FINAL INITIAL STUDY/MITIGATED NEGATIVE DECLARATION
Citrus College 2020-2030 Educational and Facilities Master Plan Glendora, California

Prepared for:

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September 2025

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SECTION 1.0 – INTRODUCTION

1.1 PROJECT PURPOSE

On April 22, 2024, the Citrus Community College District (District) distributed the Draft Initial Study/Mitigated Negative Declaration (Draft IS/MND) for the Citrus College 2020-2030 Educational and Facilities Master Plan to public agencies and the general public. In accordance with the California Environmental Quality Act (CEQA) Section 21091 and State CEQA Guidelines Section 15073, a 30-day public review period for the Draft IS/MND was provided from April 22nd, 2024 through May 22nd, 2024. **On September 9, 2025, the District will review the Final Initial Study/Mitigated Negative Declaration (Final IS/MND) for adoption at its regularly scheduled meeting of the Citrus Community College District Board of Trustees.**

1.2 AVAILABILITY OF THE NOI AND DRAFT IS/MND

The Notice of Availability and Intent to Adopt a Mitigated Negative Declaration For Citrus College 2020-2030 Educational and Facilities Masterplan (NOI) and Draft IS/MND were available for review online at the District's website:

- https://www.citruscollege.edu/finance/bond/Pages/default.aspx

While not required to do so, the Final IS/MND will be posted at the above location on or about September 2, 2025 and interested parties that requested notice and Caltrans received notice and copies of the Final IS/MND on September 2nd, 2025.

SECTION 2.0 – PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

2.1 PROJECT PURPOSE AND BACKGROUND

The Citrus College 2020-2030 Educational and Facilities Master Plan (Proposed Project) requires discretionary approval by the Citrus Community College District ("District" or "Citrus College" or "College") Board of Trustees and is subject to environmental review requirements in accordance with California Environmental Quality Act (CEQA). All "projects" within the State of California are required to undergo environmental review to determine any potential environmental impacts associated with project implementation (CEQA Guidelines Section 15021).

CEQA was enacted in 1970 by the California Legislature to disclose to decision-makers and the public the significant environmental effects of a proposed project and to identify possible ways to avoid or minimize significant environmental effects of a project by requiring implementation of mitigation measures or recommending feasible alternatives. CEQA applies to all California agencies at all levels, including local, regional, and State governments, as well as boards, commissions, and special districts. The District is the Lead Agency for the Proposed Project and is required to conduct an environmental review to analyze any potential environmental effects associated with project implementation.

Pursuant to Section 15063(a) of the State CEQA Guidelines, the District is required to undertake the preparation of an Initial Study to determine whether the proposed action will have a significant effect on the environment. The purpose of this Initial Study is to: (1) identify potential environmental impacts, (2) provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration, (3) enable the Lead Agency to modify the Project (through mitigation of potential adverse impacts, if any), (4) facilitate assessment of potential environmental impacts early in the design of the Project, and (5) provide documentation for the potential finding that the Project will not have a significant effect on the environment or can be mitigated to a level of insignificance (CEQA Guidelines, Section 15063[c]). This Initial Study is also an informational document providing an environmental basis for subsequent discretionary actions that could be required from other Responsible Agencies.

This Initial Study evaluates the potential environmental impacts that may result from development of the Project.

Consistent with State CEQA Guidelines Sections 15050, 15051, and 15368, the District is the Lead Agency under CEQA, and it is responsible for adoption or certification of the environmental document and approval of the Project.

The Citrus College Educational and Facilities Master Plan (EFMP) supports the college's mission, vision, and values, and serves as a long-range roadmap for the future. Developed in concert with the college's strategic plan, the 2020-2030 EFMP guides the long-term educational, student support services technology and facilities needs of the college.

2.2 PROJECT BACKGROUND

The District is a single-college district located in the City of Glendora (City), California. Founded in 1915, Citrus College is the oldest community college in Los Angeles County and the fifth oldest in California. Citrus College grants associate degrees in 77 fields of study – including 34 associate degrees for transfer to four-year institutions – and more than 119 certificates of achievement, certificates of

competency, and skill awards in academic and career/technical areas. Citrus College serves the cities of Azusa, Bradbury, Claremont, Duarte, Glendora, and Monrovia in eastern Los Angeles County, and portions of other neighboring communities, including Arcadia, Covina, Irwindale, La Verne, Pomona, and San Dimas.

The mission of Citrus College is to provide students with quality educational experiences and support services that lead to the successful completion of degrees, transfer, certificates, career/technical education, and basic skills proficiency. The college fosters academic and career success through the development of critical thinking, effective communication, creativity, and cultural awareness in a safe, accessible, and affordable learning environment. In meeting the needs of a demographically diverse student population, the District embraces equity and accountability through measurable learning outcomes, ethical data-driven decisions, and student achievement.

To meet the needs of an ever-increasing student body, the college made significant strides in the previous decade to expand and improve its infrastructure and facilities. With support from resident voters, in 2004, the District passed Measure G, a $121-million General Obligation Bond resulting in eight new campus facilities: the Visual and Performing Arts Building (VPA), Student Services Building (SS), Louis E. Zellers Center for Innovation (CI), Campus Safety Building, Mathematics/Sciences Building (MA), Central Plant, Technician Development Center (TD), and the Field House (FH). Major renovations were also completed, including the reconstruction of Hayden Hall (HH), the college's oldest building, and the modernization of the Administration Building (AD) and the Ross L. Handy Campus Center (CC), a hub for student activity.

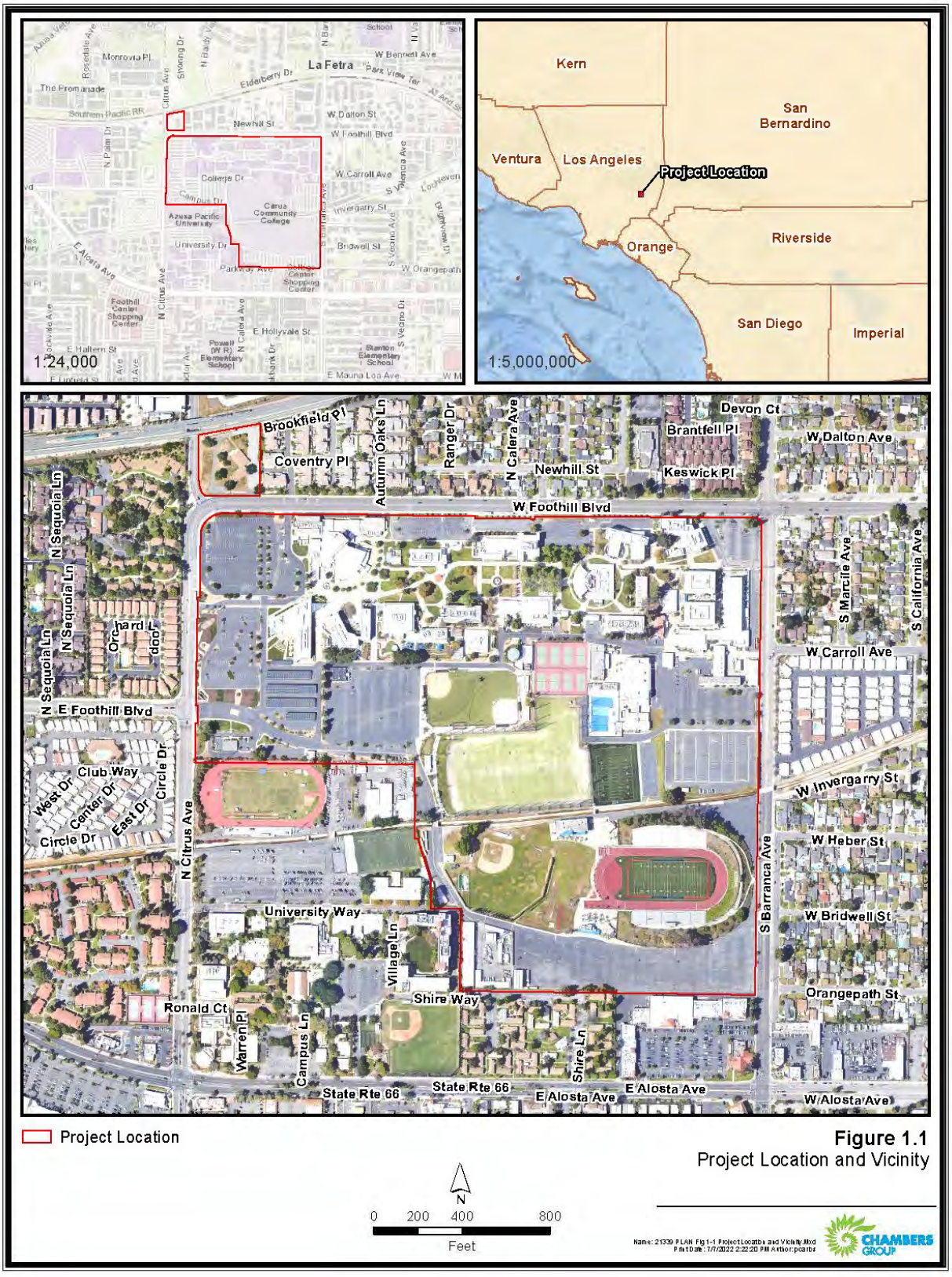
On July 21, 2020, by unanimous vote, the Citrus College Board of Trustees asked the County of Los Angeles to call a bond election for November 3, 2020. Measure Y, the Citrus College Career Education, Repair, Affordable Higher Education Measure, is a $298-million General Obligation Bond measure, to retain well-qualified teachers and improve the quality of education at Citrus College by upgrading job training, science, technology classrooms, and laboratories; meeting earthquake, fire, and clean drinking water safety; providing resources for students/veterans preparing for university transfer/jobs; and removing leaky roofs, mold, and lead paint. Voters in the District approved Measure Y during the November 3, 2020, general election.

2.3 PROJECT LOCATION AND SITE CHARACTERISTICS

2.3.1 Location

Citrus College is located at 1000 W. Foothill Boulevard in Glendora, California, at the foothills of the San Gabriel Mountains, approximately 25 miles northeast of metropolitan Los Angeles, as shown in Figure 1 *Site and Project Vicinity*. The college is the oldest community college in Los Angeles County and occupies a 104-acre campus near regional transportation routes, including the Foothill Freeway (Interstate 210), which connects to Interstate 5 and State Route 134, and Interstate 605. There is a proposed Center for Excellence site north of the campus and east of Citrus Avenue, at 1155 W. Foothill Boulevard. This site currently has a fully operational church on the property.

Figure 1. Site and Project Vicinity (See Figure 1-1 of Draft IS/MND)



Existing School Operations

The Citrus College campus hours of operation are from 7:00 am to 10:30 pm, Monday through Friday. Competitive athletic events occur throughout the school year under the same hours of operation, as well as limited times on some Saturdays. Limited athletic operations on Saturdays occur approximately 15 times per year. Performing Arts shows occur throughout the school year, under the same hours of operation, as well as limited hours on occasional Sundays.

2.3.2 General Plan Plan/Zoning

The Citrus College Campus and the off-campus site are in the western portion of the City of Glendora. The campus has a land use designation of Civic/Institutional and is zoned Single Family Residential (R-1). The off-campus site has a land use designation of Medium/High Density and is currently zoned Garden Apartment.

2.3.3 Surrounding Land Uses and Project Setting

The 104-acre campus is bounded by North Citrus Avenue to the west, W. Foothill Boulevard to the north, Barranca Avenue to the east, and Azusa Pacific University to the south. The existing land uses surrounding the campus and the church site are Low-Medium Residential and Medium Density Residential. The City of Azusa is directly west of North Citrus Avenue and has land use designations of Medium Density Residential and University District.

Citrus College has 10 parking lots, over 60 buildings, an off-site property (the existing church site), which also includes an off-site parking facility (see Figure 2). Much of the history of constructed facilities on the Citrus College campus originates back to the 1930's and 1940's with most of the buildings constructed during the 1960's, as indicated in Table 1, *Citrus College Existing Building Inventory*. Major additions were subsequently completed in the 1990's and since the year 2000. The campus also has modular and portable classroom buildings.

Table 1. Citrus College Campus Existing Building Inventory

Building/Department Name	Building Letter	Gross Square Fee	Year Built	Year Modernized
Hayden Hall	HH	4,615	1934	2018
Earth Science	ES	6,944	1954	-
Physical Education Gym.	PE	45,076	1954	1963
Diesel Tech. 1	DT-1	7,150	1956	1975
Professional Center	PC	37,416	1967	1997
Physical Science	PS	28,577	1965	1994
Lecture Hall/Life Science	LH/LS	21,003	1963	1993
Owl Bookshop/ Ross L. Handy Campus Center	BK/CC	33,688	1963	2020
Information Services	IS	11,172	1963	-
Liberal Arts/Business	LB	39,435	1964	-
Hayden Library	LI	43,380	1961	2000
Administration	AD	26,041	1966	2016
North Stadium Restroom	R2	1,558	1963	-

Building/Department Name	Building Letter	Gross Square Feet	Year Built	Year Modernized
South Stadium Restroom	R1	1,558	1963	-
Automotive Annex	AA	4,600	1975	-
Technology Center	TC	23,432	1973	1997
Education Development Center	ED	32,414	1977	2023
Haugh Performing Arts Center	PA	66,162	1968	-
Maintenance Oper./Warehouse/Purchasing	MO/WA	14,740	1974	-
Diesel Technology 2	DT-2	6,851	1944	-
Portable 1	P1	6,240	1998	-
Portable 3	P3	3,000	2007	-
Adaptive Physical Education	AP	9,777	1999	-
Aquatic Center	AQ	2,536	1992	-
North Bungalow	NB	1,575	1993	-
South Bungalow	SB	2,175	1999	-
Integrated Success Center	IC	8,194	1992	-
Life Long Learning Center	LL	5,760	1998	-
Recording Technology	RA	8,930	1998	-
Video Technology	VT	19,250	1998	-
Technician Develop./Tech. Eng.	TD/TE	31,689	2010	-
Mathematics/Science	MA	33,058	2005	-
Reprographics (Print Shop)	RG	3,240	2005	-
Louis E. Zellers Center for Innovation	CI	33,058	2005	-
Portable 2	P2	1,440	2007	-
Central Plant	CP	4,633	2007	-
Student Services	SS	54,450	2012	-
Campus Safety	CS	2,363	2007	-
Field House	FH	8,416	2012	-
Gate House	GH	1,525	2012	-
Visual Arts	VA	36,938	2014	-

Note: Individual building square footage does not account for the area of auxiliary equipment structures. The gross square footage of the Project area, including auxiliary structures, is accounted for in Table 2. Projected Space Needs and Demolition.

Table reproduced from Table 1-1 of the Draft IS/MND (Section 1.3.3, p. 9) without revisions.

Center for Excellence Site

The Project site for the proposed Center for Excellence is approximately 1.77 acres and is north of W. Foothill Boulevard and East of Citrus Avenue. The site is largely developed with a one-story church, an asphalt parking lot, and lawn area. A Los Angeles County Flood Control easement extends along the western portion of the Proposed Project site.

The Metro Rail A Line is immediately north of this parcel, medium density residential is to the east and Citrus Avenue is to the west. Medium Density residential is west of Citrus Avenue in the City of Azusa. Citrus College is south of the Center for Excellence on W. Foothill Boulevard.

Figure 2 . Existing Campus and Center for Excellence (See Figure 1-2 of Draft IS/MND)

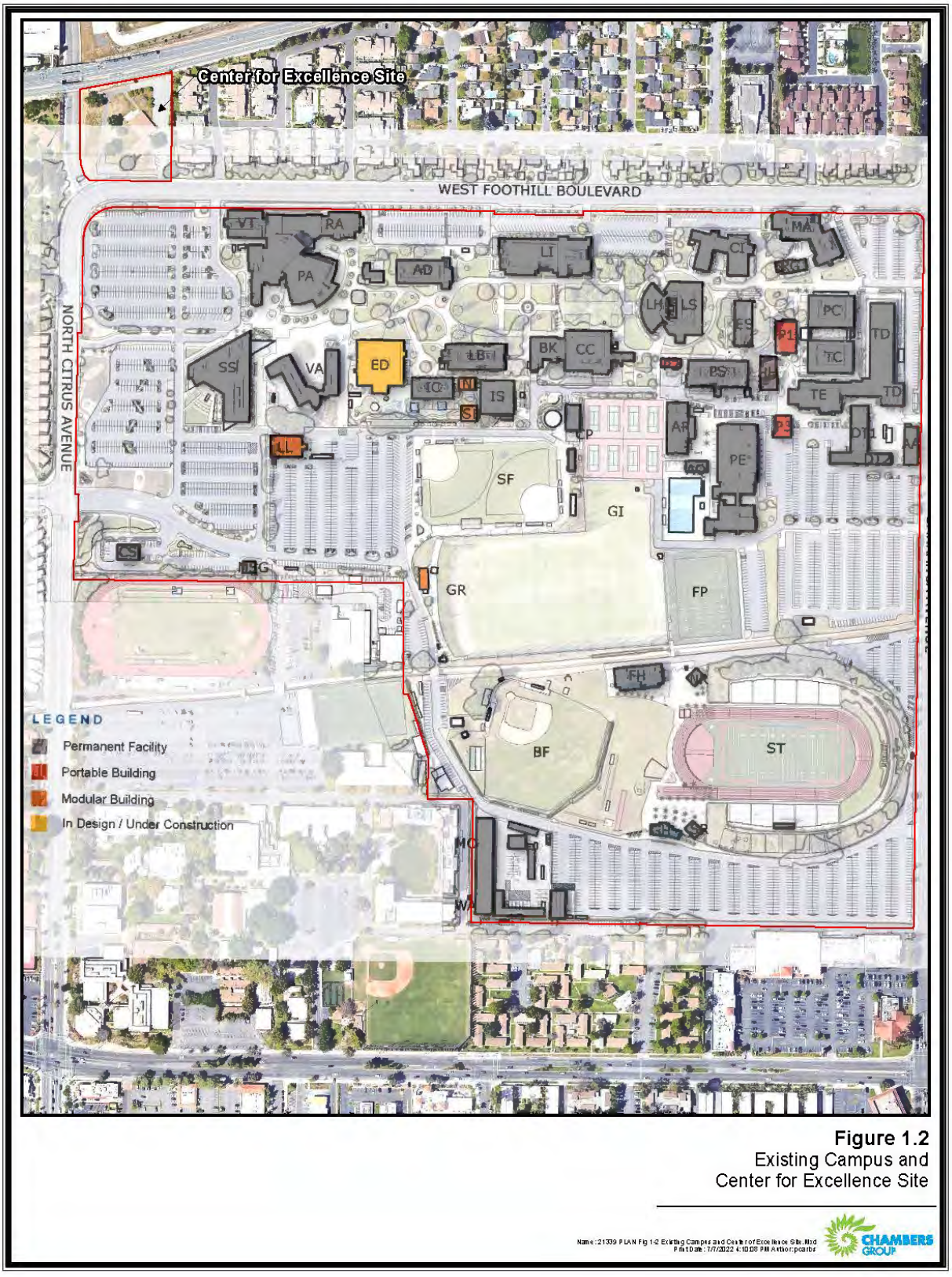


Figure 1.2
Existing Campus and
Center for Excellence Site

2.4 PROJECT GOALS AND OBJECTIVES

The following objectives would be met with development of the Proposed Project:

- Improve connectivity of on-site parking facilities
- Refine existing and additional drop-off/pick-up zones
- Improve pedestrian access and wayfinding
- Address programming needs for flexible and technologically advanced classrooms and laboratory technology upgrades
- Improve space efficiency and utilization of space
- Improve existing infrastructure
- Contribute to becoming a Zero Net Energy (ZNE) campus

2.5 PROJECT DESCRIPTION

The Citrus College 2020-2030 EFMP supports the college's mission, vision, and values, and serves as a long-range roadmap for the future. Developed in concert with the college's strategic plan, the 2020-2030 EFMP guides the long-term educational, student support services, technology and facilities needs of the college.

The Proposed Project comprises the adoption and implementation of the Citrus College 2020-2030 Educational and Facilities Master Plan ("Master Plan"). In fall 2019, Citrus College's headcount[1] dropped by 1.33% compared to its fall 2018 headcount of 13,154. Subsequently, the COVID-19 pandemic further impacted the college's enrollments as headcount continuously declined through fall 2021 at which time the headcount was 9,483. Despite some increases in headcount in fall 2023 and fall 2024, the college's headcount in fall 2024 (10,157) remained below its fall 2018 level by 22.8%. At the start of the fall 2025 semester, the college is once again experiencing declines in headcount due to concerns over federal actions. Based on recent enrollment trends for fall 2025, the college has projected a decline of 6%, bringing the projected fall 2025 headcount to 9,548. This would result in an overall cumulative decline in headcount from fall 2018 to fall 2025 (projected) of 27.4%. When the Master Plan was originally created the college anticipated an annual growth rate of approximately 0.5% per year, however, this did not account for the unforeseen pandemic and recent federal actions and the negative impacts they have imposed on Citrus College's enrollments.

During the peak years of the COVID-19 pandemic, in 2020 and 2021, Citrus College experienced a significant decline in headcount, totaling a loss of approximately 29%. Despite some building back of enrollments, the total headcount as of the fall 2024 term was 10,157, still significantly below the projected 2019 level. Even assuming that Citrus College has hit the end of the declining enrollment era, applying the annual growth rates projected in the Master Plan would result in a headcount projected for fall 2030 of roughly 9,784, approximately 25.6% less than the actual headcount served by Citrus College in fall 2018.

As of 2019, there were 12,983 students enrolled at Citrus College, based on fall 2019 headcount. When the Master Plan was originally created, Citrus College anticipated there would be 13,321 students enrolled at Citrus College by 2030, which would result in an increase of 162 students over the projected 2019 levels.

[1] All headcount references are taken from reports run on the California Community Colleges Chancellor's Office Management Information Systems Data Mart web page: https://datamart.cccco.edu/Datamart.aspx.

However, as discussed in the paragraph above, Citrus College has experienced declines in enrollments and as a result, actual students enrolled at Citrus College in 2030 are expected to be less than the initial projections in the Master Plan. Therefore, for purposes of evaluating environmental impact, a projected increase of 162 students is a worst-case outcome. Like the headcount projections, actual students enrolled at Citrus College in 2030 are anticipated to be less than 2019 levels.

Pursuant to the Master Plan, site improvements will include connectivity of on-site parking facilities, refinement of existing and additional drop-off/pick-up zones, improved pedestrian access and wayfinding. Renovations will address programming needs for flexible and technologically advanced classrooms and laboratory technology upgrades, improvements to space efficiency and utilization of space, improvements to existing infrastructure, and sustainability improvements that will contribute to becoming a Zero Net Energy (ZNE) campus.

The Master Plan also involves construction of new buildings:

- Buildings to replace existing buildings that do not meet the requirements for renovation
- Buildings that will address the needs of Citrus College to meet the demands of its current and future students, changing population demographics, and the changing labor market as defined in the educational component of the master plan
- Buildings that maximize efficiency and implement a comprehensive sustainable building design
- Sustainable strategies that will contribute to becoming a ZNE campus

These new buildings include: 1) Science, Technology, Engineering and Mathematics (STEM) / Science and Veterans Success Center, 2) Career Technical Education Building (CTE), 3) Classroom Building and Information Services, 4) Center for Excellence, 5) Student Union/Dining Hall Building, 6) Library/Learning Resource Center, and 7) Kinesiology Building. Additional construction may include solar photovoltaic parking canopies associated with the construction of the new buildings. The site plan for the 2020-2030 EFMP planning process is shown in Figure 3. This site plan includes new construction, building renovations and site development projects identified in the EFMP. The proposed sequence of buildings shown on Figure 3 is subject to change, as locations of the buildings may shift slightly. However, the buildings will all remain within the footprint analyzed in this document.

Outlined below is a list of Minor, Moderate, and Major Renovation/Replacement needs (projects) for existing campus buildings as provided in the EFMP.

Minor Renovation

The following buildings/facilities were constructed and/or modernized more recently and are thus in need of only minor renovations to bring them up to current code requirements, to address items identified in the college's Americans with Disabilities Act (ADA) Transition Plan, to address technology and utilities infrastructure upgrades, to enhance functionality, and to improve efficiency for serving students, staff and visitors:

VA - Visual Arts
CI - Center for innovation
MA - Math/Science
RG - Reprographics
FH - Field House
GH - Gate House

SS - Student Services
IC – Integrated Success Center
CS - Campus Safety
AD- Administration

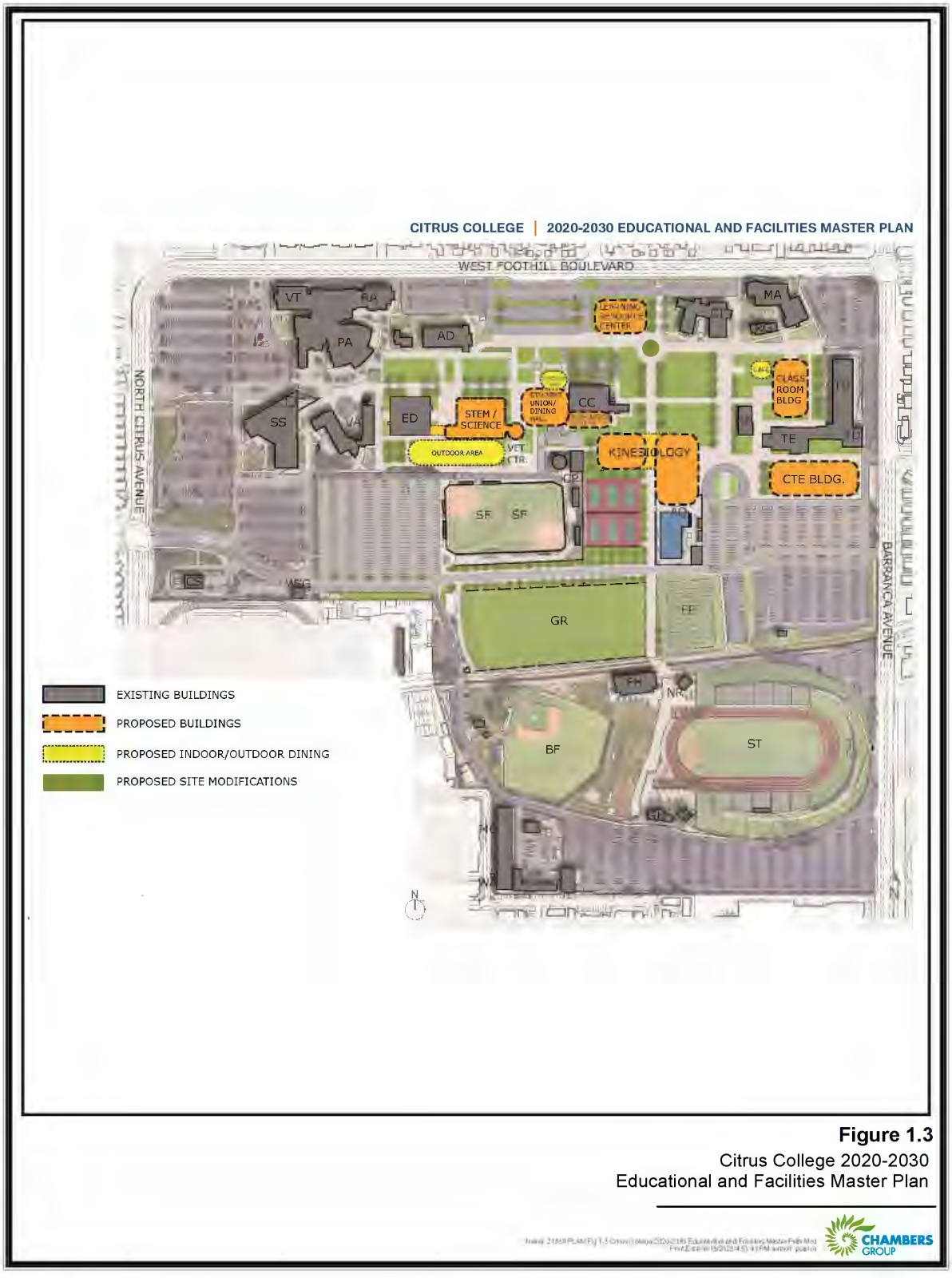
Moderate Renovation

The buildings/facilities listed below are in need of moderate renovations to address the following items:

- Facilities need to be brought up to current code compliance
- Improvements are needed to address building security
- The quantity and infrastructure of restrooms do not support current building capacities
- Technology improvements are needed to support current needs, adapt to future needs, and to remain flexible and adaptable to future technological changes
- Buildings need a more cohesive relationship to their surroundings
- Improvements are needed for accessibility and to meet current standards
- Moderate renovations are needed to address items in Citrus College's ADA Transition Plan
- Moderate enhancements are needed to address functionality and to meet programmatic needs

NRR/SRR - North and South Stadium Restrooms
RA - Recording Arts
VT - Video Technology
TD/TE - Technician Development/Technology Engineering
Athletic Facilities
CP - Central Plant

Figure 3. Citrus College 2020-2030 Educational and Facilities Master Plan (Updated; See Figure 1-3 of Draft IS/MND)



Major Renovation / Replacement

The buildings/facilities listed below are in need of major renovations or replacement to address the following items:

- Improvements are needed to address building security
- Building construction makes it difficult and costly to renovate for better space utilization and to achieve energy efficiency
- Evidence of substantial structural slab cracking with areas of exposed rebar
- Restrooms are not to current code compliance
- Requires ADA upgrades
- Roofing needs replacement
- Existing facilities are qualified with a high Facilities Condition Index
- Classrooms have outdated lighting and internal environment is void of natural light
- Lab equipment and stations do not meet accessibility quantities and requirements
- Air handling units have reached the end of their useful life and are past due for replacement
- Current physical conditions of facilities inhibit the ability for technological implementation and flexibility
- Better efficiency of space utilization to adapt to programmatic needs

PE - Physical Education Gym
DT1 - Diesel Technology 1
DT2 - Diesel Technology 2
PC - Professional Center
PS - Physical Science
LH - Lecture Hall
LS - Life Science
LB - Liberal Arts/Business
AA - Automotive Annex
TC - Technology Center
PA - Performing Arts
LI – Library
BK - Bookstore
CC (lower level) - Dining Room and Kitchen
IS - Information Systems
MO & WA - Maintenance & Warehouse

Major Capital Projects / Proposed New Building Construction

The following is an overview of the EFMP'S major capital projects / proposed new building construction: 1) Science, Technology, Engineering and Mathematics (STEM) / Science and Veterans Success Center, 2) Career Technical Education Building (CTE), 3) Classroom Building and Information Services, 4) Center for Excellence, 5) Student Union/Dining Hall Building, 6) Library/Learning Resource Center, and 7) Kinesiology Building. Additional construction may include solar photovoltaic parking canopies associated with the construction of the new buildings and other Campus-wide improvements.

STEM / Science and Veterans Success Center

A new 65,000 sq. ft. STEM / Science building will provide multiple upgrades for all science and related disciplinary programs and is shown in Figure 3. Classrooms, labs, and interactive teaching and learning spaces will be expanded to meet present and future needs of growing programs. This building cluster will increase Citrus College's ability to remain competitive, enhance student enrollment, and attract new students. The new building will have an additional area designated for a Veterans Success Center with private access and separate support spaces.

The buildings to be removed in conjunction with this recommendation are Life Science (LS), Lecture Hall (LH), Portable 2 (P2), Physical Science (PS), Liberal Arts (LB), Information Systems (IS), Integrated Success Center (IC), North Bungalow (NB) and South Bungalow (SB). After construction, Physical Science (PS), Lecture Hall (LH), Life Science (LS) and Earth Science (ES) will move into this new building. The existing buildings will be obsolete and will be removed following the completion of the STEM building or used as temporary swing space for subsequent construction and then removed when no longer utilized for swing space.

Career Technical Education Building (CTE)

A new 79,762 sq. ft. CTE building will be constructed adjacent to the existing Technician Development (TD) and Technology Engineering (TE) buildings, as shown in Figure 3. The new CTE building replaces similar outdated structures, allowing for the sharing of instructional support spaces while also providing specialty spaces to support new and existing CTE programs. Data collected from the educational component of the EFMP indicates significant growth in the CTE programs. Classroom and lab spaces will be expanded and designed to accommodate future programmatic needs and educational technologies.

The buildings to be removed in conjunction with the construction of this building are Professional Center (PC), Technology Center (TC), Automotive Annex (AA), Diesel Technology 1 (DT1), Diesel Technology 2 (DT2) and Portable 3 (P3).

Classroom Building and Information Services

A new 44,000 sq. ft. instructional building (classroom building) will function as an interdisciplinary facility that will provide flexibility for advanced teaching methods. The building will be designed to accommodate technological learning environments that meet expanded classroom needs including high-flexible space to accommodate future programmatic needs and educational technologies for interactive teaching and learning facilities. The classroom building will also be outfitted with modern information technology infrastructure to house the College's Information Services functions and the Technology and Computer Services Department.

The Professional Center (PC) and Technology Center (TC) and Portable 1 (PT1) are in the footprint of the building and will be removed.

Center for Excellence - Conference Center

The recommendation for the off-site facility is to build a modern, technology-enhanced conference center, the Center for Excellence, which would be available for Citrus College and the community through the Civic Center Act. The prime location of this facility renders a great opportunity for college use as well as a location for community meeting space. Additionally, the facility's proximity to the Metro A Line station makes it ideally accessible to the greater community. The property of the

proposed Center for Excellence is approximately 1.77 acres and is north of W. Foothill Boulevard and east of Citrus Avenue. The new two- story Center for Excellence building will be approximately 7,017 sq. ft. The existing 10,000 sq. ft. church will be demolished, and the existing parking lot be removed and reconfigured. The site plan for the Center for Excellence is shown in Figure 4.

The Citrus College Center for Excellence multi-purpose space will be used for community meetings, educational advancement, and to facilitate collegial and regional opportunities. In addition, the Center for Excellence will provide space for extended education seminars, workshops, workplace resources, training sessions, community meetings, career advancement, continuing education, short-term vocational and non-credit courses such as English as a Second Language and Adult High School.

Student Union / Dining Hall Building

A new Student Union / Dining Hall Building will be 15,000 sq. ft. and is proposed to be constructed at the location of the existing bookstore, as shown in Figure 3. The Student Union/Dining Hall will absorb the kitchen and dining hall services from the lower level of the Campus Center and bring those services up to the same level as the campus quad. This new facility will extend into the central quad and provide options for indoor and outdoor dining. This facility will serve as a space for student gathering and informal collaboration and should be accessible to everyone on campus.

The building to be replaced in conjunction with this recommendation is the existing Bookstore.

Library / Learning Resource Center

The new 50,049 sq. ft. Library / Learning Resource Center redefines a traditional library by providing less space for physical books and more space for technological resources as shown in Figure 3. The new Library building will improve efficiency and utilization of space, provide technologically advanced resources, and enhance learning environments conducive to all methods of learning. These newly designed educational spaces will incorporate technology, accommodate flexible and collaborative learning spaces for small and large groups and include areas for individual study.

The existing library building will be replaced with this new Library / Learning Resource Center.

Kinesiology Building

A new 61,000 sq. ft. Kinesiology building will be adjacent to the existing gym facility and physical education buildings as shown in Figure 3. The new Kinesiology building will enhance the college's existing athletic programs and provide an opportunity to grow competitive sports teams as well as academic programs. It is recommended that the new facility includes universally accessible gym facilities and equipment, in addition to classrooms and offices for instructional use.

The buildings to be replaced in conjunction with this recommendation are Adaptive Physical Education (AP), Aquatic Center (AQ), and Physical Education Gymnasium (PE). The Tennis Complex (TN) and Aquatic Center (AQ) are in the footprint of the new building and will have their boundaries adjusted.

Figure 4. Center for Excellence (Updated; Figure 1-4 of Draft IS/MND)

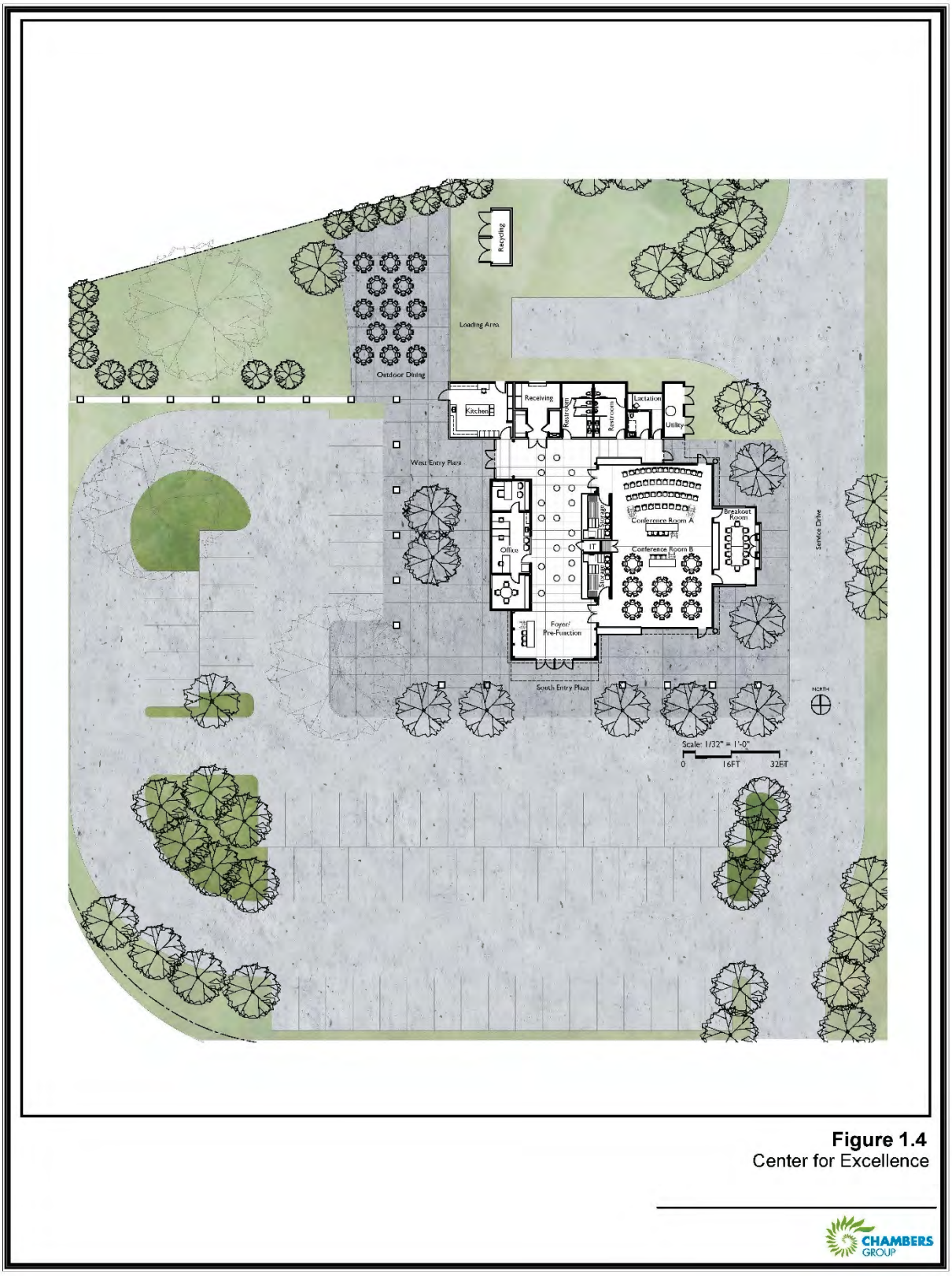
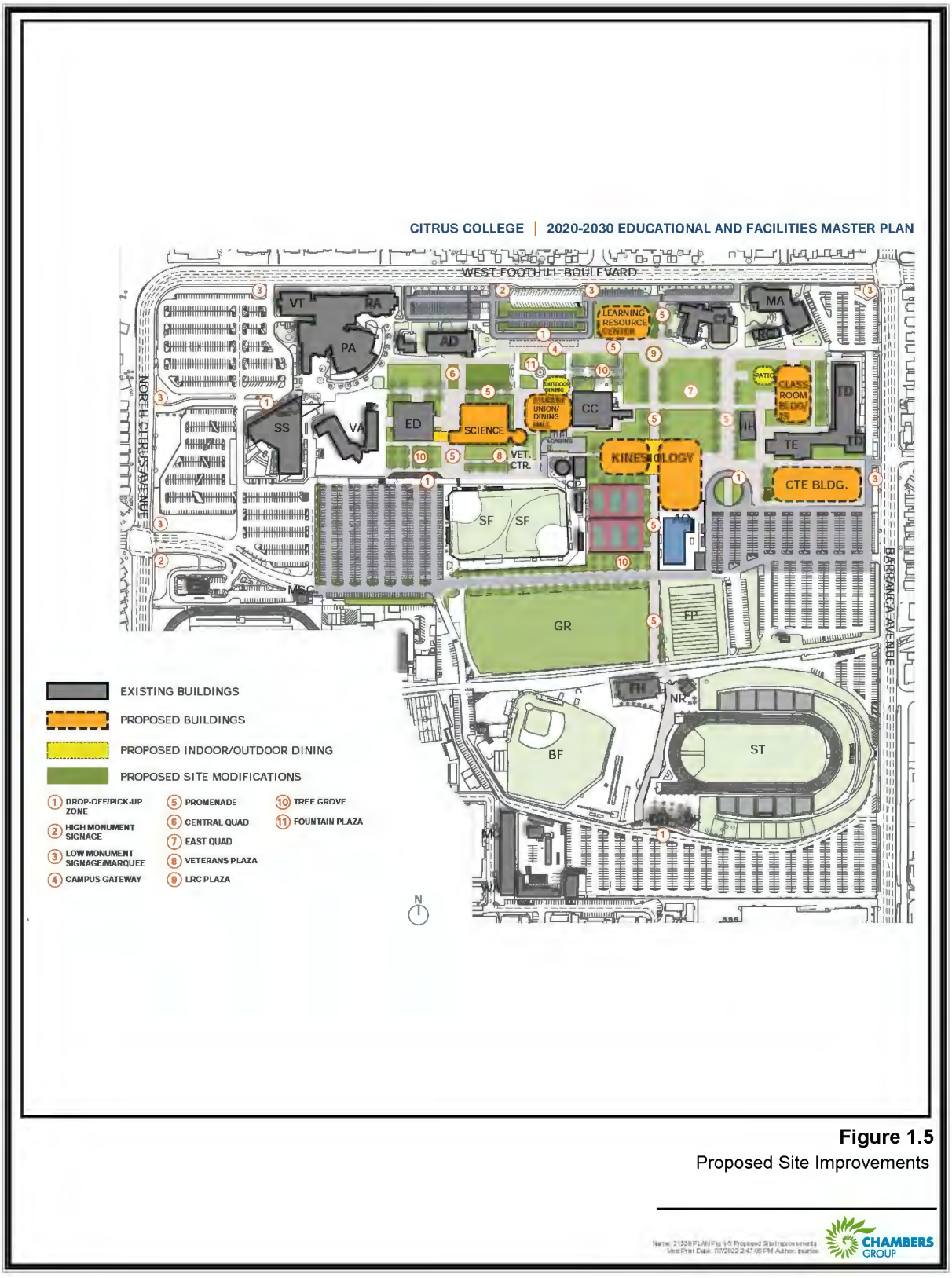


Figure 5. Proposed Site Improvements (Figure 1-5 of Draft IS/MND)



Minor Capital Projects

The following is an overview of the EFMP'S Minor Capital Projects, or proposed site improvements. There are several opportunities to reinforce the campus image and provide a cohesive and welcoming experience for all students, faculty, staff, and visitors. A number of site improvement projects are recommended to enrich the campus identity and enhance the overall campus community environment. These recommendations are listed below and shown in Figure 5.

- **Drop-Off / Pick-Up Zones** transforms the way buildings interface with adjacent parking lots as entry plazas from the drop-off / pick-up zones and visitor arrival areas at these locations
- **High Monument Signage** enhances existing high monument signage to emphasize the primary campus point-of-entry and reinforce branding and college identity
- **Low Monument Signage / Marquee** updates the existing marquee to better represent Citrus College with its location at the primary entrance to the college. Repeat a variation of the high monument sign at multiple locations along the street frontage identifying entrances to buildings and parking lot locations
- **Campus Gateway** enhances this area of the campus as a primary drop-off / pick-up area and threshold to the college
- **Promenade** improves pedestrian circulation paths with paving, sustainable landscaping, signage, and lighting
- **Central Quad** strengthens the campus core and sense of community with a redefined and reimagined central quad. Activated by student-oriented spaces on each end with major pedestrian pathways connecting to all areas of the campus, the central quad becomes the "heart of the campus"
- **East Quad** enhances the east quad to support a variety of activities including informal study spaces, career fairs, ceremonies, and special events. Additionally, functions in adjacent buildings can extend out into the east quad
- **Veterans Plaza** creates a Veterans Plaza as an outdoor extension of the Veterans Success Center and strengthens the sense of community amongst the Veterans group and with the rest of the college
- **Library / Learning Resource Center Plaza** creates a Learning Resource Center Plaza to provide a collaborative outdoor space for students to gather and learn. Adjacent areas to this facility will enhance the use of outdoor space for studying and social interaction
- **Tree Grove** will provide similar planted tree species along major arterial paths to add identity and enhance the campus image
- **Fountain Plaza** enhances the central quad and creates a link between outdoor space and the new Student Union/Dining Hall/Information Systems Facility by renovating the existing Owl fountain and bringing it into compliance with current water usage standards.

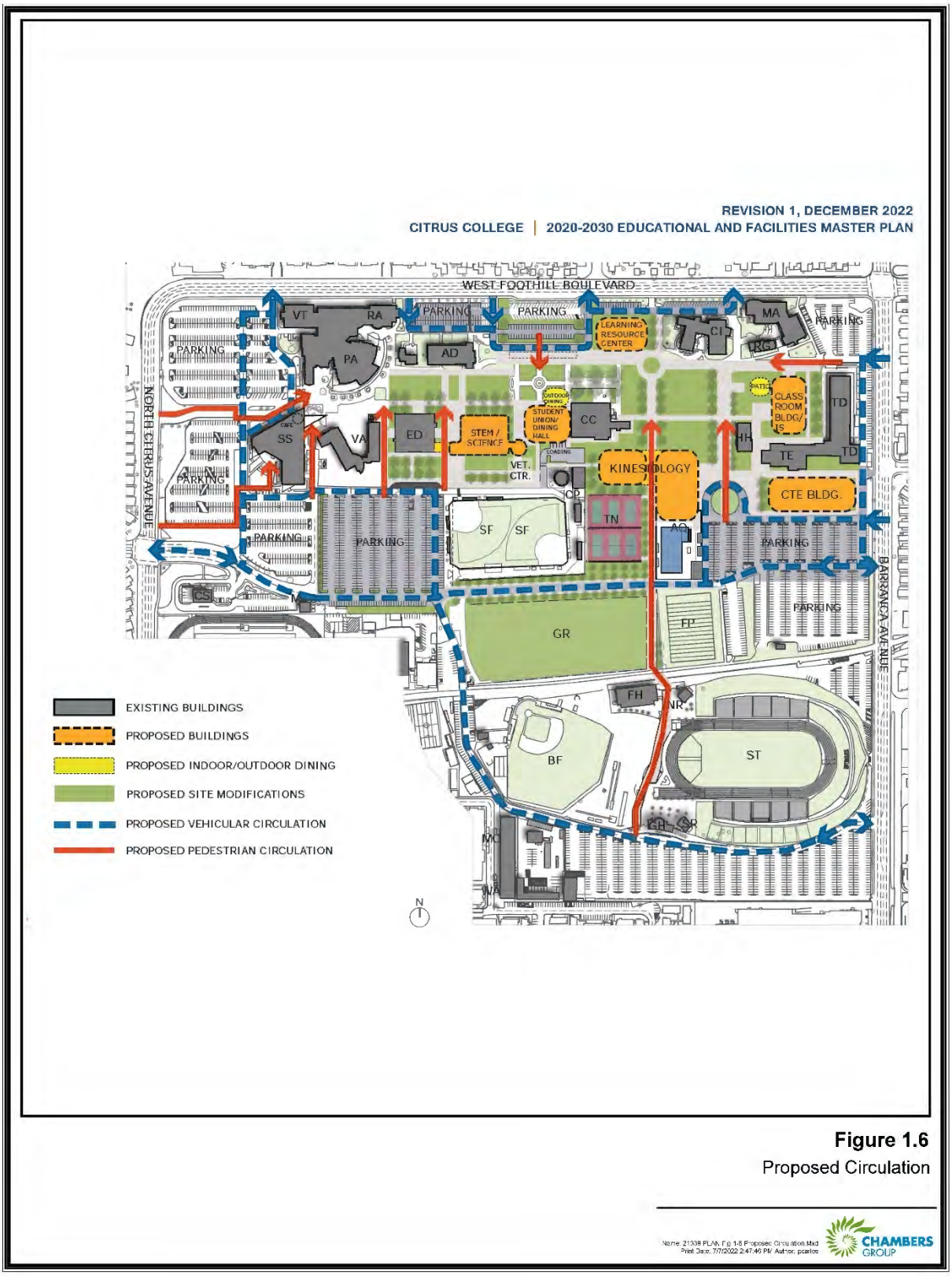
Proposed Circulation

As seen in Figure 6, the proposed circulation plan enhances vehicular and pedestrian circulation by creating new paths of travel from multiple points of entry to designated drop-off/pick-up zones.

The proposed plan links the two existing student parking lots to the south of the central quad with a new road running between the softball fields and golf driving range. The new road will allow drivers to navigate through campus without needing to leave the campus to get to their desired destination. The proposed road is also the route to the proposed new drop-off/pick-up zones. There are currently 3,321 parking spaces and the proposed project would increase the number of parking spaces to 3,350 spaces, which would result

in an increase of 29 parking spaces. It is anticipated that implementation of the proposed project would result in the installation of up to 5 acres of new pavement area for the new paths of travel and parking spaces.

Figure 6. Proposed Circulation (Figure 1-6 of Draft IS/MND)



Projected Space Needs and Demolition

Table 2 compares Citrus College's existing space, proposed modifications, improvements, and space re-alignment, in order to project future space needs. The methodology used for these projections was based upon the estimated overall annual growth rate of 0.56%[2] for Citrus College. The facilities improvements recommended will minimally increase the total campus gross square feet (GSF) by less than 1%, or approximately 4,924 GSF. However, the proposed recommendations will increase assignable square feet (ASF) by 3.5%, or approximately 17,812 ASF by better utilization of space design. The proposed removal and replacement of older buildings will significantly improve the efficiency and flexibility of the college's instructional spaces.

Table 2. Projected Space Needs and Demolition

Type of Space[1]	2019	Planned Demolition	Planned New	Difference	Projected 2030
GSF	759,786[2]	(316,904)	321,828	4,924	764,710
ASF	501,306[2]	(218,288)[2]	236,100[2]	17,812	519,118

Note: Table reproduceom Table 1-2 of the Draft IS/MND (Section 1.4, p. 23) without revisions.

[1] GSF = Gross Square Fet; ASF = Assignabe Square Feet.
[2] ±5%

Planned Development Schedule

Planning of all of the projects will occur in eight development phases (Table 3). Phase 1, campus-wide improvements began in Fall of 2022, with improvements limited to minor electronic modifications for safety purposes. Phase 2 (Center for Excellence) is anticipated to begin in 2027.

Table 3. Planned Development Phases (UPDATED)

Development Phase*	Building / Use
1. 2022*** – 2031	Campus Wide Improvements
2. 2027 – 2030	Center for Excellence
3. 2028 – 2031	Campus Center and Dining Hall**
4. 2025 – 2030	Career Technical Education
5. 2025 – 2030	STEM/ Veterans Success Center
6. 2026 – 2031	Classroom Building
7. 2028 – 2031	Library / Learning Resource Center **
8. 2029 – 2032	Kinesiology **

Note: Table reproduced from Table 1-3 of the Draft IS/MND (Section 1.4, p. 23) with revisions.

* The proposed sequencing of buildings is subject to change. Any major change will be reviewed for CEQA consistency.
** Buildings may be initiated / completed as District funding becomes available.
*** Improvements occurring between 2022-2026 are limited to non-ground-disturbing work, including routine building maintenance and upgrading building locks for safety purposes.

2.6 CONSTRUCTION SCHEDULE

[2] Citrus College. 2025. *Educational and Facilities Master Plan 2024 Update*. https://files.citruscollege.edu/general/reportsplans/efmp24update-ada.pdf

The Proposed Project construction will occur in specific development phases and is expected to occur over a 6-year period, approximately between Summer 2026 through 2032. Standard construction hours would be 7:00 am to 7:00 pm Monday through Friday. If it is necessary to occasionally conduct construction activities on Saturdays, construction activities will start at 9:00 a.m. and end before 9:00 p.m., in accordance with Section 9.44.110 of the City of Glendora Municipal Code**.**

2.7 REQUIRED PERMITS AND APPROVALS

The Final IS/MND must be approved by the District Board of Trustees (Board) as to its adequacy in complying with the requirements of CEQA before taking any action on the Proposed Project. The Board will consider the information contained in the Final IS/MND in making a decision to approve or deny the Proposed Project. The analysis in the Final IS/MND is intended to provide environmental review for the whole of the Proposed Project, including the project planning, demolition of existing structures, site clearance, site excavation, and construction of school buildings and ancillary facilities in accordance with CEQA requirements.

Reviewing Agencies include those agencies that do not have discretionary powers, but that have reviewed the Draft IS/MND for adequacy and accuracy. Potential Reviewing Agencies include the following:

State Agencies

- California Department of Transportation (Caltrans)
- California Environmental Protection Agency (Cal EPA)
- California Department of Fish and Wildlife (CDFW)
- Department of Toxic Substances Control (DTSC)
- Integrated Waste Management Board (IWMB)
- Regional Water Quality Control Board (RWQCB)

Regional Agencies

- Southern California Association of Governments (SCAG)
- South Coast Air Quality Management District (SCAQMD)
- City of Glendora Planning Department
- City of Azusa Planning Department
- Los Angeles County Fire Department

On September 2, 2025 Caltrans also received notice of the posting of the Final IS/MND.

2.7.1 Permits and Approvals

Other required permits and approvals may be necessary in order to approve and implement the Proposed Project as appropriate. Approvals include, but are not limited to, architectural plan and design, landscaping, lighting, transportation permits and approvals for driveways and routes, grading, hauling, and public utilities. Potential responsible and trustee agencies may include:

- Division of the State Architect (DSA); (Approval of plans and specifications)
- California State Fire Marshal
- California Geological Survey
- City of Glendora

SECTION 3.0 – FINDINGS

An Initial Study has been prepared to assess the Proposed Project's potential impacts on the environment and the significance of those impacts and was incorporated in the Draft IS/MND. Based on this Initial Study, it has been determined that the Proposed Project would not have any significant impacts on the environment once all proposed mitigation measures have been implemented. This conclusion is supported by the following findings:

- No potential was found for adverse impacts on Agricultural & Forestry Resources, Mineral Resources, and Recreation.

- Potential adverse impacts resulting from the Proposed Project were found to be less than significant in the following areas: Aesthetics, Air Quality, Energy, Greenhouse Gas Emissions, Hydrology and Water Quality, Land Use and Planning, Noise, Population and Housing, Public Services, Transportation, Utilities and Service Systems, Tribal Cultural Resources, and Wildfire. In Response to Comments, the College's consultants conducted additional studies to assure that their impact conclusions were accurate. These studies, tables and figures are marked as "new" or "updated" throughout the Final IS/MND and reports are attached in the Appendices. All the data verified the determination that potential adverse impacts in these areas will be less than significant.

- Full implementation of the proposed mitigation measures included in this Final IS/MND would reduce potential project-related adverse impact on Biological Resources, Cultural Resources, Geology and Soils, and Hazards and Hazardous Materials to less than significant.

SECTION 4.0 – MITIGATION MEASURES

The following mitigation measures have been incorporated into the scope of work for the Proposed Project and will be fully implemented by the District to avoid or minimize adverse environmental impacts identified in this MND. These mitigation measures will be included in the Mitigation Monitoring and Reporting Program (MMRP) prepared for this Project.

BIO-1: The City Forester shall consider whether there is any impact on existing private trees and, if there is, shall recommend project alternatives that encourage the preservation of mature trees. Trees that are removed from private property when done for the purpose of accommodating a project subject to discretionary zoning approval shall require replacement based on the following schedule. Private Trees of any species removed with a DBH of 10 inches or more must be replaced, according to the current size scale set forth by the City Forester. Any Oak Trees removed from private property with a DBH of 8 inches or more would be replaced, according to the current size scale set forth by the City Forester.

BIO-2: A nesting bird pre-construction survey will be conducted by a Qualified Biologist and submitted to the District three days prior to demolition and/or vegetation removal activities during nesting bird season (February 15 through August 31) within 250 feet of each of the Project sites for passerines and 500 feet for raptors and/or listed species, where feasible. Should nesting birds be found, an exclusionary buffer will be established by a Qualified Biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer will be clearly marked in the field by construction personnel under guidance of the Qualified Biologist, and construction or clearing will not be conducted within this zone until the Qualified Biologist determines that the young have fledged or the nest is no longer active. Nesting bird habitat within the Project site will be resurveyed during bird breeding season if a lapse in construction activities lasts longer than seven days. A survey must be completed for the Center for Excellence and Major Capital Projects listed in the 2020-2030 EFMP.

CUL-1: A qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for architectural history or history review Project plans involving improvements to the Performing Arts building to identify potential impacts on character-defining features of the resource and adherence to the Secretary of the Interior's Standards. Should potential impacts be identified, additional studies may be required.

GEO-1: Detailed geotechnical investigations shall be performed prior to the design of each of the Major Capital Projects in the 2020-2030 EFMP and the Center for Excellence. The geotechnical investigations shall include borings and laboratory testing to provide supporting data for geotechnical design recommendations.

GEO-2: After the completion of grading, additional testing will be performed in order to confirm the preliminary expansion index test results remain valid for each site.

HAZ-1: Prior to the demolition and renovation of the buildings identified in the 2020-2030 EFMP, including the Center for Excellence, a Hazardous Materials Building Survey shall be prepared for each building. The Hazardous Materials Building Survey shall include identification of suspect asbestos containing building materials, lead-containing building materials, loose & peeling lead containing paint, mercury light tubes, mercury thermostat switches, and polychlorinated biphenyl (PCB)-light ballasts, and PCB-containing building materials that may be impacted during the demolition of buildings. If the inspection confirms the presence of asbestos-contain materials (ACMs) or other hazardous building materials in any of the building, the hazardous materials shall be removed from these buildings prior to demolition and be transported in compliance with State and Federal requirements.

HAZ-2: Prior to the initiation of grading and excavation activities, a Phase I ESA Report for the subject property shall be prepared in accordance with the American Society for Testing and Materials Standard Practice for ESAs: Phase I Site Assessment Process E 1527-13 and the United States Environmental Protection Agency (USEPA) 40 Code of Federal Regulations (CFR) Part 312 Standards and Practices for All Appropriate Inquiries (AAI) – Final Rule adopted November 1, 2006, and amended December 30, 2013.

TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities

A. The lead agency (Citrus Community College District) shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of "ground-disturbing activity" for the Proposed Project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include heavy grading, excavation and trenching associated with Proposed Project building work.

B. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the commencement of ground-disturbing activity.

C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the lead agency by the Tribe.

D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the lead agency that

ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial)

A. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and the Kizh monitor and/or Kizh archaeologist will be included in the consultation on the recommended procedure/process to move forward. While adhering to the Project CPM baseline schedule, the Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects

A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.

C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).

D. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.

E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

SECTION 5.0 – CIRCULATION

On April 22, 2024, the Citrus Community College District circulated a Notice of Availability and Intent to Adopt a Mitigated Negative Declaration and Initial Study (NOI) to responsible agencies, trustee agencies, interest groups, and the general public. In accordance with the California Environmental Quality Act (CEQA) Section 21091 and State CEQA Guidelines Section 15073, a 30-day public review period for the Draft IS/MND was provided from April 22, 2024 to May 22, 2024. The NOI was published online at the District's website and the Draft Mitigated Negative Declaration and supporting materials were made available for review at the District's office located at 1000 W. Foothill Boulevard, Glendora, California 91741, and online on the District's website at: https://www.citruscollege.edu/finance/bond/Pages/default.aspx.

Table 4. Comment Received During Public Review (NEW)

Comment Letter No.	Commenting Agency or Organization	Date of Comment
1	Department of Transportation	May 21, 2024
2	Coalition of Responsible Equitable Economic Development Los Angeles (CREED LA)	May 22, 2024

SECTION 6.0 – RESPONSE TO COMMENTS

CEQA Guidelines Section 15204 (b) outlines parameters for submitting comments and reminds persons and public agencies that the focus of review and comment of negative declarations should be, "on the proposed finding that the project will not have a significant effect on the environment. If persons and public agencies believe that the project may have a significant effect, they should: (1) Identify the specific effect; (2) Explain why they believe the effect would occur, and; (3) Explain why they believe the effect would be significant."

CEQA Guidelines Section 15204 (c) further advises, "Reviewers should explain the basis for their comments, and should submit data or references offering facts, reasonable assumptions based on facts, or expert opinion supported by facts in support of the comments. Pursuant to Section 15064, an effect shall not be considered significant in the absence of substantial evidence." Section 15204 (d) also states, "Each responsible agency and trustee agency shall focus its comments on environmental information germane to that agency's statutory responsibility." Section 15204 (e) states, "This section shall not be used to restrict the ability of reviewers to comment on the general adequacy of a document or of the lead agency to reject comments not focused as recommended by this section."

In accordance with Public Resources Code 21092.5 (b) of the CEQA Guidelines, the lead agency shall notify any public agency which comments on a negative declaration of the public hearing or hearings, if any, on the project for which the negative declaration was prepared. If notice to the commenting public agency is provided pursuant to Section 21092, the notice shall satisfy the requirement of this subdivision.

All Responses to Comments are incorporated in the Mitigated Negative Declaration.

6.1 COMMENT LETTER #1: CALIFORNIA DEPARTMENT OF TRANSPORTATION

See Appendix B for the comment letter submitted by the California Department of Transportation (Caltrans).

Response to Comment #1

All traveling done by oversized transport vehicles during the duration of the Proposed Project will comply with all Caltrans and CEQA laws and regulations.

6.2 COMMENT LETTER #2: ADAMS, BROADWELL, JOSEPH, AND CARDOZO (ON BEHALF OF COALITION FOR RESPONSIBLE EQUITABLE ECONOMIC DEVELOPMENT LOS ANGELES "CREED LA")

See Appendix C for the comment letter submitted by Adams, Broadwell, Jones, and Cardozo ("Letter").

Response to Comment #1 [See, Appendix C, Letter pgs. 7 -8.]

Table 5 includes the current estimated building area and number of stories. The heights are unknown at this time, but a two-story building typically ranges from 18 to 25 feet. The height of a three-story building ranges from 33 to 40 feet. The tallest existing building on campus is the Performing Arts Building which is 80 feet tall. As stated in the Draft IS/MND in Section 4.1.1, the major capital project

identified in the 2020- 2030 Educational and Facilities Master Plan (EFMP) would be similar in scale and heights to the existing campus facilities maintaining the campus massing and character. The tallest proposed building would not exceed 80 feet, which is equal in height to the current tallest building on campus. Implementation of the Project would not result in buildings that exceed the height of buildings currently on Campus. Table 5 below provides the current planned area and number of stories of buildings. Notably, all modifications reflect a reduction in the square footage identified in the Draft IS/MND. Moreover, the amended building sizes do not change the information in the Projected Space Needs and Demolition Table 1-2 on page 23 of the Draft IS/MND and used in the air emissions analysis.

CEQA does not require precise architectural detail for an MND, but does require a reasonably foreseeable and representative project description that allows for a meaningful assessment of environmental impacts (CEQA Guidelines § 15124). Although individual building areas have been modified, the total floor area planned for demolition and construction has not changed and serves as the primary basis for evaluating impacts such as air quality, GHG, energy use, and construction. Building height is not a factor considered in the CalEEMod assessment. Regarding aesthetics, given the clarification that all new structures associated with the Project will be shorter than the tallest building on campus, there will not be a significant aesthetic impact.

Table 5. Amended Building Sizes (NEW)

Building	Area (Sq. Ft.)	Height	No. Stories
Center for Excellence- onference Center	7,017	Not to exceed 80 feet	2
Student Union / Diningall Building	15,000	Not to exceed 80 feet	2
Career Technical Eduction Building	79,762	Not to exceed 80 feet	3
Classroom Building an Information Services	44,000	Not to exceed 80 feet	2
STEM/ Science Buildin and Veterans Success Centr	65,000	Not to exceed 80 feet	2
Library/ Learning Resurce Center	50,049	Not to exceed 80 feet	2
Kinesiology Buiding	61,000	Not to exceed 80 feet	2

Response to Comment #2 [See Appendix C, Letter pg. 8.]

The individual building sizes have been updated in Response #1 to yield the total gross square footage

(GSF) of the Project detailed in Table 1-2 of the Draft IS/MND and Table 2 above. The Project's CEQA analysis is primarily based off of the Project's GSF, which has remained unchanged. Although individual building square footages were revised, these changes do not alter the nature or intensity of impacts under the Proposed Project.

The air emissions were reanalyzed using the current CalEEMod Version 2022.1.1.26 model and is included in the *Air Quality, Energy, And Greenhouse Gas Emissions Impact Analysis Citrus College Educational and Facilities Master Plan 2020-2030 Project September 2024* (updated Air Report) contained in Appendix A. The construction and operational emissions would remain below the SCAQMD thresholds, as shown in Tables 6 and 7. This finding is consistent with the previous *Air Quality, Energy, And Greenhouse Gas Emissions Impact Analysis Citrus College Educational and Facilities Master Plan 2020-2030 Project June 2022* (previous Air Report), and the updated building sizes do not alter the conclusion that the Project's air quality impacts would be less than significant.

Table 6. Difference Between Regional Construction Emissions from the 2022 (CalEEMod Model Version 2020.4.0) Draft IS/MND (Table M) and 2024 (CALEEMod Version 2022.1.1.26) Air Quality Report (Table S)(UPDATED)

	Pollutant Emissions (pounds/day)					
Activity	**VOC**	**NOx**	**CO**	**SO_2**	**PM10**	**PM2.5**
2024 Total Construction Emissions	58.02	78.9	36.0	0.16	13.5	4.15
2022 Total Operational Emissions	30.29	38.90	29.83	0.07	9.48	5.48
Difference	**27.73**	**40**	**6.17**	**.09**	**4.02**	**1.33**
SCQAMD Operational Thresholds	**75**	**100**	**550**	**150**	**150**	**55**

Source: Calculated from CalEEMod Version 2022.4.0 and Version 2022.1.1.26
Note: The 2022 Total Operational Emissions values reflect Table 4-2 of the Draft IS/MND (Section 4.3.2, pg. 38).

Table 7. Difference Between Regional Operational Emissions from the 2022 (CalEEMod Model Version 2020.4.0 Draft IS/MND) (Table O) and 2024 (CALEEMod Version 2022.1.1.26) Air Quality Report) (Table U) (UPDATED)

	Pollutant Emissions (pounds/day)					
Activity	**VOC**	**NOx**	**CO**	**SO_2**	**PM10**	**PM2.5**
2024 Total Operational Emissions	10.7	4.77	21.5	0.04	1.37	0.61
2022 Total Operational Emissions	7.93	2.67	5.38	0.02	1.06	0.41
Difference	**2.77**	**2.10**	**16.12**	**0.02**	**0.31**	**0.20**

SCQAMD Operational Thresholds	**55**	**55**	**550**	**150**	**150**	**55**

Source: Calculated from CalEEMod Version 2022.4.0 and Version 2022.1.1.26
Note: The 2022 Total Operational Emissions values reflect Table 4-4 of the Draft IS/MND (Section 4.3.2, pg. 40).

Using the updated air model running calculations using the same variables as the previous model resulted in an analysis reflecting that all air quality impacts are less than significant. The updated Air Report is included as Appendix A.

Response to Comment #3 [See Appendix C, Letter pgs. 8-9.]

Citrus College does not have backup generators. There is no plan to include a backup generator because it would conflict with the California Community Colleges Board of Governors Climate Action and Sustainability Framework developed in 2021[3] that has a goal to achieve a Net Zero Energy Campus by 2035. The Board of Governors has been a proponent of climate action, energy conservation, and other sustainability measures with policies established since 2013. In addition, as determined in the 2015 California Supreme Court Case: CBIA vs. BAAQMD, "Agencies subject to CEQA generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents. But when a proposed project risks exacerbating those environmental hazards or conditions that already exist, an agency must analyze the potential impact of such hazards on future residents or users" (*California Building Industry Assn. v. Bay Area Air Quality Management Dist.* (2015) 62 Cal.4th 369, 377). Therefore, the Final IS/MND is not required to assess the use of a backup generator in the event of a Public Safety Power Shutoff or extreme heat event because they are not consequences of the Proposed Project.

Furthermore, as provided in Table 5 in Response #1, none of the buildings will be four stories or greater; therefore, standby power will not be required for the Proposed Project.

California Building Code (CBC) Title 24, Part 2 § 2702.2.2 requires that "Standby power shall be provided for elevators and platform lifts as required in Sections 1009.4.1, 1009.5, 3003.1, 3007.8, 3008.8."

According to CBC 1009.2.1:

> "In buildings where a required accessible floor or occupied roof is four or more stories above or below a level of exit discharge, not less than one required accessible means of egress shall be an elevator complying with Section 1009.4."

CBC Section 1009.4 requires that such elevators defined in CBC Section 1009.2.1, with four stories or greater, have standby power. Therefore, if a building is less than four stories above or below the level of exit discharge, this requirement does not apply, and backup generators for elevators are not mandated

[3] California Community Colleges Board of Governors. 2021. *California Community Colleges Board of Governors Climate*
Action and Sustainability Framework. Available at: *https://www.cccco.edu/-/media/CCCCO-Website/docs/data-resources/californiacommunitycollegesboardofgovernorsclimateactionandsustainabilityframeworka11y-1.pdf?la=en&hash=F54B7AC18C3A1DA9110D347B71F4DA7E4D88D5E5*

by code. Thus, given all buildings under the Proposed Project would not exceed three stories, Title 24, Part 2 § 2702.2.2 does not apply to the Proposed Project.

Response to Comment #4 [See Appendix C, Letter pg. 11.]

A discussion of Vehicle Miles Traveled (VMT) and Level of Service (LOS) is detailed below to provide further analysis to verify the Project's transportation impacts in the context of existing environmental conditions.

Vehicle Miles Traveled (VMT)

On August 7, 2025, a VMT Screening Memorandum (VMT Memo) was prepared by GTS in support of the Proposed Project which verified and confirmed the previous conclusions set forth in the Draft IS/MND. The VMT Memo is included in Appendix D. The VMT Memo accounted for existing transportation conditions and calculated Project trip generation using two different approaches for the analysis:

1. Table 8 shows the Project's trip generation calculated according to the latest version of the Institute of Transportation Engineers (ITE) Trip Generation Manual. By this calculation, the Project is expected to generate 186 daily trips, which includes 18 new AM peak hour trips (15 inbound and 3 outbound) and 18 PM peak hour trips (10 inbound and 8 outbound).
2. Table 9 shows the Project's trip generation calculated based on observed traffic volumes. The number of vehicles entering the campus was counted on a typical weekday, with classes in session, in June 2025. Trip rates per student were then calculated based on the May 2025 full-time equivalent (FTE) enrollment (9,625 students). By this calculation, the Project is expected to generate 176 daily trips, which includes 14 new AM peak hour trips (11 inbound and 3 outbound) and 15 PM new peak hour trips (8 inbound and 7 outbound).

Table 8. Project Trip Generation Based on ITE Methodology (NEW)

				AM Peak Hour			PM Peak Hour		
Land Use	**Quantity**	**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
Community College[1]	162[2]	Students	1.15	0.09	0.02	0.11	0.06	0.05	0.11
Project Trip Generation									
Community College[1]	162	Students	186	15	3	18	10	8	18
Project Trip Generation			**186**	**15**	**3**	**18**	**10**	**8**	**18**

[1] Institute of Transportation Engineers (ITE), *Trip Generation*, 11th Edition, 2021, Land Use 540 - Junior/Community College
[2] See Section 2.5 above

Table 9. Project Trip Generation Based on the Citrus College Trip Generation Counts (NEW)

				AM Peak Hour			PM Peak Hour		
Land Use	**Quantity**	**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
Community College[1]	162	Students	1.09	0.066	0.019	0.085	0.051	0.040	0.090
Project Trip Generation									
Community College[1]	162	Students	176	11	3	14	8	7	15
Project Trip Generation			**176**	**11**	**3**	**14**	**8**	**7**	**15**

[1] Rates from traffic counts carried out in May 2025.

The VMT calculations, presented in Table 8 above and discussed in Section 4.17.1 of the Draft IS/MND[4], which utilizes ITE Methodology, estimated that the addition of 162 students under the Proposed Project would generate 186 daily total trips on weekdays when classes are in session. The VMT Memo further refines this estimate by considering actual traffic patterns and existing conditions at Citrus College (see Table 9 above). The analysis demonstrates that the Project's contribution to daily trip generation would be lower than initially estimated in the Draft IS/MND. In addition, the decrease in projected student headcount, as discussed in Section 2.5 of this Final IS/MND, further supports the conclusion that daily trip generation would be lower than estimated in the Draft IS/MND.

According to CEQA Guidelines Section 15064.3, Vehicle Miles Traveled (VMT) is the appropriate methodology for assessing project impacts to transportation and the lead agency has the discretion to choose the most appropriate methodology for assessing impacts.

Pursuant to SB 743 technical guidance published by the Governor's Office for Planning and Research (OPR)[5] and the City of Glendora SB743 Policy (2020), there are six types of project screening that lead agencies can apply in order to effectively screen projects from project-level assessment. The Proposed Project may be presumed to have a less than significant impact because it meets one of the six screening criteria, summarized below:

a) **Small Project Size**: Projects that would generate fewer than 250 trips per day are presumed

[4] CalEEMod applies default trip generation rates that are based on data from the ITE Trip Generation Manual. In the previous Air Report (Appendix A of the Draft IS/MND), the 186 daily weekday trips associated with the addition of 162 students were calculated using these CalEEMod defaults.
[5] Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Governor's Office of Planning and Research. https://lci.ca.gov/docs/20180416-743_Technical_Advisory_4.16.18.pdf.

to have a less than significant impact. To estimate trip generation, per the City of Glendora SB743 Policy, "Applications may use the latest version of the Institute of Transportation Engineers (ITE) Trip Generation Manual to calculate the number of trips from their proposed project." Based on the ITE Trip Generation Manual, the Project generates fewer than 250 trips per day. As noted earlier, for the sake of completeness, trip generation was also estimated based on the observed existing trip generation of Citrus College. According to the analysis contained in the VMT Memo, the Project will generate 176 daily trips.

Based on the above Trip Generation screening criteria, the Project is presumed to have a less than significant impact on VMT, and can therefore be screened out for VMT analysis. This conclusion is consistent with the Draft IS/MND.

Moreover, the opinion presented by the commenter's consultant fails to provide substantial evidence supporting a fair argument that the Proposed Project will cause a significant environmental impact, but merely speculates that such impacts could exist. Speculation does not constitute substantial evidence (CEQA Guidelines § 15384). The consultant's opinion with regard to operational or safety problems in the Project vicinity is not relevant to vehicle miles traveled, which is the appropriate measure of transportation impacts as discussed in the 2018 OPR Technical Advisory on Evaluating Transportation Impact in CEQA. Moreover, there is no requirement in CEQA to establish a nexus between safety and VMT, nor is VMT intended as a proxy for safety concerns. Substantial evidence supports the Draft IS/MND's analysis reflecting that there were less than significant transportation impacts.

Level of Service (LOS)

In addition to the VMT Memo, a Level of Service Analysis (LOS Analysis) was prepared on August 12, 2025, by GTS, to verify the impacts of the Proposed Project on traffic. The LOS Analysis is included in Appendix F.

Level of Service (LOS) is a standardized method for evaluating how well a roadway, intersection, or other transportation facility operates under current or projected traffic conditions. LOS is rated from A to F, where LOS A represents free-flow conditions with minimal delays, and LOS F represents severe congestion with long delays and poor traffic flow. Each LOS category is based on average delay times per vehicle, which quantify how long drivers, transit users, or pedestrians experience waiting at intersections or traveling along roadways.

As part of the LOS Analysis, existing weekday AM and PM peak period traffic volumes were collected at the study intersections listed below.

1) Barranca Ave & W Foothill Blvd
2) N Citrus Ave & W Foothill Blvd
3) N Citrus Ave & E Foothill Blvd/Campus Dr
4) N Citrus Ave & University Dr
5) Historic Route 66 & N Citrus Ave

6) Historic Route 66 & Barranca Ave

The counts were collected on Thursday June 5, 2025, a typical weekday of a non-holiday week while the College and local K-12 schools were in session. The existing volumes are shown in Exhibit 4 and Exhibit 5 of the LOS Analysis. The raw traffic count data are provided as an attachment to the LOS Analysis.

Sections 4, 5, and 6 of the LOS Analysis provides the existing conditions of the Project area pertaining to traffic safety, non-motorized facilities, and transit services. Section 4, *Traffic Safety Analysis*, identifies 10 vehicle collisions that have occurred along the perimeter of the campus over a 3-year period from 2022 to 2024.

Section 5, *Non-Motorized Facilities*, discusses the campus' pedestrian network, which links proposed buildings, parking facilities, surrounding sidewalks, and nearby transit stops, including connections to the Metro A Line and local bus stops. Sidewalks along adjacent major roads are generally at least 6 feet wide. While signalized crosswalks and pedestrian push-buttons are present, the Glendora Community Plan 2025 notes that no bikeways currently exist near the campus. According to Section 10 of the LOS Analysis, the Project is not expected to have any significant impact on non-motorized traffic.

Section 6, Transit Services, discusses transit services near Citrus College, including the City of Glendora's Gold Line Commuter Shuttle, the Morning Pilot Route, Foothill Transit bus, and the Metro A Line station. These transit services near the campus operate from about 5:00 AM to 2:00 AM, with peak-hour frequencies ranging from 10 to 60 minutes. As discussed in Section 11 of the LOS Analysis, the Project is not expected to have any impact on existing or future transit facilities and/or service.

In addition, the LOS Analysis quantitatively evaluates existing traffic conditions, projected traffic conditions (without Project), and projected traffic conditions (with Project) to determine how these conditions relate to Level of Service (LOS) and whether they meet acceptable service standards.

Existing Traffic Conditions

Existing levels of service during peak hour conditions are shown in the table below and in Exhibit 14 of the LOS Analysis.

Table 10. Existing conditions peak hours levels of service(NEW)

Intersection	Control Ty	AM Peak		PM Peak	
		Delay	LOS	Delay	LOS
1. W Foothill Blvd & Barranca Ave	Signalized	30.8	C	26.1	
2. N Citrus Ave & W Foothill Blvd	Signalized	9.9	A	9.7	
3. N Citrus Ave & E Foothill Blvd	Signalized	22.9	C	27.8	
4. N Citrus Ave & University Dr	Signalized	15.9	B	13.1	
5. Historic Route 66 & N Citrus Av	Signalized	34.0	C	33.1	
6. Historic Route 66 & Barranca A	Signalized	21.5	C	28.1	

Delay is reported in seconds per vehicle
LOS = Level of Service

As shown in the table above, the study intersections within the vicinity of the Project site currently operate within acceptable levels of service.

Projected Traffic Conditions (Without Project)

Existing peak hour traffic volumes were projected to the horizon year (2040) using an annual growth rate of 0.34%, which excludes the anticipated contributions from the Proposed Project. Horizon year (2040) peak hour traffic volumes are shown in in the table below, and in Exhibit 15 and Exhibit 16 of the LOS Analysis.

Table 11. Horizon year (2040) Conditions Peak Hours Levels of Service

Intersection	Control Type	A Peak		PM Peak	
		Delay	LOS	Delay	LOS
1. W Foothill Blvd & Barranca Ave	Signalized	32.7		27.5	
2. N Citrus Ave & W Foothill Blvd	Signalized	10.0		9.8	
3. N Citrus Ave & E Foothill Blvd	Signalized	24.6		28.3	
4. N Citrus Ave & University Dr	Signalized	16.2		13.2	
5. Historic Route 66 & N Citrus Ave	Signalized	36.1		35.1	
6. Historic Route 66 & Barranca A	Signalized	22.4		29.8	

Delay is reported in seconds perehicle
LOS = Level of Service

The City's Circulation Element[6] and the County of Los Angeles General Plan[7] identifies LOS D or better at intersections as an acceptable level of service. As shown in the table above, the study intersections are projected to operate within acceptable levels of service.

