m. would need to comply with the nighttime noise threshold of 50 dBA L_{eq} between the hours of 10:00 p.m. and 7:00 a.m. Construction occurring between the hours of 7:00 a.m. and 8:00 a.m. would need to comply with the applicable 60 dBA L_{eq} noise threshold.

To determine if construction would result in noise impacts, estimated combined construction noise was modeled. Modeling assumes that the three loudest pieces of equipment expected to be used during a given phase of construction would be operating simultaneously and close to one another on the Project site. The combined noise level (both L_{max} and L_{eq}) from operation of the construction equipment was calculated. L_{eq} values were calculated from L_{max} values using estimated utilization factors. Anticipated average (L_{eq}) construction noise at various distances from the Project site during the loudest onsite construction phase (demolition) are shown in Table 3.4-11.

The nearest residences to the Project site are approximately 800 feet to the south, along Kavanaugh Drive. As shown in Table 3.4-11, above, combined noise from construction equipment at this distance could be as loud as 60.4 dBA L_{eq}. Although construction noise is considered exempt from the quantitative daytime noise limit in the city during the daytime hours of 8:00 a.m. to 6:00 p.m., noise generated during daytime hours is compared to the ambient noise level at the nearest residences. The lowest daytime 1-hour L_{eq} measured at this location was 63.1 dBA L_{eq} (recorded during the long-term measurement interval). See measurement data for LT-1 in Table 3.7-3 and additional details in Appendix 3.4. Noise from construction activity (estimated to be approximately 60.4 dBA L_{eq}) would result in a 1.9 dB increase above the ambient noise level at the nearest residence during daytime hours (i.e., approximately 65.0 dBA L_{eq}, compared to the lowest daytime L_{eq} noise level of 63.1). Consequently, construction activity would not result in a noise level increase 10 dB or more above the ambient noise level at the nearest residence during daytime hours.

In addition to the analysis of daytime construction noise, estimated construction noise predicted to occur before the standard hours of 8:00 a.m. to 6:00 p.m. weekdays is compared to the thresholds that apply between 6:00 a.m. and 8:00 a.m. Based on the modeling results presented above, construction noise levels at the nearest residential land uses may exceed the daytime and nighttime noise thresholds in the Menlo Park Municipal Code for work occurring before 8:00 a.m. (i.e., 60 dBA between 7:00 a.m. and 8:00 a.m. and 50 dBA between 6:00 a.m. and 7:00 a.m.). However, note that the lowest existing ambient noise level (1-hour L_{eq}) measured between 6:00 and 8:00 a.m. was 66.1 dBA L_{eq}, recorded between 6:00 a.m. and 7:00 a.m. Therefore, noise levels during this window (6:00 a.m. to 8:00 a.m.) may be expected to exceed the quantitative noise limit in the city of 50 dBA between 6:00 a.m., and 7:00 a.m. and 60 dBA between 7:00 a.m. and 8:00 a.m. Based on the estimated existing noise levels, construction noise alone would not be expected to exceed the existing noise level of approximately 66 dBA L_{eq} at this location during these early morning hours and would not be expected to result in a 10 dB increase over the ambient noise level during these hours.

Table 3.4-11. Modeled Construction Noise Levels for Demolition Phase, Project Site Construction

Source Data	Maximum Sound Level (L_{max} dBA)	Utilization Factor	Hourly Sound Level (L_{eq} dBA)
Construction Condition: Demolition/Utility Relocation			
Source 1: Dozer – Sound level (dBA) at 50 feet =	82.0	40%	78.0
Source 2: Dump Truck – Sound level (dBA) at 50 feet =	76.0	40%	72.0
Source 3: Concrete Saw – Sound level (dBA) at 50 feet =	90.0	20%	83.0
Calculated Data			
All Sources Combined – L_{max} sound level (dBA) at 50 feet =			91
All Sources Combined – L_{eq} sound level (dBA) at 50 feet =			84

Distance between Source and Receiver (feet)	Geometric Attenuation (dB)	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)
50	0	90.8	84.5
65	-2	88.5	82.2
100	-6	84.8	78.4
200	-12	78.7	72.4
210	-12	78.3	72.0
250	-14	76.8	70.5
285	-15	75.7	69.3
300	-16	75.2	68.9
400	-18	72.7	66.4
500	-20	70.8	64.5
800	**-24**	**66.7**	**60.4**
920	**-25**	**65.5**	**59.2**
1,000	-26	64.8	58.4
2,000	-32	58.7	52.4

Sound data source: Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054. January. Available: https://www.fhwa.dot.gov/ENVIRonment/noise/construction_noise/rcnm/rcnm.pdf. Accessed: October 18, 2021.
Geometric attenuation based on 6 dB per doubling of distance.
Note: This calculation does not include the effects, if any, of local shielding from walls, topography, or other barriers that may reduce sound levels further.
Bold denotes the distances and sound levels identified in the analysis.

The Open Mind School is the closest educational institution to the Project site. The school on O'Brien Drive is approximately 920 feet southwest of Lot 3 North. At that distance, construction noise could be as loud 59.2 dBA L_{eq}. Construction noise generated during daytime hours also is compared to the ambient noise level at this school, which was recorded with short-term measurements during daytime hours. The ambient noise level near the Open Mind School is represented by noise monitoring location ST-3, which had a measured noise level of 55.8 dBA L_{eq}, as shown in Table 3.4-6. A combined noise level of 59.2 dBA L_{eq} would therefore result in a 5.0 dB increase in noise compared to the estimated ambient noise level during daytime hours. Consequently, construction activity would not result in noise levels 10 dB or more above the ambient noise level at the nearest school during daytime hours.

In addition to the analysis of daytime construction noise, estimated construction noise predicted to occur before the standard hours of 8:00 a.m. to 6:00 p.m. weekdays is compared to the thresholds that apply between 6:00 a.m. and 8:00 a.m. Based on the modeling results presented above, construction noise levels at the Open Mind School may exceed the daytime and the nighttime noise thresholds in the Menlo Park Municipal Code for work occurring before 8:00 a.m. (i.e., 60 dBA between 7:00 a.m. and 8:00 a.m. and 50 dBA between 6:00 a.m. and 7:00 a.m.). Actual existing noise levels between the hours of 6:00 a.m. and 8:00 a.m. at this school have not been quantified to date. Therefore, it is possible that construction noise could result in a 10 dB increase over the ambient noise level at this school, along with the quantitative Menlo Park Municipal Code noise standards (described above) being exceeded.

Overall, construction noise could be somewhat reduced at the aforementioned nearby noise-sensitive land uses by intervening buildings, which may partially or fully block the line of sight between construction activities at the Project site and given receivers. Therefore, actual noise levels may be lower than those presented in this analysis. Although additional noise-sensitive land uses may be located in the general vicinity of the Proposed Project, no noise-sensitive land uses would be closer to the Project site than those included in the analysis above. Therefore, the analysis above is a conservative assessment of noise impacts at those locations. An increase of 10 dB or more is not predicted to occur at nearby noise-sensitive land uses during daytime hours, including the early-morning hours of 6:00 a.m. to 8:00 a.m. However, because the potential exists for noise levels to exceed the applicable Menlo Park Municipal Code criteria at the nearest residences and the school from work occurring during non-daytime hours, or a 10 dB increase over ambient to occur at the nearby school during these hours, impacts related to construction noise generated at the Project site between 6:00 a.m. and 8:00 a.m. would be ***potentially significant***.

Waterline Construction

Activities associated with offsite waterline construction would occur during five subphases: demolition, utility installation, grading, pavement installation, and final pavement and striping. Demolition would have a duration of approximately 25 working days, utility installation would occur over approximately 15 working days, grading would take approximately 9 working days, and pavement installation as well as final pavement, signage, and striping would each last approximately 2 working days. The phases are expected to overlap one another, resulting in a total waterline construction period of approximately 2 to 3 months.

As discussed above in the analysis of noise from construction at the Project site, during the daytime hours of 8:00 a.m. and 6:00 p.m. Monday through Friday, construction noise is considered exempt from quantitative noise thresholds, according to the Menlo Park Municipal Code, except for the limit on powered equipment of 85 dBA at a distance of 50 feet. The same general equipment is proposed for waterline construction as for Project construction. As shown in Table 3.4-10, above, all equipment proposed for construction at the Project site would be in compliance with this limit. Therefore, as is the case for Project construction, impacts related to noise exceedances from individual pieces of equipment for waterline construction would be ***less than significant***.

In addition to the individual equipment noise assessment, noise generated during daytime hours is compared to the ambient noise level at nearby noise-sensitive land uses to determine if a 10 dB increase above the ambient level, perceived as a doubling of loudness, is expected to occur. As opposed to construction activities at the Project site, waterline construction would take place only during the standard daytime hours of 8:00 a.m. to 6:00 p.m. weekdays, when people are generally considered less sensitive to noise.

Modeling of combined noise from waterline construction was based on assumptions provided by the Project Sponsor. A screening analysis was conducted to determine which subphases of waterline construction would result in the greatest noise levels; it was determined that noise levels from the utility installation subphase would be the greatest. Modeling of the combined noise levels was based on the assumption that the three loudest pieces of equipment expected to operate during the demolition phase would be operating simultaneously and close to one another. Note that, because roadways where waterline construction would occur are to remain open to traffic use during construction, it is unlikely that the three pieces of equipment would be operating at the same time and in the same general location. However, to provide a conservative analysis, modeling assumes concurrent operation of the three loudest pieces of equipment proposed for use during a given subphase of construction. The loudest pieces of equipment proposed for use during the utility installation subphase are a vacuum extractor (vac-truck), a concrete saw, and a jackhammer. These may not be operational at the same time, but this possibility is considered to provide a reasonable worst-case noise assessment. Refer to Table 3.4-12, below, for the estimated noise levels from demolition (considered the noisiest part of waterline construction) at various distances associated with the waterline.

Utility installation associated with the waterline could occur as close as 65 feet from the nearest school, the Open Mind School, which is located to the southwest on O'Brien Drive. Work would occur approximately 165 feet from outdoor use areas associated with the school (i.e., west of the school building), thereby reducing noise at the outdoor area. In addition, noise would be further reduced at the main outdoor use areas of the school as a result of building shielding. However, noise levels at the closer school façade are presented to ensure a conservative assessment.

As shown in Table 3.4-12, construction activities associated with the waterline could result in noise levels of up to 84.6 dBA L_{eq} at this location without mitigation. The ambient noise level near the Open Mind School is represented by ST-3, which had a measured noise level of 55.8 dBA L_{eq}, as shown in Table 3.4-6. Therefore, a construction noise level of up to 84.6 dBA L_{eq} would result in a 10 dB or greater increase in noise (i.e., 28.8 dB) compared to the ambient noise level at this school. However, although substantial, this increase would occur only temporarily and intermittently, depending on the precise construction activity taking place on a given day and the distance between individual receivers and construction work. Work is estimated to progress along the street at a rate of 100 to 180 linear feet per day; therefore, the loudest construction noise experienced by an individual receptor is unlikely to continue over several consecutive days because equipment would be moving linearly and away from individual receptors as progress is made on overall construction.

The nearest residential land uses are approximately 285 feet to the south (along Alberni Street) and approximately 210 feet west of Willow Road. At a distance of 285 feet, the noise level from waterline construction would be approximately 71.7 dBA L_{eq} without mitigation. Existing ambient noise levels in this area are represented by LT-3, located on the northwest corner of Alberni Street and Poplar Avenue (south of the Project site). The measured L_{dn} noise level at this location was 62 dBA L_{dn}, with a lowest daytime recorded L_{eq} noise level of 57 dBA L_{eq} and a highest daytime recorded L_{eq} noise level of 62 dBA L_{eq} (as shown in Appendix 3.4). Therefore, construction noise levels of 71.7 dBA L_{eq} could increase the ambient noise level at this location of 14.8 dB. In addition, at a distance of 210 feet (e.g., the nearest residences west of Willow Road), construction noise would be approximately 74.3 dBA L_{eq}. Measured noise at this location, represented by ST-5, was approximately 59.5 dBA L_{eq}. Therefore, a construction noise level of 74.3 dBA L_{eq} would increase the ambient noise level by 14.9 dB at this location.

Table 3.4-12. Modeled Construction Noise Levels for Demolition Phase, Waterline Construction

Source Data	Maximum Sound Level (L_{max} dBA)	Utilization Factor	Hourly Sound Level (L_{eq} dBA)
Construction Condition: Demolition/Utility Relocation			
Source 1: Vac-Truck– Sound level (dBA) at 50 feet =	85.0	40%	81.0
Source 2: Jack Hammer – Sound level (dBA) at 50 feet =	90.0	20%	83.0
Source 3: Concrete Saw – Sound level (dBA) at 50 feet =	89.0	20%	82.0
Calculated Data			
All Sources Combined – L_{max} sound level (dBA) at 50 feet =			93.2
All Sources Combined – L_{eq} sound level (dBA) at 50 feet =			86.9

Distance between Source and Receiver (feet)	Geometric Attenuation (dB)	Calculated L_{max} Sound Level (dBA)	Calculated L_{eq} Sound Level (dBA)
50	0	93.2	86.9
65	**-2**	**91.0**	**84.6**
100	-6	87.2	80.8
200	-12	81.2	74.8
210	-12	80.8	74.4
250	-14	79.3	72.9
285	**-15**	**78.1**	**71.7**
300	-16	77.7	71.3
400	-18	75.2	68.8
500	-20	73.2	66.9

Sound data source: Federal Highway Administration. 2006. *FHWA Roadway Construction Noise Model User's Guide*. FHWA-HEP-05-054. January. Available: https://www.fhwa.dot.gov/ENVIRonment/noise/construction_noise/rcnm/rcnm.pdf. Accessed: October 18, 2021.
Geometric attenuation based on 6 dB per doubling of distance.
Note: This calculation does not include the effects, if any, of local shielding from walls, topography, or other barriers that may reduce sound levels further.
Bold denotes the distances and sound levels identified in the analysis.

Although these noise increases of approximately 15 dB at the nearest residences would exceed the 10 dB increase threshold described previously, this increase, although substantial, would occur only temporarily and intermittently, depending on the precise construction activity taking place on a given day and the distance between individual receivers and construction work. Because work would progress at a rate of 100 to 180 linear feet per day, the loudest construction noise at an individual receptor is unlikely to continue over several consecutive days because equipment would be moving linearly and away from individual receptors as progress is made on overall construction. Therefore, because of the temporary nature of the construction work as well as the intermittent nature of the noise, noise increases, which would be limited to daytime hours, at the nearest residences from waterline construction would not be considered substantial.

Additional noise-sensitive land uses may be located in the general vicinity of waterline construction; however, no noise-sensitive land uses are closer than those included in the analysis above.

As described previously, waterline construction would proceed linearly along a proposed alignment at a rate of 100 to 180 feet per day and would not take place at one location for the entire duration of construction. Construction noise from this work would, therefore, be relatively short term because it would take place for only a matter of days at each sensitive use. As work moves linearly along the alignment and farther from sensitive uses, noise levels would be reduced. In addition, as described under the construction analysis for the Project site, it should be noted that almost all nearby residential land uses would be somewhat shielded from construction noise by intervening buildings. This shielding could help reduce construction noise levels at nearby residences and sensitive uses because the line of sight between the noise source and receiver would be blocked.

The total time for waterline construction would be relatively short, lasting approximately 2 months; it would not occur over the entire duration of construction at a single location. Thus, increases of more than 10 dB above the existing ambient noise level at each nearby sensitive use would be short term and intermittent. Furthermore, all individual pieces of equipment proposed for use would be in compliance with the threshold of 85 dBA at 50 feet. Therefore, for the reasons described above, as well as the short-term nature of the construction work required for the waterline, impacts related to a substantial temporary increase in noise from waterline construction would be considered ***less than significant***.

Construction Impacts Conclusion

Daytime construction (8:00 a.m. to 6:00 p.m.) at the Project site would not be expected to result in a 10 dB increase over the ambient noise level at nearby offsite sensitive land uses. However, construction activities on the Project site occurring outside the standard daytime hours of 8:00 a.m. to 6:00 p.m. could result in noise levels in excess of the quantitative Menlo Park Municipal Code thresholds of 60 dBA L_{eq} during the hours of 7:00 a.m. to 8:00 a.m. and 50 dBA L_{eq} during the hours of 6:00 a.m. to 7:00 a.m. or a noise increase of 10 dB over the existing ambient level at nearby sensitive land uses. Therefore, noise impacts from onsite construction during the hours of 6:00 a.m. to 8:00 a.m. would be considered ***significant.***

Regarding waterline construction, all equipment used for waterline construction would be in compliance with the noise criterion (85 dBA at 50 feet). Although construction may result in a 10 dB or greater increases in noise over the ambient level in the area, these elevated noise levels would occur only temporarily and intermittently, depending on the precise construction activity taking place on a given day. Because work would progress at a rate of 100 to 180 linear feet per day, the loudest construction noise at an individual receptor is unlikely to continue over several consecutive days because equipment would be moving linearly and away from individual receptors as progress is made on overall construction. Therefore, as a result of the short-term nature of the work required for waterline construction, impacts related to a substantial temporary increase in noise from waterline construction would be considered ***less than significant***.

MITIGATION MEASURES. Implementation of ConnectMenlo Mitigation Measure NOISE-1c and Project Mitigation Measure NOI-1 would reduce construction noise and the severity of impacts associated with the Proposed Project. Within a noise control plan, limitations on equipment can be required, depending on the distance to noise-sensitive receivers. A limit on the number of pieces of equipment to be used concurrently can also be required. In addition, sound control barriers (including portable sound blankets) can be used to reduce noise around individual pieces of equipment if overall sound barriers around a worksite are not feasible. In addition to limitations on the concurrent use of

equipment, noise barriers, along with measures defined in a Project-specific construction noise control plan, may be used. Noise impacts from Project construction during the hours of 6:00 a.m. to 8:00 a.m. would be ***less than significant with mitigation.***

The mitigation measures below would apply to Project development at Lot 3 North.

Modified ConnectMenlo Mitigation Measure NOISE-1c: Project applicants shall minimize the exposure of nearby properties to excessive noise levels from construction-related activity through CEQA review, conditions of approval and/or enforcement of the City's Noise Ordinance. Prior to issuance of demolition, grading, and/or building permits for development projects, a note shall be provided on development plans indicating that during on-going grading, demolition, and construction, the property owner/developer shall be responsible for requiring contractors to implement the following measures to limit construction-related noise:

- All internal combustion engines on construction equipment and trucks are fitted with properly maintained mufflers, air intake silencers, and/or engine shrouds that are no less effective than as originally equipped by the manufacturer.
- Stationary equipment such as generators and air compressors shall be located as far as feasible from nearby noise-sensitive uses.
- Stockpiling is located as far as feasible from nearby noise-sensitive receptors.
- Limit unnecessary engine idling to the extent feasible.
- Limit the use of public address systems.
- Construction traffic shall be limited to the haul routes established by the City of Menlo Park.

Project Mitigation Measure NOI-1: Implement Noise Control Plan to Reduce Construction Noise from development of Lot 3 North. The Project Sponsor shall develop a noise control plan for construction at the Project site. The plan shall require compliance with Section 8.06 of the Menlo Park Municipal Code and include measures to ensure compliance with the 60 dBA L_{eq} limit during the hours of 7:00 a.m. to 8:00 a.m. and the 50 dBA L_{eq} limit during the hours of 6:00 a.m. to 7:00 a.m. In addition, the plan shall include measures to ensure that construction noise will not result in a 10 dB increase over the ambient noise level at nearby sensitive receptors, which is unlikely to occur at most nearby sensitive uses from Project construction but may occur at the nearest school where existing ambient noise levels from 6:00 a.m. to 8:00 a.m. were not recorded.

The plan shall specify the noise-reducing construction practices that will be employed to reduce noise from construction activities and demonstrate that compliance with the standards will be achievable. If the noise control plan cannot comply with the standards outside the daytime hours of 8:00 a.m. to 6:00 p.m., those activities will be required to occur only daytime hours (e.g., pavement breaking with jackhammers and concrete saws). The measures specified by the Project Sponsor shall be reviewed and approved by the City prior to issuance of building permits. The noise control plan shall:

- Demonstrate that noise levels during construction on the Project site will meet the standards of this mitigation measure at sensitive receptors while those receptors are in use;
- Demonstrate that any construction activities taking place outside daytime construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday shall comply with the 60 dBA L_{eq} limit during the hours of 7:00 a.m. to 8:00 a.m. and the 50 dBA L_{eq} limit during the hours of 6:00 a.m. to 7:00 a.m.

In addition, the plan shall demonstrate that individual pieces of equipment proposed for use will not exceed the limit (85 dBA L_{eq} at 50 feet) for powered equipment noise and that combined construction noise will not result in a 10 dBA increase over the ambient noise level at nearby sensitive receptors. Activities that would produce noise above applicable daytime or nighttime limits shall be scheduled only during normal construction hours. If the noise control plan concludes that a particular piece of equipment will not meet the requirements of this mitigation measure, that equipment shall not be used outside the daytime construction hours.

- Verify construction activities are conducted at adequate distances or otherwise shielded with sound barriers, as determined through analysis, from noise-sensitive receptors when working outside the daytime construction hours of 8:00 a.m. to 6:00 p.m. Monday through Friday, and verify compliance with the Menlo Park Municipal Code though measurement.
- Verify the effectiveness of noise attenuation measures by taking representative noise-level measurements at the nearest sensitive receptors (limited to receptors within 1,000 feet of the Project site) during construction activities that occur outside the hours of 8:00 a.m. to 6:00 p.m. Monday through Friday to verify compliance with the City noise standards (50 and 60 dBA L_{eq}). The final noise monitoring requirements and locations shall be defined in the noise control plan, based on predicted equipment use and noise.
- Verify the effectiveness of noise attenuation measures by taking noise level measurements at nearest noise-sensitive land uses (limited to receptors within 1,000 feet of the Project site) during construction to verify compliance with the threshold (10 dB over ambient). The final noise monitoring requirements and locations shall be defined in the noise control plan, based on predicted equipment use and noise.

Measures used to control construction noise may include:

- Upgraded construction equipment mufflers (e.g., improved mufflers, intake silencers, ducts, engine enclosures, acoustically attenuating shields, shrouds) on equipment and trucks used for Project construction.
- Equipment staging plans (e.g., locating stationary equipment at adequate distances).
- Limitations on equipment and truck idling.
- Shielding sensitive receptors with sound barriers to comply with the Menlo Park Municipal Code.

As determined in the noise control plan, temporary noise barriers may be required around construction on the Project site to reduce construction noise from equipment used outside the daytime construction hours of 8:00 a.m. to 6:00 p.m. on weekdays. Noise barriers shall be constructed of material with a minimum weight of 2 pounds per square foot and no gaps or perforations. Noise barriers may be constructed of, but are not limited to, 3/4-inch Plexiglas, 5/8-inch plywood, 5/8-inch oriented strand board, or straw bales. If sound blankets are used, the blankets are required to have a minimum breaking and tear strength of 120 pounds and 30 pounds, respectively. The sound blankets shall have a minimum sound transmission classification of 27 and noise reduction coefficient of 0.70.

Operation – Traffic Noise

As discussed in Section 3.1, *Transportation*, implementation of the Proposed Project would result in an increase in traffic in the vicinity of the Project site. To determine if the Proposed Project would result in a substantial permanent increase in traffic noise levels, vehicular traffic data provided by Hexagon Transportation Consultants regarding hourly turning movements were converted into segment volumes. Traffic volumes for no-Project and with-Project conditions were compared to determine if traffic increases associated with the Proposed Project would result in significant traffic noise impacts.

Estimates of traffic noise increases can be based on a ratio analysis that compares existing traffic volumes to existing plus-Project traffic volumes. For example, a doubling of traffic (e.g., from 100 to 200 vehicles on a given segment) would result in a 3 dBA change in the noise level. In general, human sound perception is such that a change in sound level of 1 dB cannot typically be perceived by the human ear, a change of 3 dB is barely noticeable, a change of 5 dB is clearly noticeable, and a change of 10 dB is perceived as doubling or halving the sound level as it increases or decreases, respectively. Most segments analyzed in the traffic noise analysis would not experience any Project-related increase in traffic. However, some segments would experience a 1 to 18 percent increase. Based on the previously described ratio analysis, an 18 percent increase in traffic would result in an approximately 0.7 dB increase in traffic noise. This is well below the barely perceptible level of 3 dB. Typically, noise increases below 1 dB cannot be perceived by the human ear. Therefore, Project-related traffic increases would not result in a perceptible increase in noise along analyzed roadway segments.

Table 3.4-13 presents a summary of the analysis regarding the traffic noise ratio. The table shows modeling results for only segments with Project-related increases in traffic of 5 percent or more, which correlates to an increase in noise of less than 0.2 dB. Any increase of less than 25 percent correlates to an increase in noise of less than 1 dB, noting that a 3 dB increase is necessary before an increase is considered to be "barely perceptible." Refer to Appendix 3.4 for the full results of the traffic noise analysis.

Table 3.4-13. Traffic Volume Increases Associated with Proposed Project Trips

	Average Daily Traffic Volumes			
Roadway Segment	**Existing ADT**	**Existing plus Project ADT**	**Percentage Increase from Proposed Project**	**Approximate dB Increase from Project Implementation**
Adams Drive West of University Avenue	2,640	3,200	18%	0.7
Adams Court West of Adams Drive	1,710	2,005	15%	0.6
Adams Drive North of Adams Court	2,535	3,095	18%	0.7
Adams Drive South of Adams Court	2,635	2,950	11%	0.4
O'Brien Drive West of Adams Drive	5,435	5,765	6%	0.2
Adams Drive North of O'Brien Drive	2,960	3,345	12%	0.5

Source: Hexagon Transportation Consultants Inc.—email to Kirsten Chapman of ICF. Refer to Appendix 3.4.
Note:
Daily traffic volumes have been calculated by adding the a.m. and p.m. peak-hour volumes together and multiplying by a factor of 5, based on guidance from the traffic engineer who evaluated the Proposed Project.

Traffic noise increases attributable to the Proposed Project would range from 0 to 0.7 dB along analyzed roadway segments. A change of 3 dB is considered barely noticeable; a traffic noise increase of less than 3 dB would not be considered a significant impact. For example, along O'Brien Drive, west of Adams Drive at the Open Mind School location, Project-related traffic increases are estimated to be 0.2 dB. Because this is well below the barely perceptible 3 dB level, this would not result in a noticeable increase in noise.

Because traffic noise increases resulting from the Proposed Project would not exceed 3 dB along any analyzed roadway segment, with the largest estimated increase being 0.7 dB, traffic noise impacts would be ***less than significant***.

Impact NOI-2: Vibration Effects during Construction. The Proposed Project would not expose persons to or generate excessive ground-borne vibration or ground-borne noise levels. (LTS)

Project Site Construction

Although pile driving would not be required for the Proposed Project, construction would require the use of other equipment that could generate vibration. The pieces of equipment proposed for Project construction that would generate the greatest vibration levels are an auger drill rig and a bulldozer, which generate approximately the same vibration level.

According to Table 4.10-10 of the ConnectMenlo EIR, as well as the Federal Transit Administration's Transit Noise and Vibration Impact Assessment (2006), both an auger drill rig and a large bulldozer could generate a PPV of approximately 0.089 in/sec at a distance of 25 feet, as shown in Table 3.4-2 (presented previously). During Project construction at Lot 3 North, either piece of equipment could operate less than 100 feet from the adjacent Pacific Biosciences-California (PacBio) building on the Project site. Vibration generated by a bulldozer would attenuate to a PPV of 0.011 in/sec at a distance of 100 feet, as also shown in Table 3.4-2. This is below the "strongly perceptible" threshold (i.e., PPV of 0.1 in/sec) shown in Table 3.4-3 (and Table 4.10-3 of the ConnectMenlo EIR). It is also below the applicable damage thresholds for all different building types shown in Table 3.4-2, above, and all thresholds shown in Table 4.10-4 of the ConnectMenlo EIR, which includes thresholds for damage, based on the building materials used in construction. In addition, according to ConnectMenlo EIR Mitigation Measure NOISE-2a, vibration levels must be limited to a PPV of 0.126 in/sec at the nearest workshop and 0.063 in/sec at the nearest office. The PPV of 0.011 in/sec cited above is below both of these vibration-related annoyance criteria. Therefore, vibration levels at the nearby PacBio building would also be below the applicable criteria pertaining to human annoyance identified in ConnectMenlo EIR Mitigation Measure NOISE-2a.

The nearest school to the Project site is the Open Mind School, which is approximately 920 feet southwest of Lot 3 North. At this distance, vibration from the use of either an auger drill rig or a large bulldozer could result in a PPV of 0.0004 in/sec. This is well below the "strongly perceptible" threshold (i.e., PPV of 0.1 in/sec) shown in Table 3.4-3 (and in Table 4.10-3 of the ConnectMenlo EIR). It is also below the applicable damage thresholds for different building types shown in Table 3.4-2, above, and all thresholds shown in Table 4.10-4 of the ConnectMenlo EIR, which includes thresholds for damage, based on building materials used in construction. In addition, according to ConnectMenlo EIR Mitigation Measure NOISE-2a, vibration levels must be limited to a PPV of 0.063 in/sec at the nearest office, 0.032 in/sec at the nearest residence during daytime hours, and 0.016 in/sec at the nearest residence during nighttime hours. Note that no school threshold is specifically cited. However, the vibration level is well below all of the vibration-related annoyance criteria included in ConnectMenlo EIR Mitigation Measure NOISE-2a.

The nearest residences to Project construction areas where a bulldozer may be used are approximately 800 feet to the south in East Palo Alto, along Kavanaugh Drive. At a distance of 800 feet, vibration from a large bulldozer or an auger drill would be reduced to a PPV of less than 0.0005 in/sec and would be below all perceptibility thresholds pertaining to annoyance. This vibration level would also be below all building damage thresholds defined above and in the ConnectMenlo EIR. In addition, according to ConnectMenlo EIR Mitigation Measure NOISE-2a, vibration levels must be limited to a PPV of 0.032 in/sec at the nearest residence during daytime hours and 0.016 in/sec at the nearest residence during nighttime hours. This vibration level is well below the vibration-related annoyance criteria included in ConnectMenlo EIR Mitigation Measure NOISE-2a. Therefore, vibration from construction at the Project site would not be expected to exceed the applicable vibration criteria for annoyance and damage at nearby sensitive uses.

Waterline Construction

In addition to Project site construction, vibration resulting from waterline construction must also be evaluated. The most vibration-intensive piece of equipment proposed for waterline construction is an excavator. An excavator is anticipated to produce vibration levels similar to those of a large bulldozer, which can produce a PPV of 0.089 in/sec at 25 feet, as shown in Table 3.4-2, presented previously. The Open Mind School and the Eternal Life Church would be the closest sensitive land uses to waterline construction. The school and the church would both be approximately 65 feet from the closest portions of the waterline construction areas. At that distance, the vibration level from an excavator would have a PPV of approximately 0.021 in/sec, which would be less than the applicable damage threshold for a modern building (i.e., PPV of 0.5 in/sec for "modern industrial buildings") such as the Open Mind School or the Eternal Life Church. This vibration level would also be below the "strongly perceptible" Caltrans threshold for annoyance (i.e., PPV of 0.1 in/sec). In addition, the estimated vibration level would also be below the allowable vibration levels described in Mitigation Measure NOISE-2a for an office (i.e., PPV of 0.063 in/sec), a workshop (i.e., PPV of 0.126 in/sec), and a residence during daytime hours (i.e., PPV of 0.032 in/sec).

With regard to the nearest residences, waterline construction could occur as close as 210 feet from the nearest residences west of Willow Road. At that distance, vibration levels from a large excavator could have a PPV as high as 0.004 in/sec. The homes are most likely similar to an "older residential structure," as defined in the Caltrans damage criteria, above. The Caltrans vibration-induced damage threshold for older residential structures is a PPV of 0.3 in/sec. Estimated vibration levels from waterline construction would be below this threshold. The estimated vibration levels would also be lower than the Caltrans "strongly perceptible" threshold (i.e., PPV of 0.1 in/sec) at the nearest residences. Furthermore, when considering the thresholds described in ConnectMenlo EIR Mitigation Measure NOISE-2a, vibration from waterline construction would also be below the allowable daytime level (i.e., PPV of 0.032 in/sec) and allowable nighttime level (i.e., PPV of 0.016 in/sec) for residential land uses.

Vibration Conclusion

The vibration-related annoyance and damage analysis above demonstrates that vibration levels from construction on the Project site and construction of the offsite waterline components of the Proposed Project would be below the typically applied Caltrans criteria for damage and annoyance and below the ConnectMenlo EIR threshold defined in Mitigation Measure NOISE-2a, which includes guidelines for vibration-induced damage to the nearest structures, schools, and residences. It also shows that vibration levels from development of the Proposed Project as well as the waterline would be below the Caltrans vibration-induced annoyance guidelines of "distinctly perceptible" (i.e., PPV of 0.1 in/sec) for the nearest schools and residences.

The physical conditions, as they relate to Project-specific vibration impacts, have not changed substantially in the ConnectMenlo EIR study area since preparation of the ConnectMenlo EIR. The Proposed Project would not result in a substantial change in the ConnectMenlo project, change in circumstances, or new information of substantial importance that shows more significant effects than those originally analyzed in the ConnectMenlo EIR; therefore, there would be no new specific effects as a result of the Proposed Project. Impacts from construction vibration would be ***less than significant***, and no mitigation measures would be required. No further analysis is required.

Cumulative Impacts

Impact C-NOI-1: Cumulative Substantial Temporary or Permanent Increase in Noise. The Proposed Project in combination with other foreseeable projects would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies. (LTS/M)

Construction Noise

Construction noise is a localized impact that decreases as distance from the noise source increases. In addition, intervening features (e.g., buildings) between construction areas and nearby noise-sensitive uses result in additional noise attenuation by providing barriers that break the line of sight between noise-generating equipment and sensitive receptors. These barriers can block sound wave propagation and somewhat reduce noise at a given receiver.

Although most Project construction activities would occur during the exempt daytime hours of 8:00 a.m. to 6:00 p.m., some Project construction activities may occur during the non-exempt hours of 7:00 a.m. to 8:00 a.m. In addition, construction during daytime hours would have the potential to result in temporary increases in noise over the ambient level, even though the direct Project analysis above determined that a 10 dB increase over ambient at nearby noise-sensitive uses would be unlikely.

Most construction for nearby cumulative projects would probably occur during the daytime exempt hours. Construction noise impacts from the Proposed Project and cumulative projects that occur during exempt daytime hours would not conflict with the Menlo Park Municipal Code. However, construction noise from the Proposed Project could combine with construction noise from other nearby projects and result in greater noise levels at a given receiver than would be experienced from construction of one project. Therefore, although the Proposed Project is not expected to result in direct significant construction noise impacts during daytime hours, cumulative construction noise during daytime hours could be significant. In addition, construction of the Proposed Project and cumulative projects that takes place during non-exempt hours could combine to expose a given receptor to greater noise levels than those that would be experienced from construction of one project alone and could exceed the allowable daytime noise level of 60 dBA L_{eq} between 7:00 a.m. and 8:00 a.m. or 50 dBA L_{eq} before 7:00 a.m. at nearby noise-sensitive land uses.

Because construction noise from cumulative projects during daytime or nighttime hours could combine and expose individual receptors to greater overall noise levels (potentially in excess of thresholds), cumulative construction-related noise impacts during daytime and non-daytime hours would be considered significant. During daytime hours, Project construction noise alone is not expected to result in a 10 dB increase over ambient; however, depending on other cumulative projects undergoing construction concurrently, the Project could result in a cumulatively considerable contribution to a

cumulative 10 dB increase over ambient before mitigation. In addition, because Project construction noise alone could exceed the 50 and 60 dBA thresholds during non-exempt hours at nearby noise-sensitive land uses, the Project's contribution to the cumulative construction noise impact during non-daytime hours could also be cumulatively considerable before mitigation.

ConnectMenlo EIR Mitigation Measure NOISE-1c would be required for all projects, ensuring that construction activity would comply with the Menlo Park Municipal Code and regulations pertaining to construction noise. However, some cumulative projects may require construction outside exempt daytime hours. In addition, construction noise impacts for some projects may not be reduced to less-than-significant levels with implementation of mitigation. Therefore, cumulative impacts related to construction noise would be potentially significant. Regarding the Project's contribution to this cumulative impact, compliance with ConnectMenlo Mitigation Measure NOISE-1c and Project Mitigation Measure NOI-1 would reduce the Project's contribution to the cumulative construction noise impact. Specifically, in addition to limitations on concurrent use of equipment, through the use of noise barriers, along with implementation of measures defined in a Project-specific construction noise control plan, the Project contribution to the cumulative noise impact would be ***less than cumulatively considerable.***

Traffic Noise

To determine potential cumulative noise impacts in the area as a result of the Proposed Project, vehicular traffic volumes from the existing scenario were compared to the cumulative (with-Project) scenario. For vehicular traffic noise impacts in areas where the existing and resulting noise levels (under cumulative conditions) do not exceed the "normally acceptable" land use compatibility standard, an increase of more than 5 dB is considered a significant cumulative traffic noise increase. In areas where the existing or resulting noise levels (under cumulative conditions) do exceed the "normally acceptable" level, based on the land use compatibility chart, a 3 dB or larger increase from existing to cumulative plus-Project conditions is considered a significant cumulative traffic noise increase. Estimates of traffic volumes for existing (no-Project) and cumulative plus-Project conditions were based on the ratio analysis methodology described previously. For example, a doubling of traffic (e.g., from 100 to 200 vehicles on a given segment) would result in a 3 dB change in the noise level.

Table 3.4-14 shows the ratio analysis results for roadway segments that would experience at least an approximate doubling of traffic volumes from existing to cumulative plus-Project conditions. Cumulative increases from existing to cumulative plus-Project conditions would be between 95 and 7,000 percent, or more, for the segments highlighted below in Table 3.4-14, resulting in an increase from existing to cumulative plus-Project conditions that would be between 3 and 18.1 dB. Therefore, because an increase of more than 3 dB would occur along some roadway segments, cumulative traffic noise impacts would be considered significant.

Although traffic from cumulative development with the Project could increase noise by up to 18.8 dB, most of that would come from the other development; the Project itself would contribute only a small amount to this total dB change. The Project contribution to all of the aforementioned increases can be determined by conducting a ratio analysis of cumulative no-Project and cumulative plus-Project conditions. As shown in Table 3.4-14, the largest Project-related traffic increase from cumulative no-Project to cumulative plus-Project conditions (i.e., Project contribution to a cumulative impact) would be 7 percent on one road segment, correlating to an increase of approximately 0.3 dB. Project-related increases in the cumulative condition would be much less than 3 dB for all analyzed segments. Therefore, although significant cumulative traffic noise impacts were identified, the Project contribution to cumulative traffic noise impacts would not be considerable on any roadway segment. Cumulative impacts would be ***less than significant***.

Table 3.4-14. Traffic Volume Increases Associated with Project Trips

Roadway Segment	Average Daily Traffic Volumes: Existing (2019) ADT	Average Daily Traffic Volumes: Cumulative ADT	Average Daily Traffic Volumes: Cumulative Plus Project ADT	Traffic Increase (%) from Existing to Cumulative plus Project	Cumulative Noise Increase (Existing vs. Cumulative plus Project)	Percentage Traffic Increase from Cumulative to Cumulative plus Project	Noise Increase (dB) from Project Contribution (Cumulative vs. Cumulative plus Project)
Adams Drive West of University Avenue	2,640	5,930	6,355	141%	3.8	7%	0.3
Hamilton Avenue West of Willow Road	2,600	5,060	5,070	95%	2.9	0%	0.0
Ivy Drive West of Willow Road	1,915	4,480	4,525	136%	3.7	1%	0.0
Durham Street East of Willow Road	1,300	2,965	2,965	128%	3.6	0%	NA
Gilbert Avenue West of Willow Road	1,635	3,805	3,805	133%	3.7	0%	NA
Driveway North of Donohoe Street	35	2,640	2,640	7,443%	18.8	0%	NA

Source: Hexagon Transportation Consultants Inc.—email to Kirsten Chapman of ICF. Refer to Appendix 3.4.

Note:

Daily traffic volumes have been calculated by adding the a.m. and p.m. peak-hour volumes together and multiplying by a factor of 5, based on guidance from the traffic engineer who evaluated the Proposed Project.

Impact C-NOI-2: Cumulative Vibration Effects. The Proposed Project in combination with other foreseeable projects would not expose persons to or generate excessive ground-borne vibration or ground-borne noise levels (LTS)

With regard to potential building damage or annoyance from construction vibration, the evaluation of the potential for vibration-related impacts to occur is based on PPV, which is a measure of peak vibration levels. Because PPV is a measure of the instantaneous vibration level rather than an average, such as the vibration velocity level, worst-case ground-borne vibration levels from construction are generally determined by whichever individual piece of equipment generates the highest vibration levels at the affected building(s) or sensitive land uses. Vibration from multiple construction sites, even if they are close to one another, would not be expected to combine to raise the maximum PPV. For these reasons, there would be no combined vibration-related impacts from multiple construction projects occurring nearby and concurrently, beyond the levels that would be assessed as direct impacts from each site. Cumulative vibration impacts related to annoyance and damage would be ***less than significant***.