Projected Traffic Conditions (With Project)

The LOS Analysis combined the Project's projected trip generation (see Exhibit 12 and Exhibit 13 of the LOS Analysis) with the projected peak hour traffic volumes in the horizon year, 2040 (see Exhibit 18 and 19 of the LOS Analysis). The table below presents the horizon year peak traffic volumes combined with the anticipated Project traffic conditions.

Table 12. Horizon year (2040) with Project Conditions Peak Hours Levels of Service

[6] City of Glendora. 2008. *Circulation Element*. https://www.cityofglendora.gov/files/assets/city/v/1/community-development/planning-division/documents/general-plan-and-zoning/chapter-3-circulationelement.pdf
[7] County of Los Angeles. 2015. *General Plan*. https://planning.lacounty.gov/wp-content/uploads/2023/03/gp_final-general-plan.pdf

Intersection	Control Type	A Peak		PM Peak	
		Delay	LOS	Delay	LOS
1. W Foothill Blvd & Barranca Ave	Signalized	33.0		27.7	
2. N Citrus Ave & W Foothill Blvd	Signalized	10.0		9.8	
3. N Citrus Ave & E Foothill Blvd	Signalized	24.6		28.3	
4. N Citrus Ave & University Dr	Signalized	16.2		13.2	
5. Historic Route 66 & N Citrus Ave	Signalized	36.1		35.1	
6. Historic Route 66 & Barranca A	Signalized	22.4		29.8	

Delay is reported in seconds perehicle
LOS = Level of Service

As shown in the table above, the study intersections are projected to operate within acceptable levels of service in the horizon year (2040) in conjunction with development of the Proposed Project.

As discussed above and in the LOS Analysis, existing conditions were evaluated alongside projected traffic conditions for both "with" and "without" Project scenarios to determine whether the study intersections would continue to operate within acceptable LOS standards. Since all intersections are expected to maintain acceptable LOS under all scenarios, and no adverse impacts are anticipated for non-motorized traffic or transit services, the Project is not expected to cause significant transportation-related safety or operational issues. Substantial evidence supports the Draft IS/MND's conclusion that the Proposed Project will cause insignificant transportation impacts.

Response to Comment #5 [See, Appendix C, Letter pgs. 12-13.]

As stated in CEQA Guidelines Section 15124, the Project Description should not supply extensive detail beyond what is needed for evaluation and review of the environmental impacts. As described in the AEP CEQA Portal Topic Paper: *Project Description*[8], the project description should contain enough information so that the impact analysis contains a meaningful assessment of the project's impacts. Therefore, the Project Description can be general if it provides enough information for a meaningful impact assessment. The Proposed Project will be constructed by a Design Build entity and therefore requires flexibility in the design to maximize the value of this procurement method which is acceptable in a CEQA analysis.

The inconsistencies reported regarding the estimated sizes of the buildings do not create enough change to increase the severity of the impacts (see Response #1). The CalEEMod model for the Proposed Project was re-run with the most current version of CalEEMod (Version 2022.1.1.26) that utilizes the newer EMFAC2021 model for calculating vehicle emissions. The total building square footage (321,828 square feet) utilized in the previous and updated Air Reports are consistent with the Project Description. The air quality impacts remain below the SCAQMD thresholds and the difference in emissions for construction and operations are shown in Tables 6 and 7 above in Response #3. Therefore, the conclusion that air quality impacts are less than significant have not changed between

[8] Association of Environmental Professionals. 2020. *Project Description*. Available at: https://ceqaportal.org/topic_papers.cfm

the previous and updated Air Reports (see Tables S, T, U, and V from Appendix A).

The compression of the air quality emissions into two years of construction rather than spreading the emissions over a 10-year period is a worst-case scenario of emissions that would be generated by the Proposed Project. In other words, the methodology used in the air model run would overestimate emissions due to the two-year construction schedule as opposed to the realistic ten-year schedule. Spreading construction out to 10 years also creates less emissions each year as new equipment will continue to produce less emissions with incentive programs to replace older equipment and the 2022 CARB Scoping Plan to reduce demand for liquid petroleum by 94 percent and fossil fuels by 86 percent in 2045 relative to 2022[9]. Each year, new equipment is being improved resulting in less emissions being generated as required by California Governor's Executive Order N-79-20 (2020). California continues efforts to reduce medium and heavy-duty vehicle emissions to 100 percent zero-emissions by 2040. Therefore, the previous air emission analysis provides a worst-case scenario because each year less heavy emission vehicles and equipment are being used in California. The less than significant impact from emission production in a compressed construction schedule would be reduced if it was spread over ten years. Therefore, no substantial evidence exists to support a fair argument that the Project may have a significant adverse environmental impact due to the methods used to analyze the air emissions.

The assertion that the Proposed Project may result in significant air quality impacts from emissions of criteria and toxic pollutants from on-site motorized operation equipment is unfounded. As discussed above, transportation impacts are less than significant and operation emissions are under SCAQMD's thresholds.

The CalEEMod model run prepared by Clark & Associates is not based on accurate underlying data and is therefore not reliable. It inaccurately analyzed 357,000 square feet of new structures [Citrus College EFMP 2020-2030 Detailed Report pg. 10-11] while the Proposed Project only includes 321,828 square feet of new structures.

Furthermore, the Clark & Associates model also analyzed all phases (i.e., demolition, grading, building, paving and painting) occurring simultaneously. This is not a realistic or accurate analysis because the logistics of having this many activities occurring simultaneously on the campus is not possible. For example, no paint or paving contractor would ever apply new paint or pavement with demolition or grading that creates dust occurring in close proximity to where they were working. While the Project's air quality model (Appendix A) also assumed a condensed two-year timeline to model worst-case air quality impacts, it still demonstrated that those impacts would be less than significant based on an accurate assumption of the building footprint.

The Clark & Associates model significantly overstates air quality impacts by combining an unrealistic worst-case construction timeline with an inflated building footprint assumption. As a result, its conclusion that the Project would cause significant air quality impacts is not defensible, as it is based on inaccurate inputs that do not reflect the actual scope or logistics of the Proposed Project.

Response to Comment #6 [See, Appendix C, Letter pgs. 15-16.]

In response to Comment #6, a quantitative Health Risk Assessment (included in Section 10.4 of the

[9] California Air Resources Board (CARB). 2022. *2022 Scoping Plan for Achieving Carbon Neutrality.* Available at: https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf

updated Air Report) was prepared and this analysis demonstrates and confirms that the Proposed Project would not result in significant impacts associated with construction-generated toxic air contaminants (TAC) emissions. This same conclusion was reached in the Draft IS/MND (see Draft IS/MND Section 4.3.2, pg. 44). Impacts to sensitive receptors from construction-generated TAC emissions were found to be below the South Coast Air Quality Management District's (SCAQMD's) threshold for cancer risk Diesel Particulate Matter (DPM) emissions, non-cancer risk DPM emissions, and asbestos emissions, as shown in Table X in Appendix A. (see, also, Section 4.3.2 pg. 43 of the Draft IS/MND).

It was determined that the Proposed Project would not exceed the local NOx, CO, PM10, and PM2.5 thresholds of significance (see Response #5). Details on the quantitative analysis are described in detail below in Response #7. Therefore, the Proposed Project would result in a less than significant impact.

Response to Comment #7 [See, Appendix C, Letter pgs. 16-18.]

A quantitative Health Risk Assessment was completed and is located in Section 10.4 of the attached updated Air Report (Appendix A), to support the original conclusion that Tables 4-2 and 4-3 in the Draft IS/MND Air Quality resource section show that none of the analyzed criteria pollutants would exceed the regional or local emissions thresholds during either demolition, site preparation, grading, combined building construction and architectural coatings or paving phases. This is the same conclusion that was reached in the Draft IS/MND (see Draft IS/MND Section 4.3.2, pgs. 38-39). The Health Risk Assessment also provided substantial evidence that diesel DPM will be beneath health-based significance thresholds (see, Draft IS/MND Section 4.3.2, pgs. 42-43).

DPM health risks from TAC are twofold: cancerous and non-cancerous. First, TAC's are carcinogens according to the State of California. The project-related cancer risk from construction-related DPM emissions is below the SCAQMD's threshold of 10 per million persons. Table X of the updated Air Report (Appendix A) provides a summary of the calculated DPM concentrations at the nearest sensitive receptors and associated cancer risk from DPM emissions at the nearby residences. Table X reflects that, depending on the receptor situs, the cancer risk from DPM emissions created during construction of the Proposed Project ranges from 0.3 to 6.7 per million persons at nearby residences. (Table X Proposed Project Compliance with Applicable General Plan Energy Policies, Appendix A). The Project-related cancer risk from construction-related DPM emissions would be below the SCAQMD's threshold of 10 per million persons. Therefore, construction of the Proposed Project would result in a less than significant impact due to the cancer risk of DPM Emissions.

In addition to the cancer risk exposure from TAC emission, there is potentially a non-cancerous chronic health risk from TAC emissions. The criterion for significance developed by the Office of Environmental Health Hazard Assessment is a Chronic Hazard Index of 1.0 or greater. The Proposed Project would result in a Hazed Index of 0.0045. (See, pages 68-69, Appendix A). Therefore, the on-going operations of the Proposed Project would result in a less than significant impact due to the non-cancer chronic health risk from TAC emissions created by the Proposed Project.

Response to Comment #8 [See, Appendix C, Letter pgs. 18-20.]

The Health Risk Assessment included in Section 10.4 of the updated Air Report (Appendix A), provides substantial evidence that construction-related emission will have a less than significant impact on air quality and public health. This same conclusion was reached in the Draft IS/MND (see, Draft IS/MND

Section 4.3.2, pgs. 42-43).

DPM emissions are assessed on pages 51 - 53 and 67 – 69 of Appendix A. TAC emissions are assessed on pages 66 – 71. Concentrations of DPM and TAC emissions resulting from the Proposed Project were found to be below relevant thresholds, thus impacts regarding health risks towards sensitive receptors are deemed less than significant. Based on the analysis, no air quality mitigation measures will be required. As previously stated in response to Comment #5, the CalEEMod model run prepared by Clark & Associates is not reliable or based on accurate data because it overestimated the square footage of new structures. Specifically, it inaccurately analyzed 357,000 square feet of new structures [Citrus College EFMP 2020-2030 Detailed Report pg. 10-11] while the Proposed Project only includes 321,828 square feet of new structures.

To provide a worst-case analysis, all eight construction phases were modeled in CalEEMod as occurring simultaneously, using the program's default construction schedule (Appendix A pg. 44). While actual construction will be phased over a realistic 10-year period, modeling it as a single phase assumes the highest possible emissions at once, which overstates impacts compared to the more gradual, realistic timeline. Thus, the current air quality analysis presented in Appendix A overestimates impacts and, given such impacts were determined to be below relevant thresholds and less than significant, no further analysis is required.

Appendix A includes the AERMOD modeling conducted for the Proposed Project, focused exclusively on construction-related emissions, specifically those from off-road diesel equipment and on-road diesel truck idling and travel. These sources were modeled using low-level release heights of 12 to 13 feet and were not associated with elevated stacks (e.g. tall chimneys or smokestacks) or significant plume rise. In this case, the modeled construction emissions are ground-level and mobile in nature and not influenced by persistent vertical structures emitting pollutants at elevated levels (e.g. factories with tall smokestacks). Therefore, the inclusion of building downwash is neither required nor appropriate for the types of sources modeled, and its exclusion does not diminish the accuracy of the health risk assessment. The AERMOD-based health risk analysis found that ground-level DPM and TAC concentrations and associated cancer risks were below established significance thresholds. The modeling followed appropriate regulatory methodology, accounted for proximity to sensitive receptors, and reflected a reasonable worst-case scenario.

Therefore, there is no substantial evidence supporting a fair argument that the Project may have a significant adverse environmental impact, and the mitigations identified in the CREED LA letter labeled Comment 8 are not required. This is the same conclusion reached previously in the Draft IS/MND (see, Draft IS/MND Section 4.3).

Response to Comment #9 [See, Appendix C, Letter pg. 21.]

The assumption that enrollment growth under the Proposed Project would come from the local population is well-founded. As stated on the Citrus College Campus Information Page[10], the College "serves the residents and the students of the Azusa, Claremont, Duarte, Glendora, and Monrovia school districts".

[10] Citrus College. N.D. *Campus Information.* Available at: https://www.citruscollege.edu/info/Pages/default.aspx#:~:text=This%20public%20community%20college%20serves,Glendora%2C%20and%20Monrovia%20school%20districts.

Refer to Response to Comment #4 regarding VMT analysis and associated impacts; providing additional support that all the substantial evidence supports the determination that there will be less than significant impact on transportation. As previously discussed, the opinion presented by the commenter's consultant with regard to operational or safety problems in the Project vicinity is not relevant to vehicles miles traveled, which is the appropriate measure of transportation impacts as discussed in the 2018 OPR Technical Advisory on Evaluating Transportation Impact in CEQA. Moreover, there is no requirement in CEQA to establish a nexus between safety and VMT, nor is VMT intended as a proxy for safety concerns.

Response to Comment #10 [See, Appendix C, Letter pg. 22.]

The District stands by the Final IS/MND statement that the Proposed Project would result in cumulative impacts that would be less than significant when combined with past, present and future projects. Below is a detailed discussion by resource area that supports the less than significant determination identified in the Draft IS/MND in section 4.21.1. The site is currently developed and operating as a school. Further development of the school site would occur in a more efficient way following implementation of the Master Plan.

A list of development projects within the cumulative study area are presented in Table 13. The list includes past projects, projects under construction and approved, and pending projects that are anticipated to be either under construction or operational by the time of the completion of the Proposed Project. Because the area within which a cumulative effect can occur varies by resource area, for the purpose of this analysis, the geographic scope also varies according to the resource being evaluated. For example, traffic and noise impacts tend to be localized while air quality and biological resources impacts are typically widespread. Detailed cumulative impacts associated with air quality and greenhouse gases are provided under Section 4.3.2 b) and Section 4.4.2 a) of the Draft IS/MND.

Information pertaining to past, present, and reasonably foreseeable future projects was obtained from the Planning Department and Division websites of the City of Glendora[11] and the City of Azusa[12]. Information on cumulative projects was also obtained from the California Office of Planning and Research CEQANet Database[13] for Projects certified in 2023 and 2024. The Proposed Project does not create impacts associated with agricultural, forest land, mineral resources, or recreation, so there is no potential for cumulative impacts related to those resources.

[11] City of Glendora. 2025. *Current Development Projects*. Available at: https://www.cityofglendora.gov/Explore/Community-Development/Planning-Division/Current-Development-Projects
[12] City of Azusa. 2025. *Projects*. Available at: https://www.azusaca.gov/1769/Projects
[13] California Office of Planning and Research. 2025. *CEQANet Recent Postings*. Available at: https://ceqanet.lci.ca.gov/Search/Recent

Table 13. Cumulative Projects within 3 Miles of Proposed Project (NEW)

City	Project Address	Project Name	Project Description	Status	Miles away from Project
Glendora	Northwest Glendora	La Colina (Former Monrovia Nursery)	121 lot single-family subdivision	Under Construction	Approximately 1.5 miles
Glendora	950 Silent Ranch	"Grand Estates"	12 Lot single family subdivision	Approved	Approximately 1.5 miles
Glendora	1121 E Arrow Highway	"Central Park"	Preferred Reality Holdings LLC	Approved	Approximately 2.8 miles
Glendora	531 E Arrow Highway	N/A	33 attached 3-story residential condo units	Approved	Approximately 2.6 miles
Glendora	1237 Bonnie Cove Ave	N/A	30 Detached condo subdivision 2 story homes	Approved	Approximately 2 miles
Glendora	630 W Foothill Blvd	N/A	9,500 SF Medical Office	Approved	Approximately 0.53 miles
Glendora	210 S Grand Ave	N/A	20,974 SF Medical Office	Approved	Approximately 0.75 miles
Glendora	400 N Glendora Ave	Cornerstone Bible Church Expansion	New 9,287 SF Sanctuary	Approved	Approximately 1.5 miles
Glendora	1717 S Grand Ave	N/A	Car Wash	Proposed	Approximately 2.0 miles
Glendora	723 E Route 66	N/A	39 attached 3-story residential condo units – zone change	Proposed	Approximately 1.8 miles
Azusa	1025 N. Todd Ave.	Canyon Commerce Park	7 Industrial Buildings (+/- 462,491 SF)	Completed	Approximately 2.5 miles
Azusa	360-416 Gladstone Street	Gladstone Senior Villas	Residential: 60 Unis Total with 6 Affordable Units 16,647 SF	Completed	Approximately 1.7 miles
Azusa	626 N. Azusa Ave	The Orchard	Retail 31,566 SF Residential: 163 Units (181,220SF)	Under Construction	Approximately 1.3 miles

City	Project Address	Project Name	Project Description	Status	Miles away from Project
Azusa	619 N. San Gabriel Ave.	N/A	Retail: 888 SF Residential: 6 units	Under Construction	Approximately 1.4 miles
Azusa	425. E Foothill Blvd.	Rull's Hawaiian Restaurant	Retail 1,400 SF	Tenant Improvements	Approximately 1 mile
Azusa	300 W. Foothill Blvd.	N/A	7 Unit Townhome 633 SF Commercial	Plan Check	Approximately 1.4 miles
Azusa	820 N. Soldano	N/A	6 Unit Townhome	Plan Check	Approximately 1 mile
Azusa	198 S. Peckham Rd.	N/A	12,184 SF Warehouse	Plan Check	Approximately 3.0 miles
Azusa	900 W. Foothill Blvd.	N/A	138,454 SF Self-storage facility	Plan Check	Approximately 2 miles
Azusa	573-577 E. Arrow Highway	N/A	Residential: 10 Unit Attached Townhomes (4 buildings)	Plan Check	Approximately 2.0 miles
Azusa	1303 Optical Drive	N/A	45,000 SF addition to an existing building, conference center, helopad and parking structure	Plan Check	Approximately 2.5 miles
Azusa	1041-1043 W. Arrow Hwy	N/A	Express Carwash	Plan Check	Approximately 2.75 miles
Azusa	865 E. Monrovia Place	Dhammakaya International Mediation Center	48,750 SF Mediation Hall	Entitled	Approximately 0.7 miles
Azusa	800 N Azusa Ave	The Avenue	Retail 12,000 SF Residential 127 Units	Entitled	Approximately 1.4 miles
Azusa	415-435 Motor Ave	N/A	New 97,200 SF building	Entitlement phase	Approximately 3 miles
Azusa	807 The Promenade	N/A	Residential: 23 Single Family Dwellings	Entitlement phase	Approximately 0.5 miles

City	Project Address	Project Name	Project Description	Status	Miles away from Project
			New Public Park		
Azusa	230 S Irwindale	N/A	6,380 SF Industrial Building	Entitlement Phase	Approximately 3 miles
Azusa	333 N. Azusa Ave	N/A	Residential 4 Units Retail 1,000 SF	Entitlement Phase	Approximately 1.5 miles
Azusa	525 N. Azusa Ave.	N/A	Retail 4,600 SF Residential: 102 Units (78,664 SF)	Preliminary Plan Review	Approximately 1.5 miles
Azusa	440 E. 1st Street	N/A	21 Unit townhome condominiums	Preliminary Plan Review	Approximately 1.5 miles
Glendora	929 S Lone Hill Avenue	Citrus, Forbed, and Walnut Rubber Dams Replacement Project		2023	Approximately 3 miles
Glendora	710 W. Carroll Ave	PLN23-0017	SF addition to single family home	2023	Approximately 0.5 miles
Glendora	160 N Wabash Ave.	Finkbiner Park Multi-Benefit Stormwater Capture	Stormwater capture facility construction	2024	Approximately 1.5 miles
Glendora	116 E Foothill Boulevard	CDBG Funded Curb Ramp Project		2024	Approximately 1 miles
Glendora	236 S. Wabash Ave.	PLN24-0010		2024	Approximately 1.5 miles
Azusa	919 Sierra Madre Avenue	Azusa Greens Redevelopment Project	Residential community site, reconfigure existing golf course,		Approximately 2 miles

The Proposed Project is located within three miles of 14 residential projects totaling approximately 631 units and 13 commercial, retail medical and warehouse developments in the cities of Glendora and Azuza. These projects are in various stages of development. These projects would all result in

similar impacts, such as temporary and permanent increases in traffic, noise and air emissions.

Air

Cumulative projects identified in Table 13 would contribute to cumulative air emissions. The contribution of additional emissions of ozone precursors (i.e., NOx, CO, and Reactive Organic Gases [ROGs]), PM2.5 and PM10 could result in a significant impact to air quality. However, like the Proposed Project, cumulative projects would be required to comply with applicable SCAQMD regulations, as well as with additional County-specific requirements to mitigate impacts associated with construction emissions. As discussed in Draft IS/MND Section 4.3.2 b), the SCAQMD has published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*[14]. In this report, the SCAQMD clearly states on page D-3 that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact.

As discussed in Section 4.3.2 b) "Air Quality," of the Draft IS/MND, the Proposed Project's construction emissions would be well below SCAQMD regional and local thresholds, thus would not result in a cumulatively considerable impact.

As discussed in Section 4.3.2 b) of the Draft IS/MND, the operation of the Proposed Project would not differ in scope or scale from current operations and maintenance activities on campus. Operational emissions would be lower due to upgrades in technology, inclusion of solar panels, and the further stringent regulatory requirements associated with emissions as discussed in Section 4.3.2 of the MND. The emissions associated with current and future project operations would represent a very small fraction of the regional emission inventories and would not contribute to any cumulatively considerable impacts to air quality. In addition, as shown in Table 4-4 and 4-5 of the Draft IS/MND, the Proposed Project's operational emissions would be well below the SCAQMD regional and local thresholds.

The updated Air Report, contained in Appendix A, confirms the findings from the Draft IS/MND. As shown in Tables S, T, U, and V in the updated Air Report, all Project construction and operational emissions would be well below the SCAQMD regional and local thresholds. Therefore, according to the SCAQMD's *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution*[15], the Project-specific air quality impacts would not cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact.

[14] South Coast Air Quality Management District. 2003. *White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution*. Available at: https://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf
[15] South Coast Air Quality Management District. 2003. *White Paper on Potential Control Strategies to Address Cumulative Impacts From Air Pollution*. Available at: https://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf

Cultural Resources

The Proposed Project could disturb unknown subsurface human remains or historic, or archaeological, resources through excavation and ground disturbance. Cultural resource impacts are limited to the Project site and the other projects would not occur on the Project site. California laws and policies are in place that require measures to avoid, reduce, or minimize impacts to cultural and archaeological resources.

As discussed in Section 4.5.2 a), "Cultural Resources," the Citrus College Campus historical buildings do not meet any of the California Register of Historical Resources (CRHR) criterion due to significant modification of buildings onsite, lack of historic significance for historic or cultural heritage, or likely to provide information important to prehistory or history. However, individually, the Performing Arts building appears to be eligible for the CRHR for representing a good example of Brutalism, with some incorporated elements of Late Moderne Style. Mitigation measure CUL-1 requires that a qualified architectural historian will review plans for improvements to the Performing Arts building to assess potential impacts on its character-defining features and compliance with the Secretary of the Interior's Standards. If impacts are found, further studies may be required. Therefore, impacts to the Performing Arts building, as it is potentially eligible for listing in the CRHR, would be less than significant with mitigation measure CUL-1 incorporated.

Cultural resource impacts associated with the Proposed Project would be limited to boundaries of the Project site. Other projects in the vicinity would not occur on the same site and therefore would not contribute to a combined effect on the same cultural resources. The potential for disturbance to unknown subsurface resources is addressed through compliance with applicable state laws and policies that mandate avoidance, minimization, or mitigation of impacts to cultural and archaeological resources. The only potentially eligible historical resource identified, the Performing Arts building, would be protected through Mitigation Measure CUL-1, ensuring that any alterations adhere to the Secretary of the Interior's Standards and that additional review occurs if impacts are identified. Because there is no possible overlap in resource location or context between the Proposed Project and other projects, and because mitigation would reduce impacts to a less than significant level, the Project would not result in cumulatively considerable impacts to cultural resources.

Greenhouse Gas Emissions

As provided in Section 4.8.2 a) and b), "Greenhouse Gas Emissions," of the Draft IS/MND, Table 4-7 shows that the Proposed Project would create 1,189.78 $MTCO_{2e}$ per year. According to the SCAQMD draft threshold of significance detailed in Section 9.6 of the previous Air Report, a cumulative global climate change impact would occur if the GHG emissions created from the ongoing operations exceed 3,000 $MTCO_{2e}$ per year.

The updated Air Report confirms the findings presented in the Draft IS/MND. According to Table Z in the updated Air Report, the Proposed Project would generate 1,492 $MTCO_{2e}$ of GHG emissions per year. Despite the increase in projected emissions between the previous and updated Air Reports, the Project would remain well below the SCAQMD threshold of 3,000 $MTCO_{2e}$ of GHG emissions per year. Section 10.8 of the updated Air Report reiterates that according to the SCAQMD draft threshold of significance, a cumulative global climate change impact would occur if the GHG emissions created from the on-going operations would exceed 3,000 MTCO2e per year.

While GHG emissions are inherently cumulative in nature, the Proposed Project would not exceed the SCAQMD's threshold for cumulatively considerable emissions and, therefore, would result in a less than significant cumulative impact.

Biological Resources

As discussed in Section 4.4.1, "Biological Resources, of the Draft IS/MND, the Project site is a fully developed area. No known threatened, endangered, or rare species or their habitats, designated species, designated natural communities, riparian, or wetland habitats exist on the Project site. The Project site is not designated as a critical habitat for threatened and endangered species. The Project site and its surrounding area is not mapped within a Significant Ecological Area. Mitigation Measure BIO-1 will be incorporated to reduce impacts on private trees to less than significant levels, in accordance with the City of Glendora's Urban Forestry Manual. Mitigation BIO-2 will be incorporated to reduce impacts on nesting birds to less than significant levels, in accordance with the Migratory Bird Treaty Act (MBTA).

Biological resources in urbanized environments are generally limited due to the absence of natural communities, special-status species, and designated critical habitats. In this case, the surrounding cumulative projects, listed in Table 13, are primarily located in disturbed urban areas and consist of short-term construction activities typical of infill development, which are unlikely to result in substantial impacts to plant or wildlife populations. Because these projects do not occur within or adjacent to significant ecological areas and lack a connection to intact habitats, there is no reasonable potential for their effects, in conjunction with the Proposed Project, to result in a regionally significant loss of biological resources. Existing local regulations, such as the City of Glendora's Urban Forestry Manual and MBTA, provide additional protections that further minimize any incremental impacts. As a result, the contribution of any potential effects to cumulative biological impacts would not be cumulatively considerable.

Geology and Soils

The Proposed Project is in a seismically active region and active faults in the area are capable of causing damage to proposed project structures. In addition, there is the potential for soil instability-related impacts such as soil erosion and liquefaction. As discussed in Section 4.7 "Geology and Soils", of the Draft IS/MND, the Proposed Project would result in the replacement of older structures that are more susceptible to damage from seismic events. The new buildings, replacing the demolished buildings, would be constructed in accordance with the current California Building Code special provisions for the design and construction of school buildings in California and Division of the State Architect standards. Implementation of erosion and sedimentation control measures required in the Stormwater Pollution Prevention Plan (SWPPP), application of appropriate engineering design identified in a geotechnical investigation as required in Mitigation Measure GEO-1, and compliance with current building codes and regulations as required by local jurisdictions, would reduce any potential impacts related to geology and soils to a less than significant level.

Similar to the Proposed Project, any new development in the region would also require construction to be completed in a seismically sound manner, in compliance with the California Building Code and applicable local regulations. Projects that would result in more than one acre of ground disturbance would also be required to prepare a SWPPP as part of complying with the National Pollution Discharge Elimination System Construction Stormwater General Permit, which would reduce the potential for

soil erosion and loss of topsoil. The cumulative projects would include appropriate geotechnical engineering, design measures, and BMPs that would reduce any potential impacts related to geology and soils to a less than significant level. Because each project is required to address geology and soils hazards independently through engineering design and regulatory compliance, there is no mechanism for impacts to accumulate into a significant regional effect. Therefore, any cumulative impact related to geology and soils would be less than significant, and the Proposed Project would not result in a considerable contribution to cumulative impacts related to geology and soils.

Hazards and Hazardous Materials

As discussed in Section 4.9.1, "Hazards and Hazardous Materials," of the Draft IS/MND, Project construction would result in less than significant impacts associated with the transport, use, disposal, or foreseeable upset of, or accidents involving hazardous materials during construction. The mandatory implementation of Mitigation Measures HAZ-1 and HAZ-2, requiring a Hazardous Material Building Survey and Phase I ESA Report, prevents a significant impact. The District would enforce compliance with all applicable laws and regulations regarding routine transport, use, or disposal of hazardous materials. The District's contractors would also implement plans and measures addressing safety and hazardous materials.

If the risk of release of hazardous materials offsite in water or air is present, projects in the cumulative scenario would also be required to implement BMPs and adhere to all applicable laws and regulations associated with hazardous materials. The Proposed Project is on an existing college campus, there are no K-12 schools within 0.25 miles, and the campus is not on a Department of Toxic Substances Control (DTSC) cleanup site. Impacts related to hazards and hazardous materials would be addressed by the Project and other projects in the cumulative scenario on a project-specific basis. Therefore, the Proposed Project's potential to contribute to cumulative impacts related to hazardous materials would be less than cumulatively considerable.

Land Use and Planning

As discussed in Section 4.11, "Land Use and Planning," of the Draft IS/MND, the Proposed Project would not physically divide an established community, conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect, or conflict with any applicable Habitat Conservation Plan or Natural Community Conservation Plan. Given that the Proposed Project's impact on this resource area would be minor, associated with the church site being converted to a lower square footage, educational use, the Proposed Project's impacts on land use and planning would be minimal.

Cumulative impacts regarding land use and planning typically arise from multiple projects that collectively alter the character, connectivity, or regulatory consistency of a community. Since the Proposed Project maintains consistency with existing plans and land uses, it does not contribute to such cumulative effects. Consequently, the Proposed Project's contribution to any cumulative land use or planning impacts would be negligible and not cumulatively considerable.

Noise

As discussed in Section 4.13, "Noise," of the Draft IS/MND, the Proposed Project would not generate a substantial temporary or permanent increase in ambient noise levels or vibrations in the vicinity of

the Proposed Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

Other projects within the cumulative study area would also contribute to increases in noise levels during construction periods, which may overlap. Such increases would take place in compliance with policies and regulations of applicable local jurisdictions for noise from such sources. Because the contribution of the Proposed Project to ambient noise levels at the nearest sensitive receptor would be less than significant, and because all such noise impacts from other projects within the cumulative analysis area would be required to comply with policies and regulations of applicable local jurisdictions, the proposed project would not result in a cumulatively considerable impact in relation to noise.

Population and Housing

As discussed in Section 4.14, "Population and Housing", of the Draft IS/MND, while the Project would expand facilities at Citrus College and accommodate approximately 162 more students onsite (a worst-case scenario as discussed in Section 2.5 of this Final IS/MND), these improvements listed in the 2020-2030 EFMP were approved as part of Bond Measure Y in 2020. As the Campus serves the local community, the 2020-2030 EFMP was proposed in response to projected population increases in the Glendora area. Because the EFMP and Center for Excellence represent planned and anticipated development aligned with local growth projections, they would not induce unplanned or substantial population increases. The Proposed Project's impact on this resource area would be minor and therefore would not result in a considerable contribution to cumulative impacts related to population and housing. Public Services

As discussed in Section 4.15, "Public Services and Utilities," of the Draft IS/MND, the Proposed Project would not result in the need for new or physically altered public service facilities in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services. Given that the Proposed Project's impact on this resource area would be less than significant, the Proposed Project would not result in a considerable contribution to cumulative impacts related to public services and utilities.

Traffic and Transportation

As discussed in Section 4.17, "Traffic and Transportation," of the Draft IS/MND, the Proposed Project would not conflict with policies, plans, or programs supporting alternate transportation. The Proposed Project area is located within 0.5 mile of numerous transit stops. The proximity to multiple transit stops, along with other analysis provided in Response to Comment 4, contributes to the conclusion that the cumulative transportation impacts of the Project would not be considerable. The Proposed Project does include the addition of a new internal road between the Golf Driving Range and Softball Fields; however, this addition would be consistent with existing vehicular circulation patterns would connect the eastern and western portions of the campus, and would lessen the need for students to travel on public roads surrounding the campus to access their preferred parking location. The new road would not introduce a new geometric design feature or incompatible use. The Proposed Project would comply with local fire and police jurisdictions review of all construction and site plans prior to the State Fire Marshall's final approval.

Furthermore, as discussed in the Response to Comment #4, the new VMT Memo found that,

considering actual traffic patterns and existing conditions at Citrus College, the Proposed Project would generate 176 daily trips. According to the SB 743 technical guidance published by the Governor's Office for Planning and Research (OPR)[16] and the City of Glendora SB743 Policy (2020), the Project is presumed to have a less significant impact on VMT given it would generate less than 250 trips per day. Therefore, the Project's incremental addition to total regional VMT is minimal and would not meaningfully contribute to a cumulative impact.

In addition, the LOS Analysis (Appendix F) addresses cumulative traffic impacts by evaluating intersection performance under future conditions with and without the Project. Future AM and PM peak-hour traffic volumes were estimated using a 0.34% annual growth rate derived from TAZ-level household growth projections in the *2024–2050 Regional Transportation Plan/Sustainable Communities Strategy*[17] for the City of Glendora. Projected traffic volumes with the Project were calculated by adding anticipated Project trips to these future baseline volumes. Levels of service were then determined, based on the Highway Capacity Manual (7th Edition)[18], for existing conditions, horizon year (2040) conditions, and horizon year (2040) plus Project conditions, thereby capturing the Project's potential contribution to cumulative traffic effects. As discussed in Response to Comment #4, all study intersections in the Project vicinity would continue to operate within acceptable service thresholds under all scenarios. Accordingly, the Project would not result in a significant impact relating to LOS.

Like the Proposed Project, other projects would be required to comply with all applicable plans, ordinances, and policies that establish measures of effectiveness for the performance of the circulation system. Therefore, any impact under this criterion resulting from the Proposed Project does not contribute to a cumulative impact, and increased traffic resulting from the Proposed Project would be less than cumulatively considerable.

Tribal Cultural Resources

Consultation with the Native American tribes that responded during AB 52 consultation resulted in the development of mitigation measures TCR-1 through 3 that would reduce impacts to tribal resources to be less than significant if unanticipated finds, in a built environment, were discovered (Section 4.18.1 b). Other regional projects resulting in potential environmental impacts would also be required to complete consultation with the same tribes; therefore, cumulative impacts to native tribal resources would not be cumulatively significant.

Utilities and Service Systems

As discussed in Section 4.19.1 of the Draft IS/MND, Citrus College expected an increase in the student population over the next 10 years, which would increase water consumption at the campus. Build-out of the 2020-2030 EFMP and Center for Excellence would comply with current building code standards

[16] Office of Planning and Research. 2018. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. Governor's Office of Planning and Research. https://lci.ca.gov/docs/20180416-743_Technical_Advisory_4.16.18.pdf.
[17] Southern California Association of Governments. 2023. *2024–2050 Regional Transportation Plan/Sustainable Communities Strategy*. https://www.scag.ca.gov/sites/default/files/2024-05/glendora_0.pdf
[18] National Academies of Sciences, Engineering, and Medicine. 2022. *Highway Capacity Manual 7th Edition: A Guide for Multimodal Mobility Analysis*. Washington, DC: The National Academies Press. https://doi.org/10.17226/26432.

at the time of construction and use of water efficient facilities would be required as part of the CBC. Nearby wastewater facilities include the San Jose Creek Water Reclamation Plant and A.K. Warren Water Resource Facility (formerly known as Joint Water Pollution Control Plant), with treatment capacities of 100 million gallons per day (MGD)[19] and 400 MGD[20] respectively. Even with an expected increase of 162 students (a worst-case scenario as discussed in Section 2.5 of this Final IS/MND), which is approximately 1 percent of the originally forecasted total population of 13,321 in 2030, capacity at both facilities is sufficient to support full build-out of the 2020-2030 EFMP, including the Center for Excellence. Additionally, the City of Glendora 2020 Urban Water Management Plan provides a water supply analysis until 2040 including consecutive dry years and accommodates for increases in population[21]. Therefore, increased use of water and production of wastewater by the Proposed Project would be well within the planning limits of the current facilities and would not create a cumulative impact. The Proposed Project would not result in the need for new or physically altered public service facilities to maintain acceptable service ratios, response times, or other performance objectives for any of the public services. Given that the Proposed Project's impact on this resource area would be less than significant, the Proposed Project would not result in a considerable contribution to cumulative impacts related to public services and utilities.

Wildfire

As discussed in Section 4.20 of the Draft IS/MND, Citrus College has an Emergency Operations Plan outlining the response to extraordinary emergency situations associated with natural disasters, technological incidents and national security emergencies. Additionally, the City of Glendora's General Plan identifies evacuation routes within the City in the event of any such emergency that requires evacuation.

As discussed in Response to Comment #4 and in the cumulative traffic analysis above, the Project would not result in a significant LOS impact. Because LOS reflects intersection and roadway operating conditions, including vehicle delay, maintaining an acceptable LOS ensures that emergency vehicles can travel through the circulation network without substantial delay. Therefore, the Project is not anticipated to materially affect emergency response times. Project site plans would be reviewed by the LACFD for adequate fire access. Additionally, the Project and cumulative projects must comply with the local fire authority and police jurisdiction for review of all construction and site plans prior to the State Fire Marshall's final approval. The Project site is in an urban area and not susceptible to wildfire. Therefore, the Proposed Project would not result in a considerable contribution to cumulative impacts related to wildfire.

Summary

All of the above discussion contains information that is included in the Draft IS/MND, along with additional analysis of cumulative impacts. All thresholds that were determined to pose no impact, according to the Draft IS/MND, inherently would not contribute to a cumulative impact. This detailed

[19] Los Angeles County Sanitation Districts. N.D. *San Jose Creek Water Reclamation Plant*. Available at: https://www.lacsd.org/services/wastewater-sewage/facilities/san-jose-creek-water-reclamation-plant
[20] Los Angeles County Sanitation Districts. N.D. *Water Treatment Facilities*. Available at: https://www.lacsd.org/services/wastewater-sewage/facilities/wastewater-treatment-facilities
[21] City of Glendora. 2021. 2020 Urban Water Management Plan. Available at: https://www.cityofglendora.gov/Services/Water/Water-Division/Urban-Water-Management-Plan

discussion shows no substantial evidence supporting a fair argument that the Project may have a significant adverse environmental impact associated with cumulative impacts resulting from the Project, combined with effects of past, current, or probable future projects.

Response to Comment #11 [See Appendix C, Exhibit A, pg.29.]

Implementation of the Proposed Project was originally anticipated to occur from 2022 through 2032. The anticipated construction dates and timeline have been updated in Section 2.6 and in Table 3. However, this change does not invalidate the environmental analysis or its conclusions under CEQA. The construction schedule presented in the Draft IS/MND was intended to represent a reasonable Project duration for purposes of analyzing potential impacts, such as emissions, noise, and traffic, during construction activities. The anticipated duration of construction remains unchanged.

CEQA does not require precise or finalized construction dates; rather, it requires a good-faith effort to disclose and analyze the reasonably foreseeable impacts of the project (14 California Code of Regulations § 15151). The assumptions used for the timing, duration, and intensity of construction remain valid, and no new or more severe environmental impacts would result from an updated construction timeline. Should project implementation be delayed further, the analysis and associated mitigation measures will continue to apply.

Each year equipment that generates emissions is being improved as required by California Governor's Executive Order N-79-20 (2020), California's continuous efforts to reduce medium and heavy-duty vehicle emissions to 100 percent zero-emissions by 2040. Therefore the 2020 air emission analysis provides an overestimation of emission due to the old model because each year less heavy emission vehicles and equipment are being used in California. The attached air modeling, just like the original, shows no substantial evidence supporting a fair argument that the Project may have a significant impact.

Response to Comment #12 [See Appendix C, Exhibit A, pg. 38]

The combined square footage of existing buildings does not reflect the gross square footage of the campus. However, as described in the note of Table 1, titled "Citrus College Existing Building Inventory", individual building square footage does not account for the area of auxiliary equipment structures. The gross square footage of the Project area, including auxiliary structures, is accounted for in Table 2, titled "Projected Space Needs and Demolition."

Page 46 of the 2022 Air Quality, Energy, and GHG Emissions Impact Analysis report prepared for the Project contains a typing error stating implementation of the 2020-2030 EFMP will require the demolition of 759,786 gross square feet of existing building space. This error has been corrected in the updated 2024 Air Report. Nonetheless, this inadvertent error does not change the model analysis in either report, as the accurate number, 316,904 gross square feet of planned demolition, was utilized in the CalEEMod models for both reports.

As previously stated in response to Comment #5, the compression of the air quality emissions into two years of construction rather than spreading the emissions over a 10-year period is a worst-case scenario of emissions that would be generated by the Proposed Project. In other words, the methodology used in the air model run would overestimate emissions due to the two-year construction schedule as opposed to the realistic ten-year schedule. Spreading construction out to 10 years also creates less emissions each

year as new equipment will continue to produce less emissions with incentive programs to replace older equipment and the 2022 CARB Scoping Plan to reduce demand for liquid petroleum by 94 percent and fossil fuels by 86 percent in 2045 relative to 2022. Each year, new equipment is being improved resulting in less emissions being generated as required by California Governor's Executive Order N-79-20 (2020). California continues efforts to reduce medium and heavy-duty vehicle emissions to 100 percent zero-emissions by 2040. Therefore, the 2020 air emission analysis provides a worst-case scenario because each year will result in less heavy emission vehicles and equipment.

Response to Comment #13 [See Appendix C, Exhibit A, pgs. 33-34]

The updated Air Report accounts for the accurate quantity of buildings to be demolished as described in the *Demolition* section on pg. 45 and noted in Table A of Appendix A.

To provide a worst-case analysis, all eight construction phases were modeled in CalEEMod as occurring simultaneously, using the program's default construction schedule (Appendix A pg. 44). While actual construction will be phased over a realistic 10-year period, modeling it as a single phase assumes the highest possible emissions at once, which overstates impacts compared to the more gradual, realistic timeline. Thus, the current air quality analysis presented in Appendix A overestimates impacts and, given such impacts were determined to be below relevant thresholds and less than significant, no further analysis is required.

The section *Grading* on page 45 of the updated Air Report (Appendix A) notes that an estimate of 1,270 cubic yards of export material was added to the CalEEMod model to assess the impacts associated with haul trips, worker trips, and equipment emissions. No import of soil is anticipated for the Proposed Project.

There will be no emergency generators (as detailed in Response to Comment #3) or fire pumps included in the Proposed Project, thus impacts associated with these structures do not need to be assessed. Fire pumps generally are required for high-rise buildings; as building height increases, so does the pressure required to deliver water to those floors. California Code of Regulations, Title 9 – Section 1923 states that buildings that are six stories or more in height are required to have at least one operable standpipe system. When a combination standpipe and sprinkler system is used, the regulation mandates the inclusion of fire pumps. Furthermore, California Building Code, Title 24, Part 2, Volume 1 (2022), Section 403.3.2 states that in all buildings having an occupied floor that is more than 120 feet above the lowest level of fire department vehicle access, required fire pumps shall be supplied by connections to not fewer than two water mains located in different streets. Given that none of the buildings under the Proposed Project will exceed 80 feet, or be greater than 3 stories tall, fire pumps will not be required and no analysis regarding fire pumps is necessary.

Response to Comment #14 [See Appendix C, Exhibit A, pg. 34]

The Clark & Associates comment states that, based on their CalEEMod Analysis, the emissions of VOCs will exceed the daily threshold level of significance (75 lbs/day) in 2027. However, as previously discussed, the model run prepared by Clark & Associates is not based on accurate data and is not reliable because it overestimated the square footage of new structures. Specifically, it inaccurately analyzed 357,000 square feet of new structures [Citrus College EFMP 2020-2030 Detailed Report pg. 10-11] while the Proposed Project only includes 321,828 square feet of new structures. This overestimate of the building footprint would change CalEEMod's output of VOC levels. The size of a building being constructed can be correlated

to the length or intensity of architectural coating phases, construction equipment use, worker trips, and material hauling. The larger a building is, the more VOCs will be produced during construction due to these activities. Thus, Clark & Associates' claim that the Project would result in significant emissions is not defensible based on the incorrect assumptions that form the basis of its opinion. As discussed above, the updated Air Report (Appendix A), using the correct square feet, found the emission of VOCs would remain below the SCAQMD thresholds (as further shown in Tables 6 and 7).

Response to Comment #15 [See Appendix C, Exhibit A, pgs. 35-36]

As stated in Response to Comment #6, a quantitative Health Risk Assessment (included in Section 10.4 of the Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis set forth in Appendix A) was prepared and this analysis demonstrates that the Proposed Project would not result in significant impacts associated with construction-generated toxic air contaminants (TAC) emissions. Impacts to sensitive receptors from construction generated TAC emissions were found to be below the South Coast Air Quality Management District's (SCAQMD's) threshold for cancer risk Diesel Particulate Matter (DPM) emissions, non-cancer risk DPM emissions, and asbestos emissions, as shown in Table X in Appendix A.

It was determined that the Proposed Project would not exceed the local NOx, CO, PM10, and PM2.5 thresholds of significance (see Response #5). Details on the quantitative analysis are described in detail below, as also detailed in Response to Comment #7.

A quantitative Health Risk Assessment was completed and is located in Section 10.4 of the attached Air Report (Appendix A), to support the original conclusion that Tables 4-2 and 4-3 in the Draft IS/MND Air Quality resource section show that none of the analyzed criteria pollutants would exceed the regional or local emissions thresholds during either demolition, site preparation, grading, combined building construction and architectural coatings or paving phases. The Health Risk Assessment also provided substantial evidence that diesel DPM will be beneath health-based significance thresholds.

DPM health risks from TAC are twofold: cancerous and non-cancerous. First, TAC's are carcinogens according to the State of California. The project-related cancer risk from construction-related DPM emissions is below the SCAQMD's threshold of 10 per million persons. Table X of the Air Report (Appendix A) provides a summary of the calculated DPM concentrations at the nearest sensitive receptors and associated cancer risk from DPM emissions at the nearby residences. Table X reflects that, depending on the receptor situs, the cancer risk from DPM emissions created during construction of the Proposed Project ranges from 0.3 to 6.7 per million persons at nearby residences. (Table X Proposed Project Compliance with Applicable General Plan Energy Policies, Appendix A). The project-related cancer risk from construction-related DPM emissions would be below the SCAQMD's threshold of 10 per million persons. Therefore, construction of the Proposed Project would result in a less than significant impact due to the cancer risk of DPM Emissions.

In addition to the cancer risk exposure from TAC emission, there is potentially a non-cancerous chronic health risk from TAC emissions. The criterion for significance developed by the Office of Environmental Health Hazard Assessment is a Chronic Hazard Index of 1.0 or greater. The Proposed Project would result in a Hazed Index of 0.0045. (See, pages 68-69, Appendix A). Therefore, the on-going operations of the Proposed Project would result in a less than significant impact due to the non-cancer chronic health risk from TAC emissions created by the Proposed Project.

Response to Comment #16 [See Appendix C, Exhibit A, pg. 38.]

The rerun of the air model provided in the Air Report addressed dispersion modeling. The dispersion model utilized for analyzing the TAC emissions for the Proposed Project is based on the recommended methodology described in the following sources:

- *Health Risk Assessment Guidance for Analyzing cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis* (SCAQMD HRA Guidance), prepared by SCAQMD 2003,
- *Air Toxics Hot Spots Program Risk Assessment Guidelines* (OEHHA Guidelines), prepared by Office of Environmental Health Hazard, February 2015, and
- *Risk Assessment Procedures for Rules 1401, 1401.1 and 212* (SCAQMD Risk Assessment Procedures), prepared by SCAQMD, September 1, 2017.

Important issues that affect the dispersion modeling include the following: 1) Model Selection, 2) Source Treatment, 3) Meteorological Data, and 4) Receptor Grid. Each dispersion model is located in Section 8.3 of the Air Report. The results of the dispersion models did not change the impact determinations from the air emission analysis provided in the Draft IS/MND which found a less than significant impact.

Response to Comment #17 [See Appendix C, Exhibit B, pgs. 1-2.]

The CalEEMod trip generation rate used in the Final IS/MND (1.15 trips per student) is based on the Institute of Transportation Engineers (ITE) Land Use Code 540 – Junior/Community College[22]. This is a widely recognized and standard reference for estimating vehicle trips associated with educational institutions. While there may be limitations in the underlying dataset, these limitations are inherent to all ITE land use averages and do not invalidate their use for CEQA assessments.

Furthermore, as discussed in Response to Comment #4, the VMT Memo indicates that impacts associated with transportation would be less than significant. The Project is screened out from further VMT analysis based on the OPR's Technical Advisory on Evaluating Transportation Impacts in CEQA.

The consultant's opinion presented by the commenter with regard to operational or safety problems in the Project vicinity is not relevant to vehicles miles traveled, which is the appropriate measure of transportation impacts as discussed in the 2018 OPR Technical Advisory on Evaluating Transportation Impact in CEQA. Moreover, there is no requirement in CEQA to establish a nexus between safety and VMT, nor is VMT intended as a proxy for safety concerns. Further, as discussed above and in the LOS Analysis, existing conditions were evaluated alongside projected traffic conditions for both "with" and "without" Project scenarios to determine whether the study intersections would continue to operate within acceptable LOS standards; and all intersections are expected to maintain acceptable LOS under all scenarios, no adverse impacts are anticipated for non-motorized traffic or transit services, and the Project is not expected to cause significant transportation-related safety or operational issues.

[22] Institute of Transportation Engineers. 2023. *Land Use Codes*. Available at: https://www.ite.org/ITEORG/assets/File/AA%20Published%20on%20Site/Trip%20Generation/List%20of%20Land%20Use%20Codes.pdf

As described in Response to Comment #4, the addition of 162 students (a worst-case scenario as discussed in Section 2.5 of this Final IS/MND) would generate, at most, approximately 186 daily weekday trips. This increase constitutes a minor percentage (1.4%) of the projected 2025 daily volume of 13,700 vehicles on Foothill Boulevard adjacent to the Project site, and even this reflects a worst-case assumption where all project traffic uses a single segment of the corridor. The trip estimate does not account for students that are taking online classes and do not need to be on-campus, a number which is expected to remain higher than projected in the Citrus College 2020 – 2030 EFMP as the District has increased online education, which further reduces the actual number of vehicle trips likely generated by the project. Further, the projections do not account for a decrease in enrollment at Citrus College in 2020 and 2021 and the resulting decrease in student enrollment projections as further discussed in Section 2.5 of this Final IS/MND.

Response to Comment #18 [See Appendix C, Exhibit B, pgs. 2-3.]

As detailed in Response to Comment #4, the Project qualifies for the OPR Technical Advisory's Small Project Size screening threshold, as it is expected to generate fewer than 250 daily trips. This conclusion is supported by a trip generation estimate based on worst-case assumptions and derived from both the standard ITE Trip Generation Manual and observed existing trip patterns at Citrus College. Therefore, the conclusion that the Project would have less than significant impacts on traffic remains unchanged.

In addition, as also discussed in Response to Comment #4 and detailed in the LOS Analysis (Appendix F), existing conditions, projected conditions without the Project, and projected conditions with the Project were evaluated using a quantitative LOS study, which determined that all study intersections in the Project vicinity would continue to operate within acceptable service thresholds under all scenarios. Accordingly, the Project would not result in a significant impact relating to LOS.

SECTION 7.0 – MITIGATED NEGATIVE DECLARATION

This document, along with the Draft IS/MND; Mitigation Monitoring and Reporting Program; and the Notice of Determination, constitute the Final Mitigated Negative Declaration for the Citrus College 2020-2030 Educational and Facilities Master Plan.

Pursuant to Section 21082.1 of the California Environmental Quality Act, the Citrus Community College District has independently reviewed and analyzed the Initial Study and Mitigated Negative Declaration for the Proposed Project and finds that these documents reflect the independent judgment of the District. The District, as lead agency, also confirms that the project mitigation measures detailed in these documents are feasible and will be implemented as stated in the Final IS/MND and MMRP.

_____ _____

Signature

113-113/9008693.1

APPENDIX A – AIR QUALITY, ENERGY, GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS (UPDATED)

AIR QUALITY, ENERGY, AND GREENHOUSE GAS EMISSIONS IMPACT ANALYSIS

CITRUS COLLEGE EDUCATIONAL AND FACILITIES MASTER PLAN 2020-2030 PROJECT

CITY OF GLENDORA

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Project No. 21070

September 6, 2024

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
AQMP	Air Quality Management Plan
BACT	Best Available Control Technology
BSFC	Brake Specific Fuel Consumption
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFCs	chlorofluorocarbons
Cf_4	tetrafluoromethane
C_2F_6	hexafluoroethane
CH_4	Methane
City	City of Glendora
CO	Carbon monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
DPM	Diesel particulate matter
EPA	Environmental Protection Agency
ºF	Fahrenheit
FTIP	Federal Transportation Improvement Program
GHG	Greenhouse gas
GWP	Global warming potential
HAP	Hazardous Air Pollutants
HFCs	Hydrofluorocarbons
IPCC	International Panel on Climate Change
kWhr	kilowatt-hour
LCFS	Low Carbon Fuel Standard
LST	Localized Significant Thresholds

MATES	Multiple Air Toxics Exposure Study
$MMTCO_2e$	Million metric tons of carbon dioxide equivalent
MPO	Metropolitan Planning Organization
MWh	Megawatt-hour
NAAQS	National Ambient Air Quality Standards
NO_x	Nitrogen oxides
NO_2	Nitrogen dioxide
OPR	Office of Planning and Research
Pfc	Perfluorocarbons
PM	Particle matter
PM10	Particles that are less than 10 micrometers in diameter
PM2.5	Particles that are less than 2.5 micrometers in diameter
PPM	Parts per million
PPB	Parts per billion
PPT	Parts per trillion
RSP	Renaissance Specific Plan
RTIP	Regional Transportation Improvement Plan
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
SB	Senate Bill
SBCOG	San Bernardino Council of Governments
SCAQMD	South Coast Air Quality Management District
SCAG	Southern California Association of Governments
SF_6	Sulfur Hexafluoride
SIP	State Implementation Plan
SO_x	Sulfur oxides
TAC	Toxic air contaminants
UNFCCC	United Nations' Framework Convention on Climate Change
VOC	Volatile organic compounds

1.0 INTRODUCTION

1.1 Purpose of Analysis and Study Objectives

This Air Quality, Energy, and Greenhouse Gas (GHG) Emissions Impact Analysis has been completed to determine the air quality, energy, and GHG emissions impacts associated with the proposed Citrus College Educational and Facilities Master Plan 2020-2030 project (2020-2030 EFMP or proposed project). The following is provided in this report:

- A description of the proposed project;
- A description of the atmospheric setting;
- A description of the criteria pollutants and GHGs;
- A description of the air quality regulatory framework;
- A description of the energy conservation regulatory framework;
- A description of the GHG emissions regulatory framework;
- A description of the air quality, energy, and GHG emissions thresholds including the California Environmental Quality Act (CEQA) significance thresholds;
- An analysis of the conformity of the proposed project with the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP);
- An analysis of the short-term construction related and long-term operational air quality, energy, and GHG emissions impacts; and
- An analysis of the conformity of the proposed project with all applicable energy and GHG emissions reduction plans and policies.

1.2 Site Locations and Study Area

The existing Citrus College is located on approximately 104 acres at 1000 W. Foothill Boulevard in the City of Glendora (City). Citrus College is bounded by Foothill Boulevard and residential uses to the north, Barranca Avenue and a mix of residential and commercial uses to the east, Azusa Pacific University, residential and commercial uses to the south, and Citrus Avenue and residential uses to the west.

In addition to the existing Citrus College location, the proposed project includes a 1.77 acre parcel at 1155 Foothill Boulevard that is currently occupied by a church on this property and is referred to as the Center for Excellence Site. This property is bounded by the Metro Rail Foothill Gold Line to the north, residential uses to the east, Foothill Boulevard and Citrus College to the south, and Citrus Avenue and residential uses to the west. The project local study area and surrounding uses is shown in Figure 1.

Sensitive Receptors in Project Vicinity

The nearest sensitive receptors to the project site are homes located as near as 15 feet east of the Center for Excellence site. There are also homes as near as 15 feet from the south side, 80 feet from the east side, and 90 feet from the north and west sides of the existing Citrus College site. The nearest K-12 school is Powell Elementary School, which is located as near as 1,100 feet south of the existing Citrus College site.

1.3 Proposed Project Description

The proposed project comprises of the adoption and implementation of the 2020-2030 EFMP. As of 2019 there were 13,159 full time students enrolled at Citrus College. By 2030 there is anticipated to be 13,321 full time students enrolled at Citrus College, which would result in an increase of 162 students.

Pursuant to the 2020-2030 EMP, site improvements will include connectivity of on-site parking facilities, refinement of existing and additional drop-off/pick-up zones, improved pedestrian access and wayfinding. Renovations will address programming needs for flexible and technologically advanced classrooms and laboratory technology upgrades, improvements to space efficiency and utilization of space, improvements to existing infrastructure, and sustainability improvements that will contribute to becoming a Zero Net Energy (ZNE) campus.

The proposed project also involves construction of new buildings:

- Buildings to replace existing buildings that do not meet the requirements for renovation.
- Buildings that will address the needs of Citrus College to meet the demands of its current and future students, changing population demographics, and the changing labor market as defined in the educational component of the master plan¬
- Buildings that maximize efficiency and implement a comprehensive sustainable building design
- Sustainable strategies that will contribute to becoming a ZNE campus

These new buildings include: 1) Conference Center, 2) Student Union/Dining Hall, 3) Career Technical Education Building, 4) Classroom Building / Veterans Resource Center, 5) STEM/Science Building, 6) Library/Learning Resources Center, and 7) Kinesiology Building. Additional construction may include solar photovoltaic parking canopies associated with the construction of the new buildings.

The site plan for the 2020-2030 EFMP planning process, is shown in Figure 2, Citrus College 2020-2030 Educational and Facilities Master Plan. This site plan includes new construction, building renovations and site development projects identified in the educational component of the EFMP. Outlined below is a list of Minor, Moderate, and Major Renovation/Replacement needs (projects) for existing campus buildings as provided in the EFMP.

Minor Renovation

The following buildings/facilities were constructed and/or modernized more recently and are thus in need of only minor renovations to bring them up to current code requirements, to address items identified in the college's Americans with Disabilities Act (ADA) Transition Plan, to address technology and utilities infrastructure upgrades, to enhance functionality, and to improve efficiency for serving students, staff and visitors:

VA - Visual Arts

CI - Center for Innovation

MA - Math/Science

RG - Reprographics

FH - Field House

GH - Gate House

SS - Student Services

IC - Integrated Success Center

CS - Campus Safety

AD- Administration

Moderate Renovation

The buildings/facilities listed below are in need of moderate renovations to address the following items:

- Facilities need to be brought up to current code compliance
- Improvements are needed to address building security
- The quantity and infrastructure of restrooms do not support current building capacities
- Technology improvements are needed to support current needs, adapt to future needs, and to remain flexible and adaptable to future technological changes
- Buildings need a more cohesive relationship to their surroundings
- Improvements are needed for accessibility and to meet current standards
- Moderate renovations are needed to address items in Citrus College's ADA Transition Plan
- Moderate enhancements are needed to address functionality and to meet programmatic needs

NR/SR - North and South Stadium Restrooms

RA - Recording Arts

VT - Video Technology

TD/TE - Technician Development/Technology Engineering

Athletic Facilities

CP - Central Plant

Major Renovation / Replacement

The buildings/facilities listed below are in need of major renovations or replacement to address the following items:

- Improvements are needed to address building security
- Building construction makes it difficult and costly to renovate for better space utilization and to achieve energy efficiency
- Evidence of substantial structural slab cracking with areas of exposed rebar
- Restrooms are not to current code compliance
- Requires ADA upgrades
- Roofing needs replacement
- Existing facilities are qualified with a high Facilities Condition Index (FCI)
- Classrooms have outdated lighting and internal environment is void of natural light
- Lab equipment and stations do not meet accessibility quantities and requirements
- Air handling units have reached the end of their useful life and are past due for replacement
- Current physical conditions of facilities inhibit the ability for technological implementation and flexibility

- Better efficiency of space utilization to adapt to programmatic needs

  PE - Physical Education Gym

  DT1 - Diesel Technology 1

  DT2 - Diesel Technology 2

  PC - Professional Center

  PS - Physical Science

  LH - Lecture Hall

  LS - Life Science

  LB - Liberal Arts/Business

  AA - Automotive Annex

  TC - Technology Center

  PA - Performing Arts

  LI – Library

  BK - Bookstore

  CC (lower level) - Dining Room and Kitchen

  IS - Information Systems

  MO & WA - Maintenance & Warehouse

Major Capital Projects / Proposed New Building Construction

The following is an overview of the EFMP'S major capital projects / proposed new building construction: 1) Conference Center, 2) Student Union/Dining Hall, 3) Career Technical Education Building, 4) Classroom Building / Veterans Resource Center, 5) STEM/Science Building, 6) Library/Learning Resources Center, and 7) Kinesiology Building. Additional construction may include solar photovoltaic parking canopies associated with the construction of the new buildings.

Center for Excellence - Conference Center

The recommendation for the off-site facility is to build a modern, technology-enhanced conference center which would be available for Citrus College and the community. The prime location of this facility renders a great opportunity for college use as well as a venue for broader organizational use. Additionally, the facility's proximity to the Metro Gold Line station makes it ideally accessible to the greater community. The Project site for the proposed conference center is approximately 1.77 acres and is north of Foothill Boulevard and east of Citrus Avenue. The new two-story conference center will be 40,000 sq. ft. The existing 10,000 sq. ft. church will be demolished as will the existing parking lot be removed and reconfigured.

Student Union / Dining Hall

A new Student Union / Dining Hall facility will be 26,576 sq. ft. and is proposed to be constructed at the location of the existing bookstore. The student union will absorb the kitchen and dining hall services from the lower level of the Campus Center and bring those services up to the same level as the campus quad.

This new facility will extend into the central quad and provide options for indoor and outdoor dining. This facility will serve as a space for student gathering and informal collaboration and should be accessible to everyone on campus. The lower level of the Campus Center will be modernized for Information Services, allowing the college's Technology and Computing Services (TeCS) area to be housed in the lower level of the Campus Center, near the college's fiber-optic hub. The buildings to be replaced in conjunction with this recommendation are the existing Bookstore and Information Systems.

Career Technical Education Building (CTE)

A new 79,762 sq. ft. CTE building will be constructed adjacent to the existing Technician Development (TD) and Technology Engineering (TE) buildings. The new CTE building replaces similar outdated structures, allowing for the sharing of instructional support spaces while also providing specialty spaces to support new and existing CTE programs. Data collected from the educational component of the EFMP projects significant growth in the CTE programs. Classroom and lab spaces will be expanded and designed to accommodate future programmatic needs and educational technologies. The buildings to be removed in conjunction with the construction of this building are PC, TC, AA, DT1, DT2 Site, and Portable 3 (P3)

Classroom Building and Veterans Resource Center

A new instructional building (classroom building) will function as an interdisciplinary facility that will provide flexibility for advanced teaching methodologies. The building will be approximately 44,000 sq. ft and would be designed to accommodate technological learning environments that meet expanded classroom needs including highly-flexible spaces to accommodate future programmatic needs and educational technologies for interactive teaching and learning facilities. To optimize access and provide a central location for a new Veterans Success Center, the location of the building should be adjacent to the Educational Development Center (ED) building on the west side of campus. This will provide greater balance and distribution of academic elements to the central campus core. The new facility will have an additional area designated for a Veterans Success Center with private access and separate support spaces. The buildings to be replaced in conjunction with the construction of this building are: Liberal Arts (LB), Information Systems (IS), Integrated Success Center (IC), North Bungalow (NB) and South Bungalow (SB).

STEM / Science Building

A new 58,000 sq. ft. STEM / Science building will provide multiple upgrades for all science and related disciplinary programs. Classrooms, labs, and interactive teaching and learning spaces will be expanded to meet present and future needs of growing programs. Located near the existing Math / Science Building and Center for Innovation, this building cluster will increase Citrus College's ability to remain competitive, enhance student enrollment, and attract new students. New café facilities will also be considered in relation to this new building design, to accommodate students, faculty and staff that are primarily located at this eastern-most end of the campus.

The buildings to be replaced in conjunction with this recommendation are LS, LH and PS Facility Removal: The Professional Center (PC) and Technology Center (TC) and Portable 1 (PT1) are in the footprint of the building and will be removed. After construction, Physical Science (PS), Lecture Hall (LH), Life Science (LS) and Earth Science (ES) will move into this building, the existing buildings will be obsolete and will be removed following the completion of the STEM building will also be removed to prepare for construction of Kinesiology Building.

Library / Learning Resource Center

The new 56,000 sq. ft. Library / Learning Resource Center redefines a traditional library by providing less space for physical books and more space for technological resources and is shown in Figure 1.3, Citrus College 2020-2030 Educational and Facilities Master Plan. The new Library building will improve the efficiency and utilization of space, provide technologically advanced resources, and enhance learning environments conducive to all methods of learning. These newly designed educational spaces will incorporate technology, accommodate flexible and collaborative learning spaces for small and large groups and include areas for individual study. The existing library building will be replaced with this new Library / Learning Resource Center and the existing on grade parking will be demolished as well.

Kinesiology Building

A new 65,000 sq. ft. Kinesiology building will be adjacent to the existing gym facility and physical education buildings. The new Kinesiology building will enhance the college's existing athletic programs and provide an opportunity to grow competitive sports teams as well as the academic programs. It is recommended that the new facility include universally accessible gym facilities and equipment, as well as classrooms and offices for instructional use.

The buildings to be replaced in conjunction with this recommendation are AP, AQ and PE. The Tennis Complex (TN), Adaptive Physical Education (AP), and Aquatic Center (AQ) are in the footprint of the new building and will be removed as well.

Minor Capital Projects

The following is an overview of the EFMP'S Minor Capital Projects, or proposed site improvements. There are several opportunities to reinforce the campus image and provide a cohesive and memorable experience for all students, faculty, staff and visitors. A number of site improvement projects are recommended to enrich the campus identity and enhance the overall campus community environment. These recommendations are listed below:

- Drop-Off / Pick-Up Zones transforms the way buildings interface with adjacent parking lots as entry plazas from the drop-off / pick-up zones and visitor arrival areas at these locations.
- High Monument Signage enhances existing high monument signage to emphasize the primary campus point-of-entry and reinforce branding and college identity.
- Low Monument Signage / Marquee updates the existing marquee to better represent Citrus College with its location at the primary entrance to the college. Repeat a variation of the high monument sign at multiple locations along the street frontage identifying entrances to buildings and parking lot locations.
- Campus Gateway enhances this area of the campus as a primary drop-off / pick-up area and threshold to the college.
- Promenade improves pedestrian circulation paths with paving, sustainable landscaping, signage and lighting.
- Central Quad strengthens the campus core and sense of community with a redefined and reimagined central quad. Activated by student-oriented spaces on each end with major pedestrian pathways connecting to all areas of the campus, the central quad becomes the "heart of the campus."

- East Quad enhances the east quad to support a variety of activities including informal study spaces, career fairs, ceremonies, and special events. Additionally, functions in adjacent buildings can extend out into the east quad.
- Veterans Plaza creates a Veterans Plaza as an outdoor extension of the Veterans Success Center and strengthens the sense of community amongst the Veteran group and with the rest of the college.
- Library / Learning Resource Center Plaza creates a Learning Resource Center Plaza to provide a collaborative outdoor space for students to gather and learn. Adjacent areas to this facility will enhance the use of outdoor space for studying and social interaction.
- Tree Grove will provide similar planted tree species along major arterial paths to add identity and enhance the campus image.
- Fountain Plaza enhances the central quad and create a link between outdoor space and the new Student Union/Dining Hall Facility by renovating the existing Owl fountain and bringing it into compliance with current water usage standards

Proposed Circulation and Parking

The proposed circulation plan enhances vehicular and pedestrian circulation by creating new paths of travel from multiple points of entry to designated drop-off/pick-up zones. The proposed plan links the two existing student parking lots to the south of the central quad with a new road running between the softball fields and golf driving range. The new road will allow drivers to navigate through campus without needing to leave the campus to get to their desired destination. The proposed road is also the route to the proposed new drop-off/pick-up zones. There are currently 3,321 parking spaces and the proposed project would increase the number of parking spaces to 3,350 spaces, which would result in an increase of 29 parking spaces. It is anticipated that implementation of the proposed project would result in the installation of up to 5 acres of new pavement area for the new paths of travel and parking spaces.

Projected Space Needs and Demolition

Table A, Projected Space Needs and Demolition compares Citrus College's existing space, proposed modifications, improvements, and space re-alignment, in order to project future space needs. The methodology used for these projections was based upon the estimated overall annual growth rate of 0.49% for Citrus College. The facilities improvements recommended will minimally increase the total campus gross square feet (GSF) by less than 1%, or approximately 4,924 GSF. However, the proposed recommendations will increase assignable square feet (ASF) by 3.5%, or approximately 17,812 ASF by better utilization of space design. The proposed removal and replacement of older buildings will significantly improve the efficiency and flexibility of the college's instructional spaces.

Table A – Projected Space Needs and Demolition

Type of Space[1]	2019	Planned Demolition	Planned New	Difference	Projected 2030
GSF	759,786	(316,904)	321,828	4,924	764,710
ASF	501,306	(218,288)	236,100	17,812	519,118

Notes:
[1] GSF = Gross Square Feet; ASF = Assignable Square Feet.

Planned Development Schedule

As shown in Table B, Buildout of all of the projects will occur in eight development phases. Phase 1, campus-wide improvements will begin in Fall of 2022. Phase 2 (Conference Center) is anticipated to begin in Winter 2023. Standard construction hours would be 7:00 am to 7:00 pm Monday through Friday. If it is necessary to occasionally conduct construction activities on Saturdays, construction activities will start at 9:00 am.

Table B – Planned Development Phases

Development Phase	Building / Use
1. 2022 – 2031	Campus Wide Improvements
2. 2023 – 2025	Center for Excellence
3. 2024 – 2025	Campus Center and Dining Hall
4. 2025 – 2027	Career Technical Education
5. 2027 – 2029	Classroom Building/Veteran's Resource Center
6. 2028 – 2030	STEM
7. 2029 – 2031	Library / Learning Resource Center *
8. 2030 - 2032	Kinesiology *

Notes:
* The Library / Learning Resource Center and Kinesiology Building may be initiated / completed as District funding becomes available.

1.4 Executive Summary

Standard Air Quality, Energy, and GHG Regulatory Conditions

The proposed project will be required to comply with the following regulatory conditions from the SCAQMD and State of California (State).

South Coast Air Quality Management District Rules

The following lists the SCAQMD rules that are applicable, but not limited to the proposed project.

- Rule 402 Nuisance – Controls the emissions of odors and other air contaminants;
- Rule 403 Fugitive Dust – Controls the emissions of fugitive dust;
- Rules 1108 and 1108.1 Cutback and Emulsified Asphalt – Controls the VOC content in asphalt;
- Rule 1113 Architectural Coatings – Controls the VOC content in paints and solvents;
- Rule 1143 Paint Thinners – Controls the VOC content in paint thinners; and
- Rule 1403 Asbestos Removal – Provides procedures for asbestos removal from buildings.

State of California Rules

The following lists the State of California Code of Regulations (CCR) air quality emission rules that are applicable, but not limited to the proposed project.

- CCR Title 13, Article 4.8, Chapter 9, Section 2449 – In use Off-Road Diesel Vehicles;
- CCR Title 13, Section 2025 – On-Road Diesel Truck Fleets;

- CCR Title 24 Part 6 – California Building Energy Standards; and
- CCR Title 24 Part 11 – California Green Building Standards.

Summary of Analysis Results

The following is a summary of the proposed project's impacts with regard to the State CEQA Guidelines air quality, energy, and GHG emissions checklist questions.

Conflict with or obstruct implementation of the applicable air quality plan?

Less than significant impact.

Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?

Less than significant impact.

Expose sensitive receptors to substantial pollutant concentrations?

Less than significant impact.

Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than significant impact.

Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;

Less than significant impact.

Conflict with or obstruct a state or local plan for renewable energy;

Less than significant impact.

Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than significant impact.

Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs?

Less than significant impact.

1.5 Mitigation Measures for the Proposed Project

This analysis found that implementation of the State and SCAQMD air quality, energy, and GHG emissions reductions regulations were adequate to limit criteria pollutants, toxic air contaminants, odors, and GHG emissions from the proposed project to less than significant levels. No mitigation measures are required for the proposed project with respect to air quality, energy, and GHG emissions.



SOURCE: Google Maps.

VISTA ENVIRONMENTAL

Figure 1
Project Local Study Area



SOURCE: Chambers Group.

VISTA ENVIRONMENTAL

Figure 2
Proposed Site Plan

2.0 AIR POLLUTANTS

Air pollutants are generally classified as either criteria pollutants or non-criteria pollutants. Federal ambient air quality standards have been established for criteria pollutants, whereas no ambient standards have been established for non-criteria pollutants. For some criteria pollutants, separate standards have been set for different periods. Most standards have been set to protect public health. For some pollutants, standards have been based on other values (such as protection of crops, protection of materials, or avoidance of nuisance conditions). A summary of federal and state ambient air quality standards is provided in the Regulatory Framework section.

2.1 Criteria Pollutants and Ozone Precursors

The criteria pollutants consist of: ozone, nitrogen oxides (NOx), CO, sulfur oxides (SOx), lead, and particulate matter (PM). The ozone precursors consist of NO_x and VOC. These pollutants can harm your health and the environment, and cause property damage. The Environmental Protection Agency (EPA) calls these pollutants "criteria" air pollutants because it regulates them by developing human health-based and/or environmentally-based criteria for setting permissible levels. The following provides descriptions of each of the criteria pollutants and ozone precursors.

Nitrogen Oxides

NOx is the generic term for a group of highly reactive gases which contain nitrogen and oxygen. While most NOx are colorless and odorless, concentrations of nitrogen dioxide (NO_2) can often be seen as a reddish-brown layer over many urban areas. NOx form when fuel is burned at high temperatures, as in a combustion process. The primary manmade sources of NO_x are motor vehicles, electric utilities, and other industrial, commercial, and residential sources that burn fuel. NOx reacts with other pollutants to form, ground-level ozone, nitrate particles, acid aerosols, as well as NO_2, which cause respiratory problems. NO_x and the pollutants formed from NO_x can be transported over long distances, following the patterns of prevailing winds. Therefore, controlling NOx is often most effective if done from a regional perspective, rather than focusing on the nearest sources.

Ozone

Ozone is not usually emitted directly into the air, instead it is created by a chemical reaction between NOx and VOC in the presence of sunlight. Motor vehicle exhaust, industrial emissions, gasoline vapors, chemical solvents as well as natural sources emit NOx and VOC that help form ozone. Ground-level ozone is the primary constituent of smog. Sunlight and hot weather cause ground-level ozone to form with the greatest concentrations usually occurring downwind from urban areas. Ozone is subsequently considered a regional pollutant. Ground-level ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and can cause substantial damage to vegetation and other materials. Because NOx and VOC are ozone precursors, the health effects associated with ozone are also indirect health effects associated with significant levels of NOx and VOC emissions.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless gas that is formed when carbon in fuel is not burned completely. It is a component of motor vehicle exhaust, which contributes approximately 56 percent of all CO emissions nationwide. In cities, 85 to 95 percent of all CO emissions may come from motor vehicle exhaust. Other sources of CO emissions include industrial processes (such as metals processing and chemical manufacturing), residential wood burning, and natural sources such as forest fires. Woodstoves,

gas stoves, cigarette smoke, and unvented gas and kerosene space heaters are indoor sources of CO. The highest levels of CO in the outside air typically occur during the colder months of the year when inversion conditions are more frequent. The air pollution becomes trapped near the ground beneath a layer of warm air. CO is described as having only a local influence because it dissipates quickly. Since CO concentrations are strongly associated with motor vehicle emissions, high CO concentrations generally occur in the immediate vicinity of roadways with high traffic volumes and traffic congestion, active parking lots, and in automobile tunnels. Areas adjacent to heavily traveled and congested intersections are particularly susceptible to high CO concentrations.

CO is a public health concern because it combines readily with hemoglobin and thus reduces the amount of oxygen transported in the bloodstream. The health threat from lower levels of CO is most serious for those who suffer from heart disease such as angina, clogged arteries, or congestive heart failure. For a person with heart disease, a single exposure to CO at low levels may cause chest pain and reduce that person's ability to exercise; repeated exposures may contribute to other cardiovascular effects. High levels of CO can affect even healthy people. People who breathe high levels of CO can develop vision problems, reduced ability to work or learn, reduced manual dexterity, and difficulty performing complex tasks. At extremely high levels, CO is poisonous and can cause death.

Sulfur Oxides

SOx gases are formed when fuel containing sulfur, such as coal and oil is burned, as well as from the refining of gasoline. SOx dissolves easily in water vapor to form acid and interacts with other gases and particles in the air to form sulfates and other products that can be harmful to people and the environment.

Lead

Lead is a metal found naturally in the environment as well as manufactured products. The major sources of lead emissions have historically been motor vehicles and industrial sources. Due to the phase out of leaded gasoline, metal processing is now the primary source of lead emissions to the air. High levels of lead in the air are typically only found near lead smelters, waste incinerators, utilities, and lead-acid battery manufacturers. Exposure of fetuses, infants and children to low levels of lead can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased lead levels are associated with increased blood pressure.

Particulate Matter

PM is the term for a mixture of solid particles and liquid droplets found in the air. PM is made up of a number of components including acids (such as nitrates and sulfates), organic chemicals, metals, and soil or dust particles. The size of particles is directly linked to their potential for causing health problems. Particles that are less than 10 micrometers in diameter (PM10) that are also known as *Respirable Particulate Matter* are the particles that generally pass through the throat and nose and enter the lungs. Once inhaled, these particles can affect the heart and lungs and cause serious health effects. Particles that are less than 2.5 micrometers in diameter (PM2.5) that are also known as *Fine Particulate Matter* have been designated as a subset of PM10 due to their increased negative health impacts and its ability to remain suspended in the air longer and travel further.

Volatile Organic Compounds

Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of ozone are referred to and regulated as VOCs (also

referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the sources of hydrocarbons. Other sources of hydrocarbons include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

VOC is not classified as a criteria pollutant, since VOCs by themselves are not a known source of adverse health effects. The primary health effects of VOCs result from the formation of ozone and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic forms of hydrocarbons, such as benzene, are considered TACs. There are no separate health standards for VOCs as a group.

2.2 Other Pollutants of Concern

Toxic Air Contaminants

In addition to the above-listed criteria pollutants, TACs are another group of pollutants of concern. TACs is a term that is defined under the California Clean Air Act and consists of the same substances that are defined as Hazardous Air Pollutants (HAPs) in the Federal Clean Air Act. There are over 700 hundred different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Cars and trucks release at least 40 different toxic air contaminants. The most important of these TACs, in terms of health risk, are diesel particulates, benzene, formaldehyde, 1,3-butadiene, and acetaldehyde. Public exposure to TACs can result from emissions from normal operations as well as from accidental releases. Health effects of TACs include cancer, birth defects, neurological damage, and death.

TACs are less pervasive in the urban atmosphere than criteria air pollutants, however they are linked to short-term (acute) or long-term (chronic or carcinogenic) adverse human health effects. There are hundreds of different types of TACs with varying degrees of toxicity. Sources of TACs include industrial processes, commercial operations (e.g., gasoline stations and dry cleaners), and motor vehicle exhaust.

According to *The California Almanac of Emissions and Air Quality 2013 Edition*, the majority of the estimated health risk from TACs can be attributed to relatively few compounds, the most important of which is DPM. DPM is a subset of PM2.5 because the size of diesel particles are typically 2.5 microns and smaller. The identification of DPM as a TAC in 1998 led the California Air Resources Board (CARB) to adopt the Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-fueled Engines and Vehicles in September 2000. The plan's goals are a 75-percent reduction in DPM by 2010 and an 85-percent reduction by 2020 from the 2000 baseline. Diesel engines emit a complex mixture of air pollutants, composed of gaseous and solid material. The visible emissions in diesel exhaust are known as particulate matter or PM, which includes carbon particles or "soot." Diesel exhaust also contains a variety of harmful gases and over 40 other cancer-causing substances. California's identification of DPM as a toxic air contaminant was based on its potential to cause cancer, premature deaths, and other health problems. Exposure to DPM is a health hazard, particularly to children whose lungs are still developing and the elderly who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's potential airborne cancer risk from combustion sources.

Asbestos

Asbestos is listed as a TAC by CARB and as a HAP by the EPA. Asbestos occurs naturally in mineral formations and crushing or breaking these rocks, through construction or other means, can release

asbestiform fibers into the air. Asbestos emissions can result from the sale or use of asbestos-containing materials, road surfacing with such materials, grading activities, and surface mining. The risk of disease is dependent upon the intensity and duration of exposure. When inhaled, asbestos fibers may remain in the lungs and with time may be linked to such diseases as asbestosis, lung cancer, and mesothelioma. The nearest likely locations of naturally occurring asbestos, as identified in the *General Location Guide for Ultramafic Rocks in California*, prepared by the California Division of Mines and Geology, is located in Santa Barbara County. The nearest historic asbestos mine to the project site, as identified in the *Reported Historic Asbestos Mines, Historic Asbestos Prospects, and Other Natural Occurrences of Asbestos in California,* prepared by U.S. Geological Survey, is located at Asbestos Mountain, which is approximately 85 miles southeast of the project site in the San Jacinto Mountains. Due to the distance to the nearest natural occurrences of asbestos, the project site is not likely to contain asbestos.

In addition to naturally occurring asbestos, asbestos was used extensively in building construction from the early 1940s through the 1970s as highly-effective and inexpensive fire-retardant material and thermal and acoustic insulator. Asbestos is most commonly found as thermal insulation on pipes, but also may be found in certain types of floor and ceiling tiles. There are two types of asbestos: “friable” and "non-friable.” Friable asbestos generally contains more than one percent asbestos by weight or area, and can be crumbled, pulverized, or reduced to powder by the pressure of an ordinary human hand, which releases fibers. Non friable asbestos generally contains more than one percent asbestos but cannot be pulverized under hand pressure and generally does not release asbestos fibers. The analysis of asbestos from demolition of the existing structures is provided below in Section 10.4.

3.0 GREENHOUSE GASES

3.1 Greenhouse Gases

Constituent gases of the Earth's atmosphere, called atmospheric GHGs, play a critical role in the Earth's radiation amount by trapping infrared radiation from the Earth's surface, which otherwise would have escaped to space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone, water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). This phenomenon, known as the Greenhouse Effect, is responsible for maintaining a habitable climate. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the Greenhouse Effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change. Emissions of gases that induce global warming are attributable to human activities associated with industrial/manufacturing, agriculture, utilities, transportation, and residential land uses. Emissions of CO_2 and N_2O are byproducts of fossil fuel combustion. Methane, a potent greenhouse gas, results from off-gassing associated with agricultural practices and landfills. Sinks of CO_2, where CO_2 is stored outside of the atmosphere, include uptake by vegetation and dissolution into the ocean. The following provides a description of each of the greenhouse gases and their global warming potential.

Water Vapor

Water vapor is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to "hold" more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is unknown as there is also dynamics that put the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually also condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the Earth's surface and heat it up).

Carbon Dioxide

The natural production and absorption of CO_2 is achieved through the terrestrial biosphere and the ocean. However, humankind has altered the natural carbon cycle by burning coal, oil, natural gas, and wood. Since the industrial revolution began in the mid-1700s, each of these activities has increased in scale and distribution. CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration with the first conclusive measurements being made in the last half of the 20th century. Prior to the industrial revolution, concentrations were fairly stable at 280 parts per million (ppm). The International Panel on Climate Change (IPCC) indicates that concentrations were 379 ppm in 2005, an increase of more than 30 percent. Left unchecked, the IPCC projects that concentration of carbon dioxide in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources. This

could result in an average global temperature rise of at least two degrees Celsius or 3.6 degrees Fahrenheit.

Methane

CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than that of CO_2. Its lifetime in the atmosphere is brief (10 to 12 years), compared to some other GHGs (such as CO_2, N_2O, and CFCs). CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of methane. Other anthropocentric sources include fossil-fuel combustion and biomass burning.

Nitrous Oxide

Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration of this GHG was documented at 314 parts per billion (ppb). N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. N_2O is also commonly used as an aerosol spray propellant (i.e., in whipped cream bottles, in potato chip bags to keep chips fresh, and in rocket engines and race cars).

Chlorofluorocarbons

CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the Earth's surface). CFCs have no natural source, but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and in 1989 the European Community agreed to ban CFCs by 2000 and subsequent treaties banned CFCs worldwide by 2010. This effort was extremely successful, and the levels of the major CFCs are now remaining level or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.

Hydrofluorocarbons

Hydrofluorocarbons (HFCs) are synthetic man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential. The HFCs with the largest measured atmospheric abundances are (in order), HFC-23 (CHF_3), HFC-134a (CF_3CH_2F), and HFC-152a (CH_3CHF_2). Prior to 1990, the only significant emissions were HFC-23. HFC-134a use is increasing due to its use as a refrigerant. Concentrations of HFC-23 and HFC-134a in the atmosphere are now about 10 parts per trillion (ppt) each. Concentrations of HFC-152a are about 1 ppt. HFCs are manmade for applications such as automobile air conditioners and refrigerants.

Perfluorocarbons

Perfluorocarbons (PFCs) have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. High-energy ultraviolet rays about 60 kilometers above Earth's surface are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6).

Concentrations of CF_4 in the atmosphere are over 70 ppt. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing.

Sulfur Hexafluoride

Sulfur Hexafluoride (SF_6) is an inorganic, odorless, colorless, nontoxic, nonflammable gas. SF_6 has the highest global warming potential of any gas evaluated; 23,900 times that of CO_2. Concentrations in the 1990s were about 4 ppt. Sulfur hexafluoride is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Aerosols

Aerosols are particles emitted into the air through burning biomass (plant material) and fossil fuels. Aerosols can warm the atmosphere by absorbing and emitting heat and can cool the atmosphere by reflecting light. Cloud formation can also be affected by aerosols. Sulfate aerosols are emitted when fuel containing sulfur is burned. Black carbon (or soot) is emitted during biomass burning due to the incomplete combustion of fossil fuels. Particulate matter regulation has been lowering aerosol concentrations in the United States; however, global concentrations are likely increasing.

3.2 Global Warming Potential

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere; it is the cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to the reference gas, CO_2. The GHGs listed by the IPCC and the CEQA Guidelines are discussed in this section in order of abundance in the atmosphere. Water vapor, the most abundant GHG, is not included in this list because its natural concentrations and fluctuations far outweigh its anthropogenic (human-made) sources. To simplify reporting and analysis, GHGs are commonly defined in terms of their GWP. The IPCC defines the GWP of various GHG emissions on a normalized scale that recasts all GHG emissions in terms of CO_2 equivalent (CO_2e). As such, the GWP of CO_2 is equal to 1. The GWP values used in this analysis are based on the 2007 IPCC Fourth Assessment Report, which are used in the CalEEMod Model Version 2022.1 and are detailed in Table C. The IPCC has updated the Global Warming Potentials of some gases in their Sixth Assessment Report, however the new values have not yet been incorporated into the CalEEMod model that has been utilized in this analysis.

Table C – Global Warming Potentials, Atmospheric Lifetimes and Abundances of GHGs

Gas	Atmospheric Lifetime (years)[1]	Global Warming Potential (100 Year Horizon)[2]	Atmospheric Abundance
Carbon Dioxide (CO_2)	50-200	1	379 ppm
Methane (CH_4)	9-15	25	1,774 ppb
Nitrous Oxide (N_2O)	114	298	319 ppb
HFC-23	270	14,800	18 ppt
HFC-134a	14	1,430	35 ppt
HFC-152a	1.4	124	3.9 ppt
PFC: Tetrafluoromethane (CF_4)	50,000	7,390	74 ppt
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200	2.9 ppt
Sulfur Hexafluoride (SF_6)	3,200	22,800	5.6 ppt

Notes:
[1] Defined as the half-life of the gas.

[2] Compared to the same quantity of CO_2 emissions and is based on the Intergovernmental Panel On Climate Change (IPCC) 2007 standard, which is utilized in CalEEMod (Version 2022.1),that is used in this report (CalEEMod User Guide, April 2022).
Definitions: ppm = parts per million; ppb = parts per billion; ppt = parts per trillion
Source: IPCC 2007, EPA 2015

3.3 Greenhouse Gas Emissions Inventory

According to the Carbon Dioxide Information Analysis Center[1], 9,855 million metric tons (MMT) of CO_2e emissions were created globally in the year 2014. According to the Environmental Protection Agency (EPA), the breakdown of global GHG emissions by sector consists of: 25 percent from electricity and heat production; 21 percent from industry; 24 percent from agriculture, forestry and other land use activities; 14 percent from transportation; 6 percent from building energy use; and 10 percent from all other sources of energy use[2].

According to *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2021,* prepared by EPA, April 2023, total U.S. GHG emissions in the year 2021 were 6,340.2 $MMTCO_2e$. Total U.S. emissions have decreased by 2.3 percent between 1990 and 2021, which is down from a high of 15.8 percent above 1990 levels in 2007. Emissions increased from 2020 to 2021 by 5.2 percent. There was a decline in 2020 emission due to the impacts of the COVID-19 pandemic on travel and other economic activity. Between 2020 and 2021, the increase in GHG emissions were driven largely by an increase in fossil fuel combustion due to economic activity rebounding after the height of the COVID-19 pandemic.

According to *California Greenhouse Gas Emissions for 2000 to 2021 Trends of Emissions and Other Indicators*, prepared by the CARB, December 14, 2023, the State of California created 381.3 $MMTCO_2e$ in 2021. The 2021 emissions were 12.6 $MMTCO_2e$ higher than 2020 but 23.1 $MMTCO_2e$ lower than 2019 levels. Both the 2019 to 2020 decrease and the 2020 to 2021 increase in emissions are likely due in part to the impacts of the COVID-19 pandemic that were felt globally. The transportation sector showed the largest increase in emissions of 10 $MMTCO_2e$ (7.4 percent) compared to 2020, which is most likely from passenger vehicles whose activity and emissions rebounded after COVID-19 shelter in place orders were lifted.

1 Obtained from: https://cdiac.ess-dive.lbl.gov/trends/emis/tre_glob_2014.html
2 Obtained from: https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data

4.0 AIR QUALITY MANAGEMENT

The project site is located within the South Coast Air Basin (Air Basin). The air quality at the project site is addressed through the efforts of various international, federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for improving the air quality are discussed below.

4.1 Federal – United States Environmental Protection Agency

The Clean Air Act, first passed in 1963 with major amendments in 1970, 1977 and 1990, is the overarching legislation covering regulation of air pollution in the United States. The Clean Air Act has established the mandate for requiring regulation of both mobile and stationary sources of air pollution at the state and federal level. The EPA was created in 1970 in order to consolidate research, monitoring, standard-setting and enforcement authority into a single agency.

The EPA is responsible for setting and enforcing the National Ambient Air Quality Standards (NAAQS) for atmospheric pollutants. It regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain locomotives. NAAQS pollutants were identified using medical evidence and are shown below in Table D.

Table D – State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone	0.09 ppm / 1-hour 0.07 ppm / 8-hour	0.070 ppm, / 8-hour	(a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage.
Carbon Monoxide (CO)	20.0 ppm / 1-hour 9.0 ppm / 8-hour	35.0 ppm / 1-hour 9.0 ppm / 8-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses.
Nitrogen Dioxide (NO_2)	0.18 ppm / 1-hour 0.030 ppm / annual	100 ppb / 1-hour 0.053 ppm / annual	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
Sulfur Dioxide (SO_2)	0.25 ppm / 1-hour 0.04 ppm / 24-hour	75 ppb / 1-hour 0.14 ppm/annual	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
Suspended Particulate	50 µg/m^3 / 24-hour 20 µg/m^3 / annual	150 µg/m^3 / 24-hour	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Matter (PM_{10})			pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in elderly.
Suspended Particulate Matter ($PM_{2.5}$)	12 µg/m^3 / annual	35 µg/m^3 / 24-hour 12 µg/m^3 / annual	
Sulfates	25 µg/m^3 / 24-hour	No Federal Standards	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; and (f) Property damage.
Lead	1.5 µg/m^3 / 30-day	0.15 µg/m^3 /3-month rolling	(a) Learning disabilities; and (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

Source: http://www.arb.ca.gov/research/aaqs/aaqs2.pdf .

As part of its enforcement responsibilities, the EPA requires each state with federal nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the national standards. The SIP must integrate federal, state, and local components and regulations to identify specific measures to reduce pollution, using a combination of performance standards and market-based programs within the timeframe identified in the SIP. The CARB defines attainment as the category given to an area with no violations in the past three years. As indicated below in Table E, the Air Basin has been designated by EPA for the national standards as a non-attainment area for ozone and PM2.5 and partial non-attainment for lead. Currently, the Air Basin is in attainment with the national ambient air quality standards for CO, PM10, SO_2, and NO_2.

Table E – National Air Quality Standards Attainment Status – South Coast Air Basin

Criteria Pollutant	Averaging Time	Designation[a]	Attainment Date[b]
Ozone	1979 1-Hour (0.12 ppm)	Nonattainment (Extreme)	2/6/2023 (revised deadline)
	2015 8-Hour (0.07 ppm)[d]	Nonattainment (Extreme)	8/3/2038
	2008 8-Hour (0.075 ppm)[d]	Nonattainment (Extreme)	7/20/2032
	1997 8-Hour (0.08 ppm)[d]	Nonattainment (Extreme)	6/15/2024
PM2.5[e]	2006 24-Hour (35 µg/m^3)	Nonattainment (Serious)	12/31/2019
	2012 Annual (12 µg/m^3)	Nonattainment (Serious)	12/31/2021
	1997 Annual (15 µg/m^3)	Attainment (final determination pending)	4/5/2015 (attained 2013)
PM10[f]	1987 24-Hour (150 µg/m^3)	Attainment (Maintenance)	7/26/2013 (attained)

Criteria Pollutant	Averaging Time	Designation[a]	Attainment Date[b]
Lead[g]	2008 3-Months Rolling (0.15 µg/m^3)	Nonattainment (Partial) (Attainment determination requested)	12/31/2015
CO	1971 1-Hour (35 ppm)	Attainment (Maintenance)	6/11/2007
	1971 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007
NO_2[h]	2010 1-Hour (100 ppb)	Unclassifiable/Attainment	N/A (attained)
	1971 Annual (0.053 ppm)	Attainment (Maintenance)	9/22/1998 (attained)
SO_2[i]	2010 1-Hour (75 ppb)	Unclassifiable/Attainment	1/9/2018
	1971 24-Hour (0.14 ppm)	Unclassifiable/Attainment	3/19/1979

Source: SCAQMD, 2022

Notes:

a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable.

b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration.

c) The 1979 1-hour ozone NAAQS (0.12 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard and therefore has some continuing obligations with respect to the revoked standard; original attainment date was 11/15/2010; the revised attainment date is 2/6/2023.

d) The 2008 8-hour ozone NAAQS (0.075 ppm) was revised to 0.070 ppm, effective 12/28/20115 with classifications and implementation goals to be finalized by 10/1/2017; the 1997 8-hour ozone NAAQS (0.08 ppm) was revoked in the 2008 ozone implementation rule, effective 4/6/2015; there are continuing obligations under the revoked 1997 and revised 2008 ozone NAAQS until they are attained.

e) The attainment deadline for the 2006 24-Hour PM2.5 NAAQS was 12/31/15 for the former "moderate" classification; the EPA approved reclassification to "serious", effective 2/12/16 with an attainment deadline of 12/31/2019; the 2012 (proposal year) annual PM2.5 NAAQS was revised on 1/15/2013, effective 3/18/2013, from 15 to 12 µg/m^3; new annual designations were final 1/15/2015, effective 4/15/2015; on 7/25/2016 the EPA finalized a determination that the Basin attained the 1997 annual (15.0 µg/m^3) and 24-hour PM2.5 (65 µg/m^3) NAAQS, effective 8/24/2016.

f) The annual PM10 standard was revoked, effective 12/18/2006; the 24-hour PM10 NAAQS deadline was 12/31/2006; the Basin's Attainment Re-designation Request and PM10 Maintenance Plan was approved by the EPA on 6/26/2103, effective 7/26/2013.

g) Partial Nonattainment designation – Los Angeles County portion of the Basin only for near-source monitors; expect to remain in attainment based on current monitoring data; attainment re-designation request pending.

h) New 1-hour NO_2 NAAQS became effective 8/2/2010, with attainment designations 1/20/2012; annual NO_2 NAAQS retained.

i) The 1971 annual and 24-hour SO_2 NAAQS were revoked, effective 8/23/2010.

Despite substantial improvements in air quality over the past few decades, some air monitoring stations in the Air Basin still exceed the NAAQS and frequently record the highest ozone levels in the United States. In 2020, monitoring stations in the Air Basin exceeded the most current federal standards on a total of 181 days (49 percent of the year), including: 8-hour ozone (157 days over the 2015 ozone NAAQS), 24-hour PM2.5 (39 days), PM10 (3 days), and NO_2 (1 day). Nine of the top 10 stations in the nation most frequently exceeding the 2015 8-hour ozone NAAQS in 2020 were located within the Air Basin, including stations in San Bernardino, Riverside, and Los Angeles Counties (SCAQMD, 2022).

PM2.5 levels in the Air Basin have improved significantly in recent years. Since 2015, none of the monitoring stations in the Air Basin have recorded violations of the former 1997 annual PM2.5 NAAQS (15.0 µg/m^3). On July 25, 2016 the U.S. EPA finalized a determination that the Air Basin attained the 1997 annual (15.0 µg/m^3) and 24-hour PM2.5 (65 µg/m^3) NAAQS, effective August 24, 2016. However, the Air Basin does not meet the 2012 annual PM2.5 NAAQS (12.0 µg/m^3), with six monitoring stations having design values above the standard for the 2018-2020 period (SCAQMD, 2022).

4.2 State – California Air Resources Board

The CARB, which is a part of the California Environmental Protection Agency (CalEPA), is responsible for the coordination and administration of both federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards

(CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. The CAAQS for criteria pollutants in the Air Basin are shown in Table F. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g. hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

Table F – California Ambient Air Quality Standards Attainment Status – South Coast Air Basin

Criteria Pollutant	Averaging Time	Level[a]	Designation[b]
Ozone	1-Hour	0.09 ppm	Nonattainment
	8-Hour	0.070 ppm	Nonattainment
PM2.5	Annual	12 µg/m^3	Nonattainment
PM10	24-Hour	50 µg/m^3	Nonattainment
	Annual	20 µg/m^3	Nonattainment
Lead	30-Day Average	1.5 µg/m^3	Attainment
CO	1-Hour	20 ppm	Attainment
	8-Hour	9.0 ppm	Attainment
NO_2	1-Hour	0.18 ppm	Attainment
	Annual	0.030	Attainment[c]
SO_2	1-Hour	0.25 ppm	Attainment
	24-Hour	0.04 ppm	Attainment
Sulfates	24-Hour	25 µg/m^3	Attainment
Hydrogen Sulfide	1-Hour	0.03 ppm	Unclassified

Source: SCAQMD, 2022

Notes:

a) CA State standards, or CAAQS, for ozone, SO_2, NO_2, PM10 and PM2.5 are values not to be exceeded; lead, sulfates and H_2S standards are values not to be equaled or exceeded; CAAQS are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

b) CA State designations shown were updated by CARB in 2019, based on the 2016-2018 3-year period; stated designations are based on a 3-year data period after consideration of outliers and exceptional events.

c) The CA-60 near road portion of San Bernardino, Riverside and Los Angeles Counties has recently been redesignated as an attainment area based on data collected between 2018 and 2020

As shown in Table F, the Air Basin has been designated by the CARB as a non-attainment area for ozone, PM10 and PM2.5. Currently, the Air Basin is in attainment with the ambient air quality standards for lead, CO, NO_2, SO_2 and sulfates, and is unclassified for Hydrogen Sulfide.

The following lists the State of California Code of Regulations (CCR) air quality emission rules that are applicable, but not limited to all school projects in the State.

Assembly Bill 2588

The Air Toxics "Hot Spots" Information and Assessment Act (Assembly Bill [AB] 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release in California. The data is ranked by high, intermediate, and low categories, which are determined by: the potency, toxicity, quantity, volume, and proximity of the facility to nearby receptors.

CARB Regulation for In-Use Off-Road Diesel Vehicles

On July 26, 2007, the CARB adopted California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449 to reduce DPM and NOx emissions from in-use off-road heavy-duty diesel vehicles in California. Such vehicles are used in construction, mining, and industrial operations. The regulation limits idling to no more than five consecutive minutes, requires reporting and labeling, and requires disclosure of the regulation upon vehicle sale. Performance requirements of the rule are based on a fleet's average NOx emissions, which can be met by replacing older vehicles with newer, cleaner vehicles or by applying exhaust retrofits. The regulation was amended in 2010 to delay the original timeline of the performance requirement making the first compliance deadline January 1, 2014 for large fleets (over 5,000 horsepower), 2017 for medium fleets (2,501-5,000 horsepower), and 2019 for small fleets (2,500 horsepower or less). Currently, no commercial operation in California may add any equipment to their fleet that has a Tier 0 or Tier 1 engine. By January 1, 2018 medium and large fleets will be restricted from adding Tier 2 engines to their fleets and by January 2023, no commercial operation will be allowed to add Tier 2 engines to their fleets. It should be noted that commercial fleets may continue to use their existing Tier 0 and 1 equipment, if they can demonstrate that the average emissions from their entire fleet emissions meet the NOx emissions targets.

CARB Resolution 08-43 for On-Road Diesel Truck Fleets

On December 12, 2008 the CARB adopted Resolution 08-43, which limits NOx, PM10 and PM2.5 emissions from on-road diesel truck fleets that operate in California. On October 12, 2009 Executive Order R-09-010 was adopted that codified Resolution 08-43 into Section 2025, title 13 of the California Code of Regulations. This regulation requires that by the year 2023 all commercial diesel trucks that operate in California shall meet model year 2010 (Tier 4 Final) or latter emission standards. This regulation also provides a few exemptions including a onetime per year 3-day pass for trucks registered outside of California. All on-road diesel trucks utilized during construction of the proposed project will be required to comply with Resolution 08-43.

4.3 Regional – Southern California

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the South Coast Air Basin. To that end, as a regional agency, the SCAQMD works directly with the Southern California Association of Governments (SCAG), county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

South Coast Air Quality Management District

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs. The *Final 2022 Air Quality Management Plan* (2022 AQMP) was adopted by CARB on January 26, 2023 and has been incorporated into the State Implementation Plan (SIP). The 2022 AQMP establishes actions and strategies to reduce ozone levels to the U.S. EPA 2015 ozone standard of 70 ppb by 2037. The 2022 AQMP promotes extensive use of zero-emission technologies across all stationary and mobile sources coupled with rules and regulations, investment strategies, and incentives.

Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the Air Basin. Instead, this is controlled through local jurisdictions in accordance to CEQA. In order to assist

local jurisdictions with air quality compliance issues the *CEQA Air Quality Handbook* (SCAQMD CEQA Handbook), prepared by SCAQMD, 1993, with the most current updates found at http://www.aqmd.gov/ceqa/hdbk.html, was developed in accordance with the projections and programs detailed in the AQMPs. The purpose of the SCAQMD CEQA Handbook is to assist Lead Agencies, as well as consultants, project proponents, and other interested parties in evaluating a proposed project's potential air quality impacts. Specifically, the SCAQMD CEQA Handbook explains the procedures that SCAQMD recommends be followed for the environmental review process required by CEQA. The SCAQMD CEQA Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. The SCAQMD intends that by providing this guidance, the air quality impacts of plans and development proposals will be analyzed accurately and consistently throughout the Air Basin, and adverse impacts will be minimized.

The following lists the SCAQMD rules that are applicable but not limited to all land development projects in the Air Basin.

Rule 402 - Nuisance

Rule 402 prohibits a person from discharging from any source whatsoever such quantities of air contaminants or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Compliance with Rule 402 will reduce local air quality and odor impacts to nearby sensitive receptors.

Rule 403- Fugitive Dust

Rule 403 governs emissions of fugitive dust during construction activities and requires that no person shall cause or allow the emissions of fugitive dust such that dust remains visible in the atmosphere beyond the property line or the dust emission exceeds 20 percent opacity, if the dust is from the operation of a motorized vehicle. Compliance with this rule is achieved through application of standard Best Available Control Measures, which include but are not limited to the measures below. Compliance with these rules would reduce local air quality impacts to nearby sensitive receptors.

- Utilize either a pad of washed gravel 50 feet long, 100 feet of paved surface, a wheel shaker, or a wheel washing device to remove material from vehicle tires and undercarriages before leaving project site.
- Do not allow any track out of material to extend more than 25 feet onto a public roadway and remove all track out at the end of each workday.
- Water all exposed areas on active sites at least three times per day and pre-water all areas prior to clearing and soil moving activities.
- Apply nontoxic chemical stabilizers according to manufacturer specifications to all construction areas that will remain inactive for 10 days or longer.
- Pre-water all material to be exported prior to loading, and either cover all loads or maintain at least 2 feet of freeboard in accordance with the requirements of California Vehicle Code Section 23114.
- Replant all disturbed area as soon as practical.
- Suspend all grading activities when wind speeds (including wind gusts) exceed 25 miles per hour.

- Restrict traffic speeds on all unpaved roads to 15 miles per hour or less.

Rules 1108 and 1108.1 – Cutback and Emulsified Asphalt

Rules 1108 and 1108.1 govern the sale, use, and manufacturing of asphalt and limits the VOC content in asphalt. This rule regulates the VOC contents of asphalt used during construction as well as any on-going maintenance during operations. Therefore, all asphalt used during construction and operation of the proposed project must comply with SCAQMD Rules 1108 and 1108.1.

Rule 1113 – Architectural Coatings

Rule 1113 governs the sale, use, and manufacturing of architectural coatings and limits the VOC content in sealers, coatings, paints and solvents. This rule regulates the VOC contents of paints available during construction. Therefore, all paints and solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1113.

Rule 1143 – Paint Thinners

Rule 1143 governs the sale, use, and manufacturing of paint thinners and multi-purpose solvents that are used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations. This rule regulates the VOC content of solvents used during construction. Solvents used during construction and operation of the proposed project must comply with SCAQMD Rule 1143.

Rule 1403 – Asbestos Removal

Rule 1403 governs asbestos emissions from demolition and renovation activities. The existing structures on the project site shall be surveyed for asbestos prior to demolition activities. If asbestos is found within the existing structures, the asbestos shall be removed through utilization of the removal procedures detailed in Rule 1403.

Southern California Association of Governments

The SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial Counties and addresses regional issues relating to transportation, the economy, community development and the environment. SCAG is the federally designated Metropolitan Planning Organization (MPO) for the majority of the southern California region and is the largest MPO in the nation. With respect to air quality planning, SCAG has prepared the *2024-2050 Regional Transportation Plan/Sustainable Communities Strategy* (Connect SoCal 2024), adopted by SCAG on April 4, 2024 which is based on the regional development and growth forecasts provided in the *2023 Federal Transportation Improvement* Program (2023 FTIP), adopted October 2022. However, per SB 375, SCAG and CARB are required to work together until CARB staff conclude that the calculations and quantifications provided would yield accurate estimates of GHG emission reductions. Since CARB staff continue to have significant outstanding concerns about the technical methodology utilized in the Connect SoCal 2024, the current approved RTP/SCS is the *2020-2045 Regional Transportation Plan/Sustainable Communities Strategy* (Connect SoCal 2020), adopted September 3, 2020, which is based on the 2019 *Federal Transportation Improvement* Program (2019 FTIP), adopted September 2018.

Although the Connect SoCal 2020 and 2019 FTIP are primarily planning documents for future transportation projects, a key component of these plans are to integrate land use planning with transportation planning that promotes higher density infill development in close proximity to existing transit service. These plans form the basis for the land use and transportation components of the 2022

AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the 2022 AQMP. The Connect SoCal 2020, 2019 FTIP, and 2022 AQMP are based on projections originating within the City and County General Plans.

4.4 Local – City of Glendora

Local jurisdictions, such as the City of Glendora, have the authority and responsibility to reduce air pollution through its police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of air emissions resulting from its land use decisions. The City is also responsible for the implementation of transportation control measures as outlined in the 2007 AQMP and 2012 AQMP. Examples of such measures include bus turnouts, energy-efficient streetlights, and synchronized traffic signals. In accordance with CEQA requirements and the CEQA review process, the City assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

In accordance with the CEQA requirements, the City does not, however, have the expertise to develop plans, programs, procedures, and methodologies to ensure that air quality within the City and region will meet federal and state standards. Instead, the City relies on the expertise of the SCAQMD and utilizes the SCAQMD CEQA Handbook as the guidance document for the environmental review of plans and development proposals within its jurisdiction.

5.0 ENERGY CONSERVATION MANAGEMENT

The regulatory setting related to energy conservation is primarily addressed through State and City regulations, which are discussed below.

5.1 State

Energy conservation management in the State was initiated by the 1974 Warren-Alquist State Energy Resources Conservation and Development Act that created the California Energy Resource Conservation and Development Commission (currently named California Energy Commission [CEC]), which was originally tasked with certifying new electric generating plants based on the need for the plant and the suitability of the site of the plant. In 1976 the Warren-Alquist Act was expanded to include new restrictions on nuclear generating plants, that effectively resulted in a moratorium of any new nuclear generating plants in the State. The following details specific regulations adopted by the State in order to reduce the consumption of energy.

California Code of Regulations (CCR) Title 20

On November 3, 1976 the CEC adopted the *Regulations for Appliance Efficiency Standards Relating to Refrigerators, Refrigerator-Freezers and Freezers and Air Conditioners,* which were the first energy-efficiency standards for appliances. The appliance efficiency regulations have been updated several times by the Commission and the most current version is the *2016 Appliance Efficiency Regulations*, adopted January 2017 and now includes almost all types of appliances and lamps that use electricity, natural gas as well as plumbing fixtures. The authority for the CEC to control the energy-efficiency of appliances is detailed in California Code of Regulations (CCR), Title 20, Division 2, Chapter 4, Article 4, Sections 1601-1609.

California Code of Regulations (CCR) Title 24, Part 6

The CEC is also responsible for implementing the CCR Title 24, Part 6: *California's Energy Efficiency Standards for Residential and Nonresidential Buildings* (Title 24 Part 6) that were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. In 2008 the State set an energy-use reduction goal of zero-net-energy use of all new homes by 2020 and the CEC was mandated to meet this goal through revisions to the Title 24, Part 6 regulations.

The Title 24 standards are updated on a three-year schedule and since 2008 the standards have been incrementally moving to the 2020 goal of the zero-net-energy use. The 2022 Title 24 standards are the current standards that went into effect on January 1, 2023.

According to the Title 24 Part 6 Fact Sheet, the CEC estimates that over 30 years the 2022 Title 24 standards will reduce GHG emissions by 16,230 $MMTCO_2e$ per year, when compared to the 2019 Title 24 standards, which is equivalent of taking 3,641 gas cars off the road each year. The 2022 Title 24 standards will: (1) Increase onsite renewable energy generation; (2) Increases electric load flexibility to support grid reliability; (3) Reduces emissions from newly constructed buildings; (4) Reduces air pollution for improved public health; and (5) Encourages adoption of environmentally beneficial efficient electric technologies.

California Code of Regulations (CCR) Title 24, Part 11

CCR Title 24, Part 11: *California Green Building Standards* (CalGreen) was developed in response to continued efforts to reduce GHG emissions associated with energy consumption. The CalGreen Building

Standards are also updated every three years and the current version is the 2022 California Green Building Standard Code that become effective on January 1, 2022.

The CALGreen Code contains requirements for construction site selection; storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

The CALGreen Code provides standards for bicycle parking, carpool/vanpool/electric vehicle spaces, light and glare reduction, grading and paving, energy efficient appliances, renewable energy, graywater systems, water efficient plumbing fixtures, recycling and recycled materials, pollutant controls (including moisture control and indoor air quality), acoustical controls, storm water management, building design, insulation, flooring, and framing, among others. Implementation of the CALGreen Code measures reduces energy consumption and vehicle trips and encourages the use of alternative-fuel vehicles, which reduces pollutant emissions.

Some of the notable changes in the 2022 CalGreen Code over the prior 2019 CalGreen Code for nonresidential development mandatory requirements include the repeal of designated parking spaces for clean air vehicles and an increase in the number of electric vehicle (EV) ready parking spaces. The 2022 CalGreen Code also added new requirements for installed Level 2 or direct-current fast charger EV charging stations for autos, EV charging readiness for loading docks, enhanced thermal insulation, and acoustical ceilings.

Executive Order N-79-20

The California Governor issued Executive Order N-79-20 on September 23, 2020 that requires all new passenger cars and trucks and commercial drayage trucks sold in California to be zero-emissions by the year 2035 and all medium- heavy-duty vehicles (commercial trucks) sold in the state to be zero-emission by 2045 for all operations where feasible. Executive Order N-79-20 also requires all off-road vehicles and equipment to transition to 100 percent zero-emission equipment, where feasible by 2035.

Senate Bill 1020

Senate Bill 1020 (SB 1020) was adopted September 16, 2022 and would speed up the timeline retail electricity is supplied by renewable energy sources over the prior adoption timelines provided in SB 100, SB 350, SB 1078, SB 107, and SB X1-2. SB 1020 requires that retail sales of electricity are from renewable energy resources and zero-carbon resources supply 90 percent by December 31, 2035, 95 percent by December 31, 2040, and 100 percent by December 31, 2045.

Executive Order B-48-18 and Assembly Bill 2127

The California Governor issued Executive Order B-48-18 on January 26, 2018 that orders all state entities to work with the private sector to put at least five million zero-emission vehicles on California roads by 2030 and to install 200 hydrogen fueling stations and 250,000 electric vehicle chargers by 2025. Currently there are approximately 350,000 electric vehicles operating in California, which represents approximately 1.5 percent of the 24 million vehicles total currently operating in California. Implementation of Executive Order B-48-18 would result in approximately 20 percent of all vehicles in California to be zero emission electric vehicles. Assembly Bill 2127 (AB 2127) was codified into statute on September 13, 2018 and

requires that the California Energy Commission working with the State Air Resources Board prepare biannual assessments of the statewide electric vehicle charging infrastructure needed to support the levels of zero emission vehicle adoption required for the State to meet its goals of putting at least 5 million zero-emission vehicles on California roads by 2030.

Assembly Bill 1109

California Assembly Bill 1109 (AB 1109) was adopted October 2007, also known as the Lighting Efficiency and Toxics Reduction Act, prohibits the manufacturing of lights after January 1, 2010 that contain levels of hazardous substances prohibited by the European Union pursuant to the RoHS Directive. AB 1109 also requires reductions in energy usage for lighting and is structured to reduce lighting electrical consumption by: (1) At least 50 percent reduction from 2007 levels for indoor residential lighting; and (2) At least 25 percent reduction from 2007 levels for indoor commercial and all outdoor lighting by 2018. AB 1109 would reduce GHG emissions through reducing the amount of electricity required to be generated by fossil fuels in California.

Assembly Bill 1493

California Assembly Bill 1493 (also known as the Pavley Bill, in reference to its author Fran Pavley) was enacted on July 22, 2002 and required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. In 2004, CARB approved the "Pavley I" regulations limiting the amount of GHGs that may be released from new passenger automobiles that are being phased in between model years 2009 through 2016. These regulations will reduce GHG emissions by 30 percent from 2002 levels by 2016. In June 2009, the EPA granted California the authority to implement GHG emission reduction standards for light duty vehicles, in September 2009, amendments to the Pavley I regulations were adopted by CARB and implementation of the "Pavley I" regulations started in 2009.

The second set of regulations "Pavley II" was developed in 2010, and is being phased in between model years 2017 through 2025 with the goal of reducing GHG emissions by 45 percent by the year 2020 as compared to the 2002 fleet. The Pavley II standards were developed by linking the GHG emissions and formerly separate toxic tailpipe emissions standards previously known as the "LEV III" (third stage of the Low Emission Vehicle standards) into a single regulatory framework. The new rules reduce emissions from gasoline-powered cars as well as promote zero-emissions auto technologies such as electricity and hydrogen, and through increasing the infrastructure for fueling hydrogen vehicles. In 2009, the U.S. EPA granted California the authority to implement the GHG standards for passenger cars, pickup trucks and sport utility vehicles and these GHG emissions standards are currently being implemented nationwide.

The EPA has performed a midterm evaluation of the longer-term standards for model years 2022-2025, and based on the findings of this midterm evaluation, the EPA proposed The Safer Affordable Fuel Efficient (SAFE) Vehicles Proposed Rule for Model Years 2021-2026 that amends the corporate average fuel economy (CAFE) and GHG emissions standards for light vehicles for model years 2021 through 2026. The SAFE Vehicles Rule were made effective on June 29, 2020.

5.2 Local – City of Glendora

The applicable energy plan for the proposed project is the *Glendora Community Plan 2025 – Chapter 8 Conservation Element* (Conservation Element), 2006. The applicable energy-related goals and policies in the Conservation Element for the proposed project are shown below.

Goal CON-5: Reduced demand for energy resources through the use of conservation techniques.

Policies

CON-5.1 Investigate and implement opportunities for energy conservation at all City-maintained facilities.

CON-5.2 Encourage the incorporation of energy conservation features in the design of all new construction and substantial rehabilitation projects and encourage the installation of conservation devices in existing developments.

CON-5.3 Encourage private energy conservation programs that minimize high energy demand and that use alternative energy sources.

CON-5.4 Require all new developments to incorporate energy-efficient lighting, heating, and cooling systems pursuant to the Uniform Building Code.

CON-5.5 Provide education and outreach to residents and businesses on opportunities to decrease energy consumption.

6.0 GLOBAL CLIMATE CHANGE MANAGEMENT

The regulatory setting related to global climate change is addressed through the efforts of various international, federal, state, regional, and local government agencies. These agencies work jointly, as well as individually, to reduce GHG emissions through legislation, regulations, planning, policy-making, education, and a variety of programs. The agencies responsible for global climate change regulations are discussed below.

6.1 International

In 1988, the United Nations established the IPCC to evaluate the impacts of global climate change and to develop strategies that nations could implement to curtail global climate change. In 1992, the United States joined other countries around the world in signing the United Nations' Framework Convention on Climate Change (UNFCCC) agreement with the goal of controlling GHG emissions. The parties of the UNFCCC adopted the Kyoto Protocol, which set binding GHG reduction targets for 37 industrialized countries, the objective of reducing their collective GHG emissions by five percent below 1990 levels by 2012. The Kyoto Protocol has been ratified by 182 countries, but has not been ratified by the United States. It should be noted that Japan and Canada opted out of the Kyoto Protocol and the remaining developed countries that ratified the Kyoto Protocol have not met their Kyoto targets. The Kyoto Protocol expired in 2012 and the amendment for the second commitment period from 2013 to 2020 has not yet entered into legal force. The Parties to the Kyoto Protocol negotiated the Paris Agreement in December 2015, agreeing to set a goal of limiting global warming to less than 2 degrees Celsius compared with pre-industrial levels. The Paris Agreement has been adopted by 195 nations with 147 ratifying it, including the United States by President Obama, who ratified it by Executive Order on September 3, 2016. On June 1, 2017, President Trump announced that the United States is withdrawing from the Paris Agreement and on January 21, 2021 President Biden signed an executive order rejoining the Paris Agreement.

Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere—CFCs, halons, carbon tetrachloride, and methyl chloroform—were to be phased out, with the first three by the year 2000 and methyl chloroform by 2005.

6.2 Federal – United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) is responsible for implementing federal policy to address global climate change. The Federal government administers a wide array of public-private partnerships to reduce U.S. GHG intensity. These programs focus on energy efficiency, renewable energy, methane, and other non-CO_2 gases, agricultural practices and implementation of technologies to achieve GHG reductions. EPA implements several voluntary programs that substantially contribute to the reduction of GHG emissions.

In Massachusetts v. Environmental Protection Agency (Docket No. 05–1120), argued November 29, 2006 and decided April 2, 2007, the U.S. Supreme Court held that not only did the EPA have authority to regulate greenhouse gases, but the EPA's reasons for not regulating this area did not fit the statutory requirements. As such, the U.S. Supreme Court ruled that the EPA should be required to regulate CO2 and other greenhouse gases as pollutants under the federal Clean Air Act (CAA).

In response to the FY2008 Consolidations Appropriations Act (H.R. 2764; Public Law 110-161), EPA proposed a rule on March 10, 2009 that requires mandatory reporting of GHG emissions from large sources in the United States. On September 22, 2009, the Final Mandatory Reporting of GHG Rule was signed and published in the Federal Register on October 30, 2009. The rule became effective on December 29, 2009. This rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of GHG emissions to submit annual reports to EPA.

On December 7, 2009, the EPA Administrator signed two distinct findings under section 202(a) of the Clean Air Act. One is an endangerment finding that finds concentrations of the six GHGs in the atmosphere threaten the public health and welfare of current and future generations. The other is a cause or contribute finding, that finds emissions from new motor vehicles and new motor vehicle engines contribute to the GHG pollution which threatens public health and welfare. These actions did not impose any requirements on industry or other entities, however, since 2009 the EPA has been providing GHG emission standards for vehicles and other stationary sources of GHG emissions that are regulated by the EPA. On September 13, 2013 the EPA Administrator signed 40 CFR Part 60, that limits emissions from new sources to 1,100 pounds of CO_2 per mega-watt hour (MWh) for fossil fuel-fired utility boilers and 1,000 pounds of CO_2 per MWh for large natural gas-fired combustion units.

On August 3, 2015, the EPA announced the Clean Power Plan, emissions guidelines for U.S. states to follow in developing plans to reduce GHG emissions from existing fossil fuel-fired power plants (Federal Register Vol. 80, No. 205, October 23 2015). On October 11, 2017, the EPA issued a formal proposal to repeal the Clean Power Plan and on June 19, 2019 the EPA replaced the Clean Power Plan with the Affordable Clean Energy rule that is anticipated to lower power sector GHG emissions by 11 million tons by the year 2030.

On April 30, 2020, the EPA and the National Highway Safety Administration published the Final Rule for the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). Part One of the Rule revokes California's authority to set its own GHG emissions standards and zero-emission vehicle mandates in California, which results in one emission standard to be used nationally for all passenger cars and light trucks that is set by the EPA.

6.3 State

The CARB has the primary responsible for implementing state policy to address global climate change, however there are State regulations related to global climate change that affect a variety of State agencies. CARB, which is a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both the federal and state air pollution control programs within California. In this capacity, the CARB conducts research, sets California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the SIP. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g. hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In 2008, CARB approved a Climate Change Scoping Plan that proposes a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (CARB 2008). The Climate Change Scoping Plan has a range of GHG reduction actions which include direct

regulations; alternative compliance mechanisms; monetary and non-monetary incentives; voluntary actions; market-based mechanisms such as a cap-and-trade system. In 2014, CARB approved the First Update to the Climate Change Scoping Plan (CARB, 2014) that identifies additional strategies moving beyond the 2020 targets to the year 2050. On December 14, 2017 CARB adopted the California's 2017 Climate Change Scoping Plan, November 2017 (CARB, 2017) that provides specific statewide policies and measures to achieve the 2030 GHG reduction target of 40 percent below 1990 levels by 2030 and the aspirational 2050 GHG reduction target of 80 percent below 1990 levels by 2050. On December 15, 2022, CARB adopted the *2022 Scoping Plan for Achieving Carbon Neutrality,* November 16, 2022 (CARB, 2022) that lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels no later than 2045, as directed by Assembly Bill 1279.

In addition, the State has passed the following laws directing CARB to develop actions to reduce GHG emissions, which are listed below in chronological order, with the most current first.

Executive Order N-79-20

EO N-79-20 establish targets for when all new vehicles and equipment are zero-emission and is described in more detail above in Section 5.1 under Energy Conservation Management.

California Code of Regulations (CCR) Title 24, Part 6

The Title 24 Part 6 standards have been developed by the CEC primarily for energy conservation and is described in more detail above in Section 5.1 under Energy Conservation Management. It should be noted that implementation of the Title 24 Part 6 building standards would also reduce GHG emissions, since as detailed above in Section 3.3 Greenhouse Gas Emissions Inventory, energy use for residential and commercial buildings creates 9.7 percent of the GHG emissions in the State.

California Code of Regulations (CCR) Title 24, Part 11

The CalGreen Building standards have been developed by the CEC primarily for energy conservation and is described in more detail above in Section 5.1 under Energy Conservation Management. It should be noted that implementation of the CalGreen Building standards would also reduce GHG emissions, since as detailed above under Title 24, Part 6, energy usage from buildings creates 9.7 percent of GHG emissions in the State.

Senate Bill 1020

SB 1020 requires that by December 1, 2045 that 100 percent of retail sales of electricity to be generated from renewable or zero-carbon emission sources of electricity and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order B-55-18 and Assembly Bill 1279

The California Governor issued Executive Order B-55-18 in September 2018 that establishes a new statewide goal to achieve carbon neutrality as soon as possible, but no later than 2045. This executive order directs CARB to work with relevant State agencies to develop a framework for implementation and accounting that tracks progress toward this goal as well as ensuring future scoping plans identify and recommend measures to achieve this carbon neutrality goal. Assembly Bill 1279 was passed by the legislature in September 2022 that codifies the carbon neutrality targets provided in Executive Order B-55-18. The *2022 Scoping Plan for Achieving Carbon Neutrality,* adopted by CARB on December 16, 2022,

was prepared in order to meet the carbon neutrality goal targets developed in Executive Order B-55-18 and codified in Assembly Bill 1279.

Executive Order B-48-18 and Assembly Bill 2127

Executive Order B-48-18 and AB 2127 provides measures to put at least five million zero-emission vehicles on California roads by 2030 and to install 200 hydrogen fueling stations and 250,000 electric vehicle chargers by 2025 and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order B-30-15, Senate Bill 32 and Assembly Bill 197

The California Governor issued Executive Order B-30-15 on April 29, 2015 that aims to reduce California's GHG emissions 40 percent below 1990 levels by 2030. This executive order aligns California's GHG reduction targets with those of other international governments, such as the European Union that set the same target for 2030 in October, 2014. This target will make it possible to reach the ultimate goal of reducing GHG emissions 80 percent under 1990 levels by 2050 that is based on scientifically established levels needed in the U.S.A to limit global warming below 2 degrees Celsius – the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels. Assembly Bill 197 (AB 197) (September 8, 2016) and Senate Bill 32 (SB 32) (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in Executive Order B-30-15. AB 197 also requires additional GHG emissions reporting that is broken down to sub-county levels and requires CARB to consider the social costs of emissions impacting disadvantaged communities.

Executive Order B-29-15

The California Governor issued Executive Order B-29-15 on April 1, 2015 and directed the State Water Resources Control Board to impose restrictions to achieve a statewide 25% reduction in urban water usage and directed the Department of Water Resources to replace 50 million square feet of lawn with drought tolerant landscaping through an update to the State's Model Water Efficient Landscape Ordinance. The Ordinance also requires installation of more efficient irrigation systems, promotion of greywater usage and onsite stormwater capture, and limits the turf planted in new residential landscapes to 25 percent of the total area and restricts turf from being planted in median strips or in parkways unless the parkway is next to a parking strip and a flat surface is required to enter and exit vehicles. Executive Order B-29-15 would reduce GHG emissions associated with the energy used to transport and filter water.

Assembly Bill 341 and Senate Bills 939 and 1374

Senate Bill 939 (SB 939) requires that each jurisdiction in California to divert at least 50 percent of its waste away from landfills, whether through waste reduction, recycling or other means. Senate Bill 1374 (SB 1374) requires the California Integrated Waste Management Board to adopt a model ordinance by March 1, 2004 suitable for adoption by any local agency to require 50 to 75 percent diversion of construction and demolition of waste materials from landfills. Assembly Bill 341 (AB 341) was adopted in 2011 and builds upon the waste reduction measures of SB 939 and 1374, and set a new target of a 75 percent reduction in solid waste generated by the year 2020.

Senate Bill 375

Senate Bill 375 (SB 375) was adopted September 2008 in order to support the State's climate action goals to reduce GHG emissions from transportation sources through coordinated regional transportation

planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires CARB to set regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established targets for 2020 and 2035 for each Metropolitan Planning Organizations (MPO) within the State. It was up to each MPO to adopt a sustainable communities strategy (SCS) that will prescribe land use allocation in that MPOs Regional Transportation Plan (RTP) to meet CARB's 2020 and 2035 GHG emission reduction targets. These reduction targets are required to be updated every eight years and the most current targets are detailed at: https://ww2.arb.ca.gov/our-work/programs/sustainable-communities-program/regional-plan-targets, which provides GHG emissions reduction targets for SCAG of 8 percent by 2020 and 19 percent by 2035.

The Connect SoCal 2020 provides a 2035 GHG emission reduction target of 19 percent reduction over the 2005 per capita emissions levels. The Connect SoCal 2020 include new initiatives of land use, transportation and technology to meet the 2035 new 19 percent GHG emission reduction target for 2035. CARB is also charged with reviewing SCAG's RTP/SCS for consistency with its assigned targets.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS. However, new provisions of CEQA incentivize, through streamlining and other provisions, qualified projects that are consistent with an approved SCS and categorized as "transit priority projects."

Assembly Bill 1109

AB 1109 requires reductions in energy usage for lighting and is described in more detail above in Section 5.1 under Energy Conservation Management.

Executive Order S-1-07

Executive Order S-1-07 was issued in 2007 and proclaims that the transportation sector is the main source of GHG emissions in the State, since it generates more than 40 percent of the State's GHG emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in the State by at least ten percent by 2020. This Executive Order also directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

In 2009 CARB approved the proposed regulation to implement the LCFS. The standard was challenged in the courts, but has been in effect since 2011 and was re-approved by the CARB in 2015. The LCFS is anticipated to reduce GHG emissions by about 16 MMT per year by 2020. The LCFS is designed to provide a framework that uses market mechanisms to spur the steady introduction of lower carbon fuels. The framework establishes performance standards that fuel producers and importers must meet annually. Reformulated gasoline mixed with corn-derived ethanol and low-sulfur diesel fuel represent the baseline fuels. Lower carbon fuels may be ethanol, biodiesel, renewable diesel, or blends of these fuels with gasoline or diesel. Compressed natural gas and liquefied natural gas also may be low-carbon fuels. Hydrogen and electricity, when used in fuel cells or electric vehicles, are also considered as low-carbon fuels.

Senate Bill 97

Senate Bill 97 (SB 97) was adopted August 2007 and acknowledges that climate change is a prominent environmental issue that requires analysis under CEQA. SB 97 directed the Governor's Office of Planning and Research (OPR), which is part of the State Natural Resources Agency, to prepare, develop, and

transmit to CARB guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA, by July 1, 2009. The Natural Resources Agency was required to certify and adopt those guidelines by January 1, 2010.

Pursuant to the requirements of SB 97 as stated above, on December 30, 2009 the Natural Resources Agency adopted amendments to the State CEQA guidelines that addresses GHG emissions. The CEQA Guidelines Amendments changed 14 sections of the CEQA Guidelines and incorporated GHG language throughout the Guidelines. However, no GHG emissions thresholds of significance were provided and no specific mitigation measures were identified. The GHG emission reduction amendments went into effect on March 18, 2010 and are summarized below:

- Climate Action Plans and other greenhouse gas reduction plans can be used to determine whether a project has significant impacts, based upon its compliance with the plan.
- Local governments are encouraged to quantify the GHG emissions of proposed projects, noting that they have the freedom to select the models and methodologies that best meet their needs and circumstances. The section also recommends consideration of several qualitative factors that may be used in the determination of significance, such as the extent to which the given project complies with state, regional, or local GHG reduction plans and policies. OPR does not set or dictate specific thresholds of significance. Consistent with existing CEQA Guidelines, OPR encourages local governments to develop and publish their own thresholds of significance for GHG impacts assessment.
- When creating their own thresholds of significance, local governments may consider the thresholds of significance adopted or recommended by other public agencies, or recommended by experts.
- New amendments include guidelines for determining methods to mitigate the effects of GHG emissions in Appendix F of the CEQA Guidelines.
- OPR is clear to state that "to qualify as mitigation, specific measures from an existing plan must be identified and incorporated into the project; general compliance with a plan, by itself, is not mitigation."
- OPR's emphasizes the advantages of analyzing GHG impacts on an institutional, programmatic level. OPR therefore approves tiering of environmental analyses and highlights some benefits of such an approach.
- Environmental impact reports must specifically consider a project's energy use and energy efficiency potential.

Assembly Bill 32

In 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires CARB, to adopt rules and regulations that would achieve GHG emissions equivalent to statewide levels in 1990 by 2020 through an enforceable statewide emission cap which will be phased in starting in 2012. Emission reductions shall include carbon sequestration projects that would remove carbon from the atmosphere and utilize best management practices that are technologically feasible and cost effective.

In 2007 CARB released the calculated Year 1990 GHG emissions of 431 $MMTCO_2e$. The 2020 target of 431 $MMTCO_2e$ requires the reduction of 78 $MMTCO_2e$, or approximately 16 percent from the State's projected

2020 business as usual emissions of 509 $MMTCO_2e$ (CARB, 2014). Under AB 32, CARB was required to adopt regulations by January 1, 2011 to achieve reductions in GHGs to meet the 1990 cap by 2020. Early measures CARB took to lower GHG emissions included requiring operators of the largest industrial facilities that emit 25,000 metric tons of CO_2 in a calendar year to submit verification of GHG emissions by December 1, 2010. The CARB Board also approved nine discrete early action measures that include regulations affecting landfills, motor vehicle fuels, refrigerants in cars, port operations and other sources, all of which became enforceable on or before January 1, 2010.

CARB's Scoping Plan that was adopted in 2009, proposes a variety of measures including: strengthening energy efficiency and building standards; targeted fees on water and energy use; a market-based cap-and-trade system; achieving a 33 percent renewable energy mix; and a fee regulation to fund the program. The 2014 update to the Scoping Plan identifies strategies moving beyond the 2020 targets to the year 2050.

The Cap-and-Trade Program established under the Scoping Plan sets a statewide limit on sources responsible for 85 percent of California's GHG emissions, and has established a market for long-term investment in energy efficiency and cleaner fuels since 2012.

Executive Order S-3-05

In 2005 the California Governor issued Executive Order S 3-05, GHG Emission, which established the following reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels;
- 2020: Reduce greenhouse gas emissions to 1990 levels;
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

The Executive Order directed the secretary of the California Environmental Protection Agency (CalEPA) to coordinate a multi-agency effort to reduce GHG emissions to the target levels. To comply with the Executive Order, the secretary of CalEPA created the California Climate Action Team (CAT), made up of members from various state agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of businesses, local governments, and communities and through State incentive and regulatory programs. The State achieved its first goal of reducing GHG emissions to 2000 levels by 2010.

Assembly Bill 1493

AB 1493 or the Pavley Bill sets tailpipe GHG emissions limits for passenger vehicles in California as well as fuel economy standards and is described in more detail above in Section 5.1 under Energy Conservation Management.

6.4 Regional – Southern California

The SCAQMD is the agency principally responsible for comprehensive air pollution control in the Air Basin. To that end, as a regional agency, the SCAQMD works directly with SCAG, county transportation commissions, and local governments and cooperates actively with all federal and state agencies.

South Coast Air Quality Management District

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when

necessary. SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. The SCAQMD is also responsible for GHG emissions for projects where it is the lead agency. However, for other projects in the Air Basin where it is not the lead agency, it is limited to providing resources to other lead agencies in order to assist them in determining GHG emission thresholds and GHG reduction measures. In order to assist local agencies with direction on GHG emissions, the SCAQMD organized a Working Group, which is described below.

SCAQMD Working Group

Since neither CARB nor the OPR has developed GHG emissions threshold, the SCAQMD formed a Working Group to develop significance thresholds related to GHG emissions. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that either provides a quantitative annual thresholds of 3,500 $MTCO_2e$ for residential uses, 1,400 $MTCO_2e$ for commercial uses, 3,000 $MTCO_2e$ for mixed uses, and 10,000 $MTCO_2e$ for industrial uses.

Southern California Association of Governments

As detailed above in Section 4.3, the current applicable RTP/SCS for the project area region is the Connect SoCal 2020 and 2019 FTIP, which have been prepared to meet the GHG emissions reduction targets set by SB 375 for the SCAG region of 19 percent reduction over the 2005 per capita emissions levels. The Connect SoCal 2020 includes new land use, transportation, and technology strategies to meet the new 19 percent GHG emission reduction target for 2035.

Although the Connect SoCal 2020 and 2019 FTIP are primarily planning documents for future transportation projects, a key component of these plans are to integrate land use planning with transportation planning that promotes higher density infill development in close proximity to existing transit service. These plans form the basis for the land use and transportation components of the 2022 AQMP, which are utilized in the preparation of air quality forecasts and in the consistency analysis included in the 2022 AQMP. The Connect SoCal 2020, 2019 FTIP, and 2022 AQMP are based on projections originating within the City and County General Plans.

6.5 Local – City of Glendora

Local jurisdictions, such as the City of Glendora, have the authority and responsibility to reduce GHG emissions through their police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of GHG emissions resulting from its land use decisions. In accordance with CEQA requirements and the CEQA review process, the City assesses the global climate change potential of new development projects, requires mitigation of potentially significant global climate change impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

7.0 ATMOSPHERIC SETTING

7.1 South Coast Air Basin

The project site is located within Los Angeles County, which is part of the South Coast Air Basin (Air Basin) that includes the non-desert portions of Riverside, San Bernardino, and Los Angeles Counties and all of Orange County. The Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

7.2 Local Climate

The climate of the southeastern portion of Los Angeles County is characterized by hot dry summers, mild moist winters with infrequent rainfall, moderate afternoon breezes, and generally fair weather. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. Occasional periods of strong Santa Ana winds and winter storms interrupt the otherwise mild weather pattern.

Although the Air Basin has a semi-arid climate, the air near the surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry air is brought into the Air Basin by offshore winds, the ocean effect is dominant. Periods of heavy fog are frequent and low stratus clouds, often referred to as "high fog" are a characteristic climate feature.

Winds are an important parameter in characterizing the air quality environment of a project site because they determine the regional pattern of air pollution transport and control the rate of dispersion near a source. Daytime winds in Los Angeles County are usually light breezes from off the coast as air moves regionally onshore from the cool Pacific Ocean to the warm Mojave Desert interior of Southern California. These winds are usually the strongest in the dry summer months. Nighttime winds in Los Angeles County are a result mainly from the drainage of cool air off of the mountains to the east and they occur more often during the winter months and are usually lighter than the daytime winds. Between the periods of dominant airflow, periods of air stagnation may occur, both in the morning and evening hours. Whether such a period of stagnation occurs is one of the critical determinants of air quality conditions on any given day.

During the winter and fall months, surface high-pressure systems north of the Air Basin combined with other meteorological conditions, can result in very strong winds, called "Santa Ana Winds", from the northeast. These winds normally have durations of a few days before predominant meteorological conditions are reestablished. The highest wind speed typically occurs during the afternoon due to daytime thermal convection caused by surface heating. This convection brings about a downward transfer of momentum from stronger winds aloft. It is not uncommon to have sustained winds of 60 miles per hour with higher gusts during a Santa Ana Wind event.

The temperature and precipitation levels for the Azusa City Park Monitoring Station, which is the nearest weather station to the project site with historical data is shown below in Table G. Table G shows that August is typically the warmest month and January is typically the coolest month. Rainfall in the project area varies considerably in both time and space. Almost all the annual rainfall comes from the fringes of mid-latitude storms from late November to early April, with summers being almost completely dry.

Table G – Monthly Climate Data

Month	Average Maximum Temperature (°F)	Average Minimum Temperature (°F)	Average Total Precipitation (inches)
January	65.3	40.5	4.35
February	66.8	41.0	3.71
March	70.1	43.2	3.31
April	74.5	45.7	1.51
May	76.9	48.6	0.44
June	85.9	52.3	0.10
July	91.3	56.9	0.02
August	91.9	57.0	0.05
September	88.5	54.0	0.35
October	81.7	49.7	0.49
November	73.9	43.9	1.96
December	66.7	39.6	2.69
Annual	**77.8**	**47.7**	**18.96**

Source: https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca0410

7.3 Monitored Local Air Quality

The air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the Air Basin. Improvements in cleaner technology and strict regulations have reduced ozone levels since its peak in the mid-twentieth century. However, ozone levels have remained unacceptably high over the past decade despite significant reductions. This trend is due to the changes in climate and other weather conditions such as the increase in hot, stagnant days that can lead to the formation of ozone that we have experienced in recent years. (SCAQMD, 2022).

SCAQMD has divided the Air Basin into 38 air-monitoring areas with a designated ambient air monitoring station representative of each area. The project site is located in Air Monitoring Area 9, which covers the East San Gabriel Valley. The nearest air monitoring station to the project site is the Glendora-Laurel Monitoring Station (Glendora Station), which is located approximately 1.8-mile northeast of the project site at 840 Laurel Avenue, Glendora. The monitoring data is presented in Table H and shows the most recent three years of monitoring data from CARB.

Ozone

During the last three years, the State 1-hour concentration standard for ozone has been exceeded between 39 and 57 days each year at the Glendora Station. The State 8-hour ozone standard has been exceeded between 58 and 72 days each year over the last three years at the Glendora Station. The Federal 8-hour ozone standard has been exceeded between 54 and 70 days each year over the last three years at the Glendora Station. Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of Southern California contribute to the ozone levels experienced at this monitoring station, with the more significant areas being those directly upwind.

Table H – Local Area Air Quality Monitoring Summary

Pollutant (Standard)	Year[1] 2021	2022	2023
Ozone:			
Maximum 1-Hour Concentration (ppm)	0.125	0.143	0.155
Days > CAAQS (0.09 ppm)	**39**	**46**	**57**
Maximum 8-Hour Concentration (ppm)	0.096	0.101	0.110
Days > NAAQS (0.070 ppm)	**54**	**60**	**70**
Days > CAAQs (0.070 ppm)	**58**	**61**	**72**
Nitrogen Dioxide:			
Maximum 1-Hour Concentration (ppb)	68.6	54.2	88.2
Days > NAAQS (100 ppb)	0	0	0
Days > CAAQS (180 ppb)	0	0	0
Inhalable Particulates (PM10):			
Maximum 24-Hour National Measurement (ug/m^3)	121.5	83.6	126.7
Days > NAAQS (150 ug/m^3)	0	0	0
Days > CAAQS (50 ug/m^3)	ND	ND	ND
Annual Arithmetic Mean (AAM) (ug/m^3)	27.7	25.7	23.4
Annual > NAAQS (50 ug/m^3)	No	No	No
Annual > CAAQS (20 ug/m^3)	**Yes**	**Yes**	**Yes**
Ultra-Fine Particulates (PM2.5):			
Maximum 24-Hour California Measurement (ug/m^3)	97.0	56.0	99.3
Days > NAAQS (35 ug/m^3)	**4**	**1**	**2**
Annual Arithmetic Mean (AAM) (ug/m^3)	ND	8.5	8.1
Annual > NAAQS and CAAQS (12 ug/m^3)	ND	No	No

Notes: Exceedances are listed in **bold.** CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; ppb = parts per billion; ND = no data available.
[1] Data obtained from the Glendora Station.
Source: http://www.arb.ca.gov/adam/

Nitrogen Dioxide

The Glendora Station did not record an exceedance of either the Federal or State 1-hour NO_2 standards for the last three years.

Particulate Matter

No data is available at the Glendora Station for the State 24-hour concentration standard for PM10. Over the past three years the Federal 24-hour standard for PM10 has not been exceeded at the Glendora Station. The annual PM10 concentration at the Glendora Station has exceeded the State standard for the past three years and has not exceeded the Federal standard for the past three years.

Over the past three years the federal 24-hour concentration standard for PM2.5 has been exceeded between one and four days each year at the Glendora Station. The annual PM2.5 concentrations at the

Glendora Station has not exceeded either the State or Federal standards for the past three years. There does not appear to be a noticeable trend for PM10 or PM2.5 in either maximum particulate concentrations or days of exceedances in the area. Particulate levels in the area are due to natural sources, grading operations, and motor vehicles.

According to the EPA, some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5. Other groups considered sensitive are smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive, because many breathe through their mouths during exercise.

7.4 Toxic Air Contaminant Levels in the Air Basin

In order to determine the Air Basin-wide risks associated with major airborne carcinogens, the SCAQMD conducted the Multiple Air Toxics Exposure Study (MATES) studies. According to the MATES V study (SCAQMD, 2021), the project site has an estimated cancer risk of 561 per million persons chance of cancer in the vicinity of the project site. In comparison, the average cancer risk for the Air Basin is 455 per million persons. The MATES V study that monitored air toxins between May 1, 2018 to April 30, 2019 found that cancer risk from air toxics has declined significantly in the Air Basin with a 40 percent decrease in cancer risk since the monitoring for the MATES IV study that occurred between July 1, 2012 and June 30, 2013 and an 84 percent decrease in cancer risk since the monitoring for the MATES II study that occurred between April 1, 1998 and March 31, 1999.

The MATES V study also analyzed impacts specific to the communities experiencing environmental injustices (EJ communities) that were evaluated using the Senate Bill 535 definition of disadvantaged communities, which found that between MATES IV and MATES V, the cancer risk from air toxics decreased by 57 percent in EJ communities overall, compared to a 53 percent reduction in non-EJ communities.

In order to provide a perspective of risk, it is often estimated that the incidence in cancer over a lifetime for the U.S. population ranges around 1 in 3, or a risk of about 300,000 per million persons. The MATES-III study referenced a Harvard Report on Cancer Prevention, which estimated that of cancers associated with known risk factors, about 30 percent were related to tobacco, about 30 percent were related to diet and obesity, and about 2 percent were associated with environmental pollution related exposures that includes hazardous air pollutants.

8.0 MODELING PARAMETERS AND ASSUMPTIONS

8.1 CalEEMod Model Input Parameters

The criteria air pollution and GHG emissions impacts created by the proposed project have been analyzed through use of CalEEMod Version2022.1.1.26. CalEEMod is a computer model published by the California Air Pollution Control Officers Association (CAPCOA) for estimating air pollutant emissions. The CalEEMod program uses the EMFAC2021 computer program to calculate the emission rates specific for the South Coast Air Basin portion of Los Angeles County for employee, vendor and haul truck vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy equipment operations. EMFAC2021 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour.

The project characteristics in the CalEEMod model were set to a project location of the South Coast Air Basin portion of Los Angeles County, a Climate Zone of 9, utility company of Southern California Edison and a horizon year (opening year) of 2030 was utilized in this analysis.

Land Use Parameters

The proposed project comprises of the adoption and implementation of the 2020-2030 EFMP. The anticipated development associated with implementation of the 2020-2030 EFMP has been detailed above in Section 1.3. It is anticipated that proposed development would disturb approximately one quarter of the total campus area that encompasses 105.77 acres. As such, a 26.44 acre project site was analyzed in CalEEMod. The proposed project's land use parameters that were entered into the CalEEMod model are shown in Table I.

Table I – CalEEMod Land Use Parameters

Proposed Land Use	Land Use Subtype in CalEEMod	Land Use Size[1]	Lot Acreage[2]	Building [3] (square feet)	Landscaped Area[4] (square feet)
Community College	Junior College (2 year)	321.83 TSF	21.44	321,828	93,404
Paved Areas (New Roads, Paths, and Parking Lots)	Other Asphalt Surfaces	5 AC	5.00	--	217,800

Notes:
[1] TSF = Thousand Square Feet; AC = Acre
[2] Lot acreage calculated based on a total area of 26.44 acres, which represents one quarter of the total campus area that encompasses 105.77 acres.
[3] Building square feet represent area where architectural coatings will be applied.
[4] Landscaped Area based on 10 percent of area landscaped.

Construction Parameters

As detailed above in Table B, Buildout of all of the projects will occur in eight development phases. Phase 1, campus-wide improvements will begin in Fall of 2024 and all construction would be completed by 2032. In order to provide a worst-case analysis, all eight phases of construction activities were modeled in CalEEMod as occurring in one phase and the CalEEMod default construction timing was utilized.

The construction-related GHG emissions were based on a 30-year amortization rate as recommended in the SCAQMD GHG Working Group meeting on November 19, 2009. The phases of construction activities

that have been analyzed are detailed below and include: 1) Demolition; 2) Site Preparation; 3) Grading, 4) Building Construction, 5) Application of Architectural Coatings; and 6) Paving.

The CalEEMod model provides the selection of "mitigation" to account for project conditions that would result in less emissions than a project without these conditions, however it should be noted that this "mitigation" may represent regulatory requirements. This includes the required to adherence to SCAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Demolition

As detailed above in Table A, implementation of the 2020-2030 EFMP will require the demolition of 316,904 gross square feet of existing building space, which was entered into the CalEEMod model. The demolition of the structures would generate an average 291 haul truck trips per day over 30 workdays for demolition phase.

The demolition phase has been modeled as starting in October 2024 and occurring over six weeks, which is based on the CalEEMod model default timing and provides for a worst-case analysis since all demolition activities were condensed into a shorter period of time than what is proposed above in Table B. The demolition activities would require 15 worker trips per day. The onsite equipment would consist of one concrete/industrial saw, three excavators, and two rubber-tired dozers, which is based on the CalEEMod default equipment mix. The mitigation of water demolished area with a frequency of other, since three times per day is not an option and set to a 74 percent reduction, which was obtained from the dust from material movement water exposed area reduction rates, in order to account for the fugitive dust reduction that would occur through adhering to SCAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Site Preparation

The site preparation phase would consist of removing any vegetation, tree stumps, and stones onsite prior to grading. The site preparation would occur after completion of the demolition phase and was modeled as occurring over four weeks. The site preparation activities would generate an average of 17.5 worker trips per day. The onsite equipment would consist of three rubber-tired dozers, and four of either tractors, loaders, or backhoes, which is based on the CalEEMod default equipment mix. The mitigation of water all exposed areas three times per day was chosen in order to account for the fugitive dust reduction that would occur through adhering to SCAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Grading

The grading phase would occur after completion of the site preparation phase and was modeled as occurring over nine weeks. The exact quantities of dirt that will need to be imported or exported to or from the project site has not yet been calculated and are anticipated to be negligible amounts. However, in order to provide a conservative analysis, 1,270 cubic yards of export of material was added to the CalEEMod model. This would generate an average of 3.5 haul trucks per day during the duration of the grading phase.

The onsite equipment would consist of two excavators, one grader, one rubber-tired dozer, two scrapers, and two of either tractors, loaders, or backhoes, which is based on the CalEEMod default equipment mix.

The grading activities would generate 20 worker trips per day. The mitigation of water all exposed areas three times per day was chosen in order to account for the fugitive dust reduction that would occur through adhering to SCAQMD Rule 403, which requires that the Best Available Control Measures be utilized to reduce fugitive dust emissions.

Building Construction

The building construction would occur after the completion of the grading phase and was modeled as occurring over 440 workdays. The building construction phase would generate an average of 135 worker trips and 52.7 vendor trips per day. The onsite equipment would consist of the simultaneous operation of one crane, three forklifts, one generator, one welder, and three of either tractors, loaders, or backhoes, which is based on the CalEEMod default equipment mix.

Paving

The paving phase would consist of paving the new proposed roads, walkways and parking areas. The paving phase would occur after the completion of the building construction phase and was modeled as occurring over 35 workdays. The paving phase would generate 15 worker trips per day. The onsite equipment would consist of the simultaneous operation of two pavers, two paving equipment, and two rollers, which is based on the CalEEMod default equipment mix.

Architectural Coating

The application of architectural coatings would occur after completion of the paving phase and was modeled as occurring over 35 workdays. The architectural coating phase was modeled based on covering 482,742 square feet of non-residential interior area, 160,914 square feet of non-residential exterior area, and 13,068 square feet of parking area. The architectural coating phase would generate 27 worker trips per day. The onsite equipment would consist of one air compressor, which is based on the CalEEMod default equipment mix.

Operational Emissions Modeling

The operations-related criteria air pollutant emissions and GHG emissions created by the proposed project have been analyzed through use of the CalEEMod model. The proposed project was analyzed in the CalEEMod model based on the land use parameters provided above and the parameters entered for each operational emission source is described below.

Mobile Sources

Mobile sources include emissions the additional vehicle miles generated from the proposed project. The daily vehicle trip rates associated with the proposed project have utilized the default CalEEMod daily trip generation rates of: 1.15 per student on weekdays; 0.42 per student on Saturdays; and 0.04 per student on Sundays.

The CalEEMod model provides the selection of “mitigation” to account for project conditions that would result in less emissions than a project without these conditions, however it should be noted that this “mitigation” may represent current conditions, such as development that is in close proximity to an existing transit facility, where a project built at such location would create less vehicle trips and associated emissions than a project that was not built in close proximity to an existing transit facility. The mobile source emissions analysis for the project included the CalEEMod “mitigation” of “Provide Transit-Oriented

Development" for all land use types, since there are several existing Foothill Transit Bus Stops that are adjacent to the Campus on Citrus Avenue, Foothill Boulevard and Barranca Avenue.

Area Sources

Area sources include emissions from consumer products, landscape equipment, and architectural coatings. The area source emissions were based on the on-going use of the proposed project in the CalEEMod model. No changes were made to the default area source parameters in the CalEEMod model.

Energy Usage

Energy usage includes emissions from electricity and natural gas used onsite. The energy usage was based on the ongoing use of the proposed project in the CalEEMod Model. No changes were made to the default energy usage parameters in the CalEEMod model.

Solid Waste

Waste includes the GHG emissions associated with the processing of waste from the proposed project as well as the GHG emissions from the waste once it is interred into a landfill. The analysis was based on the default CalEEMod waste generation rate of 29.6 tons of solid waste per year from the proposed project. No changes were made to the default solid waste parameters or mitigation measures in the CalEEMod model.

Water and Wastewater

Water includes the water used for the interior of the buildings as well as for landscaping and is based on the GHG emissions associated with the energy used to transport and filter the water. The analysis was based on the default CalEEMod water usage rate of 346,858 indoor gallons per year and 3,216,460 outdoor gallons per year of water use. No changes were made to the default water and wastewater parameters in the CalEEMod model.

8.2 Energy Use Calculations

The proposed project is anticipated to consume energy during both construction and operation of the proposed project and the parameters utilized to calculate energy use from construction and operation of the proposed project are detailed separately below.

Construction-Related Energy Use

Construction of the proposed project is anticipated to use energy in the forms of petroleum fuel for both off-road equipment as well as from the transport of workers and materials to and from the project site and the calculations for each source are described below.

Off-Road Construction Equipment

The off-road construction equipment fuel usage was calculated through use of the CalEEMod model's default off-road equipment assumptions detailed above in Section 8.1. For each piece of off-road equipment, the fuel usage was calculated through use of the *2017 Off-road Diesel Emission Factors* spreadsheet, prepared by CARB (https://ww3.arb.ca.gov/msei/ordiesel.htm). The Spreadsheet provides the following formula to calculate fuel usage from off-road equipment:

Fuel Used = Load Factor x Horsepower x Total Operational Hours x BSFC / Unit Conversion

Where:

Load Factor - Obtained from CalEEMod default values

Horsepower – Obtained from CalEEMod default values

Total Operational Hours – Calculated by multiplying CalEEMod default daily hours by CalEEMod default number of working days for each phase of construction

BSFC – Brake Specific Fuel Consumption (pounds per horsepower-hour) – If less than 100 Horsepower = 0.408, if greater than 100 Horsepower = 0.367

Unit Conversion – Converts pounds to gallons = 7.109

Table J shows the off-road construction equipment fuel calculations based on the above formula. Table J shows that the off-road equipment utilized during construction of the proposed project would consume 74,962 gallons of diesel fuel.

Table J – Off-Road Equipment and Fuel Consumption from Construction of the Proposed Project

Equipment Type	Equipment Quantity	Horse-power	Load Factor	Operating Hours per Day	Total Operational Hours[1]	Fuel Used (gallons)
Demolition						
Concrete/Industrial Saws	1	33	0.73	8	240	332
Excavator	3	36	0.38	8	720	565
Rubber Tired Dozers	2	367	0.40	8	480	3,638
Site Preparation						
Rubber-Tired Dozers	3	367	0.40	8	480	3,638
Tractors/Loaders/Backhoes	4	84	0.37	8	640	1,142
Grading						
Excavators	2	36	0.38	8	720	565
Grader	1	148	0.41	8	360	1,128
Rubber-Tired Dozer	1	367	0.40	8	360	2,728
Scrapers	2	423	0.48	8	720	7,547
Tractors/Loaders/Backhoes	2	84	0.37	8	720	1,284
Building Construction						
Crane	1	367	0.29	7	3,080	16,923
Forklifts	3	82	0.20	8	10,560	9,939
Generator	1	14	0.74	8	3,520	2,093
Tractors/Loaders/Backhoes	3	84	0.37	7	9,240	16,482
Welder	1	46	0.45	8	3,520	4,182
Architectural Coatings						
Air Compressor	1	37	0.48	6	210	214
Paving						
Pavers	2	81	0.42	8	560	1,093
Paving Equipment	2	89	0.36	8	560	1,030
Rollers	2	36	0.38	8	560	440
Total Off-Road Equipment Diesel Fuel Used during Construction (gallons)						**74,962**

Notes:

[1] Based on: 30 days for Demolition; 20 days for Site Preparation, 45 days for Grading; 440 days for Building Construction; 35 days for Paving, and 35 days for Architectural Coatings.

Source: CalEEMod Version 2022.1 (see Appendix A); CARB, 2017.

On-Road Construction-Related Vehicle Trips

The on-road construction-related vehicle trips fuel usage was calculated through use of the construction vehicle trip assumptions from the CalEEMod model run as detailed above in Section 8.1. The calculated total construction miles were then divided by the fleet average for the South Coast Air Basin portion of Los Angeles County miles per gallon rates for the year 2024 calculated through use of the EMFAC2021 model and the EMFAC2021 model printouts are shown in Appendix B. The worker trips were based on the combined fleet average miles per gallon rates for gasoline powered automobiles, SUVs and pickup trucks and the vendor and haul truck trips were based on the combined T6 and T7 diesel fleet average miles per gallon rate for diesel-powered vehicles. Table K shows the on-road construction vehicle trips modeled in CalEEMod and the gasoline and diesel fuel usage calculations.

Table K – On-Road Vehicle Trips and Fuel Consumption from Construction of the Proposed Project

Vehicle Trip Type/Fuel Type	Daily Trips	Trip Length (miles)	Total Miles per Day	Total Miles per Phase[1]	Fleet Average Miles per Gallon[2]	Fuel Used (gallons)
Demolition						
Worker (Gasoline)	15	18.5	278	8,325	25.4	327
Haul Truck (Diesel)	291	20	5,820	174,600	14.7	11,879
Site Preparation						
Worker (Gasoline)	17.5	18.5	324	6,475	25.4	255
Grading						
Worker (Gasoline)	20	18.5	370	16,650	25.4	655
Haul Truck (Diesel)	3.5	20	71	3,177	14.7	216
Building Construction						
Worker (Gasoline)	135	18.5	2,498	1,098,900	25.4	43,224
Vendor Trips (Diesel)	52.7	10.2	538	236,518	14.7	16,092
Architectural Coating						
Worker (Gasoline)	27	18.5	500	17,483	25.4	688
Paving						
Worker (Gasoline)	15	18.5	278	9,713	25.4	382
	Total Gasoline Fuel Used from On-Road Construction Vehicles (gallons)					**45,531**
	Total Diesel Fuel Used from On-Road Construction Vehicles (gallons)					**28,187**

Notes:
[1] Based on: 30 days for Demolition; 20 days for Site Preparation, 45 days for Grading; 440 days for Building Construction; 35 days for Paving; and 35 days for Architectural Coatings.
[2] From EMFAC 2021 model (see Appendix B).
Source: CalEEMod Version 2022.1; CARB, 2018.

Table K shows that the on-road construction-related vehicle trips would consume 45,531 gallons of gasoline and 28,187 gallons of diesel fuel. As detailed above, Table J shows that the off-road construction equipment would consume 74,962 gallons of diesel fuel. This would result in the total consumption of 45,531 gallons of gasoline and 103,150 gallons of diesel fuel from construction of the proposed project.

Operations-Related Energy Use

The operation of the proposed project is anticipated to use energy in the forms of petroleum fuel, electricity, and natural gas, and the calculations for each source are described below.

Operational Petroleum Fuel

The on-road operations-related vehicle trips fuel usage was calculated through use of the total annual vehicle miles traveled assumptions from the CalEEMod model run as detailed above in Section 8.1, which found that operation of the proposed project would generate 403,987 vehicle miles traveled per year. The calculated total operational miles were then divided by the Southern California fleet average rate of 28.3 miles per gallon, which was calculated through use of the EMFAC2021 model and based on the year 2030. The EMFAC2021 model printouts are shown in Appendix B. Based on the above calculation methodology, operational vehicle trips generated from the proposed project would consume 14,271 gallons of gasoline per year.

Operational Electricity Use

The operations-related electricity usage was calculated in the CalEEMod model run that is detailed above in Section 8.1 that found that operation of the proposed project would consume 3,605,016 kilo-watt hours (kWh) per year of electricity. It should be noted that this provides for a worst-case electrical use consumption rate, since the Project Description (see Section 1.3 above) details that all development on the campus will be designed to transform the campus to a Zero Net Energy (ZNE) campus.