3.5 Population and Housing

This section provides background information regarding existing and projected population, employment, and housing conditions in Menlo Park. In addition, it estimates changes to the city's demographics that would result from the Proposed Project. The analysis is based on population, employment, and housing data published by the Association of Bay Area Governments (ABAG) and Metropolitan Transportation Commission (MTC),[1] incorporating buildout assumed under the General Plan and M-2 Area Zoning Update (ConnectMenlo) as well as demographic information from the Demographic Research Unit of the California Department of Finance (DOF), the U.S. Census Bureau, and the 2015–2023 Housing Element of the City of Menlo Park (City) General Plan. The analysis also incorporates information from the Housing Needs Analysis (HNA) for the Proposed Project prepared by Keyser Marston Associates (Appendix 3.5).[2] Although not required by the California Environmental Quality Act (CEQA), the HNA was prepared pursuant to the terms of the settlement agreement between the cities of Menlo Park and East Palo Alto (refer to Chapters 1 and 3 for additional discussion). The information in the HNA is used to provide context for the evaluation of potential impacts of the Proposed Project related to population and housing as well as information to decision-makers during the entitlement process.

The purpose of this section is to characterize the potential for Proposed Project–induced population, housing, and employment changes to trigger physical environmental effects; these potential environmental impacts are examined further in other sections of this environmental impact report (EIR) (e.g., Sections 3.1, *Transportation and Traffic*; 3.2, *Air Quality*; and 3.4, *Noise*).

Issues identified in response to the Notice of Preparation (NOP) (Appendix 1-2) were considered in preparing this analysis. The comments pertained to preparing an HNA and mitigating housing impacts, should they occur.

Existing Conditions

Environmental Setting

The following discussion provides a basic foundation for understanding population and housing issues within Menlo Park as well as the region. The information presented in this section is based on data, research, and growth projections drawn from census data, the HNA prepared for the Proposed Project, and ABAG's Plan Bay Area Projections 2040.

Population

Menlo Park is in the southern portion of San Mateo County and bounded by the San Francisco Bay to the north, East Palo Alto to the east, Palo Alto to the east and south, Woodside and the Portola Valley to the southwest, and Redwood City to the west. The city encompasses approximately 19 square miles, including nearly 12 square miles of San Francisco Bay and wetlands. The city's jurisdictional population was estimated to be 35,254 as of January 1, 2020. The California DOF estimates that the city currently averages

[1] Association of Bay Area Governments and Metropolitan Transportation Commission. 2018. *Plan Bay Area Projections 2040*. November.

[2] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment, 1350 Adams Court Project*. July.

approximately 2.64 persons per household (pph).[3] Table 3.5-1 presents population estimates and projections for 2020 through 2040[4] pertaining to Menlo Park (sphere of influence),[5] San Mateo County, and the Bay Area (i.e., Marin, Sonoma, Napa, Solano, Contra Costa, Alameda, Santa Clara, San Mateo, and San Francisco Counties). The data indicate that population growth in Menlo Park from 2020 to 2040 (23.3 percent) will be greater than that of the county and the Bay Area as a whole (about 15.0 and 21.9 percent, respectively).[6]

Table 3.5-1. Population Trends in Menlo Park, San Mateo County, and the Bay Area, 2020–2040

	2020	2030	2040	Growth (2020–2040)
Menlo Park	44,530	52,865	54,920	10,390 (23.3%)
San Mateo County	796,925	853,260	916,590	119,665 (15.0%)
Bay Area	7,920,230	8,689,440	9,652,950	1,732,720 (21.9%)

Source: ABAG and MTC, 2018.

Housing

According to the California DOF, the estimated number of housing units in the city (jurisdictional boundary) as of January 1, 2020, was 14,082, with an average household size of 2.64 pph and a vacancy rate of 7.1 percent.[7] Table 3.5-2 presents ABAG projections for households in the Bay Area, the county, and the city between 2020 and 2040. According to ABAG, the number of households in the county is projected to grow from approximately 284,260 in 2020 to 317,965 in 2040, an increase of approximately 11.9 percent. The number of households in the city is projected to grow from approximately 15,390 in 2020 to 17,680 in 2040, an increase of approximately 14.9 percent. Overall, the household growth rate in the city (14.9 percent) is expected to be greater than the household growth rate for the county (11.9 percent) but less than that of the Bay Area as a whole (18.9 percent).[8]

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3 California Department of Finance. 2020. *E-5 City/County Population and Housing Estimates*. Table 2. Available: https://dof.ca.gov/Forecasting/Demographics/Estimates/E-5/php. Accessed: March 24, 2021.

4 Full buildout of the Proposed Project is expected to occur in 2023. However, consistent with full buildout of ConnectMenlo by 2040, this analysis compares the Proposed Project with the projections for 2040. In addition, the ABAG projections assume that the majority of the ConnectMenlo growth would occur between 2035 to 2040. Therefore, to account for all growth under ConnectMenlo in the ABAG projections, the horizon year of 2040 is used in this analysis.

5 Several additional unincorporated areas adjoining the city are recognized as being within the city's sphere of influence and, therefore, included in the City General Plan. In California, *sphere of influenc*e has a legal meaning (i.e., a plan for the probable physical boundaries and service area of a local agency). Spheres of influence at California local agencies are regulated by Local Agency Formation Commissions that recognize the unincorporated communities that would be best and most likely served by the city agencies. Hence, the spheres of influence represent areas with the greatest potential for annexation by a city. In most cases, ABAG provides more detailed demographic and employment projections for a city's sphere of influence than for small cities such as Menlo Park. Consequently, unless otherwise specifically noted, all city data represent the city sphere of influence because only limited demographic data are available for the city's incorporated area. The sphere of influence designation for the city includes unincorporated West Menlo Park, Stanford Weekend Acres, Menlo Oaks, as well as the Stanford Linear Accelerator Center. With the exception of the Stanford Linear Accelerator Center, these areas are zoned residential and substantially developed. All ABAG projections in this section for the city include the sphere of influence.

6 Association of Bay Area Governments and Metropolitan Transportation Commission. 2018. *Plan Bay Area Projections 2040*. November.

7 California Department of Finance. 2020. *E-5 City/County Population and Housing Estimates*. Table 2. Available: ttps://dof.ca.gov/Forecasting/Demographics/Estimates/E-5/php. Accessed: March 24, 2021.

8 Association of Bay Area Governments and Metropolitan Transportation Commission. 2018. *Plan Bay Area Projections 2040*. November.

Table 3.5-2. Household Trends in Menlo Park, San Mateo County, and the Bay Area, 2020–2040

	2020	2030	2040	Growth (2020–2040)
Menlo Park	15,390	17,265	17,680	2,290 (14.9%)
San Mateo County	284,260	302,520	317,965	33,705 (11.9%)
Bay Area	2,881,965	3,142,015	3,426,700	544,735 (18.9%)

Source: ABAG and MTC, 2018.

Housing prices in the Bay Area are among the highest in the country, and San Mateo County has several of the most expensive residential communities in the Bay Area. Menlo Park is one of the more desirable communities in the county; as a result, home prices in the city exceed county levels. The median single-family home price in Menlo Park from December 2019 through December 2020 was $2.35 million.[9] This represents an almost 50 percent increase since 2012 when the median single-family home price in Menlo Park was approximately $1.47 million.[10]

Employment

The employment profile for an area provides an indication of the composition of an area's economy as well as present and future demand for employees. Employment growth is an important driver of housing demand, both at the local level and regionally. Employment growth over the past several years has most likely contributed to significant upward pressure on the housing market, as evidenced in rent and housing price increases.

The county is a productive economic area, which is led by technology, bioscience, and service industries. According to the HNA, the county averages approximately 1.91 employees per worker household.[11] Approximately 66 percent of Menlo Park residents aged 16 and older were in the work force in 2020, slightly lower than the county rate (69 percent) but higher than the state rate (63 percent). Most city residents who are in the workforce are in management, business, science, or art-related occupations (69 percent), which is significantly higher than the county rate (47 percent) and the state rate (38 percent). The next most common employment categories for the city are sales and office occupations (14 percent), followed by service occupations (11 percent).[12]

The county was negatively affected by the housing mortgage/financial crisis of late 2008. However, between 2010 and 2019, approximately 591,000 jobs were added in San Mateo, Santa Clara, and San Francisco Counties. More than half of the total job growth occurred in high-wage sectors, which are generally defined as professions where average annual employee compensation is above $100,000 (as of 2016). Over the past decade, high-wage industries posted an annual job growth rate of 4.6 percent, versus 3.4 percent for all industries. The job growth rate for the longer period from the peak of the previous boom in 2000 until 2019 is less because of the significant job losses between 2000 and 2004, which offset the more recent job growth. The 2020 economic recession, caused by the coronavirus pandemic, eliminated a portion of the jobs added over the past decade. Although data for the full year are not yet

[9] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment, 1350 Adams Court Project*. July.
[10] City of Menlo Park. 2014. *City of Menlo Park General Plan, 2015-2023 Housing Element*. April 14.
[11] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment, 1350 Adams Court Project*. July.
[12] Association of Bay Area Governments and Metropolitan Transportation Commission. 2018. *Plan Bay Area Projections 2040*. November.

available,[13] data for the first half of 2020 show a significant decline in total employment in the three-county area. In the second quarter of 2020, total employment in the three-county area declined by 12 percent in all sectors and 3 percent in high-wage sectors compared with the prior quarter.[14]

Because the full effects of the coronavirus pandemic are currently unknown, this analysis uses the most recent projection forecasts. Plan Bay Area Projections 2040 predicts steady employment growth between 2020 and 2040 for the city, county, and Bay Area as a whole. The following table presents ABAG employment projections, which are used throughout the analysis presented below.

As indicated in Table 3.5-3, the ABAG projections for 2020 to 2040 show a steady increase in employment in the Bay Area (13.6 percent). Both the county (18.2 percent) and the city (16.6 percent) show higher projected employment rates than the Bay Area in general.

Table 3.5-3. Employment Trends in Menlo Park, San Mateo County, and the Bay Area, 2020–2040 (Total Number of Jobs)

	2020	2030	2040	Growth (2020–2040)
Menlo Park	36,410	37,195	42,475	6,065 (16.6%)
San Mateo County	399,415	423,005	472,340	72,770 (18.2%)
Bay Area	4,136,190	4,405,125	4,698,375	562,185 (13.6%)

Source: ABAG and MTC, 2018.
Note: ABAG projections for 2040 incorporate full buildout of ConnectMenlo and the Facebook Campus expansion.

Table 3.5-4 compares the projected number of employed residents in the city with the projected number of jobs available in the city. According to ABAG projections, the number of employed residents in the city is currently 62.4 percent of the number of jobs in the city. In the next 20 years, the number of employed residents is expected to remain relatively constant, decreasing only slightly to 61.7 percent.[15]

Table 3.5-4. Comparison of Number of Jobs to Employed Residents in Menlo Park, 2020–2040

	2020	2040
Jobs[a]	36,410	42,475
Employed Residents[a]	22,735	26,205
Percent of Employed Residents to Total Number of Jobs	62.4	61.7

Source: ABAG and MTC, 2018.
Note:
a. The number of jobs and employed residents is based on the city's sphere of influence, which also includes unincorporated areas of San Mateo County.

The average median income (AMI) in San Mateo County for a family of four is approximately $171,700. Because the city's housing prices are high, many people who work in the city cannot afford to live in the city. Consequently, people who work in the community often must commute long distances. To afford the median-price home in the city ($2.35 million), a family would need to make more than $384,600

[13] Employment data for the second half of 2020 were not yet available from the Quarterly Census of Employment and Wages in early 2021 when the HNA for the Proposed Project was prepared.

[14] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment, 1350 Adams Court Project*. July.

[15] Association of Bay Area Governments and Metropolitan Transportation Commission. 2018. *Plan Bay Area Projections 2040*. November.

annually.[16] The difference between what the workforce and the community can pay for housing, based on household income and the prices for homes in the community, is referred to as an *affordability gap*.[17] In addition, housing production has not kept pace with job growth in San Mateo County and adjacent counties. The ratio of jobs to housing units has steadily increased in San Mateo, Santa Clara, and San Francisco Counties since 2010 when the ratio was approximately 1.35. In 2019, the jobs/housing ratio for the three counties averaged approximately 1.75. This imbalance is a major factor in the increase in housing prices and rents.[18]

According to the U.S. Census Bureau 2015–2019 American Community Survey (ACS), 5.9 percent of those who currently work in Menlo Park also live in Menlo Park. That number has declined since the 2000 census, which showed that 7.2 percent of those who worked in Menlo Park lived in Menlo Park. This percentage is low compared with most other cities in the Bay Area and attributable to a range of factors, such as affordability constraints, which already limit a worker's ability to find housing within the city, and the large number of jobs in Menlo Park relative to the housing stock. Another contributing factor is the location and boundary configuration of the city, making many other jurisdictions within a short commute.[19]

The Project site[20] is within the existing Menlo Park Labs Campus, which is occupied by research-and-development (R&D) tenants. The percentage of current Menlo Park Labs Campus workers who live in Menlo Park is estimated at 3.8 percent, significantly below the overall average of 5.9 percent for those who both live and work in the city, per the U.S. Census Bureau. This variance in commute patterns very likely reflects the accessibility of the Menlo Park Labs Campus location. The Dumbarton Bridge and US 101, as well as shuttle services to San Francisco, Caltrain, and Bay Area Rapid Transit (BART), make it more conducive to commuting for the regional labor pool. Furthermore, many factors influence how people select a place to live, including, but not limited to, weather, family, community and cultural factors, housing affordability, quality of schools, access to employment, and unit type.[21]

Regulatory Setting

State

State Housing Element Law. The Regional Housing Needs Allocation (RHNA) is a process established under the State Housing Element Law that requires cities in California to plan for future development of new housing units to meet their share of regional housing needs. Housing needs for each region in the state are determined by the State Department of Housing and Community Development and submitted to Councils of Government for allocation to local jurisdictions. ABAG is ultimately responsible for determining the share of the regional housing need to be met by each city in the Bay Area. State Housing Element Law has established three housing affordability categories. The categories are based on the region's median income and take into account household sizes ranging from one to six people. The three affordability categories used by ABAG in allocating regional housing needs are:

[16] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment, 1350 Adams Court Project*. July.
[17] City of Menlo Park. 2014. *City of Menlo Park General Plan, 2015-2023 Housing Element*. April 1.
[18] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment, 1350 Adams Court Project*. July.
[19] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment, 1350 Adams Court Project*. July.
[20] The Project site includes Lot 3 North and 1305 O'Brien Drive, which are in the same legal parcel. The building at 1305 O'Brien Drive is currently leased by PacBio and includes employees working onsite. However, because the Proposed Project would not alter the existing building at 1305 O'Brien Drive or the number of employees within, this analysis includes only the net new employees added at Lot 3 North.
[21] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment, 1350 Adams Court Project*. July.

- Very Low: 0 to 50 percent of the area's median income
- Low: 50 to 80 percent of the area's median income
- Moderate: 80 to 120 percent of the area's median income

The current RHNA, adopted in December 2021, identifies housing needs for the 2023 to 2031 planning period. As shown in Table 3.5-5, ABAG determined that 2,946 units (defined by income category) is Menlo Park's fair share of the regional housing need for the 2023 to 2031 period.[22] The City updated its Housing Element in April 2014 and is currently in compliance with respect to designating enough appropriately zoned land to accommodate its allocated housing units for the 2014–2022 RHNA reporting period. However, with adoption of the 2023–2031 RHNA, which incorporates the Plan Bay Area 2050, the City is in the process of updating the Housing Element for the current RHNA cycle. The 2023–2031 Housing Element will be submitted to the State Department of Housing and Community Development by January 2023.[23]

Table 3.5-5. ABAG Regional Housing Need Allocation for 2023–2031

Income Level	Menlo Park Need	Regional Need
Very Low	740	114,442
Low	426	65,892
Moderate	496	72,712
Subtotal of Affordable Units	*1,662*	*253,046*
Above Moderate[a]	1,284	188,130
Total	**2,946**	**441,176**

Source: ABAG, 2021.

Notes:

a. Above Moderate: Households with incomes greater than 120 percent of county median family income. ABAG does not use the Above Moderate category. This category is included in the RHNA and the analysis below to provide decision-makers with more information regarding housing impacts for a broad spectrum of the new worker households associated with the Proposed Project.

Sustainable Communities Strategy and Senate Bill 375. Senate Bill (SB) 375, adopted in 2008, requires preparation of a Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan (RTP) for the Bay Area. Plan Bay Area, the first SCS for the region, was jointly approved in July 2013 by ABAG and the MTC. Plan Bay Area 2040, an updated SCS for the region, was jointly approved in July 2017 by ABAG and MTC. Plan Bay Area 2040 was the strategic update to the original Plan Bay Area, approved in 2013, which represented a transportation and land use/housing strategy for how the Bay Area will address its transportation mobility and accessibility needs, land development issues, and greenhouse gas emissions reduction requirements through 2040. Plan Bay Area 2040 builds on earlier work to develop an efficient transportation network, provide more housing choices, and grow in a financially and

[22] Association of Bay Area Governments. 2021. *Regional Housing Need Plan for the San Francisco Bay Area: 2023–2031*. May. Available: https://abag.ca.gov/sites/default/files/documents/2021-12/Final_RHNA_Allocation_Report_2023-2031-approved_0.pdf. Accessed: February 14, 2022.

[23] City of Menlo. 2021. *Notice of Preparation of an Environmental Impact Report for Updates to the City of Menlo Park General Plan Sixth Cycle Housing Element Update, Safety Element Update, and a New Environmental Justice Element and Announcement of a Public Scoping Meeting*. Available: https://beta.menlopark.org/files/sharedassets/public/community-development/documents/projects/housing-element-update-nop.pdf. Accessed: February 14, 2022.

environmentally responsible way. SB 375 requires the RHNA to be consistent with the SCS and establishes an 8-year cycle for the RHNA. The 2014–2022 RHNA has been incorporated into Plan Bay Area and Plan Bay Area 2040.

Plan Bay Area 2050 was adopted in October 2021 and focuses on four key issues: the economy, the environment, housing, and transportation. This new regional plan outlines strategies for growth and investment through 2050 while simultaneously striving to meet or exceed federal and state requirements.[24] The 2023–2031 RHNA has been incorporated into Plan Bay Area 2050.

Regional

Jobs Housing Connection Strategy Methodology for 2013–2040, Plan Bay Area. The Jobs Housing Connection Strategy was adopted by ABAG and MTC as part of Plan Bay Area in July 2013. The Jobs Housing Connection Strategy reflects the preferred land use pattern, which was selected from a series of land use alternatives and based on input from the public, cities and counties, and transportation agencies. The preferred scenario aims to concentrate growth near transit-served employment centers in the inner Bay Area. For the SCS, the methodology used for assigning household growth to local jurisdictions considered multiple factors, including housing development capacity, base housing unit growth, vehicle miles traveled/transit service adjustments, as well as other growth factors.

Local

City of Menlo Park General Plan. All California cities and counties are required to include a Housing Element in their general plans that establishes housing objectives, policies, and programs in response to community housing conditions and needs. The City updated and adopted its Housing Element on April 1, 2014, which was prepared to respond to current and near-term future housing needs in Menlo Park. The Housing Element is currently expected to be updated and finalized in 2023 to reflect the upcoming RHNA cycle.[25] The Housing Element also provides a framework for the community's longer-term approach to addressing its housing needs. The Housing Element contains goals, updated information, and strategic directions (policies and implementing actions) that the City is committed to undertaking.[26]

State Housing Element Law requires the general plan of a city to have an updated Housing Element that provides for a specified number of housing units, based on an allocation of regional housing needs. The allocation process is now set to occur every 8 years, as discussed above. ABAG is responsible for the allocation in the Bay Area; however, San Mateo County has taken advantage of an option to manage its own "sub-regional" allocation process.

[24] Association of Bay Area Governments and Metropolitan Transportation Commission. 2021. *Plan Bay Area 2050.* Available: https://www.planbayarea.org/sites/default/files/documents/Plan_Bay_Area_2050_October_2021.pdf. Accessed: March 24, 2022.

[25] City of Menlo. 2021. *Notice of Preparation of an Environmental Impact Report for Updates to the City of Menlo Park General Plan Sixth Cycle Housing Element Update, Safety Element Update, and a New Environmental Justice Element and Announcement of a Public Scoping Meeting*. Available: https://beta.menlopark.org/files/sharedassets/public/community-development/documents/projects/housing-element-update-nop.pdf. Accessed: February 14, 2022.

[26] City of Menlo Park. 2014. *City of Menlo Park General Plan, 2015–2023 Housing Element*. April 1, 2014.

The following policies within the Housing Element of the City's General Plan are relevant to the Proposed Project:

Policy H1.7: Local Funding for Affordable Housing. Seek ways to reduce housing costs for lower-income workers and people with special needs by developing ongoing local funding resources and continuing to utilize other local, state, and federal assistance to the fullest extent possible. The City will also maintain the below-market-rate (BMR) housing program requirements for residential and nonresidential developments.

Policy H4.10: Inclusionary Housing Approach. Require residential developments involving five or more units to provide units or an in-lieu fee equivalent for very low-, low-, and moderate-income housing. The units provided through this policy are intended for permanent occupancy and must be deed restricted, including, but not limited to, single-family housing, multi-family housing, condominiums, townhouses, or land subdivisions. In addition, the City will require larger nonresidential developments, as job generators, to participate in addressing housing needs in the community through the City's commercial in-lieu fee requirements.

ConnectMenlo. ConnectMenlo, which updated the Land Use Element and Circulation Element of the Menlo Park General Plan, was adopted in November 2016. The following goal and policy from ConnectMenlo are most relevant to the Proposed Project:[27]

Policy LU-4.1: Priority Commercial Development. Encourage emerging technology and entrepreneurship, and prioritize commercial development that provides fiscal benefit to the city, local job opportunities, and/or goods or services needed by the community.

Policy LU-4.4: Community Amenities. Require mixed-use and nonresidential development of a certain minimum scale to support and contribute to programs that benefit the community and the city, including education, transit, transportation infrastructure, sustainability, neighborhood-serving amenities, child care, housing, job training, and meaningful employment for Menlo Park youth and adults.

Environmental Impacts

This section describes the impact analysis related to population and housing for the Proposed Project. It describes the methods used to determine the impacts of the Proposed Project and lists the thresholds used to conclude whether an impact would be significant. A summary of the ConnectMenlo EIR impacts and mitigation measures is then provided. As previously discussed in Chapter 1, *Introduction*, the analysis below makes reference to, and tiers from, the ConnectMenlo Final EIR, where appropriate. This section identifies potential impacts of the Proposed Project and, if necessary, any mitigation measures.

Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, the Proposed Project would have a significant effect if it would result in any of the conditions listed below.

- Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)
- Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere

[27] City of Menlo Park. 2016. *City of Menlo Park General Plan, Land Use and Circulation Elements.* November 29. Available: https://www.menlopark.org/DocumentCenter/View/15013/Land-Use-and-Circulation-Element_adopted-112916_final_figures?bidId=. Accessed: March 24, 2022.

Methods for Analysis

This analysis considers whether population and household growth would occur with implementation of the Proposed Project and whether this growth would be within the forecasts for the city and/or considered substantial with respect to remaining growth potential in the city. This section uses ABAG projections to analyze the impacts of the Proposed Project.

An HNA prepared by Keyser Marston Associates (Appendix 3.5) has been applied to the analysis in the EIR.[28] U.S. Census Bureau, U.S. Bureau of Labor Statistics, and California Employment Development Department data were used in preparation of the HNA. The HNA presents the anticipated housing needs associated with the Proposed Project. Issues related to both increased demand for housing and potential increased housing unit allocations are addressed. The HNA is part of a range of analyses that will be used in the decision-making and entitlement process for the Proposed Project. Preparation of the HNA is required under the terms of the 2017 settlement agreement between Menlo Park and East Palo Alto.

Indirect or secondary impacts are those that are caused by a project and later in time or farther removed in distance but still reasonably foreseeable. Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate (CEQA Guidelines, Section 15358[a][2]). Specifically, growth-inducing effects include the ways in which a project could foster economic or population growth or the construction of additional housing, either directly or indirectly. Projects that would remove obstacles to population growth (e.g., a major expansion of a wastewater treatment plant) might allow development to occur in an area that was not previously considered feasible for development because of infrastructure limitations (CEQA Guidelines, Section 15126.2[d]). As such, indirect population growth is a secondary impact and considered below.

In translating the estimated number of Project employees into demand for an estimated number of housing units, the analysis in the HNA and this section considers multiple-earner households. Multiple-earner households have two or more workers and take on a variety of forms, such as roommates and housemates, couples, and multi-generational households. However, if an added employee lives in a household with one or more other workers, that added employee is not responsible for creating demand for an entire additional housing unit, only a portion of an additional unit. There is no implicit assumption in the workers-per-household calculation that Project workers would live with one another.

Multiple-earner households are a factor that must be recognized in the analysis, irrespective of where the other working members of the household are employed. Specifically, 1.91 workers per worker household, derived from U.S. Census Bureau data (2015–2019 ACS), is the average number of workers in each working household in San Mateo County.

Summary of Analysis in the ConnectMenlo EIR

As described in Chapter 1, *Introduction*, the ConnectMenlo EIR provided a program-level analysis of the development potential envisioned for the entire city, including the increased development potential in the Bayfront Area. The Land Use Element specifically identifies new development potential in the Bayfront Area of up to 2 million gross square feet (gsf) of non-residential space, 400 hotel rooms, and

[28] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment, 1350 Adams Court Project*. July.

4,500 residential units.[29] The ConnectMenlo EIR determined that, at full buildout, implementation of ConnectMenlo would result in an additional 11,570 residents, for a total citywide population of 50,350. With 5,500 new employees at full buildout, the citywide daytime population would be 53,250. This topic was analyzed in the ConnectMenlo EIR as Impact POP-1 (pages 4.11-5 to 4.11-18) and determined to be less than significant. Within the ConnectMenlo EIR study area, future development would be guided by the policy framework. No mitigation measures were recommended.

The ConnectMenlo EIR found that buildout of ConnectMenlo would not displace a substantial number of housing units or people, nor would it require the construction of replacement housing elsewhere. This topic was analyzed in the ConnectMenlo EIR as Impact POP-2 (pages 4.11-18 to 4.11-20) and POP-3 (page 4.11-20) and determined to be less than significant. Within the ConnectMenlo EIR study area, existing policies would ensure that adequate housing would remain and that the potential for any displacement of existing housing and people would be limited. No mitigation measures were recommended.

The ConnectMenlo EIR found that buildout of ConnectMenlo would result in a significant and unavoidable cumulative impact related to the direct and previously unplanned population growth in the area. Buildout of ConnectMenlo would result in population and housing levels that were not in alignment with ABAG's projections for 2013. However, the City found that future ABAG projections would take into account buildout of ConnectMenlo, and Menlo Park's growth would no longer contribute to a cumulative exceedance of regional projections. Since certification of the ConnectMenlo EIR, ABAG updated its population growth projections. The most recent regional projections, Plan Bay Area Projections 2040,[30] incorporate full buildout of ConnectMenlo.

Project Impacts and Mitigation Measures

Impact POP-1: Indirect Population Growth. The Proposed Project would not induce substantial population growth indirectly through job growth, nor would projected growth result in adverse direct impacts on the physical environment. (LTS)

The Proposed Project would include construction of 260,400 gsf of life science uses, which would generate new employees at the Project site. The Proposed Project would be built out by 2023, with full occupancy by 2025. In general, biotech and R&D uses require fewer employees than office uses of the same size. Although administrative areas within biotech and R&D companies generally have an employee density similar to that of a corporate office, the research and laboratory spaces have lower employee densities. It is estimated that approximately 650 employees would occupy the proposed new building at full buildout. Of the 650 new employees, it is expected that approximately 624 would be life science/R&D employees, while 26 would be dedicated to building services.[31] The number of employees in the 1305 O'Brien Drive building would not change as a result of the Proposed Project.

The additional 650 employees at the Project site would represent approximately 11.8 percent of the total 5,500 employees assumed under full buildout of ConnectMenlo. Therefore, the Proposed Project would be consistent with the intensity of development considered by ConnectMenlo and would not result in

[29] The ConnectMenlo Final EIR included an evaluation of 4,500 residential units in the Bayfront Area, consisting of 3,000 unrestricted residential units and 1,500 corporate dormitory-style housing units on the Facebook East Campus (also known as the Classic Campus).

[30] Association of Bay Area Governments and Metropolitan Transportation Commission. 2018. *Plan Bay Area Projections 2040.* November.

[31] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment, 1350 Adams Court Project*. July.

employment growth beyond that already analyzed in the ConnectMenlo EIR. Although the Proposed Project would not result in onsite residential population increases, the new employees could generate households within the city and the region, as discussed below.

Construction

Construction of the Proposed Project, including demolition, utility relocation, grading/excavation, building and parking structure construction, and finishing work, would temporarily increase construction employment. Given the relatively common nature and scale of the construction associated with the Proposed Project, the demand for construction employment would most likely be met within the existing and future labor market in the city and the county. The size of the construction workforce would vary during the different phases of construction. The maximum number of construction workers required for construction would be 150 to 250 per day. However, on average, approximately 150 workers would be at the Project site each day. Construction workers would be obtained primarily from Bay Area sources. Although some would commute from outside the Bay Area, because of the temporary nature of construction, these workers would not be expected to relocate permanently. Therefore, impacts related to indirect population growth during construction of the Proposed Project would be ***less than significant***.

Operation

Employment Growth. As shown in Table 3.5-3, above, ABAG estimates that the number of jobs in the city's sphere of influence will grow by approximately 6,065 between 2020 and 2040. Operation of the Proposed Project would generate up to 650 new jobs at full buildout. Therefore, the number of employees generated by the Proposed Project would represent approximately 10.7 percent of the anticipated employment growth in the city from 2020 to 2040, which is within anticipated employment growth forecasts.[32] Therefore, the number of employees generated by the Proposed Project would not exceed ABAG projections, and the Proposed Project would not result in an increase in city population or a demand for housing that would exceed ABAG projections, as explained in more detail below.

Indirect Population Growth. Operation of the Proposed Project would generate up to 650 new jobs at full buildout and occupancy. Using an average of 1.91 workers per work household in San Mateo County, the Proposed Project would generate the equivalent of approximately 341 households.[33] On average, approximately 5.9 percent of the city's workforce both work and reside in the city; however, only 3.8 percent of employees who currently work on the Menlo Park Labs Campus live in Menlo Park.[34] Using these numbers, the Proposed Project could result in approximately 13[35] to 20 new households[36] in the city. With an average pph ratio of 2.64, the Proposed Project could generate approximately 35 to 53 new residents within Menlo Park. As shown in Table 3.5-1, approximately 44,530 residents lived within the city's sphere of influence in 2020. According to ABAG projections, the population is projected to increase to approximately 54,920 by 2040 as 10,390 new residents move to the city over the 20 years

[32] The 650 employees generated by the Proposed Project/6,065 new jobs in the city between 2020 and 2040 × 100 = 10.7 percent of anticipated employment growth in the city's sphere of influence.

[33] 650 new jobs/1.91 workers per worker household = 341 total households.

[34] For informational purposes, the HNA also includes a goal-based commute share estimate of 20 percent, based on the 2000 nexus study. This would result in a demand for 68 housing units within the city. This is not reflective of existing conditions and therefore not analyzed further here. For more details, please refer to Appendix 3.5.

[35] 341 total households × 3.8 percent (Menlo Park Labs Campus average) = 13 households.

[36] 341 total households × 5.9 percent (city average) = 20 households.

between 2020 and 2040. The 53 new residents in the city as a result of the Proposed Project would represent approximately 0.5 percent of anticipated population growth in the city between 2020 and 2040.[37]

Housing Growth. As shown in Table 3.5-2, ABAG estimates that the number of households in the city's sphere of influence will grow by approximately 2,290 between 2020 and 2040. The Proposed Project could generate demand for up to 20 housing units in the city, assuming that 5.9 percent of employees would live in the city. Therefore, the Project-induced housing demand would equal approximately 0.9 percent of the anticipated housing growth in the city's sphere of influence from 2020 to 2040.[38]

The Proposed Project was considered as part of the growth analyzed in ConnectMenlo and accounted for in regional planning efforts and projections. Therefore, the induced housing demand associated with the Proposed Project in the city, county, and region was also accounted for. ConnectMenlo anticipates the construction of approximately 3,000 residential units. New residents induced by jobs at the Project site could be accommodated within this new construction. In addition, the current vacancy rate in the city, according to the California DOF, is 7.1 percent. This represents approximately 1,000 vacant units in the city.[39] The 13 to 20 housing units that would be needed to accommodate the new households generated by the Proposed Project could be accommodated by the vacant units. As such, the Proposed Project's demand for housing could be accommodated within the city's anticipated housing construction and/or vacant units.

Geographic Distribution of Housing Demand. The Proposed Project would generate a demand for 341 housing units in the region.[40] As stated above, it is anticipated that up to 5.9 percent of the employees generated by the Proposed Project would live in Menlo Park. The remaining employees would very likely find housing throughout the region, with the majority living in San Mateo, Santa Clara, and San Francisco Counties. It is anticipated that between 67 and 69 percent of the employees at the Project site would live in Santa Clara and San Mateo Counties (436 to 450 employees). The remaining workers are anticipated to commute from San Francisco and Alameda Counties. Approximately 7 percent would commute from other counties. The cities adjacent to Menlo Park are also expected to house potential employees, as follows:[41]

- East Palo Alto: 1.1 to 3.1 percent (eight to 21 employees)
- Palo Alto: 2.7 to 4.0 percent (18 to 26 employees)
- Atherton: 0.5 to 0.9 percent (four to six employees)
- Redwood City: 5.1 to 9.1 percent (32 to 60 employees)
- Woodside: 0 to 0.5 percent (zero to three employees)

ABAG projections are considered the benchmark for foreseeable housing growth (built housing) in each area. As shown in Table 3.5-2, ABAG projects that the number of households will grow by 18.9 percent in the Bay Area region, 11.9 percent in San Mateo County, and 14.9 percent in the city from 2020 to 2040.

[37] (up to 53 new residents in the city's sphere of influence/10,390 anticipated new residents in the city's sphere of influence between 2020 and 2040) × 100 = 0.5 percent of anticipated population growth in the city's sphere of influence.

[38] (20 units demanded by the Proposed Project/2,290 new households in the city's sphere of influence between 2020 and 2040) × 100 = 0.9 percent of anticipated housing growth in the city's sphere of influence.

[39] The 7.1 percent vacancy rate × 14,082 existing total housing units in the city as of January 1, 2020 = 1,000 vacant units in the city.

[40] The 650 employees at Project site/1.8 pph = 341 total units.

[41] Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment, 1350 Adams Court Project*. July.

For that same period, the indirect housing demand generated by the Proposed Project would be 0.06 percent of the projected household growth in the Bay Area and 1.0 percent of that in San Mateo County. On a regional basis, the Proposed Project's demand for housing would not represent a significant share of the total housing growth projected by ABAG.

Income Distribution of Housing Demand. Housing affordability is an important consideration for planning purposes. However, it is a socioeconomic issue and therefore not an environmental impact that is evaluated under CEQA. A shortfall in affordable units within the city is not considered a physical environmental impact. However, for informational purposes only, this subsection provides the distribution of indirect housing demand, according to affordability levels. This discussion is based on information from the HNA and RHNA.

Housing affordability is determined relative to the AMI for a locality, as defined by the U.S. Department of Housing and Urban Development (HUD).[42] Per HUD's definition, very low-income housing is affordable for households with incomes under 50 percent of the AMI, low-income housing is affordable for households with incomes between 51 and 80 percent of the AMI, moderate-income housing is affordable for households with incomes between 81 and 120 percent of the AMI, above moderate-income housing is affordable for households with incomes between 121 and 150 percent of the AMI, and upper-income housing is affordable for households with incomes greater than 151 percent of the AMI.

Employment growth generated by the Proposed Project would contribute to housing demand at various income levels. Table 3.5-6 provides a breakdown of the Proposed Project's indirect housing demand, according to projected household incomes. As shown, within the region, the Proposed Project would indirectly result in the demand for eight housing units for households with extremely low income levels, 24 housing units for households with very low income levels, 68 units for households with low income levels, 61 units for households with moderate income levels, 69 units for households with above-moderate income levels, and 111 units for households within the upper income levels. Table 3.5-6 also includes a breakdown of the estimated share of Menlo Park's total housing needs by income, using the conservative assumption that 5.9 percent of employees at the Project site would live in the city. As shown, approximately nine units would be needed for households with very low to moderate income levels, four units for households with above-moderate income levels, and seven units for households within the upper income levels.

Conclusion. The Proposed Project is an infill development within an already-developed area of the city. The employment growth, as well as indirect housing demand, under the Proposed Project is accounted for in ConnectMenlo and regional growth plans, such as ABAG projections. The Project site is well served by urban infrastructure, services, and transit. The Proposed Project would not induce a substantial level of unplanned population growth in the city, either directly or indirectly, resulting in ***less-than-significant*** impacts.

[42] According to the California Department of Housing and Community Development (FY 2021), the area median income in San Mateo County is $104,700 for one person, $119,700 for two people, $134,650 for three people, and $149,660 for four people.

Table 3.5-6. Number of New Households by Household Income Level in the Region and City

Income Category	Income Definition	Number of Households (City)	Number of Households (Region)[a]	% of Total
Extremely Low Income	0%–30% AMI	0	8	2.3%
Very Low Income	30%–50% AMI	1	24	7.0%
Low Income	50%–80% AMI	4	68	19.9%
Moderate Income	80%–120% AMI	4	61	17.9%
Above Moderate Income	120%–150% AMI	4	69	20.3%
Subtotal to 150% AMI		*13*	*230*	*67.4%*
Upper Income	More than 150% AMI	7	111	32.6%
Total		**20**	**341**	**100%**

Source: Keyser Marston Associates, 2021.

Note:

a. The region includes San Mateo County, Santa Clara County, Alameda County, San Francisco County, Contra Costa County, Santa Cruz County, Marin County, Napa County, and Sonoma County and the city of San Francisco. A small portion of the households generated by the Proposed Project would be located outside the region.

Impact POP-2: Displacement of People or Housing. The Proposed Project would not displace substantial numbers of people or housing, necessitating the construction of replacement housing elsewhere. (LTS)

The Project site (Lot 3 North) is currently vacant and has no existing uses. Therefore, the Proposed Project would not directly displace people or housing by demolishing housing units or an existing employment center. The displacement of housing units or residents is an appropriate subject for study under CEQA to the extent that a project would displace housing onsite and result in a need to construct replacement housing elsewhere. By itself, the possibility of a project resulting in economic displacement of existing residents represents a social and economic issue that would not be considered an impact on the physical environment, unless there is substantial evidence that economic displacement would result in reasonably foreseeable (i.e., not speculative) indirect physical effects that would require the construction of new housing. Therefore, for the purposes of CEQA, the Proposed Project would not result in the displacement of people or housing, resulting in a ***less-than-significant*** impact.

Consistent with the requirements of the 2017 settlement agreement, a displacement analysis[43] has been conducted for the Proposed Project. The displacement analysis, provided as Appendix 3.5 to this document, is provided for informational purposes and is not a requirement of CEQA; therefore, it is not summarized here. Please refer to Appendix 3.5 for an evaluation of the Proposed Project's potential to contribute to the displacement of existing residents as well as neighborhood change in two communities that are known to be vulnerable to displacement: East Palo Alto and the Belle Haven neighborhood of Menlo Park.

43 Keyser Marston Associates, Inc. 2021. *Housing Needs Assessment, 1350 Adams Court Project*. July.

Cumulative Impacts

The city represents the geographic context for cumulative analysis of the Proposed Project. This cumulative analysis examines the effects of the proposed development in the area in combination with other current projects, probable future projects, and projected future growth within the applicable geographic context, as forecast by ABAG and MTC. The identified cumulative development projects within the city (Table 3.0-1) would result in 3,321 dwelling units and 4,783,299 gsf of office/retail/commercial/life science/mixed uses.

Impact C-POP-1: Cumulative Indirect Population Growth. Proposed development in the city would contribute to population growth but would not exceed growth projections. (LTS)

Lot 3 North is currently vacant. It does not contain housing units or employee-generating uses. Therefore, the Proposed Project would not displace housing or people or require the construction of replacement housing elsewhere. Accordingly, under cumulative conditions, implementation of the Proposed Project also would not displace housing or substantial numbers of people or require the construction of replacement housing elsewhere. The Proposed Project would be consistent with the mix and intensity of development contemplated by ConnectMenlo. However, the ConnectMenlo EIR identified a significant and unavoidable impact and therefore adopted a Statement of Overriding Considerations related to population growth under the cumulative condition because the planning documents pertaining to regional growth did not include the new development potential of ConnectMenlo. However, subsequent to certification of the ConnectMenlo EIR, ABAG updated its growth projections (Plan Bay Area Projections 2040), which included full buildout of ConnectMenlo. Therefore, because the Proposed Project is within the scope of development anticipated by ConnectMenlo and ABAG's Plan Bay Area Projections 2040, the Proposed Project would result in a less-than-significant impact with respect to cumulative population growth. The Proposed Project would not result in any new or more significant impacts related to population growth under the cumulative condition than those that were previously identified in the ConnectMenlo Final EIR, and this impact would be ***less than significant***.