Operational Natural Gas Use

The operations-related natural gas usage was calculated in the CalEEMod model run that is detailed above in Section 8.1 that found that operation of the proposed project would consume 16,031,181 kilo British Thermal Units (kBTU) per year, which is equivalent to 16,031 mega-British Thermal units (MBTU) per year of natural gas. It should be noted that this provides for a worst-case natural gas consumption rate, since the Project Description (see Section 1.3 above) details that all development on the campus will be designed to transform the campus to a Zero Net Energy (ZNE) campus.

8.3 Toxic Air Contaminant Emissions Modeling

The dispersion modeling utilized for analyzing the TAC emissions in this analysis has been based on the recommended methodology described in *Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel idling Emissions for CEQA Air Quality Analysis* (SCAQMD HRA Guidance), prepared by SCAQMD, 2003, *Air Toxics Hot Spots Program Risk Assessment Guidelines* (OEHHA Guidelines), prepared by Office of Environmental Health Hazard, February 2015, and *Risk Assessment Procedures for Rules 1401, 1401.1 and 212* (SCAQMD Risk Assessment Procedures), prepared by SCAQMD, September 1, 2017. Important issues that affect the dispersion modeling include the following: 1) Model Selection, 2) Source Treatment, 3) Meteorological Data, and 4) Receptor Grid. Each of these issues is addressed below.

Model Selection

The Lakes AERMOD View Version 12.0.0 using the latest version of the AERMOD model (22112) was used for all dispersion modeling. Key dispersion modeling options selected included the regulatory default options and urban modeling option for Los Angeles County with a population of 9,818,605. Flagpole receptor height was set to 0 meters, which is based on SCAQMD recommended modeling parameters. AERMAP model (16216), the terrain pre-processor for AERMOD, was run with a USGS 1 degree map of west San Bernardino. The averaging time options of 1-hour and Period were selected in all AERMOD model runs.

Meteorological Data

Meteorological data from the Azusa Monitoring Station was selected for this modeling application. The SCAQMD's meteorological data is provided at: https://www.aqmd.gov/home/air-quality/meteorological-data/data-for-aermod. Five full years of meteorological data were collected at the Azusa Monitoring Station by the SCAQMD that included years 2012 to 2016. The SCAQMD processed the data for input to the model. An elevation of 182 meters was utilized for the Azusa Station per SCAQMD guidance.

Receptor Grid

The nearest sensitive receptors to the project site are homes located as near as 15 feet east of the Center for Excellence site. There are also homes as near as 15 feet from the south side, 80 feet from the east side, and 90 feet from the north and west sides of the existing Citrus College site. Discrete receptors were placed at 12 representative nearby sensitive receptors. Figure 3 shows the locations of the sources and receptors modeled in the AERMOD model for TAC emissions.

DPM Emissions Assumptions

The Age Sensitivity Factors (ASF) that are defined in the OEHHA Guidance (OEHHA 2015) have been utilized in this analysis. The ASF requirements, utilize separate emission factors over a person's life segmented into three distinct periods with the first period starting at the third trimester of a pregnancy to 2 years of age, the second period is from 2 to 16 years, and the third if from 16 to 70 years old.

Since the construction emissions were modeled in CalEEMod based on a worst-case buildout of all proposed improvements simultaneously occur over a 2.35 year period from October 2024 to January 2027, each year was analyzed separately. The following shows each analysis year and also details the phase of construction analyzed for each year:

- Year 2024 - Third trimester to 0 months and includes Demolition, Site Preparation and Grading
- year 2025 - 0 months to 1 years of age and includes Grading and Building Construction
- Year 2026 – 1 year to 2 years and includes Building Construction, Paving and Architectural Coating
- Year 2027 – No Analysis - CalEEMod model shows DPM emissions to be negligible during Architectural Coating phase

For each year the daily breathing rates and associated cancer risks were adjusted to match the above age levels. The use of the above age breakdowns represents a worst-case assumption that a woman who is in her third trimester is living in one of the nearby homes at the start of construction and the newborn child would remain at the home through the duration of construction. Construction activities have been modeled as occurring from 7 a.m. to 4 p.m. every day.

Off-Road Construction Equipment DPM Emissions

TAC emissions from construction activities would be primarily from DPM emissions associated with the onsite operation of off-road diesel equipment. The off-road equipment exhaust emissions that would be created from construction of the proposed project has been calculated by the CalEEMod Model, based on the parameters detailed above in Section 8.1. The CalEEMod model calculated that the off-road equipment would generate daily PM2.5 averages of 0.052 pounds per day in 2024, 0.232 pounds per day in 2025, and 0.183 pounds per day of PM2.5 in 2026.

The off-road construction equipment was modeled as four point sources, located in the middle of the Conference Center, Learning Resource Center, CTE Building and Classroom Building areas, where each

point source emitted one quarter of the PM2.5 emissions from the CalEEMod model. The four point sources were modeled in the AERMOD model with a 13-foot release height, a 0.1-meter diameter stack, a velocity of 50 meters per second, and a temperature of 366°K. The emission rates for each of the four point sources are based on a 9-hour workday and are shown in Table L. The placement of the off-road equipment point sources in the AERMOD model is shown in Figure 3.

Table L – Off-Road Equipment DPM Emission Entered into AERMOD

		PM2.5 Emissions Rates (grams/second)		
Source ID	Location on Project Site	2024	2025	2026
EQCONF	Conference Center	2.58E-04	8.13E-04	3.91E-07
EQLRC	Learning Resource Center	2.58E-04	8.13E-04	3.91E-07
EQCTE	CTE Building	2.58E-04	8.13E-04	3.91E-07
EQCLRM	Classroom Building	2.58E-04	8.13E-04	3.91E-07

Source: CalEEMod Version 2022.1

Construction-Related Truck Running Emissions

The emission factors used for the roadway line volume sources were derived from the CARB EMFAC2021 Version 1.0.2. The parameters entered into the EMFAC2021 model included the South Coast Air Basin portion of Los Angeles County, for calendar years 2024, 2025 and 2026, a vehicle category of T7 Single Dump Class 8, model year of aggregated, speeds of 15 miles per hour for the onsite road and 35 miles per hour for the offsite roads, temperature of 50 degrees Fahrenheit, humidity of 50 percent, and set for diesel fuel. The EMFAC2021 version 1.0.2 model calculated running emission rates are shown in Table M and the EMFAC2021 printouts are provided in Appendix B.

Table M – EMFAC2021 Diesel Truck Running PM2.5 Emission Rates

	Speed	EMFAC2021 PM2.5 Running Emissions Rates (grams/mile)		
Vehicle Class	(mph)	2024	2025	2026
T7 Single Dump	15	0.0068	0.0066	0.0064
Class 8	35	0.0064	0.0062	0.0061

Source: EMFAC2021 version 1.0.2 (see Appendix B).

The offsite construction-related truck trips has been modeled based on the worst case condition of all trucks traveling from Interstate 210 via Citrus Avenue and Foothill Boulevard and entering the Campus at the proposed CTE Building on Barranca Avenue, then traveling onsite to the proposed Student Union Building. The CalEEMod model calculated the truck trips that would be generated from the proposed project, which found that the demolition phase would generate 291 truck trips per day over 30 workdays, the grading phase would generate 3.5 truck trips per day over 45 workdays, and the building construction phase would generate an average of 52.7 truck trips per day over 300 work days. This would result in average of 98.6 daily truck trips in the year 2024, 33.5 daily truck trips in the year 2025, and 30.7 daily truck trips in the year 2026.

The truck travel emissions were modeled in the AERMOD model by using line volume sources. The line volume sources were modeled with a plume height of 6 feet and plume width of 12 feet for the onsite path and a 34-foot width on the offsite roads. The road source emissions rates entered into the AERMOD model are shown in Table N. The road source emissions were determined by calculating the time it takes

for each truck to cross the road length and then multiplying that amount of time by the daily truck operations and dividing it by 9 hours in order to determine the percent of daily running time. The daily running time was then multiplied by the EMFAC2021 emissions rates that are shown above in Table M and were converted to grams per second. The placement of the truck travel line volume sources in the AERMOD model is shown in Figure 3.

Table N – Construction-Related Truck Travel Emissions Rates used in the AERMOD Model

Source ID	Roads	Length of Road (Meters)	PM2.5 Emission Rates (grams/second)		
			2024	2025	2026
RDOFF	Citrus Ave, Foothill Blvd & Barranca Ave	1,770	2.13E-05	7.04E-06	6.30E-06
RDON	Onsite from Barranca Ave to Student Union	452	5.81E-06	1.91E-06	1.70E-06

Notes:
[1] A daily truck trip represent either entering or leaving project site. A delivery to the project site would generate two trips.
Source: EMFAC2021

Construction-Related Truck Idling Emissions

The emissions factors used for the truck idling point source are based on the EMFAC2021 Idling Emission Rates shown in Table O and the EMFAC2021 input parameters have been described above and the EMFAC2021 printouts are provided in Appendix B.

Table O – EMFAC2021 Diesel Truck Idling PM2.5 Emission Rates

Vehicle Class	EMFAC2021 PM2.5 Idling Emissions Rates (grams/hour)		
	2024	2025	2026
T7 Single Dump Class 8	0.0241	0.0218	0.0198

Source: EMFAC2021 version 1.0.2 (see Appendix B).

The construction diesel truck idling was modeled as four point sources located in close proximity to the four off-road equipment point sources, described above. Each of the four point sources were modeled based on a quarter of the truck trips. For each point source this resulted in 24.7 deliveries per day in 2024, 8.4 deliveries per day in 2025, and 7.7 deliveries per day in 2026.

The analysis was based on each truck delivery idling on the project site for 10 minutes (5 minutes per trip). The 5-minute period is based on Section 2485 of the California Code of Regulations that limits commercial truck idling to 5 minutes at any location. The idling point source was modeled in the AERMOD model with a 12-foot height, a 0.1-meter diameter, a velocity of 50 meters per second, and a temperature of 366°K. The idling DPM emission rates used in the AERMOD model for each year of construction analyzed are shown in Table P and are based on a 9-hour workday. The placement of the idling point source in the AERMOD model is shown in Figure 3.

Table P – Construction-Related Truck Idling Emissions Rates Used in the AERMOD Model

Source ID	Location on Project Site	PM2.5 Emission Rates (grams/second)		
		2024	2025	2026
IDCONF	Conference Center	1.53E-06	4.69E-07	3.91E-07
IDLRC	Learning Resource Center	1.53E-06	4.69E-07	3.91E-07
IDCTC	CTE Building	1.53E-06	4.69E-07	3.91E-07
IDCLRM	Classroom Building	1.53E-06	4.69E-07	3.91E-07

Source: EMFAC2021 version 1.0.2; CalEEMod version 2022.1

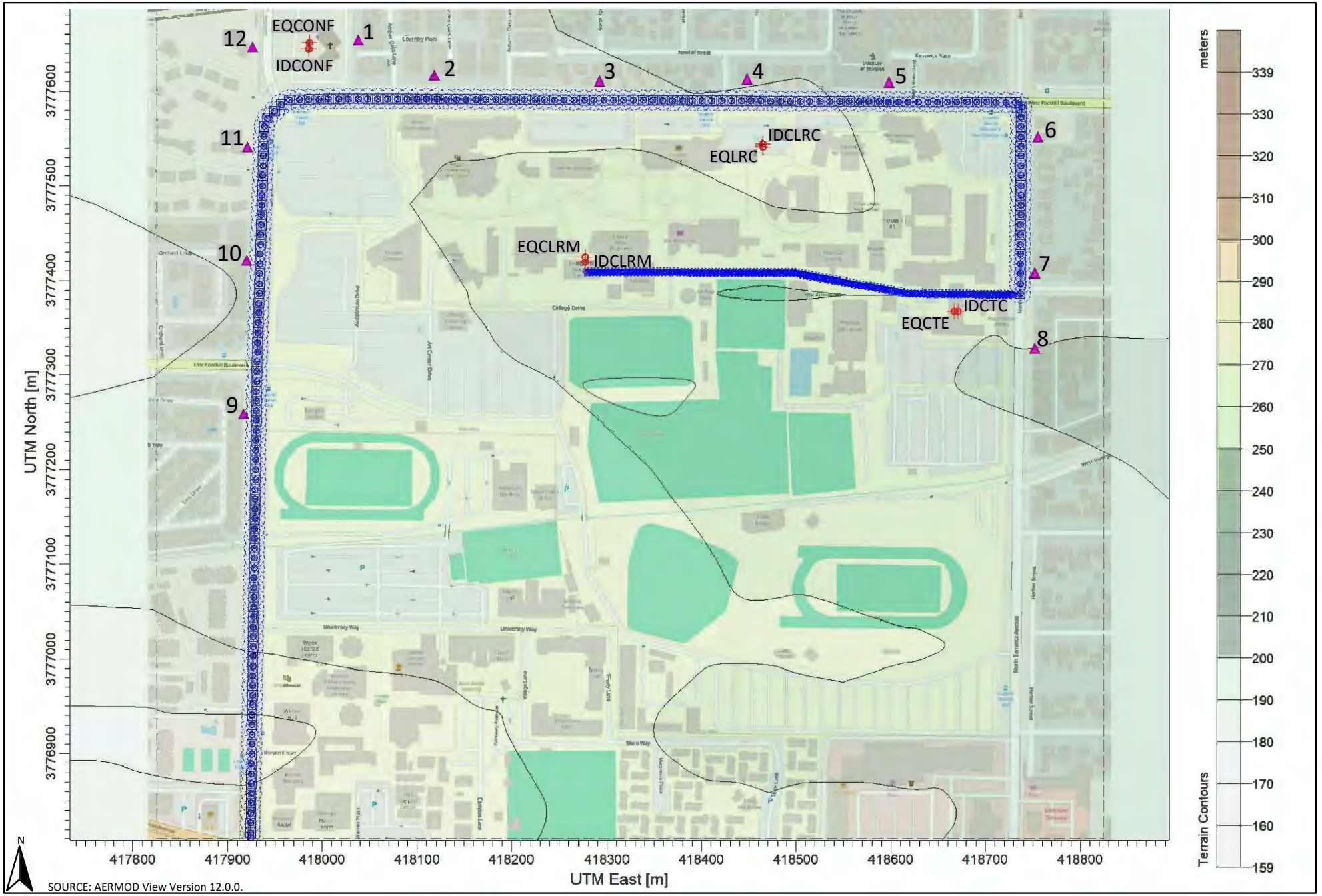


Figure 3
AERMOD Model Construction Sources and Receptors Placement

9.0 THRESHOLDS OF SIGNIFICANCE

9.1 Regional Air Quality

Many air quality impacts that derive from dispersed mobile sources, which are the dominate pollution generators in the Air Basin, often occurs hours later and miles away after photochemical processes have converted primary exhaust pollutants into secondary contaminants such as ozone. The incremental regional air quality impact of an individual project is generally very small and difficult to measure. Therefore, SCAQMD has developed significance thresholds based on the volume of pollution emitted rather than on actual ambient air quality because the direct air quality impact of a project is not quantifiable on a regional scale. The SCAQMD CEQA Handbook states that any project in the Air Basin with daily emissions that exceed any of the identified significance thresholds should be considered as having an individually and cumulatively significant air quality impact. For the purposes to this air quality impact analysis, a regional air quality impact would be considered significant if emissions exceed the SCAQMD significance thresholds identified in Table Q.

Table Q – SCAQMD Regional Criteria Pollutant Emission Thresholds of Significance

	Pollutant Emissions (pounds/day)						
	VOC	**NOx**	**CO**	**SOx**	**PM10**	**PM2.5**	**Lead**
Construction	75	100	550	150	150	55	3
Operation	55	55	550	150	150	55	3

Source: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2

9.2 Local Air Quality

Project-related construction air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. In order to assess local air quality impacts the SCAQMD has developed Localized Significant Thresholds (LSTs) to assess the project-related air emissions in the project vicinity. SCAQMD has also provided *Final Localized Significance Threshold Methodology* (LST Methodology), July 2008, which details the methodology to analyze local air emission impacts. The LST Methodology found that the primary emissions of concern are NO_2, CO, PM10, and PM2.5.

The LST Methodology provides Look-Up Tables with different thresholds based on the location and size of the project site and distance to the nearest sensitive receptors. The Look-Up Tables provided in the LST Methodology include project site acreage sizes of 1-acre, 2-acres and 5-acres. As detailed above in Table B, the proposed project would be constructed in eight phases and as detailed above in Section 8.1, it is anticipated that proposed development would disturb approximately one quarter of the total campus area that encompasses 105.77 acres. Based on the above, it can be assumed that the each of the eight phases of construction would disturb around 5-acres or less. Therefore, the 5-acre project site shown in the Look-Up Tables has been utilized in this analysis.

As detailed above in Section 7.3, the project site is located in Air Monitoring Area 9, which covers the East San Gabriel Valley. The nearest sensitive receptors to the project site are homes located as near as 15 feet east of the Center for Excellence site. There are also homes as near as 15 feet from the south side, 80 feet from the east side, and 90 feet from the north and west sides of the existing Citrus College site. According to LST Methodology, any receptor located closer than 25 meters (82 feet) shall be based on the

25-meter thresholds. Table R below shows the LSTs for NOx, CO, PM10 and PM2.5 for both construction and operational activities.

Table R – SCAQMD Local Air Quality Thresholds of Significance

Activity	Allowable Emissions (pounds/day)[1]			
	NOx	CO	PM10	PM2.5
Construction	203	1,733	14	8
Operation	203	1,733	4	2

Notes:
[1] The nearest offsite sensitive receptors are homes located as near as 15 feet east of the Center for Excellence site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for five acres in Air Monitoring Area 9, East San Gabriel Valley.

9.3 Toxic Air Contaminants

According to the SCAQMD CEQA Handbook, any project that has the potential to expose the public to toxic air contaminants in excess of the following thresholds would be considered to have a significant air quality impact:

- If the Maximum Incremental Cancer Risk is 10 in one million or greater; or
- Toxic air contaminants from the proposed project would result in a Hazard Index increase of 1 or greater.

In order to determine if the proposed project may have a significant impact related to toxic air contaminants (TACs), the *Health Risk Assessment Guidance for analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*, (Diesel Analysis) prepared by SCAQMD, August 2003, recommends that if the proposed project is anticipated to create TACs through stationary sources or regular operations of diesel trucks on the project site, then the proximity of the nearest receptors to the source of the TAC and the toxicity of the HAP should be analyzed through a comprehensive facility-wide health risk assessment (HRA).

The comprehensive HRA for both construction and operation of the proposed project can be found below in Section 10.4.

9.4 Odor Impacts

The SCAQMD CEQA Handbook states that an odor impact would occur if the proposed project creates an odor nuisance pursuant to SCAQMD Rule 402, which states:

> "A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
>
> The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals."

If the proposed project results in a violation of Rule 402 with regards to odor impacts, then the proposed project would create a significant odor impact.

9.5 Energy Conservation

The *2022 CEQA California Environmental Quality Act Statutes & Guidelines* (2022 CEQA Guideline) include an Energy Section that analyzes the proposed project's energy consumption in order to avoid or reduce inefficient, wasteful or unnecessary consumption of energy. Appendix F of the 2022 CEQA Statute and Guidelines, states the following:

> The goal of conserving energy implies the wise and efficient use of energy. The means of achieving this goal include:
>
> (1) Decreasing overall per capita energy consumption,
>
> (2) Decreasing reliance on fossil fuels such as coal, natural gas and oil, and
>
> (3) Increasing reliance on renewable energy sources.

Since the Energy Section was recently added, no state or local agencies have adopted specific criteria or thresholds to be utilized in an energy impact analysis. However, Appendix F, Subsection II.C of the 2022 CEQA Guidelines provides the following criteria for determining significance.

1. The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project life cycle including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
2. The effects of the project on local and regional energy supplies and on requirement for additional capacity.
3. The effects of the project on peak and base period demands for electricity and other forms of energy.
4. The degree to which the project complies with existing energy standards.
5. The effects of the project on energy resources.
6. The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

If the proposed project creates inefficient, wasteful or unnecessary consumption of energy during construction or operation activities or conflicts with a state or local plan for renewable energy or energy efficiency, then the proposed project would create a significant energy impact.

9.6 Greenhouse Gas Emissions

The proposed project is located within the jurisdiction of the SCAQMD. In order to identify significance criteria under CEQA for development projects, SCAQMD initiated a Working Group, which provided detailed methodology for evaluating significance under CEQA. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual threshold of 3,000 $MTCO_2e$ for all land use projects. Although the SCAQMD provided substantial evidence supporting the use of the above threshold, as of November 2017, the SCAQMD Board has not yet considered or approved the Working Group's thresholds.

It should be noted that SCAQMD's Working Group's thresholds were prepared prior to the issuance of Executive Order B-30-15 on April 29, 2015 that provided a reduction goal of 40 percent below 1990 levels

by 2030. This target was codified into statute through passage of AB 197 and SB 32 in September 2016. However, to date no air district or local agency within California has provided guidance on how to address AB 197 and SB 32 with relation to land use projects. In addition, the California Supreme Court's ruling on *Cleveland National Forest Foundation v. San Diego Association of Governments* (Cleveland v. SANDAG), Filed July 13, 2017 stated:

> SANDAG did not abuse its discretion in declining to adopt the 2050 goal as a measure of significance in light of the fact that the Executive Order does not specify any plan or implementation measures to achieve its goal. In its response to comments, the EIR said: "It is uncertain what role regional land use and transportation strategies can or should play in achieving the EO's 2050 emissions reduction target. A recent California Energy Commission report concludes, however, that the primary strategies to achieve this target should be major 'decarbonization' of electricity supplies and fuels, and major improvements in energy efficiency [citation].

Although, the above court case was referencing California's GHG emission targets for the year 2050, at this time it is also unclear what role land use strategies can or should play in achieving the AB 197 and SB 32 reduction goal of 40 percent below 1990 levels by 2030. As such this analysis has relied on the SCAQMD Working Group's recommended thresholds. Therefore, the proposed project would be considered to create a significant cumulative GHG impact if the proposed project would exceed the annual threshold of 3,000 $MTCO_2e$.

The GHG emissions analysis for both construction and operation of the proposed project can be found below in Sections 10.8 and 10.9.

10.0 IMPACT ANALYSIS

10.1 CEQA Thresholds of Significance

Consistent with CEQA and the State CEQA Guidelines, a significant impact related to air quality, energy, and GHG emissions would occur if the proposed project is determined to:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment 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) adversely affecting a substantial number of people;
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation;
- Conflict with or obstruct a state or local plan for renewable energy;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.

10.2 Air Quality Compliance

The proposed project would not conflict with or obstruct implementation of the SCAQMD Air Quality Management Plan (AQMP). The following section discusses the proposed project's consistency with the SCAQMD AQMP.

SCAQMD Air Quality Management Plan

The California Environmental Quality Act (CEQA) requires a discussion of any inconsistencies between a proposed project and applicable General Plans and regional plans (CEQA Guidelines Section 15125). The regional plan that applies to the proposed project includes the SCAQMD AQMP. Therefore, this section discusses any potential inconsistencies of the proposed project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the proposed project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the proposed project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered to be consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.

(2) Whether the project will exceed the assumptions in the AQMP or increments based on the year of project buildout and phase.

Both of these criteria are evaluated in the following sections.

Criterion 1 - Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in this report, short-term regional construction air emissions would not result in significant impacts based on SCAQMD regional thresholds of significance discussed above in Section 9.1 or local thresholds of significance discussed above in Section 9.2. The ongoing operation of the proposed project would generate air pollutant emissions that are inconsequential on a regional basis and would not result in significant impacts based on SCAQMD thresholds of significance discussed above in Section 9.1. The analysis for long-term local air quality impacts showed that local pollutant concentrations would not exceed the air quality standards. Therefore, a less than significant long-term impact would occur and no mitigation would be required.

Therefore, based on the information provided above, the proposed project would be consistent with the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the proposed project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the proposed project are based on the same forecasts as the AQMP. The AQMP is developed through use of the planning forecasts provided in the Connect SoCal and 2019 FTIP. The Connect SoCal is a major planning document for the regional transportation and land use network within Southern California. The Connect SoCal is a long-range plan that is required by federal and state requirements placed on SCAG and is updated every four years. The 2019 FTIP provides long-range planning for future transportation improvement projects that are constructed with state and/or federal funds within Southern California. Local governments are required to use these plans as the basis of their plans for the purpose of consistency with applicable regional plans under CEQA. For this project, the City of Glendora Land Use Plan defines the assumptions that are represented in AQMP.

The campus currently has a land use designation of Civic/Institution and is zoned R-1, Single Family Residential. The existing church site has a land use designation of Medium/High Density and is currently zoned Garden Apartment. Educational uses are allowed in both of these land use designations. It should also be noted that project site is located in close proximity to existing transit stops that promote alternative transportation methods. As such, the proposed project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the proposed project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur in relation to implementation of the AQMP.

Level of Significance

Less than significant impact.

10.3 Cumulative Net Increase in Non-Attainment Pollution

The proposed project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard.

The SCAQMD has published a report on how to address cumulative impacts from air pollution: White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf). In this report the AQMD clearly states (Page D-3):

> *"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or Environmental Impact Report (EIR). The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility- wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project- specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. The following section calculates the potential air emissions associated with the construction and operations of the proposed project and compares the emissions to the SCAQMD standards.

Construction Emissions

As detailed above in Table B, Buildout of all of the projects will occur in eight development phases. Phase 1, campus-wide improvements will begin in Fall of 2024 and all construction would be completed by 2032. In order to provide a worst-case analysis, all eight phases of construction activities were modeled in CalEEMod as occurring in one phase. The phases of construction activities that have been analyzed include: 1) Demolition; 2) Site Preparation; 3) Grading, 4) Building Construction, 5) Application of Architectural Coatings; and 6) Paving. The construction emissions have been analyzed for both regional and local air quality impacts.

<u>Construction-Related Regional Impacts</u>

The CalEEMod model has been utilized to calculate the construction-related regional emissions from the proposed project and the input parameters utilized in this analysis have been detailed in Section 8.1. The worst-case summer or winter daily construction-related criteria pollutant emissions from the proposed

project for each phase of construction activities are shown below in Table S and the CalEEMod printouts are shown in Appendix A. Since it is possible that building construction, paving, and architectural coating activities may occur concurrently towards the end of the building construction phase, Table S also shows the combined regional criteria pollutant emissions from building construction, paving and architectural coating phases of construction.

Table S – Construction-Related Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Demolition[1]						
Onsite[2]	2.62	24.9	21.7	0.03	7.62	1.97
Offsite[3]	0.49	26.8	10.8	0.13	5.86	1.79
Total	**3.11**	**51.7**	**32.5**	**0.16**	**13.5**	**3.76**
Site Preparation[1]						
Onsite	3.65	36.0	32.9	0.05	6.71	4.10
Offsite	0.08	0.10	1.12	<0.01	0.23	0.05
Total	**3.73**	**36.1**	**34.0**	**0.05**	**6.94**	**4.15**
Grading[1]						
Onsite	3.52	34.3	30.2	0.06	3.84	2.28
Offsite	0.10	0.43	1.40	<0.01	0.33	0.08
Total	**3.62**	**34.7**	**31.6**	**0.06**	**4.17**	**2.36**
Building Construction Year 2025						
Onsite	1.13	10.4	13.0	0.02	0.43	0.40
Offsite	0.63	2.63	10.3	0.01	2.25	0.55
Total	**1.76**	**13.0**	**23.3**	**0.03**	**2.68**	**0.95**
Combined Building Construction, Paving and Architectural Coatings (Year 2026)						
Onsite	57.3	17.8	24.1	0.03	0.72	0.66
Offsite	0.70	61.1	11.9	0.01	2.80	0.68
Total	**58.0**	**78.9**	**36.0**	**0.04**	**3.52**	**1.34**
Maximum Daily Construction Emissions	**58.02**	**78.9**	**36.0**	**0.16**	**13.5**	**4.15**
SCQAMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Demolition, Site Preparation and Grading based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
[2] Onsite emissions from equipment not operated on public roads.
[3] Offsite emissions from vehicles operating on public roads.
Source: CalEEMod Version 2022.1.

Table S shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds during either demolition, site preparation, grading, or combined building construction, paving and architectural coatings phases. Therefore, a less than significant regional air quality impact would occur from construction of the proposed project.

Construction-Related Local Impacts

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

The local air quality emissions from construction were analyzed through utilizing the methodology described in *Localized Significance Threshold Methodology* (LST Methodology), prepared by SCAQMD, revised October 2009. The LST Methodology found the primary criteria pollutant emissions of concern are NOx, CO, PM10, and PM2.5. In order to determine if any of these pollutants require a detailed analysis of the local air quality impacts, each phase of construction was screened using the SCAQMD's Mass Rate LST Look-up Tables. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily onsite emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality.

Table T shows the onsite emissions from the CalEEMod model for the different construction phases and the calculated localized emissions thresholds that have been detailed above in Section 9.2. Since it is possible that building construction, paving and architectural coating activities may occur concurrently towards the end of the building construction phase, Table T also shows the combined local criteria pollutant emissions from building construction, paving and architectural coating phases of construction.

Table T – Construction-Related Local Criteria Pollutant Emissions

Construction Phase	Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Demolition[1]	24.9	21.7	7.62	1.97
Site Preparation[1]	36.0	32.9	6.71	4.10
Grading[1]	34.3	30.2	3.84	2.28
Building Construction (Year 2025)	10.4	13.0	0.43	0.40
Combined Building Construction, Paving and Architectural Coatings (Year 2026)	17.8	24.1	0.72	0.66
Maximum Daily Construction Emissions	**36.0**	**32.9**	**7.62**	**4.10**
SCAQMD Local Construction Thresholds[2]	**203**	**1,733**	**14**	**8**
Exceeds Threshold?	No	No	No	No

Notes:
[1] Demolition, Site Preparation and Grading phases based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
[2] The nearest offsite sensitive receptors are homes located as near as 15 feet east of the Center for Excellence site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for five acres in Air Monitoring Area 9, East San Gabriel Valley.

The data provided in Table T shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds during either demolition, site preparation, grading, or combined building construction, paving and architectural coatings . Therefore, a less than significant local air quality impact would occur from construction of the proposed project.

Operational Emissions

The on-going operation of the proposed project would result in a long-term increase in air quality emissions. This increase would be due to emissions from the project-generated vehicle trips, emissions from onsite area sources and emissions from energy usage created from the on-going use of the proposed

project. The following section provides an analysis of potential long-term air quality impacts due to regional air quality and local air quality impacts with the on-going operations of the proposed project.

Operations-Related Regional Criteria Pollutant Analysis

The operations-related regional criteria air quality impacts created by the proposed project have been analyzed through use of the CalEEMod model and the input parameters utilized in this analysis have been detailed in Section 8.1. The worst-case summer or winter VOC, NOx, CO, SO_2, PM10, and PM2.5 daily emissions created from the proposed project's long-term operations have been calculated and are summarized below in Table U and the CalEEMod emissions printouts are shown in Appendix A.

Table U – Operational Regional Criteria Pollutant Emissions

	Pollutant Emissions (pounds/day)					
Activity	**VOC**	**NOx**	**CO**	**SO_2**	**PM10**	**PM2.5**
Area Sources[1]	10.0	0.12	14.0	<0.01	0.02	0.02
Energy Usage[2]	0.24	4.31	3.62	0.03	0.33	0.33
Mobile Sources[3]	0.42	0.34	3.89	0.01	1.02	0.26
Total Emissions	**10.7**	**4.77**	**21.5**	**0.04**	**1.37**	**0.61**
SCQAMD Operational Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
[2] Energy usage consist of emissions from natural gas usage.
[3] Mobile sources consist of emissions from vehicles and road dust.
Source: Calculated from CalEEMod Version 2022.1.

The data provided in Table U shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, a less than significant regional air quality impact would occur from operation of the proposed project.

Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. The proposed project has been analyzed for the potential local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analyzes the vehicular CO emissions and local impacts from on-site operations.

Local CO Hotspot Impacts from Project-Generated Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards of 20 ppm over one hour or 9 ppm over eight hours.

At the time of the 1993 Handbook, the Air Basin was designated nonattainment under the CAAQS and NAAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the Air Basin and in the state have steadily

declined. In 2007, the Air Basin was designated in attainment for CO under both the CAAQS and NAAQS. SCAQMD conducted a CO hot spot analysis for attainment at the busiest intersections in Los Angeles[3] during the peak morning and afternoon periods and did not predict a violation of CO standards. Since the nearby intersections to the proposed project are much smaller with less traffic than what was analyzed by the SCAQMD, no local CO Hotspot are anticipated to be created from the proposed project and no CO Hotspot modeling was performed. Therefore, a less than significant long-term air quality impact is anticipated to local air quality with the on-going use of the proposed project.

Local Criteria Pollutant Impacts from Onsite Operations

Project-related air emissions from onsite sources such as architectural coatings, landscaping equipment, and onsite usage of natural gas appliances may have the potential to create emissions areas that exceed the State and Federal air quality standards in the project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

The local air quality emissions from onsite operations were analyzed using the SCAQMD's Mass Rate LST Look-up Tables and the methodology described in LST Methodology. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM10, and PM2.5 from the proposed project could result in a significant impact to the local air quality. Table N shows the onsite emissions from the CalEEMod model that includes area sources and energy usage and the calculated emissions thresholds.

Table V – Operations-Related Local Criteria Pollutant Emissions

Onsite Emission Source	Pollutant Emissions (pounds/day)			
	NOx	CO	PM10	PM2.5
Area Sources	0.12	14.0	0.02	0.02
Energy Usage	0.54	0.45	0.04	0.04
Mobile Sources[1]	0.34	3.89	1.02	0.26
Total Emissions	**1.00**	**18.3**	**1.08**	**0.32**
SCAQMD Local Operational Thresholds[2]	**203**	**1,733**	**4**	**2**
Exceeds Threshold?	No	No	No	No

Notes:
[1] Mobile sources are based on 1/8 of the gross vehicular emissions, which is the estimated portion of vehicle emissions occurring within a quarter mile of the project site.
[2] The nearest offsite sensitive receptors are homes located as near as 15 feet east of the Center for Excellence site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for five acres in Air Monitoring Area 9, East San Gabriel Valley.

The data provided in Table N shows that the on-going operations of the proposed project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance discussed above in Section 9.2. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality due to onsite emissions and no mitigation would be required.

[3] The four intersections analyzed by the SCAQMD were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning and LOS F in the evening peak hour.

Therefore, the proposed project would not result in a cumulatively considerable net increase of any criteria pollutant.

Level of Significance

Less than significant impact.

10.4 Sensitive Receptors

The proposed project would not expose sensitive receptors to substantial pollutant concentrations. The local concentrations of criteria pollutant emissions produced in the nearby vicinity of the proposed project, which may expose sensitive receptors to substantial concentrations have been calculated above in Section 10.3 for both construction and operations, which are discussed separately below. The discussion below also includes an analysis of the potential impacts from local criteria pollutant and toxic air contaminant emissions. The nearest sensitive receptors to the project site are homes located as near as 15 feet east of the Center for Excellence site. There are also homes as near as 15 feet from the south side, 80 feet from the east side, and 90 feet from the north and west sides of the existing Citrus College site.

Construction-Related Sensitive Receptor Impacts

Construction activities may expose sensitive receptors to substantial pollutant concentrations of localized criteria pollutant concentrations and from toxic air contaminant emissions created from onsite construction equipment, which are described below.

Local Criteria Pollutant Impacts from Construction

The local air quality impacts from construction of the proposed project have been analyzed above in Section 10.3 and found that the construction of the proposed project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance discussed above in Section 9.2. Therefore, construction of the proposed project would create a less than significant construction-related impact to local air quality and no mitigation would be required.

Toxic Air Contaminants Impacts from Construction

Construction activities associated with the proposed project are anticipated to generate TAC emissions from DPM associated with the operation of trucks and off-road equipment and from possible asbestos in the structures to be demolished.

Diesel Particulate Matter Emissions

Construction activities associated with the proposed project would generate DPM emissions from diesel truck trips to the project site as well as from off-road diesel-powered equipment. The TAC impacts to the nearby sensitive receptors have been analyzed through use of the AERMOD model and the model input parameters detailed above. Health risks from TACs are twofold. First, TACs are carcinogens according to the State of California. Second, short-term acute and long-term chronic exposure to TACs can cause health effects to the respiratory system. Each of these health risks is discussed below.

Cancer Risks

According to the OEHHA Guidance (OEHHA, 2015) and *Risk Assessment Procedures for Rules 1401, 1401.1 and 212*, (SCAQMD, 2017), the cancer risk should be calculated using the following formula:

Cancer Risk = [Dose-inh (mg/(Kg-day)] * [Cancer Potency Factor (kg-day)/mg]*[1x10^6] * Age Sensitivity Factor * Fraction of Time at Home

$$\text{Dose-inh} = (C_{air} * DBR * A * EF * ED * 10^6) / AT$$

Where:

C_{air}	[Concentration in air (µg/m^3)] = (Calculated by AERMOD Model)
DBR	[Daily breathing rate (L/kg body weight – day)]
A	[Inhalation absorption factor]
EF	[Exposure frequency (days/year)]
ED	[Exposure duration (years)]
10^6	[Micrograms to milligrams conversion]
AT	[Average time period over which exposure is averaged in days]

The cancer risk parameters used in this evaluation for the nearby residential uses are shown in Table W and are based on construction occurring over a 2.2 year period from October 2024 to end of 2026 (architectural coating activities in 2027 were found to create negligible DPM emissions). Each year was analyzed separately, with year 2024 representing from third trimester to 0 year (new born), year 2025 representing 0 year to 1 year and year 2026 represented 1 year to 2 years of age.

Table W – DPM Cancer Risk Calculation Parameters

Parameter	Construction Year		
	2024 (3rd Tri to 0 yr)	**2025 (0 yr to 1 yr)**	**2026 (1 yr to 2 yr)**
Cancer Potency Factor (mg/kg-day) for DPM	1.1	1.1	1.1
Daily Breathing Rate (L/kg body weight-day)	361	1,090	1,090
Inhalation Absorption Factor	1	1	1
Exposure Frequency (days/year)	350	350	350
Exposure Duration (years)	0.25	1.0	1.0
Age Sensitivity Factor	10	10	10
Fraction of Time at Home	1.0	1.0	1.0
Averaging Time[1](days)	25,550	25,550	25,550
Potential Cancer Risk =	C_{air} * 14	C_{air} * 164	C_{air} * 164

Notes:
[1] Based on a 70-year average lifetime.
Source: OEHHA, 2015; SCAQMD, 2017

Table X provides a summary of the calculated DPM concentrations at the nearest sensitive receptors and associated cancer risk from DPM emissions at the nearby homes. The AERMOD printouts are provided in Appendices C, D and E.

Table X – Construction-Related DPM Emissions Cancer Risks

Sensitive Receptor[1]	Receptor Location X	Receptor Location Y	Annual DPM Concentration (µg/m³) 2024	2025	2026	Cancer Risk Per Million People[2]
1	418,038	3,777,654	0.0072	0.0225	0.0178	6.7
2	418,118	3,777,617	0.0020	0.0059	0.0047	1.8
3	418,292	3,777,611	0.0017	0.0048	0.0038	1.4
4	418,448	3,777,613	0.0040	0.0121	0.0096	3.6
5	418,598	3,777,609	0.0024	0.0068	0.0054	2.0
6	418,755	3,777,552	0.0014	0.0037	0.0030	1.1
7	418,752	3,777,408	0.0036	0.0104	0.0082	3.1
8	418,752	3,777,328	0.0027	0.0084	0.0066	2.5
9	417,917	3,777,259	0.0006	0.0010	0.0008	0.3
10	417,920	3,777,421	0.0008	0.0017	0.0014	0.5
11	417,921	3,777,541	0.0016	0.0045	0.0035	1.3
12	417,926	3,777,647	0.0048	0.0149	0.0118	4.5
				Threshold of Significance		**10**
				Exceed Threshold?		**No**

Notes:
[1] The locations of each Sensitive Receptor are shown above in Figure 3.
[2] The residential cancer risk based on: C_{air} (2024) * 14 + C_{air} (2025) * 164 + C_{air} (2026) * 164.
Source: Calculated from ISC-AERMOD View Version 12.0.0.

Table X shows that the cancer risk from DPM emissions created from construction of the proposed project would be as high as **6.7 per million persons** at the multi-family homes located on the east side of the Conference Center (Sensitive Receptor 1). The project-related cancer risk from construction-related DPM emissions would be below the SCAQMD's threshold of 10 per million persons. Therefore, construction of the proposed project would result in a less than significant impact due to the cancer risk from DPM emissions.

Non-Cancer Risks

In addition to the cancer risk from exposure to TAC emissions there is also the potential TAC exposure may result in adverse health impacts from chronic illnesses, which is detailed below. According to the OEHHA, no acute risk had been found to be created from DPM, so there is no acute AREL assigned to DPM and no further analysis is provided as no acute impact would be created from the DPM emissions created by the proposed project.

Chronic Health Impacts

Chronic health effects are characterized by prolonged or repeated exposure to a TAC over many days, months, or years. Symptoms from chronic health impacts may not be immediately apparent and are often irreversible. The chronic hazard index is based on the most impacted sensitive receptor from the proposed project and is calculated from the annual average concentrations of PM2.5. The relationship for non-cancer chronic health effects is given by the equation:

$$HI_{DPM} = C_{DPM} / REL_{DPM}$$

Where,

HI_{DPM} = Hazard Index; an expression of the potential for non-cancer health effects.

C_{DPM} = Annual average diesel particulate matter concentration in $\mu g/m^3$.

REL_{DPM}= Reference Exposure Level (REL) for diesel particulate matter; the diesel particulate matter concentration at which no adverse health effects are anticipated.

The REL_{DPM} is 5 $\mu g/m^3$. The Office of Environmental Health Hazard Assessment has established this concentration as protective for the respiratory system. As shown above in Table X, the AERMOD model found that the highest annual off-site concentration is 0.0225 $\mu g/m^3$ for DPM chronic non-cancer risk emissions. The resulting Hazard Index is:

$$HI_{DPM} = 0.0225 / 5 = 0.0045$$

The criterion for significance is a Chronic Hazard Index increase of 1.0 or greater, which is detailed above. Therefore, the on-going operations of the proposed project would result in a less than significant impact due to the non-cancer chronic health risk from TAC emissions created by the proposed project.

Asbestos Emissions

It is possible that the existing onsite structures to be demolished contains asbestos. According to SCAQMD Rule 1403 requirements, prior to the start of demolition activities, the existing structures located onsite shall be thoroughly surveyed for the presence of asbestos by a person that is certified by Cal/OSHA for asbestos surveys. Rule 1403 requires that the SCAQMD be notified a minimum of 10 days before any demolition activities begin with specific details of all asbestos to be removed, start and completion dates of demolition, work practices and engineering controls to be used to contain the asbestos emissions, estimates on the amount of asbestos to be removed, the name of the waste disposal site where the asbestos will be taken, and names and addresses of all contractors and transporters that will be involved in the asbestos removal process. Therefore, through adherence to the asbestos removal requirements, detailed in SCAQMD Rule 1403, a less than significant asbestos impact would occur during construction of the proposed project

As such, construction of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Operations-Related Sensitive Receptor Impacts

The on-going operations of the proposed project may expose sensitive receptors to substantial pollutant concentrations of local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from onsite operations. The following analyzes Local criteria pollutant impacts from onsite operations, and toxic air contaminant impacts.

Local Criteria Pollutant Impacts from Onsite Operations

The local air quality impacts from the operation of the proposed project would occur from onsite sources such as architectural coatings, landscaping equipment, and onsite usage of natural gas appliances. The analysis provided above in Section 9.3 found that the operation of the proposed project would not exceed the local NOx, CO, PM10 and PM2.5 thresholds of significance discussed above in Section 9.2. Therefore, the on-going operations of the proposed project would create a less than significant operations-related impact to local air quality due to on-site emissions and no mitigation would be required.

Operations-Related Toxic Air Contaminant Impacts

Particulate matter (PM) from diesel exhaust is the predominant TAC in most areas and according to *The California Almanac of Emissions and Air Quality 2013 Edition*, prepared by CARB, about 80 percent of the outdoor TAC cancer risk is from diesel exhaust. Some chemicals in diesel exhaust, such as benzene and formaldehyde have been listed as carcinogens by State Proposition 65 and the Federal Hazardous Air Pollutants program. Due to the nominal number of diesel truck trips generated by the Proposed Project, a less than significant TAC impact would occur during the on-going operations of the Proposed Project and no mitigation would be required

Therefore, operation of the proposed project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Level of Significance

Less than significant impact.

10.5 Odor 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. The local concentrations of criteria pollutant emissions, and TAC emissions that may adversely impact a substantial number of people have been analyzed above in Section 10.4 for both construction and operations, which found that these types of emissions would create less than significant impacts. As such, the following analysis is limited to odors that would have the potential to adversely affect a substantial number of people.

Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged; and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the people that live and work in the immediate vicinity of the project site and is typically presented as the mean (or 50 percent of the population). The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality, this is typically represented by recognition by 50 percent of the population. The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration. Potential odor impacts have been analyzed separately for construction and operations below.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints and solvents and from emissions from diesel equipment. Standard construction requirements that limit the time of day when construction may occur as well as SCAQMD Rule 1108 that limits VOC content in asphalt and Rule 1113 that limits the VOC content in paints and solvents would minimize odor impacts from construction. As such, the objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less than significant odor impact would occur and no mitigation would be required.

Operations-Related Odor Impacts

Potential sources that may emit odors during the on-going operations of the Proposed Project would primarily occur from odor emissions from the trash storage area and from vehicle emissions. Pursuant to City regulations, permanent trash enclosures that protect trash bins from rain as well as limit air circulation would be required for the trash storage areas. Perceptible odors may also be emitted from substances from other on campus activities such as laboratory uses and combustion of fuels. However, the nominal amount of these substances would not result in a significant odor impact. Due to the distance of the nearest receptors from the project site and through compliance with City trash storage regulations, no significant impact related to odors would occur during the on-going operations of the Proposed Project. Therefore, a less than significant odor impact would occur and no mitigation would be required.

Level of Significance

Less than significant impact

10.6 Energy Consumption

The proposed project would impact energy resources during construction and operation. Energy resources that would be potentially impacted include electricity, natural gas, and petroleum based fuel supplies and distribution systems. This analysis includes a discussion of the potential energy impacts of the proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. A general definition of each of these energy resources are provided below.

Electricity, a consumptive utility, is a man-made resource. 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. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands. In 2022, Los Angeles County consumed 68,485 Gigawatt-hours per year of electricity[4].

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas

4 Obtained from: http://www.ecdms.energy.ca.gov/elecbycounty.aspx

transportation system is a nationwide network and, therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the State's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet. In 2022, Los Angeles County consumed 2,820 Million Therms of natural gas[5].

Petroleum-based fuels currently account for a majority of the California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the state has been working on developing strategies to reduce petroleum use. Over the last decade California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, petroleum-based fuel consumption in California has declined. In 2022, 3,070 million gallons of gasoline and 295 million gallons of diesel was sold in Los Angeles County[6].

The following section calculates the potential energy consumption associated with the construction and operations of the proposed project and provides a determination if any energy utilized by the proposed project is wasteful, inefficient, or unnecessary consumption of energy resources.

Construction Energy

As detailed above in Table B, Buildout of all of the projects will occur in eight development phases. Phase 1, campus-wide improvements will begin in Fall of 2024 and all construction would be completed by 2032. In order to provide a worst-case analysis, all eight phases of construction activities were modeled in CalEEMod as occurring in one phase. The phases of construction activities that have been analyzed include: 1) Demolition; 2) Site Preparation; 3) Grading, 4) Building Construction, 5) Application of Architectural Coatings; and 6) Paving. The proposed project would consume energy resources during construction in three (3) general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, as well as delivery and haul truck trips (e.g. hauling of material to disposal facilities);
2. Electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and,
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction-Related Electricity

During construction the proposed project would consume electricity to construct the proposed warehouse and infrastructure. Electricity would be supplied to the project site by Southern California Edison and would be obtained from the existing electrical lines on the project site. The use of electricity from existing power lines rather than temporary diesel or gasoline powered generators would minimize impacts on fuel consumption. Electricity consumed during project construction would vary throughout the construction period based on the construction activities being performed. Various construction

5 Obtained from: http://www.ecdms.energy.ca.gov/gasbycounty.aspx
6 Obtained from: https://www.energy.ca.gov/media/3874

activities include electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the proposed project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. Therefore, the use of electricity during project construction would not be wasteful, inefficient, or unnecessary.

Since there is currently power provided to the project site, it is anticipated that only nominal improvements would be required to Southern California Edison distribution lines and equipment with development of the proposed project. Compliance with City's guidelines and requirements would ensure that the proposed project fulfills its responsibilities relative to infrastructure installation, coordinates any electrical infrastructure removals or relocations, and limits any impacts associated with construction of the project. Construction of the project's electrical infrastructure is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.

Construction-Related Natural Gas

Construction of the proposed project typically would not involve the consumption of natural gas. Natural gas would not be supplied to support construction activities, thus there would be no demand generated by construction. Since there is currently natural gas service to of the project site, construction of the proposed project would be limited to installation of new natural gas connections within the project site. Development of the proposed project would likely not require extensive infrastructure improvements to serve the project site. Construction-related energy usage impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface. In addition, prior to ground disturbance, the proposed project would notify and coordinate with SoCalGas to identify the locations and depth of all existing gas lines and avoid disruption of gas service. Therefore, construction-related impacts to natural gas supply and infrastructure would be less than significant.

Construction-Related Petroleum Fuel Use

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating on the project site and on-road automobiles transporting workers to and from the project site and on-road trucks transporting equipment and supplies to the project site.

The off-road construction equipment fuel usage was calculated through use of the off-road equipment assumptions and fuel use assumptions shown above in Section 8.2, which found that construction of the proposed project would consume 45,531 gallons of gasoline and 103,150 gallons of diesel fuel. This equates to 0.0015 percent of the gasoline and 0.035 percent of the diesel used annually in Los Angeles County. As such, the construction-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates.

Construction activities associated with the proposed project would be required to adhere to all State and SCAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. As such, construction activities for the proposed project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant. Development of the project would not result in the need to manufacture

construction materials or create new building material facilities specifically to supply the proposed project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete, it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business.

Operational Energy

The on-going operation of the proposed project would require the use of energy resources for multiple purposes including, but not limited to, heating/ventilating/air conditioning (HVAC), refrigeration, lighting, appliances, and electronics. Energy would also be consumed during operations related to water usage, solid waste disposal, landscape equipment, and vehicle trips.

Operations-Related Electricity

Operation of the proposed project would result in consumption of electricity at the project site. As detailed above in Section 8.3 the proposed project would consume 3,605,016 kilowatt-hours per year of electricity. This equates to 0.005 percent of the electricity consumed annually in Los Angeles County. It should be noted that this provides for a worst-case electrical use consumption rate, since the Project Description (see Section 1.3 above) details that all development on the campus will be designed to transform the campus to a ZNE campus. As such, the operations-related electricity use would be nominal, when compared to current electricity usage rates in the County.

It should be noted that in addition to designing all structures to be ZNE, the proposed project would comply with all Federal, State, and City requirements related to the consumption of electricity, that includes CCR Title 24, Part 6 *Building Energy Efficiency Standards* and CCR Title 24, Part 11: *California Green Building Standards.* The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed structures, including enhanced insulation, use of energy efficient lighting and appliances as well as requiring a variety of other energy-efficiency measures to be incorporated into the proposed structures. Therefore, it is anticipated the proposed project will be designed and built to minimize electricity use and that existing and planned electricity capacity and electricity supplies would be sufficient to support the proposed project's electricity demand. Thus, the project would not result in the wasteful or inefficient use of electricity and no mitigation measures would be required.

Operations-Related Natural Gas

Operation of the proposed project would result in increased consumption of natural gas at the project site. As detailed above in Section 8.3 the proposed project would consume 16,031 MBTU per year of natural gas. This equates to 0.0057 percent of the natural gas consumed annually in Los Angeles County. It should be noted that this provides for a worst-case natural gas consumption rate, since the Project Description (see Section 1.3 above) details that all development on the campus will be designed to transform the campus to a ZNE campus. As such, the operations-related natural gas use would be nominal, when compared to current natural gas usage rates in the County.

It should be noted that in addition to designing all structures to be ZNE, the proposed project would comply with all Federal, State, and City requirements related to the consumption of natural gas, that includes CCR Title 24, Part 6 *Building Energy Efficiency Standards* and CCR Title 24, Part 11: *California Green Building Standards.* The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed structures, including enhanced insulation as

well as use of efficient natural gas appliances and HVAC units. Therefore, it is anticipated the proposed project will be designed and built to minimize natural gas use and that existing and planned natural gas capacity and natural gas supplies would be sufficient to support the proposed project's natural gas demand. Thus, impacts with regard to natural gas supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

Operations-Related Vehicular Petroleum Fuel Usage

Operation of the proposed project would result in increased consumption of petroleum-based fuels related to vehicular travel to and from the project site. As detailed above in Section 8.2 the proposed project would consume 14,271 gallons of gasoline fuel per year from vehicle travel. This equates to 0.00046 percent of the gasoline consumed annually in Los Angeles County. As such, the operations-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates. Therefore, it is anticipated the proposed project will be designed and built to minimize transportation energy and it is anticipated that existing and planned capacity and supplies of transportation fuels would be sufficient to support the proposed project's demand. Thus, impacts with regard transportation energy supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

Level of Significance

Less than significant impact.

10.7 Energy Plan Consistency

The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. The applicable energy plan for the proposed project is the *Glendora Community Plan 2025 – Chapter 8 Conservation Element* (Conservation Element), 2006. The proposed project's consistency with the applicable energy-related policies and programs in the Conservation Element are shown in Table Y.

Table Y – Proposed Project Compliance with Applicable General Plan Energy Policies

Policy No.	General Plan Policy	Proposed Project Implementation Actions
Goal CON-5:	**Reduced demand for energy resources through the use of conservation techniques.**	
CON-5.1	Investigate and implement opportunities for energy conservation at all City-maintained facilities.	**Not Applicable.** This Program is for the City to implement. However it should be noted that all development on the campus will be designed to transform the campus to a ZNE campus that will be met through both energy conservation and onsite electrical generation through PV panels.
CON-5.2	Encourage the incorporation of energy conservation features in the design of all new construction and substantial rehabilitation projects and encourage the installation of conservation devices in existing developments.	**Not Applicable.** This Program is for the City to implement. However it should be noted that all development on the campus will be designed to transform the campus to a ZNE campus that will be met through both energy conservation and onsite electrical generation through PV panels.
CON-5.3	Encourage private energy conservation programs that minimize high energy demand and that use alternative energy sources.	**Not Applicable.** This Program is for the City to implement. However it should be noted that all development on the campus will be designed to transform the campus to a ZNE

Policy No.	General Plan Policy	Proposed Project Implementation Actions
		campus that will be met through both energy conservation and onsite electrical generation through PV panels.
CON-5.4	Require all new developments to incorporate energy-efficient lighting, heating, and cooling systems pursuant to the Uniform Building Code.	**Consistent.** All new structures will be designed to meet the most current Title 24 energy efficiency standards that require installation of energy efficient lighting, heating and cooling systems.
CON-5.5	Provide education and outreach to residents and businesses on opportunities to decrease energy consumption.	**Not Applicable.** This Program is for the City to implement, however the College provides courses that discuss opportunities to decrease energy consumption.

Source: City of Glendora, 2006.

As shown in Table Y, the proposed project would be consistent with all applicable energy-related policies from the Conservation Element. Therefore, the proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.8 Generation of Greenhouse Gas Emissions

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The proposed project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste disposal, water usage, refrigeration, and construction equipment. The project's GHG emissions have been calculated with the CalEEMod model based on the construction and operational parameters detailed above in Section 8.1. A summary of the results is shown below in Table Z and the CalEEMod model run is provided in Appendix A.

Table Z – Project Related Greenhouse Gas Annual Emissions

	Greenhouse Gas Emissions (Metric Tons per Year)			
Category	**CO_2**	**CH_4**	**N_2O**	**CO_2e**
Area Sources[1]	6.53	<0.01	<0.01	6.55
Energy Usage[2]	1,277	0.13	0.01	1,283
Mobile Sources[3]	130	0.01	0.01	132
Solid Waste[4]	2.64	0.26	0.00	9.23
Water and Wastewater[5]	2.41	0.01	<0.01	2.79
Refrigeration[6]	--	--	--	0.21
Construction[7]	57.5	<0.01	<0.01	58.7
Total GHG Emissions	1,476	0.41	0.02	**1,492**
SCAQMD Draft Threshold of Significance				**3,000**

Notes:
[1] Area sources consist of GHG emissions from consumer products, architectural coatings, hearths, and landscaping equipment.
[2] Energy usage consists of GHG emissions from electricity and natural gas usage.
[3] Mobile sources consist of GHG emissions from vehicles.
[4] Waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[5] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
[6] Refrigeration includes leakage of refrigerants used in HVAC units and refrigerators.
[7] Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.
Source: CalEEMod Version 2022.1.

The data provided in Table Z shows that the proposed project would create 1,492 $MTCO_2e$ per year. According to the SCAQMD draft threshold of significance detailed above in Section 8.5, a cumulative global climate change impact would occur if the GHG emissions created from the on-going operations would exceed 3,000 $MTCO_2e$ per year. Therefore, a less than significant generation of greenhouse gas emissions would occur from development of the proposed project. Impacts would be less than significant.

Level of Significance

Less than significant impact.

10.9 Greenhouse Gas Plan Consistency

The proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. The SCAQMD initiated a Working Group to develop a GHG emissions policy and provided detailed methodology for evaluating significance under CEQA. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual threshold of 3,000 $MTCO_2e$ for all land use types. Although the SCAQMD provided substantial evidence supporting the use of the above threshold, the SCAQMD Board has not yet considered or approved the Working Group's thresholds. Table Z shows that the proposed project's GHG emissions would be well below the SCAQMD draft significance threshold of 3,000 $MTCO_2e$ per year. It should be noted that the calculated GHG emissions provided above in Table Z provides for a worst-case GHG emissions rate, since the Project Description (see Section 1.3 above) details that all development on the campus will be designed to transform the campus to a Zero Net Energy (ZNE) campus. Therefore, the proposed project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

Level of Significance

Less than significant impact.

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APPENDIX A

CalEEMod Model Printouts

Citrus College EFMP 2020-2030 Run V2 Detailed Report

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5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.9.2. Mitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.10.4. Landscape Equipment - Mitigated

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.11.2. Mitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.12.2. Mitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.13.2. Mitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.14.2. Mitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.15.2. Mitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Citrus College EFMP 2020-2030 Run V2
Construction Start Date	10/1/2024
Operational Year	2030
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	22.4
Location	1000 W Foothill Blvd, Glendora, CA 91741, USA
County	Los Angeles-South Coast
City	Glendora
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5090
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.26

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Junior College (2yr)	162	Student	21.4	321,828	93,404	93,404	—	—

Other Asphalt Surfaces	5.00	Acre	5.00	0.00	21,780	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Transportation	T-3	Provide Transit-Oriented Development

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.76	12.9	23.4	0.04	0.46	2.22	2.67	0.41	0.54	0.95	5,940	0.25	0.32	11.4	6,052
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	55.2	51.6	34.0	0.17	1.60	12.2	13.5	1.47	2.68	4.15	24,169	1.25	3.33	1.25	25,194
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.35	10.8	16.6	0.03	0.39	1.61	2.00	0.36	0.42	0.78	4,299	0.18	0.28	3.16	4,369
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.61	1.98	3.03	0.01	0.07	0.29	0.37	0.06	0.08	0.14	712	0.03	0.05	0.52	723
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—

Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	75.0	100	550	150	—	—	150	—	—	55.0	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	Yes

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.76	12.9	23.4	0.04	0.46	2.22	2.67	0.41	0.54	0.95	5,940	0.25	0.32	11.4	6,052
2026	1.62	12.2	22.6	0.04	0.40	2.22	2.62	0.36	0.54	0.90	5,873	0.24	0.32	10.6	5,985
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.72	51.6	34.0	0.17	1.60	12.2	13.5	1.47	2.68	4.15	24,169	1.25	3.33	1.25	25,194
2025	3.29	30.1	29.6	0.06	1.24	2.72	3.96	1.14	1.03	2.17	7,106	0.29	0.32	0.30	7,144
2026	55.2	12.3	21.3	0.04	0.40	2.22	2.62	0.36	0.54	0.90	5,779	0.24	0.32	0.28	5,880
2027	55.2	0.95	2.50	< 0.005	0.02	0.35	0.37	0.02	0.08	0.10	474	0.01	0.01	0.03	479
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.60	7.61	5.78	0.02	0.25	1.39	1.65	0.23	0.39	0.63	2,568	0.13	0.28	1.76	2,657
2025	1.38	10.8	16.6	0.03	0.39	1.61	2.00	0.36	0.42	0.78	4,299	0.18	0.21	3.16	4,369
2026	3.10	7.91	13.7	0.02	0.26	1.30	1.56	0.24	0.32	0.55	3,544	0.15	0.19	2.71	3,606

2027	3.35	0.06	0.16	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	29.1	< 0.005	< 0.005	0.03	29.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.11	1.39	1.06	< 0.005	0.05	0.25	0.30	0.04	0.07	0.11	425	0.02	0.05	0.29	440
2025	0.25	1.98	3.03	0.01	0.07	0.29	0.37	0.06	0.08	0.14	712	0.03	0.03	0.52	723
2026	0.57	1.44	2.50	< 0.005	0.05	0.24	0.29	0.04	0.06	0.10	587	0.02	0.03	0.45	597
2027	0.61	0.01	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.81	< 0.005	< 0.005	< 0.005	4.86

2.3. Construction Emissions by Year, Mitigated

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

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.76	12.9	23.4	0.04	0.46	2.22	2.67	0.41	0.54	0.95	5,940	0.25	0.32	11.4	6,052
2026	1.62	12.2	22.6	0.04	0.40	2.22	2.62	0.36	0.54	0.90	5,873	0.24	0.32	10.6	5,985
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.72	51.6	34.0	0.17	1.60	12.2	13.5	1.47	2.68	4.15	24,169	1.25	3.33	1.25	25,194
2025	3.29	30.1	29.6	0.06	1.24	2.72	3.96	1.14	1.03	2.17	7,106	0.29	0.32	0.30	7,144
2026	55.2	12.3	21.3	0.04	0.40	2.22	2.62	0.36	0.54	0.90	5,779	0.24	0.32	0.28	5,880
2027	55.2	0.95	2.50	< 0.005	0.02	0.35	0.37	0.02	0.08	0.10	474	0.01	0.01	0.03	479
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.60	7.61	5.78	0.02	0.25	1.39	1.65	0.23	0.39	0.63	2,568	0.13	0.28	1.76	2,657
2025	1.38	10.8	16.6	0.03	0.39	1.61	2.00	0.36	0.42	0.78	4,299	0.18	0.21	3.16	4,369
2026	3.10	7.91	13.7	0.02	0.26	1.30	1.56	0.24	0.32	0.55	3,544	0.15	0.19	2.71	3,606
2027	3.35	0.06	0.16	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	29.1	< 0.005	< 0.005	0.03	29.4
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.11	1.39	1.06	< 0.005	0.05	0.25	0.30	0.04	0.07	0.11	425	0.02	0.05	0.29	440

2025	0.25	1.98	3.03	0.01	0.07	0.29	0.37	0.06	0.08	0.14	712	0.03	0.03	0.52	723
2026	0.57	1.44	2.50	< 0.005	0.05	0.24	0.29	0.04	0.06	0.10	587	0.02	0.03	0.45	597
2027	0.61	0.01	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	4.81	< 0.005	< 0.005	< 0.005	4.86

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	10.8	4.82	22.6	0.04	0.36	1.30	1.66	0.35	0.33	0.68	9,148	2.50	0.10	4.26	9,245
Mit.	10.7	4.73	21.5	0.04	0.36	1.02	1.38	0.35	0.26	0.61	8,852	2.49	0.09	3.59	8,945
% Reduced	1%	2%	5%	7%	< 0.5%	22%	17%	< 0.5%	22%	11%	3%	1%	11%	16%	3%
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.51	4.74	8.18	0.04	0.33	1.30	1.64	0.33	0.33	0.67	9,035	2.50	0.10	1.32	9,129
Mit.	8.39	4.64	7.18	0.04	0.33	1.02	1.35	0.33	0.26	0.59	8,751	2.49	0.09	1.30	8,842
% Reduced	1%	2%	12%	7%	< 0.5%	22%	18%	< 0.5%	22%	11%	3%	1%	11%	1%	3%
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.96	4.72	16.8	0.04	0.35	0.99	1.34	0.35	0.25	0.60	8,791	2.49	0.09	2.25	8,883
Mit.	9.87	4.65	16.0	0.03	0.35	0.77	1.12	0.34	0.20	0.54	8,569	2.48	0.08	2.03	8,658
% Reduced	1%	2%	5%	6%	< 0.5%	22%	16%	< 0.5%	22%	9%	3%	< 0.5%	10%	10%	3%
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.82	0.86	3.07	0.01	0.06	0.18	0.24	0.06	0.05	0.11	1,455	0.41	0.02	0.37	1,471
Mit.	1.80	0.85	2.92	0.01	0.06	0.14	0.20	0.06	0.04	0.10	1,419	0.41	0.01	0.34	1,433

% Reduced	1%	2%	5%	6%	< 0.5%	22%	16%	< 0.5%	22%	9%	3%	< 0.5%	10%	10%	3%
Exceeds (Daily Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	—	—	150	—	—	55.0	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—
Mit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—
Exceeds (Average Daily)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	—	—	150	—	—	55.0	—	—	—	—	—
Unmit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—
Mit.	No	No	No	No	—	—	No	—	—	No	—	—	—	—	—
Exceeds (Annual)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Threshold	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3,000
Unmit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	No
Mit.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	No

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.54	0.40	4.99	0.01	0.01	1.30	1.31	0.01	0.33	0.34	1,347	0.06	0.05	3.01	1,366
Area	10.0	0.12	14.0	< 0.005	0.02	—	0.02	0.02	—	0.02	57.6	< 0.005	< 0.005	—	57.8
Energy	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	7,713	0.78	0.05	—	7,748
Water	—	—	—	—	—	—	—	—	—	—	14.5	0.07	< 0.005	—	16.8
Waste	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Total	10.8	4.82	22.6	0.04	0.36	1.30	1.66	0.35	0.33	0.68	9,148	2.50	0.10	4.26	9,245
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.53	0.43	4.56	0.01	0.01	1.30	1.31	0.01	0.33	0.34	1,291	0.06	0.05	0.08	1,308
Area	7.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	7,713	0.78	0.05	—	7,748
Water	—	—	—	—	—	—	—	—	—	—	14.5	0.07	< 0.005	—	16.8
Waste	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Total	8.51	4.74	8.18	0.04	0.33	1.30	1.64	0.33	0.33	0.67	9,035	2.50	0.10	1.32	9,129
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.41	0.34	3.62	0.01	0.01	0.99	1.00	0.01	0.25	0.26	1,007	0.05	0.04	1.00	1,022
Area	9.31	0.08	9.59	< 0.005	0.02	—	0.02	0.01	—	0.01	39.4	< 0.005	< 0.005	—	39.6
Energy	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	7,713	0.78	0.05	—	7,748
Water	—	—	—	—	—	—	—	—	—	—	14.5	0.07	< 0.005	—	16.8
Waste	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Total	9.96	4.72	16.8	0.04	0.35	0.99	1.34	0.35	0.25	0.60	8,791	2.49	0.09	2.25	8,883
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.07	0.06	0.66	< 0.005	< 0.005	0.18	0.18	< 0.005	0.05	0.05	167	0.01	0.01	0.17	169
Area	1.70	0.01	1.75	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.53	< 0.005	< 0.005	—	6.55
Energy	0.04	0.79	0.66	< 0.005	0.06	—	0.06	0.06	—	0.06	1,277	0.13	0.01	—	1,283
Water	—	—	—	—	—	—	—	—	—	—	2.41	0.01	< 0.005	—	2.79
Waste	—	—	—	—	—	—	—	—	—	—	2.64	0.26	0.00	—	9.23
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
Total	1.82	0.86	3.07	0.01	0.06	0.18	0.24	0.06	0.05	0.11	1,455	0.41	0.02	0.37	1,471

2.6. Operations Emissions by Sector, Mitigated

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

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.42	0.31	3.89	0.01	0.01	1.02	1.02	0.01	0.26	0.26	1,050	0.04	0.04	2.35	1,065
Area	10.0	0.12	14.0	< 0.005	0.02	—	0.02	0.02	—	0.02	57.6	< 0.005	< 0.005	—	57.8
Energy	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	7,713	0.78	0.05	—	7,748
Water	—	—	—	—	—	—	—	—	—	—	14.5	0.07	< 0.005	—	16.8
Waste	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Total	10.7	4.73	21.5	0.04	0.36	1.02	1.38	0.35	0.26	0.61	8,852	2.49	0.09	3.59	8,945
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.41	0.34	3.56	0.01	0.01	1.02	1.02	0.01	0.26	0.26	1,007	0.05	0.04	0.06	1,020
Area	7.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	7,713	0.78	0.05	—	7,748
Water	—	—	—	—	—	—	—	—	—	—	14.5	0.07	< 0.005	—	16.8
Waste	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Total	8.39	4.64	7.18	0.04	0.33	1.02	1.35	0.33	0.26	0.59	8,751	2.49	0.09	1.30	8,842
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.32	0.26	2.82	0.01	< 0.005	0.77	0.78	< 0.005	0.20	0.20	786	0.04	0.03	0.78	797
Area	9.31	0.08	9.59	< 0.005	0.02	—	0.02	0.01	—	0.01	39.4	< 0.005	< 0.005	—	39.6
Energy	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	7,713	0.78	0.05	—	7,748
Water	—	—	—	—	—	—	—	—	—	—	14.5	0.07	< 0.005	—	16.8
Waste	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7

Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Total	9.87	4.65	16.0	0.03	0.35	0.77	1.12	0.34	0.20	0.54	8,569	2.48	0.08	2.03	8,658
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.06	0.05	0.51	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	130	0.01	0.01	0.13	132
Area	1.70	0.01	1.75	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.53	< 0.005	< 0.005	—	6.55
Energy	0.04	0.79	0.66	< 0.005	0.06	—	0.06	0.06	—	0.06	1,277	0.13	0.01	—	1,283
Water	—	—	—	—	—	—	—	—	—	—	2.41	0.01	< 0.005	—	2.79
Waste	—	—	—	—	—	—	—	—	—	—	2.64	0.26	0.00	—	9.23
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
Total	1.80	0.85	2.92	0.01	0.06	0.14	0.20	0.06	0.04	0.10	1,419	0.41	0.01	0.34	1,433

3. Construction Emissions Details

3.1. Demolition (2024) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	6.56	6.56	—	0.99	0.99	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.22	2.05	1.79	< 0.005	0.09	—	0.09	0.08	—	0.08	282	0.01	< 0.005	—	282
Demolition	—	—	—	—	—	0.54	0.54	—	0.08	0.08	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.37	0.33	< 0.005	0.02	—	0.02	0.01	—	0.01	46.6	< 0.005	< 0.005	—	46.8
Demolition	—	—	—	—	—	0.10	0.10	—	0.01	0.01	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	201	0.01	0.01	0.02	203
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.42	26.7	9.86	0.13	0.26	5.40	5.66	0.26	1.48	1.74	20,543	1.10	3.29	1.22	21,554
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	16.7	< 0.005	< 0.005	0.03	17.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	2.22	0.81	0.01	0.02	0.44	0.46	0.02	0.12	0.14	1,688	0.09	0.27	1.68	1,773
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.77	< 0.005	< 0.005	< 0.005	2.81
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.41	0.15	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	279	0.02	0.04	0.28	293

3.2. Demolition (2024) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	2.62	24.9	21.7	0.03	1.06	—	1.06	0.98	—	0.98	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	6.56	6.56	—	0.99	0.99	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.22	2.05	1.79	< 0.005	0.09	—	0.09	0.08	—	0.08	282	0.01	< 0.005	—	282
Demolition	—	—	—	—	—	0.54	0.54	—	0.08	0.08	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.37	0.33	< 0.005	0.02	—	0.02	0.01	—	0.01	46.6	< 0.005	< 0.005	—	46.8
Demolition	—	—	—	—	—	0.10	0.10	—	0.01	0.01	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	201	0.01	0.01	0.02	203
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.42	26.7	9.86	0.13	0.26	5.40	5.66	0.26	1.48	1.74	20,543	1.10	3.29	1.22	21,554
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	16.7	< 0.005	< 0.005	0.03	17.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.04	2.22	0.81	0.01	0.02	0.44	0.46	0.02	0.12	0.14	1,688	0.09	0.27	1.68	1,773
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.77	< 0.005	< 0.005	< 0.005	2.81
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.41	0.15	< 0.005	< 0.005	0.08	0.08	< 0.005	0.02	0.03	279	0.02	0.04	0.28	293

3.3. Site Preparation (2024) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	1.97	1.80	< 0.005	0.09	—	0.09	0.08	—	0.08	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	0.28	0.28	—	0.14	0.14	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.36	0.33	< 0.005	0.02	—	0.02	0.01	—	0.01	48.0	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.10	1.12	0.00	0.00	0.23	0.23	0.00	0.05	0.05	234	0.01	0.01	0.03	237
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	13.0	< 0.005	< 0.005	0.02	13.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.16	< 0.005	< 0.005	< 0.005	2.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.4. Site Preparation (2024) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	5.11	5.11	—	2.63	2.63	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.20	1.97	1.80	< 0.005	0.09	—	0.09	0.08	—	0.08	290	0.01	< 0.005	—	291
Dust From Material Movement	—	—	—	—	—	0.28	0.28	—	0.14	0.14	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.04	0.36	0.33	< 0.005	0.02	—	0.02	0.01	—	0.01	48.0	< 0.005	< 0.005	—	48.2
Dust From Material Movement	—	—	—	—	—	0.05	0.05	—	0.03	0.03	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.10	1.12	0.00	0.00	0.23	0.23	0.00	0.05	0.05	234	0.01	0.01	0.03	237
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	0.01	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	13.0	< 0.005	< 0.005	0.02	13.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.16	< 0.005	< 0.005	< 0.005	2.19
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.5. Grading (2024) - Unmitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.34	1.18	< 0.005	0.06	—	0.06	0.05	—	0.05	258	0.01	< 0.005	—	259
Dust From Material Movement	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.24	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	42.8	< 0.005	< 0.005	—	42.9
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.11	1.28	0.00	0.00	0.26	0.26	0.00	0.06	0.06	268	0.01	0.01	0.03	271
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.32	0.12	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	249	0.01	0.04	0.01	261
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.6	< 0.005	< 0.005	0.02	10.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	9.75	< 0.005	< 0.005	0.01	10.2
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.76	< 0.005	< 0.005	< 0.005	1.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.61	< 0.005	< 0.005	< 0.005	1.70

3.6. Grading (2024) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.52	34.3	30.2	0.06	1.45	—	1.45	1.33	—	1.33	6,598	0.27	0.05	—	6,621
Dust From Material Movement	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.34	1.18	< 0.005	0.06	—	0.06	0.05	—	0.05	258	0.01	< 0.005	—	259
Dust From Material Movement	—	—	—	—	—	0.09	0.09	—	0.04	0.04	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.24	0.22	< 0.005	0.01	—	0.01	0.01	—	0.01	42.8	< 0.005	< 0.005	—	42.9
Dust From Material Movement	—	—	—	—	—	0.02	0.02	—	0.01	0.01	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.11	1.28	0.00	0.00	0.26	0.26	0.00	0.06	0.06	268	0.01	0.01	0.03	271
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	0.32	0.12	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	249	0.01	0.04	0.01	261
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	10.6	< 0.005	< 0.005	0.02	10.8
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	9.75	< 0.005	< 0.005	0.01	10.2

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	1.76	< 0.005	< 0.005	< 0.005	1.78
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	1.61	< 0.005	< 0.005	< 0.005	1.70

3.7. Grading (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	2.56	2.44	0.01	0.11	—	0.11	0.10	—	0.10	568	0.02	< 0.005	—	570
Dust From Material Movement	—	—	—	—	—	0.21	0.21	—	0.08	0.08	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.05	0.47	0.44	< 0.005	0.02	—	0.02	0.02	—	0.02	94.1	< 0.005	< 0.005	—	94.4
Dust From Material Movement	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.10	1.18	0.00	0.00	0.26	0.26	0.00	0.06	0.06	262	0.01	0.01	0.03	265
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.31	0.12	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	245	0.01	0.04	0.01	257
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	22.9	< 0.005	< 0.005	0.04	23.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	21.1	< 0.005	< 0.005	0.02	22.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.79	< 0.005	< 0.005	0.01	3.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.49	< 0.005	< 0.005	< 0.005	3.66

3.8. Grading (2025) - Mitigated

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

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

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.20	29.7	28.3	0.06	1.23	—	1.23	1.14	—	1.14	6,599	0.27	0.05	—	6,622
Dust From Material Movement	—	—	—	—	—	2.39	2.39	—	0.95	0.95	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.28	2.56	2.44	0.01	0.11	—	0.11	0.10	—	0.10	568	0.02	< 0.005	—	570
Dust From Material Movement	—	—	—	—	—	0.21	0.21	—	0.08	0.08	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.05	0.47	0.44	< 0.005	0.02	—	0.02	0.02	—	0.02	94.1	< 0.005	< 0.005	—	94.4
Dust From Material Movement	—	—	—	—	—	0.04	0.04	—	0.01	0.01	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.08	0.10	1.18	0.00	0.00	0.26	0.26	0.00	0.06	0.06	262	0.01	0.01	0.03	265
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.31	0.12	< 0.005	< 0.005	0.07	0.07	< 0.005	0.02	0.02	245	0.01	0.04	0.01	257
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	0.01	0.01	22.9	< 0.005	< 0.005	0.04	23.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	21.1	< 0.005	< 0.005	0.02	22.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.79	< 0.005	< 0.005	0.01	3.84
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	3.49	< 0.005	< 0.005	< 0.005	3.66

3.9. Building Construction (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	2,398	0.10	0.02	—	2,406

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.56	8.19	0.01	0.27	—	0.27	0.25	—	0.25	1,506	0.06	0.01	—	1,511
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.20	1.49	< 0.005	0.05	—	0.05	0.05	—	0.05	249	0.01	< 0.005	—	250
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.59	9.40	0.00	0.00	1.77	1.77	0.00	0.41	0.41	1,869	0.08	0.06	6.84	1,897
Vendor	0.05	1.90	0.93	0.01	0.02	0.45	0.48	0.01	0.12	0.14	1,673	0.07	0.23	4.58	1,750
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.57	0.65	7.97	0.00	0.00	1.77	1.77	0.00	0.41	0.41	1,771	0.08	0.07	0.18	1,794
Vendor	0.05	1.98	0.94	0.01	0.02	0.45	0.48	0.01	0.12	0.14	1,674	0.07	0.23	0.12	1,746
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.44	5.26	0.00	0.00	1.09	1.09	0.00	0.26	0.26	1,129	0.05	0.04	1.86	1,144
Vendor	0.03	1.25	0.58	0.01	0.01	0.28	0.29	0.01	0.08	0.08	1,051	0.04	0.15	1.25	1,098
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	187	0.01	0.01	0.31	189
Vendor	0.01	0.23	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	174	0.01	0.02	0.21	182
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.10. Building Construction (2025) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	2,398	0.10	0.02	—	2,406
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.71	6.56	8.19	0.01	0.27	—	0.27	0.25	—	0.25	1,506	0.06	0.01	—	1,511
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.13	1.20	1.49	< 0.005	0.05	—	0.05	0.05	—	0.05	249	0.01	< 0.005	—	250
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.58	0.59	9.40	0.00	0.00	1.77	1.77	0.00	0.41	0.41	1,869	0.08	0.06	6.84	1,897
Vendor	0.05	1.90	0.93	0.01	0.02	0.45	0.48	0.01	0.12	0.14	1,673	0.07	0.23	4.58	1,750
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.57	0.65	7.97	0.00	0.00	1.77	1.77	0.00	0.41	0.41	1,771	0.08	0.07	0.18	1,794
Vendor	0.05	1.98	0.94	0.01	0.02	0.45	0.48	0.01	0.12	0.14	1,674	0.07	0.23	0.12	1,746
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.36	0.44	5.26	0.00	0.00	1.09	1.09	0.00	0.26	0.26	1,129	0.05	0.04	1.86	1,144
Vendor	0.03	1.25	0.58	0.01	0.01	0.28	0.29	0.01	0.08	0.08	1,051	0.04	0.15	1.25	1,098
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.08	0.96	0.00	0.00	0.20	0.20	0.00	0.05	0.05	187	0.01	0.01	0.31	189
Vendor	0.01	0.23	0.11	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	174	0.01	0.02	0.21	182
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.11. Building Construction (2026) - Unmitigated

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

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

Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.62	5.71	7.51	0.01	0.22	—	0.22	0.20	—	0.20	1,389	0.06	0.01	—	1,393
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.04	1.37	< 0.005	0.04	—	0.04	0.04	—	0.04	230	0.01	< 0.005	—	231
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.52	8.73	0.00	0.00	1.77	1.77	0.00	0.41	0.41	1,831	0.08	0.06	6.20	1,859
Vendor	0.05	1.81	0.88	0.01	0.02	0.45	0.48	0.01	0.12	0.14	1,645	0.07	0.23	4.44	1,721
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.49	0.59	7.45	0.00	0.00	1.77	1.77	0.00	0.41	0.41	1,736	0.08	0.06	0.16	1,757
Vendor	0.05	1.90	0.90	0.01	0.02	0.45	0.48	0.01	0.12	0.14	1,645	0.07	0.23	0.12	1,717

Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.37	4.52	0.00	0.00	1.01	1.01	0.00	0.24	0.24	1,021	0.05	0.04	1.55	1,034
Vendor	0.03	1.10	0.51	0.01	0.01	0.26	0.27	0.01	0.07	0.08	953	0.04	0.14	1.11	995
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.82	0.00	0.00	0.18	0.18	0.00	0.04	0.04	169	0.01	0.01	0.26	171
Vendor	0.01	0.20	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	158	0.01	0.02	0.18	165
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.12. Building Construction (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	2,397	0.10	0.02	—	2,405
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.62	5.71	7.51	0.01	0.22	—	0.22	0.20	—	0.20	1,389	0.06	0.01	—	1,393
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.04	1.37	< 0.005	0.04	—	0.04	0.04	—	0.04	230	0.01	< 0.005	—	231
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.50	0.52	8.73	0.00	0.00	1.77	1.77	0.00	0.41	0.41	1,831	0.08	0.06	6.20	1,859
Vendor	0.05	1.81	0.88	0.01	0.02	0.45	0.48	0.01	0.12	0.14	1,645	0.07	0.23	4.44	1,721
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.49	0.59	7.45	0.00	0.00	1.77	1.77	0.00	0.41	0.41	1,736	0.08	0.06	0.16	1,757
Vendor	0.05	1.90	0.90	0.01	0.02	0.45	0.48	0.01	0.12	0.14	1,645	0.07	0.23	0.12	1,717
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.28	0.37	4.52	0.00	0.00	1.01	1.01	0.00	0.24	0.24	1,021	0.05	0.04	1.55	1,034
Vendor	0.03	1.10	0.51	0.01	0.01	0.26	0.27	0.01	0.07	0.08	953	0.04	0.14	1.11	995
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.82	0.00	0.00	0.18	0.18	0.00	0.04	0.04	169	0.01	0.01	0.26	171
Vendor	0.01	0.20	0.09	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.01	158	0.01	0.02	0.18	165
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.13. Paving (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	1,511	0.06	0.01	—	1,516
Paving	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.68	0.95	< 0.005	0.03	—	0.03	0.03	—	0.03	145	0.01	< 0.005	—	145
Paving	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	24.0	< 0.005	< 0.005	—	24.1
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05	193	0.01	0.01	0.02	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	18.7	< 0.005	< 0.005	0.03	19.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.10	< 0.005	< 0.005	< 0.005	3.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.14. Paving (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	1,511	0.06	0.01	—	1,516
Paving	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.07	0.68	0.95	< 0.005	0.03	—	0.03	0.03	—	0.03	145	0.01	< 0.005	—	145
Paving	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.12	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	24.0	< 0.005	< 0.005	—	24.1
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.00	0.20	0.20	0.00	0.05	0.05	193	0.01	0.01	0.02	195
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	18.7	< 0.005	< 0.005	0.03	19.0
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.10	< 0.005	< 0.005	< 0.005	3.15
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.15. Architectural Coating (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	134	0.01	< 0.005	—	134
Architectural Coatings	55.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.96	< 0.005	< 0.005	—	4.98
Architectural Coatings	2.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.82	< 0.005	< 0.005	—	0.82
Architectural Coatings	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.12	1.49	0.00	0.00	0.35	0.35	0.00	0.08	0.08	347	0.02	0.01	0.03	351
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	13.1	< 0.005	< 0.005	0.02	13.3
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.17	< 0.005	< 0.005	< 0.005	2.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.16. Architectural Coating (2026) - Mitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	134	0.01	< 0.005	—	134

Architectu Coatings	55.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	4.96	< 0.005	< 0.005	—	4.98
Architectu ral Coatings	2.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	0.82	< 0.005	< 0.005	—	0.82
Architectu ral Coatings	0.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.12	1.49	0.00	0.00	0.35	0.35	0.00	0.08	0.08	347	0.02	0.01	0.03	351
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	13.1	< 0.005	< 0.005	0.02	13.3

Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	2.17	< 0.005	< 0.005	< 0.005	2.20
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.17. Architectural Coating (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	134	0.01	< 0.005	—	134
Architectural Coatings	55.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.10	< 0.005	< 0.005	—	8.13
Architectural Coatings	3.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.34	< 0.005	< 0.005	—	1.35
Architectural Coatings	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.12	1.38	0.00	0.00	0.35	0.35	0.00	0.08	0.08	341	< 0.005	0.01	0.03	345
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	21.0	< 0.005	< 0.005	0.03	21.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.47	< 0.005	< 0.005	< 0.005	3.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.18. Architectural Coating (2027) - Mitigated

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

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

Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	134	0.01	< 0.005	—	134
Architectural Coatings	55.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	8.10	< 0.005	< 0.005	—	8.13
Architectural Coatings	3.34	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	1.34	< 0.005	< 0.005	—	1.35
Architectural Coatings	0.61	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.12	1.38	0.00	0.00	0.35	0.35	0.00	0.08	0.08	341	< 0.005	0.01	0.03	345
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	21.0	< 0.005	< 0.005	0.03	21.2
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	3.47	< 0.005	< 0.005	< 0.005	3.52
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	0.54	0.40	4.99	0.01	0.01	1.30	1.31	0.01	0.33	0.34	1,347	0.06	0.05	3.01	1,366
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Total	0.54	0.40	4.99	0.01	0.01	1.30	1.31	0.01	0.33	0.34	1,347	0.06	0.05	3.01	1,366
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	0.53	0.43	4.56	0.01	0.01	1.30	1.31	0.01	0.33	0.34	1,291	0.06	0.05	0.08	1,308
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.53	0.43	4.56	0.01	0.01	1.30	1.31	0.01	0.33	0.34	1,291	0.06	0.05	0.08	1,308
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	0.07	0.06	0.66	< 0.005	< 0.005	0.18	0.18	< 0.005	0.05	0.05	167	0.01	0.01	0.17	169
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.07	0.06	0.66	< 0.005	< 0.005	0.18	0.18	< 0.005	0.05	0.05	167	0.01	0.01	0.17	169

4.1.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	0.42	0.31	3.89	0.01	0.01	1.02	1.02	0.01	0.26	0.26	1,050	0.04	0.04	2.35	1,065
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.42	0.31	3.89	0.01	0.01	1.02	1.02	0.01	0.26	0.26	1,050	0.04	0.04	2.35	1,065

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	0.41	0.34	3.56	0.01	0.01	1.02	1.02	0.01	0.26	0.26	1,007	0.05	0.04	0.06	1,020
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.41	0.34	3.56	0.01	0.01	1.02	1.02	0.01	0.26	0.26	1,007	0.05	0.04	0.06	1,020
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	0.06	0.05	0.51	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	130	0.01	0.01	0.13	132
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.06	0.05	0.51	< 0.005	< 0.005	0.14	0.14	< 0.005	0.04	0.04	130	0.01	0.01	0.13	132

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	2,576	0.33	0.04	—	2,596
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	2,576	0.33	0.04	—	2,596

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	2,576	0.33	0.04	—	2,596
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	2,576	0.33	0.04	—	2,596
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	426	0.05	0.01	—	430
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	426	0.05	0.01	—	430

4.2.2. Electricity Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	2,576	0.33	0.04	—	2,596
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	2,576	0.33	0.04	—	2,596
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	2,576	0.33	0.04	—	2,596
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	2,576	0.33	0.04	—	2,596
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	426	0.05	0.01	—	430
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	426	0.05	0.01	—	430

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	5,138	0.45	0.01	—	5,152
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	5,138	0.45	0.01	—	5,152
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	5,138	0.45	0.01	—	5,152

Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	5,138	0.45	0.01	—	5,152
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	0.04	0.79	0.66	< 0.005	0.06	—	0.06	0.06	—	0.06	851	0.08	< 0.005	—	853
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.79	0.66	< 0.005	0.06	—	0.06	0.06	—	0.06	851	0.08	< 0.005	—	853

4.2.4. Natural Gas Emissions By Land Use - Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	5,138	0.45	0.01	—	5,152
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	5,138	0.45	0.01	—	5,152
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	5,138	0.45	0.01	—	5,152
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	—	0.00

Total	0.24	4.31	3.62	0.03	0.33	—	0.33	0.33	—	0.33	5,138	0.45	0.01	—	5,152
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	0.04	0.79	0.66	< 0.005	0.06	—	0.06	0.06	—	0.06	851	0.08	< 0.005	—	853
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	0.00	0.00	0.00	—	0.00
Total	0.04	0.79	0.66	< 0.005	0.06	—	0.06	0.06	—	0.06	851	0.08	< 0.005	—	853

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	6.90	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.30	0.12	14.0	< 0.005	0.02	—	0.02	0.02	—	0.02	57.6	< 0.005	< 0.005	—	57.8
Total	10.0	0.12	14.0	< 0.005	0.02	—	0.02	0.02	—	0.02	57.6	< 0.005	< 0.005	—	57.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	6.90	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architectural	0.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.29	0.01	1.75	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.53	< 0.005	< 0.005	—	6.55
Total	1.70	0.01	1.75	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.53	< 0.005	< 0.005	—	6.55

4.3.2. Mitigated

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

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	6.90	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.30	0.12	14.0	< 0.005	0.02	—	0.02	0.02	—	0.02	57.6	< 0.005	< 0.005	—	57.8
Total	10.0	0.12	14.0	< 0.005	0.02	—	0.02	0.02	—	0.02	57.6	< 0.005	< 0.005	—	57.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer Products	6.90	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.83	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	7.74	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	1.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.29	0.01	1.75	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.53	< 0.005	< 0.005	—	6.55
Total	1.70	0.01	1.75	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	6.53	< 0.005	< 0.005	—	6.55

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	13.4	0.07	< 0.005	—	15.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	1.16	< 0.005	< 0.005	—	1.17
Total	—	—	—	—	—	—	—	—	—	—	14.5	0.07	< 0.005	—	16.8

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	13.4	0.07	< 0.005	—	15.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	1.16	< 0.005	< 0.005	—	1.17
Total	—	—	—	—	—	—	—	—	—	—	14.5	0.07	< 0.005	—	16.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	2.22	0.01	< 0.005	—	2.59
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.19	< 0.005	< 0.005	—	0.19
Total	—	—	—	—	—	—	—	—	—	—	2.41	0.01	< 0.005	—	2.79

4.4.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	13.4	0.07	< 0.005	—	15.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	1.16	< 0.005	< 0.005	—	1.17
Total	—	—	—	—	—	—	—	—	—	—	14.5	0.07	< 0.005	—	16.8
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	13.4	0.07	< 0.005	—	15.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	1.16	< 0.005	< 0.005	—	1.17
Total	—	—	—	—	—	—	—	—	—	—	14.5	0.07	< 0.005	—	16.8
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	2.22	0.01	< 0.005	—	2.59
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.19	< 0.005	< 0.005	—	0.19
Total	—	—	—	—	—	—	—	—	—	—	2.41	0.01	< 0.005	—	2.79

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	2.64	0.26	0.00	—	9.23
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	2.64	0.26	0.00	—	9.23

4.5.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7

Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	15.9	1.59	0.00	—	55.7
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	2.64	0.26	0.00	—	9.23
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	2.64	0.26	0.00	—	9.23

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21

4.6.2. Mitigated

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

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	1.24	1.24
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	0.21	0.21

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

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

4.7.2. Mitigated

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

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

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

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

4.8.2. Mitigated

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

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

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

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

4.9.2. Mitigated

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

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

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

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

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

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

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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

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

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

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

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

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition	Demolition	10/1/2024	11/12/2024	5.00	30.0	—
Site Preparation	Site Preparation	11/13/2024	12/11/2024	5.00	20.0	—
Grading	Grading	12/12/2024	2/13/2025	5.00	45.0	—
Building Construction	Building Construction	2/14/2025	10/23/2026	5.00	440	—
Paving	Paving	10/24/2026	12/12/2026	5.00	35.0	—
Architectural Coating	Architectural Coating	12/13/2026	1/31/2027	5.00	35.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38

Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48

Grading	Tractors/Loaders/Back	Diesel	Average	2.00	8.00	84.0	0.37
Building Construction	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	291	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT

Grading	Hauling	3.53	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	135	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	52.7	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	27.0	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition	Vendor	—	10.2	HHDT,MHDT
Demolition	Hauling	291	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	—	10.2	HHDT,MHDT

Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	—	10.2	HHDT,MHDT
Grading	Hauling	3.53	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	135	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	52.7	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	27.0	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Control Strategies Applied	PM10 Reduction	PM2.5 Reduction
Water unpaved roads twice daily	55%	55%

Limit vehicle speeds on unpaved roads to 25 mph	44%	44%
Sweep paved roads once per month	9%	9%

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	482,742	160,914	13,068

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	759,786	—
Site Preparation	—	—	30.0	0.00	—
Grading	—	1,270	135	0.00	—
Paving	0.00	0.00	0.00	0.00	5.00

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%
Water Demolished Area	Other	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Junior College (2yr)	0.00	0%
Other Asphalt Surfaces	5.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	532	0.03	< 0.005
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Junior College (2yr)	186	68.0	6.48	52,457	1,839	672	64.0	517,917
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.9.2. Mitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Junior College (2yr)	145	53.1	5.05	40,917	1,435	524	49.9	403,987
Other Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.1.2. Mitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	482,742	160,914	13,068

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.10.4. Landscape Equipment - Mitigated

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Junior College (2yr)	3,605,016	261	0.0330	0.0040	16,031,181
Other Asphalt Surfaces	0.00	261	0.0330	0.0040	0.00

5.11.2. Mitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Junior College (2yr)	3,605,016	261	0.0330	0.0040	16,031,181

Other Asphalt Surfaces	0.00	261	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Junior College (2yr)	346,858	2,911,005
Other Asphalt Surfaces	0.00	305,455

5.12.2. Mitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Junior College (2yr)	346,858	2,911,005
Other Asphalt Surfaces	0.00	305,455

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Junior College (2yr)	29.6	—
Other Asphalt Surfaces	0.00	—

5.13.2. Mitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Junior College (2yr)	29.6	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.14.2. Mitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.15.2. Mitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.1.2. Mitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

5.18.2.2. Mitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	25.7	annual days of extreme heat
Extreme Precipitation	7.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	26.2	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A

Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	88.7
AQ-PM	68.6
AQ-DPM	87.9
Drinking Water	60.7
Lead Risk Housing	17.5
Pesticides	0.00
Toxic Releases	66.0
Traffic	26.6
Effect Indicators	—
CleanUp Sites	60.4
Groundwater	10.6
Haz Waste Facilities/Generators	40.9
Impaired Water Bodies	0.00
Solid Waste	63.7

Sensitive Population	—
Asthma	50.8
Cardio-vascular	46.8
Low Birth Weights	2.49
Socioeconomic Factor Indicators	—
Education	24.1
Housing	31.7
Linguistic	42.8
Poverty	50.4
Unemployment	81.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—

Neighborhood	—
Alcohol availability	—
Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	0.0
Asthma ER Admissions	38.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.0
Cognitively Disabled	74.6
Physically Disabled	91.7
Heart Attack ER Admissions	52.2
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0

Obesity	0.0
Pedestrian Injuries	0.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	1.6
SLR Inundation Area	0.0
Children	95.0
Elderly	73.1
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	94.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	54.6
Traffic Density	0.0
Traffic Access	57.3
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	45.0

Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Total project site 26.44 acres. 10% landscape.
Construction: Architectural Coatings	Per SCAQMD rule 1113 the interior VOC change to 50 grams/liter.

APPENDIX B

EMFAC2021 Model Printouts

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Los Angeles (SC)
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar Y	Vehicle Category	Model Year	Speed	Fuel	Population	Total VMT	Trips	Fuel Consumption
Los Angeles (S	2024	LDA	Aggregate	Aggregate	Gasoline	3312060	130838318	15395682	4512.2
Los Angeles (S	2024	LDT1	Aggregate	Aggregate	Gasoline	311829	11357947	1373845	469.1
Los Angeles (S	2024	LDT2	Aggregate	Aggregate	Gasoline	1566130	64695889	7373138	2725.6
Los Angeles (S	2024	MCY	Aggregate	Aggregate	Gasoline	146992	969261	293984	23.5
Los Angeles (S	2024	MDV	Aggregate	Aggregate	Gasoline	941105	35897503	4364748	1857.6
Los Angeles (S	2024	T6 Instate Delivery Clas	Aggregate	Aggregate	Diesel	3824	129079	54562	14.6
Los Angeles (S	2024	T6 Instate Delivery Clas	Aggregate	Aggregate	Diesel	3907	134105	55747	15.2
Los Angeles (S	2024	T6 Instate Delivery Clas	Aggregate	Aggregate	Diesel	11998	410120	171216	46.4
Los Angeles (S	2024	T6 Instate Delivery Clas	Aggregate	Aggregate	Diesel	2969	164154	42373	18.1
Los Angeles (S	2024	T6 Instate Other Class 4	Aggregate	Aggregate	Diesel	4737	196364	54762	22.2
Los Angeles (S	2024	T6 Instate Other Class 5	Aggregate	Aggregate	Diesel	10509	458727	121479	52.1
Los Angeles (S	2024	T6 Instate Other Class 6	Aggregate	Aggregate	Diesel	9468	406400	109454	46.0
Los Angeles (S	2024	T6 Instate Other Class 7	Aggregate	Aggregate	Diesel	4263	203758	49285	22.7
Los Angeles (S	2024	T6 Instate Tractor Class	Aggregate	Aggregate	Diesel	130	6800	1505	0.8
Los Angeles (S	2024	T6 Instate Tractor Class	Aggregate	Aggregate	Diesel	1624	98742	18776	10.4
Los Angeles (S	2024	T6 Utility Class 5	Aggregate	Aggregate	Diesel	638	25863	8161	2.8
Los Angeles (S	2024	T6 Utility Class 6	Aggregate	Aggregate	Diesel	120	4864	1542	0.5
Los Angeles (S	2024	T6 Utility Class 7	Aggregate	Aggregate	Diesel	137	6752	1757	0.7
Los Angeles (S	2024	T7 Single Concrete/Trar	Aggregate	Aggregate	Diesel	712	48780	6706	8.0
Los Angeles (S	2024	T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	1959	113612	18457	19.0
Los Angeles (S	2024	T7 SWCV Class 8	Aggregate	Aggregate	Diesel	1156	75005	5315	28.7
Los Angeles (S	2024	T7 Tractor Class 8	Aggregate	Aggregate	Diesel	14354	1100935	208570	179.0
Los Angeles (S	2024	T7 Utility Class 8	Aggregate	Aggregate	Diesel	460	20649	5885	3.3

Autos (gasoline) vehicle miles per day	243,758,918	9,588	1,000 gall per day
Autos Avg Miles per gallon	**25.4**	9,588,025	gallons per day
Diesel Truck vehicle miles per day	7,209,418	491	1,000 gall per day
Diesel Truck Fleet Avg Miles per gallon	**14.7**	490,509	gallons per day

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: Los Angeles (SC)
Calendar Year: 2030
Season: Annual
Vehicle Classification: EMFAC202x Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar	Vehicle Category	Model Yea	Speed	Fuel	Population	Total VMT	Trips	Fuel Consumption
Los Angeles	2030	LDA	Aggregate	Aggregate	Gasoline	3065871	117930000	14213046	3641.5
Los Angeles	2030	LDT1	Aggregate	Aggregate	Gasoline	288857	10415644	1278722	386.8
Los Angeles	2030	LDT2	Aggregate	Aggregate	Gasoline	1756014	70256791	8239947	2612.9
Los Angeles	2030	MCY	Aggregate	Aggregate	Gasoline	166034	1053620	332068	25.2
Los Angeles	2030	MDV	Aggregate	Aggregate	Gasoline	1011494	37959422	4705729	1727.7
Los Angeles	2030	T6 Instate Delivery Cla	Aggregate	Aggregate	Diesel	3856	127275	55031	14.0
Los Angeles	2030	T6 Instate Delivery Cla	Aggregate	Aggregate	Diesel	4043	132727	57700	14.7
Los Angeles	2030	T6 Instate Delivery Cla	Aggregate	Aggregate	Diesel	12353	405699	176273	44.8
Los Angeles	2030	T6 Instate Delivery Cla	Aggregate	Aggregate	Diesel	3452	172798	49267	19.0
Los Angeles	2030	T6 Instate Other Class	Aggregate	Aggregate	Diesel	4823	191250	55755	21.0
Los Angeles	2030	T6 Instate Other Class	Aggregate	Aggregate	Diesel	11214	449285	129631	49.6
Los Angeles	2030	T6 Instate Other Class	Aggregate	Aggregate	Diesel	9941	397575	114921	43.8
Los Angeles	2030	T6 Instate Other Class	Aggregate	Aggregate	Diesel	5231	205182	60473	22.5
Los Angeles	2030	T6 Instate Tractor Clas	Aggregate	Aggregate	Diesel	139	6585	1612	0.7
Los Angeles	2030	T6 Instate Tractor Clas	Aggregate	Aggregate	Diesel	1983	103508	22929	10.6
Los Angeles	2030	T6 Utility Class 5	Aggregate	Aggregate	Diesel	565	22488	7227	2.4
Los Angeles	2030	T6 Utility Class 6	Aggregate	Aggregate	Diesel	107	4239	1364	0.4
Los Angeles	2030	T6 Utility Class 7	Aggregate	Aggregate	Diesel	118	5797	1514	0.6
Los Angeles	2030	T7 Single Concrete/Tra	Aggregate	Aggregate	Diesel	652	43298	6146	6.7
Los Angeles	2030	T7 Single Dump Class 8	Aggregate	Aggregate	Diesel	2090	106134	19692	17.2
Los Angeles	2030	T7 SWCV Class 8	Aggregate	Aggregate	Diesel	615	39906	2828	15.1
Los Angeles	2030	T7 Tractor Class 8	Aggregate	Aggregate	Diesel	18240	1179457	265033	181.9
Los Angeles	2030	T7 Utility Class 8	Aggregate	Aggregate	Diesel	461	19266	5899	3.0

Autos (gasoline) vehicle miles per day	237,615,477	8,394	1,000 gall per day
Autos Avg Miles per gallon	**28.3**	8,394,081	gallons per day
Diesel Truck vehicle miles per day	7,224,935	468	1,000 gall per day
Diesel Truck Fleet Avg Miles per gallon	**15.4**	467,996	gallons per day

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calendar_	season_mo	sub_area	vehicle_class	fuel	temper	relative_h	process	speed_t	pollutant	emission_rate
2027	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl	50	50	RUNEX	15	PM2_5	0.0062
2027	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl	50	50	RUNEX	35	PM2_5	0.0059
2027	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			IDLEX		PM2_5	0.0183
2027	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			PMTW		PM2_5	0.0090
2027	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			PMBW	15	PM2_5	0.0479
2027	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			PMBW	35	PM2_5	0.0383
2026	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl	50	50	RUNEX	15	PM2_5	0.0064
2026	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl	50	50	RUNEX	35	PM2_5	0.0061
2026	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			IDLEX		PM2_5	0.0198
2026	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			PMTW		PM2_5	0.0090
2026	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			PMBW	15	PM2_5	0.0476
2026	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			PMBW	35	PM2_5	0.0380
2025	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl	50	50	RUNEX	15	PM2_5	0.0066
2025	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl	50	50	RUNEX	35	PM2_5	0.0062
2025	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			IDLEX		PM2_5	0.0218
2025	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			PMTW		PM2_5	0.0090
2025	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			PMBW	15	PM2_5	0.0474
2025	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			PMBW	35	PM2_5	0.0378
2024	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl	50	50	RUNEX	15	PM2_5	0.0068
2024	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl	50	50	RUNEX	35	PM2_5	0.0064
2024	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			IDLEX		PM2_5	0.0241
2024	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			PMTW		PM2_5	0.0090
2024	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			PMBW	15	PM2_5	0.0474
2024	Annual	Los Angeles (S	T7 Single Dump Class 8	Dsl			PMBW	35	PM2_5	0.0378

APPENDIX C

AERMOD Model Year 2024 Construction DPM Printouts

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 9/5/2024
** File: C:\Vista Env\2021\21070 Citrus College\AERMOD\DPM2024\DPM2024.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Citrus College EFMP 2020-2030 - Construction 2024 DPM
   TITLETWO PM2.5
   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   URBANOPT 9818605 Los_Angeles_County
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL DPM2024.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION EQCONF       POINT      417986.260  3777651.240      197.900
** DESCRSRC Off-Road Equipment at Conference Center
   LOCATION EQLRC        POINT      418465.110  3777541.180      198.110
** DESCRSRC Off-Road Equipment at Learning Resource Center
   LOCATION EQCTE        POINT      418666.980  3777366.950      209.690
** DESCRSRC Off-Raod Equipment at CTE Building
   LOCATION EQCLRM       POINT      418277.000  3777424.870      204.890
** DESCRSRC Off-Raod Equipment at Classroom Building
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = RDOFF
** DESCRSRC Trucks Offsite
** PREFIX
** Length of Side = 10.36
** Configuration = Adjacent
** Emission Rate = 0.0000213
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 7
** 417924.056, 3776811.324, 181.29, 0.00, 4.82
** 417930.925, 3777310.177, 191.98, 0.00, 4.82
** 417938.859, 3777568.311, 193.19, 0.00, 4.82
** 417961.799, 3777590.773, 199.63, 0.00, 4.82
** 418025.124, 3777592.207, 198.90, 0.00, 4.82
```

```
** 418737.686, 3777588.044, 201.09, 0.00, 4.82
** 418736.401, 3777383.591, 208.48, 0.00, 4.82
** ------------------------------------------------------------------
   LOCATION L0000591     VOLUME   417924.127 3776816.505 181.59
   LOCATION L0000592     VOLUME   417924.270 3776826.868 181.27
   LOCATION L0000593     VOLUME   417924.412 3776837.230 180.95
   LOCATION L0000594     VOLUME   417924.555 3776847.592 180.61
   LOCATION L0000595     VOLUME   417924.698 3776857.954 180.27
   LOCATION L0000596     VOLUME   417924.840 3776868.316 179.94
   LOCATION L0000597     VOLUME   417924.983 3776878.679 179.60
   LOCATION L0000598     VOLUME   417925.126 3776889.041 179.26
   LOCATION L0000599     VOLUME   417925.269 3776899.403 178.93
   LOCATION L0000600     VOLUME   417925.411 3776909.765 178.59
   LOCATION L0000601     VOLUME   417925.554 3776920.128 178.26
   LOCATION L0000602     VOLUME   417925.697 3776930.490 178.37
   LOCATION L0000603     VOLUME   417925.839 3776940.852 179.90
   LOCATION L0000604     VOLUME   417925.982 3776951.214 181.43
   LOCATION L0000605     VOLUME   417926.125 3776961.576 182.97
   LOCATION L0000606     VOLUME   417926.267 3776971.939 184.50
   LOCATION L0000607     VOLUME   417926.410 3776982.301 186.03
   LOCATION L0000608     VOLUME   417926.553 3776992.663 187.56
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   LOCATION L0000617     VOLUME   417927.837 3777085.923 193.40
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   LOCATION L0000620     VOLUME   417928.265 3777117.010 194.01
   LOCATION L0000621     VOLUME   417928.408 3777127.372 193.77
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   LOCATION L0000726     VOLUME   418576.725 3777588.984 200.52
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   LOCATION L0000740     VOLUME   418721.807 3777588.137 201.17
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   LOCATION L0000757     VOLUME   418736.679 3777427.752 204.54
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** End of LINE VOLUME Source ID = RDOFF
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = RDON
** DESCRSRC Trucks Onsite
** PREFIX
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** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 5.81E-06
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 6
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** 418560.645, 3777396.628, 209.40, 0.00, 1.70
** 418498.921, 3777407.775, 208.07, 0.00, 1.70
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   LOCATION L0000875     VOLUME   418315.689 3777408.619 206.59
   LOCATION L0000876     VOLUME   418312.031 3777408.642 206.48
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   LOCATION L0000881     VOLUME   418293.744 3777408.757 205.94
   LOCATION L0000882     VOLUME   418290.086 3777408.780 205.83
   LOCATION L0000883     VOLUME   418286.428 3777408.803 205.72
   LOCATION L0000884     VOLUME   418282.771 3777408.826 205.62
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** End of LINE VOLUME Source ID = RDON
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** DESCRSRC Construction truck Idling at Conference Center
   LOCATION IDLRC        POINT      418464.650  3777544.410      198.010
** DESCRSRC Construction Truck Idling at Learning Resource Center
   LOCATION IDCTE        POINT      418670.740  3777366.950      209.670
** DESCRSRC Construction Truck Idling at CTE Building
   LOCATION IDCLRM       POINT      418276.570  3777419.530      205.060
** DESCRSRC Construction Truck Idling at Classroom Building
** Source Parameters **
   SRCPARAM EQCONF        0.000258     3.962   366.000        50        0.1
   SRCPARAM EQLRC         0.000258     3.962   366.000        50        0.1
   SRCPARAM EQCTE         0.000258     3.962   366.000        50        0.1
   SRCPARAM EQCLRM        0.000258     3.962   366.000        50        0.1
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   SRCPARAM L0000595     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000596     0.0000001246      0.00      4.82      0.85
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   SRCPARAM L0000600     0.0000001246      0.00      4.82      0.85
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   SRCPARAM L0000602     0.0000001246      0.00      4.82      0.85
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   SRCPARAM L0000605     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000606     0.0000001246      0.00      4.82      0.85
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   SRCPARAM L0000612     0.0000001246      0.00      4.82      0.85
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   SRCPARAM L0000616     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000617     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000618     0.0000001246      0.00      4.82      0.85
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SRCPARAM L0000619     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000620     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000621     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000622     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000623     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000624     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000625     0.0000001246      0.00      4.82      0.85
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SRCPARAM L0000627     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000628     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000629     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000630     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000631     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000632     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000633     0.0000001246      0.00      4.82      0.85
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SRCPARAM L0000635     0.0000001246      0.00      4.82      0.85
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SRCPARAM L0000655     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000656     0.0000001246      0.00      4.82      0.85
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SRCPARAM L0000676     0.0000001246      0.00      4.82      0.85
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SRCPARAM L0000678     0.0000001246      0.00      4.82      0.85
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SRCPARAM L0000679     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000680     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000681     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000682     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000683     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000684     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000685     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000686     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000687     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000688     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000689     0.0000001246      0.00      4.82      0.85
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SRCPARAM L0000691     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000692     0.0000001246      0.00      4.82      0.85
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SRCPARAM L0000695     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000696     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000697     0.0000001246      0.00      4.82      0.85
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SRCPARAM L0000731     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000732     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000733     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000734     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000735     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000736     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000737     0.0000001246      0.00      4.82      0.85
SRCPARAM L0000738     0.0000001246      0.00      4.82      0.85
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   SRCPARAM L0000739     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000740     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000741     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000742     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000743     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000744     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000745     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000746     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000747     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000748     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000749     0.0000001246      0.00      4.82      0.85
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   SRCPARAM L0000760     0.0000001246      0.00      4.82      0.85
   SRCPARAM L0000761     0.0000001246      0.00      4.82      0.85
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** LINE VOLUME Source ID = RDON
   SRCPARAM L0000762     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000763     0.00000004685      0.00      1.70      0.85
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   SRCPARAM L0000768     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000769     0.00000004685      0.00      1.70      0.85
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   SRCPARAM L0000779     0.00000004685      0.00      1.70      0.85
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   SRCPARAM L0000782     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000783     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000784     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000785     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000786     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000787     0.00000004685      0.00      1.70      0.85
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   SRCPARAM L0000791     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000792     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000793     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000794     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000795     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000796     0.00000004685      0.00      1.70      0.85
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SRCPARAM L0000797     0.00000004685      0.00      1.70      0.85
SRCPARAM L0000798     0.00000004685      0.00      1.70      0.85
SRCPARAM L0000799     0.00000004685      0.00      1.70      0.85
SRCPARAM L0000800     0.00000004685      0.00      1.70      0.85
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SRCPARAM L0000802     0.00000004685      0.00      1.70      0.85
SRCPARAM L0000803     0.00000004685      0.00      1.70      0.85
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SRCPARAM L0000808     0.00000004685      0.00      1.70      0.85
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SRCPARAM L0000816     0.00000004685      0.00      1.70      0.85
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SRCPARAM L0000819     0.00000004685      0.00      1.70      0.85
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SRCPARAM L0000822     0.00000004685      0.00      1.70      0.85
SRCPARAM L0000823     0.00000004685      0.00      1.70      0.85
SRCPARAM L0000824     0.00000004685      0.00      1.70      0.85
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SRCPARAM L0000827     0.00000004685      0.00      1.70      0.85
SRCPARAM L0000828     0.00000004685      0.00      1.70      0.85
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SRCPARAM L0000837     0.00000004685      0.00      1.70      0.85
SRCPARAM L0000838     0.00000004685      0.00      1.70      0.85
SRCPARAM L0000839     0.00000004685      0.00      1.70      0.85
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SRCPARAM L0000841     0.00000004685      0.00      1.70      0.85
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SRCPARAM L0000843     0.00000004685      0.00      1.70      0.85
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SRCPARAM L0000856     0.00000004685      0.00      1.70      0.85
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   SRCPARAM L0000859     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000860     0.00000004685      0.00      1.70      0.85
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   SRCPARAM L0000862     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000863     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000864     0.00000004685      0.00      1.70      0.85
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   SRCPARAM L0000866     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000867     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000868     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000869     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000870     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000871     0.00000004685      0.00      1.70      0.85
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   SRCPARAM L0000875     0.00000004685      0.00      1.70      0.85
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   SRCPARAM L0000877     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000878     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000879     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000880     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000881     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000882     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000883     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000884     0.00000004685      0.00      1.70      0.85
   SRCPARAM L0000885     0.00000004685      0.00      1.70      0.85
** ------------------------------------------------------------------
   SRCPARAM IDCONF        1.53E-06     3.658   366.000        50       0.1
   SRCPARAM IDLRC         1.53E-06     3.658   366.000        50       0.1
   SRCPARAM IDCTE         1.53E-06     3.658   366.000        50       0.1
   SRCPARAM IDCLRM        1.53E-06     3.658   366.000        50       0.1
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Scenario 2"
   EMISFACT EQCONF       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQCONF       HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT EQCONF       HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT EQCONF       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQLRC        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQLRC        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT EQLRC        HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT EQLRC        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000848     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000848     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000848     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000848     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000849     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000849     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000849     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000850     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000850     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000850     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000850     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000851     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000851     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000851     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000852     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000852     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000852     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000852     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000853     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000853     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000853     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000854     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000855     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000855     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000855     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000855     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000856     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000856     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000856     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000857     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000857     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000857     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000857     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000858     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000858     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000858     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000859     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000859     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000859     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000859     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000860     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000860     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000860     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000860     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000861     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000861     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000862     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000862     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000865     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000866     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000866     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000867     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000867     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000868     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000868     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000868     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000874     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000874     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000875     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000875     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000877     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000877     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
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   EMISFACT L0000879     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000879     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000880     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000883     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0000884     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
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   EMISFACT L0000885     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000885     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000885     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000885     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT IDCONF       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT IDCONF       HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT IDCONF       HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT IDCONF       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT IDLRC        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT IDLRC        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT IDLRC        HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT IDLRC        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT IDCTE        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT IDCTE        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT IDCTE        HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT IDCTE        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT IDCLRM       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT IDCLRM       HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT IDCLRM       HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT IDCLRM       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED DPM2024.rou
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RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\AzusaADJU\AZUS_V9_ADJU\AZUS_v9.SFC
   PROFFILE ..\AzusaADJU\AZUS_V9_ADJU\AZUS_v9.PFL
   SURFDATA 3179 2012 Azusa
   UAIRDATA 3190 2012
   SITEDATA 99999 2012
   PROFBASE 182.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST DPM2024.AD\01H1GALL.PLT 31
   PLOTFILE PERIOD ALL DPM2024.AD\PE00GALL.PLT 32
   SUMMFILE DPM2024.sum
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
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* MODELING OPTIONS USED: RegDFAULT CONC ELEV URBAN ADJ_U*
* PLOT FILE OF PERIOD VALUES AVERAGED ACROSS 0 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 12 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM HRS	NET ID
418038.00000	3777654.00000	0.00722	198.10	3062.00	0.00	PERIOD	ALL	00043848	
418118.00000	3777617.00000	0.00204	198.00	3062.00	0.00	PERIOD	ALL	00043848	
418292.00000	3777611.00000	0.00171	199.42	3062.00	0.00	PERIOD	ALL	00043848	
418448.00000	3777613.00000	0.00404	200.26	3062.00	0.00	PERIOD	ALL	00043848	
418598.00000	3777609.00000	0.00238	200.82	3062.00	0.00	PERIOD	ALL	00043848	
418755.00000	3777552.00000	0.00142	201.50	3062.00	0.00	PERIOD	ALL	00043848	
418752.00000	3777408.00000	0.00357	205.55	3062.00	0.00	PERIOD	ALL	00043848	
418752.00000	3777328.00000	0.00270	211.11	3062.00	0.00	PERIOD	ALL	00043848	
417917.00000	3777259.00000	0.00060	191.84	3062.00	0.00	PERIOD	ALL	00043848	
417920.00000	3777421.00000	0.00082	190.59	3062.00	0.00	PERIOD	ALL	00043848	
417921.00000	3777541.00000	0.00164	197.34	3062.00	0.00	PERIOD	ALL	00043848	
417926.00000	3777647.00000	0.00480	197.81	3062.00	0.00	PERIOD	ALL	00043848	

** CONCUNIT ug/m^3
** DEPUNIT g/m^2

APPENDIX D

AERMOD Model Year 2025 Construction DPM Printouts

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**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 9/5/2024
** File: C:\Vista Env\2021\21070 Citrus College\AERMOD\DPM2025\DPM2025.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Citrus College EFMP 2020-2030 - Construction 2025 DPM
   TITLETWO PM2.5
   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   URBANOPT 9818605 Los_Angeles_County
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL DPM2025.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION EQCONF       POINT      417986.260  3777651.240      197.900
** DESCRSRC Off-Road Equipment at Conference Center
   LOCATION EQLRC        POINT      418465.110  3777541.180      198.110
** DESCRSRC Off-Road Equipment at Learning Resource Center
   LOCATION EQCTE        POINT      418666.980  3777366.950      209.690
** DESCRSRC Off-Raod Equipment at CTE Building
   LOCATION EQCLRM       POINT      418277.000  3777424.870      204.890
** DESCRSRC Off-Raod Equipment at Classroom Building
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = RDOFF
** DESCRSRC Trucks Offsite
** PREFIX
** Length of Side = 10.36
** Configuration = Adjacent
** Emission Rate = 7.04E-06
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 7
** 417924.056, 3776811.324, 181.29, 0.00, 4.82
** 417930.925, 3777310.177, 191.98, 0.00, 4.82
** 417938.859, 3777568.311, 193.19, 0.00, 4.82
** 417961.799, 3777590.773, 199.63, 0.00, 4.82
** 418025.124, 3777592.207, 198.90, 0.00, 4.82
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** 418737.686, 3777588.044, 201.09, 0.00, 4.82
** 418736.401, 3777383.591, 208.48, 0.00, 4.82
** ------------------------------------------------------------------
   LOCATION L0000886     VOLUME   417924.127 3776816.505 181.59
   LOCATION L0000887     VOLUME   417924.270 3776826.868 181.27
   LOCATION L0000888     VOLUME   417924.412 3776837.230 180.95
   LOCATION L0000889     VOLUME   417924.555 3776847.592 180.61
   LOCATION L0000890     VOLUME   417924.698 3776857.954 180.27
   LOCATION L0000891     VOLUME   417924.840 3776868.316 179.94
   LOCATION L0000892     VOLUME   417924.983 3776878.679 179.60
   LOCATION L0000893     VOLUME   417925.126 3776889.041 179.26
   LOCATION L0000894     VOLUME   417925.269 3776899.403 178.93
   LOCATION L0000895     VOLUME   417925.411 3776909.765 178.59
   LOCATION L0000896     VOLUME   417925.554 3776920.128 178.26
   LOCATION L0000897     VOLUME   417925.697 3776930.490 178.37
   LOCATION L0000898     VOLUME   417925.839 3776940.852 179.90
   LOCATION L0000899     VOLUME   417925.982 3776951.214 181.43
   LOCATION L0000900     VOLUME   417926.125 3776961.576 182.97
   LOCATION L0000901     VOLUME   417926.267 3776971.939 184.50
   LOCATION L0000902     VOLUME   417926.410 3776982.301 186.03
   LOCATION L0000903     VOLUME   417926.553 3776992.663 187.56
   LOCATION L0000904     VOLUME   417926.695 3777003.025 189.10
   LOCATION L0000905     VOLUME   417926.838 3777013.388 190.63
   LOCATION L0000906     VOLUME   417926.981 3777023.750 191.76
   LOCATION L0000907     VOLUME   417927.123 3777034.112 192.03
   LOCATION L0000908     VOLUME   417927.266 3777044.474 192.31
   LOCATION L0000909     VOLUME   417927.409 3777054.836 192.58
   LOCATION L0000910     VOLUME   417927.552 3777065.199 192.86
   LOCATION L0000911     VOLUME   417927.694 3777075.561 193.13
   LOCATION L0000912     VOLUME   417927.837 3777085.923 193.40
   LOCATION L0000913     VOLUME   417927.980 3777096.285 193.67
   LOCATION L0000914     VOLUME   417928.122 3777106.647 193.94
   LOCATION L0000915     VOLUME   417928.265 3777117.010 194.01
   LOCATION L0000916     VOLUME   417928.408 3777127.372 193.77
   LOCATION L0000917     VOLUME   417928.550 3777137.734 193.53
   LOCATION L0000918     VOLUME   417928.693 3777148.096 193.30
   LOCATION L0000919     VOLUME   417928.836 3777158.459 193.06
   LOCATION L0000920     VOLUME   417928.978 3777168.821 192.83
   LOCATION L0000921     VOLUME   417929.121 3777179.183 192.59
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   LOCATION L0000924     VOLUME   417929.549 3777210.270 191.99
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LOCATION L0001001 VOLUME 418369.465 3777590.195 199.20
LOCATION L0001002 VOLUME 418379.828 3777590.135 199.15

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   LOCATION L0001021     VOLUME   418576.725 3777588.984 200.52
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   LOCATION L0001036     VOLUME   418732.171 3777588.076 201.30
   LOCATION L0001037     VOLUME   418737.656 3777583.197 201.38
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   LOCATION L0001049     VOLUME   418736.874 3777458.841 202.23
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   LOCATION L0001052     VOLUME   418736.679 3777427.752 204.54
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** End of LINE VOLUME Source ID = RDOFF
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = RDON
** DESCRSRC Trucks Onsite
** PREFIX
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** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 1.91E-06
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 6
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** 418560.645, 3777396.628, 209.40, 0.00, 1.70
** 418498.921, 3777407.775, 208.07, 0.00, 1.70
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LOCATION L0001145 VOLUME 418407.127 3777408.142 208.57
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LOCATION L0001147 VOLUME 418399.812 3777408.171 208.59
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LOCATION L0001149 VOLUME 418392.497 3777408.200 208.42
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   LOCATION L0001167     VOLUME   418326.661 3777408.550 206.90
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   LOCATION L0001169     VOLUME   418319.346 3777408.596 206.70
   LOCATION L0001170     VOLUME   418315.689 3777408.619 206.59
   LOCATION L0001171     VOLUME   418312.031 3777408.642 206.48
   LOCATION L0001172     VOLUME   418308.374 3777408.665 206.38
   LOCATION L0001173     VOLUME   418304.716 3777408.688 206.27
   LOCATION L0001174     VOLUME   418301.059 3777408.711 206.16
   LOCATION L0001175     VOLUME   418297.401 3777408.734 206.05
   LOCATION L0001176     VOLUME   418293.744 3777408.757 205.94
   LOCATION L0001177     VOLUME   418290.086 3777408.780 205.83
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   LOCATION L0001180     VOLUME   418279.113 3777408.849 205.51
** End of LINE VOLUME Source ID = RDON
   LOCATION IDCONF       POINT      417986.030  3777645.020      198.020
** DESCRSRC Construction truck Idling at Conference Center
   LOCATION IDLRC        POINT      418464.650  3777544.410      198.010
** DESCRSRC Construction Truck Idling at Learning Resource Center
   LOCATION IDCTE        POINT      418670.740  3777366.950      209.670
** DESCRSRC Construction Truck Idling at CTE Building
   LOCATION IDCLRM       POINT      418276.570  3777419.530      205.060
** DESCRSRC Construction Truck Idling at Classroom Building
** Source Parameters **
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   SRCPARAM EQCTE         0.000813     3.962   366.000        50       0.1
   SRCPARAM EQCLRM        0.000813     3.962   366.000        50       0.1
** LINE VOLUME Source ID = RDOFF
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   SRCPARAM L0000889     0.00000004117      0.00      4.82      0.85
   SRCPARAM L0000890     0.00000004117      0.00      4.82      0.85
   SRCPARAM L0000891     0.00000004117      0.00      4.82      0.85
   SRCPARAM L0000892     0.00000004117      0.00      4.82      0.85
   SRCPARAM L0000893     0.00000004117      0.00      4.82      0.85
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   SRCPARAM L0000896     0.00000004117      0.00      4.82      0.85
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   SRCPARAM L0000899     0.00000004117      0.00      4.82      0.85
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   SRCPARAM L0000913     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0000931     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0000935     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0000941     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0000943     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0000945     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0000950     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0000964     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0000973     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0000977     0.00000004117      0.00      4.82      0.85
SRCPARAM L0000978     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0000980     0.00000004117      0.00      4.82      0.85
SRCPARAM L0000981     0.00000004117      0.00      4.82      0.85
SRCPARAM L0000982     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0001016     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0001020     0.00000004117      0.00      4.82      0.85
SRCPARAM L0001021     0.00000004117      0.00      4.82      0.85
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SRCPARAM L0001030     0.00000004117      0.00      4.82      0.85
SRCPARAM L0001031     0.00000004117      0.00      4.82      0.85
SRCPARAM L0001032     0.00000004117      0.00      4.82      0.85
SRCPARAM L0001033     0.00000004117      0.00      4.82      0.85
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   SRCPARAM L0001037     0.00000004117      0.00      4.82      0.85
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   SRCPARAM L0001055     0.00000004117      0.00      4.82      0.85
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   SRCPARAM L0001091     0.0000000154       0.00      1.70      0.85
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SRCPARAM L0001151     0.0000000154      0.00      1.70      0.85
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   SRCPARAM L0001163     0.0000000154      0.00      1.70      0.85
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   SRCPARAM L0001180     0.0000000154      0.00      1.70      0.85
** ------------------------------------------------------------------
   SRCPARAM IDCONF        4.69E-07     3.658   366.000        50       0.1
   SRCPARAM IDLRC         4.69E-07     3.658   366.000        50       0.1
   SRCPARAM IDCTE         4.69E-07     3.658   366.000        50       0.1
   SRCPARAM IDCLRM        4.69E-07     3.658   366.000        50       0.1
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Scenario 2"
   EMISFACT EQCONF       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQCONF       HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT EQCONF       HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT EQCONF       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQLRC        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQLRC        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT EQLRC        HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT EQLRC        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQCTE        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQCTE        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT EQCTE        HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT EQCTE        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQCLRM       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQCLRM       HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT EQCLRM       HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT EQCLRM       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000886     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000886     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000886     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000886     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000887     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000887     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000887     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000887     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000888     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000888     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000888     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001148     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001148     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001149     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001149     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001149     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001150     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001150     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001150     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001150     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001151     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001151     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001151     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001151     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001152     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001152     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001152     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001152     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001153     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001153     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001153     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001153     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001154     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001154     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0001154     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001154     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001155     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001157     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001163     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001178     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT IDCONF       HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT IDCONF       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT IDLRC        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT IDLRC        HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
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   EMISFACT IDCTE        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT IDCLRM       HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT IDCLRM       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
**
****************************************
** AERMOD Receptor Pathway
****************************************
**
**
RE STARTING
   INCLUDED DPM2025.rou
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RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE ..\AzusaADJU\AZUS_V9_ADJU\AZUS_v9.SFC
   PROFFILE ..\AzusaADJU\AZUS_V9_ADJU\AZUS_v9.PFL
   SURFDATA 3179 2012 Azusa
   UAIRDATA 3190 2012
   SITEDATA 99999 2012
   PROFBASE 182.0 METERS
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
   RECTABLE ALLAVE 1ST
   RECTABLE 1 1ST
** Auto-Generated Plotfiles
   PLOTFILE 1 ALL 1ST DPM2025.AD\01H1GALL.PLT 31
   PLOTFILE PERIOD ALL DPM2025.AD\PE00GALL.PLT 32
   SUMMFILE DPM2025.sum
OU FINISHED
**
**************************************
** Project Parameters
**************************************
** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
**
```

* MODELING OPTIONS USED: RegDFAULT CONC ELEV URBAN ADJ_U*
* PLOT FILE OF PERIOD VALUES AVERAGED ACROSS 0 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 12 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM HRS	NET ID
418038.00000	3777654.00000	0.02248	198.10	3062.00	0.00	PERIOD	ALL	00043848	
418118.00000	3777617.00000	0.00591	198.00	3062.00	0.00	PERIOD	ALL	00043848	
418292.00000	3777611.00000	0.00475	199.42	3062.00	0.00	PERIOD	ALL	00043848	
418448.00000	3777613.00000	0.01212	200.26	3062.00	0.00	PERIOD	ALL	00043848	
418598.00000	3777609.00000	0.00684	200.82	3062.00	0.00	PERIOD	ALL	00043848	
418755.00000	3777552.00000	0.00373	201.50	3062.00	0.00	PERIOD	ALL	00043848	
418752.00000	3777408.00000	0.01039	205.55	3062.00	0.00	PERIOD	ALL	00043848	
418752.00000	3777328.00000	0.00836	211.11	3062.00	0.00	PERIOD	ALL	00043848	
417917.00000	3777259.00000	0.00096	191.84	3062.00	0.00	PERIOD	ALL	00043848	
417920.00000	3777421.00000	0.00172	190.59	3062.00	0.00	PERIOD	ALL	00043848	
417921.00000	3777541.00000	0.00445	197.34	3062.00	0.00	PERIOD	ALL	00043848	
417926.00000	3777647.00000	0.01493	197.81	3062.00	0.00	PERIOD	ALL	00043848	

** CONCUNIT ug/m^3
** DEPUNIT g/m^2

APPENDIX E

AERMOD Model Year 2026 Construction DPM Printouts

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**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 12.0.0
** Lakes Environmental Software Inc.
** Date: 9/5/2024
** File: C:\Vista Env\2021\21070 Citrus College\AERMOD\DPM2026\DPM2026.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE Citrus College EFMP 2020-2030 - Construction 2026 DPM
   TITLETWO PM2.5
   MODELOPT DFAULT CONC
   AVERTIME 1 PERIOD
   URBANOPT 9818605 Los_Angeles_County
   POLLUTID PM_2.5
   RUNORNOT RUN
   ERRORFIL DPM2026.err
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
   LOCATION EQCONF       POINT      417986.260  3777651.240      197.900
** DESCRSRC Off-Road Equipment at Conference Center
   LOCATION EQLRC        POINT      418465.110  3777541.180      198.110
** DESCRSRC Off-Road Equipment at Learning Resource Center
   LOCATION EQCTE        POINT      418666.980  3777366.950      209.690
** DESCRSRC Off-Raod Equipment at CTE Building
   LOCATION EQCLRM       POINT      418277.000  3777424.870      204.890
** DESCRSRC Off-Raod Equipment at Classroom Building
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = RDOFF
** DESCRSRC Trucks Offsite
** PREFIX
** Length of Side = 10.36
** Configuration = Adjacent
** Emission Rate = 6.3E-06
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 7
** 417924.056, 3776811.324, 181.29, 0.00, 4.82
** 417930.925, 3777310.177, 191.98, 0.00, 4.82
** 417938.859, 3777568.311, 193.19, 0.00, 4.82
** 417961.799, 3777590.773, 199.63, 0.00, 4.82
** 418025.124, 3777592.207, 198.90, 0.00, 4.82
```

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** 418737.686, 3777588.044, 201.09, 0.00, 4.82
** 418736.401, 3777383.591, 208.48, 0.00, 4.82
** ------------------------------------------------------------------
   LOCATION L0000886     VOLUME   417924.127 3776816.505 181.59
   LOCATION L0000887     VOLUME   417924.270 3776826.868 181.27
   LOCATION L0000888     VOLUME   417924.412 3776837.230 180.95
   LOCATION L0000889     VOLUME   417924.555 3776847.592 180.61
   LOCATION L0000890     VOLUME   417924.698 3776857.954 180.27
   LOCATION L0000891     VOLUME   417924.840 3776868.316 179.94
   LOCATION L0000892     VOLUME   417924.983 3776878.679 179.60
   LOCATION L0000893     VOLUME   417925.126 3776889.041 179.26
   LOCATION L0000894     VOLUME   417925.269 3776899.403 178.93
   LOCATION L0000895     VOLUME   417925.411 3776909.765 178.59
   LOCATION L0000896     VOLUME   417925.554 3776920.128 178.26
   LOCATION L0000897     VOLUME   417925.697 3776930.490 178.37
   LOCATION L0000898     VOLUME   417925.839 3776940.852 179.90
   LOCATION L0000899     VOLUME   417925.982 3776951.214 181.43
   LOCATION L0000900     VOLUME   417926.125 3776961.576 182.97
   LOCATION L0000901     VOLUME   417926.267 3776971.939 184.50
   LOCATION L0000902     VOLUME   417926.410 3776982.301 186.03
   LOCATION L0000903     VOLUME   417926.553 3776992.663 187.56
   LOCATION L0000904     VOLUME   417926.695 3777003.025 189.10
   LOCATION L0000905     VOLUME   417926.838 3777013.388 190.63
   LOCATION L0000906     VOLUME   417926.981 3777023.750 191.76
   LOCATION L0000907     VOLUME   417927.123 3777034.112 192.03
   LOCATION L0000908     VOLUME   417927.266 3777044.474 192.31
   LOCATION L0000909     VOLUME   417927.409 3777054.836 192.58
   LOCATION L0000910     VOLUME   417927.552 3777065.199 192.86
   LOCATION L0000911     VOLUME   417927.694 3777075.561 193.13
   LOCATION L0000912     VOLUME   417927.837 3777085.923 193.40
   LOCATION L0000913     VOLUME   417927.980 3777096.285 193.67
   LOCATION L0000914     VOLUME   417928.122 3777106.647 193.94
   LOCATION L0000915     VOLUME   417928.265 3777117.010 194.01
   LOCATION L0000916     VOLUME   417928.408 3777127.372 193.77
   LOCATION L0000917     VOLUME   417928.550 3777137.734 193.53
   LOCATION L0000918     VOLUME   417928.693 3777148.096 193.30
   LOCATION L0000919     VOLUME   417928.836 3777158.459 193.06
   LOCATION L0000920     VOLUME   417928.978 3777168.821 192.83
   LOCATION L0000921     VOLUME   417929.121 3777179.183 192.59
   LOCATION L0000922     VOLUME   417929.264 3777189.545 192.36
   LOCATION L0000923     VOLUME   417929.406 3777199.907 192.12
   LOCATION L0000924     VOLUME   417929.549 3777210.270 191.99
   LOCATION L0000925     VOLUME   417929.692 3777220.632 191.98
   LOCATION L0000926     VOLUME   417929.835 3777230.994 191.97
   LOCATION L0000927     VOLUME   417929.977 3777241.356 191.96
   LOCATION L0000928     VOLUME   417930.120 3777251.719 191.95
   LOCATION L0000929     VOLUME   417930.263 3777262.081 191.94
   LOCATION L0000930     VOLUME   417930.405 3777272.443 191.93
   LOCATION L0000931     VOLUME   417930.548 3777282.805 191.92
   LOCATION L0000932     VOLUME   417930.691 3777293.167 191.91
   LOCATION L0000933     VOLUME   417930.833 3777303.530 191.77
   LOCATION L0000934     VOLUME   417931.039 3777313.890 191.54
   LOCATION L0000935     VOLUME   417931.357 3777324.249 191.31
   LOCATION L0000936     VOLUME   417931.676 3777334.607 191.08
   LOCATION L0000937     VOLUME   417931.994 3777344.965 190.85
   LOCATION L0000938     VOLUME   417932.313 3777355.324 190.62
   LOCATION L0000939     VOLUME   417932.631 3777365.682 190.39
   LOCATION L0000940     VOLUME   417932.949 3777376.040 190.17
   LOCATION L0000941     VOLUME   417933.268 3777386.399 189.94
   LOCATION L0000942     VOLUME   417933.586 3777396.757 190.09
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LOCATION L0000943 VOLUME 417933.904 3777407.115 190.44
LOCATION L0000944 VOLUME 417934.223 3777417.473 190.79
LOCATION L0000945 VOLUME 417934.541 3777427.832 191.14
LOCATION L0000946 VOLUME 417934.860 3777438.190 191.48
LOCATION L0000947 VOLUME 417935.178 3777448.548 191.83
LOCATION L0000948 VOLUME 417935.496 3777458.907 192.18
LOCATION L0000949 VOLUME 417935.815 3777469.265 192.52
LOCATION L0000950 VOLUME 417936.133 3777479.623 192.87
LOCATION L0000951 VOLUME 417936.451 3777489.982 193.54
LOCATION L0000952 VOLUME 417936.770 3777500.340 194.33
LOCATION L0000953 VOLUME 417937.088 3777510.698 195.12
LOCATION L0000954 VOLUME 417937.407 3777521.057 195.91
LOCATION L0000955 VOLUME 417937.725 3777531.415 196.70
LOCATION L0000956 VOLUME 417938.043 3777541.773 197.49
LOCATION L0000957 VOLUME 417938.362 3777552.131 198.28
LOCATION L0000958 VOLUME 417938.680 3777562.490 199.07
LOCATION L0000959 VOLUME 417942.102 3777571.487 199.73
LOCATION L0000960 VOLUME 417949.507 3777578.737 199.76
LOCATION L0000961 VOLUME 417956.912 3777585.987 199.47
LOCATION L0000962 VOLUME 417965.321 3777590.853 199.26
LOCATION L0000963 VOLUME 417975.682 3777591.088 199.17
LOCATION L0000964 VOLUME 417986.042 3777591.322 199.07
LOCATION L0000965 VOLUME 417996.403 3777591.557 198.98
LOCATION L0000966 VOLUME 418006.763 3777591.791 198.89
LOCATION L0000967 VOLUME 418017.124 3777592.026 198.81
LOCATION L0000968 VOLUME 418027.485 3777592.193 198.70
LOCATION L0000969 VOLUME 418037.848 3777592.133 198.59
LOCATION L0000970 VOLUME 418048.211 3777592.072 198.48
LOCATION L0000971 VOLUME 418058.574 3777592.012 198.37
LOCATION L0000972 VOLUME 418068.937 3777591.951 198.26
LOCATION L0000973 VOLUME 418079.300 3777591.890 198.15
LOCATION L0000974 VOLUME 418089.663 3777591.830 198.05
LOCATION L0000975 VOLUME 418100.026 3777591.769 198.00
LOCATION L0000976 VOLUME 418110.389 3777591.709 198.00
LOCATION L0000977 VOLUME 418120.752 3777591.648 198.00
LOCATION L0000978 VOLUME 418131.115 3777591.588 198.00
LOCATION L0000979 VOLUME 418141.478 3777591.527 198.00
LOCATION L0000980 VOLUME 418151.841 3777591.467 198.00
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LOCATION L0000982 VOLUME 418172.567 3777591.346 198.01
LOCATION L0000983 VOLUME 418182.930 3777591.285 198.06
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LOCATION L0000985 VOLUME 418203.656 3777591.164 198.17
LOCATION L0000986 VOLUME 418214.019 3777591.103 198.23
LOCATION L0000987 VOLUME 418224.382 3777591.043 198.28
LOCATION L0000988 VOLUME 418234.745 3777590.982 198.34
LOCATION L0000989 VOLUME 418245.108 3777590.922 198.39
LOCATION L0000990 VOLUME 418255.471 3777590.861 198.51
LOCATION L0000991 VOLUME 418265.834 3777590.801 198.64
LOCATION L0000992 VOLUME 418276.197 3777590.740 198.78
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LOCATION L0000994 VOLUME 418296.924 3777590.619 199.05
LOCATION L0000995 VOLUME 418307.287 3777590.558 199.19
LOCATION L0000996 VOLUME 418317.650 3777590.498 199.32
LOCATION L0000997 VOLUME 418328.013 3777590.437 199.40
LOCATION L0000998 VOLUME 418338.376 3777590.377 199.35
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LOCATION L0001000 VOLUME 418359.102 3777590.256 199.24
LOCATION L0001001 VOLUME 418369.465 3777590.195 199.20
LOCATION L0001002 VOLUME 418379.828 3777590.135 199.15

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   LOCATION L0001004     VOLUME   418400.554 3777590.014 199.05
   LOCATION L0001005     VOLUME   418410.917 3777589.953 198.97
   LOCATION L0001006     VOLUME   418421.280 3777589.893 198.90
   LOCATION L0001007     VOLUME   418431.643 3777589.832 198.82
   LOCATION L0001008     VOLUME   418442.006 3777589.771 198.74
   LOCATION L0001009     VOLUME   418452.369 3777589.711 198.67
   LOCATION L0001010     VOLUME   418462.732 3777589.650 198.59
   LOCATION L0001011     VOLUME   418473.095 3777589.590 198.51
   LOCATION L0001012     VOLUME   418483.458 3777589.529 198.62
   LOCATION L0001013     VOLUME   418493.821 3777589.469 198.92
   LOCATION L0001014     VOLUME   418504.184 3777589.408 199.21
   LOCATION L0001015     VOLUME   418514.547 3777589.348 199.50
   LOCATION L0001016     VOLUME   418524.910 3777589.287 199.79
   LOCATION L0001017     VOLUME   418535.273 3777589.227 200.08
   LOCATION L0001018     VOLUME   418545.636 3777589.166 200.37
   LOCATION L0001019     VOLUME   418555.999 3777589.105 200.64
   LOCATION L0001020     VOLUME   418566.362 3777589.045 200.58
   LOCATION L0001021     VOLUME   418576.725 3777588.984 200.52
   LOCATION L0001022     VOLUME   418587.088 3777588.924 200.46
   LOCATION L0001023     VOLUME   418597.451 3777588.863 200.41
   LOCATION L0001024     VOLUME   418607.814 3777588.803 200.35
   LOCATION L0001025     VOLUME   418618.177 3777588.742 200.29
   LOCATION L0001026     VOLUME   418628.540 3777588.682 200.23
   LOCATION L0001027     VOLUME   418638.903 3777588.621 200.29
   LOCATION L0001028     VOLUME   418649.266 3777588.561 200.39
   LOCATION L0001029     VOLUME   418659.629 3777588.500 200.50
   LOCATION L0001030     VOLUME   418669.992 3777588.439 200.60
   LOCATION L0001031     VOLUME   418680.355 3777588.379 200.71
   LOCATION L0001032     VOLUME   418690.718 3777588.318 200.82
   LOCATION L0001033     VOLUME   418701.081 3777588.258 200.92
   LOCATION L0001034     VOLUME   418711.444 3777588.197 201.03
   LOCATION L0001035     VOLUME   418721.807 3777588.137 201.17
   LOCATION L0001036     VOLUME   418732.171 3777588.076 201.30
   LOCATION L0001037     VOLUME   418737.656 3777583.197 201.38
   LOCATION L0001038     VOLUME   418737.591 3777572.834 201.38
   LOCATION L0001039     VOLUME   418737.525 3777562.471 201.35
   LOCATION L0001040     VOLUME   418737.460 3777552.108 201.31
   LOCATION L0001041     VOLUME   418737.395 3777541.745 201.27
   LOCATION L0001042     VOLUME   418737.330 3777531.382 201.23
   LOCATION L0001043     VOLUME   418737.265 3777521.019 201.19
   LOCATION L0001044     VOLUME   418737.200 3777510.656 201.14
   LOCATION L0001045     VOLUME   418737.135 3777500.293 201.10
   LOCATION L0001046     VOLUME   418737.070 3777489.930 201.06
   LOCATION L0001047     VOLUME   418737.004 3777479.567 201.02
   LOCATION L0001048     VOLUME   418736.939 3777469.204 201.46
   LOCATION L0001049     VOLUME   418736.874 3777458.841 202.23
   LOCATION L0001050     VOLUME   418736.809 3777448.478 203.00
   LOCATION L0001051     VOLUME   418736.744 3777438.115 203.77
   LOCATION L0001052     VOLUME   418736.679 3777427.752 204.54
   LOCATION L0001053     VOLUME   418736.614 3777417.389 205.31
   LOCATION L0001054     VOLUME   418736.549 3777407.026 206.07
   LOCATION L0001055     VOLUME   418736.483 3777396.663 206.84
   LOCATION L0001056     VOLUME   418736.418 3777386.300 207.61
** End of LINE VOLUME Source ID = RDOFF
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = RDON
** DESCRSRC Trucks Onsite
** PREFIX
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** Length of Side = 3.66
** Configuration = Adjacent
** Emission Rate = 1.7E-06
** Vertical Dimension = 1.83
** SZINIT = 0.85
** Nodes = 6
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** 418617.740, 3777386.394, 209.97, 0.00, 1.70
** 418560.645, 3777396.628, 209.40, 0.00, 1.70
** 418498.921, 3777407.775, 208.07, 0.00, 1.70
** 418364.262, 3777408.313, 208.45, 0.00, 1.70
** 418278.619, 3777408.852, 204.24, 0.00, 1.70
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   LOCATION L0001058     VOLUME   418723.421 3777385.044 208.21
   LOCATION L0001059     VOLUME   418719.764 3777385.090 208.35
   LOCATION L0001060     VOLUME   418716.106 3777385.137 208.48
   LOCATION L0001061     VOLUME   418712.449 3777385.184 208.62
   LOCATION L0001062     VOLUME   418708.792 3777385.231 208.76
   LOCATION L0001063     VOLUME   418705.134 3777385.277 208.85
   LOCATION L0001064     VOLUME   418701.477 3777385.324 208.90
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   LOCATION L0001066     VOLUME   418694.163 3777385.417 208.99
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   LOCATION L0001068     VOLUME   418686.848 3777385.511 209.08
   LOCATION L0001069     VOLUME   418683.191 3777385.558 209.12
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   LOCATION L0001076     VOLUME   418657.589 3777385.885 209.44
   LOCATION L0001077     VOLUME   418653.932 3777385.932 209.48
   LOCATION L0001078     VOLUME   418650.275 3777385.978 209.53
   LOCATION L0001079     VOLUME   418646.618 3777386.025 209.57
   LOCATION L0001080     VOLUME   418642.960 3777386.072 209.62
   LOCATION L0001081     VOLUME   418639.303 3777386.119 209.66
   LOCATION L0001082     VOLUME   418635.646 3777386.165 209.71
   LOCATION L0001083     VOLUME   418631.988 3777386.212 209.75
   LOCATION L0001084     VOLUME   418628.331 3777386.259 209.77
   LOCATION L0001085     VOLUME   418624.674 3777386.306 209.77
   LOCATION L0001086     VOLUME   418621.016 3777386.352 209.77
   LOCATION L0001087     VOLUME   418617.365 3777386.461 209.76
   LOCATION L0001088     VOLUME   418613.765 3777387.107 209.69
   LOCATION L0001089     VOLUME   418610.165 3777387.752 209.62
   LOCATION L0001090     VOLUME   418606.564 3777388.397 209.56
   LOCATION L0001091     VOLUME   418602.964 3777389.043 209.49
   LOCATION L0001092     VOLUME   418599.364 3777389.688 209.42
   LOCATION L0001093     VOLUME   418595.764 3777390.333 209.35
   LOCATION L0001094     VOLUME   418592.164 3777390.979 209.27
   LOCATION L0001095     VOLUME   418588.563 3777391.624 209.20
   LOCATION L0001096     VOLUME   418584.963 3777392.269 209.12
   LOCATION L0001097     VOLUME   418581.363 3777392.915 209.05
   LOCATION L0001098     VOLUME   418577.763 3777393.560 208.97
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   LOCATION L0001101     VOLUME   418566.962 3777395.496 208.73
   LOCATION L0001102     VOLUME   418563.362 3777396.141 208.65
   LOCATION L0001103     VOLUME   418559.762 3777396.788 208.56
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LOCATION L0001104 VOLUME 418556.162 3777397.438 208.48
LOCATION L0001105 VOLUME 418552.563 3777398.088 208.41
LOCATION L0001106 VOLUME 418548.964 3777398.738 208.38
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LOCATION L0001108 VOLUME 418541.765 3777400.038 208.33
LOCATION L0001109 VOLUME 418538.165 3777400.688 208.30
LOCATION L0001110 VOLUME 418534.566 3777401.338 208.27
LOCATION L0001111 VOLUME 418530.967 3777401.988 208.25
LOCATION L0001112 VOLUME 418527.367 3777402.638 208.22
LOCATION L0001113 VOLUME 418523.768 3777403.288 208.19
LOCATION L0001114 VOLUME 418520.169 3777403.938 208.17
LOCATION L0001115 VOLUME 418516.569 3777404.588 208.14
LOCATION L0001116 VOLUME 418512.970 3777405.238 208.11
LOCATION L0001117 VOLUME 418509.370 3777405.888 208.08
LOCATION L0001118 VOLUME 418505.771 3777406.538 208.06
LOCATION L0001119 VOLUME 418502.172 3777407.188 208.03
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LOCATION L0001123 VOLUME 418487.594 3777407.820 208.16
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LOCATION L0001125 VOLUME 418480.279 3777407.849 208.26
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LOCATION L0001137 VOLUME 418436.388 3777408.025 208.46
LOCATION L0001138 VOLUME 418432.730 3777408.040 208.47
LOCATION L0001139 VOLUME 418429.073 3777408.054 208.49
LOCATION L0001140 VOLUME 418425.415 3777408.069 208.50
LOCATION L0001141 VOLUME 418421.758 3777408.083 208.51
LOCATION L0001142 VOLUME 418418.100 3777408.098 208.53
LOCATION L0001143 VOLUME 418414.443 3777408.113 208.54
LOCATION L0001144 VOLUME 418410.785 3777408.127 208.55
LOCATION L0001145 VOLUME 418407.127 3777408.142 208.57
LOCATION L0001146 VOLUME 418403.470 3777408.157 208.58
LOCATION L0001147 VOLUME 418399.812 3777408.171 208.59
LOCATION L0001148 VOLUME 418396.155 3777408.186 208.51
LOCATION L0001149 VOLUME 418392.497 3777408.200 208.42
LOCATION L0001150 VOLUME 418388.840 3777408.215 208.34
LOCATION L0001151 VOLUME 418385.182 3777408.230 208.26
LOCATION L0001152 VOLUME 418381.524 3777408.244 208.17
LOCATION L0001153 VOLUME 418377.867 3777408.259 208.09
LOCATION L0001154 VOLUME 418374.209 3777408.274 208.00
LOCATION L0001155 VOLUME 418370.552 3777408.288 207.92
LOCATION L0001156 VOLUME 418366.894 3777408.303 207.83
LOCATION L0001157 VOLUME 418363.237 3777408.320 207.75
LOCATION L0001158 VOLUME 418359.579 3777408.343 207.66
LOCATION L0001159 VOLUME 418355.922 3777408.366 207.58
LOCATION L0001160 VOLUME 418352.264 3777408.389 207.49
LOCATION L0001161 VOLUME 418348.606 3777408.412 207.41
LOCATION L0001162 VOLUME 418344.949 3777408.435 207.32
LOCATION L0001163 VOLUME 418341.291 3777408.458 207.24

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   LOCATION L0001164     VOLUME   418337.634 3777408.481 207.15
   LOCATION L0001165     VOLUME   418333.976 3777408.504 207.07
   LOCATION L0001166     VOLUME   418330.319 3777408.527 206.98
   LOCATION L0001167     VOLUME   418326.661 3777408.550 206.90
   LOCATION L0001168     VOLUME   418323.004 3777408.573 206.81
   LOCATION L0001169     VOLUME   418319.346 3777408.596 206.70
   LOCATION L0001170     VOLUME   418315.689 3777408.619 206.59
   LOCATION L0001171     VOLUME   418312.031 3777408.642 206.48
   LOCATION L0001172     VOLUME   418308.374 3777408.665 206.38
   LOCATION L0001173     VOLUME   418304.716 3777408.688 206.27
   LOCATION L0001174     VOLUME   418301.059 3777408.711 206.16
   LOCATION L0001175     VOLUME   418297.401 3777408.734 206.05
   LOCATION L0001176     VOLUME   418293.744 3777408.757 205.94
   LOCATION L0001177     VOLUME   418290.086 3777408.780 205.83
   LOCATION L0001178     VOLUME   418286.428 3777408.803 205.72
   LOCATION L0001179     VOLUME   418282.771 3777408.826 205.62
   LOCATION L0001180     VOLUME   418279.113 3777408.849 205.51
** End of LINE VOLUME Source ID = RDON
   LOCATION IDCONF       POINT      417986.030  3777645.020      198.020
** DESCRSRC Construction truck Idling at Conference Center
   LOCATION IDLRC        POINT      418464.650  3777544.410      198.010
** DESCRSRC Construction Truck Idling at Learning Resource Center
   LOCATION IDCTE        POINT      418670.740  3777366.950      209.670
** DESCRSRC Construction Truck Idling at CTE Building
   LOCATION IDCLRM       POINT      418276.570  3777419.530      205.060
** DESCRSRC Construction Truck Idling at Classroom Building
** Source Parameters **
   SRCPARAM EQCONF        0.000642     3.962   366.000        50       0.1
   SRCPARAM EQLRC         0.000642     3.962   366.000        50       0.1
   SRCPARAM EQCTE         0.000642     3.962   366.000        50       0.1
   SRCPARAM EQCLRM        0.000642     3.962   366.000        50       0.1
** LINE VOLUME Source ID = RDOFF
   SRCPARAM L0000886     0.00000003684      0.00      4.82      0.85
   SRCPARAM L0000887     0.00000003684      0.00      4.82      0.85
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   SRCPARAM L0000889     0.00000003684      0.00      4.82      0.85
   SRCPARAM L0000890     0.00000003684      0.00      4.82      0.85
   SRCPARAM L0000891     0.00000003684      0.00      4.82      0.85
   SRCPARAM L0000892     0.00000003684      0.00      4.82      0.85
   SRCPARAM L0000893     0.00000003684      0.00      4.82      0.85
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   SRCPARAM L0000895     0.00000003684      0.00      4.82      0.85
   SRCPARAM L0000896     0.00000003684      0.00      4.82      0.85
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   SRCPARAM L0000899     0.00000003684      0.00      4.82      0.85
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   SRCPARAM L0000901     0.00000003684      0.00      4.82      0.85
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   SRCPARAM L0000903     0.00000003684      0.00      4.82      0.85
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   SRCPARAM L0000905     0.00000003684      0.00      4.82      0.85
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   SRCPARAM L0000907     0.00000003684      0.00      4.82      0.85
   SRCPARAM L0000908     0.00000003684      0.00      4.82      0.85
   SRCPARAM L0000909     0.00000003684      0.00      4.82      0.85
   SRCPARAM L0000910     0.00000003684      0.00      4.82      0.85
   SRCPARAM L0000911     0.00000003684      0.00      4.82      0.85
   SRCPARAM L0000912     0.00000003684      0.00      4.82      0.85
   SRCPARAM L0000913     0.00000003684      0.00      4.82      0.85
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SRCPARAM L0000914     0.00000003684      0.00      4.82      0.85
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SRCPARAM L0000947     0.00000003684      0.00      4.82      0.85
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SRCPARAM L0000964     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000965     0.00000003684      0.00      4.82      0.85
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SRCPARAM L0000967     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000968     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000969     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000970     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000971     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000972     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000973     0.00000003684      0.00      4.82      0.85
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SRCPARAM L0000976     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000977     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000978     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000979     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000980     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000981     0.00000003684      0.00      4.82      0.85
SRCPARAM L0000982     0.00000003684      0.00      4.82      0.85
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SRCPARAM L0000984     0.00000003684      0.00      4.82      0.85
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SRCPARAM L0000986     0.00000003684      0.00      4.82      0.85
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SRCPARAM L0000999     0.00000003684      0.00      4.82      0.85
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SRCPARAM L0001033     0.00000003684      0.00      4.82      0.85
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   SRCPARAM L0001091     0.00000001371      0.00      1.70      0.85
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SRCPARAM L0001112     0.00000001371      0.00      1.70      0.85
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SRCPARAM L0001144     0.00000001371      0.00      1.70      0.85
SRCPARAM L0001145     0.00000001371      0.00      1.70      0.85
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SRCPARAM L0001148     0.00000001371      0.00      1.70      0.85
SRCPARAM L0001149     0.00000001371      0.00      1.70      0.85
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SRCPARAM L0001151     0.00000001371      0.00      1.70      0.85
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   SRCPARAM L0001162     0.00000001371      0.00      1.70      0.85
   SRCPARAM L0001163     0.00000001371      0.00      1.70      0.85
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   SRCPARAM L0001180     0.00000001371      0.00      1.70      0.85
** ------------------------------------------------------------------
   SRCPARAM IDCONF        3.91E-07     3.658   366.000        50       0.1
   SRCPARAM IDLRC         3.91E-07     3.658   366.000        50       0.1
   SRCPARAM IDCTE         3.91E-07     3.658   366.000        50       0.1
   SRCPARAM IDCLRM        3.91E-07     3.658   366.000        50       0.1
   URBANSRC ALL

** Variable Emissions Type: "By Hour-of-Day (HROFDY)"
** Variable Emission Scenario: "Scenario 2"
   EMISFACT EQCONF       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQCONF       HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT EQCONF       HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT EQCONF       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQLRC        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQLRC        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT EQLRC        HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT EQLRC        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQCTE        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQCTE        HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT EQCTE        HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT EQCTE        HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQCLRM       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT EQCLRM       HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT EQCLRM       HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT EQCLRM       HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000886     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000886     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
   EMISFACT L0000886     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000886     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000887     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000887     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
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EMISFACT L0000887     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000887     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000888     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000888     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000888     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000888     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000889     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000889     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000889     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000889     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000890     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000890     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000890     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000890     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000891     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000891     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000891     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000891     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000892     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000892     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000892     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000892     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000893     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000893     HROFDY 0.0 1.0 1.0 1.0 1.0 1.0
EMISFACT L0000893     HROFDY 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000893     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000894     HROFDY 0.0 0.0 0.0 0.0 0.0 0.0
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** Project Parameters
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** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    World Geodetic System 1984
** DTMRGN   Global Definition
** UNITS    m
** ZONE     11
** ZONEINX  0
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* MODELING OPTIONS USED: RegDFAULT CONC ELEV URBAN ADJ_U*
* PLOT FILE OF PERIOD VALUES AVERAGED ACROSS 0 YEARS FOR SOURCE GROUP: ALL
* FOR A TOTAL OF 12 RECEPTORS.
* FORMAT: (3(1X,F13.5),3(1X,F8.2),2X,A6,2X,A8,2X,I8.8,2X,A8)

* X	Y	AVERAGE CONC	ZELEV	ZHILL	ZFLAG	AVE	GRP	NUM HRS	NET ID
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418118.00000	3777617.00000	0.00467	198.00	3062.00	0.00	PERIOD	ALL	00043848	
418292.00000	3777611.00000	0.00376	199.42	3062.00	0.00	PERIOD	ALL	00043848	
418448.00000	3777613.00000	0.00958	200.26	3062.00	0.00	PERIOD	ALL	00043848	
418598.00000	3777609.00000	0.00541	200.82	3062.00	0.00	PERIOD	ALL	00043848	
418755.00000	3777552.00000	0.00296	201.50	3062.00	0.00	PERIOD	ALL	00043848	
418752.00000	3777408.00000	0.00821	205.55	3062.00	0.00	PERIOD	ALL	00043848	
418752.00000	3777328.00000	0.00660	211.11	3062.00	0.00	PERIOD	ALL	00043848	
417917.00000	3777259.00000	0.00077	191.84	3062.00	0.00	PERIOD	ALL	00043848	
417920.00000	3777421.00000	0.00137	190.59	3062.00	0.00	PERIOD	ALL	00043848	
417921.00000	3777541.00000	0.00352	197.34	3062.00	0.00	PERIOD	ALL	00043848	
417926.00000	3777647.00000	0.01179	197.81	3062.00	0.00	PERIOD	ALL	00043848	

** CONCUNIT ug/m^3
** DEPUNIT g/m^2

CHAMBERS GROUP

Greg Tonkovich, AICP, INCE

Air Quality, Energy, GHG, Noise Impacts | Vista Environmental

Education

MS, Electrical Engineering, University of Southern California

BS, Planning and Development, University of Southern California

Certifications

American Institute of Certified Planners (AICP)

American Planning Association (APA)

Institute of Noise Control Engineering (INCE)

State of California General 'B' Contractors License

Training

Stays up to date with modeling techniques and regulations through continuing education courses

Professional Experience

Greg Tonkovich has over 20 years of environmental consulting experience and over 13 years of air quality and noise analysis experience. He specializes in air quality and noise impact analyses for governmental agencies and the business community and has completed numerous complex air and noise studies that conform to both CEQA and NEPA requirements.