3.6 Utilities and Energy

This section describes the affected environment and regulatory setting related to the water supply and wastewater generation. It also describes the impacts on utilities, service systems, and energy that would result from implementation of the Proposed Project. Cumulative impacts are discussed at the end of this section. The analysis is based on information from the Menlo Park Municipal Water District (MPMWD) 2015[1] and 2020 Urban Water Management Plans (UWMPs)[2] and the Water Supply Assessment (WSA) for the Proposed Project prepared by West Yost (Appendix 3.6).[3] This analysis uses both the 2015 UWMP and the 2020 UWMP because the 2015 UWMP was in effect when the Notice of Preparation (NOP) for the Proposed Project was issued and it incorporated the General Plan and M-2 Area Zoning Update (ConnectMenlo) projections, which included buildout of the Proposed Project. The 2020 UWMP, however, includes the most up-to-date information; it became available during preparation of this environmental impact report (EIR) and was used to prepare the WSA for the Proposed Project.

The Initial Study prepared for the Proposed Project (Appendix 1-1) found the following impacts to be less than significant: construction or expansion of telecommunication infrastructure, construction or expansion of stormwater drainage facilities, and solid waste generation. Therefore, these topics were scoped out from further review in the EIR and are not discussed in detail in this section. Please refer to Appendix 1-1 for additional analysis.

One comment was received on the NOP (Appendix 1-2) pertaining to the water supply and water infrastructure in the Project area. This issue is addressed in this section.

Existing Conditions

Environmental Setting

Water Supply

The MPMWD provides water to approximately half of Menlo Park, which equates to about 18,276 residents in an area of approximately 9 square miles, through 4,296 service connections (as of 2020). The MPMWD service area is largely built out, with future growth trends principally due to redevelopment within the Bayfront Area. By 2040, the total population within the MPMWD service area is projected to increase to 30,184, a 65 percent increase from the current level. The City of Menlo Park (City) expects more than 40 percent of the projected population increase to occur within the next 5 years (2020 through 2025), based on approved and pending projects in the Bayfront Area (in accordance with the ConnectMenlo General Plan). The MPMWD service area includes areas outside the Bayfront Area; however, given the direction of growth in the ConnectMenlo General Plan toward land use changes within the Bayfront Area, most population growth in the MPMWD service area through 2040 is expected to occur in that geographic area.[4]

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1 City of Menlo Park. 2015. *Urban Water Management Plan for Menlo Park Municipal Water*.

2 City of Menlo Park. 2021. *2020 Urban Water Management Plan for Menlo Park Municipal Water*. Available: https://www.menlopark.org/DocumentCenter/View/28016/Draft-Urban-Water-Management-Plan. Accessed: June 21, 2021.

3 West Yost. 2022. *1350 Adams Court Project Water Supply Assessment*. Prepared for Menlo Park Municipal Water District. February.

4 Ibid.

The MPMWD purchases all of its water from the Regional Water System (RWS), operated by the San Francisco Public Utilities Commission (SFPUC). Approximately 85 percent of the water supplied to the RWS originates in the Hetch Hetchy watershed in Yosemite National Park. The water flows down the Tuolumne River and into Hetch Hetchy Reservoir. Water from the Hetch Hetchy watershed is managed through the Hetch Hetchy Water and Power Project (Hetch Hetchy Project). The Hetch Hetchy Project is composed of reservoirs, hydroelectric generation and transmission facilities, and water transmission facilities, from the Hetch Hetchy Valley west to the Alameda East Portal of the Coast Range Tunnel in Sunol Valley.

The reliability of the MPMWD's water supply is dependent upon its water supply contract with the SFPUC and its membership in the Bay Area Water Supply and Conservation Agency (BAWSCA), which represents the SFPUC's 26 wholesale customers and coordinates their water purchases and conservation programs in accordance with the November 2018 Amended and Restated Water Supply Agreement between the City and County of San Francisco and Wholesale Customers in Alameda, San Mateo, and Santa Clara counties, which was adopted in 2019. The term of the agreement is 25 years, beginning July 1, 2009, and expiring June 30, 2034. Per the agreement, MPMWD has an Individual Supply Guarantee (ISG) of 4.456 million gallons per day (mgd), or 1,630 million gallons per year (mgy), as supplied by the SFPUC RWS. Over the last 5 years (2016–2020), MPMWD has purchased between 52 and 66 percent of its ISG.

The remaining approximately 15 percent of the water supply to the RWS originates in the Alameda and Peninsula watersheds flows from the Alameda System and the Peninsula System. These systems generally consist of facilities west of the Alameda East Portal and include the 63,000-acre Alameda and Peninsula watersheds, storage reservoirs, two water treatment plants (WTPs), and a distribution system that delivers water to retail and wholesale customers. The current reliability of the MPMWD's water supply is largely dependent upon the reliability of the SFPUC's water supply.

The City does not own or operate a WTP. Although the Hetch Hetchy water source meets federal and state drinking water quality requirements without the need for filtration, it is secondarily disinfected with ultraviolet treatment at the SFPUC's Tesla Treatment Facility, constructed in 2011. All SFPUC water derived from sources other than Hetch Hetchy Reservoir is treated at one of two treatment plants, the Sunol Valley WTP or the Harry Tracy WTP. The Sunol Valley WTP treats primarily water from the Alameda System reservoirs. The Harry Tracy WTP in San Bruno filters and disinfects water supplied from the Peninsula System, including Crystal Springs Reservoir and San Andreas Reservoir.[5,6]

The Tesla Treatment Facility has the capacity to treat 315 mgd.[7] Recent construction at the Sunol Valley WTP increased the plant's peak capacity from 120 to 160 mgd.[8] The Harry Tracy WTP was renovated in 2015 to increase its capacity from 120 mgd to 140 mgd. A major part of the renovation was the construction of a new, seismically resistant 11.5-million-gallon reservoir for treated water, which is the only emergency water source available to the Peninsula.[9]

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5 Ibid.

6 Menlo Park Municipal Water District. 2021. *Menlo Park Municipal Water*. Available: https://www.menlopark.org/131/Menlo-Park-Municipal-Water. Accessed: February 23, 2021.

7 San Francisco Public Utilities Commission. 2011. *Hetch Hetchy Regional Water System, Tesla Treatment Facility*. Available: https://infrastructure.sfwater.org/fds/fds.aspx?lib=SFPUC&doc=708008&ver=1&data=272583080. Accessed: July 14, 2021.

8 Monterey Mechanical Company. 2021. *Sunol Water Treatment Plant*. Available: https://www.montmech.com/project/sunol-water-treatment-plant/. Accessed July 13, 2021.

9 San Francisco Public Utilities Commission. 2017. *Hetch Hetchy Regional Water System, The Harry Tracy Water Treatment Plant*. Available: https://baywork.org/wp-content/uploads/2017/08/Harry-Tracy-Water-Treatment-

The MPMWD Emergency Water Storage/Supply Project[10] intends to provide Menlo Park with an emergency backup water supply for use in the event of damage to SFPUC infrastructure and a reduced water supply. That project includes construction of two or three emergency groundwater wells that, combined, will have the capacity to provide up to 3,000 gallons per minute (gpm). The first well is completed. The MPMWD is currently working with the State Water Resources Control Board (State Water Board) to permit another well and amend the MPMWD's drinking water permit.

In 2021, the City adopted the 2020 UWMP, an update to the 2015 UWMP. The 2020 UWMP carries forward information from the 2015 UWMP that remains current and relevant but also provides the additional information required by the amendments to the Urban Water Management Planning Act (California Water Code Sections 10610–10657) and, in particular, information regarding the impacts of an amendment to the San Francisco Bay-Delta Water Quality Control Plan (Bay-Delta Plan) on the availability and reliability of the MPMWD's water supply (Bay-Delta Plan Amendment). The 2020 UWMP concludes that Menlo Park will have the necessary water resources available to support growth, including the growth anticipated in ConnectMenlo and other planned projects within MPMWD's service area, during normal water years through 2040. However, as a result of the Bay-Delta Plan Amendment, the MPMWD does expect water shortages for single and multiple dry water years through 2040. The district expects to meet the water supply shortfalls during those years through implementation of water conservation measures from the Water Shortage Contingency Plan (WSCP).

The WSCP serves as a stand-alone document. It is to be engaged in case of a water shortage event, such as a drought or supply interruption. The WSCP provides specific policies and actions that can be implemented for various shortage scenarios (e.g., implementing customer water budgets and surcharges or restricting landscape irrigation to specific days and/or times). Consistent with California Department of Water Resources requirements, the WSCP provides six standard water shortage levels, ranging from 10 percent to more than 50 percent.[11,12]

In 2020, processed and redistributed recycled water, discussed below, accounted for 20 million gallons (mg), offsetting the demand for potable water from the SFPUC. In addition, the MPMWD has emergency groundwater resources. Its recently completed Emergency Water Storage/Supply Project constructed wells to provide a backup water supply for the MPMWD's Lower Zone. If water supplies from the RWS are reduced or unavailable, the project would have the capacity to provide the MPMWD with up to 4.32 mgd from two or three wells at separate locations. Because of COVID-19, the State Water Board has not been able to inspect project construction and permit the new wells. The State Water Board will also need to amend the MPMWD's permit regarding drinking water.

Plant-fact-sheet-020817.pdf#:~:text=The%20recently%20upgraded%20Harry%20Tracy% 20Water%20 Treatment%20Plant, Hetch%20Hetchy%20Regional%20Water%20System.%20Filter%20no.%203. Accessed: July 14, 2021.

10 City of Menlo Park. 2021. *Staff Report for City Council Meeting*, *Date 2/9/2021.* Available: https://www.menlopark.org/DocumentCenter/View/27344/J4-20210209-CC-Emergency-water-storage-supply-project-update. Accessed: October 11, 2021.

11 City of Menlo Park. 2021. *2020 Urban Water Management Plan for Menlo Park Municipal Water*. Available: https://www.menlopark.org/DocumentCenter/View/28016/Draft-Urban-Water-Management-Plan. Accessed: June 21, 2021.

12 As mentioned above, the City receives its water from the SFPUC. In April 2021, the SFPUC issued its own draft UWMP for adoption in July 2021. The SFPUC's draft UWMP identified several potential future water supply scenarios. Scenarios that involve full adoption of the Bay-Delta Plan indicate substantial long-term water deficits during multi-year droughts. Such deficits could result in cities not receiving their full annual water allocations from the SFPUC. However, should this scenario occur, the City's WSCP would be implemented, along with further reductions, as needed. Compliance with City code and ordinance requirements, the 2020 UWMP, and the WSCP, as well as any additional water reductions, would apply across the City's water department to all customers.

Project Site Water Supply and Infrastructure

The Project site is within the MPMWD service area, which consists of three hydraulically isolated zones. In the northeast part of Menlo Park are the High Pressure Zone and the Lower Zone. The two zones are located along San Francisco Bay and include the Project site. In the southwest portion of Menlo Park is the Upper Zone. This zone is near Interstate 280 and adjacent to the Coast Range.

The MPMWD would be the water provider for the Proposed Project. Currently, for domestic water use, a 10-inch water main runs north–south along the Project site's property line on the west; another 10-inch water main runs east–west under Adams Court. In addition, a 12-inch water main for domestic water runs north–south under Adams Drive. All of these lines are interconnected. However, because of their locations, these services would not be used by the Proposed Project.

The northern portion of the Project site has three water services that are not being used, an 8-inch stub from Adams Court, a second stub of unknown size from Adams Court, and a 10-inch stub from Adams Drive.

Wastewater Collection and Treatment and Recycled Water

The City does not own or operate a wastewater treatment plant (WWTP) and does not convey its own wastewater. In the MPMWD's service area, the West Bay Sanitary District (WBSD) provides wastewater collection and conveyance services to Menlo Park, portions of Portola Valley and Atherton, portions of East Palo Alto and Redwood City, and portions of unincorporated San Mateo County. The WBSD service area encompasses approximately 8,325 acres and has approximately 19,000 connections to serve a population of 52,900. The collection system includes approximately 200 miles of gravity sewer mains; about 37 miles of pressure, or force, mains; and 12 sewage pump stations. The MPMWD conveys the majority of raw wastewater from the Menlo Park pump station and force main to the Silicon Valley Clean Water (SVCW) pump station in Redwood City for treatment and discharge to San Francisco Bay.[13] WBSD also acts as the recycled water purveyor in MPMWD's Upper Zone. WBSD is developing a recycled water system to serve the Lower Zone and High Pressure Zone. A limited volume of wastewater is treated within the MPMWD service area at the Sharon Heights Recycled Water Facility (RWF), located at the Sharon Heights Golf and Country Club, which began using recycled water in late 2020.

SVCW, a Joint Powers Authority, serves the cities of Belmont, Redwood City, and San Carlos as well as the WBSD. More than 220,000 people and businesses are in its service area. SVCW owns and operates a WWTP, including the support facilities necessary for operation and maintenance of the plant. Its facilities also include force mains for a wastewater conveyance system, five wastewater conveyance pump stations, and an effluent outfall to a deep-water channel in the San Francisco Bay.[14]

The Sharon Heights RWF is managed by the WBSD in coordination with the MPMWD. This satellite WWTP, with a capacity of 0.5 mgd, produces tertiary recycled water under Title 22 for reuse within the MPMWD's service area. Wastewater is diverted from the WBSD's collection system and pumped into the RWF. The recycled water system consists of the Sharon Heights RWF, a pump station, recycled water distribution pipelines to the golf course irrigation system, and a solids disposal pipeline. In 2020, approximately 63 mg of wastewater was treated at the Sharon Heights RWF. Of that total, 20 mg was

[13] West Bay Sanitary District. 2021. *About Us*. Available: https://westbaysanitary.org/about-us/. Accessed: February 23, 2021.

[14] Silicon Valley Clean Water. 2020. *Capital Improvement Program 2020 Update, FY 20–21 to FY 29–30*. Available: https://svcw.org/wp-content/uploads/2020/08/2020-SVCW-CIP-Update.pdf. Accessed: July 12, 2021.

recycled; the remaining 43 mg was conveyed to the SVCW WWTP for discharge. According to the 2020 MPMWD UWMP, the amount of wastewater collected from the MPMWD service area in 2020 was approximately 873 mg. Also in 2020, the WWTP provided 20 mg of recycled water to the Sharon Heights Golf & Country Club, offsetting demand in potable water purchased from the SFPUC. A second phase of the project, in the very early planning stages, could supply approximately 28 mg of recycled water over 7 months a year to the Stanford Linear Accelerator Center for irrigation and industrial uses such as for cooling towers.

The Bayfront RWF is a planned facility to supply recycled water to the Bayfront Area and projected to come online by 2030. WBSD plans to operate a Resource Recovery Center at WBSD's former treatment plant behind Bedwell Bayfront Park, which could produce approximately 500,000 gpd of recycled water for reuse (the MPMWD 2020 UWMP projects an annual recycled water supply of 72 mgy from this new facility). In a public/private partnership with Meta, formerly Facebook, WBSD installed 2,800 feet of purple recycled water pipe parallel to the storm drainpipe Meta replaced on Chilco Street, which will be used to distribute recycled water in the area. According to WBSD, recycled water will be used for irrigation, industrial purposes, firefighting, public fill stations, and toilet flushing in the Bayfront Area.

As noted in the ConnectMenlo EIR and reported by the Regional Water Quality Control Board (Regional Water Board), the SVCW WWTP has an average dry-weather design flow of 29 mgd and a peak wet-weather design flow of 71 mgd.

In general, conveyance systems and treatment plants are designed and constructed to accommodate future capacity, including additional base flows due to approved growth plus estimated wet-weather flows.[15]

Project Wastewater Collection and Infrastructure

The sanitary sewer system at the Project site is owned and operated by the WBSD. A 6-inch sanitary sewer below Adams Court runs to the east; another 6-inch sanitary sewer starts at about the midpoint on the Project site and runs to the north, below Adams Drive. These two sanitary sewers meet in a manhole at the intersection of Adams Court and Adams Drive. From that manhole, an 8-inch sanitary line runs to the north. The northern portion of the Project site has three sanitary sewer services, two of which are unused services (i.e., a 6-inch service from Adams Court and a 6-inch service from Adams Drive). The third line, a 6-inch service from Adams Court, is currently servicing the rear portion of the Pacific Biosciences-California (PacBio) building.

Energy

Energy resources include electricity, natural gas, and other fuels. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. Energy production and energy use both result in the depletion of nonrenewable resources, such as oil, natural gas, and coal, and the emission of pollutants.

[15] City of Menlo Park. 2016. *ConnectMenlo General Plan Land Use and Circulation Elements and M-2 Area Zoning Update EIR*. Available: https://www.menlopark.org/DocumentCenter/View/10360/ConnectMenloProject DEIR_060116?bidId=. Accessed: July 12, 2021.

With a relatively mild Mediterranean climate and strict energy-efficiency requirements, California has lower energy consumption rates than other parts of the United States. According to the U.S. Energy Information Administration (U.S EIA), California consumed approximately 7,802.3 trillion British thermal units (BTUs) of energy in 2019.[16,17] California's per capita energy consumption of approximately 197.8 million BTUs was ranked second lowest in the nation as of 2019.[18]

In 2019, the transportation sector consumed the greatest quantity of energy (3,073.3 trillion BTUs, or 39 percent), followed by the industrial (1,805.2 trillion BTUs, or 23 percent), commercial (1,468.1 trillion BTUs, or 19 percent), and residential (1,455.7 trillion BTUs, or 19 percent) sectors.[19] Natural gas accounted for the majority of energy consumption (2,217.2 trillion BTUs, or 28 percent), followed by gasoline (1,688.1 trillion BTUs, or 22 percent); renewable energy, including nuclear electric power, hydroelectric power, biomass, and other renewables (1,445.6 trillion BTUs, or 19 percent); distillates and jet fuel (1,168.9 trillion BTUs, or 15 percent); and interstate electricity (692.7 trillion BTUs, or 9 percent), with the remaining 7 percent coming from a variety of other sources.[20] Of the natural gas consumed, industrial uses consumed approximately 37 percent, followed by residential uses (22 percent) and commercial uses (12 percent), among many other uses.[21]

California's diverse portfolio of energy resources produced approximately 2,449.4 trillion BTUs in 2019.[22] According to the California Energy Commission, total electric generation for California in 2019 (the most recent year for which data are available) was approximately 277,704 gigawatt hours. California's non-carbon-dioxide-emitting electric generation categories, including nuclear, hydroelectric, and renewable generation, accounted for more than 57 percent of total in-state generation in 2019. California's in-state electric generation was approximately 200,475 gigawatt hours.[23] Excluding offshore areas, the state ranked seventh in the nation in crude oil production in 2019 (the most recent year for which

16 One BTU is the amount of energy required to heat 1 pound of water by 1°F at sea level. BTU is the standard unit of energy used in the United States and based on the English system of units (foot-pound-second system).

17 U.S. Energy Information Administration. 2021a. *Table C11—Energy Consumption Estimates by End-Use Sector, Ranked by State, 2019.* Available: https://www.eia.gov/state/seds/sep_sum/html/rank_use.html. Accessed: March 24, 2022.

18 U.S. Energy Information Administration. 2021b. *Table C14—Energy Consumption Estimates per Capita by End-Use Sector, Ranked by State, 2019.* Available: https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_sum/html/rank_use_capita.html&sid=US. Accessed: July 9, 2021.

19 U.S. Energy Information Administration. 2021a. *Table C11—Energy Consumption Estimates by End-Use Sector, Ranked by State, 2019.*

20 U.S. Energy Information Administration. 2021c. *California State Energy Profile*. Available: https://www.eia.gov/state/?sid=CA#tabs-1. Accessed: July 9, 2021.

21 U.S. Energy Information Administration. 2021d. *Natural Gas Consumption by End Use—California*. Available: https://www.eia.gov/dnav/ng/ng_cons_sum_dcu_SCA_a.htm. Accessed: July 9, 2021.

22 U.S. Energy Information Administration. 2021e. *Table P5B—Primary Energy Production Estimates, Renewable and Total Energy, in Trillion BTU, Ranked by State, 2019*. Available: https://www.eia.gov/state/seds/sep_prod/pdf/P5B.pdf. Accessed: March 24, 2022.

23 California Energy Commission. 2021. 2019. *Total System Electric Generation*. Available: https://www.energy.ca.gov/data-reports/energy-almanac/california-electricity-data/2019-total-system-electric-generation#:~:text=In%202019%2C%20total%20generation%20for,to%2055%20percent%20in%202018. Accessed: July 9, 2021.

data are available), producing the equivalent of approximately 920.1 trillion BTUs.[24] Other energy sources in the state include natural gas (220.8 trillion BTUs), nuclear (168.8 trillion BTUs), and biofuel (31.4 trillion BTUs).[25,26,27]

Per capita energy consumption, in general, is declining because of improvements in energy efficiency and designs. However, despite this reduction in per capita energy use, the state's total overall energy consumption (i.e., non-per capita energy consumption) is expected to grow over the next several decades as a result of increases in population, the number of jobs, and vehicle miles traveled (VMT).

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas to the vast majority of Northern California, including Menlo Park and the Project site. Its service area extends from Eureka to Bakersfield (north to south) as well as the Sierra Nevada to the Pacific Ocean (east to west). The company purchases power from a variety of sources, including other utility companies with power plants and natural gas fields in Northern California. PG&E operates a grid distribution system that channels all power produced at the various generation sources into one large energy pool for distribution throughout the service territory. All natural gas and electric infrastructure in Menlo Park is provided by PG&E.

PG&E has two plans, known as Solar Choice options, in addition to its base plan, that give customers the option of purchasing power from solar resources. The first Solar Choice option provides up to 50 percent of a customer's energy from solar resources, while the other option provides up to 100 percent of a customer's energy from solar resources.[28] In addition, on January 26, 2016, the Menlo Park City Council approved a motion for Menlo Park to join Peninsula Clean Energy (PCE), allowing it to receive additional renewable power.[29]

PCE's power comes from various sources, including solar, wind, geothermal, biomass and biowaste, and hydroelectric generation resources. PCE delivers power to its customers via existing PG&E utility infrastructure. PCE allows customers to choose between two different electricity product operations: ECOplus (50 percent renewable resources as electricity sources) and ECO100 (100 percent renewable resources as electricity sources).[30]

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24 U.S. Energy Information Administration. 2021f. *Table P5A—Primary Energy Production Estimates, Fossil Fuels and Nuclear Energy, in Trillion BTU, Ranked by State, 2019*. Available: https://www.eia.gov/state/seds/sep_prod/pdf/P5A.pdf. Accessed: July 9, 2021.

25 No coal production occurs in California.

26 U.S. Energy Information Administration. 2021e. *Table P5B—Primary Energy Production Estimates, Renewable and Total Energy, in Trillion BTU, Ranked by State, 2019.*

27 U.S. Energy Information Administration. 2021f. *Table P5A—Primary Energy Production Estimates, Fossil Fuels and Nuclear Energy, in Trillion BTU, Ranked by State, 2019.*

28 Pacific Gas and Electric Company. 2021. *Which Renewable Option Is Best for You?* Available: https://www.pge.com/en_US/small-medium-business/energy-alternatives/private-solar/solar-choice-rates/solar-choice-plans-for-businesses.page. Accessed: March 19, 2021.

29 On January 26, 2016, the Menlo Park City Council approved a motion to join Peninsula Clean Energy (PCE) to receive additional renewable power. PCE is part of a Community Choice Energy (CCE) program, a locally controlled community organization that enables local residents and businesses to have a choice as to where their energy comes from. CCE programs allow local governments to pool the electricity demands of their communities, purchase power with higher renewable content, and reinvest in local infrastructure.

30 Peninsula Clean Energy. 2021. *What Are My Rates?* Available: https://www.peninsulacleanenergy.com/for-businesses/. Accessed: March 19, 2021.

In San Mateo County, a total of 214 million therms of natural gas were consumed in 2019 (the most recent year for which data are available). In 2019, natural gas in San Mateo County was consumed primarily by the residential sector (55 percent), followed by the non-residential sector (45 percent).[31] In 2019, San Mateo County consumed a total of 4,325 million kilowatts of electricity. In the county, electricity was consumed primarily by the non-residential sector (64 percent), followed by the residential sector (36 percent).[32]

The Lot 3 North portion of the Project site is currently undeveloped and covered with concrete paving. Therefore, there are no existing energy demands.

Regulatory Setting

This section describes the existing regulatory setting and conditions that are relevant to the Proposed Project with regard to water and wastewater collection and treatment.

Federal

Federal Safe Drinking Water Act

The Safe Drinking Water Act (SDWA), enacted in 1974, is a federal law. Its intent is to ensure safe drinking water for the public. The SDWA, which has been amended several times since it came into law, authorizes the U.S. Environmental Protection Agency (EPA) to set national standards for drinking water. These are called the National Primary Drinking Water Regulations. The regulations, which provide protection from both naturally occurring and man-made contaminants, set enforceable maximum contaminant levels for drinking water and require all water providers in the United States to treat water sources, except for private wells that serve fewer than 25 people. In California, the Department of Health Services conducts most enforcement activities. If a water system does not meet the standards, it is the water supplier's responsibility to notify its customers.

Clean Water Act

The federal government regulates wastewater treatment and planning through the Federal Water Pollution Control Act of 1972, more commonly known as the Clean Water Act (CWA), as well as the National Pollutant Discharge Elimination System (NPDES) permit program. The CWA regulates the discharge of pollutants into watersheds throughout the nation and is the primary federal law that governs water pollution. Under the CWA, the EPA implements pollution control programs and sets wastewater standards. The objective of the CWA is to restore and maintain the chemical, physical, and biological integrity of the nation's waters by preventing point-source and nonpoint-source pollution, providing assistance to publicly owned treatment works to improve wastewater treatment, and maintaining the integrity of wetlands.

National Pollutant Discharge Elimination System

The NPDES permit program was established in the CWA to regulate municipal and industrial discharges to surface waters in the United States. Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits identify effluent and receiving water limits for allowable connections

[31] California Energy Commission. n.d. *Gas Consumption By County—San Mateo County*. Available: http://ecdms.energy.ca.gov/gasbycounty.aspx. Accessed: March 22, 2021.

[32] California Energy Commission. n.d. *Electricity Consumption by County—San Mateo County*. Available: https://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed: March 22, 2021.

and/or mass emissions for pollutants contained in discharges, prohibitions on discharges that were not specifically allowed under the permit, and provisions that describe required actions for the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities. Wastewater discharges are regulated under the NPDES permit program for direct discharges to receiving waters as well as the National Pretreatment Program for indirect discharges to sewage treatment plants.

Operation of the SVCW WWTP and its wastewater collection system is regulated by the waste discharge requirements (NPDES No. CA0038369) found in Regional Water Board Order No. R2-2018-00XX, effective April 1, 2018, and expiring March 31, 2023.[33] The discharger's wastewater collection system consists of four pump stations, which receive wastewater from the "satellite" wastewater collection systems of four municipal jurisdictions (i.e., WBSD, City of Belmont, City of San Carlos, City of Redwood City). Effluent from the WWTP is also subject to two other NPDES permits, 1) the waste discharge requirements for mercury and polychlorinated biphenyls (PCBs) from municipal and industrial wastewater discharges to San Francisco Bay (NPDES No. CA0038849) and 2) the waste discharge requirements for nutrients from municipal wastewater discharges to San Francisco Bay (NPDES No. CA0038873). The three NPDES permits enable SVCW to discharge treated wastewater into San Francisco Bay.

Corporate Average Fuel Economy Standards

The National Highway Traffic Safety Administration (NHTSA) sets Corporate Average Fuel Economy (CAFE) standards to improve average fuel economy (i.e., reduce fuel consumption) and reduce greenhouse gas (GHG) emissions generated by cars and light-duty trucks. In March 2020, NHTSA and the EPA proposed amendments to the current fuel efficiency standards for passenger cars and light-duty trucks and new standards for model years 2021 through 2026 under the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule, which proposes to maintain current 2020 standards through 2026. California, 22 other states, the District of Columbia, and two cities filed suit against the proposed action on September 20, 2019 (*California et al. v. United States Department of Transportation et al.*[34] The pending lawsuit requests a "permanent injunction prohibiting defendants from implementing or relying on the preemption regulation" but does not stay its implementation during legal deliberations. The SAFE Vehicles Rule will decrease the stringency of CAFE standards, with a 1.5 percent increase in stringency each year through model year 2026 compared with the standards issued in 2012, which would have required about 5 percent annual increases. In December 2021, NHTSA and EPA finalized revised CAFE and national GHG emissions standards for passenger cars and light trucks for model years 2023–2026. The final standards will achieve significant GHG emissions reductions, along with reductions in other criteria pollutants.[35]

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[33] San Francisco Bay Regional Water Quality Control Board. 2018. *Tentative Order No. R2-2018-00XX*. Available: https://www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2018/February/SiliconValley/SVCW_Tentative_Order.pdf. Accessed: July 13, 2021.

[34] On February 11, 2020, *California et al. v. United States Department of Transportation et al.* was pending resolution of the related litigation of *Union of Concerned Scientists v. National Highway Traffic Safety Administration* (19-1230, U.S. Court of Appeals for the District of Columba Circuit). The Union of Concerned Scientists, Environmental Defense Fund, and other groups filed a protective petition for review after the federal government sought to dismiss or transfer to the D.C. Circuit a case filed in federal court in D.C. challenging NHTSA's final rule, withdrawing California's waiver for its greenhouse gas and zero-emission vehicle program and preempting state programs that regulate vehicle greenhouse gas emissions or create zero-emission vehicle mandates. On February 8, 2021, the D.C. Circuit Court of Appeals issued an order, holding the cases in abeyance pending regulatory review.

[35] U.S. Environmental Protection Agency. 2022. Regulations for Greenhouse Gas Emissions from Passenger Cars and Trucks. Available: https://www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-greenhouse-gas-emissions-passenger-cars-and. Accessed: March 24, 2022.

State

California Porter-Cologne Water Quality Control Act

Under the California Porter-Cologne Water Quality Control Act, passed in 1969 and amended in 2013, the State Water Board has authority over state water rights and water quality policy. The act divides the state into nine regional basins, each of which is under the jurisdiction of the Regional Water Board that oversees water quality on a day-to-day basis at the local and regional level. Regional Water Boards oversee a number of water quality functions in their respective regions. Regional Water Boards regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Menlo Park is under the jurisdiction of the San Francisco Bay Regional Water Board.

The San Francisco Bay-Delta Water Quality Control Plan

The State Water Board adopted the Bay-Delta Plan on December 12, 2018. The plan establishes water quality objectives that protect water uses in the Bay-Delta watershed, including uses associated with drinking water, irrigation, and fish and wildlife habitat. On July 6, 2018, the State Water Board released its proposed final substitute environmental document in support of amendments to the Bay-Delta Plan to adopt new and revised flow objectives for the Lower San Joaquin River and its three salmon-bearing tributaries, the Stanislaus, Tuolumne, and Merced Rivers; revise salinity objectives for the southern delta; and institute a program for implementation. The new flow objectives recognize the vital role upstream flows provide with respect to the suitability of habitat as well as the migration of threatened and endangered fish. The revised salinity objectives reflect updated scientific information about the salt levels that are suitable for agriculture in the southern delta. The new flow objectives require a portion of the flow to be maintained in all three tributaries during certain times of the year, thereby ensuring suitable habitat and migratory pathways for native fish.

According to the SFPUC, should the Bay-Delta Plan be implemented, it is estimated that its reduced flow requirements could cause the regional water system to face a potential water supply shortage of 40 to 50 percent during single and multiple dry water years through 2040 until alternative water supplies are developed to compensate for the shortfalls. As of June 2021, the SFPUC is pursuing several strategies to uphold its supply agreements, including strategies involving voluntary agreements, drought planning, alternative water supplies, and litigation. Also, refer to the discussion of SFPUC's Alternative Water Supply Planning Program, below.

If the Bay-Delta Plan Amendment is implemented, the SFPUC will be able to meet its contractual obligations to its wholesale customers, as presented in the SFPUC 2020 UWMP, in normal years but would experience supply shortages in single or multiple dry years. Implementation of the Bay-Delta Plan Amendment will require rationing in all single and multiple dry years. Because of the uncertainties surrounding full implementation of the Bay-Delta Plan Amendment, the SFPUC 2020 UWMP analyzed two supply scenarios, one with the Bay-Delta Plan Amendment, assuming full implementation starting in 2023, and one without the Bay-Delta Plan Amendment.

California Senate Bills 610 and 221

California Senate Bill (SB) 610 and SB 221 amended state law, effective January 1, 2002, to improve the link between information on water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 were companion measures that sought to promote more collaborative planning between local water suppliers and the cities and counties. Both statutes require detailed information regarding water availability. This information would be provided to city and county decision-

makers prior to approval of specified large development projects to ensure that prudent water supply planning has been conducted and that planned water supplies will be adequate with respect to meeting existing demands, anticipated demands from approved projects and tentative maps, and the demands of proposed projects.

SB 610 amended California Water Code Sections 10910 through 10915 (inclusive) to require land use lead agencies to:

- Identify any public water purveyor that may supply water for a proposed development project
- Request a WSA from the identified water purveyor.

The purpose of the WSA is to demonstrate the sufficiency of the purveyor's water supplies with respect to satisfying the water demands of the Proposed Project while still meeting the demands of the purveyor's existing and planned future uses. California Water Code Sections 10910 through 10915 delineate the specific information that must be included in the WSA.

SB 221 amended state law (California Government Code Section 66473.7) to require affirmative written verification of an adequate water supply prior to approval by a city or county of certain residential subdivisions. SB 221 was intended to be a fail-safe mechanism that would ensure collaboration in finding the needed water supplies before construction begins.

The WSA prepared for the Proposed Project and approved on February 8, 2022, included in Appendix 3.6, complies with SB 610 (California Water Code Sections 10910 through 10915). The Proposed Project does not include a residential subdivision; therefore, the SB 221 requirements do not apply to the Proposed Project.

Urban Water Management Planning Act

Through the Urban Water Management Planning Act of 1983, the California Water Code requires all urban water suppliers within California to prepare and adopt an UWMP and update it every 5 years. This requirement applies to all suppliers that provide water to more than 3,000 customers or supply more than 3,000 acre-feet of water annually. The act is intended to support the conservation and efficient use of urban water supplies. It requires a comparison between a project's water use and water supply sources for the next 20 years, in 5-year increments; planning for single and multiple dry years; and a water recycling analysis, with a description of the wastewater collection and treatment system within the agency's service area and the current and potential recycled water uses. In September 2014, the act was amended by SB 1420 to require urban water suppliers to provide descriptions of their water demand management measures and similar information. The MPMWD's most recent update to its UWMP occurred in 2021.

2009 Water Conservation Act

The Water Conservation Act of 2009, SB X7-7, requires all water suppliers to increase water use efficiency. The legislation had an overall goal of reducing per capita water use by 20 percent by 2020, with an interim goal of 10 percent by 2015. Effective in 2016, urban retail water suppliers that did not meet the water conservation requirements established by this bill were not eligible for state water grants or loans. SB X7-7 requires urban retail water suppliers to determine baseline water use and set reduction targets that are tied to specified standards. According to the 2020 UWMP, MPMWD is in compliance with SB X7-7 requirements. Local water reduction and efficiency regulations and plans for Menlo Park are discussed below.

State Updated Model Water Efficient Landscape Ordinance

The updated Model Water Efficient Landscape Ordinance required cities and counties to adopt landscape water conservation ordinances by February 1, 2016, or a different ordinance that would be at least as effective in conserving water as the updated ordinance. The City adopted Ordinance No. 968, Water Efficient Landscaping Regulations, in 2016 and revised Menlo Park Municipal Code Chapter 12.44, as described below.

CALGreen Building Code

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11, Title 24, known as "CALGreen") was adopted as part of the California Building Standards Code (Title 24, California Code of Regulations [CCR]). It applied to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure, unless otherwise indicated in the code, throughout California. CALGreen established planning and design standards for sustainable site development, including water conservation measures and requirements for new buildings to reduce water consumption by 20 percent. The mandatory provisions of CALGreen became effective January 1, 2011. The building efficiency standards are enforced through the local building permit process. The purpose of CALGreen is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through building concepts with either a reduced negative impact or a positive environmental impact and the encouragement of sustainable construction practices in the following categories:

- Planning and design,
- Energy efficiency,
- Water efficiency and conservation,
- Material conservation and resource efficiency, and
- Environmental quality.

The California Plumbing Code

The California Plumbing Code (Part 5, Title 24, CCR) was adopted as part of the California Building Standards Code to prevent disorder in the industry as a result of widely divergent plumbing practices and the use of many different, and often conflicting, plumbing codes by local jurisdictions. Among the many topics covered in the code were water fixtures, potable and non-potable water systems, and recycled water systems. According to the code, water supply and distribution practices shall comply with all applicable provisions of the current edition of the California Plumbing Code.

Executive Order N-10-21

On July 8, 2021, California Governor Gavin Newsom issued Executive Order N-10-21, which proclaimed a state of emergency due to drought conditions in nine counties, Inyo, Marin, Mono, Monterey, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, and Santa Cruz. It directs state agencies to take actions to bolster drought resilience and prepare for impacts on communities, businesses, and ecosystems. The order calls on all Californians to reduce their water use voluntarily by 15 percent from their 2020 levels.[36] Menlo Park is in San Mateo County.

[36] State of California. 2021. *Executive Order N-10-21*. Available: https://www.gov.ca.gov/wp-content/uploads/2021/07/Conservation-EO-N-10-21.pdf. Accessed: March 24, 2022.

State Water Resources Control Board

On May 2, 2006, the State Water Board adopted a General Waste Discharge Requirement (Order No. 2006-0003) for all publicly owned sanitary sewer collection systems in California with more than 1 mile of sewer pipe. The order provides a consistent statewide approach to reducing sanitary sewer overflows by requiring public sewer system operators to take all feasible steps to control the volume of waste discharged into the system, prevent sanitary sewer waste from entering the storm sewer system, and develop a Sanitary Sewer Master Plan. The General Waste Discharge Requirement requires storm sewer overflows to be reported to the State Water Board with use of an online reporting system. The State Water Board has delegated enforcement authority to the nine Regional Water Boards. The San Francisco Bay Regional Water Board issues and enforces NPDES permits applicable to the WBSD wastewater collection system in Menlo Park and the SVCW WWTP in Redwood City.

Sanitary District Act of 1923

The Sanitary District Act of 1923 (Health and Safety Code Section 6400 et seq.) authorizes the formation of sanitation districts. It also authorizes the districts to construct, operate, and maintain facilities for the collection, treatment, and disposal of wastewater. The act was amended in 1949 to allow the districts to provide solid waste management and disposal services, including refuse transfer and resource recovery.

Assembly Bill 1493, Pavley Rules (2002, amendments 2009)/Advanced Clean Cars (2011)

Known as Pavley I, Assembly Bill (AB) 1493 provided the nation's first GHG standards for automobiles. AB 1493 required the California Air Resources Board (CARB) to adopt vehicle standards to lower GHG emissions from automobiles and light-duty trucks to the maximum extent feasible beginning in 2009. In 2012, strengthening of the Pavley standards (referred to previously as Pavley II but now referred to as the Advanced Clean Cars measures) was adopted for vehicle model years 2017 through 2025. Together, the two standards are expected to increase average fuel economy to roughly 54.5 miles per gallon in 2025. The increase in fuel economy will help lower the demand for fossil fuels.

Executive Order B-16-12 (2012)

Executive Order B-16-12 orders state entities, under the direction of the governor, including CARB, the California Energy Commission, and the California Public Utilities Commission (CPUC), to support rapid commercialization of zero-emission vehicles. It directs these entities to achieve various benchmarks related to zero-emission vehicles.

Senate Bill 350, Chapter 547, Clean Energy and Pollution Reduction Act of 2015

SB 350 (DeLeon), also known as the Clean Energy and Pollution Reduction Act of 2015, was approved by the California Legislature in September 2015 and signed by Governor Brown in October 2015. Its key provisions require the following by 2030: (1) a Renewables Portfolio Standard (RPS)[37] of 50 percent and (2) doubling of the statewide energy efficiency savings related to natural gas and electricity end uses. In order to meet these provisions, the bill requires large utilities to develop and submit integrated resource plans that detail how the utilities will reduce GHG emissions and increase the use of clean energy resources while meeting customers' needs.

[37] The RPS is one of California's key programs for promoting renewable energy use within the state. The program calls for continuous procurement of renewable energy for load-serving entities within California (California Energy Commission 2021).

Senate Bill 100—The 100 Percent Clean Energy Act of 2018 (2018)

SB 100 builds on SB 350, the Clean Energy and Pollution Reduction Act of 2015. SB 100 increases the 2030 RPS target set in SB 350 to 60 percent and requires an RPS of 100 percent by 2045.

Local

Bay Area Water Supply and Conservation Agency

The BAWSCA, created in 2003, represents 26 agencies that depend on the San Francisco RWS, including the MPMWD. The BAWSCA oversees and coordinates water conservation, water supply, and water recycling activities for member agencies; acquires water and makes it available to other agencies on a wholesale basis; finances improvements to the RWS; and builds facilities as necessary.

Silicon Valley Clean Water 2020 Capital Improvement Program

The 2020 updated SVCW Capital Improvement Program (CIP), which is applicable through fiscal year 2030, identifies and allocates funds for projects within the SVCW system. This includes projects that would replace and rehabilitate existing infrastructure (e.g., pump stations, treatment plants, force mains).