Greg's air quality analysis experience includes global climate change analyses and health risk assessments. He is proficient in utilizing CalEEMod, URBEMIS2007, CALINE4, ISCST3, AERMOD, EMFAC2014, and OFFROAD2011 models, in order to quantify emissions impacts as well as to assess the efficacy of proposed mitigation.

Greg is also experienced in noise analyses and is proficient in utilizing Federal Highway Administration (FHWA) Traffic Noise Model (TNM), FHWA Roadway Construction Noise Model (RCNM), FAA Integrated Noise Model (INM), and SoundPlan. In addition, he has created and implemented a noise program based on the FHWA Standard. Through the use of the above models he is able to efficiently determine noise impacts to nearby sensitive land uses and assess the efficacy of proposed mitigation.

Greg is experienced in a wide range of project types, including residential, commercial, industrial, and recreational projects as well as public projects that include specific plans and general plans. He has prepared studies to specific standards and formats such as Caltrans Air Quality and Noise Study Reports and has completed air quality and/or noise analyses in over 150 different local jurisdictions throughout California.

Project Experience

Wilson High School Aquatic Center Project, CEQA Services, LBUSD, Long Beach, CA

Greg prepared assessments for air quality, GHG, and noise impacts for CEQA documentation associated with the Wilson HS Aquatic Center Project. The Project included the provision of an outdoor pool with bleachers, stadium lights, scoreboard, and deck surrounding the pool. In addition, parking, security fencing, lockers rooms, offices, and a snack bar were proposed to be constructed adjacent to the pool. Chambers Group's team analyzed air quality, energy, GHGs, noise, architectural history, cultural resources, and biological resources associated with the Project's construction and operation. A MND was determined to be the appropriate CEQA document and mitigation measures were included in a MMRP.

Wilson High School Auditorium, CEQA Services, LBUSD, Long Beach, CA

Prepared assessment of air quality, GHG and noise impacts for an IS for LBUSD's proposed plans to provide seismic retrofits and enhancements to the existing Wilson High School Auditorium. The improvements to Wilson High School, qualified the project for a Categorical Exemption and included a review of cultural/historical resources.

Bryant Elementary School HVAC and ADA Upgrade Project, CEQA Services, LBUSD, Long Beach, CA

Greg provided support for CEQA documentation associated with the Bryant ES HVAC and ADA Upgrade Project. The primary goal of this Project was to provide HVAC

upgrades to permanent buildings, upgrade the electrical and security alarm system, incorporate ADA accessible ramps and other features throughout the campus, as well as the demolition of the other permanent building on campus, a Russell bungalow, and replacing this bungalow with three portable classrooms. One of the permanent buildings was shown to contribute to the architectural history of the District and appeared eligible for the California Register of Historical Resources. Chambers Group completed CEQA documentation for this project, which also analyzed the potential impacts to cultural resources, owing to the presence of character-defining architectural features on campus.

Avalon K-12 School HVAC, ADA, New Synthetic Turf Field, LBUSD, Long Beach, CA

Prepared the Air Quality, GHG and Noise Sections of an IS/MND for Chambers Group that analyzed the removal of contaminated soils, improvements to the athletic field, and upgrades to the campus buildings that include new HVAC systems as well as ADA accessibility improvements to the existing School. The air quality and greenhouse gas emissions analyses utilized the CalEEMod model to analyze the regional air emissions from construction activities and the SCAQMD's Look-Up Tables were utilized to analyze the criteria pollutants local air concentrations at the nearby sensitive receptors. The air quality analysis and GHG emissions analysis found that the proposed project would result in less than significant impacts and no mitigation was required. The noise analysis utilized the FHWA RCNM model to calculate the noise levels from each phase of construction activities. The noise analysis found that both construction and operational activities would result in less than significant impacts and no mitigation was required.

Polytechnic High School Auditorium Project, LBUSD, Long Beach, CA

Prepared the Air Quality, GHG and Noise Sections of an IS/MND for Chambers Group that analyzed the seismic retrofit and upgrades to the existing 36,800-square-foot auditorium and 4,800-square-foot band room building, including interior finishes, fire alarm, electrical infrastructure, light fixtures, plumbing, mechanical and sprinkler systems. The air quality and GHG emissions analyses utilized the CalEEMod model to analyze the regional air emissions from construction activities and the SCAQMD's Look-Up Tables were utilized to analyze the criteria pollutants local air concentrations at the nearby sensitive receptors. The air quality analysis and GHG emissions analysis found that the project would result in less than significant impacts and no mitigation was required. The noise analysis utilized the FHWA RCNM model to calculate the noise levels from each phase of construction activities. The analysis found that both construction and operational activities would result in less than significant impacts and no mitigation was required.

Multi-Campus HVAC Systems Installation Project, SDUSD, San Diego, CA

Prepared an air quality analysis and noise impact analysis for SDUSD for the installation of HVAC systems on the roofs of existing buildings at 19 SDUSD campuses, for a total of 707 HVAC units that would be installed. The air quality and GHG emissions analysis utilized the CalEEMod model to analyze air and GHG emissions from construction activities. The operational GHG emissions were calculated through use of the algorithms provided by EnergyStar, to calculate the emissions created by operating the HVAC units. No significant construction or operational air quality or GHG emissions impacts were found. The noise analysis utilized the RCNM to analyze construction noise impacts to the nearby homes and the operational noise analysis utilized the spec sheet noise levels of the likely HVAC units to be utilized for the proposed project along with typical noise drop-off rates to determine the operational noise impacts at the nearby homes. The construction and operational noise levels were found to be within the City of San Diego noise standards and no mitigation was required.

APPENDIX B – CALIFORNIA DEPARTMENT OF TRANSPORTATION COMMENT LETTER (NEW)

DEPARTMENT OF TRANSPORTATION
DISTRICT 7
100 S. MAIN STREET, MS 16
LOS ANGELES, CA 90012
PHONE (213) 269-1124
FAX (213) 897-1337
TTY 711
www.dot.ca.gov

Making Conservation a California Way of Life

May 21, 2024

Claudette Dain
Citrus Community College District
1000 W. Foothill Boulevard
Glendora, CA 91741

RE: Citrus College 2020-2030 Educational and Facilities Master Plan
SCH # 2024040908
Vic. LA-210/PM R40.56
GTS # LA-2024-04513-MND

Dear Claudette Dain:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the above-referenced environmental document. Pursuant to the Master Plan, site improvements will include connectivity of on-site parking facilities, refinement of existing and additional drop-off/pick-up zones, improved pedestrian access, and wayfinding. Renovations will address programming needs for flexible and technologically advanced classrooms and laboratory technology upgrades, improvements to space efficiency and utilization of space, improvements to existing infrastructure, and sustainability improvements that will contribute to becoming a Zero Net Energy (ZNE) campus.

The Master Plan also involves the construction of new buildings:

- Buildings to replace existing buildings that do not meet the requirements for renovation
- Buildings that will address the needs of Citrus College to meet the demands of its current and future students, changing population demographics, and the changing labor market as defined in the educational component of the master plan
- Buildings that maximize efficiency and implement a comprehensive sustainable building design
- Sustainable strategies that will contribute to becoming a ZNE campus

The Air Quality Analysis used default trip generation rates from the CalEEMod model, estimating that the addition of 162 students would generate 186 daily trips on weekdays. According to the City of Glendora General Plan, Foothill Boulevard east of the Project site

is expected to have 13,700 daily vehicular trips by 2025. The Proposed Project would account for 1.4 percent of this total if all project traffic were to travel east on Foothill Drive. Caltrans concurs that the impacts of the Proposed Project on plans, policies, or ordinances related to public transportation, bicycles, or pedestrian facilities would be less than significant.

The Proposed Project area is within 0.5 mile of several transit stops. While the 2020-2030 EFMP improvements are unlikely to significantly reduce vehicle miles traveled (VMT) in the Project area due to the Plan's assumption of modest student population growth, the proximity to multiple transit stops ensures a less than significant transportation impact. The expected enrollment growth will primarily come from local neighborhoods, minimizing the impact on VMT from out-of-town students. Additionally, the Project will introduce student commuters but does not include housing or retail development that would significantly increase vehicle travel to and from the area. Therefore, the Proposed Project aligns with the CEQA Guidelines.

Comment 1

As a reminder, any transportation of heavy construction equipment and/or materials which requires use of oversized transport vehicles on State highways will need a Caltrans transportation permit. We recommend large-size truck trips be limited to off-peak commute periods. Truck drivers should cover construction trucks with tarpaulin to avoid debris spillage onto the State Highway.

If you have any questions, please feel free to contact Mr. Alan Lin, the project coordinator, at (213) 269-1124 and refer to GTS # LA-2024-04513-MND.

Sincerely,

Anthony Higgins for

MIYA EDMONSON
LDR/CEQA Branch Chief

email: State Clearinghouse

APPENDIX C – CREED LA COMMENT LETTER (NEW)

ADAMS BROADWELL JOSEPH & CARDOZO
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW
601 GATEWAY BOULEVARD, SUITE 1000
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FAX: (650) 589-5062
kfederman@adamsbroadwell.com

SACRAMENTO OFFICE
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SACRAMENTO, CA 95814-4721
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ARIANA ABEDIFARD
KEVIN T. CARMICHAEL
CHRISTINA M. CARO
THOMAS A. ENSLOW
KELILAH D. FEDERMAN
RICHARD M. FRANCO
ANDREW J. GRAF
TANYA A. GULESSERIAN
DARION N. JOHNSTON
RACHAEL E. KOSS
AIDAN P. MARSHALL
TARA C. RENGIFO

Of Counsel
MARC D. JOSEPH
DANIEL L. CARDOZO

May 22, 2024

Via Email and Overnight Mail
Claudette Dain
Vice President, Finance & Administrative Services
Citrus Community College District
1000 W. Foothill Boulevard
Glendora, California 91741
Email: CEQAcomments@citruscollege.edu

Re: **Comments on the Initial Study / Mitigated Negative Declaration Citrus College 2020-2030 Educational and Facilities Master Plan**

Dear Ms. Dain:

We are writing on behalf of Coalition for Responsible Equitable Economic Development Los Angeles ("CREED LA") to provide comments on the Initial Study / Mitigated Negative Declaration ("MND") prepared by the Citrus Community College District ("District") for the Citrus College 2020-2030 Educational and Facilities Master Plan (SCH No. 2024040908) ("Project").[1] The Project proposes site improvements including connectivity of on-site parking facilities, refinement of existing and additional drop-off/pick-up zones, improved pedestrian access and wayfinding. Renovations of buildings will address programming needs for flexible and technologically advanced classrooms and laboratory technology upgrades, improvements to space efficiency and utilization of space, improvements to existing infrastructure, and sustainability improvements.[2] The Project is proposed to be located at 1000 W. Foothill Boulevard in the City of Glendora, in Los Angeles County, California.[3]

The Project also involves demolition and construction of new buildings, including:

[1] Citrus Community College District, Citrus College 2020-2030 EFMP Initial Study/Mitigated Negative Declaration, Glendora, California (April 2024) (hereinafter "MND").
[2] MND at 1-2.
[3] MND at 1.

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1) A new 65,000 square foot (sq. ft.) Science and Veterans Center. The buildings that will be replaced by the Science and Veterans Center include the Life Science (LS), Lecture Hall (LH), and Physical Science (PS) building. After construction is completed, the Physical Science (PS), Lecture Hall (LH), Life Science (LS), and Earth Science (ES) will move into the building. The existing Life Science (LS), Lecture Hall (LH), and Physical Science (PS) buildings will be demolished after the construction of the Science and Veterans Center is completed. Approximately 112,131 sq. ft. of buildings will need to be demolished to construct the Science and Veterans Center.
2) A new 81,000 sq. ft. Career Technical Education (CTE) building will be constructed adjacent to the existing Technician Development (TD) and Technology Engineering (TE) buildings. The buildings to be removed in conjunction with the construction of this building are Professional Center (PC), Technology Center (TC), Automotive Annex (AA), Diesel Technology 1 (DT1), Diesel Technology 2 (DT2), Automotive Spray Booth (ASB) and Portable 3 (P3). Approximately 82,449 sq. ft. of buildings will need to be demolished to construct the CTE Building.
3) A new 55,000 sq. ft. Classroom and Information Services building. The buildings to be removed in conjunction with the construction of this building are Lifelong Learning (LL) and Portable 1 (P1). Approximately 12,000 sq. ft. of buildings will need to be demolished to construct the Classroom and Information Services Building.
4) A new offsite Center for Excellence Conference Center will be constructed on the location of the existing Christ the Cornerstone Christian Church (1155 West Foothill Blvd). The new two-story Center for Excellence will be approximately 20,000 sq. ft. The existing 10,000 sq. ft. church will be demolished, and the existing parking lot be removed and reconfigured.
5) A new Student Union / Dining Hall Building will be 15,000 sq. ft. and is proposed to be constructed at the location of the existing bookstore. The building to be replaced in conjunction with this recommendation is the existing Campus Center building. Approximately 12,000 sq. ft. of buildings will need to be demolished to construct the new Student Union.
6) A new 56,000 sq. ft. Library / Learning Resource Center will be constructed on the site of the existing library building. In addition, the on grade parking area will be repurposed. Approximately 43,380 sq. ft. of the existing Library will need to be demolished to construct the new Library.
7) A new 65,000 sq. ft. Kinesiology building will be adjacent to the existing gym facility and physical education buildings. The buildings to be replaced in conjunction with this recommendation are Adaptive Physical Education (AP), Aquatic Center (AQ), and Physical Education Gymnasium (PE). The Tennis Complex (TN), Adaptive Physical Education (AP), and Aquatic Center (AQ)

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are in the footprint of the new building and will be removed. Approximately 117,933 sq. ft. of the existing buildings and resources will need to be demolished to construct the new Kinesiology Building.

The build-out of all the projects is anticipated to occur in eight development phases that will last for 10 years.[4] The MND states that the campus-wide improvements (minor capital projects improving traffic circulation, signage, and improvements in hard- and landscaping) would begin in the Fall of 2022 [sic].[5] The MND states that Phase 2 is anticipated to begin in Winter 2023 [sic].[6] The MND estimates that building construction would occur over 28 months.[7]

These comments were prepared with the assistance of air quality, health risk, and GHG expert Dr. James Clark, Ph.D. and transportation expert Mr. Daniel Smith, P.E. Comments and curriculum vitae of Dr. Clark are attached to this letter as Exhibit A.[8] Mr. Smith's comments and curriculum vitae are included as Exhibit B.[9] Exhibit A and B are fully incorporated herein and submitted to the District herewith. We reserve the right to supplement these comments at a later date and at any future proceedings related to this Project.[10]

I. STATEMENT OF INTEREST

CREED LA is an unincorporated association of individuals and labor organizations that may be adversely affected by the potential public and worker health and safety hazards, and the environmental and public service impacts of the Project. The coalition includes the Sheet Metal Workers Local 105, International Brotherhood of Electrical Workers Local 11, Southern California Pipe Trades District Council 16, and District Council of Iron Workers of the State

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[4] MND at 45.
[5] *Id.* at 7. The MND's construction timelines for the Project phases are clearly incorrect since it is currently 2024, the Project has not yet been approved or begun construction, and the MND was not released for public review until April 2024. Under the timelines set forth in the MND, Phases 1, 2, and possibly 3 would have already begun 1-2 years ago.
[6] *Id.*
[7] MND, Appendix A Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis, p. 47.
[8] **Exhibit A:** Letter from James Clark to Adams Broadwell Joseph & Cardozo, Comment Letter on Citrus College 2020-2030 Educational and Facilities Master Plan Mitigated Negative Declaration (MND), SCH Number 2024040908 (May 16, 2024) ("**Clark Comments**").
[9] **Exhibit B:** Letter from Dan Smith to Adams Broadwell Joseph & Cardozo, Citrus College Education And Facilities Master Plan IS/MND (May 20, 2024) **("Smith Comments**").
[10] Gov. Code § 65009(b); PRC § 21177(a); *Bakersfield Citizens for Local Control v. Bakersfield* ("*Bakersfield*") (2004) 124 Cal. App. 4th 1184, 1199-1203; see *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal. App. 4th 1109, 1121.

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of California, along with their members, their families, and other individuals who live and work in the City of Glendora.

Individual members of CREED LA and its member organizations include Samuel Bowerman, Garrett May, Leo Vincent. These individuals live, work, recreate, and raise their families in the City of Glendora and surrounding communities. Accordingly, they would be directly affected by the Project's environmental and health and safety impacts. Individual members may also work on the Project itself. They would be first in line to be exposed to any health and safety hazards that exist onsite.

CREED LA seeks to ensure a sustainable construction industry over the long-term by supporting projects that have positive impacts for the community, and which minimize adverse environmental and public health impacts. CREED LA has an interest in enforcing environmental laws that encourage sustainable development and ensure a safe working environment for its members. Environmentally detrimental projects can jeopardize future jobs by making it more difficult and more expensive for business and industry to expand in the region, and by making the area less desirable for new businesses and new residents. Indeed, continued environmental degradation can, and has, caused construction moratoriums and other restrictions on growth that, in turn, reduce future employment opportunities.

II. LEGAL BACKGROUND

CEQA requires that lead agencies analyze any project with potentially significant environmental impacts in an EIR, except in limited circumstances.[11] The purpose of an EIR "is to inform the public and its responsible officials of the environmental consequences of their decisions *before* they are made. Thus, the EIR protects not only the environment, but also informed self-government."[12] The EIR has been described as "an environmental 'alarm bell' whose purpose is to alert the public and its responsible official to environmental changes before they have reached ecological points of no return."[13]

A negative declaration may be prepared instead of an EIR when, after preparing an initial study, a lead agency determines that a project "would not have

[11] Pub. Resources Code, § 21000; CEQA Guidelines, § 15002.
[12] *Citizens of Goleta Valley v. Bd. of Supervisors* (1990) 52 Cal.3d 553, 564 (internal citations omitted).
[13] *County of Inyo v. Yorty* (1973) 32 Cal.App.3d 795, 810.

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a significant effect on the environment."[14] Courts have held that if "no EIR has been prepared for a nonexempt project, but substantial evidence in the record supports a fair argument that the project may result in significant adverse impacts, the proper remedy is to order preparation of an EIR."[15]

The presumption in favor of preparing an EIR, rather than a negative declaration, is reflected in the "fair argument" standard. Under that standard, the lead agency "shall" prepare an EIR whenever substantial evidence in the whole record before the agency supports a fair argument that a project may have a significant effect on the environment.[16] The fair argument standard creates a "low threshold" of favoring environmental review through an EIR, rather than through a negative declaration.

"Substantial evidence" required to support a fair argument is defined as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached."[17] "[I]n marginal cases where it is not clear whether there is substantial evidence that a project may have a significant effect on the environment, the lead agency shall be guided by the following principle: If there is disagreement among expert opinion supported by facts over the significance of an effect on the environment, the Lead Agency shall treat the effect as significant and shall prepare an EIR."[18]

With respect to this Project, the MND fails to satisfy the basic purposes of CEQA. The District prepared a project-level MND which purports to evaluate "the potential environmental impacts that may result from development of the Project."[19] But, the MND fails to adequately disclose, investigate, and analyze the Project's potentially significant impacts, and fails to provide substantial evidence to conclude that impacts will be mitigated to a less than significant level. Because the MND lacks basic information regarding the Project's potentially significant impacts,

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[14] *Quail Botanical Gardens v. City of Encinitas* (1994) 29 Cal.App.4th 1597; Pub. Resources Code, § 21080(c).
[15] *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 319-320.
[16] Pub. Resources Code, §§ 21080(d), 21082.2(d); CEQA Guidelines, §§ 15002(k)(3), 15064(f)(1), (h)(1); *Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1993) 6 Cal.4th 1112, 1123; *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75, 82; *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 1501-51; *Quail Botanical Gardens Found., Inc. v. City of Encinitas* (1994) 29 Cal.Appl.4th 1597, 1601-1602.
[17] CEQA Guidelines, § 15384(a).
[18] CEQA Guidelines, § 15064(g).
[19] MND at 6.

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the MND's conclusion that the Project will have a less than significant impact on the environment is unsupported.[20] The District failed to gather the relevant data to support its finding of no significant impacts, and substantial evidence shows that the Project may result in potentially significant impacts. As detailed herein and in the attached expert comments, substantial evidence supports a fair argument that the Project may result in significant and unmitigated impacts to air quality, public health, and from transportation and traffic. The District must prepare an EIR that analyzes, discloses, and mitigates these impacts and which considers less environmentally damaging alternatives.

III. THE MND FAILS TO PROVIDE A COMPLETE PROJECT DESCRIPTION

CEQA requires that an Initial Study include a description of the project and an identification of the environmental setting.[21] "An accurate and complete project description is necessary for an intelligent evaluation of the potential environmental impacts of the agency's action."[22] Accordingly, a lead agency may not hide behind its failure to obtain a complete and accurate project description.[23] Without a complete project description, the environmental analysis under CEQA is impermissibly limited, thus minimizing the project's impacts and undermining meaningful public review.[24]

CEQA Guidelines section 15378 defines "project" to mean "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment."[25] "The term "project" refers to the activity which is being approved and which may be subject to several discretionary approvals by governmental agencies. The term project does not mean each separate governmental approval."[26] Courts have explained that a complete description of a project must "address not only the immediate environmental consequences of going forward with the project, but also all "*reasonably foreseeable* consequence[s] of the initial project."[27]

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[20] Pub. Resources Code, § 21064.5.
[21] CEQA Guidelines, §§ 15063(d), 15071.
[22] *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192-193.
[23] *Sundstrom v. County of Mendocino* (1988) 202 Cal.App.3d 296, 311 ("*Sundstrom*").
[24] *See, e.g., Laurel Heights Improvement Assn. v. Regents of the Univ. of Cal.* (1988) 47 Cal.3d 376.
[25] CEQA Guidelines § 15378.
[26] *Id.*, § 15378(c).
[27] *Laurel Heights I,* 47 Cal. 3d 376, 398 (emphasis added); *see also Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 449-50.

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Accordingly, a lead agency may not hide behind its failure to obtain a complete and accurate project description.[28]

A. The MND Fails to Describe the Proposed Building Heights

The MND fails to provide an accurate and complete project description of each of the Project's elements. The following proposed developments in the MND do not include the building heights or number of stories:

1. Center for Excellence - Conference Center - The MND provides that the building will be two-stories[29] but does not state the building height.
2. Student Union Dining Hall – The MND provides that the Student Union Dining Hall will be 15,000 sq. ft.[30] and alternately states that the Student Union / Dining Hall facility will be 20,000 sq. ft.[31] The MND also fails to provide the number of stories or building height.
3. Career Technical Education Building (CTE) - The MND provides that the CTE building will be 79,000 sq. ft.[32] and alternately states the CTE building will be 81,000 sq. ft.[33] but fails to provide the number of stories or building height.
4. Classroom Building and Veterans Resource Center - The MND provides that the classroom building will be 44,000 sq. ft. [34] but fails to provide the number of stories or building height.
5. STEM / Science Building - The MND provides that the STEM building will be 58,000 sq. ft.[35] but fails to provide the number of stories or building height.
6. Library / Learning Resource Center - The MND provides that the Library building will be 56,000 sq. ft.[36] but fails to provide the number of stories or building height.
7. Kinesiology Building - The MND provides that the Kinesiology building will be 65,000 sq. ft. but fails to provide the number of stories or building height.[37]

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[28] *Sundstrom v. County of Mendocino* ("*Sundstrom*") (1988) 202 Cal.App.3d 296, 311.
[29] MND at 4.
[30] MND at 17.
[31] MND at 4.
[32] MND at 5.
[33] MND at 16.
[34] MND at 5.
[35] *Id.*
[36] *Id.* at 6.
[37] MND at 19.

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The MND includes a single vague reference to Project building heights ranging from one to three stories,[38] but fails to provide any clear information about the actual building heights proposed for each building. As a result, the MND fails to include basic information about Project components as required by CEQA. The lack of information about proposed building heights precludes an accurate assessment of impacts affected by the height and mass of buildings, such as air quality and health risk impacts, greenhouse gas emissions, aesthetics, and localized noise impacts from Project construction and operation. The MND's assessment of these impacts without accurate information about building heights is unsupported. The MND must be withdrawn and an EIR circulated which accurately characterizes the Project's building heights.

B. The MND Provides Inconsistent Information on Building Sizes

The MND includes several inconsistencies with respect to the size of individual Project components, including: the Student Union Dining Hall and the Career Technical Education Building (CTE).[39] The MND provides that the Student Union Dining Hall will be 15,000 sq. ft.[40] and alternately states that the Student Union / Dining Hall facility will be 20,000 sq. ft.[41] The MND provides that the CTE building will be 79,000 sq. ft.[42] and alternately states the CTE building will be 81,000 sq. ft.[43] An accurate assessment of the Project's construction and operational impacts is not possible without an accurate quantification of the Project's size. The MND must be withdrawn and an EIR prepared which includes accurate information about the Project's size.

C. The MND Lacks Information Regarding the Use of Backup Generators

The MND fails to disclose whether the Project will use backup generators to maintain power to the college buildings in the event of a loss of power at the Project site. Courts have explained that a complete description of a project must "address not only the immediate environmental consequences of going forward with the project, but also all "*reasonably foreseeable* consequence[s] of the initial project."[44] Thus, even if the initial design of the Project does not call for generators, they must

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[38] MND, p. 29.
[39] *Id.* at 4; 5; 16; 17.
[40] *Id.* at 17.
[41] *Id.* at 4.
[42] *Id.* at 5.
[43] *Id.* at 16.
[44] *Laurel Heights I,* 47 Cal. 3d 376, 398 (emphasis added); *see also Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal. 4th 412, 449-50.

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be analyzed if the Project's projected uses will require use of generators. Backup generators are a reasonably foreseeable component of a project of this type, and are a major source of diesel particulate matter, and have air quality, greenhouse gas, and energy impacts.

In this case, a backup generator may be required by California Building Code if there are elevators in the proposed Project buildings.[45] California Building Code Title 24, Part 2 § 2702.2.2 requires that "Standby power shall be provided for elevators and platform lifts."[46] Additionally, if a building has an accessible floor four or more stories above ground level, the building must have an elevator with a standby power for the elevator equipment.[47] The MND references possibly building heights of one to three stories,[48] but as discussed above, does not clearly describe the proposed building heights. The Project may be required to have standby power in the form of a back-up generator for an onsite elevator. Backup generators may also be required to support uninterrupted use of scientific or other equipment related to the Project's academic operations. The MND is silent on this issue.

Backup generators commonly rely on fuels such as natural gas or diesel,[49] and thus can significantly impact air quality, GHG emissions, and public health through toxic DPM emissions.[50] Backup generators increase operational emissions during testing periods and unscheduled events. Unscheduled events include, but are not limited to, Public Safety Power Shutoff (PSPS) events and extreme heat events ("EHEs"). EHEs are defined as periods where in the temperatures throughout California exceed 100 degrees Fahrenheit.[51] From January, 2019 through December, 2019, Southern California Edison reported 158 of their circuits underwent a PSP event.[52] In 2021, the Governor Of California declared that during extreme heat events the use of stationary generators shall be deemed an emergency

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[45] California Building Code Title 24, Part 2 § 2702.2.2.
[46] California Building Code Title 24, Part 2 § 2702.2.2.
[47] *Id.* § 1009.4.1; 3008.8.
[48] MND, p. 29.
[49] SCAQMD, Fact Sheet on Emergency Backup Generators, http://www.aqmd.gov/home/permits/emergency-generators ("Most of the existing emergency backup generators use diesel as fuel").
[50] California Air Resources Board, Emission Impact: Additional Generator Usage Associated with Power Outage (January 30, 2020), available at https://ww2.arb.ca.gov/resources/documents/emissions-impact-generator-usage-during-psps (showing that generators commonly rely on gasoline or diesel, and that use of generators during power outages results in excess emissions).
[51] Governor of California. 2021. Proclamation of a state of emergency. June 17, 2021.
[52] SCAQMD. 2020. Proposed Amendment to Rules (PARS) 1110.2, 1470, and 1472. Dated December 10, 2020. http://www.aqmd.gov/docs/default-source/rule-book/Proposed-Rules/1110.2/1110-2_1470_1472/par1110-2_1470_wgm_121020.pdf?sfvrsn=6.

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use under California Code of Regulations (CCR), title 17, section 93115.4 sub. (a) (30) (A)(2). The number of Extreme Heat Events is likely to increase in California with the continuing change in climate.

According to the California Public Utilities Commission ("CPUC") de-energization report[53] in October 2019, there were almost 806 PSPS events that impacted almost 973,000 customers (~7.5% of households in California) of which ~854,000 were residential customers, and the rest were commercial/industrial/ medical baseline/other customers. CARB's data also shows that on average each of these customers had about 43 hours of power outage in October 2019.[54] Using the actual emission factors for each diesel backup generator engines in the air district's stationary backup generator database, CARB staff calculated that the 1,810 additional stationary running during a PSPS in October 2019 generated 126 tons of NOx, 8.3 tons or particulate matter, and 8.3 tons of DPM.

For every PSPS or Extreme Heat Event ("EHE") triggered during the operational phase of the project, significant concentrations of DPM will be released that are not accounted for in the District's analysis. In 2021, two EHEs were declared. During the June 17, 2021 EHE, the period for which stationary generator owners were allowed to use their backup generators lasted 48 hours. For the July 9, 2021 EHE, the period for which stationary generator owners were allowed to use their backup generators lasted 72 hours. These two events would have necessarily increased the calculated DPM emissions from the Project for the year if the project had been in operation.

The District must account for the use of all potential backup generators and their associated air quality, GHG emissions, and health risks from DPM emissions in an EIR, or, alternatively, include conditions restricting the District from using backup generators in order to prevent unmitigated air quality and health impacts.

IV. THE MND FAILS TO PROVIDE AN ADEQUATE DESCRIPTION OF THE ENVIRONMENTAL SETTING

The MND fails to adequately describe the environmental setting against which the Project's environmental impacts are to be measured for several critical aspects of the Project, including transportation. This contravenes the fundamental

[53] https://www.cpuc.ca.gov/deenergization/ as cited in CARB, 2020. Potential Emission Impact of Public Safety Power Shutoff (PSPS), Emission Impact: Additional Generator Usage associated With Power Outage.
[54] CARB, 2020. Potential Emission Impact of Public Safety Power Shutoff (PSPS), Emission Impact: Additional Generator Usage associated With Power Outage.

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purpose of the environmental review process, which is to determine whether there is a potentially substantial, adverse change compared to the existing setting. [55] CEQA requires that a lead agency include a description of the physical environmental conditions, or "baseline," in the vicinity of the project as they exist at the time environmental review commences.[56] As the courts have repeatedly held, the impacts of a project must be measured against the "real conditions on the ground."[57] The description of the environmental setting constitutes the "baseline" physical conditions against which the lead agency assesses the significance of a project's impacts.[58] An Environmental Setting is required "to give the public and decision makers the most accurate and understandable picture practically possible of the project's likely near-term and long-term impacts.[59]

The MND fails to analyze the environmental setting with respect to transportation and traffic. The Project may exacerbate existing traffic and transportation issues, according to CREED LA's transportation expert Dan Smith. But, the MND fails to analyze "whether there are existing transportation operational or safety problems in the Project vicinity that might be disproportionately exacerbated by small concentrations of incremental traffic…"[60] Mr. Smith concluded that the MND's analysis is therefore inadequate.[61] He explains that, if the MND had accounted for the correct baseline transportation conditions, the record would demonstrate that the Project may result in significant traffic impacts which the MND fails to analyze. Substantial evidence as presented in Dan Smith's comments supports a fair argument that the Project may result in significant traffic and transportation impacts requiring preparation of an EIR. The MND must be withdrawn and an EIR prepared which includes accurate information about the Project's environmental setting and baseline transportation impacts.

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[55] CEQA Guidelines, § 15063, subd. (d).
[56] CEQA Guidelines, § 15125(a); *Communities for a Better Environment v. South Coast Air Quality Management Dist*. (2010) 48 Cal. 4th 310, 321 ("*CBE v. SCAQMD*").
[57] *CBE v.* SCAQMD, 48 Cal. 4th at 321; Save *Our Peninsula Com. v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 121-22; *City of Carmel-by-the-Sea v. Bd. of Supervisors of Monterey County* (1986) 183 Cal.App.3d 229, 246.
[58] CEQA Guidelines, § 15125(a); *CBE v.* SCAQMD, 48 Cal. 4th at 321.
[59] 14 CCR § 15125(a).
[60] Smith Comments, p. 2.
[61] *Id.*

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V. THE DISTRICT MUST PREPARE AN EIR BECAUSE THERE IS SUBSTANTIAL EVIDENCE SUPPORTING A FAIR ARGUMENT THAT THE PROJECT MAY RESULT IN SIGNIFICANT AIR QUALITY IMPACTS

CEQA documents must fully disclose all potentially significant impacts of a project, and implement all feasible mitigation to reduce those impacts to less than significant levels. The lead agency's significance determination with regard to each impact must be supported by accurate scientific and factual data.[62] An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.[63]

Moreover, the failure to provide information required by CEQA is a failure to proceed in the manner required by CEQA.[64] Challenges to an agency's failure to proceed in the manner required by CEQA, such as the failure to address a subject required to be covered by CEQA or to disclose information about a project's environmental effects or alternatives, are subject to a less deferential standard than challenges to an agency's factual conclusions.[65] In reviewing challenges to an agency's approval of a CEQA document based on a lack of substantial evidence, the court will "determine de novo whether the agency has employed the correct procedures, scrupulously enforcing all legislatively mandated CEQA requirements."[66] Reviewing courts will not 'uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference.'"[67]

A. The MND Fails to Accurately Analyze Emissions or Disclose the Project's Potentially Significant Air Quality Impacts

The MND relies on inconsistent data with respect to building heights, square footage, construction phases, and construction timing to conclude that air quality impacts will be less than significant. Substantial evidence, as presented in Dr. Clark's expert comments supports a fair argument that, when accounting for the correct square footage, height, and construction lengths and equipment, the Project will result in significant air quality impacts requiring preparation of an EIR.

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[62] 14 CCR § 15064(b).
[63] *Kings Cty. Farm Bur. v. Hanford* (1990) 221 Cal.App.3d 692, 732.
[64] *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236.
[65] *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.
[66] *Id.*; *Madera Oversight Coal., Inc. v. County of Madera* (2011) 199 Cal. App. 4th 48, 102.
[67] *Berkeley Jets*, 91 Cal.App.4th at 1355.

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The MND relies air quality modeling based on the conclusion that 316,904 sq ft of buildings will be demolished.[68] This figure does not match with the square footage outlined in Table 1-1 Citrus College Campus Existing Building Inventory.[69] The figure also does not comport with the figures detailed in Table A, which provides that the existing space is 759,786 sq ft.[70] The demolition of 759,786 sq ft would result in more significant construction emissions impacts than the MND analyzed.[71]

The MND provides that "[b]uild-out of all of the projects will occur in eight development phases. Phase 1, campus-wide improvements will begin in Fall of 2022 and all construction would be completed by 2032. In order to provide a worst-case analysis, all eight phases of construction activities were modeled in CalEEMod as occurring in one phase."[72] The MND's air quality modeling artificially compressed the emissions associated with construction into two years instead of analyzing impacts over the ten-year period.[73] This resulted in artificially reduced construction air quality impacts.[74] The long-term construction emissions impacts should have been analyzed over the course of ten years, to accurately reflect the emissions to nearby sensitive receptors including homes located as near as 15 feet east of the Center for Excellence site, homes as near as 15 feet from the south side, 80 feet from the east side, and 90 feet from the north and westsides of the existing Citrus College site, along with a K-12 school, Powell Elementary School, which is located as near as 1,100 feet south of the existing Citrus College site.[75]

The MND also fails to analyze impacts associated with concurrent phases of construction, and assumes that construction emissions are less than significant. Dr. Clark found that when accounting for overlapping periods of construction activity, Project air quality emissions are significant.[76]

The MND's conclusion that air quality impacts are less than significant is therefore not supported by substantial evidence. Substantial evidence in Dr. Clark's comments supports a fair argument that the Project may result in a significant air quality impact from emissions of criteria and toxic pollutants from on-site motorized operational equipment.

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[68] MND at 7.
[69] *Id.* at 9.
[70] *Id.* at 7.
[71] Clark Comments, p. 6.
[72] MND at 54.
[73] Clark Comments, p. 9.
[74] *Id.*
[75] *Id.* at 1.
[76] Clark Comments, p. 10.

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VI. THE DISTRICT MUST PREPARE AN EIR BECAUSE THERE IS SUBSTANTIAL EVIDENCE SUPPORTING A FAIR ARGUMENT THAT THE PROJECT MAY RESULT IN SIGNIFICANT HEALTH RISK IMPACTS

A lead agency's significance determination must be supported by accurate scientific and factual data.[77] An agency cannot conclude that an impact is less than significant unless it produces rigorous analysis and concrete substantial evidence justifying the finding.[78]

In *Sierra Club v. County of Fresno*, the California Supreme Court affirmed CEQA's mandate to protect public health and safety by holding that an EIR fails as an informational document when it fails to disclose the public health impacts from air pollutants that would be generated by a development project.[79] In *Sierra Club*, the Supreme Court held that the EIR for the Friant Ranch Project—a 942-acre master-planned, mixed-use development with 2,500 senior residential units, 250,000 square feet of commercial space, and open space on former agricultural land in north central Fresno County—was deficient as a matter of law in its informational discussion of air quality impacts as they connect to adverse human health effects.[80] As the Court explained, "a sufficient discussion of significant impacts requires not merely a determination of whether an impact is significant, but some effort to explain the nature and magnitude of the impact."[81] The Court concluded that the County's EIR was inadequate for failing to disclose the nature and extent of public health impacts caused by the project's air pollution. The EIR failed to comply with CEQA because the public, after reading the EIR, "would have no idea of the health consequences that result when more pollutants are added to a nonattainment basin."[82] CEQA mandates discussion, supported by substantial evidence, of the nature and magnitude of impacts of air pollution on public health.[83]

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[77] 14 C.C.R. § 15064(b).
[78] *Kings County Farm Bureau*, 221 Cal.App.3d at 732.
[79] *Sierra Club,* 6 Cal.5th at 518–522.
[80] *Id.* at 507–508, 518–522.
[81] *Id.* at 519, citing *Cleveland National Forest Foundation v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 514–515.
[82] *Id.* at 518. CEQA's statutory scheme and legislative intent also include an express mandate that agencies analyze human health impacts and determine whether the "***environmental effects of a project will cause substantial adverse effects on human beings, either directly or indirectly***." (Public Resources Code § 21083(b)(3) (emphasis added).) Moreover, CEQA directs agencies to "take immediate steps to identify any critical thresholds for the ***health and safety of the people*** of the state and take all coordinated actions necessary to prevent such thresholds being reached." (Public Resources Code § 21000(d) (emphasis added).)
[83] *Sierra Club*, 6 Cal.5th at 518–522.

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In *Berkeley Jets*, the Court of Appeal held that an EIR must analyze the impacts from human exposure to toxic substances.[84] In that case, the Port of Oakland approved a development plan for the Oakland International Airport.[85] The EIR admitted that the Project would result in an increase in the release of toxic air contaminants ("TACs") and adopted mitigation measures to reduce TAC emissions, but failed to quantify the severity of the Project's impacts on human health.[86] The Court held that mitigation alone was insufficient, and that the Port had a duty to analyze the health risks associated with exposure to TACs.[87] As the CEQA Guidelines explain, "[t]he EIR serves not only to protect the environment but also to demonstrate to the public that it is being protected."[88]

The failure to provide information required by CEQA makes meaningful assessment of potentially significant impacts impossible and is presumed to be prejudicial.[89] Challenges to an agency's failure to proceed in the manner required by CEQA, such as the failure to address a subject required to be covered in an EIR or to disclose information about a project's environmental effects or alternatives, are subject to a less deferential standard than challenges to an agency's factual conclusions.[90] Courts reviewing challenges to an agency's approval of an EIR based on a lack of substantial evidence will "determine de novo whether the agency has employed the correct procedures, scrupulously enforcing all legislatively mandated CEQA requirements."[91]

CEQA requires analysis of human health impacts. CEQA Guidelines Section 15065(a)(4) provides that the District is required to find that a project will have a significant impact on the environment and require an EIR if the environmental effects of a project will cause a substantial adverse effect on human beings. The Supreme Court has also explained that CEQA requires the lead agency to disclose the health consequences that result from exposure to a project's air emissions.[92]

The MND fails to disclose and analyze that the Project's construction activities would generate TAC emissions, and failed to disclose the health risk resulting from human exposure to those emissions or evaluate the severity of the

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[84] *Berkeley Jets*, 91 Cal.App.4th at 1369–1371.
[85] *Id.* at 1349–1350.
[86] *Id.* at 1364–1371.
[87] *Id.*
[88] 14 C.C.R. § 15003(b).
[89] *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236–1237.
[90] *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.
[91] *Id.* (internal quotations omitted).
[92] *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, 516, 523.

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exposure in relation to applicable health-based significance thresholds.[93] The MND provides that "[d]ue to the nominal number of diesel truck trips generated by the Proposed Project, a less than significant TAC impact would occur during the on-going operations of the Proposed Project and no mitigation would be required."[94] This conclusion is not supported by substantial evidence, in fact, the Project's construction would generate DPM, a type of TAC.[95] DPM would be emitted during by heavy equipment, diesel trucks, and generators.[96] DPM has been linked to a range of serious health problems including an increase in respiratory disease, lung damage, cancer, and premature death.[97] The MND fails to disclose this potentially significant health risk.

A. The MND's Qualitative Health Risk Analysis Lacks Adequate Information About the Extent of the Project's Health Risk and is Not Supported by Substantial Evidence

The MND concludes that the Project would result in a less than significant health risk impact without a quantitative analysis based on three unsupported claims: (1) by comparing health risk to localized significance thresholds ("LST"), which do not apply to TACs; (2) by asserting that a health risk analysis is not required because the Project's "short-term construction schedule" would not result in a long-term (i.e., 30 or 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk"; and (3) because 25 percent or more of the Project's construction equipment fleets must be Tier 2 or higher.[98]

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[93] SCAQMD's applicable CEQA significance thresholds for health risk from exposure to TACs (including carcinogens and non-carcinogens) are 10 in 1 million (Maximum Incremental Cancer Risk), Cancer Burden (> 0.5 excess cancer cases (in areas ≥ 1 in 1 million)), and/or Chronic & Acute Hazard Index ≥ 1.0 (project increment). See South Coast AQMD Air Quality Significance Thresholds, available at https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf%3Fsfvrsn%3D25&ved=2ahUKEwiOlJ2xpqKGAxUFAjQIHakYDtwQFnoECBoQAQ&usg=AOvVaw07n1OZu8Nvvtfq0AnstLMG

[94] MND at v.

[95] California Air Resources Board, Diesel Exhaust & Health, https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health#:~:text=5%2C%20DPM%20also%20contributes%20to,decreased%20lung%20function%20in%20children.

[96] SCAQMD, Fact Sheet on Emergency Backup Generators, http://www.aqmd.gov/home/permits/emergency-generators ("Most of the existing emergency backup generators use diesel as fuel").

[97] Office of Environmental Health Hazard Assessment & The American Lung Association, Health Effects of Diesel Exhaust, https://oehha.ca.gov/media/downloads/calenviroscreen/indicators/diesel4-02.pdf.

[98] MND, pp. 42-43.

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As Dr. Clark explains in his comments, these conclusions are unsupported. First, the MND relies on an inapplicable methodology by using LST. The LST analysis is only applicable to NOx, CO, PM10, and PM2.5 emissions, which are collectively referred to as criteria air pollutants. Because LST can only be applied to criteria air pollutants, by design, this method cannot be used to determine whether emissions from diesel particulate matter ("DPM"), a known human carcinogen, will result in a significant health risk impact to nearby sensitive receptors. Dr. Clark explains that, as a result, health risk impacts from exposure to TACs, such as DPM, are not considered in the LST analysis for the proposed Project, thus leaving a gap in the MND's analysis.[99]

Second, Dr. Clark explains that individual cancer risk is not just affected by the duration of TAC exposure, but also by the concentration of the individual's unique exposure scenario and the toxicity of the chemical.[100] Further, OEHHA[101] guidance sets a recommended threshold for preparing an HRA of a construction period of two months or more.[102] The OEHHA guidance document explicitly states that this threshold is applicable to short-term construction projects.[103]

Finally, the MND contains no quantitative assessment of human TAC exposure based on the use of Tier 2 engines (or any other tier) during Project construction. The MND therefore contains no support for the assumption that TAC emissions associated with the use of Tier 2 equipment would be beneath health-based significance thresholds.

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[99] Clark Comments, p. 11.
[100] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html ("OEHHA Guidance"), pg. 8-17.
[101] OEHHA is the organization responsible for providing recommendations and guidance on how to conduct health risk assessments in California. See OEHHA organization description, available at http://oehha.ca.gov/about/program.html.
[102] See "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html ("OEHHA Guidance"), p. 8-18.
[103] *Id.* ("The local air pollution control districts sometimes use the risk assessment guidelines for the Hot Spots program in permitting decisions for short-term projects such as construction or waste site remediation. Frequently, the issue of how to address cancer risks from short-term projects arises… We recommend that exposure from projects longer than 2 months but less than 6 months be assumed to last 6 months (e.g., a 2-month project would be evaluated as if it lasted 6 months). Exposure from projects lasting more than 6 months should be evaluated for the duration of the project.")

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The MND's assertion that a health risk analysis is not required is unsupported by law or fact and omits basic information about TACs that is fundamental to evaluate health risk.

B. The MND Fails to Adequately Analyze and Mitigate Diesel Particulate Matter Emissions Which Pose a Potentially Significant Risk to Human Health

The MND concludes, absent substantial evidence, that air quality impacts are less than significant.[104] Substantial evidence, though, supports a fair argument that Project construction may result in significant air quality and public health impacts, requiring preparation of an EIR.[105] Dr. Clark's comments provide substantial evidence supporting a fair argument that Project construction may expose sensitive receptors to substantial pollutant concentrations.[106]

Construction equipment emits diesel particulate matter ("DPM" or "exhaust PM10"), which is a hazardous air pollutant.[107] Construction workers, workers at adjacent facilities, and nearby residents will be exposed to DPM emissions during construction, resulting in a significant impact under CEQA.[108]

CEQA requires a project's environmental review document to disclose the project's potential health risks to a degree of specificity that would allow the public to make the correlation between the project's impacts and adverse effects to human health.[109] The California Office of Environmental Health Hazard Assessment ("OEHHA") risk assessment guidelines also recommends that a formal health risk assessment be conducted for short-term construction exposures lasting longer than 2 months, and exposures from projects lasting more than 6 months for the duration of the project.[110] The MND provides that "[b]uildout of all of the projects will occur in eight development phases. Phase 1, campus-wide improvements will begin in Fall of 2022 and all construction would be completed by 2032."[111] Further, the

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[104] MND, p. 31-44.
[105] Clark Comments, p. 12.
[106] *Id.*
[107] *Id.*
[108] *Id.*
[109] *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184.
[110] Office of Environmental Health Hazard Assessment (OEHHA), Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments, February 2015 (OEHHA 2015), Section 8.2.10: Cancer Risk Evaluation of Short Term Projects, pp. 8-17/18; https://oehha.ca.gov/air/crnr/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0.
[111] MND at 8.

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MND provides that total project construction would occur over 28 months over the course of ten years.[112] This is an extremely conservative estimate for how long construction will last for all of the Project components. Construction may last significantly longer than just 28 months. Regardless, OEHHA risk assessment guidelines recommend a health risk assessment for a construction project of this length. The District must prepare an EIR which includes a health risk analysis to adequately analyze the Project's construction health risk impacts.

The MND fails to adequately analyze the construction health risk associated with DPM emissions and fails to adequately mitigate the associated health risks. The District must prepare an EIR which adequately analyzes project construction health risk and adequately mitigates the impacts, including through measures proposed by Dr. Clark, like requiring Tier 4 Final engines in the construction fleet and through retrofitting CARB-compliant engines with diesel particulate traps.[113] Absent these measures in a legally enforceable mitigation monitoring and reporting program, the Project results in significant environmental impacts, in violation of CEQA. The District must withdraw the MND and circulate an EIR which fully discloses, analyzes and mitigates the Project's construction health risk impact.

Additionally, the District failed to analyze a critical dispersion factor – building downwash – which affects the rate and severity of exposure to TACs, without explaining why. Dr. Clark's comments show that an AERMOD model can be run to account for building downwash. The District's failure to include this emission factor in its health risk analysis represents a failure to accurately to analyze and disclose the ground level concentration of DPM emissions generated by the Project. Further, the District's failure to clarify the Project's building heights precludes a thorough analysis of the ground level concentrations of DPM emissions when accounting for building downwash effect.[114] The MND must be withdrawn and EIR circulated to adequately analyze and mitigate Project health risk impacts.

The District must circulate an EIR which adequately analyzes all of the Project's potentially significant impacts, and require all feasible mitigation to reduce the Project's significant environmental and public health impacts to less than significant levels. Feasible mitigation includes, but is not limited to, the following:

1. Until construction of the Project is completed, District shall require that all diesel off-road construction equipment must meet USEPA Tier 4 Final

[112] MND at 47.
[113] *Id.* at 24.
[114] Clark Comments, p.

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off-road emissions standards for equipment rated at 50 horsepower or greater wherever and whenever reasonably available. In the event that Tier 4 construction equipment is not available, the District may utilize Tier 3 construction equipment outfitted with Best Available Control Technology ("BACT") devices, including but not limited to a CARB certified Level 3 Diesel Particulate Filters ("DPF").

2. All heavy-duty trucks entering the Project site shall be model year 2017 or later to the extent feasible, and in any event all heavy duty trucks entering the Project site shall be no earlier than model year 2014.
3. Provide EV capable infrastructure for a minimum of five medium-duty and/or heavy-duty trucks to accommodate future installation of medium-duty and/or heavy-duty EV charging stations.
4. Require that all outdoor cargo handling equipment (including yard trucks, yard goats, pallet jacks, and forklifts) shall be zero emission. The Project site shall include the necessary charging stations for electric cargo handling equipment.

These measures should be included a Mitigation Monitoring and Reporting Program in a legally adequate EIR circulated for public review and scrutiny before the Project can be approved.

VII. THE DISTRICT MUST PREPARE AN EIR BECAUSE THERE IS SUBSTANTIAL EVIDENCE SUPPORTING A FAIR ARGUMENT THAT THE PROJECT MAY RESULT IN SIGNIFICANT TRANSPORTATION IMPACTS

An MND is improper, and an EIR must be prepared, whenever it can be fairly argued on the basis of substantial evidence that the project may have a significant environmental impact.[115] "[S]ignificant effect on the environment" is defined as "a substantial, or potentially substantial, adverse change in the environment."[116] An effect on the environment need not be "momentous" to meet the CEQA test for significance; it is enough that the impacts are "not trivial."[117] Substantial evidence, for purposes of the fair argument standard, includes "fact, a reasonable assumption predicated upon fact, or *expert opinion* supported by fact."[118]

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[115] PRC § 21151; CEQA Guidelines § 15064(f)(1); *Citizens for Responsible Equitable Envt'l Dev. v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 330-31; *Communities for a Better Env't v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal.4th 310, 319.
[116] PRC § 21068; CEQA Guidelines § 15382.
[117] *No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 83.
[118] PRC § 21080(e)(1) (emphasis added).

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Moreover, the failure to provide information required by CEQA is a failure to proceed in the manner required by CEQA.[119] Challenges to an agency's failure to proceed in the manner required by CEQA, such as the failure to address a subject required to be covered in an MND or to disclose information about a project's environmental effects or alternatives, are subject to a less deferential standard than challenges to an agency's factual conclusions.[120] Even when the substantial evidence standard is applicable to agency decisions to certify an MND and approve a project, reviewing courts will not "'uncritically rely on every study or analysis presented by a project proponent in support of its position. A clearly inadequate or unsupported study is entitled to no judicial deference.'"[121]

The MND concludes that transportation impacts will be less than significant.[122] In making this conclusion, the MND disproportionately relies on student enrollment from "local neighborhoods" to artificially reduce the Project's vehicle miles traveled ("VMT") impacts.[123] The MND provides that the "enrollment growth is expected to come from local neighborhoods and is not expected to draw significantly from out-of-town students who would have a more significant impact on VMT."[124] The MND fails to analyze whether there are existing transportation operational or safety problems in the Project vicinity that might be disproportionately exacerbated by small concentrations of incremental traffic, such as for example, extended queue blockages of through lanes or pedestrian crossings.[125] Dan Smith concludes that the MND's transportation analysis is therefore unsupported by substantial evidence. Accounting for the accurate baseline traffic impacts, the Project may result in significant traffic impacts which the MND fails to analyze or mitigate. Mr. Smith's comments support a fair argument that the Project's VMT and traffic analysis underestimated the number of passenger vehicle trips, which may result in additional significant impacts on transportation that are undisclosed and unmitigated in the MND. The District must prepare an EIR to adequately analyze and mitigate impacts on transportation.

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[119] *Sierra Club v. State Bd. Of Forestry* (1994) 7 Cal.4th 1215, 1236.
[120] *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435.
[121] *Berkeley Keep Jets Over the Bay Committee v. Board of Port Com'rs* (2001) 91 Cal.App.4th 1344, 1355 [internal citations omitted].
[122] MND at 86.
[123] *Id.*
[124] *Id.*
[125] Smith Comments, p. 2.

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VIII. THE DISTRICT MUST PREPARE AN EIR BECAUSE THERE IS SUBSTANTIAL EVIDENCE SUPPORTING A FAIR ARGUMENT THAT THE PROJECT MAY RESULT IN SIGNIFICANT CUMULATIVE IMPACTS

The MND's conclusion that the Project would have a less than significant impact related to cumulatively considerable impacts, is not supported by substantial evidence.[126] "Cumulatively considerable" means that the incremental effects of a 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."[127] The MND asserts without substantial evidence that the Project would not result in a cumulatively considerable environmental impact.[128] The MND then goes on to conclude that "The incremental effects of the Proposed Project that could contribute to cumulative impacts include air, noise, and traffic impacts associated with vehicle trips generated by the Proposed Project and construction impacts."[129] But, the MND fails to analyze the cumulative impacts in these resource areas.

Further, the MND fails to analyze any "past projects…current projects, and the effects of probable future projects" in determining the cumulative significance of the Project.[130] CEQA requires lead agencies to conduct an analysis of "past projects, the effects of other current projects, and the effects of probable future projects."[131] The MND fails to include any list of past, present, or future projects which may result in cumulatively considerable air quality, public health, greenhouse gas emissions, as well as noise and traffic impacts associated with vehicle trips and construction impacts of the Project.

IX. CONCLUSION

The district should withdraw the MND and direct staff to prepare an EIR. As described in detail above and in attached expert reports, substantial evidence supports of a fair argument that the Project poses a significant and unmitigated

[126] MND at 94.
[127]; CEQA Guidelines Appendix G.
[128] MND at 94.
[129] *Id.*
[130] *Id.*
[131] CEQA Guidelines Appendix G.

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risk to the public due to unmitigated construction and operational air quality, health risk, greenhouse gas emissions, transportation, and cumulative impacts.

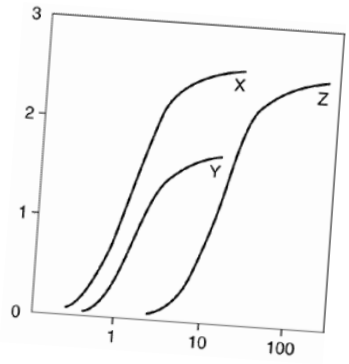
Sincerely,

Kelilah D. Federman

Attachments
KDF:acp

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EXHIBIT A



Clark & Associates
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May 22, 2024

Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

Attn: Ms. Kelilah D. Federman

Subject: Comment Letter on Citrus College 2020-2030 Educational and Facilities Master Plan Mitigated Negative Declaration (MND), SCH Number 2024040908

Dear Ms. Federman:

At the request of Adams Broadwell Joseph & Cardozo (ABJC), Clark and Associates (Clark) has reviewed materials related to the above referenced project.

Clark's review of the materials in no way constitutes a validation of the conclusions or materials contained within the MND. If we do not comment on a specific item, this does not constitute acceptance of the item.

Project Description:

The Proposed Project Master Plan site improvements will include connectivity of on-site parking facilities, refinement of existing and additional drop-off/pick-up zones, improved pedestrian access and wayfinding. Renovations of buildings will address programming needs for flexible and technologically advanced classrooms and laboratory technology upgrades, improvements to space efficiency and utilization of space, improvements to existing infrastructure, and sustainability

improvements that will contribute to becoming a Zero Net Energy (ZNE) campus.

The Master Plan also involves demolition and construction of new buildings:

- Buildings to replace existing buildings that do not meet the requirements for renovation.
- Buildings that will address the needs of Citrus College to meet the demands of its current and future students, changing population demographics, and the changing labor market as defined in the educational component of the master plan.
- Buildings that maximize efficiency and implement a comprehensive sustainable building design.

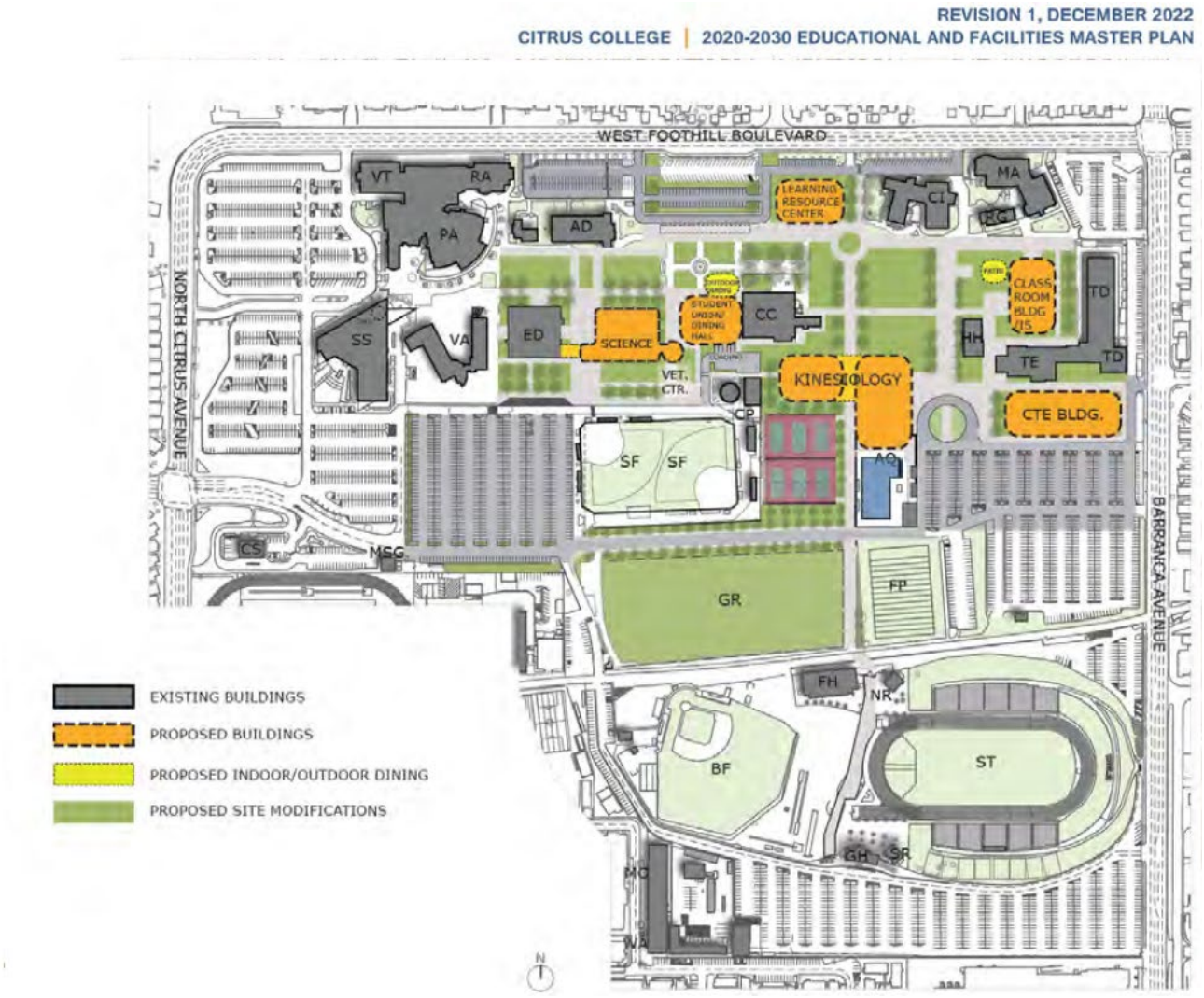


Figure 1: On-Campus Planned Construction



Figure 2: Off-Site Planned Construction - Center For Excellence

The planned construction includes:

1) A new 65,000 square foot (sq. ft.) Science and Veterans Center. The buildings that will be replaced by the Science and Veterans Center include the Life Science (LS), Lecture Hall (LH), and Physical Science (PS) building. After construction is completed, the Physical Science (PS), Lecture Hall (LH), Life Science (LS), and Earth Science (ES) will move into the building. The existing Life Science (LS), Lecture Hall (LH), and Physical Science (PS) buildings will be demolished after the construction of the Science and Veterans Center is completed.

Approximately 112,131 sq. ft. of buildings will need to be demolished to construct the Science and Veterans Center.

2) A new 81,000 sq. ft. Career Technical Education (CTE) building will be constructed adjacent to the existing Technician Development (TD) and Technology Engineering (TE) buildings. The buildings to be removed in conjunction with the construction of this building are Professional Center (PC), Technology Center (TC), Automotive Annex (AA), Diesel Technology 1 (DT1), Diesel Technology 2 (DT2), Automotive Spray Booth (ASB) and Portable 3 (P3). Approximately 82,449 sq. ft. of buildings will need to be demolished to construct the CTE Building.
3) A new 55,000 sq. ft. Classroom and Information Services building. The buildings to be removed in conjunction with the construction of this building are Lifelong Learning (LL) and Portable 1 (P1). Approximately 12,000 sq. ft. of buildings will need to be demolished to construct the Classroom and Information Services Building.
4) A new offsite Center for Excellence Conference Center will be constructed on the location of the existing Christ the Cornerstone Christian Church (1155 West Foothill Blvd). The new two-story Center for Excellence will be approximately 20,000 sq. ft. The existing 10,000 sq. ft. church will be demolished, and the existing parking lot be removed and reconfigured.
5) A new Student Union / Dining Hall Building will be 15,000 sq. ft. and is proposed to be constructed at the location of the existing bookstore. The building to be replaced in conjunction with this recommendation is the existing Campus Center building. Approximately 12,000 sq. ft. of buildings will need to be demolished to construct the new Student Union.
6) A new 56,000 sq. ft. Library / Learning Resource Center will be constructed on the site of the existing library building. In addition, the on grade parking area will be repurposed. Approximately 43,380 sq. ft. of the existing Library will need to be demolished to construct the new Library.
7) A new 65,000 sq. ft. Kinesiology building will be adjacent to the existing gym facility and physical education buildings. The buildings to be replaced in conjunction with this recommendation are Adaptive Physical Education (AP), Aquatic Center (AQ), and Physical Education Gymnasium (PE). The Tennis Complex (TN), Adaptive Physical Education (AP), and Aquatic Center (AQ) are in the footprint of the new building and will be removed.

Approximately 117,933 sq. ft. of the existing buildings and resources will need to be demolished to construct the new Kinesiology Building.

The build-out of all the projects is anticipated to occur in eight development phases that will last for 10 years. The MND states that the campus-wide improvements (minor capital projects improving traffic circulation, signage, and improvements in hard- and landscaping) will began in the Fall of 2022, and that Phase 2 is anticipated to begin in Winter 2023. Subsequent phases are anticipated to occur between 2024-2032:

Table 1-3. Planned Development Phases

Development Phase	Building / Use
1. 2022 – 2031	Campus Wide Improvements
2. 2023 – 2025	Science and Veterans Success Center
3. 2024 – 2025	Career Technical Education
4. 2025 – 2027	Classroom and Information Services
5. 2027 - 2029	Center for Excellence* and **
6. 2028 – 2030	Student Union/ Dining Hall
7. 2029 – 2031	Library / Learning Resource Center **
8. 2030 – 2032	Kinesiology **

* The proposed sequencing of buildings is subject to change. Any major change will be reviewed for CEQA consistency.

** Buildings may be initiated / completed as District funding becomes available.

Figure 3: Development Schedule

The MND's construction timelines for the Project phases are clearly incorrect since it is currently 2024, the Project has not yet been approved or begun construction, and the MND was not released for public review until April 2024. Under the timelines set forth in the MND, Phases 1, 2, and possibly 3 would have already begun.

According to the MND the Project has potentially significant impacts for biological resources, cultural resources, geology/soil, and, hazards & hazardous materials. The MND did not identify significant air quality impacts. This conclusion is in conflict with the facts provided within the MND.

Specific Comments:

1. The Air Quality Analysis Of The Construction Emissions Is Incomplete And Fails To Include All Of The Construction, Demolition, Site Preparation Activities As Well As Assessing Emissions Only For A Two Year Period.

The Air Quality Analysis presented in the MND is out of date, incomplete, does not assess all of the construction activities associated with the Project, and assumes only an additional 162 students are using the new facilities. According to the MND, the results of the facility improvements will be an increase of less than 1% in the total campus gross square feet (GSF). A total of 316,904 sq ft of buildings will be demolished in the development plan. [1] This does not match with the square footage outlined in Table 1-1 for the existing building inventory with the gross square footage for structures onsite.

Table 1-2. Projected Space Needs and Demolition

Type of Space[1]	2019	Planned Demolition	Planned New	Difference	Projected 2030
GSF	759,786	(316,904)	321,828	4,924	764,710
ASF	501,306	(218,288)	236,100	17,812	519,118

Notes:
[1] GSF = Gross Square Feet; ASF = Assignable Square Feet.

Figure 4: Projected Space Needs And Demolition

[1]Chambers Group, Inc. 2024. Citrus College 2020-2030 Educational and Facilities Master Plan Initial Study Mitigated Negative Declaration Glendora, California. Prepared April 2024. Pg 23

This is contrasted in the Air Quality, Energy, and GHG Emissions Impact Analysis (AQ Analysis) which states that demolition of 759,786 gross square feet of existing space.[2] The details from the CalEEMOD analysis provide a different value from the text of the AQ Analysis.

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 162 new students and 321,828 sq ft new structures. Total area disturbed approximately 26.44 acres

Demolition - 316,904 sq ft of building space to be demolished

Construction Off-road Equipment Mitigation - Water Exposed Area 3 times per day selected to account for SCAQMD Rule 403 minimum requirements

Mobile Land Use Mitigation - Increase Transit Access and Improve Ped Network onsite and connecting offsite

Water Mitigation - Install low flow fixtures and water-efficient irrigation selected to account for Title 24 Part 11 requirements

Construction Phase - Painting concurrent with last 6 months of Building Construction

Figure 5: CalEEMOD Comments & Non-Default Data

The AQ Analysis goes on to state that the "Phase 1, campus-wide improvements will begin in Fall of 2022 and all construction would be completed by 2032. In order to provide a worst-case analysis, all eight phases of construction activities were modeled in CalEEMod as occurring in one phase. The phases of construction activities that have been analyzed include: 1) Demolition; 2) Site Preparation; 3) Grading, 4) Building Construction, 5) Application of Architectural Coatings; and 6) Paving."

The time frame utilized in the CalEEMOD analysis assumes that each phase of work (e.g., demolition of structures) is completed separately. That is to say that there is no overlapping demolition, with site preparation, etc…The schedule proposed in the CalEEMOD analysis in no way matches the schedule proposed in the MND nor does it anticipate the funding mechanism by which the Project will be completed.

According to the AQ Analysis, the demolition of the structures would require a total of 1,441 haul truck trips (average 48 haul truck trips per day over 30 workdays for demolition phase).[3] The site preparation phase would consist of removing any vegetation, tree stumps, and stones onsite prior to grading. The site preparation would occur after completion of the demolition phase and was modeled as occurring over four weeks.[4] The grading phase would occur after completion of the site preparation phase and was modeled as occurring over nine weeks. The exact quantities of dirt that will

[2] Vista Environmental. 2022. Appendix A to MND: Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis, Citrus College Educational And Facilities Master Plan 2020-2030 Project. Prepared June 13, 2022. Pg 46

[3] Ibid.

[4] Ibid.

need to be imported or exported to or from the project site has not yet been calculated, however the MND states that the import or export amounts are anticipated to be negligible amounts and were not accounted for in the CalEEMod model.[5] The building construction would occur after the completion of the grading phase and was modeled as occurring over 440 workdays.[6] The application of architectural coatings would take place concurrently with the final six months of the building construction phase. The architectural coating phase was modeled based on covering 482,745 square feet of non-residential interior area, 160,915 square feet of non-residential exterior area, and 13,068 square feet of parking area.[7] The paving phase would consist of paving the new proposed roads, walkways and parking areas. The paving phase would occur after the completion of the building construction and architectural coatings phases and was modeled as occurring over 35 workdays.[8]

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	10/1/2022	11/11/2022	5	30	
2	Site Preparation	Site Preparation	11/12/2022	12/9/2022	5	20	
3	Grading	Grading	12/10/2022	2/10/2023	5	45	
4	Building Construction	Building Construction	2/11/2023	10/18/2024	5	440	
5	Paving	Paving	10/19/2024	12/6/2024	5	35	
6	Architectural Coating	Architectural Coating	5/18/2024	10/18/2024	5	110	

Acres of Grading (Site Preparation Phase): 30

Acres of Grading (Grading Phase): 135

Acres of Paving: 5

Figure 6: CalEEMOD Construction Details

[5] Ibid.

[6] Ibid.

[7] Ibid.

[8] Ibid.

Table M – Construction-Related Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Demolition[1]						
Onsite[2]	2.64	25.72	20.59	0.04	5.30	1.77
Offsite[3]	0.28	8.44	2.47	0.03	1.07	0.33
Total	**2.91**	**34.16**	**23.07**	**0.07**	**6.37**	**2.10**
Site Preparation[1]						
Onsite	3.17	33.08	19.70	0.04	9.28	5.42
Offsite	0.07	0.05	0.71	<0.01	0.20	0.05
Total	**3.24**	**33.13**	**20.41**	**0.04**	**9.48**	**5.48**
Grading[1]						
Onsite	3.62	38.84	29.04	0.06	5.22	2.93
Offsite	0.07	0.06	0.79	<0.01	0.23	0.06
Total	**1.78**	**18.96**	**15.55**	**0.03**	**3.84**	**2.13**
Building Construction Year 2023						
Onsite	1.57	14.38	16.24	0.03	0.70	0.66
Offsite	0.88	4.10	9.53	0.04	3.13	0.87
Total	**2.45**	**18.48**	**25.78**	**0.06**	**3.83**	**1.52**
Combined Building Construction and Architectural Coatings (Year 2024)						
Onsite	29.32	14.66	17.98	0.03	0.67	0.64
Offsite	0.97	4.14	10.45	0.04	3.64	1.00
Total	**30.29**	**18.80**	**28.43**	**0.07**	**4.31**	**1.64**
Paving						
Onsite	1.36	9.52	14.63	0.02	0.47	0.43
Offsite	0.05	0.03	0.51	<0.01	0.17	0.05
Total	**1.41**	**9.56**	**15.13**	**0.02**	**0.64**	**0.48**
Maximum Daily Construction Emissions	**30.29**	**38.90**	**29.83**	**0.07**	**9.48**	**5.48**
SCQAMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Demolition, Site Preparation and Grading based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
[2] Onsite emissions from equipment not operated on public roads.
[3] Offsite emissions from vehicles operating on public roads.
Source: CalEEMod Version 2020.4.0.

Figure 7: Emission Estimates From Project

The resulting emission estimates for each phase of construction are speculative at best, do not reflect the actual quantity of the buildings to be demolished (316,904 sq ft vs. 759,786 sq. ft), do not reflect the schedule of construction for the Project (compressed to two years instead of covering the ten year period of construction as well as not including overlapping periods of activity), and are missing critical data in the analysis (e.g., amount of soil to be imported or exported from the Project Site as well as stationary sources such as emergency generators and fire pumps systems). The College

must perform an accurate AQ Analysis to assess the true emissions from the Project in an environmental impact report (EIR).

2. A Corrected Analysis Of The Construction Phase Using The Schedule Outlined In Table 1-3 Of The MND Demonstrates That The Emissions Will Exceed The VOC Significance Threshold Without Mitigation

Using the current version of the CalEEMOD (Version 2020.4.0) software I recalculated the unmitigated emissions from the construction phase of the Project. Assuming that construction will start in January 2025, and ignoring the first phase (Campus Wide Improvements), I calculated the emissions for Phases 2 through 8. Assuming there is minimal overlap in the development phases

Table 1-3. Planned Development Phases

Development Phase		Building / Use
1. 2022 – 2031		Campus Wide Improvements
2. ~~2023 – 2025~~	2025	Science and Veterans Success Center
3. ~~2024 – 2025~~	2025-2026	Career Technical Education
4. ~~2025 – 2027~~	2026-2027	Classroom and Information Services
5. ~~2027 - 2029~~	2026-2027	Center for Excellence* and **
6. ~~2028 – 2030~~	2027-2028	Student Union/ Dining Hall
7. ~~2029 – 2031~~	2027-2028	Library / Learning Resource Center **
8. ~~2030 – 2032~~	2028-2029	Kinesiology **

* The proposed sequencing of buildings is subject to change. Any major change will be reviewed for CEQA consistency.

** Buildings may be initiated / completed as District funding becomes available.

Figure 8: Development Schedule

it can be demonstrated that the emissions of VOCs will exceed the daily threshold level of significance (75 lbs/day) in 2027. Whether assuming all of the equipment utilized is Tier 3 or the average of the available fleet, the calculated emissions will exceed 77 lbs of VOCs during that construction period. The results of the analyses are included as an attachment to this letter. The College must re-analyze the construction emissions associated with the Project accurately in an

environmental impact report (EIR).

Comment 15

3. The College's Air Quality Analysis Fails To Include A Quantitative Health Risk Analysis Of The Impacts Of Toxic Air Contaminants From The Construction Phase And Operational Phase Of The Project For The Nearest Sensitive Receptor(s)

The College failed to conduct a numerical health risk analysis (HRA) for emissions of toxic air contaminants (TACs) related to the construction phase and operational phase of the Project.

The IS/MND states that, for the purposes of assessing pollution concentrations upon sensitive receptors, the SCAQMD has developed localized significance thresholds (LSTs) that are based on the number of pounds of emissions per day that can be generated by a project that would cause or contribute to adverse localized air quality impacts. For the Criteria Pollutants assessed under CEQA (e.g., SO_x, NO_x, PM_{10}, $PM_{2.5}$, and CO), this is correct. For TACs, there are no LSTs, nor levels of significance based on the pounds per day. Instead, the determination of a significance threshold is based on a quantitative risk analysis that requires the College to perform a multistep, quantitative health risk analysis then compare the results to SCAQMD's applicable CEQA significance thresholds for health risk from exposure to TACs (including carcinogens and non-carcinogens) of 10 in 1 million (Maximum Incremental Cancer Risk), Cancer Burden (> 0.5 excess cancer cases (in areas ≥ 1 in 1 million)), and/or Chronic & Acute Hazard Index ≥ 1.0 (project increment).[9]

The IS/MND also incorrectly asserts that a health risk analysis is not required because the Project's "short-term construction schedule" would not result in a long-term (i.e., 30 or 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk" and because 25 percent or more of the Project's construction equipment fleets must be Tier 2 or higher. (IS/MND, pp. 42-42) This reasoning is unsupported because individual cancer risk is not just affected by the duration of TAC exposure, but also by the concentration of the individual's unique exposure

[9] See South Coast AQMD Air Quality Significance Thresholds, available at https://www.google.com/url?sa=t&source=web&rct=j&opi=89978449&url=https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf%3Fsfvrsn%3D25&ved=2ahUKEwiOlJ2xpqKGAxUFAjQIHakYDtwQFnoECBoQAQ&usg=AOvVaw07n1OZu8NvvtfqOAnstLMG.

scenario and the toxicity of the chemical.[10] Further, OEHHA[11] guidance sets a recommended threshold for preparing an HRA of a construction period of two months or more.[12] The OEHHA guidance document explicitly states that this threshold is applicable to short-term construction projects.[13] Finally, the IS/MND contains no quantitative assessment of human TAC exposure based on the use of Tier 2 engines (or any other tier) during Project construction. The IS/MND therefore contains no support for the assumption that TAC emissions associated with the use of Tier 2 equipment would be beneath health-based significance thresholds.

While diesel particulate matter (DPM)[14]is a particulate and is included in the CEQA analysis of PM, it is most appropriately analyzed as a TAC since it contributes to a host of respiratory impacts and may lead to the development of various cancers. Failing to quantify those impacts places the community at risk for unwanted adverse health impacts. *Even brief exposures to the TACs could lead to the development of adverse health impacts over the life of an individual*.

Diesel exhaust contains nearly 40 toxic substances, including TACs and may pose a serious public health risk for residents in the vicinity of the facility. TACs are airborne substances that are capable of causing short-term (acute) and/or long-term (chronic or carcinogenic, i.e., cancer causing) adverse human health effects (i.e., injury or illness). TACs include both organic and inorganic chemical substances. The current California list of TACs includes approximately 200 compounds, including particulate emissions from diesel-fueled engines.

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[10] "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html ("OEHHA Guidance"), pg. 8-17.

[11] OEHHA is the organization responsible for providing recommendations and guidance on how to conduct health risk assessments in California. See OEHHA organization description, available at http://oehha.ca.gov/about/program.html.

[12] See "Risk Assessment Guidelines Guidance Manual for Preparation of Health Risk Assessments." OEHHA, February 2015, *available at:* http://oehha.ca.gov/air/hot_spots/hotspots2015.html ("OEHHA Guidance"), p. 8-18.

[13] *Id.* ("The local air pollution control districts sometimes use the risk assessment guidelines for the Hot Spots program in permitting decisions for short-term projects such as construction or waste site remediation. Frequently, the issue of how to address cancer risks from short-term projects arises… We recommend that exposure from projects longer than 2 months but less than 6 months be assumed to last 6 months (e.g., a 2-month project would be evaluated as if it lasted 6 months). Exposure from projects lasting more than 6 months should be evaluated for the duration of the project.")

[14] Because DPM is a TAC, it is a different air pollutant than criteria particulate matter (PM) emissions such as PM10, PM2.5, and fugitive dust. DPM exposure causes acute health effects that are different from the effects of exposure to PM alone.

Diesel exhaust has been linked to a range of serious health problems including an increase in respiratory disease, lung damage, cancer, and premature death.[15,16,17] Fine DPM is deposited deep in the lungs in the smallest airways and can result in increased respiratory symptoms and disease; decreased lung function, particularly in children and individuals with asthma; alterations in lung tissue and respiratory tract defense mechanisms; and premature death.[18] Exposure to DPM increases the risk of lung cancer. It also causes non-cancer effects including chronic bronchitis, inflammation of lung tissue, thickening of the alveolar walls, immunological allergic reactions, and airway constriction.[19] DPM is a TAC that is recognized by state and federal agencies as causing severe health risk because it contains toxic materials, unlike $PM_{2.5}$ and PM_{10}.[20]

The inherent toxicity of the TACs requires the College to first quantify the concentration released into the environment at each of the sensitive receptor locations through air dispersion modeling, calculate the dose of each TAC at that location, and quantify the cancer risk and hazard index for each of the chemicals of concern. Following that analysis, then the College can make a determination of the relative significance of the emissions. The results must be presented in an EIR for the Project.