West Bay Sanitary District Collection System Master Plan

The WBSD completed a sewer Collection System Master Plan in June 2011. In July 2013, the WBSD updated the plan to address recalibration issues following completion of several CIP projects that affected the district's flow monitoring program. The 2011 master plan assessed the conveyance capacity of the WBSD's sewer collection system (e.g., pipes, pump stations); evaluated facilities, which may require rehabilitation or replacement; developed a prioritized CIP; and established a funding plan for the proposed CIP.

West Bay Sanitary District Code of General Regulations

The WBSD's Code of General Regulations establishes standards, conditions, and provisions for fees related to the use of the district's sanitary wastewater facilities. Article VII requires Class 1 sewer permits for residential connections, Class 2 sewer permits for non-residential connections, and Class 3 sewer permits for construction of sewer mains, pump stations, and other wastewater facilities. To receive a permit, a developer must submit an application, pay all fees and charges, and satisfy requirements, such as extending collection facilities to the vicinity of the development site. For a Class 3 permit, the WBSD manager examines the submitted application's conformance with engineering practices and the standard specifications and policies of the WBSD and then submits it to the WBSD board of directors for approval. Subsequent to the WBSD's acceptance of a Class 3 permit, but prior to connection of and discharge into the WBSD's wastewater facilities, a Class 1 or Class 2 permit, as applicable, must be obtained by the developer. All costs and expenses associated with the installation and connection of the building sewer shall be at the owner's expense. All work shall be inspected and performed in accordance with the standard specifications of the WBSD.

Water Shortage Contingency Plan

As part of MPMWD's updated 2020 UWMP, the district has updated its WSCP,[38] which serves as a stand-alone document to be engaged in case of a water shortage event, such as a drought or supply interruption. It defines the specific policies and actions that would be implemented for various shortage scenarios. The

[38] Menlo Park Municipal Water District. 2021. *2020 Urban Water Management Plan, Appendix J, Water Shortage Contingency Plan*. Available: https://www.menlopark.org/DocumentCenter/View/28016/Draft-Urban-Water-Management-Plan. Accessed: July 13, 2021.

main objective of the WSCP is to ensure that MPMWD has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions. Consistent with California Water Code Section 10632, the WSCP provides six standard water shortage levels to address shortage conditions, ranging from 10 percent to more than 50 percent; identifies a suite of demand mitigation measures for the MPMWD to implement at each level; and identifies procedures for the MPMWD to use to assess annually whether or not a water shortage is likely to occur in the coming year, among other things.

Alternative Water Supply Planning Program

In early 2020, the SFPUC began implementation of the Alternative Water Supply Planning Program,[39] which investigates new water supplies to address future long-term water supply reliability challenges and vulnerabilities within the SFPUC system. The most significant water supply vulnerability right now is due to the new flow requirements on the Tuolumne River associated with the adopted Bay-Delta Plan Amendment (discussed above). Included in the Alternative Water Supply Planning Program is a suite of diverse, non-traditional supply projects that, to a great degree, leverage regional partnerships to meet the water supply needs of the SFPUC's retail and wholesale customers through 2045. The SFPUC has budgeted for significant investments over the next 10 years to fund water supply projects, such as surface water storage expansion, recycled water expansion, water transfer, desalination, and potable reuse projects. The exact yields from these projects have not been quantified at this time. The supply projects will take 10 to 30 years to implement; therefore, the exact amount of water that can be reasonably developed is currently unknown.

ConnectMenlo/General Plan Update

In 2016, the City completed a multi-year planning effort to update the Land Use and Circulation Elements of its general plan for the 2040 planning horizon as well as zoning specifications for new Life Sciences, Office, and Residential Mixed-Use districts. This general plan update process, known as ConnectMenlo, reaffirmed the remaining development potential within Menlo Park and incorporated land use changes for the Bayfront Area, including potential development of up to 4,500 residential units, 2.3 million gross square feet (gsf) of non-residential space, and 400 hotel rooms.

A program-level EIR was prepared for ConnectMenlo. In conjunction with the ConnectMenlo EIR, a Water Supply Evaluation Study (WSE Study) was prepared to determine whether there would be an adequate water supply available to meet current and planned water demands within the service area during normal and dry hydrologic years over a 20-year planning horizon. More specifically, the WSE Study included:

- Summaries of the WSA requirements articulated in California Water Code Sections 10910–10915 and a description of how they were addressed in the WSE Study.
- A description and analysis of current and projected future water demands for the ConnectMenlo project through 2040.
- A description and analysis of historical, current, and projected future water demands for the MPMWD service area through 2040.
- A description and analysis of current and projected future water supplies for the MPMWD service area through 2040.
- A comparison of water supplies and demands for the MPMWD's water service area, including projected water demands associated with the ConnectMenlo project.

[39] San Francisco Public Utilities Commission. 2021. *Alternative Water Supplies.* Available: https://sfpuc.org/programs/future-water-supply-planning/alternative-water-supplies. Accessed: October 11, 2021.

Data in the WSE Study were based primarily on the MPMWD 2010 UWMP; the draft MPMWD 2015 UWMP, which was developed at the same time as the WSE Study; information from the City; and specific information from PlaceWorks, author of the 2016 ConnectMenlo EIR. The adopted MPMWD 2015 UWMP and adopted 2020 UWMP incorporated the ConnectMenlo projections.

Even though the Proposed Project was not specifically identified in ConnectMenlo or the MPMWD 2015 UWMP, the ConnectMenlo EIR identifies the maximum level of development that can occur in the ConnectMenlo study area. The MPMWD is actively tracking all projects in the ConnectMenlo study area on a cumulative basis to ensure that development remains below the maximum level permitted in the ConnectMenlo EIR. The Proposed Project, if approved, would be included in this cumulative development total, which would be below the maximum level permitted and studied.

Menlo Park Municipal Code

The Menlo Park Municipal Code, which is organized by title, chapter, and section, contains all ordinances for Menlo Park. Title 7, Health and Sanitation; Title 12, Buildings and Construction; and Chapter 16, Zoning, include regulations relevant to water resources, as discussed below.

Chapter 7.35, Water Conservation, contains regulations and restrictions regarding water use in order to conserve water resources and eliminate wasteful water uses. Menlo Park Municipal Code Section 7.35.020 requires the City Council to adopt by resolution a water conservation plan and mandate water conservation measures in the event of adoption of emergency water conservation regulations by the State Water Board.

Chapter 12.16, Reach Code. The 2019 California Building Standards Code took effect on January 1, 2020. The City of Menlo Park adopted local amendments to the code that require electricity to be the only fuel source for new buildings (not natural gas). This ordinance applies only to newly constructed buildings (i.e., from the ground up) and does not include additions or remodels. Specifically, it would require:

1. New low-rise residential buildings (three stories or less) are to have electric fuel source for space heating, water heating, and drying clothes. Stoves may still use natural gas, if desired. Pre-wiring for electric appliances is required where natural gas appliances are used.
2. New nonresidential and high-rise residential buildings are to be all electric, with some exceptions, and produce a minimum amount of onsite solar, based on square footage.
    - Exceptions include:
        - Life science buildings may use natural gas for space heating.
        - emergency operations centers (such as fire stations and police stations) owned and operated by public agencies may use natural gas.
        - Nonresidential kitchens (such as for-profit restaurants and cafeterias) may appeal to use natural gas stoves.
        - For all exceptions that are granted, natural gas appliance locations must be electrically pre-wired for future electric appliance installations.
    - Solar requirements:
        - Less than 10,000 square feet requires a 3-kilowatt photovoltaic system (minimum).
        - Greater than or equal to 10,000 square feet requires a 5-kilowatt photovoltaic system (minimum).

Electric Vehicle (EV) Charger Requirements. The City of Menlo Park adopted amendments to the CALGreen EV charging requirements within the California Building Standards Code on October 23, 2018. The EV requirements are intended to:

- Increase the availability of EV charging infrastructure within the city;
- Provide for residents and employees with electric vehicles; and
- Lower barriers for those looking to shift from fossil-fuel vehicles.

In addition, new multi-family residential developments and non-residential developments that are approximately 10,000 square feet or larger are required to comply with local amendments to the CALGreen code, install EV chargers, and prepare for future installation.

Chapter 12.44, Water Efficient Landscaping Ordinance, adopted in 2016 (Ordinance No. 968), establishes water-efficient landscaping standards to conserve water used for irrigation. The ordinance applies to all new landscapes greater than 500 square feet and rehabilitated landscapes greater than 1,000 square feet associated with projects that require City review and approval.

Chapter 12.48, Recycling and Salvage of Construction Debris Ordinance, in accordance with the state mandate, requires 65 percent of a project's anticipated debris to be diverted.

Section 16.44.120, Design Standards in Life Sciences (LS) District, contains the following design requirements for open space at all new construction, regardless of size, and building additions of 10,000 square feet or more in gross floor area:

- **Section 16.44.120 (4)(C)(iii):** All open space shall incorporate a landscape design that includes sustainable stormwater features, a landscaping bed no less than 3 feet in length or width and 5 feet in depth for infiltration planting, and native species that are able to grow to their maximum size without shearing.

Section 16.44.130, Green and Sustainable Building in Life Sciences (LS) District, contains the following specific requirements for energy, water use efficiency, recycled water use, and solid waste:

- **Section 16.44.130(2):** For all new construction, a project will meet 100 percent of energy demand (electricity and natural gas) through any combination of the following: (i) onsite energy generation, (ii) purchase of 100 percent renewable electricity through Peninsula Clean Energy or PG&E in an amount equal to the annual energy demand of the project, (iii) purchase and installation of local renewable energy generation within the city of Menlo Park in an amount equal to the annual energy demand of the project, or (iv) purchase of certified renewable energy credits and/or certified renewable energy offsets annually in an amount equal to the annual energy demand of the project.
- **Section 16.44.130(3)(A):** Single-pass cooling systems shall be prohibited in all new buildings.
- **Section 16.44.130(3)(B)**: All new buildings shall be built and maintained without the use of well water.
- **Section 16.44.130(3)(C):** Applicants for a new building with more than 100,000 square feet of gross floor area shall prepare and submit a water budget and accompanying calculations, following the methodology approved by the City. For all new buildings with 250,000 square feet or more in gross floor area, the water budget shall account for the potable water demand reduction resulting from the use of an alternative water source for all City-approved non-potable applications.

- **Section 16.44.130(3)(D):** All new buildings shall be dual plumbed for the internal use of recycled water.[40]
- **Section 16.44.130(3)(E):** All new buildings with 250,000 square feet or more in gross floor area shall use an alternate water source for all City-approved non-potable applications. An alternative water source may include, but is not limited to, treated non-potable water such as graywater. An alternate water source assessment shall be submitted that describes the alternative water source and proposed non-potable application. The alternate water source assessment, the alternative water source, and the water's proposed uses shall be approved by the City's Public Works Director and Community Development Director. If the MPMWD has not designated a recycled water purveyor and/or a municipal recycled water source is not available prior to project approval, applicants may propose conservation measures to meet the requirements of this section, subject to approval of the City Council. The conservation measures shall achieve a reduction in potable water use equivalent to the projected demand of City-approved non-potable applications, but in no case shall the reduction be less than 30 percent compared to the water budget in subsection (3)(C) of this section. The conservation measures may include onsite measures, offsite measures, or a combination thereof.[41]
- **Section 16.44.130 (5) (A):** Applicants shall submit a zero-waste management plan to the City, which will cover how the applicant plans to minimize waste to landfill and incineration in accordance with all applicable state and local regulations. Applicants shall show in their zero-waste plan how they will reduce, recycle, and compost wastes from the demolition, construction, and occupancy phases of the building.

  Pursuant to state law, the City of Menlo Park requires 65 percent of all debris from construction and demolition to be diverted from landfills through salvage or recycling.

PG&E Integrated Resource Plan

PG&E adopted the 2020 Integrated Resource Plan (IRP) on September 1, 2020, to provide guidance for meeting the electricity and natural gas needs of residents and businesses within its service area while fulfilling regulatory requirements.

- **Clean Energy**: In 2019, PG&E delivered nearly 30 percent of its electricity from RPS-eligible renewable resources, such as solar, wind, geothermal, biomass, and small hydropower. In addition, PG&E's GHG-free energy production, which encompasses renewable resources, large hydropower, and nuclear, satisfied all of PG&E's bundled retail sales in 2019.
- **Reliability**: PG&E's IRP analysis includes PG&E's contribution to system and local reliability, in compliance with the CPUC's resource adequacy requirements, especially as California transitions toward higher shares of GHG-free generation resources.
- **Affordability**: PG&E's IRP analysis selects resources to meet the state's clean energy and reliability goals and provides a system average-rate forecast in compliance with the CPUC's requirements for investor-owned utilities.

[40] Recycled water use is not proposed for the Project, but the Project would be plumbed with purple pipe for future recycled water access when it becomes available in the Bayfront Area.

[41] A water use budget and alternative water source assessment were prepared for the Proposed Project. The installation of efficient fixtures, implementation of water conservation measures in the design of both the base building as well as tenant spaces, and the optimization of operations and employee practices would conserve water and reduce demand, in compliance with Section 16.44.130(3)(E). This is discussed more under Impact UT-2

PCE 2020 Integrated Resource Plan

PCE is a Community Choice Aggregation energy program that serves the entirety of San Mateo County, including Menlo Park. PCE adopted the 2020 IRP on July 23, 2020, to provide guidance for serving the electricity needs of the residents and businesses in the county while fulfilling regulatory requirements. The plan contains the following strategic goals that are relevant to the Proposed Project:

- Secure sufficient, low-cost clean sources of electricity that achieve PCE's priorities while ensuring reliability and meeting regulatory mandates;
- Strongly advocate for public policies that support PCE's organizational priorities; and
- Implement robust energy programs that reduce GHG emissions, align energy supplies and demand, and provide benefits to community stakeholders.

Climate Action Plan

The City's Climate Action Plan (CAP), adopted in 2020, includes actions to reduce Menlo Park's GHG emissions. The City's CAP was adopted with the purpose of reducing GHGs community-wide and meeting the reduction target (i.e., zero emissions by 2030). The City has identified GHG reduction measures related to transportation, energy, and land use sectors, which can be coupled with state and existing local actions to reduce GHG emissions. GHG emissions largely involve energy consumption (i.e., fossil-fuel usage); therefore, a reduction in GHG emissions would also equate to a reduction in energy consumption.

Environmental Impacts

This section describes the impact analysis related to utilities for the Proposed Project. Specifically, it describes the methods used to determine the impacts of the Proposed Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Thresholds of Significance

In accordance with Appendix G of the California Environmental Quality Act (CEQA) Guidelines, the Proposed Project would have a significant effect if it would result in any of the conditions listed below.

- Require or result in the relocation of existing or the construction of new or expanded water, wastewater treatment, stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Have insufficient water supplies available to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years.
- Result in a determination by the wastewater treatment provider that serves or may serve the Project site that it has inadequate capacity to serve the Proposed Project's projected demand in addition to the provider's existing commitments.
- Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair attainment of solid waste reduction goals.
- Fail to comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

- Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation.
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Methods for Analysis

Water Supply and Infrastructure. The analysis in this section focuses on the nature and magnitude of the change in water use compared with existing and projected water use in the MPMWD service area. To determine potential impacts, future water consumption was estimated from demand projection calculations and quantitative evaluation of data for existing land uses, approved projects, and proposed development, including the Proposed Project. The primary resources used for this analysis include the MPMWD's 2020 UWMP and the WSA for the Proposed Project.

Wastewater Generation and Infrastructure. Per the generation rate in the ConnectMenlo EIR, wastewater generation under the Proposed Project assumes that 90 percent of water consumed indoors at the Project site will become wastewater and, therefore, be conveyed to the SVCW WWTP. The wastewater demands of the Proposed Project are compared to the available capacity of the WBSD sanitary sewer system and the SVCW WWTP to assess the potential for significant environmental impacts. The primary resource used for this analysis was the MPMWD's 2020 UWMP.

Energy. According to Appendix F of the CEQA Guidelines as well as CEQA Guidelines Section 15126.2, environmental considerations in the assessment of energy consumption impacts may include the following:

- The Proposed Project's energy requirements as well as its energy efficiencies by amount and fuel type for each stage of the Proposed Project, including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed;
- The effects of the Proposed Project on local and regional energy supplies as well as requirements for additional capacity;
- The effects of the Proposed Project on peak- and base-period demands for electricity and other forms of energy;
- The degree to which the Proposed Project complies with existing energy standards;
- The effects of the Proposed Project on energy resources;
- The Proposed Project's projected transportation energy use requirements and its overall use of efficient transportation alternatives; and
- Consideration of renewable energy features that could be incorporated into the Proposed Project.

Summary of Analysis in the ConnectMenlo EIR

As described in Chapter 1, *Introduction*, the ConnectMenlo EIR provided a program-level analysis of the development potential envisioned for the entire city, including the increased development potential in the Bayfront Area. The Land Use Element specifically identifies new development potential in the Bayfront Area (i.e., 2.3 million gsf of non-residential space, 400 hotel rooms, and 4,500 residential units).[42] The

[42] The ConnectMenlo Final EIR included an evaluation of 4,500 residential units in the Bayfront Area, consisting of 3,000 unrestricted residential units and 1,500 corporate dormitory-style housing units on the Facebook East Campus (also known as the Classic Campus).

ConnectMenlo EIR determined that, at full buildout, implementation of ConnectMenlo would result in 11,570 additional residents, for a total citywide population of 50,350. With 5,500 new employees at full buildout, the citywide daytime population would be 53,250. The buildout potential of future development is expected to occur over a 24-year buildout horizon (from approximately 2016 to 2040).[43]

It was determined that impacts related to wastewater treatment requirements, as analyzed in the ConnectMenlo EIR (pages 4.14-36 to 4.14-38), would be less than significant. In accordance with City General Plan policies, zoning regulations, and other applicable regulations, wastewater generated from potential future development would not exceed wastewater treatment requirements or the capacity of existing facilities. No mitigation measures were recommended.

It was determined that impacts related to the construction or expansion of water or wastewater treatment facilities, as analyzed in the ConnectMenlo EIR (pages 4.14-38 to 4.14-43), would be less than significant. It is expected that the City will implement general plan programs that will require the MPMWD's conservation programs to be expanded and future development to employ green building best practices. No mitigation measures were recommended.

It was determined that impacts related to construction or expansion of stormwater drainage facilities, as analyzed in the ConnectMenlo EIR (pages 4.14-64 to 4.14-66), would be less than significant. All future development would be required to comply with existing regulations, including general plan policies and zoning regulations, to minimize impacts related to stormwater drainage facilities. In addition, grading and drainage plans for future projects would be reviewed by the City to ensure that onsite drainage infrastructure, low-impact development (LID) features, and retention basins would be adequate and able to prevent onsite and offsite flooding. No mitigation measures were recommended.

It was determined that impacts related to the availability of water supplies to serve the Proposed Project, as analyzed in the ConnectMenlo EIR (pages 4.14-24 to 4.14-27), would be less than significant. Future development under ConnectMenlo would be required to comply with existing regulations, including City General Plan policies and zoning requirements, to minimize impacts related to water supplies. Development would increase demand by 343 mgy, which represents 21 percent of the planning-level water demand forecast in the 2015 UWMP (the adopted UWMP at the time). The ConnectMenlo EIR concluded that the water supply would be adequate and able to meet increased demands in normal years as well as the additional demand generated by the increase in development associated with implementation of ConnectMenlo. Future development under ConnectMenlo would be required to comply with existing regulations, including City General Plan policies and zoning requirements, to minimize impacts related to water supplies. No mitigation measures were recommended.

It was determined that impacts related to wastewater treatment capacity, as analyzed in the ConnectMenlo EIR (pages 4.14-43 to 4.14-45), would be less than significant. Future development is expected to tie in to existing collection facilities. The installation of extension lines would comply with applicable sewer permits, which require projects to reduce impacts on service capacity. In addition, projects would be required to comply with existing regulations that promote water conservation and minimize impacts related to wastewater generation. No mitigation measures were recommended.

[43] Although the ConnectMenlo EIR assumed a buildout horizon of 2040, maximum development potential may be reached sooner than anticipated. The ConnectMenlo EIR evaluated the maximum development potential that could occur at any given time and did not consider phased buildout with respect to development potential; therefore, no new or additional impacts are anticipated as a result of expedited buildout.

Solid waste generation was analyzed in the ConnectMenlo EIR under Impact UTIL-8 (pages 4.14-52 to 4.1-55). Compliance with solid waste reduction statutes and regulations was analyzed in the ConnectMenlo EIR under Impact UTIL-9 (pages 4.14-55 and 4.14-56). Both impacts were determined to be less than significant. Future development would be required to comply with existing regulations to minimize impacts related to solid waste disposal and attain solid waste reduction goals. No mitigation measures were recommended.

Impacts on energy supply facilities, transmission infrastructure, and capacity—specifically, those related to natural gas and electrical service—were analyzed in ConnectMenlo EIR under Impact UTIL-13 (pages 4.14-76 to 4.14-81) and determined to be less than significant. Future development would be required to comply with existing regulations to minimize impacts related to energy. No mitigation measures were recommended.

Impacts Not Evaluated in Detail

The Initial Study prepared for the Proposed Project (Appendix 1-1) found the impacts listed below to be less than significant. Therefore, these topics were scoped out from further review in the EIR and are not discussed in this section. Please refer to Appendix 1-1 for additional analysis.

Construction or Expansion of Telecommunications Facilities. Telecommunications lines may need to be extended or relocated as a result of the Proposed Project. The installation of new or expanded telecommunication lines on the Project site would require excavation, trenching, soil movement, and other activities that are typical during the construction of development projects. These construction impacts are discussed in the appropriate topical sections of this Initial Study as part of the assessment of overall Project impacts. However, no offsite telecommunications facilities would need to be constructed or expanded as a result of the Proposed Project.

The physical conditions, as they relate to telecommunications, have not changed substantially in the ConnectMenlo EIR study area since preparation of the ConnectMenlo EIR. The Proposed Project would not result in a substantial change in the ConnectMenlo project, change in circumstances, or new information of substantial importance that shows more significant effects than those originally analyzed in the ConnectMenlo EIR; therefore, the Proposed Project would be within the scope of the ConnectMenlo EIR; there would be no new specific effects as a result of the Proposed Project. The Proposed Project could require the installation or expansion of telecommunication lines but would not lead to significant environmental impacts beyond the construction impacts discussed throughout this document. Impacts would be ***less than significant***.

Construction or Expansion of Stormwater Drainage Facilities. Implementation of the Proposed Project would add new impervious surfaces at the Project site. Hardscape surfaces at Lot 3 North would comprise concrete paving, decomposed granite paving, and concrete pavers. Because the Proposed Project would create or replace more than 10,000 square feet of impervious surface area, the Proposed Project would be regulated by Provision C.3 of the Municipal Regional Permit. To meet San Mateo Countywide Water Pollution Prevention Program Provision C.3 stormwater requirements, the Proposed Project would be required to treat runoff from all impervious areas.

Multiple strategies can be employed to offset increases in runoff from impervious surface areas, thereby preventing the volume of discharged stormwater from increasing. For example, the Proposed Project would be required to include LID treatment measures for stormwater management. The Project site would include flow-through planters around the perimeter of the proposed building as well as underground treatment facilities, including detention devices, self-treating areas, and Silva Cells to

capture and treat runoff from newly created or replaced impervious surface areas. Furthermore, the Project Sponsor would be required to develop and implement a Stormwater Management Plan, with the goal of reducing the discharge of pollutants to the maximum extent practicable.

Runoff from all impervious surfaces, both replaced and new, including runoff from the roof, drive aisles, and parking areas, would be directed to onsite treatment facilities. Where feasible, pervious surface materials, such as permeable pavement or decomposed granite, would be considered. The Proposed Project would continue to drain to underground storm drains, the same as under existing conditions.

The physical conditions, as they relate to stormwater drainage facilities, have not changed substantially in the ConnectMenlo EIR study area since preparation of the ConnectMenlo EIR. The Proposed Project would not result in a substantial change in the ConnectMenlo project, change in circumstances, or new information of substantial importance that shows more significant effects than those originally analyzed in the ConnectMenlo EIR; therefore, there would be no new specific effects as a result of the Proposed Project. Compliance with applicable stormwater management requirements and implementation of a landscaping plan, designed to provide stormwater treatment areas, would ensure that the Proposed Project would not significantly increase stormwater drainage from the Project site. As such, the Proposed Project would not require the construction of new stormwater drainage facilities or the expansion of existing facilities, resulting in a ***less-than-significant*** impact.

Generation of Solid Waste. Construction of the Proposed Project would generate waste. Therefore, the Proposed Project would be required to comply with the City's Construction and Demolition Recycling Ordinance, which requires salvaging or recycling of at least 60 percent of construction-related solid waste. A goal of the Proposed Project is to have a waste diversion program in place that would divert 95 percent of the waste, or more, away from landfills. Therefore, construction of the Proposed Project is not expected to have an impact on existing landfills.

Operation of the Proposed Project would result in the generation of solid waste beyond existing conditions but would continue to meet state and local standards for solid waste and recycling. The waste generated at the Project site would be collected by Recology San Mateo and hauled to Shoreway. Shoreway is permitted to receive 3,000 tons of refuse per day. Once collected and sorted at Shoreway, solid waste would be transported to Ox Mountain, which is permitted to receive 3,598 tons per day. Solid waste generated by operation of the Proposed Project would represent approximately 0.5 and 0.4 percent of the permitted capacity of Shoreway and Ox Mountain, respectively.[44] As such, Shoreway and Ox Mountain would have the capacity to serve the Proposed Project.

Construction and operation of the Proposed Project would comply with all applicable statutes and regulations related to solid waste. State law (AB 341 and AB 939) requires businesses to recycle and cities to divert 50 percent of their solid waste from landfills. The Proposed Project would adhere to these laws. In addition, the Proposed Project would be required to adhere to the City's Recycling and Salvaging of Construction Debris Ordinance and establish a zero-waste management plan.

The physical conditions, as they relate to solid waste generation, have not changed substantially in the ConnectMenlo EIR study area since preparation of the ConnectMenlo EIR. The Proposed Project would not result in a substantial change in the ConnectMenlo project, change in circumstances, or new information of substantial importance that shows more significant effects than those originally analyzed in the ConnectMenlo EIR; therefore, there would be no new specific effects as a result of the Proposed Project. The Proposed Project would be served by a landfill with adequate permitted capacity to

[44] See Initial Study (Appendix 1-1) for full analysis.

accommodate its solid waste disposal needs. In addition, the Proposed Project would be within the growth projections of the ConnectMenlo EIR and, as such, would not result in impacts that were not already evaluated. Impacts would be ***less than significant***.

Project Impacts and Mitigation Measures

Impact UT-1: New and Expanded Water and Wastewater Treatment Facilities. The Proposed Project would not require or result in the relocation of existing or the construction of new or expanded water or wastewater treatment facilities. (LTS)

Water Supply, Infrastructure, and Facilities

The Proposed Project would include upgrading existing waterlines under Adams Court, along the interior of the 1350 Adams Court property, and under a portion of O'Brien Drive. New waterlines at the Project site would connect to existing MPMWD infrastructure. The existing 10-inch water mains under Adams Court and through the Project site would be upgraded to 12-inch water mains. In addition, a portion of the existing 10-inch water main in O'Brien Drive would be upgraded to a 12-inch water main. The new lines would be placed next to the existing lines, which would be disconnected rather than removed. New domestic service to the proposed building would be provided from the Adams Drive line, at the northeast corner of the site. In addition, a backflow preventer would be placed at this location. The required size for the new service line has not yet been confirmed but is expected to be 4 inches. The Proposed Project would include water-conserving plant material and irrigation practices, in compliance with the guidelines of the Water Efficient Landscape Ordinance.

Water for the Proposed Project would be treated at one of three WTPs, the SFPUC's Tesla Treatment Facility, the Sunol Valley WTP, or the Harry Tracy WTP. The Tesla Treatment Facility has the capacity to treat 315 mgd. The Sunol Valley WTP has the capacity to treat 160 mgd. The Harry Tracy WTP has the capacity to treat approximately 140 mgd.

As explained in the WSA for the Proposed Project, the estimated baseline water demand for the Proposed Project is 7.81 mgy, or approximately 0.02 mgd; however, the Proposed Project prepared a demand estimate with assumed conservation measures that would reduce water demand by approximately 38 percent to 4.82 mgy, or approximately 0.01 mgd. The specific water-saving measures include efficient fixtures and fittings, efficient heating and cooling systems, more efficient lab equipment, more efficient kitchen/food service appliances and equipment, and extensive use of drip irrigation and drought-tolerant plants for outdoor areas. For the purposes of this analysis, it is assumed that these water conservation measures would be implemented; therefore, the *reduced* water demand number is assumed to be the water demand number for the Proposed Project. Although it is not known which of the three WTPs would treat water for the Project site, this increase in demand of approximately 0.01 mgd would not be considered a substantial increase for the SFPUC system, which can treat approximately 615 mgd with the combined capacity of its three WTPs.

The SFPUC is continuously planning operational upgrades, maintenance, and capital improvements for its WTPs. This is expected to continue in the future, independent of the Proposed Project. Environmental impacts from construction of the new or expanded water treatment facilities deemed necessary through the planning process would be addressed in the CEQA review conducted by the lead agency (i.e., SFPUC) for such facility expansion or development. Therefore, an evaluation of the possible environmental effects of future facility expansion/development would be speculative and beyond the scope of this EIR.

As part of the City's project approval process, the Proposed Project would be required to comply with existing regulations, including policies and zoning regulations that promote water conservation and green building best practices. The Project would seek Leadership in Energy and Environmental Design (LEED) Gold Building Design and Construction (BD+C) certification (e.g., ultra-low-flow fixtures within the building). In addition, although water infrastructure (e.g., waterlines under Adams Court, the Project site, and a portion of O'Brien Drive) would be upgraded, the construction of such infrastructure is analyzed throughout this document, and no significant impacts have been identified. No mitigation measures would be necessary. Therefore, adoption of the Proposed Project would result in ***less-than-significant*** impacts regarding the need for new or expanded water treatment facilities.

Wastewater Infrastructure and Facilities

As explained above, a 6-inch sanitary sewer below Adams Court runs to the east; another 6-inch sanitary sewer starts at about the midpoint on the Project site and runs to the north, below Adams Drive. These two sanitary sewers meet in a manhole at the intersection of Adams Court and Adams Drive. From that manhole, an 8-inch sanitary line runs to the north. The northern portion of the Project site has three existing sanitary sewer services, two of which are unused services (i.e., a 6-inch service from Adams Court and a 6-inch service from Adams Drive). The third line, a 6-inch service from Adams Court, is currently servicing the rear of the PacBio building. This service would be temporarily disrupted with construction of the proposed building. Specifically, the use of a single restroom would be disrupted. Therefore, a temporary restroom would be provided during construction. Once construction is completed, the third line would serve the PacBio building, just as it did prior to construction. It would also provide service to the new trash enclosure for the Proposed Project.

The locations and sizes of the sanitary sewer lines from the proposed building are unknown; however, it is anticipated that the Proposed Project would require a pipe size of approximately 6 inches. Wastewater from the Project site would ultimately be discharged to the SVCW pump station in Redwood City.

Wastewater in the MPMWD service area is collected by the WBSD and the SVCW WWTP. According to the 2020 MPMWD UWMP, the volume of wastewater from the MPMWD service area collected by the WBSD totaled approximately 873 mgy in 2020, or about 2.4 mgd. The wastewater generation estimate for the Proposed Project is approximately 90 percent of its indoor water use estimate, or 3.9 mgy. This would not represent a significant increase for the WBSD relative to its current average collection rates.

Operation of the SVCW WWTP and its wastewater conveyance system is governed by the waste discharge requirements found in Regional Water Board Order No. R2-2018-00XX (NPDES No. CA0038369). This order has a dry-weather facility design flow of 29 mgd and a peak wet-weather design flow of 71 mgd. The NPDES permit does not have a limitation on flow quantity. As noted in the ConnectMenlo EIR, SVCW reports that its treatment plant has a capacity of 80 mgd; however, some bottlenecks would need to be resolved to get plant capacity to 80 mgd. Therefore, the WWTP design is not necessarily limited to the peak wet-weather flow of 71 mgd mentioned in the NPDES permit.

As stated above, the Sharon Heights RWF at the Sharon Heights Golf and Country Club processes a limited amount of wastewater in Menlo Park. Although water sources for the Proposed Project would not include the use of recycled water, some of its wastewater could be processed at the Sharon Heights RWF and released as recycled water. This, however, is considered speculative. Because the overall amount of processed wastewater would be minimal, it is not included in this analysis. As reported by the RWQCB, from October 2012 through August 2017, the SVCW WWTP treated an average of 13.5 mgd, with a maximum instantaneous flow of 50 mgd. Both rates are well within the 29 mgd average dry-weather design flow and 71 mgd peak wet-weather design flow. Under its Stage 2 expansion program, SVCW will increase WWTP capacity to 80 mgd, as needed.

Assuming that 90 percent of the net amount of water used indoors by the Proposed Project would become wastewater (see Impact UT-2, below), the estimated net increase in wastewater generation would be approximately 3.9 mgy, or about 0.01 mgd. This increase in wastewater generation would not be substantial relative to the currently available excess dry-weather design flow capacity of 15.5 mgd (i.e., 29 mgd design flow minus 13.5 mgd current average flow = 15.5 mgd).

Although the increase in wastewater flows with implementation of the Proposed Project would add to capacity demands for the WWTP and its conveyance system, the effect would not be substantial and would not result in the need for expanded or new wastewater treatment facilities. Any increase would be integrated into ongoing planning and budgeting processes to improve the conveyance system, treatment processes, and capacity. Planning for operational upgrades, maintenance, and capital improvements at the WWTP is expected to continue in the future, independent of the Proposed Project. Environmental impacts from construction of the new or expanded wastewater treatment facilities deemed necessary through the planning process would be addressed in the CEQA review conducted by the lead agency for such facility expansion or development. Therefore, an evaluation of possible environmental effects from future expansion/development of such facilities would be speculative and beyond the scope of this EIR.

The Proposed Project, as part of the City's project approval process, would be required to comply with existing regulations, including policies and zoning requirements that promote water conservation and minimize impacts related to wastewater generation. In addition, the Proposed Project would not reduce the capacity of the wastewater treatment system substantially. Wastewater facilities would be expanded as needed to accommodate future growth in the service areas, in accordance with CIPs. Therefore, the Proposed Project would result in less-than-significant impacts regarding the need for new or expanded wastewater treatment facilities. The Proposed Project would not require or result in the relocation of existing or construction of new or expanded water or wastewater treatment facilities. Impact UT-1 would be ***less than significant***.

Impact UT-2: Sufficient Water Supply. Sufficient water supplies would be available to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years. (LTS)

Because the Proposed Project would be within the maximum scope of development studied in ConnectMenlo, the water demand of the Proposed Project is included in the ConnectMenlo EIR as well as the MPMWD 2015 UWMP and 2020 UWMP water demand analyses. This analysis of water supply availability is based on numbers from the WSA prepared for the Proposed Project; the WSA is based on the 2020 MPMWD UWMP.

As required by the City, a water use budget was prepared for the Proposed Project as well as a separate water demand assessment after conservation measures were factored in. The Proposed Project's total estimated water demand with conservation measures, as described above under Impact UT-1, would be approximately 4.82 mgy, or about 0.01 mgd. Indoor water demand (e.g., for plumbing fixtures and fittings, heating and cooling, laboratory uses, cafeteria/kitchen use) is estimated at 4.35 mgy. Demand associated with irrigation uses is estimated at 0.47 mgy.

Pursuant to California Water Code Section 10910(c)(4) and the technical analyses described in the WSA for the Proposed Project, the MPMWD found that total water supply determined to be available over a 20-year timeframe would meet the projected water demand associated with the Proposed Project, in addition to existing and planned future uses. As described previously, the Proposed Project was not specifically identified in the ConnectMenlo EIR. However, the ConnectMenlo EIR defines the maximum scope of development that can occur in the ConnectMenlo study area. The MPMWD is actively tracking all projects

in the ConnectMenlo study area on a cumulative basis to ensure that development remains below the maximum level permitted in the ConnectMenlo EIR and would therefore expect to have the ability to serve it. The Proposed Project, if approved, would be included in this cumulative development total, which would be below the maximum development level permitted.

The MPMWD, which is a member agency of BAWSCA, purchases water solely from the SFPUC RWS. BAWSCA, in coordination with its member agencies and the SFPUC, is investigating projects and implementing strategies to improve the reliability of water supplies to its member agencies. In addition, the SFPUC is actively pursuing all options to resolve the potential effects of the Bay-Delta Plan Amendment, such as the efforts described above in the Alternative Water Supply Planning Program section and discussed below. The SFPUC remains committed to creating benefits for the Tuolumne River while meeting water supply level-of-service goals and objectives for retail and wholesale customers, such as the MPMWD.

The WSA for the Proposed Project summarizes the projected availability of the MPMWD's existing and planned future water supplies as well as the MPMWD's projected water demands in normal, single, and multiple dry years through 2040. It shows that water demand within the MPMWD service area is not expected to exceed MPMWD water supplies during normal water years to 2040, including demand associated with buildout of ConnectMenlo. During single and multiple dry years, MPMWD water supplies are similarly expected to meet water demand through the anticipated procurement of a new recycled water source at the Bayfront Recycled Water Facility by 2030, a continued mandatory water demand management program with prohibitions, and implementation of the WSCP, as discussed above. Should the Bay-Delta Plan Amendment be implemented, starting in 2023, MPMWD expects its supply to meet demand during normal water years; however, significant shortfalls during dry and multiple dry years may occur, requiring stricter water demand reductions under the WSCP, as discussed below.

Bay-Delta Plan Amendment Implementation

If the Bay-Delta Plan Amendment is implemented, the SFPUC will be able to meet its contractual obligations to its wholesale customers, as presented in the SFPUC 2020 UWMP, in normal years but would experience significant supply shortages in dry years. In single dry years, supply shortages would range from 36 to 46 percent. In multiple dry years, supply shortages would range from 36 to 54 percent. Implementation of the Bay-Delta Plan Amendment will require rationing in all single dry and multiple dry years through 2045.

If the Bay-Delta Plan Amendment is not implemented, the SFPUC would be able to meet 100 percent of projected purchases by its wholesale customers, including the MPMWD, during all year types through 2045, except during the fourth and fifth consecutive dry year for base year 2045, when 15 percent wholesale supply shortages are projected. In June 2021, in response to various comments from wholesale customers regarding the reliability of the RWS, as described in the SFPUC's 2020 UWMP, the SFPUC provided a memorandum describing its efforts to remedy the potential effects of the Bay-Delta Plan Amendment. These include pursuing a Tuolumne River voluntary agreement;[45] evaluating the drought planning scenario in light of climate change; pursuing alternative water supplies; engaging in litigation with the state over the Bay-Delta Plan Amendment; and engaging in litigation with the state over the proposed Don Pedro Federal Energy Regulatory Commisson Water Quality Certification. The SFPUC has

[45] As of October 29, 2021, state regulators announced that the voluntary agreement negotiations process has ceased, with no agreement reached. *San Francisco Chronicle*, "California Drought: Key Talks Over Water Use Break Down, SF May Face Tighter Regulation." Available: https://www.sfchronicle.com/sf/article/California-drought-Key-talks-over-water-use-16576132.php. Accessed: March 4, 2022.

initiated an Alternative Water Supply Planning Program to ensure that San Francisco can meet the water needs of its retail and wholesale customers, address shortages in projected dry years, and limit rationing to a maximum 20 percent system-wide, in accordance with adopted SFPUC policies. This program, which is in its early planning stages, is intended to meet future water supply challenges and vulnerabilities (e.g., environmental flow needs and other regulatory changes; earthquakes, disasters, and emergencies; increases in population and employment; climate change). Because the region faces future challenges, both known and unknown, the SFPUC is considering a suite of diverse, non-traditional supplies and leveraging regional partnerships to meet retail and wholesale customer needs through 2045.

Water Supply Reliability

In normal years, MPMWD expects that its water supplies would be adequate and able to satisfy projected normal-year demands. However, MPMWD anticipates that its available purchases from the SFPUC RWS would experience dry-year supply reductions with implementation of the Bay-Delta Plan Amendment, which would significantly reduce dry-year allocations for all SFPUC wholesale customers. Recycled water is estimated to be available during all hydrologic years at a volume that meets MPMWD's projected recycled-water demands. Table 3.6-1 shows MPMWD's projected supplies during normal, single dry, and multiple dry years through 2040, based on the assumptions in the MPMWD 2020 UWMP, which assumes implementation of the Bay-Delta Plan Amendment by 2023. Based on the SFPUC's analysis, similar water supply quantities would be available to MPMWD in 2045 under the various hydrologic conditions.

Table 3.6-1. MPMWD's Projected Water Supplies for Normal, Single, and Multiple Dry Years

	Projected Water Supply (in mg)[a]			
Hydrologic Condition[b]	**2025**	**2030**	**2035**	**2040**
Normal Year	1,678	1,750	1,750	1,750
Single Dry Year	877	978	1,018	1,062
Multiple Dry Years – Year 1	877	978	1,018	1,062
Multiple Dry Years – Year 2	760	854	877	927
Multiple Dry Years – Year 3	760	854	877	927
Multiple Dry Years – Year 4	760	854	877	832
Multiple Dry Years – Year 5	760	854	824	832

Source: West Yost. 2022. *1350 Adams Court Project Water Supply Assessment*. Prepared for Menlo Park Municipal Water District.

a. Includes projected potable water supply from the SFPUC RWS and projected recycled water supply (48 mgy for 2025 and 120 mgy for 2030 to 2040).

b. These estimates do not account for potential changes due to the implementation of the Bay-Delta Plan Amendment, climate change impacts on the SFPUC RWS, and potential delays in completion of the Water System Improvement Program.

In the event that the Bay-Delta Plan Amendment is not implemented, the SFPUC has indicated that it would be able to meet 100 percent of wholesale projected purchases, including those from MPMWD, during all year types through 2045, except during the fourth and fifth consecutive dry year for base year 2045, when MPMWD would most likely experience a 16.5 percent supply shortfall.

With the MPMWD's WSCP in place, the shortages in single and multiple dry years would be managed through demand reductions of up to 50 percent. Projected shortfalls in single dry years would require implementation of Stage 3 or Stage 4 of the MPMWD WSCP; projected shortfalls in multiple dry year would require implementation of Stage 3, 4, or 5 of the MPMWD WSCP. In accordance with zoning and City water

use regulations, the Proposed Project would incorporate green and sustainable building practices, seek LEED Gold BD+C certification (e.g., ultra-low-flow fixtures within the building), and implement water conservation measures, both in building designs and in daily operations, employee practices, and landscaping choices. In addition, per Menlo Park Municipal Code Section 16.44.130 (3)(D), although recycled water is not proposed for the Project, the Project would be dual plumbed with purple pipe for recycled water access when it becomes available in the Bayfront Area., the MPMWD's Emergency Water Storage/Supply Project has been completed; once permitted, that project will provide the area with a secure source of water during emergency scenarios. Furthermore, water demand associated with buildout of ConnectMenlo, which includes the Proposed Project, is included in the 2020 UWMP and indicates that the city would have water resources available to serve anticipated growth, including the growth anticipated in the ConnectMenlo EIR. The Proposed Project would be subject to the same water conservation and water use restrictions as other water users within the MPMWD system under ConnectMenlo. Therefore, adequate water supplies would be available to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Impact UT-2 would be ***less than significant***, consistent with the ConnectMenlo EIR. No mitigation is required.

Impact UT-3: Generation of Wastewater. The Proposed Project would not result in a determination by the wastewater treatment providers that they have inadequate capacity to serve the Proposed Project's projected demand in addition to the providers' existing commitments. (LTS)

The WBSD provides wastewater collection and conveyance services for the MPMWD, which conveys the majority of raw wastewater to the SVCW WWTP. According to the 2020 MPMWD UWMP, the total volume of wastewater collected by the WBSD from the MPMWD service area in 2020 was approximately 873 mg, or an average of about 2.4 mgd.

As stated above under Impact UT-1, operation of the SVCW WWTP and its wastewater conveyance system is governed by the waste discharge requirements found in RWQCB Order No. R2-2018-00XX (NPDES No. CA0038369). This order has a dry-weather facility design flow of 29 mgd and a peak wet-weather design flow of 71 mgd. The NPDES permit does not have a limitation on flow quantity. As noted in the ConnectMenlo EIR, the SVCW reports that its WWTP has a capacity limit of 80 mgd; however, some bottlenecks would need to be resolved to get plant capacity to 80 mgd. Therefore, the WWTP design is not necessarily limited to the peak wet-weather flow of 71 mgd. As reported by the Regional Water Board, from October 2012 through August 2017, the plant treated an average of 13.5 mgd, with a maximum instantaneous flow of 50 mgd. Both rates are well within the 29 mgd average dry-weather design flow and 71 mgd peak wet-weather design flow. Under its Stage 2 expansion program, SVCW will increase WWTP capacity to 80 mgd, as needed.

Assuming that 90 percent of the net amount of water used indoors by the Proposed Project would become wastewater, the estimated net increase in wastewater generation would be approximately 3.9 mgy, or about 0.01 mgd. This increase in wastewater generation would not be significant relative to the currently available excess dry-weather design flow capacity of 15.5 mgd (i.e., 29 mgd design flow minus 13.5 mgd current average flow = 15.5 mgd) at the SVCW WWTP. Estimated wastewater flows from the Proposed Project would therefore represent approximately 0.0006 percent of the total daily wastewater capacity of the SVCW WWTP. Likewise, wastewater generation (i.e., maximum of approximately 3.9 mgy) would not be significant relative to current average collection rates at the WBSD (i.e., 0.004 percent of average yearly collection). Therefore, the impact would be ***less than significant***.

Impact UT-4: Wasteful, Inefficient, or Unnecessary Consumption of Energy Resources. The Proposed Project would not result in potentially significant environmental impacts due to the wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. (LTS)

Construction

Project construction would include demolition work, grading, excavation, utility relocation, basement and foundation work, and building and garage construction, which would require energy; therefore, construction of the Proposed Project would result in a temporary increase in demand for energy resources. Specifically, construction of the Proposed Project would require approximately 70,262 gallons of diesel fuel and 38,917 gallons of gasoline to power equipment and onsite construction trailers over the approximately 2.5-year construction period. This use of fuel would be temporary.

The amount of energy used to construct a project of this size is considered typical. Furthermore, the Project would be subject to regulatory programs related to fuel and vehicle efficiency (refer to Section 3.2, *Air Quality*, and Section 3.3, *Greenhouse Gas Emissions*). Electricity and natural gas would not be consumed during construction of the Proposed Project. In addition, all construction activities would be required to adhere to the City's Green and Sustainable Building Code (see Section 16.44.130 of the Menlo Park Municipal Code). Therefore, the Proposed Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during construction. This impact would be ***less than significant***.

Operation

The Proposed Project would consume energy resources in the form of electricity, natural gas, and fuel during operation. Energy demand generated by operation of the Proposed Project would result from the electricity and natural gas required within the proposed building and parking garage (e.g., for lighting). Based on the Proposed Project's energy consumption rates, as provided by the Project's engineering consultant, the Proposed Project would consume approximately 9,390 megawatt hours of electricity per year and approximately 17,347 million BTUs of natural gas at buildout. In addition, vehicles traveling to and from the Proposed Project would require approximately 30,884 gallons of diesel fuel and 149,736 gallons of gasoline annually during normal operations. These quantities are derived from the Proposed Project's estimation of GHG emissions and do not account for current or future vehicle trip reductions that would occur as a result of increased bicycle and pedestrian connectivity, which the Proposed Project would facilitate through its transportation demand management (TDM) program. However, the estimates do reflect vehicle use reductions anticipated to be achieved by other TDM measures, as described below and elsewhere in this EIR.

The Proposed Project would comply with all applicable City and state green building measures, including Title 24, which is commonly referred to as CALGreen (CCR, Part 11). In addition, the Proposed Project would seek LEED Gold BD+C certification, which is a requirement for bonus-level development. The building design would incorporate tall windows on the north side to maximize daylighting; the façade on the south side would be balanced with opaque finishes and ribbon windows with sunshades to reduce solar heat gain. The building would also be clad with glass fiber reinforced concrete panels, pre-finished metal panels, and double-glazed, high-performance windows in aluminum mullions to reduce energy loss. Proposed landscaping would include water-conserving plant materials and irrigation in compliance with the City's Water Efficient Landscaping Ordinance guidelines to reduce the amount of energy used in delivering water to the site. In addition, five flow-through planters around the proposed building would treat stormwater, thereby reducing the energy used in stormwater transport and treatment systems.

These designs would reduce Project-related energy consumption. Furthermore, the Proposed Project would implement a TDM plan that would encourage alternative modes of transportation to reduce single-occupant vehicle use as well as fuel consumption. This program would include, but not be limited to, Class I and II bicycle parking spaces and storage facilities, showers/changing rooms, preferential carpool parking, a commute assistance center, subsidized transit tickets, electric-vehicle charging stations, public transportation shuttles, and transit programs. Therefore, although the Proposed Project would result in an increase in energy consumption compared with existing conditions, the Proposed Project would not result in the wasteful, inefficient, or unnecessary consumption of energy resources during operation with incorporation of energy-efficient design features and encouraged use of alternative modes of transportation. This impact would be ***less than significant***.

Impact UT-5: Conflict with a Plan. The Proposed Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. (LTS)

As discussed above, the Proposed Project would include energy-efficient components (e.g., electric-vehicle charging stations and windows with sunshades to reduce solar heat gain) that would support implementation of applicable plans related to renewable energy or energy efficiency. Also as stated previously, the Proposed Project would seek LEED Gold BD+C certification. The Proposed Project would include various design features to reduce stormwater runoff and water consumption through the incorporation of flow-through planters and water-efficient landscaping**.** As discussed in this section, as well as Section 3.2, *Air Quality*, and Section 3.3, *Greenhouse Gas Emissions*, the Proposed Project would be consistent with applicable plans related to renewable energy or energy efficiency. Specifically, the Proposed Project would be consistent with the AB 32 Scoping Plan, SB 350, the City's CAP, and Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(II), Green and Sustainable Building, as well as PG&E's and PCE's IRPs. Therefore, the Proposed Project would not conflict with or obstruct implementation of a state or local plan regarding renewable energy or energy efficiency. This impact would be ***less than significant***.

Cumulative Impacts

The geographic context for the analysis of cumulative impacts on utilities, service systems, and energy consists of the service areas of the water, wastewater treatment, and energy providers for the Project site and therefore relies on a projection approach.

Impact C-UT-1: Cumulative Water and Wastewater. A significant cumulative impact on water providers and wastewater treatment providers would not occur with implementation of the Proposed Project. (LTS)

As stated in Section 3.5, *Population and Housing*, the Proposed Project's impact on population and housing would be less than significant (see Impact POP-1). The population (i.e., number of new employees) at the Project site would increase by approximately 650. Although the Proposed Project would not result in an onsite residential population increase, the new employees could generate households within Menlo Park and the region. This type of population increase is considered planned growth and has been accounted for in the planning documents and growth forecasts of the City, such as ConnectMenlo, and the region, such as those from the Association of Bay Area Governments. The increased demand for water and wastewater as a result of the Proposed Project is discussed above.

Construction and operation of the Proposed Project would not require the relocation of existing or construction of new water or wastewater treatment infrastructure. The overall increase in water demand as well as wastewater generation as a result of the Proposed Project would be minimal considered in the

context of existing capacity as well as existing demand, as described above. Therefore, the Proposed Project would not have a significant effect on the ability of water and wastewater service providers to meet existing demands and commitments in combination with construction and operation of the Proposed Project. Therefore, the Proposed Project's contribution to impacts on utilities and service systems, including water and wastewater treatment systems, combined with related past, present, and reasonably foreseeable future projects would not be significant. However, future growth within the service areas of the water and wastewater service providers could increase future demands on infrastructure and service systems. Therefore, future growth would be subject to approval from the local jurisdictions. Specifically, should such future growth occur, the respective decision-making jurisdictions would be required to determine the need for increased water and wastewater services to support whatever new development is proposed or approved. Such development would be required to undergo CEQA analysis to identify potential impacts on existing water and wastewater infrastructure and service systems.

The Proposed Project would not induce future growth directly. As to subsequent unplanned growth and the extent of its demand on water or wastewater systems, any analysis at this point would be speculative. Therefore, the Proposed Project in combination with future demand in the service areas of the existing water and wastewater service providers is not expected to result in significant cumulative impacts. The cumulative impacts would be ***less than significant***.

Impact C-UT-2: Cumulative Energy. A significant cumulative impact on energy service providers would not occur with implementation of the Proposed Project. (LTS)

Continued growth throughout PG&E's service area could contribute to ongoing increases in demand for electricity and natural gas. These anticipated increases would be countered, in part, as state and local requirements related to renewable energy become more stringent and energy efficiency increases. The extent to which cumulative development through 2023, the Project's buildout year, could result in the wasteful, inefficient, or unnecessary consumption of energy resources would depend on the specific characteristics of new development, which are not known at this time. As discussed previously, SB 100 obligates utilities to supply 100 percent carbon-free electricity by 2045; PG&E reached California's 2020 renewable energy goal 3 years ahead of schedule and is currently projected to meet the new SB 100 goal, which calls for 60 percent renewable energy by 2030, also ahead of schedule. Similarly, the Pavley standards are expected to increase average fuel economy to roughly 54.5 miles per gallon by 2025, thereby lowering the demand for fossil fuels. Therefore, it is anticipated that future energy users will become more efficient and less wasteful over time.

The Proposed Project would be completed in 2023. Buildout would increase energy consumption on the Project site by approximately 9,310 megawatt hours and 17,000 million BTUs per year compared with existing conditions. However, as discussed above in the impact analysis, the Proposed Project would include a transportation demand management program to reduce single-occupant vehicles use; incorporate double-glazed, high-performance windows to reduce energy loss; qualify for LEED Gold certification; and meet Menlo Park Municipal Code and CALGreen building requirements.

Similar to the Proposed Project, other development would most likely include features that would reduce energy consumption and increase reliance on renewable energy. For these reasons, the Proposed Project in combination with past, present, and reasonably foreseeable future projects would not result in a significant cumulative impact related to the wasteful, inefficient, or unnecessary consumption of energy resources. The cumulative impact would be ***less than significant***.

Chapter 4
Other CEQA Considerations

As required by the California Environmental Quality Act (CEQA), this chapter discusses the following types of impacts that could result from implementation of the Proposed Project: growth-inducing impacts, significant irreversible changes, effects found not to be significant, and significant and unavoidable effects.

4.1 Growth Inducement

Section 15126.2(d) of the CEQA Guidelines states that an environmental impact report (EIR) should discuss "…the ways in which the project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." Growth can be induced in a number of ways, including through the elimination of obstacles to growth; through the stimulation of economic activity within the region, including the generation of significant employment opportunities; or through precedent-setting action. CEQA requires a discussion of how a project could increase population, employment, or housing in the areas surrounding a project as well as an analysis of the infrastructure and planning changes that would be necessary to implement a project.

The EIR discusses the manner in which the Proposed Project could affect growth in the city and the larger Bay Area. In accordance with the CEQA Guidelines, Section 15126.2, this discussion of growth inducement is not intended to characterize the Proposed Project as necessarily beneficial, detrimental, or of little significance to the environment. This growth-inducement discussion is provided for informational purposes so that the public and local decision-makers have an appreciation of the potential long-term growth implications of the Proposed Project. Although CEQA requires disclosure of growth-inducement effects, an EIR is not required to anticipate and mitigate the effects of a particular project on growth in other areas. Growth inducement has the potential to result in an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the affected area. Because the general plan of a community defines the location, type, and intensity of growth, it is the primary means of regulating development and growth in that community.

In discussing growth inducement, it is useful to distinguish between direct and indirect growth. Direct growth occurs on a project site as a result of new facilities (buildings) being constructed or an increase in developed space. As discussed in Chapter 2, *Project Description*, direct growth associated with the Proposed Project would amount to approximately 255,000 gross square feet (gsf) of development for life science uses.

Indirect growth occurs beyond a project site but is stimulated by a project's direct growth. Indirect growth is tied to increased direct and indirect investment and spending associated with the new direct growth. For example, if a project were implemented, future workers would spend money in the local area, and the expenditure of that money would result in additional jobs. The indirect jobs generated by a project (referred to as the "multiplier effect") tend to be relatively close to places of employment but may occur at more distant locales as well. In addition, a project that would require the extension of certain utilities could indirectly induce growth in adjacent areas that were previously undeveloped. When CEQA refers to induced growth, CEQA means all growth—direct, indirect, and otherwise defined.

As discussed in Chapter 5, *Waterline Analysis*, waterline work would occur under Adams Court. The existing 10-inch water mains running under Adams Court and through the Project site would be upgraded to 12-inch water mains, and a portion of the existing 10-inch water main in O'Brien Drive would be upgraded to a 12-

inch water main. The new lines would be placed next to the existing lines, which would be disconnected rather than removed all together. The addition of the waterlines under Adams Court, the Project site, and O'Brien Drive would not result in indirect or direct growth in the form of new employees or residents because the installation of the waterlines would occur within an already-urbanized area of the city, and the proposed waterlines would be installed to improve fire flow for existing development within the Project area as well as support development that was previously analyzed under the ConnectMenlo EIR.A total of 650 employees would be generated by the Proposed Project; this, in turn, would generate demands for new housing in the city and region. As discussed in Section 3.5, *Population and Housing*, between 2020 and 2025, the indirect housing demand generated by the Proposed Project would be 0.2 percent of the projected household growth in the Bay Area, 5.6 percent of household growth in San Mateo County, and 2.4 percent of housing growth in the city. Overall, on a regional basis, the Proposed Project's demand for housing would not be a significant share of the total housing growth projected by the Association of Bay Area Governments (ABAG). As such, the development associated with the Proposed Project would be generally consistent with what is projected in the City of Menlo Park's (City's) adopted general plan and what is included in the regional ABAG projections. Thus, the adopted general plan considered the direct job growth and the indirect induced housing demand that would result from implementation of the Proposed Project.

As discussed in Section 3.5*, Population and Housing*, the increase in employment at the Project site would result in an increase in housing demand and an influx of new residents within the city and other jurisdictions in the region. Assuming the county's average of approximately 1.91[1] employees per worker household, the Proposed Project would generate a demand for 341 housing units in the region to support employment from the Proposed Project.[2] On average, approximately 5.9 percent of the city's workforce also resides in the city; however, only 3.8 percent of employees who currently work on the Menlo Park Labs Campus live in Menlo Park. Given these numbers, it is conservatively assumed that up to 5.9 percent of the employees generated by the Proposed Project would seek and find housing in the city. Thus, approximately 38 of the projected number of employees at the Project site would be expected to live in the city.[3] Given an average of 1.91 workers per household, the Proposed Project could generate a housing demand for 13[4] to 20 new units[5] in the city. In addition, using these assumptions, the Proposed Project could create a demand for up to 321 units outside the city.[6]

As stated above, approximately 5.9 percent of the city's workforce also resides in the city, but only 3.8 percent of employees who currently work on the Menlo Park Labs Campus live in the city. Using these numbers, with an average persons-per-household (pph) ratio of 2.64, the Proposed Project could generate approximately 35 to 53 new residents within Menlo Park.

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1 In making the translation from the estimated number of Project employees to the estimated number of housing units in demand, the analysis in the HNA and this section considers multiple-earner households. Multiple-earner households have two or more workers and take a variety of forms, such as roommates and housemates, couples, and multi-generational households. The specific factor of 1.91 employees per worker household is the average number of workers in each working household in San Mateo County, as derived from U.S. Census Bureau data (2015–2019 American Community Survey).

2 The 341 new housing units required to support the Proposed Project = 650 employees/1.91 worker per housing unit.

3 The 650 Project employees x 5.9 percent of Project employees who would live in the city = 38 Project employees who would live in the city.

4 The 341 total households × 3.8 percent (Menlo Park Labs Campus average) = 13 households.

5 The 341 total households × 5.9 percent (city average) = 20 households.

6 The 341 units to support employment from the Project minus 20 units demanded in the city's sphere of influence due to the Project = 321 units demanded outside of the city due to the Project.

Approximately 44,530 residents lived within the city's sphere of influence in 2020. According to ABAG projections, the population is projected to increase to approximately 48,490 by 2025. This represents an increase of 3,960 residents over 5 years. The addition of up to 53 new residents in the city as a result of the Proposed Project would represent approximately 1.3 percent of the anticipated population growth within the city between 2020 and 2025.[7]

The Proposed Project's development of life sciences uses, rather than housing, in the context of the city's already high jobs/housing ratio does not further the balanced growth objectives of Plan Bay Area. Plan Bay Area represents a transportation and land use/housing strategy for how the Bay Area will address its transportation mobility and accessibility needs, land development, and greenhouse gas emissions reduction requirements through 2040. This manifests in upward pressure on housing demand because of low supply, which, in turn, results in workers seeking housing farther and farther away from the Project site. However, residential uses are not permitted within the Life Sciences land use and zoning designations. The projections provided by Plan Bay Area are based on existing planning documents, including ConnectMenlo, and therefore any development, including life sciences, at the Project site. In addition, as discussed below, it is not possible to predict with certainty whether the percentage of employees both living and working in the city will be maintained in the future, nor it is possible to predict accurately exactly where employees from outside the city might live.

Employees of the Proposed Project could be housed throughout the region. As stated above, it is anticipated that 5.9 percent of the employees generated by the Proposed Project would live in the city. The remaining employees would very likely find housing throughout the region, with the majority living in San Mateo, Santa Clara, and San Francisco Counties and a small percentage living outside the region in outlying areas. Alternatively, more local housing could be provided by cities within San Mateo County, thereby lessening the commute for those traveling to the Project site by providing local housing options. However, the future location of housing demand cannot be predicted with certainty because it is influenced by complex factors, including housing supply, demographics of new employees, traffic and transit conditions, salaries of new employees, and preferences of new employees.

4.2 Significant Irreversible Changes

Section 15126.2(c) of the CEQA Guidelines requires a Draft EIR to evaluate the significant irreversible environmental changes that would be caused by a proposed project should it be implemented and identify irreversible environmental changes as those involving a large commitment of nonrenewable resources or irreversible damage resulting from environmental accidents. CEQA Guidelines Section 15126.2(d) discuss three categories of significant irreversible changes that should be considered. Each is addressed below.

Changes in Land Use that Commit Future Generations

The Project site is in the Bayfront Area of the city and generally surrounded by commercial and light industrial uses. The approximately 11.2-acre Project site includes Lot 3 North and 1305 O'Brien Drive, which are the same legal parcel. Lot 3 North, where the Proposed Project would occur, is the undeveloped, vacant northern portion of the parcel. Pacific Biosciences-California (PacBio) occupies the building at 1305 O'Brien Drive.

[7] (up to 53 new residents in the city's sphere of influence/3,960 anticipated new residents in the city's sphere of influence between 2020 and 2025) × 100 = 1.3 percent of anticipated population growth in the city's sphere of influence.

Construction of the Proposed Project would occur on land that is designated for urban uses. The Proposed Project would be consistent with existing zoning for the site; however, in the future, the site could be rezoned, in which case, at the end of the useful life of the Proposed Project, the use could change. Therefore, the Proposed Project would not commit future generations to a significant change in land use.

Irreversible Damage from Environmental Accidents

No significant environmental damage, such as damage from accidental spills of a hazardous material, is anticipated to occur with development of the Proposed Project. As described in Section VIII, *Hazards and Hazardous Materials*, of the Initial Study (Appendix 1-1), a Phase I Environmental Site Assessment (ESA) was prepared for the Project site; significant hazardous materials were not identified at the site.

It is anticipated that the Proposed Project would generate hazardous materials as a result of its life science uses. In addition, the Proposed Project would use hazardous materials that are typical in office uses (e.g., cleaning products, building maintenance products, fertilizers and pesticides used in landscaping). It is possible that such materials could be released into the environment. The San Mateo County Environmental Health Department regulates waste generated by biotechnology through its Medical Waste Program and other hazardous materials through its Hazardous Materials Business Plan Program. Both programs regulate the use, storage, and disposal of hazardous materials. Enforcement is overseen by the Menlo Park Fire Protection District. Compliance with federal, state, and local regulations would ensure that all hazardous materials would be used, stored, and disposed of properly, which would minimize potential impacts related to a hazardous materials release during Project operation. No irreversible changes, such as those that might result from construction of a large-scale mining project, a hydroelectric dam project, or major institutional project, would result from development of the Proposed Project.

Consumption of Non-Renewable Resources

The Proposed Project would provide approximately 255,000 gsf of space within three five-story modules that would be offset from each other. Project development would require the use of materials such as steel and copper, as well as fossil fuels, during construction. The source metals used, unless they come from recycled materials, would represent an irreversible use of resources. Fossil fuels used during construction would represent an irreversible use of oil and natural gas.

As discussed in Section 3.6, *Utilities and Energy*, the Proposed Project would consume an estimated 70,262 gallons of diesel fuel and 38,917 gallons of gasoline over the entire construction period. Construction of the Proposed Project would not involve the consumption of electricity or natural gas.

During operations, the Proposed Project's energy demand is estimated to be as follows:

- **Electricity**: The Proposed Project would consume approximately 9,390 million kWh of electricity per year, which would represent an increase in electricity demand compared with existing conditions at the Project site, as it is currently vacant.
- **Natural Gas**: The Proposed Project would consume approximately 17,347 million British thermal units of natural gas per year, which would represent an increase in natural gas demand at the Project site compared to existing conditions, as the site is currently vacant.
- **Other Fuel:** The Proposed Project would consume more than 180,620 gallons of fuel annually during normal operations. This Draft EIR assumes that no employees currently work at the Project site; therefore, no fuel is currently consumed at the Project site.

To the extent that electricity for the Proposed Project comes from renewable sources (e.g., hydropower, sun, wind, geothermal), the Proposed Project would not represent an irreversible use of resources. To the extent that electricity for the Proposed Project comes from non-renewable sources (e.g., natural gas, coal, nuclear), the Proposed Project would represent an irreversible use of those resources.

4.3 Effects Found Not to Be Significant

Section 15128 of the CEQA Guidelines notes that "an EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR." Implementation of the Proposed Project would not result in significant environmental impacts related to aesthetics, agricultural and forestry resources, air quality (i.e., conflicts with plans and odors), biological resources, cultural and tribal cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise (all impacts except for increases in ambient noise levels), public services, recreation, transportation (i.e., changes in air traffic patterns), and utilities and service systems (i.e., stormwater and solid waste). Each topic area is addressed in the Initial Study (Appendix 1-1) and, therefore, not discussed further in this Draft EIR, other than a brief summary below.

Aesthetics

The Project site is within a portion of the city known as the Bayfront Area.[8] Because of the relatively flat topography of the Project site and vicinity, as well as the prevalence of buildings and vegetation, views from at-grade locations are largely restricted. Although the Proposed Project would result in additional height, bulk, and massing from the new building, which would interrupt existing channelized views of the Santa Cruz Mountains from Adams Court, this area is not considered a scenic vista; therefore, the Proposed Project would not block a scenic vista. As explained in the General Plan and M-2 Area Zoning Update (ConnectMenlo) EIR, although a section of Interstate 280 within the ConnectMenlo study area is a designated scenic highway, per the California Scenic Highways Program,[9] the Bayfront Area is not within the viewshed of Interstate 280.

The Proposed Project would have an average height of 50.6 feet across the entire Project site; the maximum height of the proposed building would be approximately 90.7 feet. Although the maximum average height permitted is 35 feet, bonus-level development within the Life Science, Bonus (LS-B) zoning district would allow a maximum height of 110 feet in exchange for community amenities.

The Proposed Project would be required to comply with the City's architectural control process, in accordance with Section 16.8.020 of the zoning ordinance, which would ensure that the Proposed Project would comply with existing design standards, including standards related to light and glare. This process would ensure that the proposed design, construction materials, and lighting would be consistent with area practices and that the proposed lighting would be directed downward so as not to spill over on adjacent properties. Therefore, the Proposed Project's impacts related to scenic vistas, scenic resources, and light and glare would be ***less than significant***.

[8] According to the General Plan and M-2 Area Zoning Update (ConnectMenlo) Environmental Impact Report.

[9] California Department of Transportation. 2018. *California Scenic Highway Mapping System, San Mateo County.* Available: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed: July 4, 2018.

Agricultural and Forestry Resources

The Project site and vicinity are within an urban area of the city characterized by light industrial and office uses. The Project site is not on or adjacent to farmland. The site is considered "Urban and Built-Up Land"[10] by the State Department of Conservation. It is not used for agricultural production, nor does it support forestry resources. Therefore, implementation of the Proposed Project would have ***no impact*** on agricultural and forestry resources.

Biological Resources

The Project site has been modified for human use and does not support any natural plant communities, nor is it located near any sensitive habitats. The Proposed Project would be required to comply with bird-safe design measures, such as tinted glazing, preconstruction/pre-disturbance surveys, active nest buffers, and nesting bird avoidance measures, included in the building regulations for the Bayfront Area. The Project site does not contain any riparian habitat, federally protected wetlands, or wildlife corridors. However, the Project site does contain mature (albeit nonnative) trees that could support active nests of common birds that are protected under the Migratory Bird Treaty Act. Any disturbance of nesting birds that results in the abandonment of active nests or litters or the loss of active nests through vegetation or structure removal would be a potentially significant impact. To reduce potential impacts on white-tailed kite and tree-nesting raptors, the Proposed Project would implement Project-specific Mitigation Measures BR-1, Nesting Bird Avoidance; BR-2, Preconstruction/Pre-disturbance Surveys; BR-3, Active Nest Buffers; and BR-4, Inhibition of Nesting (see Appendix 1-1).

There are currently 208 trees on Lot 3, of which 83 are on Lot 3 North and along the Adams Drive frontage of Lot 3. Of the trees on Lot 3 North and along the Adams Drive frontage, the Proposed Project would require the removal of 15 trees, 12 of which are protected trees. The remaining 68 trees on Lot 3 North and along the Adams Drive frontage, 48 of which are protected trees, would remain. The Project Sponsor would be required to plant replacement trees, with a value equal to the appraised value of the removed heritage trees, subject to approval by the City Arborist regarding the locations, sizes, species, and number of heritage tree replacements. Upon Project completion, Lot 3 North and the Adams Drive frontage would have approximately 120 trees, including the 68 trees that would remain and the 52 replacement trees that would be added by the Project. The Project site is not within a geographic area covered by an adopted habitat conservation plan or natural community conservation plan. Therefore, the Proposed Project's impacts related to biological resources would be ***less than significant with mitigation***.

Cultural and Tribal Cultural Resources

The majority of the buildings at the Menlo Park Labs Campus were constructed in three phases between approximately 1984 and 1989. The building on the southern portion of the Project site, at 1305 O'Brien Drive, was constructed in 1988. The undeveloped portion of the Project site (Lot 3 North) was previously graded; it has been vacant since at least 1939.[11] Because the buildings are not more than 50 years old, a site-specific evaluation was not prepared. The Proposed Project would not affect historic resources. In addition, although there are no known cultural or paleontological resources, or human remains, on the

[10] California Department of Conservation. 2018. *2016 Farmland Mapping and Monitoring Program*. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/smt16.pdf. Accessed: June 18, 2018.

[11] Stellar Environmental Solutions, Inc. 2018. *Phase I Environmental Site Assessment, 1305 O'Brien Drive, Menlo Park, California.* Prepared for Tarlton Properties, Menlo Park, CA. April.

Project site, ConnectMenlo Final EIR Mitigation Measures CULT-2a, Stop Work in Case of Discovery of Cultural Resources; CULT-3, Stop Work in Case of Discovery of Paleontological Resources; and CULT-4, Stop Work in Case of Discovery of Human Remains, as well as Project-specific Mitigation Measure CR-1, Worker Environmental Training, would ensure that potential impacts on previously unknown cultural or paleontological resources would be ***less than significant with mitigation*** (see Appendix1-1).

Geology and Soils

No known fault crosses the Project site, and the Project site is not within an Alquist-Priolo Earthquake Fault Zone. Similar to the ConnectMenlo EIR, the Initial Study determined that compliance with existing regulations, including Menlo Park General Plan policies, such as S-1.13, and the California Building Code, would ensure that potential impacts related to strong seismic ground shaking and seismically related ground failure, including liquefaction or landslides, would be less than significant. In addition, per City General Plan Programs S-1D and S-1H, the Proposed Project would be required to incorporate recommendations made in the site-specific geotechnical investigation, which would ensure that potential impacts related to soil erosion and unstable soils would be less than significant. Furthermore, a Stormwater Pollution Prevention Plan (SWPPP) and best management practices (BMPs) would be implemented during construction and operation of the Proposed Project to minimize erosion. Therefore, the Proposed Project would have ***less-than-significant*** impacts related to geology and soils.

Hazards and Hazardous Materials

The Proposed Project would involve construction of a new life science building on a vacant portion of the Project site (Lot 3 North). The building at 1305 O'Brien Drive would remain in its existing condition. A review of regulatory databases did not reveal a history of hazardous waste releases or documented environmental contamination at the Project site, nor was the Project site on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.

A Phase I ESA was prepared for the Project site. The soil and groundwater samples that were tested for contaminants, including volatile organic compounds; gasoline-, diesel-, and motor oil-range hydrocarbons; pesticides; semi-volatile organic compounds; and selected materials, did not indicate any restriction regarding potential offsite export and/or reuse. In addition, the results indicated minimal risk from exposure to compounds in soils during future earthwork, with the exception of arsenic, which exceeded the Regional Water Quality Control Board criterion for the direct exposure risk for construction/trench workers. However, the concentrations detected were consistent with the range of naturally occurring arsenic in Bay Area soils and not the result of contamination.

It is anticipated that the Proposed Project would use, store, generate, and dispose of hazardous materials during construction and operation; however, none of these products would be expected to be generated or stored in large quantities, and any transport of these materials would be subject to California Department of Transportation regulations. In addition, the Proposed Project would be required to adhere to the San Mateo County Environmental Health Department's Certified Unified Program Agency regulations and related Unified Program as well as the Project-specific SWPPP.

The public Costaño School and the San Francisco 49ers Academy and the private Wund3rSCHOOL/Open Mind School are both within 0.25 mile of the Project site. However, as explained above, the Proposed Project would be required to comply with federal, state, and local regulations, as well as the Project-specific SWPPP, which would ensure that all hazardous materials would be used, stored, and disposed of properly and minimize potential impacts related to a hazardous materials release.

Although the Project site is within 2 miles of an airport, it is not within an Airport Influence Area. Accordingly, the Proposed Project would not be subject to restrictions related to airport safety hazards, as outlined in the Comprehensive Land Use Plan (CLUP) for Palo Alto Airport. Furthermore**,** the height of proposed building (90.7 feet) would be consistent with the less-than-500-foot requirement regarding special review under the CLUP. Similar to the conclusions in the ConnectMenlo EIR, compliance with existing regulations, including the California Building Code, California Fire Code, and Menlo Park Fire Protection District Fire Code, would ensure that the Proposed Project would not impair nearby evacuation routes, nor would it expose people to loss, injury, or death involving wildland fires. Therefore, impacts related to hazards and hazardous materials would be ***less than significant***.

Hydrology/Water Quality

The Proposed Project would be required to comply with the City's Stormwater Management Program. On behalf of the Project Sponsor, BKF prepared the *Menlo Business Park Lot 3 North 1350 Adams Court Preliminary Hydrology Report*, in compliance with City requirements. The Proposed Project would implement BMPs and incorporate site design measures to reduce stormwater runoff during operations. These could include a combination of onsite flow-through planters around the proposed building, underground Silva Cells[12] below paved surfaces, self-treatment areas, and detention basins. In addition, the Project Sponsor would develop and implement a final Stormwater Management Program, with the goal of reducing the discharge of pollutants to the maximum extent practicable. However, construction activities could result in short-term surface water and groundwater quality impacts because dewatering with potentially contaminated groundwater may be required. However, Project-specific Mitigation Measure WQ-1, Implement Construction Dewatering Treatment (if necessary), would ensure that potential impacts on water quality would be mitigated (see Appendix 1-1).

The Proposed Project would add approximately 77,000 square feet (sf) of net new impervious surfaces on the Project site, totaling approximately 82 percent of Lot 3 North. However, the Proposed Project would be regulated by Provision C.3 of the Municipal Regional Permit and required to treat runoff from all impervious areas. As stated above, the Proposed Project would implement combined treatment facilities onsite, including flow-through planters, detention devices, landscaped areas, self-treating areas, and below-grade Silva Cells, to capture and treat runoff from the newly created or replaced impervious area. These landscape features and combined treatment facilities would collect stormwater and slowly release it at a controlled rate, allowing for groundwater infiltration.

The Proposed Project would maintain pre-Project drainage conditions through compliance with existing National Pollutant Discharge Elimination System permits, the Menlo Park Municipal Code for stormwater management, and City drainage guidelines. Implementation of a Stormwater Management Program would ensure that the existing drainage pattern of the site and surrounding area would not be substantially altered and substantial erosion or flooding would not occur.

The Project site is within a designated flood zone. Therefore, the ground level would be raised to meet Federal Emergency Management Agency requirements. The lowest finished floor would be at an elevation 14 feet, which would be 5 feet above the anticipated ponding elevation of 9 feet during a 10-year event and 3 feet above the 100-year Federal Emergency Management Agency base flood elevation of 11 feet.

[12] Silva Cells are modular suspended pavement systems that use soil volumes to support large trees and provide onsite stormwater management through absorption, evapotranspiration, and interception. Specifically, the Silva Cell is a stormwater BMP that leverages soil and trees to ensure water quality/pollutant control, peak overflow reductions, and low or no maintenance.

The lowest finished floor would be roughly 60 inches above the anticipated ponding elevation during a 10-year event, which is significantly higher than the 12 inches required by City standards. Therefore, impacts related to hydrology and water quality would be ***less than significant with mitigation***.

Land Use and Land Use Planning

The ConnectMenlo EIR concluded that implementation of ConnectMenlo would not include any new major roadways or other physical features through existing residential neighborhoods or other communities that would create new barriers in the city. Therefore, the Proposed Project would not physically divide an established community.

The Project site is within the LS-B zoning district, which allows for life science and research-and-development uses. The Proposed Project would be consistent with the mix and intensity of development contemplated and approved by ConnectMenlo, which includes bonus-level life sciences development with community amenities. As noted throughout the Initial Study and this Draft EIR, in general, the Proposed Project would not conflict with local, regional, or state land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, impacts related to land use and planning for CEQA purposes would be ***less than significant***.

Mineral Resources

The Surface Mining and Reclamation Act of 1975 is the state legislation that protects Mineral Resource Zones (MRZs). Part of the purpose of the act is to classify mineral resources in the state and transmit the information to local governments that regulate land uses in each region of the state. Local governments are responsible for designating lands that contain regionally significant mineral resources in local general plans to ensure resource conservation in areas with intensive competing land uses. The law has resulted in the preparation of mineral land classification maps, which delineate MRZs 1 through 4 for aggregate resources (i.e., sand, gravel, stone).

The Project site is not delineated as a locally important mineral resource by the California Geological Survey or indicated as such on any San Mateo County or City land use plan. The mineral resources map from the San Mateo County General Plan does not indicate that the Project site contains any significant mineral resources. Therefore, construction and operations associated with the Proposed Project would have ***no impact*** on mineral resources.

Noise

Impacts related to construction and non-traffic operational noise were scoped out from further review in the Initial Study. These impacts are summarized in Section 3.4, *Noise*.

Public Services

The ConnectMenlo EIR determined that adherence to state and City requirements as well as the Menlo Park Fire Protection District (MPFPD) permitting process would ensure that the Proposed Project would not result in the need for remodeled or expanded MPFPD facilities. The Menlo Park Police Department (MPPD) also indicated that direct and indirect growth under ConnectMenlo would not require the expansion or addition of facilities. Similarly, the ConnectMenlo EIR concluded that indirect and direct growth associated with buildout of ConnectMenlo would not result in the need for additional or expanded library facilities. The Proposed Project would be served by existing libraries in the city.

Residential and non-residential development subject to Senate Bill (SB) 50, including the Proposed Project, would be required to pay school impact fees, as established by the Leroy F. Greene School Facilities Act of 1998. Section 65996 of the Government Code states that the payment of the school impact fees established by SB 50, which may be required from a developer by any state or local agency, is deemed to constitute full and complete mitigation for school impacts from development. Therefore, with payment of the development impact fees, any impacts on schools as a result of the Proposed Project would be considered fully and completed mitigated. Furthermore, the Proposed Project would include private and public open space and contribute development impact fees to address infrastructure and service needs. It would not result in substantial deterioration at parks or other public facilities. Therefore, the Proposed Project's impacts on public services would be ***less than significant***.

Recreation

The ConnectMenlo EIR determined that full buildout under ConnectMenlo would result in a parkland ratio of 5.2 acres per 1,000 residents, which would exceed the City-adopted general plan policy that calls for maintaining a ratio of 5 acres of developed parkland per 1,000 residents (Policy OSC-2.4). In addition to the existing parkland in the city, which is provided at a ratio of 7.35 acres of parkland per 1,000 residents, the Proposed Project would include a total of 48,800 sf of public open space and 60,220 sf of private open space, for a total of 109,020 sf open space. Private open space would be provided in the form of a patio and large outdoor deck on the second floor of the building, and public open space would be provided in the form of benches and landscaped areas along the street frontages. The City's zoning ordinance requires a minimum of 10 percent (48,790 sf) of the site to be publicly accessible open space. Approximately 10 percent, or 48,800 sf of the Project site, would consist of publicly accessible open space. In addition, the Proposed Project would not require the construction or expansion of existing public recreational facilities. Therefore, the Proposed Project's impacts on recreational facilities would be ***less than significant***.

Transportation (Air Traffic)

The ConnectMenlo EIR determined that buildout under ConnectMenlo would not result in a change in air traffic patterns, would not increase traffic levels, and would not result in safety risks. The Project site would be accessed from existing roadway infrastructure, and although it is expected that traffic levels would increase in the area as a result of the Proposed Project, any Project-related increases in traffic levels would not result in changes to existing roadway configurations that could interfere with flight operations. Therefore, the Proposed Project would have ***no impact*** on air traffic patterns.

Utilities and Service Systems (Stormwater and Solid Waste)

The ConnectMenlo EIR determined that all future development would result in less-than-significant impacts through required compliance with existing regulations, including general plan policies and zoning regulations, thereby minimizing impacts related to stormwater drainage facilities. In addition, all future projects would be reviewed by the City to ensure that onsite drainage infrastructure, low-impact development (LID) features, and retention basins would be adequate and able to prevent onsite and offsite flooding. The Proposed Project would implement a Stormwater Management Program, incorporate LID treatment measures, and comply with all existing local and state stormwater requirements. The Proposed Project would not require or result in the construction of new stormwater drainage facilities or the expansion of existing facilities. Therefore, the Proposed Project's impacts related to stormwater would be ***less than significant***.