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[15] California Air Resources Board, Initial Statement of Reasons for Rulemaking, Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Staff Report, June 1998; see also California Air Resources Board, Overview: Diesel Exhaust & Health, https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health#:~:text=Diesel%20Particulate%20Matter%20and%20Health&text=In%201998%2C%20CARB%20identified%20DPM,and%20other%20adverse%20health%20effects.

[16] U.S. EPA, Health Assessment Document for Diesel Engine Exhaust, Report EPA/600/8-90/057F, May 2002.

[17] Environmental Defense Fund, Cleaner Diesel Handbook, Bring Cleaner Fuel and Diesel Retrofits into Your Neighborhood, April 2005; http://www.edf.org/documents/4941_cleanerdieselhandbook.pdf, accessed July 5, 2020.

[18] California Air Resources Board, Initial Statement of Reasons for Rulemaking, Proposed Identification of Diesel Exhaust as a Toxic Air Contaminant, Staff Report, June 1998.

[19] Findings of the Scientific Review Panel on The Report on Diesel Exhaust as adopted at the Panel's April 22, 1998 Meeting.

[20] Health & Safety Code § 39655(a) (defining "toxic air contaminant" as air pollutants "which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health. A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the federal act (42 U.S.C. Sec. 7412 (b)) is a toxic air contaminant.")

4. The College's Air Quality Analysis Does Not Include A Dispersion Model Of The Emissions From The Construction Phase And Operational Phase of The Project.

The AQ Analysis fails to address where emissions from the construction phase and operational phase of the Project will disperse to in the community. The results of the air dispersion model should be incorporated into the health risk analysis of both the construction and operational phases of the Project. The model should include all relevant modifiers, including building downwash, to ensure that the modeled concentrations accurately represent the concentrations on and off-campus. The air flowing around and over the buildings creates a convective flow that drives pollutants toward the ground on the lee of the building. This can easily double the ground level concentration and may increase it more depending on the site topography. For The results should be included in an EIR of the Project.

Conclusion

The facts identified and referenced in this comment letter lead me to reasonably conclude that the Project could result in significant impacts if allowed to proceed. A EIR should be prepared of the Project to address these substantial concerns.

Sincerely,



Citrus College EFMP 2020-2030 Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Citrus College EFMP 2020-2030
Construction Start Date	1/1/2025
Operational Year	2033
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	22.4
Location	1000 W Foothill Blvd, Glendora, CA 91741, USA
County	Los Angeles-South Coast
City	Glendora
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5090
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.23

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Junior College (2yr)	65.0	1000sqft	1.25	65,000	0.00	0.00	—	Science And Veterans Center
Junior College (2yr)	81.0	1000sqft	0.90	81,000	0.00	0.00	—	Career Technical Education
Junior College (2yr)	55.0	1000sqft	0.50	55,000	0.00	0.00	—	Classroom and Information Services
Junior College (2yr)	20.0	1000sqft	0.46	20,000	0.00	0.00	—	Center for Excellence Conference Center
Junior College (2yr)	15.0	1000sqft	0.28	15,000	0.00	0.00	—	Student Union / Dining Hall Buildi
Junior College (2yr)	56.0	1000sqft	1.25	56,000	0.00	0.00	—	Library / Learning Resource Center
Junior College (2yr)	65.0	1000sqft	1.25	65,000	0.00	0.00	—	Kinesiology

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Unmit.	77.4	49.1	49.3	0.09	23.5	12.3
Daily, Winter (Max)	—	—	—	—	—	—
Unmit.	73.5	68.1	79.8	0.13	44.9	23.4
Average Daily (Max)	—	—	—	—	—	—
Unmit.	3.73	11.4	18.9	0.03	2.70	0.95
Annual (Max)	—	—	—	—	—	—

Unmit.	0.68	2.08	3.46	0.01	0.49	0.17
Exceeds (Daily Max)	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0
Unmit.	Yes	No	No	No	No	No
Exceeds (Average Daily)	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0
Unmit.	No	No	No	No	No	No
Exceeds (Annual)	—	—	—	—	—	—
Threshold	—	—	—	—	—	—
Unmit.	Yes	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily - Summer (Max)	—	—	—	—	—	—
2025	1.82	13.2	24.5	0.04	2.92	1.01
2026	1.68	12.4	23.6	0.04	2.87	0.96
2027	77.4	49.1	49.3	0.09	23.5	12.3
2028	3.10	27.5	29.3	0.06	21.0	11.2
Daily - Winter (Max)	—	—	—	—	—	—
2025	72.7	31.7	31.2	0.06	21.3	11.4
2026	73.5	41.8	52.0	0.09	24.0	12.3
2027	67.9	68.1	79.8	0.13	44.9	23.4
2028	66.3	25.0	21.5	0.06	8.17	2.05
2029	71.8	10.9	20.5	0.04	2.75	0.86
Average Daily	—	—	—	—	—	—
2025	3.29	10.6	16.0	0.03	2.56	0.87

2026	3.19	9.59	15.9	0.03	2.24	0.82
2027	3.73	11.4	18.9	0.03	2.70	0.95
2028	2.03	8.85	14.9	0.03	2.35	0.76
2029	2.06	0.74	1.34	< 0.005	0.15	0.05
Annual	—	—	—	—	—	—
2025	0.60	1.93	2.93	< 0.005	0.47	0.16
2026	0.58	1.75	2.90	< 0.005	0.41	0.15
2027	0.68	2.08	3.46	0.01	0.49	0.17
2028	0.37	1.61	2.72	< 0.005	0.43	0.14
2029	0.38	0.13	0.24	< 0.005	0.03	0.01

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Unmit.	30.5	18.4	198	0.52	51.3	13.5
Daily, Winter (Max)	—	—	—	—	—	—
Unmit.	27.8	19.5	167	0.50	51.2	13.4
Average Daily (Max)	—	—	—	—	—	—
Unmit.	25.7	16.8	149	0.41	40.6	10.7
Annual (Max)	—	—	—	—	—	—
Unmit.	4.68	3.06	27.3	0.07	7.41	1.96
Exceeds (Daily Max)	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0
Unmit.	No	No	No	No	No	No
Exceeds (Average Daily)	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0

Unmit.	No	No	No	No	No	No

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Mobile	19.1	13.5	179	0.49	50.9	13.1
Area	11.1	0.13	15.5	< 0.005	0.03	0.02
Energy	0.26	4.78	4.01	0.03	0.36	0.36
Water	—	—	—	—	—	—
Waste	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—
Total	30.5	18.4	198	0.52	51.3	13.5
Daily, Winter (Max)	—	—	—	—	—	—
Mobile	19.0	14.7	163	0.47	50.9	13.1
Area	8.55	—	—	—	—	—
Energy	0.26	4.78	4.01	0.03	0.36	0.36
Water	—	—	—	—	—	—
Waste	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—
Total	27.8	19.5	167	0.50	51.2	13.4
Average Daily	—	—	—	—	—	—
Mobile	15.1	11.9	135	0.38	40.2	10.4
Area	10.3	0.09	10.6	< 0.005	0.02	0.01
Energy	0.26	4.78	4.01	0.03	0.36	0.36
Water	—	—	—	—	—	—
Waste	—	—	—	—	—	—

Refrig.	—	—	—	—	—	—
Total	25.7	16.8	149	0.41	40.6	10.7
Annual	—	—	—	—	—	—
Mobile	2.75	2.17	24.6	0.07	7.34	1.89
Area	1.88	0.02	1.94	< 0.005	< 0.005	< 0.005
Energy	0.05	0.87	0.73	0.01	0.07	0.07
Water	—	—	—	—	—	—
Waste	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—
Total	4.68	3.06	27.3	0.07	7.41	1.96

3. Construction Emissions Details

3.1. Demolition For Science and Veteran Center (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	2.40	22.2	19.9	0.03	0.92	0.84
Demolition	—	—	—	—	5.59	0.85
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.13	1.22	1.09	< 0.005	0.05	0.05
Demolition	—	—	—	—	0.31	0.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—

Off-Road Equipment	0.02	0.22	0.20	< 0.005	0.01	0.01
Demolition	—	—	—	—	0.06	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	5.70	2.16	0.03	1.25	0.38
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.32	0.12	< 0.005	0.07	0.02
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.06	0.02	< 0.005	0.01	< 0.005

3.3. Demolition For CTE (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	2.40	22.2	19.9	0.03	0.92	0.84
Demolition	—	—	—	—	4.11	0.62
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.10	0.91	0.82	< 0.005	0.04	0.03
Demolition	—	—	—	—	0.17	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.15	< 0.005	0.01	0.01
Demolition	—	—	—	—	0.03	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	4.19	1.59	0.02	0.92	0.28
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.17	0.06	< 0.005	0.04	0.01
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005

3.5. Demolition For CTE (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	2.29	20.7	19.0	0.03	0.84	0.78
Demolition	—	—	—	—	4.11	0.62
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.03	0.28	0.26	< 0.005	0.01	0.01
Demolition	—	—	—	—	0.06	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.05	< 0.005	< 0.005	< 0.005
Demolition	—	—	—	—	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	4.04	1.54	0.02	0.92	0.28
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.06	0.02	< 0.005	0.01	< 0.005
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005

3.7. Demolition For CIS (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	2.29	20.7	19.0	0.03	0.84	0.78
Demolition	—	—	—	—	1.20	0.18
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.06	0.57	0.52	< 0.005	0.02	0.02
Demolition	—	—	—	—	0.03	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.10	< 0.005	< 0.005	< 0.005
Demolition	—	—	—	—	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	1.17	0.45	0.01	0.27	0.08
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005

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

3.9. Demolition For Student Union (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	2.21	19.9	18.6	0.03	0.80	0.73
Demolition	—	—	—	—	1.20	0.18
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.06	0.55	0.51	< 0.005	0.02	0.02
Demolition	—	—	—	—	0.03	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.09	< 0.005	< 0.005	< 0.005
Demolition	—	—	—	—	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	1.09	0.43	0.01	0.27	0.08

Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005

3.11. Demolition For Library (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	2.21	19.9	18.6	0.03	0.80	0.73
Demolition	—	—	—	—	4.32	0.65
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.06	0.55	0.51	< 0.005	0.02	0.02
Demolition	—	—	—	—	0.12	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.09	< 0.005	< 0.005	< 0.005
Demolition	—	—	—	—	0.02	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.06	0.76	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	4.11	1.58	0.02	0.97	0.30
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.11	0.04	< 0.005	0.03	0.01
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005

3.13. Demolition For Kinesiology (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	2.19	19.6	18.7	0.03	0.78	0.71
Demolition	—	—	—	—	5.88	0.89
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	2.19	19.6	18.7	0.03	0.78	0.71
Demolition	—	—	—	—	5.88	0.89
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.12	1.07	1.02	< 0.005	0.04	0.04
Demolition	—	—	—	—	0.32	0.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.02	0.20	0.19	< 0.005	0.01	0.01
Demolition	—	—	—	—	0.06	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.85	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	5.20	2.07	0.03	1.32	0.40
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.06	0.72	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	5.40	2.09	0.03	1.32	0.40
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.30	0.11	< 0.005	0.07	0.02
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.05	0.02	< 0.005	0.01	< 0.005

3.15. Demolition for Center For Excellence (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	2.21	19.9	18.6	0.03	0.80	0.73
Demolition	—	—	—	—	1.99	0.30
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.03	0.27	0.26	< 0.005	0.01	0.01
Demolition	—	—	—	—	0.03	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.05	0.05	< 0.005	< 0.005	< 0.005
Demolition	—	—	—	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.82	0.72	0.01	0.45	0.14
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

3.17. Site Preparation For Science And Vet Center (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	3.31	31.6	30.2	0.05	1.37	1.26
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.17	0.17	< 0.005	0.01	0.01
Dust From Material Movement	—	—	—	—	0.11	0.06
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.02	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.07	0.08	1.03	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Site Preparation For CTE (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	3.14	29.2	28.8	0.05	1.24	1.14
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.16	< 0.005	0.01	0.01
Dust From Material Movement	—	—	—	—	0.11	0.06
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005

Dust From Material Movement	—	—	—	—	0.02	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.08	0.96	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Site Preparation For CIS (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	3.14	29.2	28.8	0.05	1.24	1.14
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.08	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.05	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.08	0.96	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Site Preparation For Student Union (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T

Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	3.05	28.0	28.3	0.05	1.17	1.08
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.08	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.05	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.08	0.89	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Site Preparation For Library (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	3.05	28.0	28.3	0.05	1.17	1.08
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.08	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.05	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.08	0.89	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Site Preparation For Kinesiology (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	3.04	27.5	28.4	0.05	1.14	1.05
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.16	< 0.005	0.01	0.01
Dust From Material Movement	—	—	—	—	0.11	0.06
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005

Dust From Material Movement	—	—	—	—	0.02	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.06	0.06	0.99	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.29. Site Preparation For Excellence (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	3.05	28.0	28.3	0.05	1.17	1.08
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.08	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.05	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.06	0.06	1.05	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.31. Grading For Science And Vet Center (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T

Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.74	16.3	17.9	0.03	0.72	0.66
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.18	0.20	< 0.005	0.01	0.01
Dust From Material Movement	—	—	—	—	0.08	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.33. Grading For CTE (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.65	15.0	17.4	0.03	0.65	0.59
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.16	0.19	< 0.005	0.01	0.01
Dust From Material Movement	—	—	—	—	0.08	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.35. Grading For CIS (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.65	15.0	17.4	0.03	0.65	0.59
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.10	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.04	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005

Dust From Material Movement	—	—	—	—	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.37. Grading For Student Union (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.59	14.2	17.3	0.03	0.60	0.55
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.09	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.04	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.39. Grading For Library (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T

Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.59	14.2	17.3	0.03	0.60	0.55
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.09	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.04	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.06	0.76	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.41. Grading For Kinesiology (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.56	13.8	17.3	0.03	0.57	0.52
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.15	0.19	< 0.005	0.01	0.01
Dust From Material Movement	—	—	—	—	0.08	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.85	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

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

3.43. Grading For Center For Excellence (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.59	14.2	17.3	0.03	0.60	0.55
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.02	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005

Dust From Material Movement	—	—	—	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.45. Building Construction For Science And Vet Center (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	0.40
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.13	10.4	13.0	0.02	0.43	0.40

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.62	5.72	7.15	0.01	0.24	0.22
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.11	1.04	1.30	< 0.005	0.04	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.64	0.65	10.4	0.00	1.96	0.46
Vendor	0.05	2.11	1.03	0.01	0.53	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.64	0.72	8.85	0.00	1.96	0.46
Vendor	0.05	2.20	1.04	0.01	0.53	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.35	0.43	5.09	0.00	1.06	0.25
Vendor	0.03	1.21	0.57	0.01	0.29	0.08
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.06	0.08	0.93	0.00	0.19	0.05
Vendor	0.01	0.22	0.10	< 0.005	0.05	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.47. Building Construction For CTE (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	0.35
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	0.35
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.59	5.40	7.10	0.01	0.21	0.19
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.11	0.99	1.30	< 0.005	0.04	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.55	0.58	9.68	0.00	1.96	0.46
Vendor	0.05	2.01	0.97	0.01	0.53	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.55	0.65	8.26	0.00	1.96	0.46
Vendor	0.05	2.10	1.00	0.01	0.53	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.30	0.39	4.74	0.00	1.06	0.25
Vendor	0.03	1.16	0.54	0.01	0.29	0.08
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—
Worker	0.05	0.07	0.86	0.00	0.19	0.05
Vendor	0.01	0.21	0.10	< 0.005	0.05	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.49. Building Construction For CIS (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.07	9.85	13.0	0.02	0.38	0.35
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.08	0.77	1.01	< 0.005	0.03	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.02	0.14	0.19	< 0.005	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.55	0.65	8.26	0.00	1.96	0.46
Vendor	0.05	2.10	1.00	0.01	0.53	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.04	0.06	0.68	0.00	0.15	0.04

Vendor	< 0.005	0.17	0.08	< 0.005	0.04	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.03	0.01
Vendor	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.51. Building Construction For CIS (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	0.31
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	0.31
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.20	1.84	2.53	< 0.005	0.07	0.06
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.04	0.34	0.46	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.53	0.52	9.01	0.00	1.96	0.46
Vendor	0.05	1.93	0.92	0.01	0.51	0.15

Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.52	0.65	7.63	0.00	1.96	0.46
Vendor	0.05	2.00	0.94	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.10	0.13	1.57	0.00	0.38	0.09
Vendor	0.01	0.39	0.18	< 0.005	0.10	0.03
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.02	0.02	0.29	0.00	0.07	0.02
Vendor	< 0.005	0.07	0.03	< 0.005	0.02	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.53. Building Construction For Student Union (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	0.31
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.28	2.57	3.54	0.01	0.09	0.08
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.05	0.47	0.65	< 0.005	0.02	0.02

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.53	0.52	9.01	0.00	1.96	0.46
Vendor	0.05	1.93	0.92	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	0.14	0.18	2.20	0.00	0.53	0.12
Vendor	0.01	0.55	0.25	< 0.005	0.14	0.04
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.03	0.03	0.40	0.00	0.10	0.02
Vendor	< 0.005	0.10	0.05	< 0.005	0.03	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.55. Building Construction For Library (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	0.31
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.16	1.45	2.00	< 0.005	0.05	0.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—
Off-Road Equipment	0.03	0.26	0.37	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.52	0.65	7.63	0.00	1.96	0.46
Vendor	0.05	2.00	0.94	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.08	0.10	1.24	0.00	0.30	0.07
Vendor	0.01	0.31	0.14	< 0.005	0.08	0.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.01	0.02	0.23	0.00	0.05	0.01
Vendor	< 0.005	0.06	0.03	< 0.005	0.01	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.57. Building Construction For Library (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	0.28
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—

Off-Road Equipment	0.12	1.07	1.54	< 0.005	0.04	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.02	0.19	0.28	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.51	0.58	7.19	0.00	1.96	0.46
Vendor	0.04	1.92	0.89	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.06	0.07	0.90	0.00	0.23	0.05
Vendor	< 0.005	0.23	0.11	< 0.005	0.06	0.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.01	0.01	0.16	0.00	0.04	0.01
Vendor	< 0.005	0.04	0.02	< 0.005	0.01	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.59. Building Construction For Kinesiology (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	0.28
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.99	8.92	12.9	0.02	0.30	0.28
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.49	4.45	6.45	0.01	0.15	0.14
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.09	0.81	1.18	< 0.005	0.03	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.51	0.51	8.46	0.00	1.96	0.46
Vendor	0.04	1.84	0.89	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.51	0.58	7.19	0.00	1.96	0.46
Vendor	0.04	1.92	0.89	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.25	0.29	3.75	0.00	0.96	0.23
Vendor	0.02	0.96	0.44	0.01	0.25	0.07
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.05	0.05	0.68	0.00	0.18	0.04
Vendor	< 0.005	0.18	0.08	< 0.005	0.05	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.61. Building Construction For Kinesiology (2029) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.97	8.58	12.9	0.02	0.28	0.25
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.05	0.42	0.63	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.08	0.12	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.49	0.51	6.69	0.00	1.96	0.46
Vendor	0.04	1.83	0.86	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.02	0.03	0.34	0.00	0.09	0.02
Vendor	< 0.005	0.09	0.04	< 0.005	0.02	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.02	< 0.005
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005

Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.63. Building Construction For Center For Excellence (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	1.03	9.39	12.9	0.02	0.34	0.31
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.14	1.29	1.77	< 0.005	0.05	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.03	0.23	0.32	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.53	0.52	9.01	0.00	1.96	0.46
Vendor	0.05	1.93	0.92	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	0.07	0.09	1.10	0.00	0.26	0.06
Vendor	0.01	0.28	0.13	< 0.005	0.07	0.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—

Worker	0.01	0.02	0.20	0.00	0.05	0.01
Vendor	< 0.005	0.05	0.02	< 0.005	0.01	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.65. Paving For Science And Vet Center (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.80	7.45	9.98	0.01	0.35	0.32
Paving	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.20	0.27	< 0.005	0.01	0.01
Paving	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	< 0.005
Paving	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.67. Paving For CTE (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.76	7.12	9.94	0.01	0.32	0.29
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.20	0.27	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.20	0.05

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.69. Paving For CIS (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	0.27
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.14	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—

Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.71. Paving For Student Union (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	0.27
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	0.27
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.10	0.14	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.06	0.76	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.73. Paving For Library (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.69	6.63	9.91	0.01	0.26	0.24

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.09	0.14	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.02	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.06	0.72	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.75. Paving For Kinesiology (2029) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.67	6.46	9.92	0.01	0.24	0.22
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.18	0.27	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.05	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.67	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.77. Paving For Center For Excellence (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T

Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.74	6.94	9.95	0.01	0.30	0.27
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.79. Architectural Coating For Science And Vet Center (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.13	0.88	1.14	< 0.005	0.03	0.03
Architectural Coatings	71.7	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005
Architectural Coatings	1.97	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.36	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.89	1.01	12.4	0.00	2.74	0.64
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.02	0.03	0.36	0.00	0.07	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	0.01	0.07	0.00	0.01	< 0.005

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.81. Architectural Coating For CTE (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.12	0.86	1.13	< 0.005	0.02	0.02
Architectural Coatings	71.7	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005
Architectural Coatings	1.97	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.36	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.83. Architectural Coating For CIS (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	0.02
Architectural Coatings	77.2	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Architectural Coatings	1.06	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.19	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.85. Architectural Coating For Student Union (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	0.02
Architectural Coatings	66.2	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.91	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.17	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.87. Architectural Coating (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.11	0.81	1.12	< 0.005	0.02	0.01
Architectural Coatings	66.2	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.91	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.17	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.89. Architectural Coating for Kinesiology (2029) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.10	0.79	1.11	< 0.005	0.01	0.01
Architectural Coatings	71.7	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005
Architectural Coatings	1.97	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.36	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.91. Architectural Coating For Center For Excellence (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.11	0.83	1.13	< 0.005	0.02	0.02
Architectural Coatings	36.8	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.30	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.06	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Junior College (2yr)	19.1	13.5	179	0.49	50.9	13.1
Total	19.1	13.5	179	0.49	50.9	13.1
Daily, Winter (Max)	—	—	—	—	—	—
Junior College (2yr)	19.0	14.7	163	0.47	50.9	13.1
Total	19.0	14.7	163	0.47	50.9	13.1
Annual	—	—	—	—	—	—
Junior College (2yr)	2.75	2.17	24.6	0.07	7.34	1.89
Total	2.75	2.17	24.6	0.07	7.34	1.89

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T

Daily, Summer (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Junior College (2yr)	0.26	4.78	4.01	0.03	0.36	0.36
Total	0.26	4.78	4.01	0.03	0.36	0.36
Daily, Winter (Max)	—	—	—	—	—	—
Junior College (2yr)	0.26	4.78	4.01	0.03	0.36	0.36
Total	0.26	4.78	4.01	0.03	0.36	0.36
Annual	—	—	—	—	—	—
Junior College (2yr)	0.05	0.87	0.73	0.01	0.07	0.07
Total	0.05	0.87	0.73	0.01	0.07	0.07

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Consumer Products	7.64	—	—	—	—	—
Architectural Coatings	0.91	—	—	—	—	—
Landscape Equipment	2.55	0.13	15.5	< 0.005	0.03	0.02
Total	11.1	0.13	15.5	< 0.005	0.03	0.02
Daily, Winter (Max)	—	—	—	—	—	—
Consumer Products	7.64	—	—	—	—	—
Architectural Coatings	0.91	—	—	—	—	—
Total	8.55	—	—	—	—	—
Annual	—	—	—	—	—	—
Consumer Products	1.39	—	—	—	—	—
Architectural Coatings	0.17	—	—	—	—	—
Landscape Equipment	0.32	0.02	1.94	< 0.005	< 0.005	< 0.005
Total	1.88	0.02	1.94	< 0.005	< 0.005	< 0.005

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—

Annual	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—

Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Avoided	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Removed	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Avoided	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Removed	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—
—	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Avoided	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Removed	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition For Science and Veteran Center	Demolition	1/1/2025	1/28/2025	5.00	20.0	Demolition For Science and Veteran Center
Demolition For CTE	Demolition	12/11/2025	1/7/2026	5.00	20.0	Demolition For CTE
Demolition For CIS	Demolition	11/24/2026	12/7/2026	5.00	10.0	Demolition For CIS
Demolition For Student Union	Demolition	4/25/2027	5/7/2027	5.00	10.0	Demolition For Student Union
Demolition For Library	Demolition	10/14/2027	10/27/2027	5.00	10.0	Demolition For Library
Demolition For Kinesiology	Demolition	3/16/2028	4/12/2028	5.00	20.0	Demolition For Kinesiology
Demolition for Center For Excellence	Demolition	4/27/2027	5/3/2027	5.00	5.00	Demolition for Center For Excellence
Site Preparation For Science And Vet Center	Site Preparation	1/29/2025	1/30/2025	5.00	2.00	Site Preparation For Science And Vet Center
Site Preparation For CTE	Site Preparation	1/8/2026	1/10/2026	5.00	2.00	Site Preparation For CTE

Site Preparation For CIS	Site Preparation	12/9/2026	12/9/2026	5.00	1.00	Site Preparation For CIS
Site Preparation For Student Union	Site Preparation	10/28/2027	10/28/2027	5.00	1.00	Site Preparation For Student Union
Site Preparation For Library	Site Preparation	10/28/2027	10/28/2027	5.00	1.00	Site Preparation For Library
Site Preparation For Kinesiology	Site Preparation	4/13/2028	4/15/2028	5.00	2.00	Site Preparation For Kinesiology
Site Preparation For Excellence	Site Preparation	5/4/2027	5/4/2027	5.00	1.00	Site Preparation For Excellence
Grading For Science And Vet Center	Grading	1/31/2025	2/5/2025	5.00	4.00	Grading For Science And Vet Center
Grading For CTE	Grading	1/13/2026	1/17/2026	5.00	4.00	Grading For CTE
Grading For CIS	Grading	12/10/2026	12/12/2026	5.00	2.00	Grading For CIS
Grading For Student Union	Grading	5/11/2027	5/12/2027	5.00	2.00	Grading For Student Union
Grading For Library	Grading	10/29/2027	11/1/2027	5.00	2.00	Grading For Library
Grading For Kinesiology	Grading	4/16/2028	4/20/2028	5.00	4.00	Grading For Kinesiology
Grading For Center For Excellence	Grading	5/5/2027	5/5/2027	5.00	1.00	Grading For Center For Excellence
Building Construction For Science And Vet Center	Building Construction	2/6/2025	11/12/2025	5.00	200	Building Construction For Science And Vet Center
Building Construction For CTE	Building Construction	1/18/2026	10/24/2026	5.00	200	Building Construction For CTE
Building Construction For CIS	Building Construction	11/22/2026	4/10/2027	5.00	100	Building Construction For CIS
Building Construction For Student Union	Building Construction	5/13/2027	9/29/2027	5.00	100	Building Construction For Student Union
Building Construction For Library	Building Construction	10/14/2027	3/1/2028	5.00	100	Building Construction For Library
Building Construction For Kinesiology	Building Construction	4/21/2028	1/25/2029	5.00	200	Building Construction For Kinesiology
Building Construction For Center For Excellence	Building Construction	5/6/2027	7/14/2027	5.00	50.0	Building Construction For Center For Excellence

Paving For Science And Vet Center	Paving	11/13/2025	11/26/2025	5.00	10.0	Paving For Science And Vet Center
Paving For CTE	Paving	10/25/2026	11/7/2026	5.00	10.0	Paving For CTE
Paving For CIS	Paving	4/11/2027	4/16/2027	5.00	5.00	Paving For CIS
Paving For Student Union	Paving	9/30/2027	10/6/2027	5.00	5.00	Paving For Student Union
Paving For Library	Paving	3/2/2028	3/8/2028	5.00	5.00	Paving For Library
Paving For Kinesiology	Paving	1/26/2029	2/8/2029	5.00	10.0	Paving For Kinesiology
Paving For Center For Excellence	Paving	7/15/2027	7/18/2027	5.00	2.00	Paving For Center For Excellence
Architectural Coating For Science And Vet Center	Architectural Coating	11/27/2025	12/10/2025	5.00	10.0	Architectural Coating For Science And Vet Center
Architectural Coating For CTE	Architectural Coating	12/13/2026	12/26/2026	5.00	10.0	Architectural Coating For CTE
Architectural Coating For CIS	Architectural Coating	4/17/2027	4/24/2027	5.00	5.00	Architectural Coating For CIS
Architectural Coating For Student Union	Architectural Coating	11/2/2027	11/8/2027	5.00	5.00	Architectural Coating For Student Union
Architectural Coating	Architectural Coating	3/9/2028	3/15/2028	5.00	5.00	Architectural Coating
Architectural Coating for Kinesiology	Architectural Coating	2/10/2029	2/23/2029	5.00	10.0	Architectural Coating for Kinesiology
Architectural Coating For Center For Excellence	Architectural Coating	7/19/2027	7/21/2027	5.00	3.00	Architectural Coating For Center For Excellence

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition For Science and Veteran Center	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition For Science and Veteran Center	Excavators	Diesel	Average	3.00	8.00	36.0	0.38

Demolition For Science and Veteran Center	Rubber Tired Doz	Diesel	Average	2.00	8.00	367	0.40
Demolition For CTE	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition For CTE	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition For CTE	Rubber Tired Doz	Diesel	Average	2.00	8.00	367	0.40
Demolition For CIS	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition For CIS	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition For CIS	Rubber Tired Doz	Diesel	Average	2.00	8.00	367	0.40
Demolition For Student Union	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition For Student Union	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition For Student Union	Rubber Tired Doz	Diesel	Average	2.00	8.00	367	0.40
Demolition For Library	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition For Library	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition For Library	Rubber Tired Doz	Diesel	Average	2.00	8.00	367	0.40
Demolition For Kinesiology	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition For Kinesiology	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition For Kinesiology	Rubber Tired Doz	Diesel	Average	2.00	8.00	367	0.40
Demolition for Center For Excellence	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Demolition for Center For Excellence	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition for Center For Excellence	Rubber Tired Doz	Diesel	Average	2.00	8.00	367	0.40

Site Preparation For Science And Vet Center	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation For Science And Vet Center	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Site Preparation For CTE	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation For CTE	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Site Preparation For CIS	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation For CIS	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Site Preparation For Student Union	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation For Student Union	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Site Preparation For Library	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation For Library	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Site Preparation For Kinesiology	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation For Kinesiology	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Site Preparation For Excellence	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation For Excellence	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading For Science And Vet Center	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading For Science And Vet Center	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading For Science And Vet Center	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40

Grading For Science And Vet Center	Tractors/Loaders/Backh	Diesel	Average	3.00	8.00	84.0	0.37
Grading For CTE	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading For CTE	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading For CTE	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading For CTE	Tractors/Loaders/Backh oes	Diesel	Average	3.00	8.00	84.0	0.37
Grading For CIS	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading For CIS	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading For CIS	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading For CIS	Tractors/Loaders/Backh oes	Diesel	Average	3.00	8.00	84.0	0.37
Grading For Student Union	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading For Student Union	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading For Student Union	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading For Student Union	Tractors/Loaders/Backh oes	Diesel	Average	3.00	8.00	84.0	0.37
Grading For Library	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading For Library	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading For Library	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading For Library	Tractors/Loaders/Backh oes	Diesel	Average	3.00	8.00	84.0	0.37
Grading For Kinesiology	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading For Kinesiology	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading For Kinesiology	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading For Kinesiology	Tractors/Loaders/Backh oes	Diesel	Average	3.00	8.00	84.0	0.37

Grading For Center For Excellence	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading For Center For Excellence	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading For Center For Excellence	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading For Center For Excellence	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction For Science And Vet Center	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction For Science And Vet Center	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction For Science And Vet Center	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction For Science And Vet Center	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction For Science And Vet Center	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction For CTE	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction For CTE	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction For CTE	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction For CTE	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction For CTE	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction For CIS	Cranes	Diesel	Average	1.00	7.00	367	0.29

Building Construction For CIS	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction For CIS	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction For CIS	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction For CIS	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction For Student Union	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction For Student Union	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction For Student Union	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction For Student Union	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction For Student Union	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction For Library	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction For Library	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction For Library	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction For Library	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction For Library	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction For Kinesiology	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction For Kinesiology	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction For Kinesiology	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74

Building Construction For Kinesiology	Tractors/Loaders/Backh	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction For Kinesiology	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction For Center For Excellence	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction For Center For Excellence	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction For Center For Excellence	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction For Center For Excellence	Tractors/Loaders/Backh oes	Diesel	Average	3.00	7.00	84.0	0.37
Building Construction For Center For Excellence	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving For Science And Vet Center	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving For Science And Vet Center	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving For Science And Vet Center	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving For CTE	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving For CTE	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving For CTE	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving For CIS	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving For CIS	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving For CIS	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving For Student Union	Pavers	Diesel	Average	2.00	8.00	81.0	0.42

Paving For Student Union	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving For Student Union	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving For Library	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving For Library	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving For Library	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving For Kinesiology	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving For Kinesiology	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving For Kinesiology	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Paving For Center For Excellence	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving For Center For Excellence	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving For Center For Excellence	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating For Science And Vet Center	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Architectural Coating For CTE	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Architectural Coating For CIS	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Architectural Coating For Student Union	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Architectural Coating for Kinesiology	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48
Architectural Coating For Center For Excellence	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition For Science and Veteran Center	—	—	—	—
Demolition For Science and Veteran Center	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition For Science and Veteran Center	Vendor	—	10.2	HHDT,MHDT
Demolition For Science and Veteran Center	Hauling	64.5	20.0	HHDT
Demolition For Science and Veteran Center	Onsite truck	—	—	HHDT
Site Preparation For Science And Vet Center	—	—	—	—
Site Preparation For Science And Vet Center	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation For Science And Vet Center	Vendor	—	10.2	HHDT,MHDT
Site Preparation For Science And Vet Center	Hauling	0.00	20.0	HHDT
Site Preparation For Science And Vet Center	Onsite truck	—	—	HHDT
Grading For Science And Vet Center	—	—	—	—
Grading For Science And Vet Center	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For Science And Vet Center	Vendor	—	10.2	HHDT,MHDT
Grading For Science And Vet Center	Hauling	0.00	20.0	HHDT
Grading For Science And Vet Center	Onsite truck	—	—	HHDT
Building Construction For Science And Vet Center	—	—	—	—

Building Construction For Science And Vet Center	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For Science And Vet Center	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For Science And Vet Center	Hauling	0.00	20.0	HHDT
Building Construction For Science And Vet Center	Onsite truck	—	—	HHDT
Paving For Science And Vet Center	—	—	—	—
Paving For Science And Vet Center	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For Science And Vet Center	Vendor	—	10.2	HHDT,MHDT
Paving For Science And Vet Center	Hauling	0.00	20.0	HHDT
Paving For Science And Vet Center	Onsite truck	—	—	HHDT
Architectural Coating For Science And Vet Center	—	—	—	—
Architectural Coating For Science And Vet Center	Worker	210	18.5	LDA,LDT1,LDT2
Architectural Coating For Science And Vet Center	Vendor	—	10.2	HHDT,MHDT
Architectural Coating For Science And Vet Center	Hauling	0.00	20.0	HHDT
Architectural Coating For Science And Vet Center	Onsite truck	—	—	HHDT
Demolition For CTE	—	—	—	—
Demolition For CTE	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition For CTE	Vendor	—	10.2	HHDT,MHDT
Demolition For CTE	Hauling	47.5	20.0	HHDT
Demolition For CTE	Onsite truck	—	—	HHDT
Site Preparation For CTE	—	—	—	—
Site Preparation For CTE	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation For CTE	Vendor	—	10.2	HHDT,MHDT

Site Preparation For CTE	Hauling	0.00	20.0	HHDT
Site Preparation For CTE	Onsite truck	—	—	HHDT
Grading For CTE	—	—	—	—
Grading For CTE	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For CTE	Vendor	—	10.2	HHDT,MHDT
Grading For CTE	Hauling	0.00	20.0	HHDT
Grading For CTE	Onsite truck	—	—	HHDT
Building Construction For CTE	—	—	—	—
Building Construction For CTE	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For CTE	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For CTE	Hauling	0.00	20.0	HHDT
Building Construction For CTE	Onsite truck	—	—	HHDT
Paving For CTE	—	—	—	—
Paving For CTE	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For CTE	Vendor	—	10.2	HHDT,MHDT
Paving For CTE	Hauling	0.00	20.0	HHDT
Paving For CTE	Onsite truck	—	—	HHDT
Architectural Coating For CTE	—	—	—	—
Architectural Coating For CTE	Worker	—	18.5	LDA,LDT1,LDT2
Architectural Coating For CTE	Vendor	—	10.2	HHDT,MHDT
Architectural Coating For CTE	Hauling	0.00	20.0	HHDT
Architectural Coating For CTE	Onsite truck	—	—	HHDT
Demolition For CIS	—	—	—	—
Demolition For CIS	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition For CIS	Vendor	—	10.2	HHDT,MHDT
Demolition For CIS	Hauling	13.8	20.0	HHDT
Demolition For CIS	Onsite truck	—	—	HHDT

Demolition For Student Union	—	—	—	—
Demolition For Student Union	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition For Student Union	Vendor	—	10.2	HHDT,MHDT
Demolition For Student Union	Hauling	13.8	20.0	HHDT
Demolition For Student Union	Onsite truck	—	—	HHDT
Demolition For Library	—	—	—	—
Demolition For Library	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition For Library	Vendor	—	10.2	HHDT,MHDT
Demolition For Library	Hauling	49.9	20.0	HHDT
Demolition For Library	Onsite truck	—	—	HHDT
Demolition For Kinesiology	—	—	—	—
Demolition For Kinesiology	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition For Kinesiology	Vendor	—	10.2	HHDT,MHDT
Demolition For Kinesiology	Hauling	67.8	20.0	HHDT
Demolition For Kinesiology	Onsite truck	—	—	HHDT
Site Preparation For CIS	—	—	—	—
Site Preparation For CIS	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation For CIS	Vendor	—	10.2	HHDT,MHDT
Site Preparation For CIS	Hauling	0.00	20.0	HHDT
Site Preparation For CIS	Onsite truck	—	—	HHDT
Site Preparation For Student Union	—	—	—	—
Site Preparation For Student Union	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation For Student Union	Vendor	—	10.2	HHDT,MHDT
Site Preparation For Student Union	Hauling	0.00	20.0	HHDT
Site Preparation For Student Union	Onsite truck	—	—	HHDT
Site Preparation For Library	—	—	—	—
Site Preparation For Library	Worker	17.5	18.5	LDA,LDT1,LDT2

Site Preparation For Library	Vendor	—	10.2	HHDT,MHDT
Site Preparation For Library	Hauling	0.00	20.0	HHDT
Site Preparation For Library	Onsite truck	—	—	HHDT
Site Preparation For Kinesiology	—	—	—	—
Site Preparation For Kinesiology	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation For Kinesiology	Vendor	—	10.2	HHDT,MHDT
Site Preparation For Kinesiology	Hauling	0.00	20.0	HHDT
Site Preparation For Kinesiology	Onsite truck	—	—	HHDT
Grading For CIS	—	—	—	—
Grading For CIS	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For CIS	Vendor	—	10.2	HHDT,MHDT
Grading For CIS	Hauling	0.00	20.0	HHDT
Grading For CIS	Onsite truck	—	—	HHDT
Grading For Student Union	—	—	—	—
Grading For Student Union	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For Student Union	Vendor	—	10.2	HHDT,MHDT
Grading For Student Union	Hauling	0.00	20.0	HHDT
Grading For Student Union	Onsite truck	—	—	HHDT
Grading For Library	—	—	—	—
Grading For Library	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For Library	Vendor	—	10.2	HHDT,MHDT
Grading For Library	Hauling	0.00	20.0	HHDT
Grading For Library	Onsite truck	—	—	HHDT
Grading For Kinesiology	—	—	—	—
Grading For Kinesiology	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For Kinesiology	Vendor	—	10.2	HHDT,MHDT
Grading For Kinesiology	Hauling	0.00	20.0	HHDT

Grading For Kinesiology	Onsite truck	—	—	HHDT
Building Construction For CIS	—	—	—	—
Building Construction For CIS	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For CIS	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For CIS	Hauling	0.00	20.0	HHDT
Building Construction For CIS	Onsite truck	—	—	HHDT
Building Construction For Student Union	—	—	—	—
Building Construction For Student Union	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For Student Union	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For Student Union	Hauling	0.00	20.0	HHDT
Building Construction For Student Union	Onsite truck	—	—	HHDT
Building Construction For Library	—	—	—	—
Building Construction For Library	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For Library	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For Library	Hauling	0.00	20.0	HHDT
Building Construction For Library	Onsite truck	—	—	HHDT
Building Construction For Kinesiology	—	—	—	—
Building Construction For Kinesiology	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For Kinesiology	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For Kinesiology	Hauling	0.00	20.0	HHDT
Building Construction For Kinesiology	Onsite truck	—	—	HHDT
Paving For CIS	—	—	—	—
Paving For CIS	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For CIS	Vendor	—	10.2	HHDT,MHDT

Paving For CIS	Hauling	0.00	20.0	HHDT
Paving For CIS	Onsite truck	—	—	HHDT
Paving For Student Union	—	—	—	—
Paving For Student Union	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For Student Union	Vendor	—	10.2	HHDT,MHDT
Paving For Student Union	Hauling	0.00	20.0	HHDT
Paving For Student Union	Onsite truck	—	—	HHDT
Paving For Library	—	—	—	—
Paving For Library	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For Library	Vendor	—	10.2	HHDT,MHDT
Paving For Library	Hauling	0.00	20.0	HHDT
Paving For Library	Onsite truck	—	—	HHDT
Paving For Kinesiology	—	—	—	—
Paving For Kinesiology	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For Kinesiology	Vendor	—	10.2	HHDT,MHDT
Paving For Kinesiology	Hauling	0.00	20.0	HHDT
Paving For Kinesiology	Onsite truck	—	—	HHDT
Architectural Coating For CIS	—	—	—	—
Architectural Coating For CIS	Worker	—	18.5	LDA,LDT1,LDT2
Architectural Coating For CIS	Vendor	—	10.2	HHDT,MHDT
Architectural Coating For CIS	Hauling	0.00	20.0	HHDT
Architectural Coating For CIS	Onsite truck	—	—	HHDT
Architectural Coating For Student Union	—	—	—	—
Architectural Coating For Student Union	Worker	—	18.5	LDA,LDT1,LDT2
Architectural Coating For Student Union	Vendor	—	10.2	HHDT,MHDT

Architectural Coating For Student Union	Hauling	0.00	20.0	HHDT
Architectural Coating For Student Union	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	—	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Architectural Coating for Kinesiology	—	—	—	—
Architectural Coating for Kinesiology	Worker	—	18.5	LDA,LDT1,LDT2
Architectural Coating for Kinesiology	Vendor	—	10.2	HHDT,MHDT
Architectural Coating for Kinesiology	Hauling	0.00	20.0	HHDT
Architectural Coating for Kinesiology	Onsite truck	—	—	HHDT
Demolition for Center For Excellence	—	—	—	—
Demolition for Center For Excellence	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition for Center For Excellence	Vendor	—	10.2	HHDT,MHDT
Demolition for Center For Excellence	Hauling	23.0	20.0	HHDT
Demolition for Center For Excellence	Onsite truck	—	—	HHDT
Site Preparation For Excellence	—	—	—	—
Site Preparation For Excellence	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation For Excellence	Vendor	—	10.2	HHDT,MHDT
Site Preparation For Excellence	Hauling	0.00	20.0	HHDT
Site Preparation For Excellence	Onsite truck	—	—	HHDT
Grading For Center For Excellence	—	—	—	—
Grading For Center For Excellence	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For Center For Excellence	Vendor	—	10.2	HHDT,MHDT
Grading For Center For Excellence	Hauling	0.00	20.0	HHDT

Grading For Center For Excellence	Onsite truck	—	—	HHDT
Building Construction For Center For Excellence	—	—	—	—
Building Construction For Center For Excellence	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For Center For Excellence	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For Center For Excellence	Hauling	0.00	20.0	HHDT
Building Construction For Center For Excellence	Onsite truck	—	—	HHDT
Paving For Center For Excellence	—	—	—	—
Paving For Center For Excellence	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For Center For Excellence	Vendor	—	10.2	HHDT,MHDT
Paving For Center For Excellence	Hauling	0.00	20.0	HHDT
Paving For Center For Excellence	Onsite truck	—	—	HHDT
Architectural Coating For Center For Excellence	—	—	—	—
Architectural Coating For Center For Excellence	Worker	—	18.5	LDA,LDT1,LDT2
Architectural Coating For Center For Excellence	Vendor	—	10.2	HHDT,MHDT
Architectural Coating For Center For Excellence	Hauling	0.00	20.0	HHDT
Architectural Coating For Center For Excellence	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating For Science And Vet Center	0.00	0.00	116,025	38,675	—
Architectural Coating For CTE	0.00	0.00	116,025	38,675	—
Architectural Coating For CIS	0.00	0.00	62,475	20,825	—
Architectural Coating For Student Union	0.00	0.00	53,550	17,850	—
Architectural Coating	0.00	0.00	53,550	17,850	—
Architectural Coating for Kinesiology	0.00	0.00	116,025	38,675	—
Architectural Coating For Center For Excellence	0.00	0.00	17,850	5,950	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition For Science and Veteran Center	0.00	0.00	0.00	112,131	—
Demolition For CTE	0.00	0.00	0.00	82,449	—
Demolition For CIS	0.00	0.00	0.00	12,000	—
Demolition For Student Union	0.00	0.00	0.00	12,000	—
Demolition For Library	0.00	0.00	0.00	43,380	—
Demolition For Kinesiology	0.00	0.00	0.00	117,933	—
Demolition for Center For Excellence	0.00	0.00	0.00	10,000	—

Site Preparation For Science And Vet Center	—	—	3.00	0.00	—
Site Preparation For CTE	—	—	3.00	0.00	—
Site Preparation For CIS	—	—	1.50	0.00	—
Site Preparation For Student Union	—	—	1.50	0.00	—
Site Preparation For Library	—	—	1.50	0.00	—
Site Preparation For Kinesiology	—	—	3.00	0.00	—
Site Preparation For Excellence	—	—	1.50	0.00	—
Grading For Science And Vet Center	—	—	4.00	0.00	—
Grading For CTE	—	—	4.00	0.00	—
Grading For CIS	—	—	2.00	0.00	—
Grading For Student Union	—	—	2.00	0.00	—
Grading For Library	—	—	2.00	0.00	—
Grading For Kinesiology	—	—	4.00	0.00	—
Grading For Center For Excellence	—	—	1.00	0.00	—
Paving For Science And Vet Center	0.00	0.00	0.00	0.00	0.00
Paving For CTE	0.00	0.00	0.00	0.00	0.00
Paving For CIS	0.00	0.00	0.00	0.00	0.00
Paving For Student Union	0.00	0.00	0.00	0.00	0.00
Paving For Library	0.00	0.00	0.00	0.00	0.00
Paving For Kinesiology	0.00	0.00	0.00	0.00	0.00
Paving For Center For Excellence	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Junior College (2yr)	0.00	0%
Junior College (2yr)	0.00	0%
Junior College (2yr)	0.00	0%
Junior College (2yr)	0.00	0%
Junior College (2yr)	0.00	0%
Junior College (2yr)	0.00	0%
Junior College (2yr)	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005
2028	0.00	532	0.03	< 0.005
2029	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Junior College (2yr)	1,316	730	78.7	385,328	12,996	7,207	777	3,804,424
Junior College (2yr)	1,640	910	98.0	480,178	16,195	8,981	968	4,740,897
Junior College (2yr)	1,114	618	66.6	326,047	10,996	6,098	657	3,219,128

Junior College (2yr)	405	225	24.2	118,562	3,999	2,218	239	1,170,592
Junior College (2yr)	304	168	18.2	88,922	2,999	1,663	179	877,944
Junior College (2yr)	1,134	629	67.8	331,975	11,196	6,209	669	3,277,657
Junior College (2yr)	1,316	730	78.7	385,328	12,996	7,207	777	3,804,424

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	535,500	178,500	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Junior College (2yr)	728,109	532	0.0330	0.0040	3,237,837
Junior College (2yr)	907,336	532	0.0330	0.0040	4,034,844

Junior College (2yr)	616,093	532	0.0330	0.0040	2,739,709
Junior College (2yr)	224,034	532	0.0330	0.0040	996,258
Junior College (2yr)	168,025	532	0.0330	0.0040	747,193
Junior College (2yr)	627,294	532	0.0330	0.0040	2,789,521
Junior College (2yr)	728,109	532	0.0330	0.0040	3,237,837

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Junior College (2yr)	3,188,187	0.00
Junior College (2yr)	3,972,972	0.00
Junior College (2yr)	2,697,697	0.00
Junior College (2yr)	980,981	0.00
Junior College (2yr)	735,735	0.00
Junior College (2yr)	2,746,746	0.00
Junior College (2yr)	3,188,187	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Junior College (2yr)	84.5	—
Junior College (2yr)	105	—
Junior College (2yr)	71.5	—
Junior College (2yr)	26.0	—
Junior College (2yr)	19.5	—

Junior College (2yr)	72.8	—
Junior College (2yr)	84.5	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00

Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	25.7	annual days of extreme heat
Extreme Precipitation	7.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	26.2	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	88.7
AQ-PM	68.6
AQ-DPM	87.9
Drinking Water	60.7
Lead Risk Housing	17.5
Pesticides	0.00
Toxic Releases	66.0
Traffic	26.6
Effect Indicators	—
CleanUp Sites	60.4
Groundwater	10.6
Haz Waste Facilities/Generators	40.9
Impaired Water Bodies	0.00
Solid Waste	63.7
Sensitive Population	—
Asthma	50.8
Cardio-vascular	46.8

Low Birth Weights	2.49
Socioeconomic Factor Indicators	—
Education	24.1
Housing	31.7
Linguistic	42.8
Poverty	50.4
Unemployment	81.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—

Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	0.0
Asthma ER Admissions	38.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.0
Cognitively Disabled	74.6
Physically Disabled	91.7
Heart Attack ER Admissions	52.2
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0

Pedestrian Injuries	0.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	1.6
SLR Inundation Area	0.0
Children	95.0
Elderly	73.1
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	94.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	54.6
Traffic Density	0.0
Traffic Access	57.3
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	45.0

Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Lot Acreage Based On Areas of School That Are Impacted Ignore Landscaping/Hardscaping For Phase 1

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2.2. Construction Emissions by Year, Unmitigated

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

3. Construction Emissions Details

3.1. Demolition For Science and Veteran Center (2025) - Unmitigated

3.3. Demolition For CTE (2025) - Unmitigated

3.5. Demolition For CTE (2026) - Unmitigated

3.7. Demolition For CIS (2026) - Unmitigated

3.9. Demolition For Student Union (2027) - Unmitigated

3.11. Demolition For Library (2027) - Unmitigated

3.13. Demolition For Kinesiology (2028) - Unmitigated

3.15. Demolition for Center For Excellence (2027) - Unmitigated

3.17. Site Preparation For Science And Vet Center (2025) - Unmitigated

3.19. Site Preparation For CTE (2026) - Unmitigated

3.21. Site Preparation For CIS (2026) - Unmitigated

3.23. Site Preparation For Student Union (2027) - Unmitigated

3.25. Site Preparation For Library (2027) - Unmitigated

3.27. Site Preparation For Kinesiology (2028) - Unmitigated

3.29. Site Preparation For Excellence (2027) - Unmitigated

3.31. Grading For Science And Vet Center (2025) - Unmitigated

3.33. Grading For CTE (2026) - Unmitigated

3.35. Grading For CIS (2026) - Unmitigated

3.37. Grading For Student Union (2027) - Unmitigated

3.39. Grading For Library (2027) - Unmitigated

3.41. Grading For Kinesiology (2028) - Unmitigated

3.43. Grading For Center For Excellence (2027) - Unmitigated

3.45. Building Construction For Science And Vet Center (2025) - Unmitigated

3.47. Building Construction For CTE (2026) - Unmitigated

3.49. Building Construction For CIS (2026) - Unmitigated

3.51. Building Construction For CIS (2027) - Unmitigated

3.53. Building Construction For Student Union (2027) - Unmitigated

3.55. Building Construction For Library (2027) - Unmitigated

3.57. Building Construction For Library (2028) - Unmitigated

3.59. Building Construction For Kinesiology (2028) - Unmitigated

3.61. Building Construction For Kinesiology (2029) - Unmitigated

3.63. Building Construction For Center For Excellence (2027) - Unmitigated

3.65. Paving For Science And Vet Center (2025) - Unmitigated

3.67. Paving For CTE (2026) - Unmitigated

3.69. Paving For CIS (2027) - Unmitigated

3.71. Paving For Student Union (2027) - Unmitigated

3.73. Paving For Library (2028) - Unmitigated

3.75. Paving For Kinesiology (2029) - Unmitigated

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3.79. Architectural Coating For Science And Vet Center (2025) - Unmitigated

3.81. Architectural Coating For CTE (2026) - Unmitigated

3.83. Architectural Coating For CIS (2027) - Unmitigated

3.85. Architectural Coating For Student Union (2027) - Unmitigated

3.87. Architectural Coating (2028) - Unmitigated

3.89. Architectural Coating for Kinesiology (2029) - Unmitigated

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4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.1. Unmitigated

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

7.6. Health & Equity Custom Measures

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Citrus College EFMP 2020-2030
Construction Start Date	1/1/2025
Operational Year	2033
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.60
Precipitation (days)	22.4
Location	1000 W Foothill Blvd, Glendora, CA 91741, USA
County	Los Angeles-South Coast
City	Glendora
Air District	South Coast AQMD
Air Basin	South Coast
TAZ	5090
EDFZ	7
Electric Utility	Southern California Edison
Gas Utility	Southern California Gas
App Version	2022.1.1.23

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description

Junior College (2yr)	65.0	1000sqft	1.25	65,000	0.00	0.00	—	Science And Veterans Center
Junior College (2yr)	81.0	1000sqft	0.90	81,000	0.00	0.00	—	Career Technical Education
Junior College (2yr)	55.0	1000sqft	0.50	55,000	0.00	0.00	—	Classroom and Information Services
Junior College (2yr)	20.0	1000sqft	0.46	20,000	0.00	0.00	—	Center for Excellence Conference Center
Junior College (2yr)	15.0	1000sqft	0.28	15,000	0.00	0.00	—	Student Union / Dining Hall Buildi
Junior College (2yr)	56.0	1000sqft	1.25	56,000	0.00	0.00	—	Library / Learning Resource Center
Junior College (2yr)	65.0	1000sqft	1.25	65,000	0.00	0.00	—	Kinesiology

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Unmit.	77.3	42.6	48.9	0.09	23.3	12.0
Daily, Winter (Max)	—	—	—	—	—	—
Unmit.	72.8	62.7	81.3	0.13	44.6	23.1
Average Daily (Max)	—	—	—	—	—	—
Unmit.	3.12	13.1	20.0	0.03	2.83	1.06
Annual (Max)	—	—	—	—	—	—

Unmit.	0.57	2.39	3.64	0.01	0.52	0.19
Exceeds (Daily Max)	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0
Unmit.	Yes	No	No	No	No	No
Exceeds (Average Daily)	—	—	—	—	—	—
Threshold	75.0	100	550	150	150	55.0
Unmit.	No	No	No	No	No	No
Exceeds (Annual)	—	—	—	—	—	—
Threshold	—	—	—	—	—	—
Unmit.	Yes	—	—	—	—	—

2.2. Construction Emissions by Year, Unmitigated

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

Year	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily - Summer (Max)	—	—	—	—	—	—
2025	1.13	14.6	25.8	0.04	2.99	1.07
2026	1.04	14.4	25.0	0.04	2.99	1.07
2027	77.3	42.6	48.9	0.09	23.3	12.0
2028	0.99	24.1	29.3	0.06	20.8	11.0
Daily - Winter (Max)	—	—	—	—	—	—
2025	72.7	24.1	29.3	0.06	20.8	11.0
2026	72.8	38.7	52.8	0.09	23.8	12.1
2027	67.3	62.7	81.3	0.13	44.6	23.1
2028	66.3	22.8	22.4	0.06	8.18	2.05
2029	71.8	14.2	21.9	0.04	2.98	1.07
Average Daily	—	—	—	—	—	—
2025	2.71	10.9	16.6	0.03	2.59	0.89

2026	2.67	10.7	16.7	0.03	2.32	0.88
2027	3.12	13.1	20.0	0.03	2.83	1.06
2028	1.58	10.5	15.7	0.03	2.48	0.88
2029	2.02	0.96	1.42	< 0.005	0.16	0.06
Annual	—	—	—	—	—	—
2025	0.49	1.98	3.02	< 0.005	0.47	0.16
2026	0.49	1.95	3.05	< 0.005	0.42	0.16
2027	0.57	2.39	3.64	0.01	0.52	0.19
2028	0.29	1.92	2.87	< 0.005	0.45	0.16
2029	0.37	0.18	0.26	< 0.005	0.03	0.01

2.4. Operations Emissions Compared Against Thresholds

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

Un/Mit.	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Unmit.	30.5	18.4	198	0.52	51.3	13.5
Daily, Winter (Max)	—	—	—	—	—	—
Unmit.	27.8	19.5	167	0.50	51.2	13.4
Average Daily (Max)	—	—	—	—	—	—
Unmit.	25.7	16.8	149	0.41	40.6	10.7
Annual (Max)	—	—	—	—	—	—
Unmit.	4.68	3.06	27.3	0.07	7.41	1.96
Exceeds (Daily Max)	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0
Unmit.	No	No	No	No	No	No
Exceeds (Average Daily)	—	—	—	—	—	—
Threshold	55.0	55.0	550	150	150	55.0

Unmit.	No	No	No	No	No	No

2.5. Operations Emissions by Sector, Unmitigated

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

Sector	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Mobile	19.1	13.5	179	0.49	50.9	13.1
Area	11.1	0.13	15.5	< 0.005	0.03	0.02
Energy	0.26	4.78	4.01	0.03	0.36	0.36
Water	—	—	—	—	—	—
Waste	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—
Total	30.5	18.4	198	0.52	51.3	13.5
Daily, Winter (Max)	—	—	—	—	—	—
Mobile	19.0	14.7	163	0.47	50.9	13.1
Area	8.55	—	—	—	—	—
Energy	0.26	4.78	4.01	0.03	0.36	0.36
Water	—	—	—	—	—	—
Waste	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—
Total	27.8	19.5	167	0.50	51.2	13.4
Average Daily	—	—	—	—	—	—
Mobile	15.1	11.9	135	0.38	40.2	10.4
Area	10.3	0.09	10.6	< 0.005	0.02	0.01
Energy	0.26	4.78	4.01	0.03	0.36	0.36
Water	—	—	—	—	—	—
Waste	—	—	—	—	—	—

Refrig.	—	—	—	—	—	—
Total	25.7	16.8	149	0.41	40.6	10.7
Annual	—	—	—	—	—	—
Mobile	2.75	2.17	24.6	0.07	7.34	1.89
Area	1.88	0.02	1.94	< 0.005	< 0.005	< 0.005
Energy	0.05	0.87	0.73	0.01	0.07	0.07
Water	—	—	—	—	—	—
Waste	—	—	—	—	—	—
Refrig.	—	—	—	—	—	—
Total	4.68	3.06	27.3	0.07	7.41	1.96

3. Construction Emissions Details

3.1. Demolition For Science and Veteran Center (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.72	17.3	18.2	0.03	0.79	0.71
Demolition	—	—	—	—	5.59	0.85
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.04	0.95	1.00	< 0.005	0.04	0.04
Demolition	—	—	—	—	0.31	0.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—

Off-Road Equipment	0.01	0.17	0.18	< 0.005	0.01	0.01
Demolition	—	—	—	—	0.06	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	5.70	2.16	0.03	1.25	0.38
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.05	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.32	0.12	< 0.005	0.07	0.02
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.06	0.02	< 0.005	0.01	< 0.005

3.3. Demolition For CTE (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.72	17.3	18.2	0.03	0.79	0.71
Demolition	—	—	—	—	4.11	0.62
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.03	0.71	0.75	< 0.005	0.03	0.03
Demolition	—	—	—	—	0.17	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.13	0.14	< 0.005	0.01	0.01
Demolition	—	—	—	—	0.03	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	4.19	1.59	0.02	0.92	0.28
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.17	0.06	< 0.005	0.04	0.01
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005

3.5. Demolition For CTE (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.72	17.3	18.2	0.03	0.79	0.71
Demolition	—	—	—	—	4.11	0.62
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.24	0.25	< 0.005	0.01	0.01
Demolition	—	—	—	—	0.06	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	< 0.005
Demolition	—	—	—	—	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	4.04	1.54	0.02	0.92	0.28
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.06	0.02	< 0.005	0.01	< 0.005
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005

3.7. Demolition For CIS (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.72	17.3	18.2	0.03	0.79	0.71
Demolition	—	—	—	—	1.20	0.18
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.47	0.50	< 0.005	0.02	0.02
Demolition	—	—	—	—	0.03	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.09	0.09	< 0.005	< 0.005	< 0.005
Demolition	—	—	—	—	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	1.17	0.45	0.01	0.27	0.08
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005

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

3.9. Demolition For Student Union (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.72	17.3	18.2	0.03	0.79	0.71
Demolition	—	—	—	—	1.20	0.18
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.47	0.50	< 0.005	0.02	0.02
Demolition	—	—	—	—	0.03	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.09	0.09	< 0.005	< 0.005	< 0.005
Demolition	—	—	—	—	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.01	1.09	0.43	0.01	0.27	0.08

Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005

3.11. Demolition For Library (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.72	17.3	18.2	0.03	0.79	0.71
Demolition	—	—	—	—	4.32	0.65
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.47	0.50	< 0.005	0.02	0.02
Demolition	—	—	—	—	0.12	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.09	0.09	< 0.005	< 0.005	< 0.005
Demolition	—	—	—	—	0.02	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.06	0.76	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.05	4.11	1.58	0.02	0.97	0.30
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.11	0.04	< 0.005	0.03	0.01
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005

3.13. Demolition For Kinesiology (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.72	17.3	18.2	0.03	0.79	0.71
Demolition	—	—	—	—	5.88	0.89
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.72	17.3	18.2	0.03	0.79	0.71
Demolition	—	—	—	—	5.88	0.89
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.04	0.95	1.00	< 0.005	0.04	0.04
Demolition	—	—	—	—	0.32	0.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.17	0.18	< 0.005	0.01	0.01
Demolition	—	—	—	—	0.06	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.85	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	5.20	2.07	0.03	1.32	0.40
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.06	0.72	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.07	5.40	2.09	0.03	1.32	0.40
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.04	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.30	0.11	< 0.005	0.07	0.02
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.05	0.02	< 0.005	0.01	< 0.005

3.15. Demolition for Center For Excellence (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.72	17.3	18.2	0.03	0.79	0.71
Demolition	—	—	—	—	1.99	0.30
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.24	0.25	< 0.005	0.01	0.01
Demolition	—	—	—	—	0.03	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	< 0.005
Demolition	—	—	—	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.02	1.82	0.72	0.01	0.45	0.14
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005

3.17. Site Preparation For Science And Vet Center (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.90	24.0	28.3	0.05	0.94	0.84
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.13	0.16	< 0.005	0.01	< 0.005
Dust From Material Movement	—	—	—	—	0.11	0.06
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.02	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.07	0.08	1.03	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.19. Site Preparation For CTE (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.90	24.0	28.3	0.05	0.94	0.84
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.13	0.16	< 0.005	0.01	< 0.005
Dust From Material Movement	—	—	—	—	0.11	0.06
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005

Dust From Material Movement	—	—	—	—	0.02	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.08	0.96	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.21. Site Preparation For CIS (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.90	24.0	28.3	0.05	0.94	0.84
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.07	0.08	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.05	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.08	0.96	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.23. Site Preparation For Student Union (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T

Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.90	24.0	28.3	0.05	0.94	0.84
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.07	0.08	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.05	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.08	0.89	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.25. Site Preparation For Library (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.90	24.0	28.3	0.05	0.94	0.84
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.07	0.08	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.05	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.08	0.89	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.27. Site Preparation For Kinesiology (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.90	24.0	28.3	0.05	0.94	0.84
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.13	0.16	< 0.005	0.01	< 0.005
Dust From Material Movement	—	—	—	—	0.11	0.06
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005

Dust From Material Movement	—	—	—	—	0.02	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.06	0.06	0.99	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.29. Site Preparation For Excellence (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.90	24.0	28.3	0.05	0.94	0.84
Dust From Material Movement	—	—	—	—	19.7	10.1
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.07	0.08	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.05	0.03
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.06	0.06	1.05	0.00	0.23	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.31. Grading For Science And Vet Center (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T

Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.53	14.1	17.8	0.03	0.60	0.54
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.15	0.19	< 0.005	0.01	0.01
Dust From Material Movement	—	—	—	—	0.08	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.33. Grading For CTE (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.53	14.1	17.8	0.03	0.60	0.54
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.15	0.19	< 0.005	0.01	0.01
Dust From Material Movement	—	—	—	—	0.08	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00

Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.35. Grading For CIS (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.53	14.1	17.8	0.03	0.60	0.54
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.08	0.10	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.04	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005

Dust From Material Movement	—	—	—	—	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.37. Grading For Student Union (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.53	14.1	17.8	0.03	0.60	0.54
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—

Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.08	0.10	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.04	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.39. Grading For Library (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T

Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.53	14.1	17.8	0.03	0.60	0.54
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.08	0.10	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.04	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.02	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.06	0.76	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.41. Grading For Kinesiology (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.53	14.1	17.8	0.03	0.60	0.54
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.15	0.19	< 0.005	0.01	0.01
Dust From Material Movement	—	—	—	—	0.08	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.04	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.85	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

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

3.43. Grading For Center For Excellence (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.53	14.1	17.8	0.03	0.60	0.54
Dust From Material Movement	—	—	—	—	7.08	3.42
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	< 0.005
Dust From Material Movement	—	—	—	—	0.02	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005

Dust From Material Movement	—	—	—	—	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.45. Building Construction For Science And Vet Center (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.24	6.48	7.84	0.01	0.28	0.25
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.04	1.18	1.43	< 0.005	0.05	0.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.64	0.65	10.4	0.00	1.96	0.46
Vendor	0.05	2.11	1.03	0.01	0.53	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.64	0.72	8.85	0.00	1.96	0.46
Vendor	0.05	2.20	1.04	0.01	0.53	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.35	0.43	5.09	0.00	1.06	0.25
Vendor	0.03	1.21	0.57	0.01	0.29	0.08
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.06	0.08	0.93	0.00	0.19	0.05
Vendor	0.01	0.22	0.10	< 0.005	0.05	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.47. Building Construction For CTE (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.24	6.48	7.84	0.01	0.28	0.25
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.04	1.18	1.43	< 0.005	0.05	0.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.55	0.58	9.68	0.00	1.96	0.46
Vendor	0.05	2.01	0.97	0.01	0.53	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.55	0.65	8.26	0.00	1.96	0.46
Vendor	0.05	2.10	1.00	0.01	0.53	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.30	0.39	4.74	0.00	1.06	0.25
Vendor	0.03	1.16	0.54	0.01	0.29	0.08
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—
Worker	0.05	0.07	0.86	0.00	0.19	0.05
Vendor	0.01	0.21	0.10	< 0.005	0.05	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.49. Building Construction For CIS (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.03	0.93	1.12	< 0.005	0.04	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.17	0.20	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.55	0.65	8.26	0.00	1.96	0.46
Vendor	0.05	2.10	1.00	0.01	0.53	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.04	0.06	0.68	0.00	0.15	0.04

Vendor	< 0.005	0.17	0.08	< 0.005	0.04	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.01	0.01	0.12	0.00	0.03	0.01
Vendor	< 0.005	0.03	0.01	< 0.005	0.01	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.51. Building Construction For CIS (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.09	2.31	2.80	< 0.005	0.10	0.09
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.02	0.42	0.51	< 0.005	0.02	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.53	0.52	9.01	0.00	1.96	0.46
Vendor	0.05	1.93	0.92	0.01	0.51	0.15

Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.52	0.65	7.63	0.00	1.96	0.46
Vendor	0.05	2.00	0.94	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.10	0.13	1.57	0.00	0.38	0.09
Vendor	0.01	0.39	0.18	< 0.005	0.10	0.03
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.02	0.02	0.29	0.00	0.07	0.02
Vendor	< 0.005	0.07	0.03	< 0.005	0.02	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.53. Building Construction For Student Union (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.12	3.24	3.92	0.01	0.14	0.13
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.02	0.59	0.72	< 0.005	0.03	0.02

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.53	0.52	9.01	0.00	1.96	0.46
Vendor	0.05	1.93	0.92	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	0.14	0.18	2.20	0.00	0.53	0.12
Vendor	0.01	0.55	0.25	< 0.005	0.14	0.04
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.03	0.03	0.40	0.00	0.10	0.02
Vendor	< 0.005	0.10	0.05	< 0.005	0.03	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.55. Building Construction For Library (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.07	1.83	2.21	< 0.005	0.08	0.07
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.33	0.40	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.52	0.65	7.63	0.00	1.96	0.46
Vendor	0.05	2.00	0.94	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.08	0.10	1.24	0.00	0.30	0.07
Vendor	0.01	0.31	0.14	< 0.005	0.08	0.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.01	0.02	0.23	0.00	0.05	0.01
Vendor	< 0.005	0.06	0.03	< 0.005	0.01	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.57. Building Construction For Library (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—

Off-Road Equipment	0.05	1.41	1.71	< 0.005	0.06	0.05
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.26	0.31	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.51	0.58	7.19	0.00	1.96	0.46
Vendor	0.04	1.92	0.89	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.06	0.07	0.90	0.00	0.23	0.05
Vendor	< 0.005	0.23	0.11	< 0.005	0.06	0.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.01	0.01	0.16	0.00	0.04	0.01
Vendor	< 0.005	0.04	0.02	< 0.005	0.01	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.59. Building Construction For Kinesiology (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.22	5.90	7.14	0.01	0.25	0.23
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.04	1.08	1.30	< 0.005	0.05	0.04
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.51	0.51	8.46	0.00	1.96	0.46
Vendor	0.04	1.84	0.89	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.51	0.58	7.19	0.00	1.96	0.46
Vendor	0.04	1.92	0.89	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.25	0.29	3.75	0.00	0.96	0.23
Vendor	0.02	0.96	0.44	0.01	0.25	0.07
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.05	0.05	0.68	0.00	0.18	0.04
Vendor	< 0.005	0.18	0.08	< 0.005	0.05	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.61. Building Construction For Kinesiology (2029) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.02	0.58	0.70	< 0.005	0.02	0.02
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.11	0.13	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.49	0.51	6.69	0.00	1.96	0.46
Vendor	0.04	1.83	0.86	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.02	0.03	0.34	0.00	0.09	0.02
Vendor	< 0.005	0.09	0.04	< 0.005	0.02	0.01
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.06	0.00	0.02	< 0.005
Vendor	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005

Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.63. Building Construction For Center For Excellence (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.44	11.8	14.3	0.02	0.50	0.46
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.06	1.62	1.96	< 0.005	0.07	0.06
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	0.01	0.30	0.36	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.53	0.52	9.01	0.00	1.96	0.46
Vendor	0.05	1.93	0.92	0.01	0.51	0.15
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	0.07	0.09	1.10	0.00	0.26	0.06
Vendor	0.01	0.28	0.13	< 0.005	0.07	0.02
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—

Worker	0.01	0.02	0.20	0.00	0.05	0.01
Vendor	< 0.005	0.05	0.02	< 0.005	0.01	< 0.005
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.65. Paving For Science And Vet Center (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.32	8.62	10.6	0.01	0.39	0.36
Paving	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.24	0.29	< 0.005	0.01	0.01
Paving	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	< 0.005
Paving	0.00	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.06	0.07	0.88	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.03	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.67. Paving For CTE (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.32	8.62	10.6	0.01	0.39	0.36
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.24	0.29	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.07	0.83	0.00	0.20	0.05

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.69. Paving For CIS (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.32	8.62	10.6	0.01	0.39	0.36
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.12	0.15	< 0.005	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—

Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.71. Paving For Student Union (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.32	8.62	10.6	0.01	0.39	0.36
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.32	8.62	10.6	0.01	0.39	0.36
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.12	0.15	< 0.005	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—

Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.06	0.76	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.73. Paving For Library (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.32	8.62	10.6	0.01	0.39	0.36

Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.12	0.15	< 0.005	0.01	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.02	0.03	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.06	0.72	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.75. Paving For Kinesiology (2029) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.32	8.62	10.6	0.01	0.39	0.36
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	0.01	0.24	0.29	< 0.005	0.01	0.01
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.04	0.05	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.67	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.01	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.77. Paving For Center For Excellence (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T

Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.32	8.62	10.6	0.01	0.39	0.36
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.05	0.06	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.05	0.05	0.90	0.00	0.20	0.05
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.00	< 0.005	< 0.005
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.79. Architectural Coating For Science And Vet Center (2025) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	0.06
Architectural Coatings	71.7	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005
Architectural Coatings	1.97	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.36	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.89	1.01	12.4	0.00	2.74	0.64
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.02	0.03	0.36	0.00	0.07	0.02
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	< 0.005	0.01	0.07	0.00	0.01	< 0.005

Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.81. Architectural Coating For CTE (2026) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	0.06
Architectural Coatings	71.7	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005
Architectural Coatings	1.97	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.36	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.83. Architectural Coating For CIS (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	0.06
Architectural Coatings	77.2	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Architectural Coatings	1.06	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.19	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—

Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.85. Architectural Coating For Student Union (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	0.06
Architectural Coatings	66.2	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.91	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—

Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.17	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.87. Architectural Coating (2028) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	0.06
Architectural Coatings	66.2	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00

Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.91	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.17	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.89. Architectural Coating for Kinesiology (2029) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	0.06
Architectural Coatings	71.7	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	< 0.005
Architectural Coatings	1.97	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.36	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Average Daily	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

3.91. Architectural Coating For Center For Excellence (2027) - Unmitigated

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

Location	ROG	NOx	CO	SO2	PM10T	PM2.5T
Onsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Off-Road Equipment	0.05	1.09	0.96	< 0.005	0.07	0.06
Architectural Coatings	36.8	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.30	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Annual	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Architectural Coatings	0.06	—	—	—	—	—
Onsite truck	0.00	0.00	0.00	0.00	0.00	0.00
Offsite	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00
Daily, Winter (Max)	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

Annual	—	—	—	—	—	—
Worker	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00
Hauling	0.00	0.00	0.00	0.00	0.00	0.00

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Junior College (2yr)	19.1	13.5	179	0.49	50.9	13.1
Total	19.1	13.5	179	0.49	50.9	13.1
Daily, Winter (Max)	—	—	—	—	—	—
Junior College (2yr)	19.0	14.7	163	0.47	50.9	13.1
Total	19.0	14.7	163	0.47	50.9	13.1
Annual	—	—	—	—	—	—
Junior College (2yr)	2.75	2.17	24.6	0.07	7.34	1.89
Total	2.75	2.17	24.6	0.07	7.34	1.89

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T

Daily, Summer (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Junior College (2yr)	0.26	4.78	4.01	0.03	0.36	0.36
Total	0.26	4.78	4.01	0.03	0.36	0.36
Daily, Winter (Max)	—	—	—	—	—	—
Junior College (2yr)	0.26	4.78	4.01	0.03	0.36	0.36
Total	0.26	4.78	4.01	0.03	0.36	0.36
Annual	—	—	—	—	—	—
Junior College (2yr)	0.05	0.87	0.73	0.01	0.07	0.07
Total	0.05	0.87	0.73	0.01	0.07	0.07

4.3. Area Emissions by Source

4.3.1. Unmitigated

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

Source	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Consumer Products	7.64	—	—	—	—	—
Architectural Coatings	0.91	—	—	—	—	—
Landscape Equipment	2.55	0.13	15.5	< 0.005	0.03	0.02
Total	11.1	0.13	15.5	< 0.005	0.03	0.02
Daily, Winter (Max)	—	—	—	—	—	—
Consumer Products	7.64	—	—	—	—	—
Architectural Coatings	0.91	—	—	—	—	—
Total	8.55	—	—	—	—	—
Annual	—	—	—	—	—	—
Consumer Products	1.39	—	—	—	—	—
Architectural Coatings	0.17	—	—	—	—	—
Landscape Equipment	0.32	0.02	1.94	< 0.005	< 0.005	< 0.005
Total	1.88	0.02	1.94	< 0.005	< 0.005	< 0.005

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—

Annual	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Junior College (2yr)	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—

Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

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

Equipment Type	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

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

Vegetation	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

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

Land Use	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Total	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Total	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

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

Species	ROG	NOx	CO	SO2	PM10T	PM2.5T
Daily, Summer (Max)	—	—	—	—	—	—
Avoided	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Removed	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—
Avoided	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Removed	—	—	—	—	—	—

Subtotal	—	—	—	—	—	—
—	—	—	—	—	—	—
Annual	—	—	—	—	—	—
Avoided	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
Removed	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—
—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Demolition For Science and Veteran Center	Demolition	1/1/2025	1/28/2025	5.00	20.0	Demolition For Science and Veteran Center
Demolition For CTE	Demolition	12/11/2025	1/7/2026	5.00	20.0	Demolition For CTE
Demolition For CIS	Demolition	11/24/2026	12/7/2026	5.00	10.0	Demolition For CIS
Demolition For Student Union	Demolition	4/25/2027	5/7/2027	5.00	10.0	Demolition For Student Union
Demolition For Library	Demolition	10/14/2027	10/27/2027	5.00	10.0	Demolition For Library
Demolition For Kinesiology	Demolition	3/16/2028	4/12/2028	5.00	20.0	Demolition For Kinesiology
Demolition for Center For Excellence	Demolition	4/27/2027	5/3/2027	5.00	5.00	Demolition for Center For Excellence
Site Preparation For Science And Vet Center	Site Preparation	1/29/2025	1/30/2025	5.00	2.00	Site Preparation For Science And Vet Center
Site Preparation For CTE	Site Preparation	1/8/2026	1/10/2026	5.00	2.00	Site Preparation For CTE

Site Preparation For CIS	Site Preparation	12/9/2026	12/9/2026	5.00	1.00	Site Preparation For CIS
Site Preparation For Student Union	Site Preparation	10/28/2027	10/28/2027	5.00	1.00	Site Preparation For Student Union
Site Preparation For Library	Site Preparation	10/28/2027	10/28/2027	5.00	1.00	Site Preparation For Library
Site Preparation For Kinesiology	Site Preparation	4/13/2028	4/15/2028	5.00	2.00	Site Preparation For Kinesiology
Site Preparation For Excellence	Site Preparation	5/4/2027	5/4/2027	5.00	1.00	Site Preparation For Excellence
Grading For Science And Vet Center	Grading	1/31/2025	2/5/2025	5.00	4.00	Grading For Science And Vet Center
Grading For CTE	Grading	1/13/2026	1/17/2026	5.00	4.00	Grading For CTE
Grading For CIS	Grading	12/10/2026	12/12/2026	5.00	2.00	Grading For CIS
Grading For Student Union	Grading	5/11/2027	5/12/2027	5.00	2.00	Grading For Student Union
Grading For Library	Grading	10/29/2027	11/1/2027	5.00	2.00	Grading For Library
Grading For Kinesiology	Grading	4/16/2028	4/20/2028	5.00	4.00	Grading For Kinesiology
Grading For Center For Excellence	Grading	5/5/2027	5/5/2027	5.00	1.00	Grading For Center For Excellence
Building Construction For Science And Vet Center	Building Construction	2/6/2025	11/12/2025	5.00	200	Building Construction For Science And Vet Center
Building Construction For CTE	Building Construction	1/18/2026	10/24/2026	5.00	200	Building Construction For CTE
Building Construction For CIS	Building Construction	11/22/2026	4/10/2027	5.00	100	Building Construction For CIS
Building Construction For Student Union	Building Construction	5/13/2027	9/29/2027	5.00	100	Building Construction For Student Union
Building Construction For Library	Building Construction	10/14/2027	3/1/2028	5.00	100	Building Construction For Library
Building Construction For Kinesiology	Building Construction	4/21/2028	1/25/2029	5.00	200	Building Construction For Kinesiology
Building Construction For Center For Excellence	Building Construction	5/6/2027	7/14/2027	5.00	50.0	Building Construction For Center For Excellence