The ConnectMenlo EIR determined that all future development impacts related to landfill capacity and solid waste would be less than significant through compliance with existing regulations for minimizing impacts related to solid waste disposal. The Proposed Project would have a waste diversion program in place during construction to divert 95 percent, or more, of the waste away from landfills. In addition, per Assembly Bill 34 and Assembly Bill 939, the Proposed Project would recycle and divert 50 percent of the solid waste from landfills. Therefore, impacts related to solid waste would be ***less than significant***.

4.4 Significant and Unavoidable Environmental Impacts

Section 21100(b)(2)(A) of CEQA requires a Draft EIR to identify any significant environmental effects that cannot be avoided. With implementation of the mitigation measures recommended in this EIR and in the Initial Study (Appendix 1-1), all impacts of the Proposed Project would be reduced to a less-than-significant level. The Proposed Project would not result in any significant and unavoidable impacts.

Chapter 5
Waterline Analysis

The purpose of this chapter is to assess the potential for changes in environmental impacts resulting from upgrades to the waterlines under Adams Court, Adams Drive, and O'Brien Drive and determine whether the changes to the 1350 Adams Court Project (Proposed Project) would change the conclusions presented in the Initial Study (Appendix 1-1) prepared for the Proposed Project by ICF in December 2018. As demonstrated herein, the Project changes would not change the conclusions presented in the Initial Study. The following topics that were scoped out of this environmental impact report (EIR), based on the analysis in the Initial Study, do not require further review under the California Environmental Quality Act (CEQA).

5.1 Original Project

As previously described in the Initial Study, the Project would construct an approximately 255,000-gross-square-foot (gsf) building for life science (e.g., research-and-development [R&D]) uses within a portion of the existing Menlo Park Labs Campus. The proposed R&D building would be located on Lot 3 North, an undeveloped area on the northern portion of the Project site. A two-story, approximately 188,100 gsf building on the southern portion of the site, at 1305 O'Brien Drive, would remain in its existing condition, with the exception of new landscaping and a public open space that would extend to the southern portion of Lot 3. Onsite utilities would be served by energy (i.e., gas and electric), domestic water, wastewater, and storm drain facilities. All onsite utilities would be designed in accordance with applicable codes and current engineering practices. Parking for the proposed new R&D building would be provided in a podium level as well as three above-grade parking levels that would be integrated into the building. This would also provide parking for some employees in the adjacent building at 1305 O'Brien Drive. Access to the proposed building would be provided from Adams Drive and Adams Court. A public connection to Adams Court through the Menlo Science and Technology Park property to the west may be provided in the future.

5.2 Project Modifications

Subsequent to preparation of the Initial Study, which demonstrated that certain topics would be exempt from further review under CEQA, the Proposed Project was modified to include upgrading the existing waterlines in the area. No other substantive changes were made to the Proposed Project.[1] Waterline work would occur under Adams Court; along the interior of the 1350 Adams Court property, connecting to the existing lines on the adjacent Menlo Science and Technology Park; and under O'Brien Drive, from the southwest corner of the 1305 O'Brien Drive frontage to the intersection with Willow Road. The existing 10-inch water mains under Adams Court and through the Project site would be upgraded to 12-inch water mains. In addition, a portion of the existing 10-inch water main in O'Brien Drive would be upgraded to a 12-inch water main. The new lines would be placed next to the existing lines, which would be disconnected rather than removed all together. All other aspects of the Proposed Project, such as building footprint, height, and proposed uses, would remain the same.

[1] Minor alterations to the Proposed Project since the Initial Study (e.g., changes in the parking layout, the contingent paseo layout, a minor reduction in square footage) are described in Chapter 2, *Project Description*.

For the upgrades to the waterlines under Adams Court, Adams Drive, and O'Brien Drive, the proposed excavation would result in the export of approximately 1,250 cubic yards (cy) of soil during Phase 1 (approximately 193 cy during demolition and 1,057 cy during utility installation) as well as approximately 311 cy during Phase 3 for paving. In addition, approximately 0.5 acre would be graded for work associated with the upgrades to the waterlines under Adams Court, Adams Drive, and O'Brien Drive (i.e., 0.25 acre for the Adams Court and Adams Drive waterline and 0.25 acre for the O'Brien Drive waterline). The number of truck trips to and from the Project site due to waterline construction would range from one round trip per day to a maximum of 12 round trips per day during utility installation work.

Construction for the waterlines would include the following phases: demolition, utility installation, grading, pavement installation, and final pavement, signage, and striping. Construction for the O'Brien Drive waterline would be approximately 3 months, while construction for the Adams Court waterline would be approximately 2 months.

5.3 Revised Initial Study Analysis

A revised analysis is provided below for each of the topics covered in the Initial Study but scoped out of this EIR to account for Project modifications since the release of the December 2018 Initial Study (Appendix 1-1).

Aesthetics

Initial Study

The Initial Study detailed that the Project site is within a portion of the city known as the Bayfront Area.[2] Because of the relatively flat topography of the Project site and vicinity, as well as the prevalence of buildings and vegetation, views from at-grade locations are largely restricted. Although the Proposed Project would result in additional height, bulk, and massing from the new building, which would interrupt existing channelized views of the Santa Cruz Mountains from Adams Court, this area is not considered a scenic vista; therefore, the Proposed Project would not block a scenic vista. As explained in the General Plan and M-2 Area Zoning Update (ConnectMenlo) EIR, although a section of Interstate 280 (I-280) within the ConnectMenlo study area is a designated scenic highway, per the California Scenic Highways Program,[3] the Bayfront Area is not within the viewshed of Interstate 280. Furthermore, the Proposed Project would be required to comply with the City of Menlo Park's (City's) architectural control process, in accordance with Section 16.8.020 of the zoning ordinance, as well as existing design standards, including standards related to light and glare. This process would ensure that the proposed design, construction materials, and lighting would be consistent with area practices and that the proposed lighting would be directed downward so as not to spill over on adjacent properties. Therefore, the Proposed Project's impacts related to scenic vistas, scenic resources, and light and glare would be ***less than significant***.

[2] According to the General Plan and M-2 Area Zoning Update (ConnectMenlo) Environmental Impact Report.

[3] California Department of Transportation. 2018. *California Scenic Highway Mapping System, San Mateo County.* Available: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/. Accessed: July 4, 2018.

Project Modifications

As described in the Initial Study, the Project site is not considered visually sensitive because of its urbanized surroundings that include industrial, office, and warehouse buildings. Incorporation of the additional waterlines under Adams Court, the Project site, and O'Brien Drive would require demolition, excavation, and construction activities on the Project site, similar to the activities that would occur under the Proposed Project analyzed in the Initial Study. The construction activities for the waterlines, which would occur over an approximately 2- to 3-month period, would temporarily degrade the existing visual character of the Project site and the surrounding area. Construction materials and equipment would be staged primarily onsite, with some staging occurring on O'Brien Drive, Adams Court, and neighboring parcels, areas that would not be under construction. Construction fencing and existing landscaping would provide visual screening. Although construction would be visible from public view corridors (e.g., Adams Court, Adams Drive, O'Brien Drive), these are not heavily traveled roads. Regardless, visual degradation associated with construction would be short term and temporary. In addition, City General Plan goals and policies, as listed identified in the Initial Study, would serve to minimize potential adverse impacts on aesthetic resources, including impacts during construction activities. Therefore, with incorporation of the Project modifications, the impact of the Proposed Project on aesthetics would be ***less than significant***.

Agricultural and Forestry Resources

Initial Study

The Initial Study concluded that the Project site and vicinity are within an urban area of the city that is characterized by light industrial and office uses. The Project site is not on or adjacent to farmland. The site is considered "Urban and Built-Up Land" by the California Department of Conservation.[4] It is not used for agricultural production, nor does it support forestry resources. Therefore, implementation of the Proposed Project would have ***no impact*** on agricultural and forestry resources.

Project Modifications

The addition of the waterlines under Adams Court, the Project site, and O'Brien Drive would not change the characteristics of the Project site or immediate vicinity because construction related to installation of the waterlines would occur within an urbanized area of the city. The Project site is not on or adjacent to farmland, nor is it used for agricultural production or forestry resources. Therefore, with incorporation of the Project modifications, the Proposed Project would have ***no impact*** on agricultural and forestry resources.

Biological Resources

Initial Study

As detailed in the Initial Study, the Project site has been modified for human use. It does not support any natural plant communities, nor is it located near any sensitive habitats. Furthermore, the Project site does not contain riparian habitat, federally protected wetlands, or wildlife corridors, nor is within a geographic area covered by an adopted habitat conservation plan or natural community conservation plan. Of the 83

[4] California Department of Conservation. 2018. *2016 Farmland Mapping and Monitoring Program*. Available: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/smt16.pdf. Accessed: June 18, 2018.

trees on Lot 3 North, the Proposed Project would require the removal of 15 trees, 12 of which are protected trees. The remaining 68 trees on both Lot 3 North and the Adams Drive frontage, 48 of which are protected trees, would not be affected.[5] The Project Sponsor would be required to plant replacement trees with a value equal to the appraised value of the removed trees, subject to approval by the City Arborist regarding the locations, sizes, species, and number of replaced trees.

The Project site contains mature, albeit nonnative, trees that could support active nests of common birds that are protected under the Migratory Bird Treaty Act. Any disturbance of nesting birds that results in the abandonment of active nests or litters or the loss of active nests through vegetation or structure removal would be a potentially significant impact. To reduce potential impacts on white-tailed kite and tree-nesting raptors, the Proposed Project would implement Mitigation Measures BR-1, Nesting Bird Avoidance; BR-2, Preconstruction/Pre-disturbance Surveys; BR-3, Active Nest Buffers; and BR-4, Inhibition of Nesting (see Appendix 1-1). Therefore, the Proposed Project's impacts related to biological resources would be ***less than significant with mitigation***.

Project Modifications

The addition of the waterlines under Adams Court, the Project site, and O'Brien Drive would not change the characteristics of the Project site, which does not have value as habitat for endangered, rare, or threatened species. Construction work related to installation of the waterlines would occur within existing roadways, which do not contain biological resources. In addition, no additional trees, or other vegetation, would be removed as a result of installation of the waterlines. Like the Project analyzed in the Initial Study, the Proposed Project with incorporation of the additional waterlines would be required to comply with all standard City ordinances, as well as applicable regulatory standards. In addition, as needed, the waterline work would be required to implement Mitigation Measures BR-1, Nesting Bird Avoidance; BR-2, Preconstruction/Pre-disturbance Surveys; BR-3, Active Nest Buffers; and BR-4, Inhibition of Nesting, to reduce potential impacts on white-tailed kite and tree-nesting raptors if construction activities occur during the nesting season. Therefore, with incorporation of the Project modifications, the impact of the Proposed Project on biological resources would be ***less than significant with mitigation***.

Cultural and Tribal Cultural Resources

Initial Study

The majority of the buildings at the Menlo Park Labs Campus were constructed in three phases between approximately 1984 and 1989. Because the buildings are not more than 50 years old, a site-specific evaluation was not prepared. The Proposed Project would not affect historic resources. In addition, although there are no known cultural or paleontological resources, or human remains, on the Project site, ConnectMenlo Final EIR Mitigation Measures CULT-2a, Stop Work in Case of Discovery of Cultural Resources; CULT-3, Stop Work in Case of Discovery of Paleontological Resource; and CULT-4, Stop Work in Case of Discovery of Human Remains, as well as Project-specific Mitigation Measure CR-1, Worker

[5] If the Project Sponsor is required to extend a paseo along the west side of the Project Site, no additional trees would be removed. although trees on the Menlo Science and Technology Park site, west of the Project Site, could be affected by construction of a paseo on that property, the location and design of the paseo is speculative at this time. Any impact on trees on the Menlo Science and Technology Park site would be subject to environmental review and the City's Heritage Tree Ordinance.

Environmental Training, would ensure that potential impacts on previously unknown cultural or paleontological resources would be ***less than significant with mitigation*** (see Appendix 1-1).

Project Modifications

The addition of the waterlines under Adams Court, the Project site, and O'Brien Drive would not change the characteristics of the Project site and would not affect historic resources. Construction work related to installation of the waterlines would occur within existing roadways or other previously disturbed areas. Although it is unlikely that waterline installation would unearth cultural or paleontological resources, or human remains, it is possible that cultural resources could be discovered. Therefore, consistent with the Project analyzed in the Initial Study, the Proposed Project with incorporation of the additional waterlines would be required to implement ConnectMenlo Final EIR Mitigation Measures CULT-2a, Stop Work in Case of Discovery of Cultural Resources; CULT-3, Stop Work in Case of Discovery of Paleontological Resource; and CULT-4, Stop Work in Case of Discovery of Human Remains, as well as Project-specific Mitigation Measure CR-1, Worker Environmental Training, to ensure that potential impacts on previously unknown cultural or paleontological resources and human remains would be less than significant. Therefore, with incorporation of the Project modifications, the impact of the Proposed Project on cultural and tribal cultural resources would be ***less than significant with mitigation***.

Geology and Soils

Initial Study

As identified in the Initial Study, no known fault crosses the Project site, which is not within an Alquist-Priolo Earthquake Fault Zone. Similar to the ConnectMenlo EIR, the Initial Study determined that compliance with existing regulations, including Menlo Park General Plan policies, such as Policy S-1.13, and the California Building Standards Code, would ensure that potential impacts related to strong seismic ground shaking and seismically related ground failure, including liquefaction or landslides, would be less than significant. In addition, per City General Plan Programs S-1D and S-1H, the Proposed Project would be required to incorporate recommendations made in the site-specific geotechnical investigation, ensuring that potential impacts related to soil erosion and unstable soils would be less than significant. Furthermore, a Stormwater Pollution Prevention Plan (SWPPP) and best management practices (BMPs) would be implemented during construction and operation of the Proposed Project to minimize erosion. Therefore, the Proposed Project would have ***less-than-significant*** impacts related to geology and soils.

Project Modifications

The addition of the waterlines under Adams Court, the Project site, and O'Brien Drive would not change the physical characteristics of the Project site. Soils at the Project site and surrounding area are designated as Urban Land, meaning that they are not native topsoil. The additional soil removal required for installation of the waterlines would not result in a loss of topsoil. Soils at the Project site and surrounding area are not rated for erosion. Like the Project analyzed in the Initial Study, construction of the Proposed Project with incorporation of the waterlines would include demolition, excavation, and grading and could result in accelerated erosion. Excavation activities associated specifically with the waterlines would generate an additional 1,561 cy of excavated material. The removal of concrete and asphalt would temporarily expose previously sheltered soils to the elements as well as construction activities on the site, which could accelerate erosion rates.

However, as described in Topic IX of the Initial Study, Hydrology and Water Quality, all construction activities, including those related to the waterlines, would comply with the National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which contains standards to ensure that water quality would not be degraded. As part of this permit, standard erosion control measures and BMPs would be identified in a SWPPP and implemented during construction to reduce sedimentation in waterways and any loss of topsoil. The SWPPP and BMPs would minimize erosion and runoff during construction. The BMPs could include, but would not be limited to, using drainage swales or lined ditches to control stormwater flows and protecting storm drain inlets (e.g., with gravel bags or catch basin inserts). Therefore, through compliance with existing regulations, the impact of the Proposed Project on geology and soils, including impacts related to the additional waterlines, would be ***less than significant***.

Hazards and Hazardous Materials

Initial Study

The Initial Study concluded that a review of regulatory databases did not reveal a history of hazardous waste releases or documented environmental contamination at the Project site, nor was the Project site on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. In addition, the Phase I Environmental Site Assessment (ESA) prepared for the Project site determined that soil and groundwater samples, which were tested for contaminants, did not indicate any restrictions regarding potential offsite export and/or reuse. The Phase I ESA results indicated minimal risk from exposure to compounds in soils during future earthwork, with the exception of arsenic, which exceeded the Regional Water Quality Control Board criterion for direct exposure risks for construction/trench workers. However, the concentrations detected were consistent with the range of naturally occurring arsenic in Bay Area soils and not the result of contamination.

The Initial Study stated that the Proposed Project would use, store, generate, and dispose of hazardous materials during construction and operation; however, none of these products would be expected to be generated or stored in large quantities. Any transport of hazardous materials would be subject to California Department of Transportation (Caltrans) regulations and would adhere to the San Mateo County Environmental Health Department's Certified Unified Program Agency regulations, the related Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), and the Project-specific SWPPP. Furthermore, the height of the proposed building (90.7 feet) would be less than the height requirement (500 feet) for special review under the Comprehensive Land Use Plan for Palo Alto Airport. Similar to the conclusion reached in the ConnectMenlo EIR, compliance with existing regulations, including the California Building Standards Code, California Fire Code, and Menlo Park Fire Protection District (MPFPD) Fire Code, would ensure that the Proposed Project would not impair nearby evacuation routes, nor would it expose people to risks that could result in loss, injury, or death involving wildland fires. Therefore, impacts related to hazards and hazardous materials would be ***less than significant***.

Project Modifications

The addition of the waterlines under Adams Court, the Project site, and O'Brien Drive would not change the physical characteristics of the Project site or the locations where the waterlines would be installed. Furthermore, no known hazardous materials are present on the site where waterlines would be installed; therefore, the transport of spoils is not expected to result in the transport of hazardous materials. However, in case hazardous contamination that was previously undocumented is discovered during

installation of the waterlines, Project construction would be required to adhere to San Mateo County Certified Unified Program Agency regulations, the related Unified Program, and the Project-specific SWPPP. BMPs would be implemented and maintained to avoid adverse construction-related effects, including releases of hazardous materials, on the surrounding environment. Furthermore, any hazardous materials discovered during installation of the waterlines would be required to be transported under Caltrans regulations. Because the Proposed Project would be required to comply with federal, state, and local regulations, as well as the Project-specific SWPPP, ensuring that all hazardous materials would be used, stored, and disposed of properly and minimizing potential impacts related to a hazardous materials release, the Project would not be expected to create a significant hazard for the public or the environment through the routine transport, use, or disposal of hazardous materials. Therefore, with incorporation of the Project modifications, the impact of the Proposed Project related to hazards and hazardous materials would be ***less than significant***.

Hydrology and Water Quality

Initial Study

As discussed in the Initial Study, the Proposed Project would add approximately 77,000 square feet (sf) of net new impervious surfaces on the Project site, or approximately 82 percent of Lot 3 North. However, the Proposed Project would be required to comply with the City's Stormwater Management Program, NPDES permits, as well as Federal Emergency Management Agency requirements. Furthermore, it would be regulated by Provision C.3 of the Municipal Regional Permit and required to treat runoff from all impervious areas. The Proposed Project would provide combined treatment facilities onsite, including flow-through planters, detention devices, landscaped areas, self-treating areas, and below-grade Silva Cells, to capture and treat runoff from newly created or replaced impervious areas. These landscape features and combined treatment facilities would collect stormwater and slowly release it at a controlled rate, thereby allowing groundwater infiltration. In addition, the Project Sponsor would develop and implement a Stormwater Management Program, with the goal of reducing the discharge of pollutants to the maximum extent practicable. However, construction activities could result in short-term impacts on the quality of surface water and groundwater because dewatering involving potentially contaminated groundwater may be required. However, Project-specific Mitigation Measure WQ-1, Implement Construction Dewatering Treatment (if necessary), would ensure that potential impacts on water quality would be mitigated (see Appendix 1-1). Therefore, impacts related to hydrology and water quality would be ***less than significant with mitigation***.

Project Modifications

The addition of the waterlines under Adams Court, the Project site, and O'Brien Drive would not change the physical characteristics of the Project site. Construction activities, including installation of the waterlines, would temporarily alter existing drainage patterns and could result in temporary onsite erosion and siltation. However, the Proposed Project would implement a SWPPP to minimize the potential for sedimentation in nearby storm drains. Furthermore, preparation and implementation of the SWPPP would reduce the potential for substantial erosion or siltation onsite or offsite or a substantial increase in the rate or amount of runoff. The Proposed Project would be in compliance with NPDES permits and the Menlo Park Municipal Code regarding construction and stormwater management (Chapter 7.42). In addition, construction activities, specifically those related to dewatering for excavation and trenching, could result in short-term impacts on the quality of surface water and groundwater. Such impacts could be related to sediment loads that exceed water quality objectives or chemical spills that flow into storm

drains or aquifers. However, as stated above, a Project SWPPP would be developed and implemented in compliance with the Construction General Permit, local stormwater ordinances, and other related requirements. Consistent with the Project analyzed in the Initial Study, the Proposed Project with incorporation of the additional waterlines would be required to implement Project-specific Mitigation Measure WQ-1, Implement Construction Dewatering Treatment (if necessary), to ensure that potential impacts on hydrology and water quality would be less than significant. Furthermore, the addition of the waterlines would not change the commitment to landscape open space areas with ground cover, including trees, shrubs, and other surficial vegetation. Because the building footprint would not change, there would be no change in the amount of open space with the modified Project. The modified Project would comply with all requirements related to the protection of water quality during the construction period as well as after construction. Therefore, with incorporation of the Project modifications, the impact of the Proposed Project on hydrology and water quality would be ***less than significant with mitigation***.

Land Use and Planning

Initial Study

As discussed in the Initial Study, implementation of development under ConnectMenlo would not include new major roadways or other physical features through residential neighborhoods or communities that would create new barriers in the city. As also discussed in the Initial Study, the Proposed Project would not physically divide an established community.

The Project site is within the Life Science, Bonus (LS-B) zoning district, which allows for life science and R&D uses. The Proposed Project would be consistent with the mix and intensity of development contemplated by ConnectMenlo, including its bonus-level life sciences development with community amenities. Therefore, impacts related to land use and planning would be ***less than significant***.

Project Modifications

The addition of the waterlines under Adams Court, the Project site, and O'Brien Drive would not change the Project's consistency with the applicable general plan designation, applicable general plan policies, as well as applicable zoning designations and regulations. As noted throughout the Initial Study and this Draft EIR, in general, the Proposed Project would not conflict with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. Furthermore, the addition of waterlines would not physically divide an established community because installation work would occur within existing roadways. The waterlines would serve development that was previously studied in the ConnectMenlo EIR. Therefore, with incorporation of the Project modifications, the impact of the Proposed Project on land use and planning would be ***less than significant***.

Mineral Resources

Initial Study

The Initial Study concluded that the Project site is not delineated as a locally important Mineral Resource Zone (MRZ) by the California Geological Survey or indicated as such on any San Mateo County or City land use plan. The mineral resources map from the San Mateo County General Plan does not indicate that the Project site contains any significant mineral resources. Therefore, construction and operations associated with the Proposed Project would have ***no impact*** on mineral resources.

Project Modifications

The addition of the waterlines under Adams Court, the Project site, and O'Brien Drive would not change the characteristics of the Project site or immediate vicinity because construction work related to installation of the waterlines would occur within an urbanized or previously disturbed area of the city. The Project site and surrounding vicinity are designated MRZ-1, an area where "adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence."[6] Therefore, the Proposed Project with incorporation of the additional waterlines would have ***no impact*** on mineral resources.

Public Services

Initial Study

As discussed in the Initial Study, the Project site was determined to be adequately served by all public service providers. The ConnectMenlo EIR determined that adherence to state and City requirements, as well as the MPFPD permitting process, would ensure that the Proposed Project would not result in the need for remodeled or expanded MPFPD facilities. Similarly, the ConnectMenlo EIR concluded that indirect and direct growth associated with buildout of ConnectMenlo would not result in the need for additional or expanded Menlo Park Police Department (MPPD) or library facilities. Furthermore, all development, including the Proposed Project, would be required to pay school impact fees, which are deemed to constitute full and complete mitigation for school impacts from development, pursuant to Senate Bill 50. Therefore, the impact of the Proposed Project on public services would be ***less than significant***.

Project Modifications

The addition of the waterlines under Adams Court, the Project site, and O'Brien Drive would not change the characteristics of the Proposed Project or immediate vicinity because construction work related to installation of the waterlines would occur within an urbanized area of the city and would not result in indirect or direct growth in the form of new employees or residents. In addition, the proposed waterlines would be installed to improve fire flow for existing development within the Project area. They would also support development that was previously analyzed in the ConnectMenlo EIR. The Project site is adequately served by existing public service providers (i.e., MPPD, MPFPD, schools, and libraries) and would not require the addition or expansion of facilities. Therefore, with incorporation of the Project modifications, the impact of the Proposed Project on public services would be ***less than significant***.

Recreation

Initial Study

As discussed in the Initial Study, the ConnectMenlo EIR determined that full buildout under ConnectMenlo would result in a parkland ratio of 5.2 acres per 1,000 residents, which would exceed the City-adopted general plan policy that calls for maintaining a ratio of 5 acres of developed parkland per 1,000 residents

[6] California Geological Survey. 1987. *Special Report 146 – Mineral Land Classification: Aggregate Materials in the San Francisco-Monterey Bay Area, Part II: Classification of Aggregate Resource Areas South San Francisco Bay Production-Consumption Region.* Available: ftp://ftp.consrv.ca.gov/pub/dmg/pubs/sr/SR_146-2/SR_146-2_Text.pdf. Accessed: June 18, 2018.

(Policy OSC-2.4). In addition to the existing parkland in the city, the Proposed Project would include a total of 48,800 sf of public open space and 60,220 sf of private open space, for a total of 109,020 sf of open space. The City Zoning Ordinance requires a minimum of 10 percent (48,790 sf) of the site to be publicly accessible open space. Approximately 10 percent, or 48,800 sf, of the Project site would consist of publicly accessible open space. In addition, the Proposed Project would not require the construction or expansion of existing public recreational facilities. Therefore, the impact of the Proposed Project on recreational facilities would be ***less than significant***.

Project Modifications

The addition of the waterlines under Adams Court, the Project site, and O'Brien Drive would not change the characteristics of the Proposed Project or immediate vicinity because construction work related to installation of the waterlines would occur within an urbanized area of the city and would not result in impacts on recreational facilities, such as impacts related to increased use from additional employees or residents. The Project site is adequately served by existing recreational facilities and would not require the addition or expansion of recreational facilities to serve the Proposed Project. In addition, the proposed amount of private and public open space (i.e., 109,020 sf) provided under the Proposed Project would remain the same. Therefore, with incorporation of the Project modifications, the impacts of the Proposed Project on recreation would be ***less than significant***.

Chapter 6
Alternatives

6.1 Introduction

The California Environmental Quality Act (CEQA) (Public Resources Code [PRC] Section 21000 et seq.) and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000 et seq.) require an environmental impact report (EIR) to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines Section 15126.6[a]). An EIR does not need to consider every conceivable alternative to a project; rather, it must consider a reasonable range of potentially feasible alternatives to foster informed decision-making and public participation.

An EIR identifies ways to mitigate or avoid the significant effects a project on the environment. Therefore, the discussion of alternatives should focus on alternatives to the project, or its location, that are capable of avoiding or substantially lessening the significant effects of the project. There are no significant and unavoidable impacts for the Proposed Project. When considering potential alternatives, focus was given to selecting alternatives that would avoid or reduce potentially significant impacts and/or examine policy-based alternatives that would represent the mixed-use development envisioned in ConnectMenlo. The EIR needs to include adequate information about each alternative to allow meaningful evaluation, analysis, and a comparison with the project. If an alternative would cause one or more significant effects in addition to those caused by the project, the significant effects of the alternative should be discussed but in less detail than the significant effects of the project. If mitigation measures or a feasible project alternative that would meet most of the basic project objectives would substantially lessen the significant environmental effects of a project, then the lead agency should not approve the project unless it determines that specific technological, economic, social, or other considerations make the mitigation measures and the project alternative infeasible (PRC Section 21002, CEQA Guidelines Section 15091[a][3]).

The range of alternatives needed in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. CEQA states that an EIR should not consider alternatives "whose effect cannot be ascertained and whose implementation is remote and speculative." The EIR must also identify alternatives that were considered by the lead agency but rejected as infeasible during the scoping process and briefly explain the reasons for the lead agency's determination (CEQA Guidelines Section 15126.6[c]).

One of the alternatives that must be analyzed is the No-Project Alternative. The no-project analysis must discuss existing conditions at the time the Notice of Preparation (NOP) is published as well as conditions that would be reasonably expected to occur in the foreseeable future if the project is not approved and development continues in accordance with existing plans and consistent with available infrastructure and community services (CEQA Guidelines Section 15126.6[e][2]). Therefore, pursuant to the CEQA Guidelines, this section discusses and analyzes a No-Project Alternative.

In addition to the No-Project Alternative, this section provides additional alternatives (Base Level Alternative and Mixed-Use Alternative) to the 1350 Adams Court Project (Proposed Project) and analyzes the impacts of each. This section later provides a description of the alternatives and compares the significant impacts of each to the significant environmental impacts of the Project as proposed.

6.2 Description of Alternatives Considered

As discussed in Chapter 2, *Project Description*, the Project Sponsor has identified the following Project objectives that are relevant to the physical impacts considered in this document:

- Build a cutting-edge life sciences building that will cater to the Bay Area and Stanford entrepreneurial community.
- Develop a high-quality aesthetic facility with the flexibility to accommodate a single life sciences tenant or meet the needs of multiple tenants.
- Create a project that attracts tenants who will grow a broad socioeconomic base of jobs as well as a business-to-business tax base for the City of Menlo Park (City).
- Achieve Leadership in Energy and Environmental Design (LEED) Gold certification or equivalent for building design and construction.
- Develop space to accommodate life sciences employers and jobs in the new Life Sciences (LS) zoning district.
- Provide community amenities for surrounding neighborhoods, consistent with General Plan and M-2 Area Zoning Update (ConnectMenlo) goals and policies, by creating open space, actively promoting alternative transportation, and providing amenities to benefit the Belle Haven neighborhood.

The potential environmental effects resulting from implementation of the Proposed Project are analyzed in Chapter 3, *Environmental Impact Analysis,* Chapter 4, *Other CEQA Considerations*, and Chapter 5, *Waterline Analysis*. The Proposed Project is described and analyzed in previous chapters as well as the Initial Study (Appendix 1-1), with an emphasis on evaluating significant impacts resulting from Project implementation and identifying mitigation measures to avoid or reduce the impacts to a less-than-significant level. It should be noted that this EIR has concluded that all of the potential impacts associated with the Proposed Project can be mitigated to a less-than-significant level with implementation of the recommended mitigation measures.

As stated above, the alternatives to a project are meant to feasibly attain most of the basic project objectives while avoiding or substantially lessening the project's significant impacts. Given the goal of reducing impacts while meeting basic project objectives, three alternatives have been developed for evaluation in this Draft EIR: the No-Project Alternative, Base Level Alternative, and Mixed-Use Alternative. Table 6-1 summarizes the key features of the Proposed Project and each alternative. Further details regarding potential impacts resulting from each alternative are provided below.

Table 6-1. Comparative Description of the Project Alternatives

	Proposed Project	No-Project Alternative	Base Level Alternative	Mixed-Use Alternative
Total Gross Square Footage Onsite[a]	442,722	188,100	268,350	442,722
Number of Buildings Onsite[a]	2	1	2	2
Open Space Onsite (square feet)	109,020	0	97,580	109,020
Net New Employees	650	0	200	654

Notes:

[a.] Includes the existing building at 1305 O'Brien Drive (Pacific Biosciences-California [PacBio] Building).

The alternatives listed above represent a reasonable range of potential alternatives to the Proposed Project, with the objective of further reducing significant impacts and impacts that are already less than significant with mitigation, as determined in this EIR and the Initial Study (Appendix 1-1). This EIR has determined that the Proposed Project would not result in significant and unavoidable impacts. Therefore, the EIR analyzes the No Project Alternative and Base Level Alternative, described below, as alternatives that may avoid or reduce potentially significant impacts. The Mixed-Use Alternative was included in this EIR as an alternative for policy reasons rather than environmental reasons. Several other potential alternatives were also considered, as discussed in Section 6.4, *Alternatives Considered but Rejected*; however, those alternatives would not substantially reduce or avoid the environmental impacts of the Proposed Project and/or would not realize most of the basic Project objectives. Ultimately, they were not selected for further analysis.

The purpose of the alternatives discussion is to enable decision-makers to evaluate the Proposed Project by considering how the alternatives, as proposed, might reduce or avoid the Proposed Project's impacts on the physical environment. The analysis in this chapter provides an evaluation of the environmental impacts that could result from each alternative and compares the impacts to those of the Proposed Project, as described in Chapters 3, 4, and 5 of this EIR. Table 6-8, at the end of this chapter, summarizes the impacts of the Proposed Project and compares them to those of each alternative.

If City decision-makers decide to move forward with any of the development alternatives identified in this chapter, additional site planning, design work, and analysis would be required to address the environmental impacts associated with the alternatives, and specific mitigation measures for each potentially significant impact would need to be developed and considered.

No-Project Alternative

With implementation of the No-Project Alternative, no additional construction would occur at the Project site. Specifically, under the No-Project Alternative, Lot 3 North would remain undeveloped and vacant, and 1305 O'Brien Drive (the Pacific Biosciences-California [PacBio] building), including the associated parking area, would remain in its existing state. The Project site would encompass approximately 188,100 gross square feet (gsf) of building area. In order to meet the definition of a "no project" alternative under CEQA, the No-Project Alternative would not be permitted discretionary approvals, entitlements, or other environmental reviews. Therefore, Lot 3 North could not be occupied and would remain vacant. No additional employees would be added on the Project site. The same number of parking spaces, which can be used by occupants at 1305 O'Brien Drive, would be provided at the Project site as under existing conditions (373 spaces). The parking structure would not be constructed, and the publicly accessible open space would not be created. Existing access to the Project site would remain the same, and no new site access points or circulation improvements would be constructed.

Base Level Alternative

The Base Level Alternative would develop the proposed building in accordance with the base-level requirements for the LS zoning district, resulting in a reduction in the floor area ratio (FAR) (i.e., approximately 55 percent instead of the approximately 90.7 percent under the Proposed Project). Consequently, there would be a reduction in the amount of floor area for life sciences purposes as well as number of life sciences employees. This would equate to approximately 80,250 gsf of occupiable space within the life sciences building. Including the existing building at 1305 O'Brien Drive, the Base Level Alternative would result in approximately 268,350 gsf of occupiable space. The Base Level

Alternative would accommodate approximately 200 employees.[1] As with the Proposed Project, the Base Level Alternative would include life sciences uses. The Base Level Alternative would result in a decrease in the total amount of open space provided onsite (i.e., 97,580 square feet [sf] compared with 109,020 sf under the Proposed Project).

This Draft EIR assumes that the site plan for the Base Level Alternative would be similar to that of the Proposed Project but with a reduced building footprint. Because the building footprint would be smaller, all footprint-based impacts would be the same as or less than those of the Proposed Project. The maximum building height, 35 feet, would be less than the height under the Proposed Project. However, the Base Level Alternative would still require architectural control, a Heritage Tree Removal Permit, and a Below-Market-Rate Housing Agreement for the payment of in-lieu fees associated with the City's Below-Market-Rate Housing Program in order to ensure consistency with the development standards established in ConnectMenlo.

This Draft EIR assumes that landscape and circulation features similar to those of the Proposed Project would be installed but to a lesser extent. This would provide up to 97,580 sf of open space, with 48,800 sf of public open space along the street frontage that would include berms, trees, and California native vegetation. The Base Level Alternative would achieve LEED Silver certification or equivalent for building design and construction. Furthermore, like the Proposed Project, the Base Level Alternative would implement a Transportation Demand Management (TDM) program but at a smaller scale because of the reduced number of employees, consistent with the requirements of Menlo Park Municipal Code Section 16.44.090, to provide alternatives to single-occupancy automobile travel to and from the site.

As with the Proposed Project, the site for the Base Level Alternative would be accessible from the same access points as proposed under the Project: a driveway on Adams Drive, a circular one-way driveway from Adams Court for visitors, and another driveway from Adams Court near the northwest corner of the Project site. Under the Base Level Alternative, vehicular, bicycle, and pedestrian routes throughout the site, as well as emergency vehicle access routes, would remain the same as under the Proposed Project. However, because the Base Level Alternative would result in less building area and fewer employees, the amount of parking would be reduced accordingly. It is assumed that the reduction in the number of parking spaces would increase the amount of landscaped area.

In order for any development to occur in the area of the Project site, an existing waterline would need to be upgraded. Therefore, for purposes of this analysis, the Base Level Alternative would include the same waterline construction that would occur under the Proposed Project.

Mixed-Use Alternative

The Mixed-Use Alternative would develop the Project site with the same building that would be developed under the Proposed Project, approximately 260,400 gsf in area, but would replace the ground floor (Level 1) of life sciences space with approximately 38,995 gsf of commercial space for use by the general public.

The Mixed-Use Alternative would reduce the amount of floor area for life sciences uses as well as the number of life sciences employees compared with the Proposed Project, resulting in approximately 221,405 gsf for life sciences uses. However, there would be slightly more total onsite employees under this alternative due to the commercial space. Including the existing building at 1305 O'Brien Drive, the Mixed-Use Alternative would result in approximately 442,722 gsf of occupiable space at the Project site.

[1] Per the Housing Needs Assessment conducted by Keyser Marston Associates (Appendix 3.5), there would be one employee per 417 sf of life sciences/research-and-development space and one employee per 10,000 sf of building services space. Therefore, 80,250 sf/417 sf = 192 employees, and 80,250 sf/10,000 sf = eight employees.

The Mixed-Use Alternative would accommodate approximately 654 employees, with 557 employees associated with the proposed life sciences uses[2] and 97 employees associated with the commercial space.[3] Because the proposed building under the Mixed-Use Alternative would be the same size as the building under the Proposed Project, approximately 109,020 sf of open space would be provided on the site.

This Draft EIR assumes that the site plan for the Mixed-Use Alternative would be similar to that of the Proposed Project but with a reduced amount of life sciences space. However, the LS zoning district regulations require commercial uses to provide parking at a higher ratio than life sciences (e.g., 2.5 to 3.3 spaces per 1,000 sf for retail uses compared to 1.5 to 2.5 spaces per 1,000 sf for life science uses). The Proposed Project would include 706 spaces for 448,504 sf, which is close to the minimum allowable parking for life sciences uses (i.e., 1.6 spaces per 1,000 sf). Under the Mixed-Use Alternative, 38,995 sf of the building would require at least two spaces per 1,000 sf and up to 3.3 spaces per 1,000 sf, or an additional 78 to 129 spaces.

Because the building footprints would be the same, all footprint-based impacts would be the same as those of the Proposed Project. The maximum building height, 92 feet, would be the same as under the Proposed Project, but the average building height would increase with the additional garage height; therefore, construction impacts would increase compared to the Proposed Project. Accordingly, the Mixed-Use Alternative would still require a use permit to increase the permitted building heights for bonus-level development. Furthermore, the Mixed-Use Alternative would still require architectural control, a Heritage Tree Removal Permit, and a Below-Market-Rate Housing Agreement for the payment of in-lieu fees associated with the City's Below-Market-Rate Housing Program in order to ensure consistency with the development standards established in ConnectMenlo.

This Draft EIR assumes that landscape and circulation features similar to those of the Proposed Project would be installed. This would provide approximately 97,580 sf of open space, with 48,800 sf of public open space along the street frontage, including berms, trees, and California native vegetation. The Mixed-Use Alternative would also achieve LEED Gold certification or equivalent for building design and construction. Furthermore, the TDM program, which would be implemented to ensure that the daily vehicle trip cap would be met, would be similar to that for the Proposed Project but scaled to a smaller number of office employees and a larger number of commercial employees and patrons. As with the Proposed Project, the site for the Mixed-Use Alternative would be accessible from the same access points as proposed under the Project: a driveway on Adams Drive, a circular one-way driveway from Adams Court for visitors, and another driveway from Adams Court near the northwest corner of the Project site. Under the Mixed-Use Alternative, vehicular, bicycle, and pedestrian routes throughout the site, as well as emergency vehicle access routes, would remain the same as under the Proposed Project. However, because the Mixed-Use Alternative would result in less building area for life sciences uses and fewer office employees, but an additional commercial area with more commercial employees and patrons, the amount of parking would increase. It is assumed that there would be no reduction in the amount of landscaped area. The additional parking would be accommodated with an additional one-half to full level of parking in the garage structure.

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2 Per the Housing Needs Assessment conducted by Keyser Marston Associates (Appendix 3.5), there would be one employee per 417 sf of life sciences/research-and-development space and one employee per 10,000 sf of building services space. Therefore, 221,405 sf/417 sf = 531 employees, and 255,000 sf/10,000 sf = 26 employees.

3 Per information provided by Keyser Marston Associates and the City, there would be one employee per 400 sf of commercial space. Therefore, 38,995 sf/400 sf = 97 employees. However, the number of employees would vary, depending on the mix of commercial uses and the number of tenant spaces.

In order for any development to occur in the area of the Project site, an existing waterline would need to be upgraded. Therefore, for purposes of this analysis, the Mixed-Use Alternative would include the same waterline construction that would occur under the Proposed Project.

6.3 Attainment of Project Objectives

An evaluation of how each alternative would or would not meet the basic Project objectives is provided below. Pursuant to CEQA Guidelines Section 15126.6(a), this analysis compares the alternatives to the objectives of the Proposed Project. As described in detail above, there are three alternatives to the Proposed Project: the No-Project Alternative, the Base Level Alternative, and the Mixed-Use Alternative. The following analysis describes the extent to which the alternatives meet or fail to meet the Project objectives, as described in Chapter 2, *Project Description*, and discussed above.

No-Project Alternative

The No-Project Alternative would not meet the primary objectives of the Proposed Project—specifically, expanding the Menlo Park Labs Campus (Campus) to create a socioeconomically diverse and flexible workspace for a single life sciences tenant or multiple tenants and developing a sustainable workspace that is highly interconnected to the Belle Haven neighborhood and surrounding areas that generates new revenue for the City. Instead, the Project site would remain in its current condition and would not provide a cutting-edge life sciences building that would cater to the Bay Area and Stanford entrepreneurial communities. The No-Project Alternative would not develop the vacant Lot 3 North. It would not construct the proposed building and parking structure and would not provide the publicly accessible open space and circulation improvements. In addition, the No-Project Alternative would not create jobs. Instead of the approximately 650 jobs created under the Proposed Project, the No-Project Alternative would result in no new jobs at the Project site (existing jobs at 1305 O'Brien Drive would remain). Tax revenues for the City would stay the same rather than increase with implementation of the Proposed Project. The No-Project Alternative would not provide community amenities consistent with ConnectMenlo goals and policies, and it would not create open space or promote alternative transportation. As such, the No-Project Alternative would not meet the primary objectives of the Proposed Project.

Base Level Alternative

The Base Level Alternative would not achieve many of the Project objectives because the reduction in life sciences space would limit buildout of a project that would attract and accommodate future tenants by allowing them to operate at a desired level of productivity compared with operations under the Proposed Project. However, the alternative would meet some of the objectives but to a reduced degree. The Base Level Alternative would develop the Campus with a building program similar to that under the Proposed Project. Under the Base Level Alternative, the allowable net increase in vehicle miles traveled (VMT) would be 70 percent less than that under the Proposed Project. With reduced VMT, the Base Level Alternative would translate into approximately 200 employees instead of 650. Although not a specifically stated objective, a reduction in life science space would not fully achieve the Project Sponsor's needs related to growth.

The Campus would be developed at a lower development density than that under the Proposed Project, which would have a FAR of approximately 90.7 percent. Therefore, the Base Level Alternative would generate less new tax revenue for the City and other public entities. Because it is assumed that the building program would not be substantially different under the Base Level Alternative, the Campus would be highly connected and

would provide a flexible workspace, as under the Proposed Project. The Base Level Alternative would connect the Campus to the community by including publicly accessible open space. The Base Level Alternative would also provide new green spaces and additional landscaped areas with water-conserving plant species, similar to the Proposed Project. In addition, similar to the Proposed Project, the Base Level Alternative would also create a bicycle-/pedestrian-friendly environment. However, the Base-Level Alternative Project would not provide community amenities consistent with ConnectMenlo goals and policies.

Similar to the Proposed Project, the Base Level Alternative would incorporate features that would promote sustainability. It would achieve Silver LEED certification or equivalent for building design and construction, based on its reduced square footage, as opposed to Gold certification under the Proposed Project. The Base Level Alternative would minimize traffic and greenhouse gas (GHG) emissions by providing multiple transportation options for employees, as would the Proposed Project. The alternative would also implement a TDM program to provide alternatives to single-occupancy automobile travel. As with the Proposed Project, the Base Level Alternative would use highly sustainable design techniques to promote energy and water efficiency.

Mixed-Use Alternative

The Mixed-Use Alternative would achieve some of the Project objectives but to a reduced degree. The Mixed-Use Alternative would develop the Campus with the same building as under the Proposed Project but with a reduction in life sciences uses. The Mixed-Use Alternative would not achieve the Project objective of providing a facility that can accommodate a single or multiple life science tenants. With the incorporation of the commercial uses under this alternative, the proposed building could not be solely occupied by a single life science tenant. Furthermore, large life science companies that wish to occupy a research-and-development (R&D) facility as a sole tenant may reject sharing a facility with commercial uses because allowing the public into the building could compromise security for a tenant desiring control of an entire building. Because of the reduced amount of life sciences space and increase in commercial space, the Mixed-Use Alternative would translate into approximately 654 employees instead of 650 in total, which would not meet the Project Sponsor's needs related to growth.

The Campus would be developed at approximately the same development density as that of the Proposed Project, with proposed R&D uses at a FAR of approximately 45.4 percent, proposed commercial uses at a FAR of approximately 8.0 percent, and existing uses at 1305 O'Brien Drive at a FAR of approximately 37.4 percent, for a total FAR of approximately 90.8 percent. It is likely that the Mixed-Use Alternative could generate similar tax revenue for the City and other public entities because commercial uses typically generate more sales tax over time than R&D uses, although business-to-business sales tax revenues would most likely be reduced. Because it is assumed that the building would not be substantially different under the Mixed-Use Alternative, the objective to build a cutting-edge life sciences building that caters to the Bay Area and Stanford entrepreneurial community, with a high-quality aesthetic that provides flexible workspace, would be achieved, as under the Proposed Project. The Mixed-Use Alternative would meet the Project objective to provide community amenities for surrounding neighborhoods, consistent with ConnectMenlo goals and policies, by creating additional publicly accessible open space and providing amenities to benefit the Belle Haven neighborhood. The Mixed-Use Alternative could meet the community amenity requirement for bonus development by adding commercial space on the ground floor of the building dedicated to a use identified in the City Council–approved list of community amenities instead of paying an in-lieu fee, as proposed with the Project. Commercial space could draw people and visitors to the Campus and provide community amenities for surrounding neighborhoods such as Belle Haven. The Mixed-Use Alternative would also provide new green spaces and additional landscaped areas with water-

conserving plant species, similar to the Proposed Project. It would also create a bicycle-/pedestrian-friendly environment, satisfying the objective to promote alternative transportation, similar to the Proposed Project.

Because the Mixed-Use Alternative would be in the same location as the Proposed Project, the alternative would develop a highly connected Campus, similar to the Proposed Project. Specifically, the Project site would be connected to the community and surrounding areas and promote alternative transportation by constructing buffered bicycle lanes around the perimeter of the site and a paseo for bicyclists and pedestrians along the western edge of the site, connecting Adams Court to O'Brien Drive.

Similar to the Proposed Project, the Mixed-Use Alternative would incorporate features that would promote sustainability and minimize traffic and GHG emissions by providing multiple transportation options for employees, as would the Proposed Project. This alternative would also implement a TDM program to provide alternatives to single-occupancy automobile travel. As with the Proposed Project, the Mixed-Use Alternative would use highly sustainable design techniques to promote energy and water efficiency and achieve LEED Gold status for building design and construction.

6.4 Alternatives Considered but Rejected

CEQA Guidelines Section 15126.6(f)(2) states that a EIR must consider offsite alternatives if such alternatives are deemed feasible by the lead agency. As stated in CEQA Guidelines Section 15126.6(f)(1), the factors a lead agency may consider when assessing the feasibility of an alternative include:

> …site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control, or otherwise have access to the alternative site (or the site is already owned by the proponent).

During the NOP comment period, the City received verbal and written suggestions regarding the identification and evaluation of alternatives to the Proposed Project. The following discussion describes the various alternatives that were identified and considered and presents the reasons why they were ultimately not selected for further evaluation in this EIR.

Alternative Locations

Alternative locations for the Proposed Project were considered infeasible, particularly because the Project Sponsor owns this site, which is compatible with existing zoning. In fact, the Project Sponsor proposed an alternative location that it also owns, but that location was rejected because it would require an amendment to the City General Plan and Zoning Ordinance to allow a use similar to the Proposed Project. An alternate location for R&D uses would therefore require land acquisition, which is not included in the Project Sponsor's plans or objectives. In addition, the Project site is within the existing Menlo Park Labs Campus; the Proposed Project would expand the Campus. An offsite alternative would not allow the Project Sponsor to develop in the same geographic area as the existing Campus, expand the current employee base relative to the rest of the Campus, or develop a highly connected Campus because other locations may not already be connected to an existing campus, particularly the Campus where the Project Sponsor is already involved. The plans and objectives cannot be realized at an alternative site.

Although the Proposed Project could be constructed on parcels of a similar size in proximity to the Project Site (e.g., Redwood City, East Palo Alto, Mountain View), no alternative sites have been identified that could accommodate the proposed development, given the overall scarcity of land as well as the existing land use

and zoning designations. Furthermore, an offsite location would not allow the Project Sponsor to realize the objective of providing community amenities for surrounding neighborhoods by creating open space, actively promoting alternative transportation, and providing amenities that will benefit the Belle Haven neighborhood. Moreover, the potentially significant impacts of the Proposed Project would most likely occur regardless of location, meaning that an offsite alternative would not reduce or avoid any identified or potential environmental impacts. Therefore, because of the aforementioned issues related to site suitability, economic viability, acquisition and control, and inconsistency with Project objectives, consideration of an alternative site for the Proposed Project has been rejected. This Draft EIR does not analyze an alternative with an offsite location.

Alternative Development Scenario

Alternatives that would consist of permanent uses other than R&D uses were not considered because they would not be consistent with applicable zoning and City General Plan land use designations and policies for this Property. In addition, uses other than life sciences would not be consistent with uses on the rest of the Campus or with Project objectives. Because the Proposed Project would not require amendments to the City General Plan or Zoning Ordinance, the City's land use and development policies are not in question, and it is not necessary or appropriate under CEQA for the EIR to consider alternative uses that would require such amendments.

Alternative development scenarios would have the potential to reduce Project-related impacts such as those pertaining to noise, transportation, air quality, and GHG emissions. The Project site is designated as Life Sciences-Bonus (LS-B) in the City General Plan and zoned LS under the City Zoning Ordinance as part of ConnectMenlo. Neither of these designations permits development other than that associated with life sciences uses; alternative development would not be consistent with existing land uses in the vicinity of the Project site. Specifically, any other type of development at the site would not be consistent with current ConnectMenlo direction and policies, which are intended to preserve land in the Menlo Park Labs Campus for employment uses. Furthermore, any other type of development would be inconsistent with virtually all of the Project objectives. Therefore, this alternative was rejected because of its inability to meet basic Project objectives.

Maximum Bonus Alternative

Under the Maximum Bonus Alternative, the Proposed Project would be developed at the maximum bonus level of development allowed in the LS-B zoning district. As such, the approximately 11.2-acre site would be developed with a FAR of 125 percent and a maximum building height of 110 feet. In addition, the Proposed Project would be required to provide a minimum of 97,580 sf of open space, including a minimum of 48,790 sf of public open space. The increase in building size and height would accommodate a larger number of employees at the Project site, and with a greater FAR, the buildings would cover a larger portion of the Project site. Increasing the footprint would decrease the pedestrian-friendly campus atmosphere, reduce the amount of landscaping, increase the number of trees to be removed, and increase impervious coverage, thereby increasing environmental impacts relative to hydrology. An increase in impervious coverage would most likely result in less groundwater recharge, with associated potential impacts on groundwater volume and water quality as a result of potential increases in stormwater runoff and associated pollutants. This would reduce the ability of the Project Sponsor to achieve sustainability and building design goals and increase community amenities, such as open spaces, in surrounding neighborhoods. This alternative has been rejected because impacts resulting from the increase in population and building size would occur without commensurate improvements in work-environmental

connectivity, sustainability, landscaping, and hydrology. Furthermore, except for unique circumstances not present in this situation, it is not appropriate or necessary for an EIR to consider alternatives involving more development than the Proposed Project because the fundamental purpose is to identify alternatives that might reduce the impacts of the Proposed Project.

6.5 Impact Assessment

This section evaluates whether the alternatives would reduce the already less-than-significant impacts of the Proposed Project and/or generate impacts other than those identified for the Proposed Project. Summarized lists of recommended mitigation measures for each alternative are provided in the analysis below; the mitigation measures are described in each resource section within Chapters 3, 4, and 5 of this EIR. In addition, a comparative analysis between the Proposed Project and its alternatives is provided in Table 6-8, at the end of this section.

No-Project Alternative

The Proposed Project would not result in any significant and unavoidable impacts; therefore, none of the alternatives would avoid or substantially lessen a significant and unavoidable impact.

Transportation

The No-Project Alternative would continue existing conditions at the Project site. The only vehicle trips to and from the Project site would be associated with 1305 O'Brien Drive (the PacBio building). Therefore, the No-Project Alternative would result in no additional vehicle trips and no transportation-related impacts beyond those currently occurring with the existing use. (NI)

Air Quality

The No-Project Alternative would not construct new uses at the Project site, and no uses would occupy Lot 3 North. Therefore, the amount of criteria pollutant emissions currently generated at the Project site (at 1305 O'Brien Drive) would remain the same. No new construction-related or operational emissions would be emitted. Because new development would not be constructed or operated under the No-Project Alternative, no growth would occur, and there would be no conflict with any applicable air quality plan. As a result, no impacts on air quality would result under the No-Project Alternative. (NI)

Greenhouse Gas Emissions

The No-Project Alternative would not involve construction activities or result in net new direct GHG emissions from construction equipment. In addition, no net new direct GHG emissions from area and mobile sources or indirect emissions from electricity generation, solid waste generation, or water consumption would occur because there would be no new land uses operating at the Project site. Because this alternative would not construct the new building, and no new uses would operate at Lot 3 North, there would be no increase in GHG emissions above existing levels, resulting in no impact. (NI)

Noise

Because no construction would occur under the No-Project Alternative, no construction noise would be generated. Operational noise at the Project site would remain the same because the number of vehicle trips to and from the Project site as a whole (including 1305 O'Brien Drive) would not increase. In addition, the No-

Project Alternative would not include additional heating, ventilation, and air-conditioning (HVAC) systems or generators on the property, all of which would generate noise under the Proposed Project. Therefore, the No-Project Alternative would avoid the onsite construction and operational noise and vibration impacts that would occur under the Proposed Project. Other development in the vicinity may require upgrading the waterline along O'Brien Drive; therefore, City consideration of construction noise associated with the waterline would still occur as a separate matter, resulting in no impact. (NI)

Population and Housing

The No-Project Alternative would result in no increase in housing or employment levels at the Project site compared with existing conditions. Accordingly, the No-Project Alternative would not result in a demand for new housing units within Menlo Park or nearby local jurisdictions. The No-Project Alternative would avoid population growth, resulting in no impact. (NI)

Utilities and Energy

The No-Project Alternative would not change existing uses at the Project site. Utilities at the Project site would continue to serve the existing building at 1305 O'Brien Drive. Because no additional employees would be added on the Project site, and because Lot 3 North is currently vacant, the No-Project Alternative would not require any additional utilities compared with existing conditions. The No-Project Alternative would avoid the Proposed Project's less-than-significant impacts on water supply, water treatment, wastewater treatment, and energy consumption. The No-Project Alternative would avoid all of the construction-related impacts and ground disturbances associated with the new and upgraded domestic waterlines, as well as temporary disturbances to sanitary sewer lines, that would occur under the Proposed Project. Other development in the vicinity may require upgrading the waterline along O'Brien Drive; therefore, City consideration of the environmental effects would still occur as a separate matter. (NI)

Base Level Alternative

The Proposed Project would not result in any significant and unavoidable impacts; therefore, none of the alternatives would avoid or substantially lessen a significant and unavoidable impact. The potential impacts associated with the Base Level Alternative are described below. Under the Base Level Alternative, the Project site would be developed with life science uses, consistent with the existing zoning designation, although to a lesser extent compared with the Proposed Project. As described above, the Base Level Alternative would include a 37 percent reduction in FAR. This would equate to an approximately 80,250 gsf life sciences building and approximately 200 employees. As with the Proposed Project, the Base Level Alternative would include life sciences uses. The maximum building height would be 35 feet. The site plan for the Base Level Alternative would be similar to that for the Proposed Project but at a reduced scale. Because building footprints would be similar, all footprint-based impacts would be the same or less than those of the Proposed Project, as explained below.

Transportation

Under the Base Level Alternative, the site would be developed with life sciences uses, similar to development under the Proposed Project, although to a lesser extent. The transportation and circulation changes under the Base Level Alternative, including site access and infrastructure improvements, would be similar to those of the Proposed Project. Therefore, the Base Level Alternative would result in similar impacts related to the various transportation topics, including VMT, policy conflicts, design hazards, and emergency vehicle access. Vehicle trip generation associated with the Base Level Alternative as well as related VMT and policy conflicts are discussed below. (LTS)

Trip Generation. Travel demand under the Base Level Alternative was estimated for the daily weekday a.m. and p.m. peak periods. The vehicle trip generation estimates for the proposed life sciences uses were calculated using the trip generation rates from the Institute of Transportation Engineers *Trip Generation Manual*, 10th edition. As with for the Proposed Project, the Research and Development Center (ITE Code 760) category was applied to the proposed life sciences use. Consistent with Menlo Park Transportation Impact Analysis guidelines, vehicle trip reductions were taken into account for the TDM program.[4] The resulting trip generation is provided in Table 6-2, along with a comparison between new vehicle trips generated under the Base Level Alternative and those of the Proposed Project. As shown in Table 6-2, the Base Level Alternative would generate 1,623 fewer vehicle trips on a daily basis, with 60 fewer vehicle trips during the weekday a.m. peak hour and 71 fewer vehicle trips during the weekday p.m. peak hour. Because of the change in land use, the Base Level Alternative would result in a 69, 69, and 70 percent reduction in the number of vehicle trips compared with the Proposed Project on a daily, weekday a.m. peak-hour, and weekday p.m. peak-hour basis, respectively.

Table 6-2. Base Level Alternative Comparison to Proposed Project

Land Use	Size	Unit	Daily Trips	Total AM Peak-Hour Trips	Total PM Peak-Hour Trips
Base Level Alternative					
R&D[a]	80.3	ksf	904	34	39
Reductions					
20 Percent TDM Trip Reduction			(181)	(7)	(8)
Base Level Alternative Total			**723**	**27**	**31**
Proposed Project Trips	260.4	ksf	2,346	87	102
Difference (Base Level Alternative minus Proposed Project)			**(1,623)**	**(60)**	**(71)**
			69% Reduction	**69% Reduction**	**70% Reduction**

Source: Institute of Transportation Engineers, *Trip Generation Manual*, 10th edition.

Notes:

a. Land Use Code 760: Research and Development Center (average rates, expressed in trips per 1,000 gsf of floor area).

ksf = thousand square feet

Conflict with Applicable Plan, Ordinances, or Policies. As part of the City's entitlement process, the Base Level Alternative would be required to comply with existing regulations, including City General Plan policies and zoning regulations. The Base Level Alternative would be reviewed in accordance with the Transportation Program standards and guidelines of the City Public Works Department; the department would provide oversight during the engineering review, ensuring that construction would be consistent with City specifications.

The site access and infrastructure improvements provided under the Base Level Alternative would be similar to those under the Proposed Project and represent an overall improvement in bicycle and pedestrian access and circulation. Similar to the Proposed Project, the Base Level Alternative would construct a portion of the public sidewalk along Adams Drive and Adams Court. Within the site, pedestrian walkways would be incorporated around the building to connect the site to public streets. In addition, the

[4] Kimley Horn, Inc. 2021. *Transportation Demand Management Memorandum for 1350 Adams Court*. April 8.

Base Level Alternative would promote bicycle use by providing long- and short-term bicycle parking spaces, showers/changing rooms, and a bike-share program. The Base Level Alternative would meet zoning ordinance requirements for vehicle and bicycle parking and implement TDM measures in an effort to reduce the number of vehicle trips and encourage travel by modes other than automobile. Therefore, this impact would remain less than significant (LTS). As stated in Chapter 16.45.090 of the City Zoning Ordinance, all new construction, regardless of size, and building additions of 10,000 square feet of gross floor area, or more, or a change in use affecting 10,000 square feet of gross floor area, or more, shall develop a TDM plan to reduce associated vehicle trips to at least 20 percent below standard generation rates for uses on a project site. A smaller project could have more trouble achieving the target than a larger project. Small projects may need to develop combined TDM measures with other nearby developments.

Vehicle Miles Traveled. The VMT impact under the Base Level Alternative would be the same as under the Proposed Project. Estimated average daily VMT per capita for office/R&D uses within the Project site's Transportation Analysis Zone is 16.1, which is higher than the threshold of significance (i.e., 12.7). A 21.1 percent reduction in VMT would be needed to get below the VMT threshold of significance.

The estimated VMT does not account for the Proposed Project's TDM program. Without TDM measures, the Proposed Project may result in a substantial level of additional VMT, and impacts would be potentially significant. A TDM program was prepared for the Proposed Project by Kimley-Horn (see Appendix 3.1) to reduce both the number of trips and VMT. With implementation of the TDM program, VMT generated by the proposed office use would be reduced by more than 21.1 percent. Therefore, Mitigation Measure TRA-1 would be required to reduce VMT generated by the Base Level Alternative to a less-than-significant level. This impact would remain less than significant with mitigation**.** (LTS/M)

Air Quality

Conflict with Air Quality Plan. Proposed development under both the Proposed Project and the Base Level Alternative would not conflict with the existing land use designation. Similar to the Proposed Project, the Base Level Alternative would support the goals of the Clean Air Plan. It would not disrupt or hinder implementation of any control measures in the Clean Air Plan. The Base Level Alternative would not result in an increase in population that would exceed Association of Bay Area Governments projections. Similar to the Proposed Project, Mitigation Measure AQ-1.1 would be implemented during construction. Therefore, impacts would be less than significant with mitigation. (LTS/M)

Construction Criteria Air Pollutant Emissions. Similar to the Proposed Project, construction of the Base Level Alternative would require the use of heavy equipment and other mobile sources that would generate criteria pollutants. Construction of the waterlines would be the same as under the Proposed Project. However, the Base Level Alternative would have a smaller building footprint and, potentially, a shorter construction period. It would require less construction equipment and fewer vehicles compared with the Proposed Project. Therefore, daily construction emissions generated by the Base Level Alternative would most likely be similar to or less than those of the Proposed Project. Daily construction emissions from operation of onsite equipment and on-road vehicles under the Proposed Project would be below the Bay Area Air Quality Management District's (BAAQMD's) significance thresholds for reactive organic gas (ROG), nitrogen oxides (NO_X), carbon monoxide (CO), and particulate matter (i.e., particulate matter less than 10 microns in aerodynamic diameter [PM_{10}] and particulate matter less than 2.5 microns in aerodynamic diameter [$PM_{2.5}$]); therefore, the Base Level Alternative would not exceed any BAAQMD threshold. Regardless, BAAQMD-recommended best management practices (BMPs) and ConnectMenlo Final EIR Mitigation Measures AQ-2b1 and AQ-2b2 would be implemented to reduce PM_{10} and $PM_{2.5}$ from fugitive dust emissions. With implementation of the mitigation measures, this impact would be less than significant. (LTS/M)

Operational Criteria Air Pollutant Emissions. Operational emissions from both the Proposed Project and Base Level Alternative have the potential to create air quality impacts, primarily impacts associated with direct emissions from mobile sources. Motor vehicle traffic would include automobiles associated with daily employee trips and delivery trucks. The Base Level Alternative would result in fewer vehicle trips because of the reduction in floor area and the number of employees. The Base Level Alternative would require 723 daily trips to the Project site. Operational air quality impacts would be reduced as shown in Table 6-3.

Table 6-3: Estimated Unmitigated Maximum Daily Operational Emissions, Base Level Alternative

	Maximum Daily Emissions (lb/day)			
Emissions Source	**ROG**	**NO_X**	**PM_{10}[a]**	**$PM_{2.5}$[a]**
Area Sources	2	< 1	< 1	< 1
Onsite Natural Gas Combustion	< 1	1	< 1	< 1
Vehicle Trips (Mobile Sources)	2	2	3	< 1
Backup Diesel Generator	< 1	4	< 1	< 1
Total Operational Emissions	**5**	**7**	**3**	**1**
BAAQMD Significance Threshold	54	54	82	54
Exceeds Threshold?	**No**	**No**	**No**	**No**

Modeling files provided in Appendix 6.1

Notes:

a. BAAQMD operational thresholds for PM_{10} and $PM_{2.5}$ include both fugitive dust and exhaust emissions.

lb/day = pounds per day; ROG = reactive organic gases; NO_X = nitrogen oxides; PM_{10} = particulate matter no more than 10 microns in diameter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter

As shown in Table 6-3, operation of the Base Level Alternative would not generate levels of ROG, NO_X, or particulate matter that would exceed BAAQMD-recommended mass emission thresholds. Therefore, similar to the Proposed Project, operation of the Base Level Alternative would not result in a cumulatively considerable net increase in any criteria air pollutant for which the San Francisco Bay Area Air Basin is designated as a nonattainment area with respect to the federal or state ambient air quality standards. Mitigation measures, including ConnectMenlo Final EIR Mitigation Measure AQ-2a, would not be required. This impact would be less than significant. (LTS)

Exposure of Existing Sensitive Receptors to Substantial Pollutant Concentrations during Construction. Diesel-fueled engines, which generate diesel particulate matter (DPM), would be used during construction of the Base Level Alternative, similar to the Proposed Project. Multiple sensitive receptors are within 1,000 feet of the Project site, including residences. The Proposed Project's construction would not result in any significant increases in the non-cancer hazard index, cancer risk, or annual $PM_{2.5}$ concentrations at sensitive receptors within 1,000 feet of the Project site. The Base Level Alternative would result in a reduction in floor area compared with the Proposed Project; however, as discussed above, daily construction activity could be comparable to that of the Proposed Project. Consequently, the Base Level Alternative's $PM_{2.5}$ concentration, along with the hazard index and cancer risk, could be similar to that of the Proposed Project but below the applicable thresholds with implementation of Mitigation Measure AQ-1.1, which would reduce DPM exposure. Similar to the Proposed Project, with implementation of Mitigation Measure AQ-1.1, the Base Level Alternative would not exceed BAAQMD thresholds for cancer risk, the non-cancer hazard index, and annual $PM_{2.5}$ concentrations. This impact would be less than significant with mitigation. (LTS/M)

Exposure of Existing Sensitive Receptors to Substantial Pollutant Concentrations from Project Operation. Traffic generated by the Proposed Project would have the potential to create CO hot spots at nearby roadways and intersections. However, because the Base Level Alternative would generate less traffic than the Proposed Project, the CO emissions would not be as significant. Regardless, for both the Proposed Project and the Base Level Alternative, CO concentrations are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient air quality standards, resulting in less-than-significant impacts. (LTS)

Create Objectionable Odors. Potential odor sources during construction include diesel exhaust from heavy-duty equipment. Construction-related operations near existing receptors would be temporary in nature and would not be likely to result in nuisance odors that would violate BAAQMD Regulation 7 (Odorous Substances). Potential odor emitters during operations would include exhaust from vehicles and fumes from the reapplication of architectural coatings. The odor impacts during operation would be limited and infrequent. Because there would be no change in land use under the Base Level Alternative compared with the Proposed Project, the same less-than-significant impacts would occur. (LTS)

Cumulative Impacts. For the reasons described above, the Base Level Alternative in combination with other development in Menlo Park would not conflict with or obstruct implementation of the applicable air quality plan and would not result in a cumulatively significant impact. In addition, the Base Level Alternative in combination with other development in Menlo Park would be consistent with the Clean Air Plan. Similar to the Proposed Project, with implementation of Mitigation Measure AQ-1.1, the Base Level Alternative would not exceed BAAQMD's cumulative thresholds for $PM_{2.5}$ concentrations, the hazard index, or cancer risks associated with construction and operation. Consequently, the cumulative impact regarding health risks for sensitive receptors would be less than significant with mitigation. (LTS/M)

Greenhouse Gas Emissions

GHG Emissions during Project Construction. Construction of the Base Level Alternative would generate carbon dioxide (CO_2), methane (CH_4), and NO_X from the exhaust of mobile and stationary construction equipment, employees' vehicles, and haul trucks. Although the construction period could be shorter with this alternative because of the smaller building area, the intensity of construction activities at a given time would be similar to that of the Proposed Project. In addition, construction of the waterline would be the same under the Base Level Alternative as under the Proposed Project. BAAQMD's CEQA Guidelines do not recommend a GHG emission threshold for construction-related emissions; therefore, construction of the Base Level Alternative would not exceed thresholds. However, the guidelines recommend implementation of BMPs to help control or reduce GHG emissions. Therefore, the impact from construction of the Base Level Alternative is considered less than significant with implementation of Mitigation Measure GHG-1a. (LTS/M)

GHG Emissions during Project Operation. Operation of the Base Level Alternative would generate fewer direct and indirect GHG emissions than the Proposed Project because of a decrease in building area and the number of employees. Therefore, this alternative would result in fewer vehicle trips, a lower level of electricity consumption, and lower levels of waste and wastewater generation. Although the Base Level Alternative would still increase direct and indirect GHG emissions compared with existing conditions, there would be a 66 percent reduction in the number of employees, which would have an appreciable effect on mobile GHG emissions.

As shown in Table 6-4, operation of the Base Level Alternative would not generate GHG emissions that would exceed the service population–based GHG efficiency threshold for 2030. Specifically, GHG emissions under the Base Level Alternative would total 2.41 metric tons of carbon dioxide equivalent per service population per year, which is below the 2030 service population–based GHG efficiency threshold of 2.76. Therefore, the Base Level Alternative would result in less-than-significant impacts. (LTS)

Table 6-4. Base Level Alternative Operational Greenhouse Emissions by Sector for 2030 ($MTCO_2e$)

Emissions Source	Annual $MTCO_2e$
Landscape Maintenance (area source)	0
Electricity Consumption (onsite)[b]	0
Natural Gas Consumption (onsite)[c]	0
Vehicle Trips (mobile sources)[d]	393
Backup Generators (stationary sources)	11
Solid Waste Disposal[a]	3
Water Consumption and Wastewater Treatment	75
Total Operational Emissions (*$MTCO_2e$/year*)	482
Total Service Population	200
Total Annual Service Population GHG Emissions ($MTCO_2e$/SP/year)	2.41[e]
Service Population–based GHG Efficiency Threshold for 2030	2.76

Source: See Appendix 6.1 for detailed input parameters and modeling results.

Notes:

a. The level of GHG emissions associated with solid waste disposal accounts for the waste diversion requirements mandated by state regulations (e.g., Assembly Bill 341).

b. The level of GHG emissions associated with the onsite consumption of electricity would be zero with implementation of Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(A)(ii), which requires the Project Sponsor, or its building manager, to purchase 100 percent renewable electricity through Peninsula Clean Energy or Pacific Gas and Electric Company in an amount equal to its entire onsite demand for electricity.

c. The level of GHG emissions associated with the onsite consumption of natural gas would be zero with implementation of Menlo Park Municipal Code Chapter 16, Section 16.44.130(2)(II), which requires the Project Sponsor, or its building manager, to purchase carbon credits to offset fully GHG emissions associated with all onsite combustion of natural gas.

d. Mobile-source emissions account for the 20 percent trip reduction from the TDM measure as well as VMT reductions from Mitigation Measure TRA-1.

e. Values may not add up because of rounding.

$MTCO_2e$ = metric tons of carbon dioxide equivalent; SP = service population

Conflicts with Applicable GHG Emission Plans, Policies, and Regulations. Because the Base Level Alternative would not exceed the BAAQMD efficiency threshold, this alternative would not pose any explicit conflict with the Senate Bill 32 Scoping Plan to reduce GHG emissions to 1990 levels by 2030. Furthermore, the Base Level Alternative would also be consistent with the City's Climate Action Plan and City Zoning Ordinance. It would also be required to implement ConnectMenlo Final EIR Mitigation Measure AQ-2b1, Project Mitigation Measure GHG-1a, as well as Mitigation Measure TRA-1. Therefore, the Base Level Alternative would not conflict with applicable plans and policies, and impacts would be less than significant with mitigation. (LTS/M)

Cumulative Impacts. Climate change is a global problem, and GHG impacts are inherently cumulative. This is because GHGs contribute to the global phenomenon that is climate change, regardless of where GHGs are emitted. Climate change is the result of the individual contributions of countless past, present, and future sources. Therefore, GHG impacts are inherently cumulative, and the analysis above is inclusive of cumulative impacts. (LTS)

Noise

As with the Proposed Project, the Base Level Alternative would have no impacts related to adjacency to airports. (NI)

Exposure to Excessive Noise Levels in Excess of Local or Applicable Standards. The Base Level Alternative would expose persons to or generate noise levels in excess of standards established in the general plan, noise ordinance, or applicable standards, as is the case with the Proposed Project.

Project Site Construction. As with the Proposed Project, construction of the Base Level Alternative would require the use of heavy equipment that would temporarily increase noise levels at properties near the work sites. Although the Base Level Alternative would result in a reduced building footprint and, therefore, potentially shorter construction periods or greater distances to the nearest receptors from the main Project site, noise levels at a given time during construction would be similar to the levels expected under the Proposed Project. Therefore, estimated reasonable worse-case construction noise levels for the Base level Alternative would be the same as those reported for the Proposed Project. In addition, construction work hours for the Base Level Alternative would very likely be comparable to those of the Proposed Project, extending from 6:00 a.m. to 7:00 p.m. Monday through Friday. Therefore, as is the case with the Proposed Project, construction activities associated with the Base Level Alternative would take place for up to 2 hours in the morning, before the hours generally considered to be exempt for construction noise in Menlo Park, and 1 hour in the evening, after the hours generally considered to be exempt.

Construction activities during the hours of 7:00 a.m. to 8:00 a.m. and 6:00 p.m. to 7:00 p.m. weekdays would need to comply with the standard for daytime hours (i.e., 60 A-weighted decibels [dBA]), which is applicable outside the exempt daytime hours for construction. Construction activities between 6:00 a.m. and 7:00 a.m. weekdays would need to comply with the nighttime 50 dBA standard. In addition, construction noise would need to be limited to a 10 dB increase over the ambient level at nearby noise-sensitive uses. As discussed for the Proposed Project's construction impact assessment, an increase of 10 dB over the ambient noise level is not expected to occur from construction at the main Project site during daytime hours. However, construction noise is expected to exceed the allowable noise levels during non-exempt construction hours, and may result in a 10-dB increase over the ambient level during these hours. Although construction for the waterline may result in noise levels of 10 dB or more over the existing ambient noise level at nearby noise-sensitive land uses, the waterline would be short-term, lasting approximately two months and not occurring for the entire duration at a single location. Noise from construction from waterline work would be considered less than significant. However, noise from Project site construction outside of the standard daytime hours for construction in the City of 8:00 a.m. to 6:00 p.m. would be considered significant. Implementation of ConnectMenlo Final EIR Mitigation Measure NOISE-1c, which pertains to best practices for construction activity, and Project Mitigation Measure NOI-1, which requires a Noise Control Plan to reduce construction noise during non-daytime hours, would reduce the construction noise impacts of the Base Level Alternative to less than significant levels with mitigation. Therefore, as is the case for the Proposed Project, construction noise impacts from Project site construction during non-daytime hours would be less than significant with mitigation. (LTS/M)

Traffic Noise Impacts. The Base Level Alternative would have the potential to increase noise on roadway segments in the vicinity of the Project site, although to a lesser extent than the Proposed Project because of the reduction in the number of vehicle trips. The largest Project-related traffic noise increase was estimated to be 0.7 decibel in the Project analysis. Because traffic noise increases under the Base Level Alternative would be lower than those under the Proposed Project, and because the Proposed Project would have less-than-significant traffic noise impacts, this alternative would also result in less-than-significant noise impacts on offsite sensitive receptors. (LTS)

Non-Traffic Operational Noise (HVAC Equipment and Emergency Generators). As with the Proposed Project, the Base Level Alternative would require HVAC systems and one emergency generator. Noise from equipment associated with the Base Level Alternative would be similar to noise from Project equipment, even with the alternative's smaller footprint, because the number of pieces of equipment, as well as the types and sizes, would be similar. As was the case with the Proposed Project, noise from mechanical equipment under this alternative may result in noise levels in excess of applicable thresholds. Implementation of ConnectMenlo Final EIR Mitigation Measure NOISE-1b would be required, which states that stationary noise sources, as well as landscaping and maintenance activities, shall comply with Chapter 8.06, Noise, of the Menlo Park Municipal Code. In addition, Project Mitigation Measure NOI-2 would also be required for this alternative. Compliance with the mitigation measures would ensure compliance with Chapter 8.06 of the Menlo Park Municipal Code and Chapter 8.52 of the City of East Palo Alto Municipal. Impacts related to equipment noise during operations would be less than significant with mitigation, as was the case with the Proposed Project. (LTS/M)

Expose Persons to or Generate Excessive Ground-borne Vibration or Ground-borne Noise Levels. The operation of heavy construction equipment can generate localized ground-borne vibration and noise at buildings adjacent to a construction site. As is the case with the Proposed Project, the Base Level Alternative would not require pile driving. Vibration effects associated with the Base Level Alternative from construction on the main site would be similar to those resulting from Project construction because the general location of construction activity, as well as the required equipment, would be similar. In addition, the footprint for the proposed waterline, which represents the closest construction area to offsite noise-sensitive receivers, would also be the same under the Base Level Alternative. Therefore, vibration impacts under the Base Level Alternative from construction work associated with the waterline would be the same as those described for the Proposed Project. Similar to the Proposed Project, vibration impacts related to both annoyance and damage would be considered less than significant. (LTS)

Cumulative Impacts. The Base Level Alternative would result in the same cumulative noise impacts as the Proposed Project or slightly fewer. Cumulative traffic noise impacts would be less than significant, as is the case for the Proposed Project, because there would be fewer Project-related traffic trips under the Base Level Alternative. Construction noise associated with the Proposed Project could contribute to a cumulative construction noise impact should other projects also propose construction outside the exempt daytime hours. However, implementation of ConnectMenlo Final EIR Mitigation Measure NOISE-1c, which pertains to best practices for construction activity, and Project Mitigation Measure NOI-1, which requires a Noise Control Plan to reduce construction noise during non-daytime construction hours, would reduce the Base Level Alternative's contribution to this potential cumulative impact to a less than cumulatively considerable level. In addition, although it is possible that noise from mechanical equipment associated with the Proposed Project could combine with operational noise from other nearby projects to elevate overall noise levels in the vicinity, implementation of ConnectMenlo Final EIR Mitigation Measure NOISE-1b would require compliance with Chapter 8.06, Noise, of the Menlo Park Municipal Code. In addition, Project Mitigation Measure NOI-2 would also be required for this alternative. Compliance with the mitigation measures would ensure compliance with Chapter 8.06 of the Menlo Park Municipal Code and

Chapter 8.52 of the City of East Palo Alto Municipal. The potential for the Base Level Alternative to contribute to a cumulative impact related to operational noise would not be cumulatively considerable. (LTS/M)

Population and Housing

As with the Proposed Project, the Base Level Alternative would not result in direct impacts on population growth or the displacement of housing or people. (NI)

Indirect Population Growth. The Base Level Alternative would not include development of new housing units. However, there would be a population increase from new employment during operation of this alternative. Approximately 200 new employees would be employed at the Project site as a result of the Base Level Alternative, or 450 fewer employees compared with the 650 anticipated under the Proposed Project.

The increase in employment would result in a demand for new housing units and an indirect increase in the residential population. Assuming that up to 5.9 percent of employees would live in Menlo Park, with an average of 1.91 workers per household, the Base Level Alternative would result in approximately six new households[5] in Menlo Park. With a persons-per-household (pph) ratio of 2.64,[6] this alternative could result in approximately 16 new residents in Menlo Park compared with the 53 under the Proposed Project. Therefore, this alternative represents only a portion of the net population increase expected under the Proposed Project, resulting in a less-than-significant impact. The percentage of regional housing demand resulting from the Base Level Alternative would be relatively small in comparison with projected housing growth in the region. Accordingly, the impact of the Base Level Alternative would be less than significant. (LTS)

Cumulative Impacts. This alternative in combination with other projected growth in Menlo Park would increase population, employment, and housing demand. However, as with the Proposed Project, the contribution of the Base Level Alternative the increase in population, employment, and housing demand would not be cumulatively considerable. (LTS)

Utilities and Energy

Water Supply. Implementation of the Base Level Alternative would result in approximately 450 fewer employees than the number anticipated under the Proposed Project. As such, with the same conservation measures as the Proposed Project, water demand with implementation of the Base Level Alternative would be less than the approximately 4.82 million gallons per year anticipated at full buildout of the Proposed Project. Under the Proposed Project, the Menlo Park Municipal Water District (MPMWD) would have an adequate supply to meet its projected demands in normal rainfall years over a 20-year horizon. In single and multiple dry years, there would be a shortfall in water supply, both with and without the Proposed Project, over a 20-year horizon. However, implementation of the Water Shortage Contingency Plan would reduce demand such that the impact under the Proposed Project would be less than significant. Because the Base Level Alternative would demand less water than the Proposed Project, implementation of this alternative also would have a less-than-significant impact on existing water supplies in MPMWD's service area and would not necessitate the expansion of existing facilities or entitlements. (LTS)

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5 Assuming an average of 1.91 employees per household (Keyser Marston Associates 2021) in Menlo Park and 5.9 percent of employees live and work in Menlo Park; 200 total employees × 5.9 percent = 12 employees who also live in Menlo Park; 12 employees/1.91 employees per household = six households.

6 Six households × 2.64 persons per household = 16.

Water Treatment Facilities. There is adequate capacity at the water treatment facilities that currently serve Menlo Park for implementation of the Proposed Project, which would not require relocation, construction, or expansion of the existing facilities. Therefore, because the Base Level Alternative would involve fewer employees at the Project site compared with the Proposed Project, this alternative would also not require new or expanded water treatment facilities. The Base Level Alternative would have a less-than-significant impact related to the construction or expansion of water treatment facilities. (LTS)

Wastewater Generation. Implementation of the Base Level Alternative would result in more wastewater generation than under existing conditions but less wastewater generation than under the Proposed Project because the alternative would involve approximately 450 fewer employees than the Proposed Project. As such, the wastewater generation rate with implementation of the Base Level Alternative would be less than the estimated net increase in wastewater generation with the Proposed Project, which would be approximately 3.9 million gallons per year, or about 0.01 million gallon per day. Under the Proposed Project, the Silicon Valley Clean Water wastewater treatment plant would have adequate capacity to meet its projected demands. Therefore, with the Base Level Alternative, which would have reduced demand compared with the Proposed Project, the Silicon Valley Clean Water wastewater treatment plant would also have adequate capacity. Implementation of the Base Level Alternative, as with the Proposed Project, would not result in a determination from the wastewater treatment provider that it would have inadequate capacity with respect to serving projected demand in addition to existing commitments. The Base Level Alternative would result in a less-than-significant impact regarding wastewater treatment capacity. (LTS)

Energy Demand. The Base Level Alternative would use slightly less energy than the Proposed Project because of the decrease in the number of employees at the Project site. Implementation of the Proposed Project would result in less-than-significant impacts on the existing electricity and natural gas supply, as well as associated infrastructure, because it would be served by Pacific Gas and Electric Company and Peninsula Clean Energy, a joint powers agency formed by the cities in San Mateo County to purchase clean energy in bulk, and would not require construction of new facilities, energy demand would be within City forecasts, and the Proposed Project would incorporate energy-saving measures. Because the Base Level Alternative would demand fewer gas and electric connections because of fewer employees and a smaller building area, this alternative would result in a reduction in the level of impact and, therefore, would also have a less-than-significant impact. (LTS)

Cumulative Impacts. As discussed in Section 3.6, *Utilities and Energy*, Menlo Park's water supply, infrastructure and facilities, wastewater treatment capabilities, and energy resources are adequate with respect to serving cumulative development, including the projections studied in ConnectMenlo. Menlo Park, including its service providers, would have adequate resources and supplies to meet customer demand, including the demand of the Proposed Project combined with existing and planned future uses. Because the Base Level Alternative would use less water and energy and generate less wastewater than the Proposed Project, impacts would not be cumulatively considerable. (LTS)

Mixed-Use Alternative

The Proposed Project would not result in any significant and unavoidable impacts; therefore, none of the alternatives would avoid or substantially lessen a significant and unavoidable impact. The potential impacts associated with the Mixed-Use Alternative are described below. Under the Mixed-Use Alternative, the Project site would be developed, consistent with the existing zoning designation, with life sciences uses in addition to commercial uses. As described above, the Mixed-Use Alternative would develop the same life sciences building as the Proposed Project but would replace the ground floor of life sciences space with approximately 38,995 gsf of commercial uses. This would equate to a building with approximately 260,400

gsf and approximately 654 total employees. Including the existing building at 1305 O'Brien Drive, the Mixed-Use Alternative would result in approximately 442,722 gsf of occupiable space on the entire Project site. The maximum building height would be 92 feet. The site plan for the Mixed-Use Alternative would be similar to that for the Proposed Project. Because building footprints would be similar, all footprint-based impacts would be similar to those of the Proposed Project, with some increase in construction-related impacts from additional parking for the commercial uses, as explained below.

The Mixed-Use Alternative would not reduce any significant unavoidable impacts of the Proposed Project. Furthermore, it would lead to increased environmental impacts related to the increase in traffic created by commercial uses and the slight increase in the number of employees on the property, along with impacts from increased construction for the additional parking required for the commercial uses. The Mixed-Use Alternative is not a required CEQA alternative; it is a policy-based alternative for informational purposes.

Transportation

Under the Mixed-Use Alternative, the Project site would be developed with commercial space in addition to life sciences uses. The transportation and circulation improvements under the Mixed-Use Alternative, including site access and infrastructure improvements, would be similar to those of the Proposed Project. Therefore, the Mixed-Use Alternative would result in similar less-than-significant impacts related to the various transportation topics, including VMT, policy conflicts, design hazards, and emergency vehicle access. Vehicle trip generation would increase with the Mixed-Use Alternative. Vehicle trips, related VMT, and policy conflicts are discussed below. (LTS)

Trip Generation. The Mixed-Use Alternative's travel demand was estimated for weekday a.m. and p.m. peak periods. The vehicle trip generation estimates for the proposed life sciences and retail uses were calculated using the trip generation rates from the Institute of Transportation Engineers *Trip Generation Manual*, 10th edition.

As with for the Proposed Project, the Research and Development Center (ITE Code 760) category was applied to the life sciences uses. The Shopping Center (ITE Code 820) category was applied to the retail uses. This category is used when potential tenants are not known. It represents a mix of potential retail shops and restaurants. It is expected that some internal capture would occur between the commercial and the life sciences uses; therefore, a 5 percent internal capture rate was applied. Consistent with the Menlo Park Transportation Impact Analysis guidelines, vehicle trip reductions were taken into account for the TDM program.[7] The resulting trip generation is provided in Table 6-5, along with a comparison between new vehicle trips generated under the Mixed-Use Alternative and new vehicle trips under the Proposed Project. As shown in Table 6-5, the Mixed-Use Alternative would generate 656 additional vehicle trips on a daily basis, including 12 additional vehicle trips during the weekday a.m. peak hour and 91 additional vehicle trips during the weekday p.m. peak hour. Because of the change in land use, the Mixed-Use Alternative would result in a 28, 14, and 89 percent increase in the number of vehicle trips compared with the Proposed Project on a daily, weekday a.m. peak-hour, and weekday p.m. peak-hour basis, respectively.

Conflict with Applicable Plan, Ordinances, or Policies. As part of the City's entitlement process, the Mixed-Use Alternative would be required to comply with existing regulations, including general plan policies and zoning regulations. The Mixed-Use Alternative would be reviewed in accordance with the Transportation Program standards and guidelines of the City Public Works Department; the department would provide oversight during the engineering review, ensuring that the Project would be constructed according to City specifications.

[7] Kimley Horn, Inc. 2021. *Transportation Demand Management Memorandum for 1350 Adams Court*. April 8.

Table 6-5. Mixed-Use Alternative Comparison to Proposed Project

Land Use	Size	Unit	Daily Trips	AM Peak-Hour Total Trips	PM Peak-Hour Total Trips
Mixed-Use Alternative					
R&D[a]	215.6	ksf	2,428	91	106
Internalization (5%)[c]			(74)	(2)	(7)
Total R&D			**2,354**	**89**	**99**
Retail[b]	39.0	ksf	1,472	37	149
Internalization (5%)[c]			(74)	(2)	(7)
Total Retail			**1,398**	**35**	**142**
Reductions					
20 Percent TDM Trip Reduction			(750)	(25)	(48)
Mixed-Use Alternative Total			**3,002**	**99**	**193**
Proposed Project Trips	260.4	ksf	2,346	87	102
Difference (Mixed-Use Alternative minus Proposed Project)			**656**	**12**	**91**
			28% Higher	**14% Higher**	**89% Higher**

Source: Institute of Transportation Engineers, *Trip Generation Manual*, 10th edition.

Notes:

a. Land Use Code 760: Research and Development Center (average rates, expressed in trips per 1,000 gsf of floor area).

b. Land Use Code 820: Shopping Center (average rates, expressed in trips per 1,000 gsf of floor area).

c. It is expected that some internal capture will occur between retail and R&D uses; 5 percent internal capture is assumed between these uses.

ksf = thousand square feet

The site access and infrastructure improvements provided under the Mixed-Use Alternative would be similar to those of the Proposed Project and would benefit both bicyclists and pedestrians. Similar to the Proposed Project, the Mixed-Use Alternative would result in the construction of a portion of the public sidewalk along Adams Drive and Adams Court. Within the site, pedestrian walkways would be incorporated around the building to connect the site to public streets. In addition, the Mixed-Use Alternative would promote bicycle use by providing long- and short-term bicycle parking spaces, showers/changing rooms, and a bike-share program. The Mixed-Use Alternative would meet zoning ordinance requirements for vehicle and bicycle parking and implement TDM measures in an effort to reduce Project-generated vehicle trips and encourage travel by modes other than automobile. Therefore, this impact would be less than significant, similar to the Proposed Project. (LTS)

Vehicle Miles Traveled. Per the City of Menlo Park VMT guidelines adopted in July 2020 and updated in January 2022, each component of mixed-use projects will be analyzed independently against the appropriate thresholds. The R&D component of the Mixed-Use Alternative would be the same as under the Proposed Project. Estimated average daily VMT per capita for office/R&D uses within the Project site's Transportation Analysis Zone is 16.1, which is higher than the threshold of significance (i.e., 12.7). A 21.1 percent reduction in VMT would be needed to get below the VMT threshold of significance.

The Mixed-Use Alternative proposes 38,995 gsf of retail development. According to the City's VMT policy, local-serving retail development (i.e., less than 50,000 gsf) is presumed to have a less-than-significant VMT impact.

Although daily trip generation would increase by approximately one-third under the Mixed-Use Alternative, VMT is a per employee measurement. VMT for the life sciences uses under the Mixed-Use Alternative would be the same as under the Proposed Project. Estimated average daily VMT per capita for office/R&D land uses within the Project site's Transportation Analysis Zone is 16.1, which is higher than the threshold of significance (i.e., 12.7). Estimated VMT does not account for the Proposed Project's TDM program. Without TDM measures, the Proposed Project may result in a substantial level of additional VMT, and impacts would be potentially significant. A TDM program was prepared for the Proposed Project by Kimley-Horn (see Appendix 3.1) to reduce both the number of trips and VMT. With implementation of the proposed TDM program, VMT generated by the proposed office use would be reduced by more than 21.1 percent. Therefore, implementation of Mitigation Measure TRA-1 would be required to reduce VMT generated by the Mixed-Use Alternative to a less-than-significant level. This impact would remain less than significant with mitigation. (LTS/M)

Non-CEQA Analysis. As shown in Table 6-5, the Mixed-Use Alternative would result in a 28, 14, and 89 percent increase in the number of vehicle trips compared with the Proposed Project on a daily, weekday a.m. peak-hour, and weekday p.m. peak-hour basis, respectively. In addition to the eight intersections that would be non-compliant with local policies under near-term (2025) conditions with the Proposed Project, the Mixed-Use Alternative could cause the following four additional intersections to be non-compliant with local policies during either the a.m. or p.m. peak hour: University Avenue (SR 109) and Bayfront Expressway (SR 84), University Avenue (SR 109) and Donohoe Street, Willow Road and US 101 southbound ramps, and University Avenue (SR 109) and Purdue Avenue.

Air Quality

Conflict with Air Quality Plan. Proposed development under both the Proposed Project and the Mixed-Use Alternative would not conflict with the existing land use designation. Similar to the Proposed Project, the Mixed-Use Alternative would support the goals of the Clean Air Plan. It would not disrupt or hinder implementation of any control measures in the Clean Air Plan. The Mixed-Use Alternative would not result in an increase in population that would exceed Association of Bay Area Governments projections. Similar to the Proposed Project, Mitigation Measure AQ-1.1 would be implemented during construction. Therefore, impacts would be less than significant with mitigation. (LTS/M)

Construction Criteria Air Pollutant Emissions. Similar to the Proposed Project, construction of the Mixed-Use Alternative would require the use of heavy equipment and other mobile sources that would generate criteria pollutants. The building footprint for the Mixed-Use Alternative would be similar to that of the Proposed Project but would require additional construction of a larger garage to accommodate commercial parking. Therefore, the construction periods and/or the number of vehicles and pieces of equipment would increase slightly but be similar to those of the Proposed Project. In addition, the Mixed-Use Alternative would result in the same construction impacts related to the waterline. Therefore, daily construction emissions generated by the Mixed-Use Alternative would very likely be similar to those of the Proposed Project. Daily construction emissions from operation of onsite construction equipment and on-road vehicles under the Proposed Project would be below the BAAQMD's significance thresholds for ROG, NO_X, CO, and particulate matter (PM_{10} or $PM_{2.5}$); therefore, the Mixed-Use Alternative would not exceed any BAAQMD threshold. Regardless, BAAQMD-recommended BMPs and ConnectMenlo Final EIR Mitigation Measures AQ-2b1 and AQ-2b2 would be implemented to reduce PM_{10} and $PM_{2.5}$ from fugitive dust emissions. With implementation of mitigation measures, this impact would increase compared to the Proposed Project but would remain less than significant. (LTS/M)

Operational Criteria Air Pollutant Emissions. Operational emissions from both the Proposed Project and Mixed-Use Alternative have the potential to create air quality impacts, primarily impacts associated with direct emissions from mobile sources. Motor vehicle traffic would include automobiles associated with daily employee trips and delivery trucks. The Mixed-Use Alternative would result in a 28 percent increase in the number of daily vehicle trips. Based on this, it was conservatively assumed that the Mixed-Use Alternative's emission sources would increase by 28 percent compared with the Proposed Project's emissions, as shown in Table 6-6.

Table 6-6. Estimated Unmitigated Maximum Daily Operational Emissions, Mixed Use Alternative

	Maximum Daily Emissions (lb/day)			
Emissions Source	**ROG**	**NO_X**	**PM_{10}[a]**	**$PM_{2.5}$[a]**
Area Sources	8	<1	<1	<1
Onsite Natural Gas Combustion	<1	6	<1	<1
Vehicle Trips (Mobile Sources)	6	7	13	3
Backup Diesel Generator	1	5	<1	<1
Total Operational Emissions	**16**	**18**	**14**	**4**
BAAQMD Significance Threshold	54	54	82	54
Exceeds Threshold?	**No**	**No**	**No**	**No**

Modeling files provided in Appendix 3.2-3.

Notes:

[a] BAAQMD operational thresholds for PM_{10} and $PM_{2.5}$ include both fugitive dust and exhaust emissions.

lb/day = pounds per day; ROG = reactive organic gases; NO_X = nitrogen oxide; PM_{10} = particulate matter no more than 10 microns in diameter; $PM_{2.5}$ = particulate matter no more than 2.5 microns in diameter

As shown in Table 6-6, operation of the Mixed-Use Alternative would not generate levels of ROG, NO_X, or particulate matter that would exceed BAAQMD-recommended mass emission thresholds. Therefore, similar to the Proposed Project, operation of Mixed-Use Alternative would not result in a cumulatively considerable net increase in any criteria air pollutant for which the SFBAAB is designated as a nonattainment area with respect to the federal or state ambient air quality standards. Mitigation measures, including implementation of ConnectMenlo Final EIR Mitigation Measure AQ-2a, would not be required. This impact would increase compared to the Proposed Project by would remain less than significant. (LTS)

Exposure of Existing Sensitive Receptors to Substantial Pollutant Concentrations during Construction. Diesel-fueled engines, which generate DPM, would be used during construction of the Mixed-Use Alternative, similar to the Proposed Project. Multiple sensitive receptors are within 1,000 feet of the Project site, including residences. The Proposed Project's construction would not result in any significant increases in the non-cancer hazard index, cancer risk, or annual $PM_{2.5}$ concentrations at sensitive receptors within 1,000 feet of the Project site. The Mixed-Use Alternative would result in the same floor area as the Proposed Project, but additional construction would occur to provide the additional parking required for commercial uses. As discussed above, daily construction activity could increase slightly compared to that of the Proposed Project. Consequently, the Mixed-Use Alternative's $PM_{2.5}$ concentration, along with the hazard index and cancer risk, could be similar to that of the Proposed Project but below the applicable thresholds with implementation of Mitigation Measure AQ-1.1, which would reduce DPM exposure. Similar to the Proposed Project, with implementation of Mitigation Measure AQ-1.1, the Mixed-Use Alternative would not exceed BAAQMD thresholds for cancer risk, the non-cancer hazard index, and annual $PM_{2.5}$ concentrations. This impact would be less than significant with mitigation. (LTS/M)

Exposure of Existing Sensitive Receptors to Substantial Pollutant Concentrations from Project Operation. Traffic generated by the Proposed Project would have the potential to create CO hot spots at nearby roadways and intersections. The Mixed-Use Alternative would generate 28 percent more daily trips than the Proposed Project and result in more traffic because of the increase in commercial uses; therefore, CO emissions associated with the alternative would be slightly more than those of the Proposed Project. Regardless, for both the Proposed Project and the Mixed-Use Alternative, CO concentrations are not expected to contribute to any new localized violations of the 1-hour or 8-hour ambient air quality standards, resulting in less-than-significant impacts. (LTS)

Create Objectionable Odors. Potential odor sources during construction include diesel exhaust from heavy-duty equipment. Construction-related operations near existing receptors would be temporary in nature and would not be likely to result in nuisance odors that would violate BAAQMD Regulation 7 (Odorous Substances). Potential odor emitters during operations would include exhaust from vehicles and fumes from the reapplication of architectural coatings. The odor impacts during operation would be limited and infrequent. Any commercial tenant that might produce odors (e.g., restaurant) would comply with City regulations governing business-related odor control. Because there would be no change in land use under the Mixed-Use Alternative compared with the Proposed Project, the same less-than-significant impacts would occur. (LTS)

Cumulative Impacts. For the reasons described above, the Mixed-Use Alternative in combination with other development in Menlo Park would not conflict with or obstruct implementation of the applicable air quality plan and would not result in a cumulatively significant impact. In addition, the Mixed-Use Alternative in combination with other development in Menlo Park would be consistent with the Clean Air Plan. Similar to the Proposed Project, with implementation of Mitigation Measure AQ-1.1, the Mixed-Use Alternative would not exceed BAAQMD's cumulative thresholds for $PM_{2.5}$ concentrations, the hazard index, or cancer risks associated with construction and operation. Consequently, the cumulative impact regarding health risks for sensitive receptors would be less than significant with mitigation. (LTS/M)

Greenhouse Gas Emissions

GHG Emissions during Project Construction. Construction of the Mixed-Use Alternative would generate CO_2, CH_4, and NO_X from the exhaust of mobile and stationary construction equipment, employees' vehicles, and haul trucks. The Mixed-Use Alternative proposes a building footprint similar to that of the Proposed Project but with a larger garage to accommodate parking for commercial uses. Therefore, the Mixed-Use Alternative would produce a slightly greater amount of GHG emissions during the construction phase. In addition, the Mixed-Use Alternative would result in the same construction impacts related to the waterline. BAAQMD's CEQA Guidelines do not recommend a GHG emission threshold for construction-related emissions; therefore, construction of the Mixed-Use Alternative would not exceed thresholds. However, the guidelines recommend implementation of BMPs to help control or reduce GHG emissions. Therefore, the impact from construction of the Mixed-Use Alternative is considered less than significant with implementation of Mitigation Measure GHG-1.1, similar to the Proposed Project. (LTS/M)

GHG Emissions during Project Operation. Operation of the Mixed-Use Alternative would generate direct and indirect GHG emissions similar to those of the Proposed Project because of a similar number of employees and a similar land use. However, as noted above, this alternative would result in approximately 28 percent more vehicle trips compared with the Proposed Project. Therefore, conservatively assuming that the Mixed-Use Alternative would increase all GHG emissions by 28 percent compared with the Proposed Project, the Mixed-Use Alternative would result in an annual service-population GHG emissions rate of 2.66 versus the Proposed Project's 2.09 for the Senate Bill 32 Scoping Plan year of 2030. This would

be below the service population–based GHG efficiency threshold of 2.76 for 2030. Therefore, although the Mixed-Use Alternative would result in higher GHG emissions compared with the Proposed Project, the Mixed-Use Alternative's operational GHG emissions would not exceed the applicable Senate Bill 32 threshold, and impacts would be less than significant. (LTS)

Conflicts with Applicable GHG Emission Plans, Policies, and Regulations. Because the Mixed-Use Alternative would be similar to the Proposed Project and would not exceed the BAAQMD efficiency threshold, this alternative would not pose any explicit conflict with the Senate Bill 32 Scoping Plan to reduce GHG emissions to 1990 levels by 2030. Furthermore, the Mixed-Use Alternative would also be consistent with the City's Climate Action Plan and City Zoning Ordinance. It would also be required to implement ConnectMenlo Final EIR Mitigation Measure AQ-2b1, Project Mitigation Measure GHG-1a, as well as Mitigation Measure TRA-1. Therefore, the Mixed-Use Alternative would not conflict with applicable plans and policies, and impacts would be less than significant with mitigation, similar to the Proposed Project. (LTS/M)

Cumulative Impacts. Climate change is a global problem, and GHG impacts are inherently cumulative. This is because GHGs contribute to the global phenomenon that is climate change, regardless of where GHGs are emitted. Climate change is the result of the individual contributions of countless past, present, and future sources. Therefore, GHG impacts are inherently cumulative, and the analysis above is inclusive of cumulative impacts (LTS).

Noise

As with the Proposed Project, the Mixed-Use Alternative would have no impacts related to adjacency to airports.

Exposure to Excessive Noise Levels in Excess of Local or Applicable Standards. The Mixed-Use Alternative would expose persons to or generate noise levels in excess of standards established in the General Plan, noise ordinance, or applicable standards, as is the case with the proposed project.

Project Site Construction. As with the Proposed Project, construction of the Mixed-Use Alternative would require the use of heavy equipment that would temporarily increase noise levels at properties near the work sites. The Mixed-Use Alternative would have a building footprint similar to that of the Proposed Project but with a larger parking structure to accommodate additional parking for commercial uses. Therefore, the Mixed-Use Alternative would have a slightly longer construction duration. The distance from the nearest receptor would be similar, and the construction equipment required for use under this alternative would be the same. Therefore, noise levels during construction at a given time and a given noise-sensitive land use would be similar to the levels expected under the Proposed Project. Therefore, estimated reasonable worse-case construction noise levels for the Mixed-Use Alternative would be the same as those reported for the Proposed Project. In addition, construction work hours for the Mixed-Use Alternative would very likely be comparable to those of the Proposed Project, extending from 6:00 a.m. to 7:00 p.m. Monday through Friday. Therefore, as is the case with the Proposed Project, construction activities associated with the Mixed-Use Alternative would take place for up to 2 hours in the morning, before the hours generally considered to be exempt for construction noise in Menlo Park, and 1 hour in the evening, after the hours generally considered to be exempt.

Construction activities during the hours of 7:00 a.m. to 8:00 a.m. and 6:00 p.m. to 7:00 p.m. weekdays would need to comply with the 60 dBA standard for daytime hours, which is applicable outside the exempt daytime hours for construction. Construction activities between 6:00 a.m. and 7:00 a.m. weekdays would need to comply with the nighttime 50 dBA standard. In addition, construction noise would need to be

limited to a 10 dB increase over the ambient level at nearby noise-sensitive uses. As discussed for the Proposed Project's construction impact assessment, an increase of 10 dB over the ambient noise level is not expected to occur from main Project site construction during daytime hours. However, construction noise is expected to exceed the allowable noise levels during non-exempt construction hours, and may result in a 10-dB increase over the ambient level during these hours. Although construction for the waterline may result in noise levels of 10 dB or more over the existing ambient noise level at nearby noise-sensitive land uses, the waterline would be short-term, lasting approximately two months and not occurring for the entire duration at a single location. Noise from construction from waterline work would be considered less than significant. However, noise from Project site construction outside of the standard daytime hours for construction in the City of 8:00 a.m. to 6:00 p.m. would be considered significant. Implementation of ConnectMenlo Final EIR Mitigation Measure NOISE-1c, which pertains to best practices for construction activity, and Project Mitigation Measure NOI-1, which requires a Noise Control Plan to reduce construction noise during non-daytime hours, would reduce the construction noise impacts of the Mixed-Use Alternative to less than significant levels with mitigation. Therefore, as is the case for the Proposed Project, construction noise impacts from Project site construction during non-daytime hours and construction noise impacts from waterline construction during daytime hours would be less than significant with mitigation. (LTS/M)

Traffic Noise Impacts. The Mixed-Use Alternative would have the potential to increase noise on roadway segments in the vicinity of the Project site. It is expected that this alternative would result in more daily vehicle trips to the Project site (an estimated 28 percent increase in the Proposed Project's daily trips). Therefore, traffic noise increases under this alternative were analyzed. Estimates of traffic noise increases from the Mixed-Use Alternative were based on a ratio analysis that compared existing traffic volumes to existing plus Mixed-Use Alternative traffic volumes. Table 6-7 presents a summary of the results of the traffic noise ratio analysis for segments analyzed under the Proposed Project.

As shown in Table 6-7, below, the traffic noise increases under the Mixed-Use Alternative would be similar to those disclosed for the Proposed Project. The largest Project-related traffic noise increase was estimated to be 0.7 decibel in the analysis for the Proposed Project; the largest traffic noise increase related to the Mixed-Use Alternative would be approximately 1.2 decibels. A change of 3 decibels is considered barely noticeable; a traffic noise increase of at least 3 decibels or more would need to occur before a significant traffic noise impact would be identified. Because traffic noise increases under the Mixed-Use Alternative would be similar to (though slightly greater than) those described for the Proposed Project, and because both the Project and the Mixed-Use Alternative would result in traffic noise increases that would be well below the barely perceptible 3-decibel level, the alternative would not result in a noticeable increase in traffic noise. Furthermore, the alternative would result in elevated traffic noise impacts compared to the Proposed Project and less-than-significant traffic noise impacts on offsite sensitive receptors. (LTS)

Non-Traffic Operational Noise (HVAC Equipment and Emergency Generators). As with the Proposed Project, the Mixed-Use Alternative would require HVAC systems and one emergency generator. Noise from equipment associated with the Mixed-Use Alternative would be similar to noise from Project equipment because the footprint for the alternative would be similar to that of the Proposed Project and the number of pieces of equipment, as well as the types and sizes, would be similar. As was the case with the Proposed Project, noise from mechanical equipment under this alternative may result in noise levels in excess of applicable thresholds. Implementation of ConnectMenlo Final EIR Mitigation Measure NOISE-1b would

Table 6-7. Traffic Volume Increases Associated with Mixed-Use Alternative Trips

Roadway Segment	Average Daily Traffic Volumes			Approximate dB Increase from Project Implementation	Average Daily Traffic Volumes		Approximate dB Increase from Mixed-Use Alternative Implementation
	Existing ADT	Existing plus Project ADT	Percentage Increase from Proposed Project		Existing plus Mixed-Use Alternative ADT	Percentage Increase from Mixed-Use Alternative	
Adams Drive West of University Avenue	2,640	3,200	18%	0.7	3,760	30%	1.1
Adams Court West of Adams Drive	1,710	2,005	15%	0.6	2,300	26%	1.0
Adams Drive North of Adams Court	2,535	3,095	18%	0.7	3,655	31%	1.2
Adams Drive South of Adams Court	2,635	2,950	11%	0.4	3,265	19%	0.8
O'Brien Drive West of Adams Drive	5,435	5,765	6%	0.2	6,095	11%	0.4
Adams Drive North of O'Brien Drive	2,960	3,345	12%	0.5	3,730	21%	0.8

Source: Hexagon Transportation Consultants Inc.—email to Kirsten Chapman of ICF. Refer to Appendix 3.4.

Note:

Daily traffic volumes have been calculated by adding the a.m. and p.m. peak-hour volumes together and multiplying by a factor of 5, based on guidance from the traffic engineer who evaluated the Proposed Project.

ADT = average daily traffic; dB = decibel

be required, which states that stationary noise sources, as well as landscaping and maintenance activities, shall comply with Chapter 8.06, Noise, of the Menlo Park Municipal Code. In addition, Project Mitigation Measure NOI-2 would also be required for this alternative. Compliance with the mitigation measures would ensure compliance with Chapter 8.06 of the Menlo Park Municipal Code and Chapter 8.52 of the City of East Palo Alto Municipal. Impacts related to operational equipment noise would be less than significant with mitigation, as was the case with the Proposed Project. (LTS/M)

Expose Persons to or Generate Excessive Ground-borne Vibration or Ground-borne Noise Levels. The operation of heavy construction equipment can generate localized ground-borne vibration and noise at buildings adjacent to the construction site. As was the case with the Proposed Project, the Mixed-Use Alternative would not require pile driving. Vibration effects associated with the Mixed-Use Alternative from construction on the main site would be similar to those resulting from Project construction because the general location of construction activity, as well as the required equipment, would be similar. In addition, the footprint for the proposed waterline, which represents the closest construction area to offsite noise-sensitive receivers, would also be the same under the Mixed-Use Alternative. Therefore, vibration impacts under the Mixed-Use Alternative from construction work associated with the waterline would be the same as those described for the Proposed Project. Similar to the Proposed Project, this impact would be considered less than significant. (LTS)

Cumulative Impacts. The Mixed-Use Alternative would result in cumulative noise impacts similar to those of the Proposed Project. Cumulative traffic noise impacts would be less than significant, as is the case for the Proposed Project, because there would be similar Project-related trips under the Mixed-Use Alternative. Although there would be an approximately 28 percent increase in traffic under this alternative, Project-related traffic noise increases would be a maximum of approximately 1 dB, as shown in Table 6-7, above. This is well below the barely perceptible level of 3 dB. Therefore, as is the case with the Proposed Project, traffic noise increases under this alternative would not result in a perceptible increase in noise along analyzed roadway segments. Construction noise associated with this alternative would be similar to that under the Proposed Project and could contribute to a cumulative construction noise impact during non-daytime hours should other projects also propose construction outside the exempt daytime hours. Implementation of ConnectMenlo Final EIR Mitigation Measure NOISE-1c, which pertains to best practices for construction activity, and Project Mitigation Measure NOI-1, which requires a Noise Control Plan to reduce construction noise, would reduce the Mixed-Use Alternative's contribution to this potential cumulative impact. Therefore, as is the case for the Proposed Project, the Mixed-Use Alternative's contribution to the cumulative construction noise impact would be less than cumulatively considerable with mitigation. Regarding mechanical equipment noise, although it is possible that noise from mechanical equipment associated with the Proposed Project could combine with operational noise from other nearby projects to elevate overall noise levels in the vicinity, implementation of ConnectMenlo Final EIR Mitigation Measure NOISE-1b would require compliance with Chapter 8.06, Noise, of the Menlo Park Municipal Code. In addition, Project Mitigation Measure NOI-2 would also be required for this alternative. Compliance with the mitigation measures would ensure compliance with Chapter 8.06 of the Menlo Park Municipal Code and Chapter 8.52 of the City of East Palo Alto Municipal. The potential for the Mixed-Use Alternative to contribute to a cumulative impact related to operational noise would not be cumulatively considerable. (LTS)

Population and Housing

As with the Proposed Project, the Mixed-Use Alternative would not result in direct impacts related to population growth or the displacement of housing or people.

Indirect Population Growth. The Mixed-Use Alternative would not include housing. However, there would be a population increase from the new employment during operation of this alternative compared with existing conditions (or the No-Project Alternative). Approximately 654 new employees would be employed at the Project site as a result of the Mixed-Use Alternative, only four more than the 650 new employees anticipated under the Proposed Project.

The increase in employment would result in a demand for new housing units and an indirect increase in the residential population, similar to the Proposed Project. As such, this alternative could result in approximately 53 new residents in Menlo Park, the same number of new residents as under the Proposed Project. Therefore, this alternative would represent the same net increase in population as that expected under the Proposed Project and, therefore, result in a similar less-than-significant impact. The percentage of regional housing demand resulting from the Mixed-Use Alternative would be relatively small compared with projected housing growth in the region, similar to the Proposed Project. Accordingly, the impact of the Mixed-Use Alternative on indirect population growth or the displacement of housing or people would be less than significant. (LTS)

Cumulative Impacts. This alternative in combination with other projected growth in Menlo Park would increase population, employment, and housing demand. However, as with the Proposed Project, the contribution of the Mixed-Use Alternative to the increase in population, employment, and housing demand would not be cumulatively considerable. (LTS)

Utilities and Energy

Although the total number of employees under the Mixed-Use Alternative would be marginally more (approximately four additional employees) than the number under the Proposed Project, there would be fewer life sciences employees, who typically use more water and energy and generate more wastewater because of laboratory activities than employees in commercial areas. Therefore, it is assumed that the slight increase in onsite employees and the addition of customers to the Project site because of the commercial area would offset the water demand, wastewater generation, and energy uses associated with life sciences employees, resulting in utility and energy demands similar to those of the Proposed Project.[8]

Water Supply. Implementation of the Mixed-Use Alternative would result in approximately the same water demand as the Proposed Project. As such, with the same conservation measures as the Proposed Project, water demand with implementation of the Mixed-Use Alternative would be similar to that of the Proposed Project (i.e., approximately 4.82 million gallons per year at full buildout). Under the Proposed Project, the MPMWD would have an adequate supply to meet its projected demands in normal rainfall years for a 20-year horizon. In single and multiple dry years, there would be a shortfall in water supply, both with and without the Proposed Project, over a 20-year horizon. However, implementation of the Water Shortage Contingency Plan would adequately reduce demand such that the impact under the Proposed Project would be less than significant. Because the Mixed-Use Alternative would demand approximately the same amount of water as the Proposed Project, or less, implementation of this alternative also would have a less-than-significant impact on existing water supplies in MPMWD's service area and would not necessitate the expansion of existing facilities or entitlements. (LTS)

Water Treatment Facilities. There is adequate capacity at the water treatment facilities that currently serve Menlo Park for implementation of the Proposed Project, which would not require relocation, construction, or expansion of the existing facilities. Therefore, because the Mixed-Use Alternative would

[8] Note that water and energy consumption rates vary significantly among commercial uses. For example, a restaurant and kitchen would generate more water and energy demand than a retail shop.

involve water demand at the Project site similar to that of the Proposed Project, this alternative would also not require new or expanded water treatment facilities. The Mixed-Use Alternative would have a less-than-significant impact related to construction or expansion of water treatment facilities. (LTS)

Wastewater Generation. Implementation of the Mixed-Use Alternative would result in wastewater generation similar to that of the Proposed Project. As such, the wastewater generation rate with implementation of the Mixed-Use Alternative would be about the same as the estimated net increase in wastewater generation with the Proposed Project, which would be approximately 3.9 million gallons per year, or about 0.01 million gallon per day. With the Proposed Project, the Silicon Valley Clean Water wastewater treatment plant would have adequate capacity to meet its projected demands. Therefore, with the Mixed-Use Alternative, which would generate an amount of wastewater similar to that of the Proposed Project, the Silicon Valley Clean Water wastewater treatment plant would also have adequate capacity. Implementation of the Mixed-Use Alternative, as with the Proposed Project, would not result in a determination from the wastewater treatment provider that it would have inadequate capacity with respect to serving projected demand in addition to existing commitments. The Mixed-Use Alternative would result in a less-than-significant impact regarding wastewater generation treatment capacity. (LTS)

Energy Demand. The Mixed-Use Alternative would use approximately the same amount of energy as the Proposed Project. It would also incorporate energy-saving measures. Implementation of the Mixed-Use Alternative, like the Proposed Project, would result in less-than-significant impacts on the existing electricity and natural gas supply as well as associated infrastructure. In addition, the alternative, which would be served by Pacific Gas and Electric Company and Peninsula Clean Energy, would not require the construction of new facilities. Furthermore, energy demand would be within City forecasts. The Mixed-Use Alternative would require fewer gas and electrical connections because of fewer life sciences employees and associated laboratories; therefore, it would result in a similar level of impact. Like the Proposed Project, it would have a less-than-significant impact on energy demand. (LTS)

Cumulative Impacts. As discussed in Section 3.6, *Utilities and Energy*, the City's water supply, infrastructure and facilities, wastewater treatment capabilities, and energy resources are adequate with respect to serving cumulative development, including the projections studied in ConnectMenlo. Menlo Park, including its service providers, would have adequate resources and supplies to meet customer demand, including the demand of the Proposed Project combined with existing and planned future uses. Because the Mixed-Use Alternative would use a similar amount of water and energy and generate a similar amount of wastewater compared with the Proposed Project, cumulative impacts would be similar to those of the Proposed Project and would not be cumulatively considerable. (LTS)

6.6 Comparison of Impacts

CEQA Guidelines Section 15126.6 requires a comparison of the alternatives to the Proposed Project (presented above) and suggests that a matrix be used to summarize the comparison. Table 6-8, below, compares the impacts of the Proposed Project to those of the alternatives.

Table 6-8. Comparison of Impacts among Project Alternatives

Environmental Issue	Project	No-Project Alternative	Base Level Alternative	Mixed-Use Alternative
Transportation				
Conflict with Applicable Plan, Ordinances, or Policies	LTS	NI (-)	LTS (0)	LTS (0)
Vehicle Miles Traveled	LTS/M	NI (-)	LTS/M (0)	LTS/M (0)
Air Quality				
Conflict with Air Quality Plan	LTS/M	NI (-)	LTS/M (0)	LTS/M (0)
Construction Criteria Air Pollutant Emissions	LTS/M	NI (-)	LTS/M (0)	LTS/M (+)
Operational Criteria Air Pollutant Emissions	LTS	NI (-)	LTS (-)	LTS (+)
Exposure of Existing Sensitive Receptors to Substantial Pollutant Concentrations (Construction)	LTS/M	NI (-)	LTS/M (0)	LTS/M (+)
Exposure of Existing Sensitive Receptors to Substantial Pollutant Concentrations (Operation)	LTS	NI (-)	LTS (-)	LTS (+)
Create Objectionable Odors	LTS	NI (-)	LTS (0)	LTS (0)
Cumulative Impacts	LTS/M	NI (-)	LTS/M (0)	LTS/M (0)
Greenhouse Gas Emissions				
GHG Emissions during Project Construction	LTS/M	NI (-)	LTS/M (0)	LTS/M (+)
GHG Emissions during Project Operation	LTS	NI (-)	LTS (-)	LTS (+)
Conflict with Applicable GHG Emission Plans, Policies, and Regulations	LTS/M	NI (-)	LTS/M (0)	LTS/M (0)
Cumulative Impacts	LTS	NI (-)	LTS (0)	LTS (0)
Noise				
Exposure to Excessive Noise Levels in Excess of Local or Applicable Standards (Construction)	LTS/M	NI (-)	LTS/M (0)	LTS/M (0)
Exposure to Excessive Noise Levels in Excess of Local or Applicable Standards (Operation)	LTS/M	NI (-)	LTS/M (+)	LTS/M (+)
Expose Persons to or Generate Excessive Ground-borne Vibration or Ground-borne Noise Levels	LTS	NI (-)	LTS (0)	LTS (0)
Cumulative Impacts	LTS	NI (-)	LTS (0)	LTS (0)
Population and Housing				
Indirect Population Growth	LTS	NI (-)	LTS (-)	LTS (0)
Displacement of People or Housing	LTS	NI (-)	LTS (0)	LTS (0)
Cumulative Impacts	LTS	NI (-)	LTS (-)	LTS (0)
Utilities and Energy				
Water Supply	LTS	NI (-)	LTS (-)	LTS (0)
Water Treatment Facilities	LTS	NI (-)	LTS (-)	LTS(0)
Wastewater Generation	LTS	NI (-)	LTS (-)	LTS(0)
Energy Demand	LTS	NI (-)	LTS (-)	LTS (0)
Cumulative Impacts	LTS	NI (-)	LTS (-)	LTS (0)

Notes:

NI = No Impact; LTS = Less than Significant; LTS/M = Less than Significant with Mitigation; SU/M= Significant and Unavoidable with Mitigation

(-) Alternative impact is less than that of the Proposed Project; (0) Alternative impact is similar to that of the Proposed Project; and (+) Alternative impact is greater than that of the Proposed Project

6.7 Environmentally Superior Alternative

Section 21002 of the CEQA Guidelines requires lead agencies to adopt feasible mitigation measures or feasible environmentally superior alternatives in order to substantially lessen or avoid otherwise significant adverse environmental effects, unless specific social or other conditions make such mitigation measures or alternatives infeasible. CEQA also requires that an environmentally superior alternative be identified among the alternatives analyzed. In general, the environmentally superior alternative is the project that avoids or substantially lessens some or all of the significant and unavoidable impacts of a proposed project (CEQA Guidelines Section 15126.6).

On the basis of comparing the extent to which the alternatives reduce or avoid the potentially significant impacts of the Proposed Project, the No-Project Alternative would be the environmentally superior alternative. Because no development would occur at the Project site, there would be no construction or operational impacts. However, per Section 15126.6(e)(2), the No-Project Alternative cannot be selected as the environmentally superior alternative.

As explained above, the Base Level Alternative would result in a reduction in building area and an associated reduction in the number of employees and vehicle trips. Because the building footprint would be smaller, all footprint-based impacts and construction impacts would be the same as or less than those of the Proposed Project. The Base Level Alternative would also result in a net decrease in the number of vehicle trips during the a.m. peak hour (60 trips) and during the p.m. peak hour (71 trips). The Base Level Alternative would also result in approximately 450 fewer employees compared with the Proposed Project. Therefore, the Base Level Alternative would result in fewer construction and operational impacts related to transportation, air quality, GHG, and noise. All other impacts of the Base Level Alternative would result in impacts similar to those of the Proposed Project. Because of the reduced transportation, air quality, GHG, and noise impacts, the Base Level Alternative is considered the environmentally superior alternative.

Chapter 7
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Personal Communication

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