Paving For Science And Vet Center	Paving	11/13/2025	11/26/2025	5.00	10.0	Paving For Science And Vet Center
Paving For CTE	Paving	10/25/2026	11/7/2026	5.00	10.0	Paving For CTE
Paving For CIS	Paving	4/11/2027	4/16/2027	5.00	5.00	Paving For CIS
Paving For Student Union	Paving	9/30/2027	10/6/2027	5.00	5.00	Paving For Student Union
Paving For Library	Paving	3/2/2028	3/8/2028	5.00	5.00	Paving For Library
Paving For Kinesiology	Paving	1/26/2029	2/8/2029	5.00	10.0	Paving For Kinesiology
Paving For Center For Excellence	Paving	7/15/2027	7/18/2027	5.00	2.00	Paving For Center For Excellence
Architectural Coating For Science And Vet Center	Architectural Coating	11/27/2025	12/10/2025	5.00	10.0	Architectural Coating For Science And Vet Center
Architectural Coating For CTE	Architectural Coating	12/13/2026	12/26/2026	5.00	10.0	Architectural Coating For CTE
Architectural Coating For CIS	Architectural Coating	4/17/2027	4/24/2027	5.00	5.00	Architectural Coating For CIS
Architectural Coating For Student Union	Architectural Coating	11/2/2027	11/8/2027	5.00	5.00	Architectural Coating For Student Union
Architectural Coating	Architectural Coating	3/9/2028	3/15/2028	5.00	5.00	Architectural Coating
Architectural Coating for Kinesiology	Architectural Coating	2/10/2029	2/23/2029	5.00	10.0	Architectural Coating for Kinesiology
Architectural Coating For Center For Excellence	Architectural Coating	7/19/2027	7/21/2027	5.00	3.00	Architectural Coating For Center For Excellence

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition For Science and Veteran Center	Concrete/Industrial Saws	Diesel	Tier 3	1.00	8.00	33.0	0.73
Demolition For Science and Veteran Center	Excavators	Diesel	Tier 3	3.00	8.00	36.0	0.38

Demolition For Science and Veteran Center	Rubber Tired Dozers	Diesel	Tier 3	2.00	8.00	367	0.40
Demolition For CTE	Concrete/Industrial Saws	Diesel	Tier 3	1.00	8.00	33.0	0.73
Demolition For CTE	Excavators	Diesel	Tier 3	3.00	8.00	36.0	0.38
Demolition For CTE	Rubber Tired Dozers	Diesel	Tier 3	2.00	8.00	367	0.40
Demolition For CIS	Concrete/Industrial Saws	Diesel	Tier 3	1.00	8.00	33.0	0.73
Demolition For CIS	Excavators	Diesel	Tier 3	3.00	8.00	36.0	0.38
Demolition For CIS	Rubber Tired Dozers	Diesel	Tier 3	2.00	8.00	367	0.40
Demolition For Student Union	Concrete/Industrial Saws	Diesel	Tier 3	1.00	8.00	33.0	0.73
Demolition For Student Union	Excavators	Diesel	Tier 3	3.00	8.00	36.0	0.38
Demolition For Student Union	Rubber Tired Dozers	Diesel	Tier 3	2.00	8.00	367	0.40
Demolition For Library	Concrete/Industrial Saws	Diesel	Tier 3	1.00	8.00	33.0	0.73
Demolition For Library	Excavators	Diesel	Tier 3	3.00	8.00	36.0	0.38
Demolition For Library	Rubber Tired Dozers	Diesel	Tier 3	2.00	8.00	367	0.40
Demolition For Kinesiology	Concrete/Industrial Saws	Diesel	Tier 3	1.00	8.00	33.0	0.73
Demolition For Kinesiology	Excavators	Diesel	Tier 3	3.00	8.00	36.0	0.38
Demolition For Kinesiology	Rubber Tired Dozers	Diesel	Tier 3	2.00	8.00	367	0.40
Demolition for Center For Excellence	Concrete/Industrial Saws	Diesel	Tier 3	1.00	8.00	33.0	0.73
Demolition for Center For Excellence	Excavators	Diesel	Tier 3	3.00	8.00	36.0	0.38
Demolition for Center For Excellence	Rubber Tired Dozers	Diesel	Tier 3	2.00	8.00	367	0.40

Site Preparation For Science And Vet Center	Rubber Tired Dozers	Diesel	Tier 3	3.00	8.00	367	0.40
Site Preparation For Science And Vet Center	Tractors/Loaders/Backhoes	Diesel	Tier 3	4.00	8.00	84.0	0.37
Site Preparation For CTE	Rubber Tired Dozers	Diesel	Tier 3	3.00	8.00	367	0.40
Site Preparation For CTE	Tractors/Loaders/Backhoes	Diesel	Tier 3	4.00	8.00	84.0	0.37
Site Preparation For CIS	Rubber Tired Dozers	Diesel	Tier 3	3.00	8.00	367	0.40
Site Preparation For CIS	Tractors/Loaders/Backhoes	Diesel	Tier 3	4.00	8.00	84.0	0.37
Site Preparation For Student Union	Rubber Tired Dozers	Diesel	Tier 3	3.00	8.00	367	0.40
Site Preparation For Student Union	Tractors/Loaders/Backhoes	Diesel	Tier 3	4.00	8.00	84.0	0.37
Site Preparation For Library	Rubber Tired Dozers	Diesel	Tier 3	3.00	8.00	367	0.40
Site Preparation For Library	Tractors/Loaders/Backhoes	Diesel	Tier 3	4.00	8.00	84.0	0.37
Site Preparation For Kinesiology	Rubber Tired Dozers	Diesel	Tier 3	3.00	8.00	367	0.40
Site Preparation For Kinesiology	Tractors/Loaders/Backhoes	Diesel	Tier 3	4.00	8.00	84.0	0.37
Site Preparation For Excellence	Rubber Tired Dozers	Diesel	Tier 3	3.00	8.00	367	0.40
Site Preparation For Excellence	Tractors/Loaders/Backhoes	Diesel	Tier 3	4.00	8.00	84.0	0.37
Grading For Science And Vet Center	Excavators	Diesel	Tier 3	1.00	8.00	36.0	0.38
Grading For Science And Vet Center	Graders	Diesel	Tier 3	1.00	8.00	148	0.41
Grading For Science And Vet Center	Rubber Tired Dozers	Diesel	Tier 3	1.00	8.00	367	0.40

Grading For Science And Vet Center	Tractors/Loaders/Backh	Diesel	Tier 3	3.00	8.00	84.0	0.37
Grading For CTE	Excavators	Diesel	Tier 3	1.00	8.00	36.0	0.38
Grading For CTE	Graders	Diesel	Tier 3	1.00	8.00	148	0.41
Grading For CTE	Rubber Tired Dozers	Diesel	Tier 3	1.00	8.00	367	0.40
Grading For CTE	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	8.00	84.0	0.37
Grading For CIS	Excavators	Diesel	Tier 3	1.00	8.00	36.0	0.38
Grading For CIS	Graders	Diesel	Tier 3	1.00	8.00	148	0.41
Grading For CIS	Rubber Tired Dozers	Diesel	Tier 3	1.00	8.00	367	0.40
Grading For CIS	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	8.00	84.0	0.37
Grading For Student Union	Excavators	Diesel	Tier 3	1.00	8.00	36.0	0.38
Grading For Student Union	Graders	Diesel	Tier 3	1.00	8.00	148	0.41
Grading For Student Union	Rubber Tired Dozers	Diesel	Tier 3	1.00	8.00	367	0.40
Grading For Student Union	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	8.00	84.0	0.37
Grading For Library	Excavators	Diesel	Tier 3	1.00	8.00	36.0	0.38
Grading For Library	Graders	Diesel	Tier 3	1.00	8.00	148	0.41
Grading For Library	Rubber Tired Dozers	Diesel	Tier 3	1.00	8.00	367	0.40
Grading For Library	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	8.00	84.0	0.37
Grading For Kinesiology	Excavators	Diesel	Tier 3	1.00	8.00	36.0	0.38
Grading For Kinesiology	Graders	Diesel	Tier 3	1.00	8.00	148	0.41
Grading For Kinesiology	Rubber Tired Dozers	Diesel	Tier 3	1.00	8.00	367	0.40
Grading For Kinesiology	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	8.00	84.0	0.37

Grading For Center For Excellence	Excavators	Diesel	Tier 3	1.00	8.00	36.0	0.38
Grading For Center For Excellence	Graders	Diesel	Tier 3	1.00	8.00	148	0.41
Grading For Center For Excellence	Rubber Tired Dozers	Diesel	Tier 3	1.00	8.00	367	0.40
Grading For Center For Excellence	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	8.00	84.0	0.37
Building Construction For Science And Vet Center	Cranes	Diesel	Tier 3	1.00	7.00	367	0.29
Building Construction For Science And Vet Center	Forklifts	Diesel	Tier 3	3.00	8.00	82.0	0.20
Building Construction For Science And Vet Center	Generator Sets	Diesel	Tier 3	1.00	8.00	14.0	0.74
Building Construction For Science And Vet Center	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	7.00	84.0	0.37
Building Construction For Science And Vet Center	Welders	Diesel	Tier 3	1.00	8.00	46.0	0.45
Building Construction For CTE	Cranes	Diesel	Tier 3	1.00	7.00	367	0.29
Building Construction For CTE	Forklifts	Diesel	Tier 3	3.00	8.00	82.0	0.20
Building Construction For CTE	Generator Sets	Diesel	Tier 3	1.00	8.00	14.0	0.74
Building Construction For CTE	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	7.00	84.0	0.37
Building Construction For CTE	Welders	Diesel	Tier 3	1.00	8.00	46.0	0.45
Building Construction For CIS	Cranes	Diesel	Tier 3	1.00	7.00	367	0.29

Building Construction For CIS	Forklifts	Diesel	Tier 3	3.00	8.00	82.0	0.20
Building Construction For CIS	Generator Sets	Diesel	Tier 3	1.00	8.00	14.0	0.74
Building Construction For CIS	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	7.00	84.0	0.37
Building Construction For CIS	Welders	Diesel	Tier 3	1.00	8.00	46.0	0.45
Building Construction For Student Union	Cranes	Diesel	Tier 3	1.00	7.00	367	0.29
Building Construction For Student Union	Forklifts	Diesel	Tier 3	3.00	8.00	82.0	0.20
Building Construction For Student Union	Generator Sets	Diesel	Tier 3	1.00	8.00	14.0	0.74
Building Construction For Student Union	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	7.00	84.0	0.37
Building Construction For Student Union	Welders	Diesel	Tier 3	1.00	8.00	46.0	0.45
Building Construction For Library	Cranes	Diesel	Tier 3	1.00	7.00	367	0.29
Building Construction For Library	Forklifts	Diesel	Tier 3	3.00	8.00	82.0	0.20
Building Construction For Library	Generator Sets	Diesel	Tier 3	1.00	8.00	14.0	0.74
Building Construction For Library	Tractors/Loaders/Backhoes	Diesel	Tier 3	3.00	7.00	84.0	0.37
Building Construction For Library	Welders	Diesel	Tier 3	1.00	8.00	46.0	0.45
Building Construction For Kinesiology	Cranes	Diesel	Tier 3	1.00	7.00	367	0.29
Building Construction For Kinesiology	Forklifts	Diesel	Tier 3	3.00	8.00	82.0	0.20
Building Construction For Kinesiology	Generator Sets	Diesel	Tier 3	1.00	8.00	14.0	0.74

Building Construction For Kinesiology	Tractors/Loaders/Backh	Diesel	Tier 3	3.00	7.00	84.0	0.37
Building Construction For Kinesiology	Welders	Diesel	Tier 3	1.00	8.00	46.0	0.45
Building Construction For Center For Excellence	Cranes	Diesel	Tier 3	1.00	7.00	367	0.29
Building Construction For Center For Excellence	Forklifts	Diesel	Tier 3	3.00	8.00	82.0	0.20
Building Construction For Center For Excellence	Generator Sets	Diesel	Tier 3	1.00	8.00	14.0	0.74
Building Construction For Center For Excellence	Tractors/Loaders/Backh oes	Diesel	Tier 3	3.00	7.00	84.0	0.37
Building Construction For Center For Excellence	Welders	Diesel	Tier 3	1.00	8.00	46.0	0.45
Paving For Science And Vet Center	Pavers	Diesel	Tier 3	2.00	8.00	81.0	0.42
Paving For Science And Vet Center	Paving Equipment	Diesel	Tier 3	2.00	8.00	89.0	0.36
Paving For Science And Vet Center	Rollers	Diesel	Tier 3	2.00	8.00	36.0	0.38
Paving For CTE	Pavers	Diesel	Tier 3	2.00	8.00	81.0	0.42
Paving For CTE	Paving Equipment	Diesel	Tier 3	2.00	8.00	89.0	0.36
Paving For CTE	Rollers	Diesel	Tier 3	2.00	8.00	36.0	0.38
Paving For CIS	Pavers	Diesel	Tier 3	2.00	8.00	81.0	0.42
Paving For CIS	Paving Equipment	Diesel	Tier 3	2.00	8.00	89.0	0.36
Paving For CIS	Rollers	Diesel	Tier 3	2.00	8.00	36.0	0.38
Paving For Student Union	Pavers	Diesel	Tier 3	2.00	8.00	81.0	0.42

Paving For Student Union	Paving Equipment	Diesel	Tier 3	2.00	8.00	89.0	0.36
Paving For Student Union	Rollers	Diesel	Tier 3	2.00	8.00	36.0	0.38
Paving For Library	Pavers	Diesel	Tier 3	2.00	8.00	81.0	0.42
Paving For Library	Paving Equipment	Diesel	Tier 3	2.00	8.00	89.0	0.36
Paving For Library	Rollers	Diesel	Tier 3	2.00	8.00	36.0	0.38
Paving For Kinesiology	Pavers	Diesel	Tier 3	2.00	8.00	81.0	0.42
Paving For Kinesiology	Paving Equipment	Diesel	Tier 3	2.00	8.00	89.0	0.36
Paving For Kinesiology	Rollers	Diesel	Tier 3	2.00	8.00	36.0	0.38
Paving For Center For Excellence	Pavers	Diesel	Tier 3	2.00	8.00	81.0	0.42
Paving For Center For Excellence	Paving Equipment	Diesel	Tier 3	2.00	8.00	89.0	0.36
Paving For Center For Excellence	Rollers	Diesel	Tier 3	2.00	8.00	36.0	0.38
Architectural Coating For Science And Vet Center	Air Compressors	Diesel	Tier 3	1.00	6.00	37.0	0.48
Architectural Coating For CTE	Air Compressors	Diesel	Tier 3	1.00	6.00	37.0	0.48
Architectural Coating For CIS	Air Compressors	Diesel	Tier 3	1.00	6.00	37.0	0.48
Architectural Coating For Student Union	Air Compressors	Diesel	Tier 3	1.00	6.00	37.0	0.48
Architectural Coating	Air Compressors	Diesel	Tier 3	1.00	6.00	37.0	0.48
Architectural Coating for Kinesiology	Air Compressors	Diesel	Tier 3	1.00	6.00	37.0	0.48
Architectural Coating For Center For Excellence	Air Compressors	Diesel	Tier 3	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition For Science and Veteran Center	—	—	—	—
Demolition For Science and Veteran Center	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition For Science and Veteran Center	Vendor	—	10.2	HHDT,MHDT
Demolition For Science and Veteran Center	Hauling	64.5	20.0	HHDT
Demolition For Science and Veteran Center	Onsite truck	—	—	HHDT
Site Preparation For Science And Vet Center	—	—	—	—
Site Preparation For Science And Vet Center	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation For Science And Vet Center	Vendor	—	10.2	HHDT,MHDT
Site Preparation For Science And Vet Center	Hauling	0.00	20.0	HHDT
Site Preparation For Science And Vet Center	Onsite truck	—	—	HHDT
Grading For Science And Vet Center	—	—	—	—
Grading For Science And Vet Center	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For Science And Vet Center	Vendor	—	10.2	HHDT,MHDT
Grading For Science And Vet Center	Hauling	0.00	20.0	HHDT
Grading For Science And Vet Center	Onsite truck	—	—	HHDT
Building Construction For Science And Vet Center	—	—	—	—

Building Construction For Science And Vet Center	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For Science And Vet Center	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For Science And Vet Center	Hauling	0.00	20.0	HHDT
Building Construction For Science And Vet Center	Onsite truck	—	—	HHDT
Paving For Science And Vet Center	—	—	—	—
Paving For Science And Vet Center	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For Science And Vet Center	Vendor	—	10.2	HHDT,MHDT
Paving For Science And Vet Center	Hauling	0.00	20.0	HHDT
Paving For Science And Vet Center	Onsite truck	—	—	HHDT
Architectural Coating For Science And Vet Center	—	—	—	—
Architectural Coating For Science And Vet Center	Worker	210	18.5	LDA,LDT1,LDT2
Architectural Coating For Science And Vet Center	Vendor	—	10.2	HHDT,MHDT
Architectural Coating For Science And Vet Center	Hauling	0.00	20.0	HHDT
Architectural Coating For Science And Vet Center	Onsite truck	—	—	HHDT
Demolition For CTE	—	—	—	—
Demolition For CTE	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition For CTE	Vendor	—	10.2	HHDT,MHDT
Demolition For CTE	Hauling	47.5	20.0	HHDT
Demolition For CTE	Onsite truck	—	—	HHDT
Site Preparation For CTE	—	—	—	—
Site Preparation For CTE	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation For CTE	Vendor	—	10.2	HHDT,MHDT

Site Preparation For CTE	Hauling	0.00	20.0	HHDT
Site Preparation For CTE	Onsite truck	—	—	HHDT
Grading For CTE	—	—	—	—
Grading For CTE	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For CTE	Vendor	—	10.2	HHDT,MHDT
Grading For CTE	Hauling	0.00	20.0	HHDT
Grading For CTE	Onsite truck	—	—	HHDT
Building Construction For CTE	—	—	—	—
Building Construction For CTE	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For CTE	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For CTE	Hauling	0.00	20.0	HHDT
Building Construction For CTE	Onsite truck	—	—	HHDT
Paving For CTE	—	—	—	—
Paving For CTE	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For CTE	Vendor	—	10.2	HHDT,MHDT
Paving For CTE	Hauling	0.00	20.0	HHDT
Paving For CTE	Onsite truck	—	—	HHDT
Architectural Coating For CTE	—	—	—	—
Architectural Coating For CTE	Worker	—	18.5	LDA,LDT1,LDT2
Architectural Coating For CTE	Vendor	—	10.2	HHDT,MHDT
Architectural Coating For CTE	Hauling	0.00	20.0	HHDT
Architectural Coating For CTE	Onsite truck	—	—	HHDT
Demolition For CIS	—	—	—	—
Demolition For CIS	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition For CIS	Vendor	—	10.2	HHDT,MHDT
Demolition For CIS	Hauling	13.8	20.0	HHDT
Demolition For CIS	Onsite truck	—	—	HHDT

Demolition For Student Union	—	—	—	—
Demolition For Student Union	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition For Student Union	Vendor	—	10.2	HHDT,MHDT
Demolition For Student Union	Hauling	13.8	20.0	HHDT
Demolition For Student Union	Onsite truck	—	—	HHDT
Demolition For Library	—	—	—	—
Demolition For Library	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition For Library	Vendor	—	10.2	HHDT,MHDT
Demolition For Library	Hauling	49.9	20.0	HHDT
Demolition For Library	Onsite truck	—	—	HHDT
Demolition For Kinesiology	—	—	—	—
Demolition For Kinesiology	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition For Kinesiology	Vendor	—	10.2	HHDT,MHDT
Demolition For Kinesiology	Hauling	67.8	20.0	HHDT
Demolition For Kinesiology	Onsite truck	—	—	HHDT
Site Preparation For CIS	—	—	—	—
Site Preparation For CIS	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation For CIS	Vendor	—	10.2	HHDT,MHDT
Site Preparation For CIS	Hauling	0.00	20.0	HHDT
Site Preparation For CIS	Onsite truck	—	—	HHDT
Site Preparation For Student Union	—	—	—	—
Site Preparation For Student Union	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation For Student Union	Vendor	—	10.2	HHDT,MHDT
Site Preparation For Student Union	Hauling	0.00	20.0	HHDT
Site Preparation For Student Union	Onsite truck	—	—	HHDT
Site Preparation For Library	—	—	—	—
Site Preparation For Library	Worker	17.5	18.5	LDA,LDT1,LDT2

Site Preparation For Library	Vendor	—	10.2	HHDT,MHDT
Site Preparation For Library	Hauling	0.00	20.0	HHDT
Site Preparation For Library	Onsite truck	—	—	HHDT
Site Preparation For Kinesiology	—	—	—	—
Site Preparation For Kinesiology	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation For Kinesiology	Vendor	—	10.2	HHDT,MHDT
Site Preparation For Kinesiology	Hauling	0.00	20.0	HHDT
Site Preparation For Kinesiology	Onsite truck	—	—	HHDT
Grading For CIS	—	—	—	—
Grading For CIS	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For CIS	Vendor	—	10.2	HHDT,MHDT
Grading For CIS	Hauling	0.00	20.0	HHDT
Grading For CIS	Onsite truck	—	—	HHDT
Grading For Student Union	—	—	—	—
Grading For Student Union	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For Student Union	Vendor	—	10.2	HHDT,MHDT
Grading For Student Union	Hauling	0.00	20.0	HHDT
Grading For Student Union	Onsite truck	—	—	HHDT
Grading For Library	—	—	—	—
Grading For Library	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For Library	Vendor	—	10.2	HHDT,MHDT
Grading For Library	Hauling	0.00	20.0	HHDT
Grading For Library	Onsite truck	—	—	HHDT
Grading For Kinesiology	—	—	—	—
Grading For Kinesiology	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For Kinesiology	Vendor	—	10.2	HHDT,MHDT
Grading For Kinesiology	Hauling	0.00	20.0	HHDT

Grading For Kinesiology	Onsite truck	—	—	HHDT
Building Construction For CIS	—	—	—	—
Building Construction For CIS	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For CIS	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For CIS	Hauling	0.00	20.0	HHDT
Building Construction For CIS	Onsite truck	—	—	HHDT
Building Construction For Student Union	—	—	—	—
Building Construction For Student Union	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For Student Union	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For Student Union	Hauling	0.00	20.0	HHDT
Building Construction For Student Union	Onsite truck	—	—	HHDT
Building Construction For Library	—	—	—	—
Building Construction For Library	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For Library	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For Library	Hauling	0.00	20.0	HHDT
Building Construction For Library	Onsite truck	—	—	HHDT
Building Construction For Kinesiology	—	—	—	—
Building Construction For Kinesiology	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For Kinesiology	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For Kinesiology	Hauling	0.00	20.0	HHDT
Building Construction For Kinesiology	Onsite truck	—	—	HHDT
Paving For CIS	—	—	—	—
Paving For CIS	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For CIS	Vendor	—	10.2	HHDT,MHDT

Paving For CIS	Hauling	0.00	20.0	HHDT
Paving For CIS	Onsite truck	—	—	HHDT
Paving For Student Union	—	—	—	—
Paving For Student Union	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For Student Union	Vendor	—	10.2	HHDT,MHDT
Paving For Student Union	Hauling	0.00	20.0	HHDT
Paving For Student Union	Onsite truck	—	—	HHDT
Paving For Library	—	—	—	—
Paving For Library	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For Library	Vendor	—	10.2	HHDT,MHDT
Paving For Library	Hauling	0.00	20.0	HHDT
Paving For Library	Onsite truck	—	—	HHDT
Paving For Kinesiology	—	—	—	—
Paving For Kinesiology	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For Kinesiology	Vendor	—	10.2	HHDT,MHDT
Paving For Kinesiology	Hauling	0.00	20.0	HHDT
Paving For Kinesiology	Onsite truck	—	—	HHDT
Architectural Coating For CIS	—	—	—	—
Architectural Coating For CIS	Worker	—	18.5	LDA,LDT1,LDT2
Architectural Coating For CIS	Vendor	—	10.2	HHDT,MHDT
Architectural Coating For CIS	Hauling	0.00	20.0	HHDT
Architectural Coating For CIS	Onsite truck	—	—	HHDT
Architectural Coating For Student Union	—	—	—	—
Architectural Coating For Student Union	Worker	—	18.5	LDA,LDT1,LDT2
Architectural Coating For Student Union	Vendor	—	10.2	HHDT,MHDT

Architectural Coating For Student Union	Hauling	0.00	20.0	HHDT
Architectural Coating For Student Union	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	—	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT
Architectural Coating for Kinesiology	—	—	—	—
Architectural Coating for Kinesiology	Worker	—	18.5	LDA,LDT1,LDT2
Architectural Coating for Kinesiology	Vendor	—	10.2	HHDT,MHDT
Architectural Coating for Kinesiology	Hauling	0.00	20.0	HHDT
Architectural Coating for Kinesiology	Onsite truck	—	—	HHDT
Demolition for Center For Excellence	—	—	—	—
Demolition for Center For Excellence	Worker	15.0	18.5	LDA,LDT1,LDT2
Demolition for Center For Excellence	Vendor	—	10.2	HHDT,MHDT
Demolition for Center For Excellence	Hauling	23.0	20.0	HHDT
Demolition for Center For Excellence	Onsite truck	—	—	HHDT
Site Preparation For Excellence	—	—	—	—
Site Preparation For Excellence	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation For Excellence	Vendor	—	10.2	HHDT,MHDT
Site Preparation For Excellence	Hauling	0.00	20.0	HHDT
Site Preparation For Excellence	Onsite truck	—	—	HHDT
Grading For Center For Excellence	—	—	—	—
Grading For Center For Excellence	Worker	15.0	18.5	LDA,LDT1,LDT2
Grading For Center For Excellence	Vendor	—	10.2	HHDT,MHDT
Grading For Center For Excellence	Hauling	0.00	20.0	HHDT

Grading For Center For Excellence	Onsite truck	—	—	HHDT
Building Construction For Center For Excellence	—	—	—	—
Building Construction For Center For Excellence	Worker	150	18.5	LDA,LDT1,LDT2
Building Construction For Center For Excellence	Vendor	58.5	10.2	HHDT,MHDT
Building Construction For Center For Excellence	Hauling	0.00	20.0	HHDT
Building Construction For Center For Excellence	Onsite truck	—	—	HHDT
Paving For Center For Excellence	—	—	—	—
Paving For Center For Excellence	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving For Center For Excellence	Vendor	—	10.2	HHDT,MHDT
Paving For Center For Excellence	Hauling	0.00	20.0	HHDT
Paving For Center For Excellence	Onsite truck	—	—	HHDT
Architectural Coating For Center For Excellence	—	—	—	—
Architectural Coating For Center For Excellence	Worker	—	18.5	LDA,LDT1,LDT2
Architectural Coating For Center For Excellence	Vendor	—	10.2	HHDT,MHDT
Architectural Coating For Center For Excellence	Hauling	0.00	20.0	HHDT
Architectural Coating For Center For Excellence	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating For Science And Vet Center	0.00	0.00	116,025	38,675	—
Architectural Coating For CTE	0.00	0.00	116,025	38,675	—
Architectural Coating For CIS	0.00	0.00	62,475	20,825	—
Architectural Coating For Student Union	0.00	0.00	53,550	17,850	—
Architectural Coating	0.00	0.00	53,550	17,850	—
Architectural Coating for Kinesiology	0.00	0.00	116,025	38,675	—
Architectural Coating For Center For Excellence	0.00	0.00	17,850	5,950	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Building Square Footage)	Acres Paved (acres)
Demolition For Science and Veteran Center	0.00	0.00	0.00	112,131	—
Demolition For CTE	0.00	0.00	0.00	82,449	—
Demolition For CIS	0.00	0.00	0.00	12,000	—
Demolition For Student Union	0.00	0.00	0.00	12,000	—
Demolition For Library	0.00	0.00	0.00	43,380	—
Demolition For Kinesiology	0.00	0.00	0.00	117,933	—
Demolition for Center For Excellence	0.00	0.00	0.00	10,000	—

Site Preparation For Science And Vet Center	—	—	3.00	0.00	—
Site Preparation For CTE	—	—	3.00	0.00	—
Site Preparation For CIS	—	—	1.50	0.00	—
Site Preparation For Student Union	—	—	1.50	0.00	—
Site Preparation For Library	—	—	1.50	0.00	—
Site Preparation For Kinesiology	—	—	3.00	0.00	—
Site Preparation For Excellence	—	—	1.50	0.00	—
Grading For Science And Vet Center	—	—	4.00	0.00	—
Grading For CTE	—	—	4.00	0.00	—
Grading For CIS	—	—	2.00	0.00	—
Grading For Student Union	—	—	2.00	0.00	—
Grading For Library	—	—	2.00	0.00	—
Grading For Kinesiology	—	—	4.00	0.00	—
Grading For Center For Excellence	—	—	1.00	0.00	—
Paving For Science And Vet Center	0.00	0.00	0.00	0.00	0.00
Paving For CTE	0.00	0.00	0.00	0.00	0.00
Paving For CIS	0.00	0.00	0.00	0.00	0.00
Paving For Student Union	0.00	0.00	0.00	0.00	0.00
Paving For Library	0.00	0.00	0.00	0.00	0.00
Paving For Kinesiology	0.00	0.00	0.00	0.00	0.00
Paving For Center For Excellence	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Junior College (2yr)	0.00	0%
Junior College (2yr)	0.00	0%
Junior College (2yr)	0.00	0%
Junior College (2yr)	0.00	0%
Junior College (2yr)	0.00	0%
Junior College (2yr)	0.00	0%
Junior College (2yr)	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	532	0.03	< 0.005
2026	0.00	532	0.03	< 0.005
2027	0.00	532	0.03	< 0.005
2028	0.00	532	0.03	< 0.005
2029	0.00	532	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Junior College (2yr)	1,316	730	78.7	385,328	12,996	7,207	777	3,804,424
Junior College (2yr)	1,640	910	98.0	480,178	16,195	8,981	968	4,740,897
Junior College (2yr)	1,114	618	66.6	326,047	10,996	6,098	657	3,219,128

Junior College (2yr)	405	225	24.2	118,562	3,999	2,218	239	1,170,592
Junior College (2yr)	304	168	18.2	88,922	2,999	1,663	179	877,944
Junior College (2yr)	1,134	629	67.8	331,975	11,196	6,209	669	3,277,657
Junior College (2yr)	1,316	730	78.7	385,328	12,996	7,207	777	3,804,424

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	535,500	178,500	—

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	250

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Junior College (2yr)	728,109	532	0.0330	0.0040	3,237,837
Junior College (2yr)	907,336	532	0.0330	0.0040	4,034,844

Junior College (2yr)	616,093	532	0.0330	0.0040	2,739,709
Junior College (2yr)	224,034	532	0.0330	0.0040	996,258
Junior College (2yr)	168,025	532	0.0330	0.0040	747,193
Junior College (2yr)	627,294	532	0.0330	0.0040	2,789,521
Junior College (2yr)	728,109	532	0.0330	0.0040	3,237,837

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Junior College (2yr)	3,188,187	0.00
Junior College (2yr)	3,972,972	0.00
Junior College (2yr)	2,697,697	0.00
Junior College (2yr)	980,981	0.00
Junior College (2yr)	735,735	0.00
Junior College (2yr)	2,746,746	0.00
Junior College (2yr)	3,188,187	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Junior College (2yr)	84.5	—
Junior College (2yr)	105	—
Junior College (2yr)	71.5	—
Junior College (2yr)	26.0	—
Junior College (2yr)	19.5	—

Junior College (2yr)	72.8	—
Junior College (2yr)	84.5	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00

Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Junior College (2yr)	Household refrigerators and/or freezers	R-134a	1,430	0.02	0.60	0.00	1.00
Junior College (2yr)	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

Junior College (2yr)	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Junior College (2yr)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	25.7	annual days of extreme heat
Extreme Precipitation	7.90	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	26.2	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	0	0	0	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	3	1	1	3
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	N/A	N/A	N/A	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	1	1	1	2

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	88.7
AQ-PM	68.6
AQ-DPM	87.9
Drinking Water	60.7
Lead Risk Housing	17.5
Pesticides	0.00
Toxic Releases	66.0
Traffic	26.6
Effect Indicators	—
CleanUp Sites	60.4
Groundwater	10.6
Haz Waste Facilities/Generators	40.9
Impaired Water Bodies	0.00
Solid Waste	63.7
Sensitive Population	—
Asthma	50.8
Cardio-vascular	46.8

Low Birth Weights	2.49
Socioeconomic Factor Indicators	—
Education	24.1
Housing	31.7
Linguistic	42.8
Poverty	50.4
Unemployment	81.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—
Voting	—
Neighborhood	—
Alcohol availability	—

Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	0.0
Asthma ER Admissions	38.9
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.0
Cognitively Disabled	74.6
Physically Disabled	91.7
Heart Attack ER Admissions	52.2
Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0

Pedestrian Injuries	0.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	1.6
SLR Inundation Area	0.0
Children	95.0
Elderly	73.1
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	94.9
Climate Change Adaptive Capacity	—
Impervious Surface Cover	54.6
Traffic Density	0.0
Traffic Access	57.3
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	45.0

Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

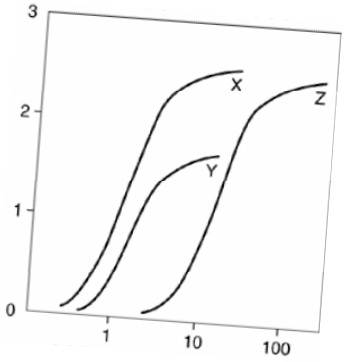
Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Land Use	Lot Acreage Based On Areas of School That Are Impacted Ignore Landscaping/Hardscaping For Phase 1
Construction: Construction Phases	per construction schedule



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James J. J. Clark, Ph.D.

Principal Toxicologist

Toxicology/Exposure Assessment Modeling

Risk Assessment/Analysis/Dispersion Modeling

Education:

Ph.D., Environmental Health Science, University of California, 1995

M.S., Environmental Health Science, University of California, 1993

B.S., Biophysical and Biochemical Sciences, University of Houston, 1987

Professional Experience:

Dr. Clark is a well recognized toxicologist, air modeler, and health scientist. He has 20 years of experience in researching the effects of environmental contaminants on human health including environmental fate and transport modeling (SCREEN3, AEROMOD, ISCST3, Johnson-Ettinger Vapor Intrusion Modeling); exposure assessment modeling (partitioning of contaminants in the environment as well as PBPK modeling); conducting and managing human health risk assessments for regulatory compliance and risk-based clean-up levels; and toxicological and medical literature research.

Significant projects performed by Dr. Clark include the following:

LITIGATION SUPPORT

Case: James Harold Caygle, et al, v. Drummond Company, Inc. Circuit Court for the Tenth Judicial Circuit, Jefferson County, Alabama. Civil Action. CV-2009

Client: Environmental Litgation Group, Birmingham, Alabama

Dr. Clark performed an air quality assessment of emissions from a coke factory located in Tarrant, Alabama. The assessment reviewed include a comprehensive review of air quality standards, measured concentrations of pollutants from factory, an inspection of the facility and detailed assessment of the impacts on the community. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Rose Roper V. Nissan North America, et al. Superior Court of the State Of California for the County Of Los Angeles – Central Civil West. Civil Action. NC041739

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to multiple chemicals, including benzene, who later developed a respiratory distress. A review of the individual's medical and occupational history was performed to prepare an exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to respiratory irritants. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: O'Neil V. Sherwin Williams, et al. United States District Court Central District of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to petroleum distillates who later developed a bladder cancer. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Summary judgment for defendants.

Case: Moore V., Shell Oil Company, et al. Superior Court of the State Of California for the County Of Los Angeles

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to chemicals while benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Raymond Saltonstall V. Fuller O'Brien, KILZ, and Zinsser, et al. United States District Court Central District of California

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to benzene who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a quantitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Richard Boyer and Elizabeth Boyer, husband and wife, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-7G.

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: JoAnne R. Cook, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-9R

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of an individual exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Patrick Allen And Susan Allen, husband and wife, and Andrew Allen, a minor, V. DESCO Corporation, et al. Circuit Court of Brooke County, West Virginia. Civil Action Number 04-C-W

Client: Frankovitch, Anetakis, Colantonio & Simon, Morgantown, West Virginia.

Dr. Clark performed a toxicological assessment of a family exposed to chlorinated solvents released from the defendant's facility into local drinking water supplies. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to chlorinated solvents. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Michael Fahey, Susan Fahey V. Atlantic Richfield Company, et al. United States District Court Central District of California Civil Action Number CV-06 7109 JCL.

Client: Rose, Klein, Marias, LLP, Long Beach, California

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Settlement in favor of plaintiff.

Case: Constance Acevedo, et al., V. California Spray-Chemical Company, et al., Superior Court of the State Of California, County Of Santa Cruz. Case No. CV 146344

Dr. Clark performed a comprehensive exposure assessment of community members exposed to toxic metals from a former lead arsenate manufacturing facility. The former manufacturing site had undergone a DTSC mandated removal action/remediation for the presence of the toxic metals at the site. Opinions were presented regarding the elevated levels of arsenic and lead (in attic dust and soils) found throughout the community and the potential for harm to the plaintiffs in question.

Case Result: Settlement in favor of defendant.

Case: Michael Nawrocki V. The Coastal Corporation, Kurk Fuel Company, Pautler Oil Service, State of New York Supreme Court, County of Erie, Index Number I2001-11247

Client: Richard G. Berger Attorney At Law, Buffalo, New York

Dr. Clark performed a toxicological assessment of an individual occupationally exposed to refined petroleum hydrocarbons who later developed a leukogenic disease. A review of the individual's medical and occupational history was performed to prepare a qualitative exposure assessment. The exposure assessment was evaluated against the

known outcomes in published literature to exposure to refined petroleum hydrocarbons. The results of the assessment and literature have been provided in a declaration to the court.

Case Result: Judgement in favor of defendant.

SELECTED AIR MODELING RESEARCH/PROJECTS

Client – Confidential

Dr. Clark performed a comprehensive evaluation of criteria pollutants, air toxins, and particulate matter emissions from a carbon black production facility to determine the impacts on the surrounding communities. The results of the dispersion model will be used to estimate acute and chronic exposure concentrations to multiple contaminants and will be incorporated into a comprehensive risk evaluation.

Client – Confidential

Dr. Clark performed a comprehensive evaluation of air toxins and particulate matter emissions from a railroad tie manufacturing facility to determine the impacts on the surrounding communities. The results of the dispersion model have been used to estimate acute and chronic exposure concentrations to multiple contaminants and have been incorporated into a comprehensive risk evaluation.

Client – Los Angeles Alliance for a New Economy (LAANE), Los Angeles, California

Dr. Clark is advising the LAANE on air quality issues related to current flight operations at the Los Angeles International Airport (LAX) operated by the Los Angeles World Airport (LAWA) Authority. He is working with the LAANE and LAX staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client – City of Santa Monica, Santa Monica, California

Dr. Clark is advising the City of Santa Monica on air quality issues related to current flight operations at the facility. He is working with the City staff to develop a comprehensive strategy for meeting local community concerns over emissions from flight operations and to engage federal agencies on the issue of local impacts of community airports.

Client: Omnitrans, San Bernardino, California

Dr. Clark managed a public health survey of three communities near transit fueling facilities in San Bernardino and Montclair California in compliance with California Senate Bill 1927. The survey included an epidemiological survey of the effected communities, emission surveys of local businesses, dispersion modeling to determine potential emission concentrations within the communities, and a comprehensive risk assessment of each community. The results of the study were presented to the Governor as mandated by Senate Bill 1927.

Client: Confidential, San Francisco, California

Summarized cancer types associated with exposure to metals and smoking. Researched the specific types of cancers associated with exposure to metals and smoking. Provided causation analysis of the association between cancer types and exposure for use by non-public health professionals.

Client: Confidential, Minneapolis, Minnesota

Prepared human health risk assessment of workers exposed to VOCs from neighboring petroleum storage/transport facility. Reviewed the systems in place for distribution of petroleum hydrocarbons to identify chemicals of concern (COCs), prepared comprehensive toxicological summaries of COCs, and quantified potential risks from carcinogens and non-carcinogens to receptors at or adjacent to site. This evaluation was used in the support of litigation.

Client – United Kingdom Environmental Agency

Dr. Clark is part of team that performed comprehensive evaluation of soil vapor intrusion of VOCs from former landfill adjacent residences for the United Kingdom's Environment

Agency. The evaluation included collection of liquid and soil vapor samples at site, modeling of vapor migration using the Johnson Ettinger Vapor Intrusion model, and calculation of site-specific health based vapor thresholds for chlorinated solvents, aromatic hydrocarbons, and semi-volatile organic compounds. The evaluation also included a detailed evaluation of the use, chemical characteristics, fate and transport, and toxicology of chemicals of concern (COC). The results of the evaluation have been used as a briefing tool for public health professionals.

EMERGING/PERSISTENT CONTAMINANT RESEARCH/PROJECTS

Client: Ameren Services, St. Louis, Missouri

Managed the preparation of a comprehensive human health risk assessment of workers and residents at or near an NPL site in Missouri. The former operations at the Property included the servicing and repair of electrical transformers, which resulted in soils and groundwater beneath the Property and adjacent land becoming impacted with PCB and chlorinated solvent compounds. The results were submitted to U.S. EPA for evaluation and will be used in the final ROD.

Client: City of Santa Clarita, Santa Clarita, California

Dr. Clark is managing the oversight of the characterization, remediation and development activities of a former 1,000 acre munitions manufacturing facility for the City of Santa Clarita. The site is impacted with a number of contaminants including perchlorate, unexploded ordinance, and volatile organic compounds (VOCs). The site is currently under a number of regulatory consent orders, including an Immanent and Substantial Endangerment Order. Dr. Clark is assisting the impacted municipality with the development of remediation strategies, interaction with the responsible parties and stakeholders, as well as interfacing with the regulatory agency responsible for oversight of the site cleanup.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of perchlorate in environment. Dr. Clark evaluated the production, use, chemical characteristics, fate and transport, toxicology, and remediation of perchlorate. Perchlorates form the basis of solid rocket fuels and have recently been detected in water supplies in the United States. The results of this research

were presented to the USEPA, National GroundWater, and ultimately published in a recent book entitled *Perchlorate in the Environment.*

Client – Confidential, Los Angeles, California

Dr. Clark is performing a comprehensive review of the potential for pharmaceuticals and their by-products to impact groundwater and surface water supplies. This evaluation will include a review if available data on the history of pharmaceutical production in the United States; the chemical characteristics of various pharmaceuticals; environmental fate and transport; uptake by xenobiotics; the potential effects of pharmaceuticals on water treatment systems; and the potential threat to public health. The results of the evaluation may be used as a briefing tool for non-public health professionals.

PUBLIC HEALTH/TOXICOLOGY

Client: Brayton Purcell, Novato, California

Dr. Clark performed a toxicological assessment of residents exposed to methyl-tertiary butyl ether (MTBE) from leaking underground storage tanks (LUSTs) adjacent to the subject property. The symptomology of residents and guests of the subject property were evaluated against the known outcomes in published literature to exposure to MTBE. The study found that residents had been exposed to MTBE in their drinking water; that concentrations of MTBE detected at the site were above regulatory guidelines; and, that the symptoms and outcomes expressed by residents and guests were consistent with symptoms and outcomes documented in published literature.

Client: Confidential, San Francisco, California

Identified and analyzed fifty years of epidemiological literature on workplace exposures to heavy metals. This research resulted in a summary of the types of cancer and non-cancer diseases associated with occupational exposure to chromium as well as the mortality and morbidity rates.

Client: Confidential, San Francisco, California

Summarized major public health research in United States. Identified major public health research efforts within United States over last twenty years. Results were used as a briefing tool for non-public health professionals.

Client: Confidential, San Francisco, California

Quantified the potential multi-pathway dose received by humans from a pesticide applied indoors. Part of team that developed exposure model and evaluated exposure concentrations in a comprehensive report on the plausible range of doses received by a specific person. This evaluation was used in the support of litigation.

Client: Covanta Energy, Westwood, California

Evaluated health risk from metals in biosolids applied as soil amendment on agricultural lands. The biosolids were created at a forest waste cogeneration facility using 96% whole tree wood chips and 4 percent green waste. Mass loading calculations were used to estimate Cr(VI) concentrations in agricultural soils based on a maximum loading rate of 40 tons of biomass per acre of agricultural soil. The results of the study were used by the Regulatory agency to determine that the application of biosolids did not constitute a health risk to workers applying the biosolids or to residences near the agricultural lands.

Client – United Kingdom Environmental Agency

Oversaw a comprehensive toxicological evaluation of methyl-*tertiary* butyl ether (M*t*BE) for the United Kingdom's Environment Agency. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of M*t*BE. The results of the evaluation have been used as a briefing tool for public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of *tertiary* butyl alcohol (TBA) in municipal drinking water system. TBA is the primary breakdown product of M*t*BE, and is suspected to be the primary cause of M*t*BE toxicity. This evaluation will include available information on the production, use, chemical characteristics, fate and transport in the environment, absorption, distribution, routes of detoxification, metabolites, carcinogenic potential, and remediation of TBA. The results of the evaluation were used as a briefing tool for non-public health professionals.

Client – Confidential, Los Angeles, California

Prepared comprehensive evaluation of methyl *tertiary* butyl ether (MTBE) in municipal drinking water system. MTBE is a chemical added to gasoline to increase the octane

rating and to meet Federally mandated emission criteria. The evaluation included available data on the production, use, chemical characteristics, fate and transport, toxicology, and remediation of MTBE. The results of the evaluation have been were used as a briefing tool for non-public health professionals.

Client – Ministry of Environment, Lands & Parks, British Columbia

Dr. Clark assisted in the development of water quality guidelines for methyl tertiary-butyl ether (MTBE) to protect water uses in British Columbia (BC). The water uses to be considered includes freshwater and marine life, wildlife, industrial, and agricultural (e.g., irrigation and livestock watering) water uses. Guidelines from other jurisdictions for the protection of drinking water, recreation and aesthetics were to be identified.

Client: Confidential, Los Angeles, California

Prepared physiologically based pharmacokinetic (PBPK) assessment of lead risk of receptors at middle school built over former industrial facility. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client: Kaiser Venture Incorporated, Fontana, California

Prepared PBPK assessment of lead risk of receptors at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

RISK ASSESSMENTS/REMEDIAL INVESTIGATIONS

Client: Confidential, Atlanta, Georgia

Researched potential exposure and health risks to community members potentially exposed to creosote, polycyclic aromatic hydrocarbons, pentachlorophenol, and dioxin compounds used at a former wood treatment facility. Prepared a comprehensive toxicological summary of the chemicals of concern, including the chemical characteristics, absorption, distribution, and carcinogenic potential. Prepared risk characterization of the carcinogenic and non-carcinogenic chemicals based on the exposure assessment to quantify the potential risk to members of the surrounding community. This evaluation was used to help settle class-action tort.

Client: Confidential, Escondido, California

Prepared comprehensive Preliminary Endangerment Assessment (PEA) of dense non-aqueous liquid phase hydrocarbon (chlorinated solvents) contamination at a former printed circuit board manufacturing facility. This evaluation was used for litigation support and may be used as the basis for reaching closure of the site with the lead regulatory agency.

Client: Confidential, San Francisco, California

Summarized epidemiological evidence for connective tissue and autoimmune diseases for product liability litigation. Identified epidemiological research efforts on the health effects of medical prostheses. This research was used in a meta-analysis of the health effects and as a briefing tool for non-public health professionals.

Client: Confidential, Bogotá, Columbia

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of a 13.7 hectares plastic manufacturing facility in Bogotá, Colombia The risk assessment was used as the basis for the remedial goals and closure of the site.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally cadmium) and VOCs from soil and soil vapor at 12-acre former crude oilfield and municipal landfill. The site is currently used as a middle school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and was used as the basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Managed remedial investigation (RI) of heavy metals and volatile organic chemicals (VOCs) for a 15-acre former manufacturing facility. The RI investigation of the site included over 800 different sampling locations and the collection of soil, soil gas, and groundwater samples. The site is currently used as a year round school housing approximately 3,000 children. The Remedial Investigation was performed in a manner

that did not interrupt school activities and met the time restrictions placed on the project by the overseeing regulatory agency. The RI Report identified the off-site source of metals that impacted groundwater beneath the site and the sources of VOCs in soil gas and groundwater. The RI included a numerical model of vapor intrusion into the buildings at the site from the vadose zone to determine exposure concentrations and an air dispersion model of VOCs from the proposed soil vapor treatment system. The Feasibility Study for the Site is currently being drafted and may be used as the basis for granting closure of the site by DTSC.

Client: Confidential, Los Angeles, California

Prepared comprehensive human health risk assessment of students, staff, and residents potentially exposed to heavy metals (principally lead), VOCs, SVOCs, and PCBs from soil, soil vapor, and groundwater at 15-acre former manufacturing facility. The site is currently used as a year round school housing approximately 3,000 children. The evaluation determined that the site was safe for the current and future uses and will be basis for regulatory closure of site.

Client: Confidential, Los Angeles, California

Prepared comprehensive evaluation of VOC vapor intrusion into classrooms of middle school that was former 15-acre industrial facility. Using the Johnson-Ettinger Vapor Intrusion model, the evaluation determined acceptable soil gas concentrations at the site that did not pose health threat to students, staff, and residents. This evaluation is being used to determine cleanup goals and will be basis for regulatory closure of site.

Client –Dominguez Energy, Carson, California

Prepared comprehensive evaluation of the potential health risks associated with the redevelopment of 6-acre portion of a 500-acre oil and natural gas production facility in Carson, California. The risk assessment was used as the basis for closure of the site.

Kaiser Ventures Incorporated, Fontana, California

Prepared health risk assessment of semi-volatile organic chemicals and metals for a fifty-year old wastewater treatment facility used at a 1,100-acre former steel mill. This evaluation was used as the basis for granting closure of the site by lead regulatory agency.

ANR Freight - Los Angeles, California

Prepared a comprehensive Preliminary Endangerment Assessment (PEA) of petroleum hydrocarbon and metal contamination of a former freight depot. This evaluation was as the basis for reaching closure of the site with lead regulatory agency.

Kaiser Ventures Incorporated, Fontana, California

Prepared comprehensive health risk assessment of semi-volatile organic chemicals and metals for 23-acre parcel of a 1,100-acre former steel mill. The health risk assessment was used to determine clean up goals and as the basis for granting closure of the site by lead regulatory agency. Air dispersion modeling using ISCST3 was performed to determine downwind exposure point concentrations at sensitive receptors within a 1 kilometer radius of the site. The results of the health risk assessment were presented at a public meeting sponsored by the Department of Toxic Substances Control (DTSC) in the community potentially affected by the site.

Unocal Corporation - Los Angeles, California

Prepared comprehensive assessment of petroleum hydrocarbons and metals for a former petroleum service station located next to sensitive population center (elementary school). The assessment used a probabilistic approach to estimate risks to the community and was used as the basis for granting closure of the site by lead regulatory agency.

Client: Confidential, Los Angeles, California

Managed oversight of remedial investigation most contaminated heavy metal site in California. Lead concentrations in soil excess of 68,000,000 parts per billion (ppb) have been measured at the site. This State Superfund Site was a former hard chrome plating operation that operated for approximately 40-years.

Client: Confidential, San Francisco, California

Coordinator of regional monitoring program to determine background concentrations of metals in air. Acted as liaison with SCAQMD and CARB to perform co-location sampling and comparison of accepted regulatory method with ASTM methodology.

Client: Confidential, San Francisco, California

Analyzed historical air monitoring data for South Coast Air Basin in Southern California and potential health risks related to ambient concentrations of carcinogenic metals and volatile organic compounds. Identified and reviewed the available literature and calculated risks from toxins in South Coast Air Basin.

IT Corporation, North Carolina

Prepared comprehensive evaluation of potential exposure of workers to air-borne VOCs at hazardous waste storage facility under SUPERFUND cleanup decree. Assessment used in developing health based clean-up levels.

Professional Associations

American Public Health Association (APHA)
Association for Environmental Health and Sciences (AEHS)
American Chemical Society (ACS)
California Redevelopment Association (CRA)
International Society of Environmental Forensics (ISEF)
Society of Environmental Toxicology and Chemistry (SETAC)

Publications and Presentations:

Books and Book Chapters

Sullivan, P., **J.J. J. Clark,** F.J. Agardy, and P.E. Rosenfeld. (2007). *Synthetic Toxins In The Food, Water and Air of American Cities*. Elsevier, Inc. Burlington, MA.

Sullivan, P. and **J.J. J. Clark**. 2006. *Choosing Safer Foods, A Guide To Minimizing Synthetic Chemicals In Your Diet*. Elsevier, Inc. Burlington, MA.

Sullivan, P., Agardy, F.J., and **J.J.J. Clark**. 2005. *The Environmental Science of Drinking Water*. Elsevier, Inc. Burlington, MA.

Sullivan, P.J., Agardy, F.J., **Clark, J.J.J.** 2002. *America's Threatened Drinking Water: Hazards and Solutions*. Trafford Publishing, Victoria B.C.

Clark, J.J.J. 2001. "TBA: Chemical Properties, Production & Use, Fate and Transport, Toxicology, Detection in Groundwater, and Regulatory Standards" in *Oxygenates in the Environment.* Art Diaz, Ed.. Oxford University Press: New York.

Clark, J.J.J. 2000. "Toxicology of Perchlorate" in *Perchlorate in the Environment.* Edward Urbansky, Ed. Kluwer/Plenum: New York.

Clark, J.J.J. 1995. Probabilistic Forecasting of Volatile Organic Compound Concentrations At The Soil Surface From Contaminated Groundwater. UMI.

Baker, J.; **Clark, J.J.J.**; Stanford, J.T. 1994. Ex Situ Remediation of Diesel Contaminated Railroad Sand by Soil Washing. Principles and Practices for Diesel Contaminated Soils, Volume III. P.T. Kostecki, E.J. Calabrese, and C.P.L. Barkan, eds. Amherst Scientific Publishers, Amherst, MA. pp 89-96.

Journal and Proceeding Articles

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equialency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. Organohalogen Compounds, Volume 70 (2008) page 002254.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008) Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. Organohalogen Compounds, Volume 70 (2008) page 000527

Hensley A.R., Scott, A., Rosenfeld P.E., **Clark, J.J.J.** (2007). "Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility." *Environmental Research.* 105:194-199.

Rosenfeld, P.E., **Clark, J. J.,** Hensley, A.R., and Suffet, I.H. 2007. "The Use Of An Odor Wheel Classification For The Evaluation of Human Health Risk Criteria For Compost Facilities" Water Science & Technology. 55(5): 345-357.

Hensley A.R., Scott, A., Rosenfeld P.E., **Clark, J.J.J.** 2006. "Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility." The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006, August 21 – 25, 2006. Radisson SAS Scandinavia Hotel in Oslo Norway.

Rosenfeld, P.E., **Clark, J. J.** and Suffet, I.H. 2005. "The Value Of An Odor Quality Classification Scheme For Compost Facility Evaluations" The U.S. Composting Council's 13th Annual Conference January 23 - 26, 2005, Crowne Plaza Riverwalk, San Antonio, TX.

Rosenfeld, P.E., **Clark, J. J.** and Suffet, I.H. 2004. "The Value Of An Odor Quality Classification Scheme For Urban Odor" WEFTEC 2004. 77th Annual Technical Exhibition & Conference October 2 - 6, 2004, Ernest N. Morial Convention Center, New Orleans, Louisiana.

Clark, J.J.J. 2003. "Manufacturing, Use, Regulation, and Occurrence of a Known Endocrine Disrupting Chemical (EDC), 2,4-Dichlorophnoxyacetic Acid (2,4-D) in California Drinking Water Supplies." National Groundwater Association Southwest Focus Conference: Water Supply and Emerging Contaminants. Minneapolis, MN. March 20, 2003.

Rosenfeld, P. and **J.J.J. Clark**. 2003. "Understanding Historical Use, Chemical Properties, Toxicity, and Regulatory Guidance" National Groundwater Association Southwest Focus Conference: Water Supply and Emerging Contaminants. Phoenix, AZ. February 21, 2003.

Clark, J.J.J., Brown A. 1999. Perchlorate Contamination: Fate in the Environment and Treatment Options. In Situ and On-Site Bioremediation, Fifth International Symposium. San Diego, CA, April, 1999.

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Browne, T., **Clark, J.J.J.** 1998. Treatment Options For Perchlorate In Drinking Water. Proceedings From the Groundwater Resource Association Seventh Annual Meeting, Walnut Creek, CA, October 23, 1998.

Clark, J.J.J., Brown, A., Rodriguez, R. 1998. The Public Health Implications of MtBE and Perchlorate in Water: Risk Management Decisions for Water Purveyors. Proceedings of the National Ground Water Association, Anaheim, CA, June 3-4, 1998.

Clark J.J.J., Brown, A., Ulrey, A. 1997. Impacts of Perchlorate On Drinking Water In The Western United States. U.S. EPA Symposium on Biological and Chemical Reduction of Chlorate and Perchlorate, Cincinnati, OH, December 5, 1997.

Clark, J.J.J.; Corbett, G.E.; Kerger, B.D.; Finley, B.L.; Paustenbach, D.J. 1996. Dermal Uptake of Hexavalent Chromium In Human Volunteers: Measures of Systemic Uptake From Immersion in Water At 22 PPM. Toxicologist. 30(1):14.

Dodge, D.G.; **Clark, J.J.J.**; Kerger, B.D.; Richter, R.O.; Finley, B.L.; Paustenbach, D.J. 1996. Assessment of Airborne Hexavalent Chromium In The Home Following Use of Contaminated Tapwater. Toxicologist. 30(1):117-118.

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Harber, P.H.; Gong, H., Jr.; Lachenbruch, A.; **Clark, J.**; Hsu, P. (1992). Respiratory Pattern Effect of Acute Sulfur Dioxide Exposure in Asthmatics. American Review of Respiratory Disease. 145(4):A88.

McManus, M.S.; Gong, H., Jr.; Clements, P.; **Clark, J.J.J.** (1991). Respiratory Response of Patients With Interstitial Lung Disease To Inhaled Ozone. American Review of Respiratory Disease. 143(4):A91.

Gong, H., Jr.; Simmons, M.S.; McManus, M.S.; Tashkin, D.P.; Clark, V.A.; Detels, R.; **Clark, J.J.** (1990). Relationship Between Responses to Chronic Oxidant and Acute

Ozone Exposures in Residents of Los Angeles County. American Review of Respiratory Disease. 141(4):A70.

Tierney, D.F. and **J.J.J. Clark.** (1990). Lung Polyamine Content Can Be Increased By Spermidine Infusions Into Hyperoxic Rats. American Review of Respiratory Disease. 139(4):A41.

EXHIBIT B

SMITH ENGINEERING & MANAGEMENT

May 20, 2024

Ms. Kelilah Federman
Adams Broadwell Joseph & Cardozo
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080-7037

Subject: Citrus College Education And Facilities Master Plan IS/MND
P24003

Dear Ms. Federman:

Per your request, I reviewed the Initial Study/Mitigated Negative Declaration (the "ISMND") for the Citrus College Education And Facilities Master Plan Project (the "Project") in the City of Glendora (the "City"). The Lead Agency for this CEQA review is the Citrus Community College District (the "District"), not the City. My review is with respect to transportation and circulation considerations.

My qualifications to perform this review include registration as a Civil and Traffic Engineer in California, over 50 years professional consulting practice in these fields and both preparation and review of the traffic and transportation components of numerous environmental documents prepared under the California Environmental Quality Act ("CEQA"). My professional resume is attached hereto.

My comments follow.

The Response To CEQA Environmental Checklist Item "a" Relies on Inadequate Data

Transportation Checklist Item "a" Involves this question: Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities? In responding, the environmental consultants used the default trip generation rates from the CalEEMod air quality model and estimated 162 added students would cause 186 more daily trips. As it happens, the CalEEMod default trip rate corresponds to the average weekday vehicle trip rate per student for Land Use

Category 540, Junior/Community College, in the current edition of the Institute of Transportation Engineers publication *Trip Generation*. However, the MND should have noted the data supporting this rate comes from a small sample size (12 studies with daily rates per student ranging from 0.34 to 2.70 about an average of 1.15 and with a standard deviation of 0.59) and suggested this implies statistical unreliability. Because the data was collected at community colleges in Alberta, Canada, Kansas, New Mexico and Texas, it is doubtful that limited data from distant states is representative is of a community college in in a California suburban community such as Glendora. They would have also noted that compared that since the underlying data was collected in the 1980s, 1990s and prior to 2010, the data is fairly stale and of doubtful relevance in 2024. Given that background, they would likely have conducted a research of recent traffic studies undertaken at Junior/Community Colleges in California or a study of current trip rates at Citrus itself.

After estimating the trips of students the Project would add based on what is unquestionably shaky data, the District's environmental consultants use the non-standard technique of comparing that trip total to the City's projected future total of trips on a particular street in the Project vicinity and through this simple comparison of total daily trips, to conclude impacts associated with the Proposed Project would be less than significant on plans, policy, or ordinances related to public transportation, bicycles, or pedestrian facilities. What this approach does is evade considering whether there are existing transportation operational or safety problems in the Project vicinity that might be disproportionately exacerbated by small concentrations of incremental traffic, such as for example, extended queue blockages of through lanes or pedestrian crossings. This analysis is inadequate. Accounting for the accurate baseline traffic impacts, the Project may result in significant traffic impacts which the MND fails to analyze or mitigate.

The IS/MND Fails To Conduct A Relevant VMT Analysis

With regard to CEQA Environmental Checklist Item b), the MND performs no formal analysis. Instead, it opines without supporting data that because the "Proposed Project area is located within 0.5 mile of numerous transit stops" and because community colleges "enrollment growth is expected to come from local neighborhoods and is not expected to draw significantly from "out-of-town students", significant impact is unlikely and "the Proposed Project would be consistent with the CEQA Guidelines."

All of these speculations run afoul of fact. An unspecified number of transit stops within 1/2 mile of campus with unspecified service hours and frequencies does not meet OPR guidance for screening out VMT analysis. That guidance states: "that lead agencies generally should presume that certain projects (including residential, retail, and office projects, as well as projects that are a mix of these

uses) proposed within ½ mile of an existing major transit stop[1] or an existing stop along a high quality transit corridor[2] will have a less-than-significant impact on VMT". Obviously, no evidence is presented that the vaguely described transit service meets OPR guidance for screening out VMT analysis.

"The Citrus Community College District is located in eastern Los Angeles County in the foothills of the San Gabriel Mountains, approximately twenty-five miles northeast of metropolitan Los Angeles. The College's service area includes the communities of Azusa, Bradbury, Duarte, Glendora, Monrovia, and Claremont and portions of other neighboring communities, including Arcadia, Covina, Irwindale, LaVerne, Pomona, and San Dimas."[3] It serves nearly 20,000 students annually.[4] Azusa, Duarte, Glendora, Monrovia and Claremont encompass a land area of approximately 75 square miles and a resident population of 200,403.[5] Arcadia, Covina, Irwindale, La Verne, Pomona and San Dimas have an additional combined area of 54.1 square miles and a 2020 Census population of 191,366 although not all the population and area of these latter communities are within the Citrus Community College District. But it is obvious that the District has a massive service area and population and draws most of its students from fairly distant points, not just "in town" Glendora as is claimed in the IS/MND's rationalization for not performing a VMT analysis. A VMT analysis should be performed before the IS/MND can be certified.

Conclusion

Given the above, there is fair argument that the Project IS/MND does not have credible analysis on Transportation Checklist Items "a" and "b". It cannot be approved until credible analyses are performed.

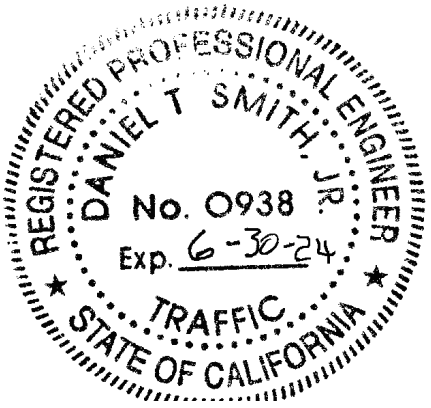
Sincerely,

Smith Engineering & Management

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[1] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").
[2] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").
[3] Citrus Community College IS/MND, page 7.
[4] Ibid, page 6.
[5] 2020 Census

A California Corporation



Daniel T. Smith Jr., P.E.
President

SMITH ENGINEERING & MANAGEMENT

DANIEL T. SMITH, Jr.
President

EDUCATION

Bachelor of Science, Engineering and Applied Science, Yale University, 1967
Master of Science, Transportation Planning, University of California, Berkeley, 1968

PROFESSIONAL REGISTRATION

California No. 21913 (Civil) Nevada No. 7969 (Civil) Washington No. 29337 (Civil)
California No. 938 (Traffic) Arizona No. 22131 (Civil)

PROFESSIONAL EXPERIENCE

Smith Engineering & Management, 1993 to present. President.
DKS Associates, 1979 to 1993. Founder, Vice President, Principal Transportation Engineer.
De Leuw, Cather & Company, 1968 to 1979. Senior Transportation Planner.
Personal specialties and project experience include:

Litigation Consulting. Provides consultation, investigations and expert witness testimony in highway design, transit design and traffic engineering matters including condemnations involving transportation access issues; traffic accidents involving highway design or traffic engineering factors; land use and development matters involving access and transportation impacts; parking and other traffic and transportation matters.

Urban Corridor Studies/Alternatives Analysis. Principal-in-charge for State Route (SR) 102 Feasibility Study, a 35-mile freeway alignment study north of Sacramento. Consultant on I-280 Interstate Transfer Concept Program, San Francisco, an AA/EIS for completion of I-280, demolition of Embarcadero freeway, substitute light rail and commuter rail projects. Principal-in-charge, SR 238 corridor freeway/expressway design/environmental study, Hayward (Calif.) Project manager, Sacramento Northeast Area multi-modal transportation corridor study. Transportation planner for I-80N West Terminal Study, and Harbor Drive Traffic Study, Portland, Oregon. Project manager for design of surface segment of Woodward Corridor LRT, Detroit, Michigan. Directed staff on I-80 National Strategic Corridor Study (Sacramento-San Francisco), US 101-Sonoma freeway operations study, SR 92 freeway operations study, I-880 freeway operations study, SR 152 alignment studies, Sacramento RTD light rail systems study, Tasman Corridor LRT AA/EIS, Fremont-Warm Springs BART extension plan/EIR, SRs 70/99 freeway alternatives study, and Richmond Parkway (SR 93) design study.

Area Transportation Plans. Principal-in charge for transportation element of City of Los Angeles General Plan Framework, shaping nations largest city two decades into 21'st century. Project manager for the transportation element of 300-acre Mission Bay development in downtown San Francisco. Mission Bay involves 7 million gsf office/commercial space, 8,500 dwelling units, and community facilities. Transportation features include relocation of commuter rail station; extension of MUNI-Metro LRT; a multi-modal terminal for LRT, commuter rail and local bus; removal of a quarter mile elevated freeway; replacement by new ramps and a boulevard; an internal roadway network overcoming constraints imposed by an internal tidal basin; freeway structures and rail facilities; and concept plans for 20,000 structured parking spaces. Principal-in-charge for circulation plan to accommodate 9 million gsf of office/commercial growth in downtown Bellevue (Wash.). Principal-in-charge for 64 acre, 2 million gsf multi-use complex for FMC adjacent to San Jose International Airport. Project manager for transportation element of Sacramento Capitol Area Plan for the state governmental complex, and for Downtown Sacramento Redevelopment Plan. Project manager for Napa (Calif.) General Plan Circulation Element and Downtown Riverfront Redevelopment Plan, on parking program for downtown Walnut Creek, on downtown transportation plan for San Mateo and redevelopment plan for downtown Mountain View (Calif.), for traffic circulation and safety plans for California cities of Davis, Pleasant Hill and Hayward, and for Salem, Oregon.

TRAFFIC • TRANSPORTATION • MANAGEMENT
5311 Lowry Road, Union City, CA 94587 tel: 510.489.9477 fax: 510.489.9478

Transportation Centers. Project manager for Daly City Intermodal Study which developed a $7 million surface bus terminal, traffic access, parking and pedestrian circulation improvements at the Daly City BART station plus development of functional plans for a new BART station at Colma. Project manager for design of multi-modal terminal (commuter rail, light rail, bus) at Mission Bay, San Francisco. In Santa Clarita Long Range Transit Development Program, responsible for plan to relocate system's existing timed-transfer hub and development of three satellite transfer hubs. Performed airport ground transportation system evaluations for San Francisco International, Oakland International, Sea-Tac International, Oakland International, Los Angeles International, and San Diego Lindberg.

Campus Transportation. Campus transportation planning assignments for UC Davis, UC Berkeley, UC Santa Cruz and UC San Francisco Medical Center campuses; San Francisco State University; University of San Francisco; and the University of Alaska and others. Also developed master plans for institutional campuses including medical centers, headquarters complexes and research & development facilities.

Special Event Facilities. Evaluations and design studies for football/baseball stadiums, indoor sports arenas, horse and motor racing facilities, theme parks, fairgrounds and convention centers, ski complexes and destination resorts throughout western United States.

Parking. Parking programs and facilities for large area plans and individual sites including downtowns, special event facilities, university and institutional campuses and other large site developments; numerous parking feasibility and operations studies for parking structures and surface facilities; also, resident preferential parking .

Transportation System Management & Traffic Restraint. Project manager on FHWA program to develop techniques and guidelines for neighborhood street traffic limitation. Project manager for Berkeley, (Calif.), Neighborhood Traffic Study, pioneered application of traffic restraint techniques in the U.S. Developed residential traffic plans for Menlo Park, Santa Monica, Santa Cruz, Mill Valley, Oakland, Palo Alto, Piedmont, San Mateo County, Pasadena, Santa Ana and others. Participated in development of photo/radar speed enforcement device and experimented with speed humps. Co-author of Institute of Transportation Engineers reference publication on neighborhood traffic control.

Bicycle Facilities. Project manager to develop an FHWA manual for bicycle facility design and planning, on bikeway plans for Del Mar, (Calif.), the UC Davis and the City of Davis. Consultant to bikeway plans for Eugene, Oregon, Washington, D.C., Buffalo, New York, and Skokie, Illinois. Consultant to U.S. Bureau of Reclamation for development of hydraulically efficient, bicycle safe drainage inlets. Consultant on FHWA research on effective retrofits of undercrossing and overcrossing structures for bicyclists, pedestrians, and handicapped.

MEMBERSHIPS

Institute of Transportation Engineers Transportation Research Board

PUBLICATIONS AND AWARDS

Residential Street Design and Traffic Control, with W. Homburger *et al*. Prentice Hall, 1989.

Co-recipient, Progressive Architecture Citation, *Mission Bay Master Plan*, with I.M. Pei WRT Associated, 1984.

Residential Traffic Management, State of the Art Report, U.S. Department of Transportation, 1979.

Improving The Residential Street Environment, with Donald Appleyard et al., U.S. Department of Transportation, 1979.

Strategic Concepts in Residential Neighborhood Traffic Control, International Symposium on Traffic Control Systems, Berkeley, California, 1979.

Planning and Design of Bicycle Facilities: Pitfalls and New Directions, Transportation Research Board, Research Record 570, 1976.

Co-recipient, Progressive Architecture Award, *Livable Urban Streets, San Francisco Bay Area and London*, with Donald Appleyard, 1979.

APPENDIX D – VMT SCREENING MEMORANDUM (NEW)

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11900 W Olympic Blvd #450, Los Angeles, CA 90064
GTS | General Technologies and Solutions

VMT SCREENING MEMORANDUM

Date:	August 7, 2025	**GTS:** 250514
To:	City of Glendor	
From	GTS	
Cc:	Chambers Gr	
Subjct:	Vehicles Miles raveled Screening Analysis – Citrus College (Updated)	

Citrus College, located in the City of Glendora, CA, proposes to construct seven (7) new buildings on the campus. Based on enrollment projections, the project is expected to result in an additional 162 students attending Citrus College.

GTS conducted a Vehicle Miles Traveled (VMT) screening analysis and found that the project does not require a full VMT analysis per the City of Glendora guidelines.

I. BACKGROUND

On December 28, 2018, the California Office of Administrative Law cleared the revised California Environmental Quality Act (CEQA) guidelines for use. Among the changes to the guidelines was removal of vehicle delay and level of service from consideration under CEQA. With the adopted guidelines, transportation impacts are to be evaluated based on a project's effect on vehicle miles traveled (VMT).

II. PROJECT DESCRIPTION

Citrus College, located in the City of Glendora, CA, proposes to construct seven (7) new buildings on the campus, described as follows:

1) Science and Veterans Success Center
2) Career Technical Education Building (CTE)
3) Classroom and Information Services Building
4) Center for Excellence
5) Student Union/Dining Hall
6) Library/Learning Resource Center
7) Kinesiology Building

Students and staff visiting the proposed new buildings will utilize existing parking facilities. No parking expansion is planned as part of this project.

III. TRIP GENERATION

For the sake of completeness, the project trip generation has been calculated using two different approaches for the analysis:

1) Exhibit 1 shows the project's trip generation calculated according to the latest version of the Institute of Transportation Engineers (ITE) Trip Generation Manual. By this calculation, the project is expected to generate 186 daily trips, which includes 18 new AM peak hour trips (15 inbound and 3 outbound) and 18 PM peak hour trips (10 inbound and 8 outbound).
2) Exhibit 2 shows the project's trip generation calculated based on observed traffic volumes. The number of vehicles entering the campus was counted on a typical weekday, with classes in session, in June 2025. Trip rates per student were then calculated based on the May 2025 full-time equivalent (FTE) enrollment (9,625 students). By this calculation, the project is expected to generate 176 daily trips, which includes 14 new AM peak hour trips (11 inbound and 3 outbound) and 15 PM peak hour trips (8 inbound and 7 outbound).

Exhibit 1. Project Trip Generation based on ITE methodology

				AM Peak Hour			PM Peak Hour		
Land Use	**Quantity**	**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
Community College[1]	162	Students	**1.15**	0.09	0.02	**0.11**	0.06	0.05	**0.11**
Project Trip Generation									
Community College[1]	162	Students	**186**	**15**	**3**	**18**	**10**	**8**	**18**
Project Trip Generation			**186**	**15**	**3**	**18**	**10**	**8**	**18**

[1] Institute of Transportation Engineers (ITE), *Trip Generation*, 11th Edition, 2021, Land Use 540 - Junior/Community College

Exhibit 2. Project Trip Generation based on the Citrus College Trip Generation Counts

				AM Peak Hour of Adjacent Streets			PM Peak Hour of Adjacent Streets		
Land Use	**Quantity**	**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
Community College[1]	162	Students	**1.09**	0.066	0.019	**0.085**	0.051	0.040	**0.090**
Project Trip Generation									
Community College[1]	162	Students	**176**	**11**	**3**	**14**	**8**	**7**	**15**
Project Trip Generation			**176**	**11**	**3**	**14**	**8**	**7**	**15**

[1] Rates from traffic counts carried out in May 2025.

IV. VEHICLE MILES TRAVELED (VMT)

Pursuant to SB 743 technical guidance published by the Governor's Office for Planning and Research (OPR) and the City of Glendora SB743 Policy (2020), there are six types of project screening that lead agencies can apply in order to effectively screen projects from project-level assessment. Projects may be presumed to have a less than significant impact if they meet any of the following criteria, summarized below:

a) Small Project Size

Projects that would generate fewer than 250 trips per day are presumed to have a less than significant impact. To estimate trip generation, per the City of Glendora SB743 Policy, "Applications may use the latest version of the Institute of Transportation Engineers (ITE) Trip Generation Manual to calculate the number of trips from their proposed project."

Based on the ITE Trip Generation Manual, the project generates fewer than 250 trips per day.

As noted earlier, for the sake of completeness, trip generation was also estimated based on the observed existing trip generation of Citrus College. According to this analysis, the project will generate 176 daily trips.

This criterion is met.

b) Within a Transit Priority Area

Projects within ½ mile of the five major transit stops in the City can be screened from analysis unless they have a floor area ratio of less than 0.75, include more parking than required by the City, are inconsistent with the SCAG RTP/SCS, or replace affordable housing units with a smaller number of moderate or high income residential units.

The floor area ratio is the ratio of the gross floor area of a building to the area of the parcel of land on which it is located. The proposed new buildings are part of the Citrus College main campus, which is located on a single land parcel. Specific plots of land for the proposed new buildings have not been clearly identified. Therefore, to avoid subjectivity, this criterion is not considered for VMT screening.

This criterion is considered not measurable.

c) Retail Projects

Retail projects of less than 50,000 square feet can be presumed to have a less than significant impact. The proposed project is not a retail project.

This criterion is not met.

d) Affordable Housing

Portions of developments that include below market-rate housing can be presumed to have a less than significant impact. The proposed project does not fall under this category.

This criterion is not met.

e) Redevelopment Projects

In order to support infill development, the net change in trip generation can be the value used to screen for small projects. If the change in the trip production by a redevelopment project exceeds the small project screening threshold, then the project is evaluated for impact analysis based on the applicable residential or non-residential VMT rate methodology.

This criterion is not applicable to this project.

f) Community Serving Projects

Municipal projects such as schools, parks, community centers, libraries and other community-serving uses would be intended for local use and would be presumed to have a Less Than Significant impact on transportation based on the discretion of the Community Development Department.

The proposed project could be considered a community-serving project. There are no other community colleges with a 6- mile radius and only one other within a 10-mile radius. Without the expansion, some students living in Glendora and surrounding communities would need to drive to community colleges in other cities, generating more VMT.

This criterion can potentially be met, based on the discretion of the Community Development Department.

Due to meeting Criterion (a) above, the project can be screened out for VMT analysis.

V. CONCLUSION

Based on the above Trip Generation screening criteria, the Project is presumed to have a less-than-significant impact on VMT, and can therefore be screened out for VMT analysis.

ATTACHMENTS:

A. Site Plan

Rawad Hani PE, TE, PTOE, PTP

Traffic Studies | General Technology Solutions (GTS)

Education

MS, Civil Engineering, Focus Area Transportation Planning and Engineering, American University

Registrations

Civil Engineer in CA, PE #83730

Traffic Engineer in CA, TE #2817

PTOE - Professional Traffic Operations Engineer

PTP - Professional Transportation Planner

RSP1 - Road Safety Professional 1

Professional Summary

Rawad Hani is a traffic engineer and transportation planner with over 20 years of experience. He specializes in traffic engineering, parking analysis, demand modeling, and technology applications. Rawad has managed engineering design projects in the US and internationally where he advised public, private, and institutional clients. His recent experience includes assisting local governments across Southern California with transportation plans, traffic studies, parking management strategies, and signal and street lighting designs. His project experience includes the cities of Hermosa Beach, Irvine, Buena Park, Commerce, Santa Monica, and Glendora among others. Rawad understands the importance of striking the right balance between engineering (mobility and safety) and planning (livability and sustainability) considerations. He has worked on context-sensitive design projects and has helped planning and transportation agencies achieve effective solutions.

Project Experience

Environmental Impact Report (EIR) Transportation Analysis, Glendale Community College District, Glendale, CA

Traffic Engineer. Rawad lead the traffic/transportation analysis for the campus Master Plan which includes three campuses across the City: the Verdugo Campus, the Garfield Campus, and the Montrose Campus. The project includes scoping with the City, parking analysis, and transportation analysis using both VMT Senate Bill 743 (SB 743) and level of service (LOS) methodologies.

City of Moorpark Environmental On-Call, Moorpark, CA

Traffic Engineer. Traffic Impact Studies Peer Review - Conducted a peer review of the TIS for the Everett Street Terraces project in the City of Moorpark

J-90 Energy Storage Vehicle Miles Traveled (VMT) Analysis, Los Angeles, CA

Traffic Engineer. Carried out the VMT analysis for the proposed energy storage facility in Los Angeles County Transport Street Self Storage VMT Analysis, Ventura, CA. Carried out the VMT analysis for the proposed Transport Street Self Storage in the City of Ventura.

Hudson Ranch Mineral Recovery, Imperial County, CA

Traffic Engineer. As part of the Chambers Group team, GTS provided a review of the traffic study submitted by the applicant on behalf of Imperial County. The review advised on VMT considerations that were then incorporated in the environmental document.

VMT Analysis, Rancho Vista Industrial Park, Palmdale, CA

Traffic Engineer. Rawad managed the VMT analysis for the proposed industrial park in the City of Palmdale. The VMT analysis used the Los Angeles County Public Works Traffic Impact Analysis (TIA) Guidelines and the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Travel Demand Model.

VMT Analysis, Seneca Villas, Victorville, CA

Traffic Engineer. Rawad led the VMT analysis for this 310-unit multifamily housing project. The study utilized the City's VMT Analysis Guidelines and the San Bernardino Transportation Analysis Model (SBTAM) model to estimate the VMT per capita and evaluate the project impact for the opening and horizon years.

Government Campus Master Plan, San Bernardino County, CA

Traffic Engineer. Provided parking and traffic circulation analysis for the update campus master plan. The parking component includes access considerations for visitors and employees.

Traffic and Parking Analysis, CSU Dominguez Hills (CSUDH) VMT, Carson, CA

Traffic Engineer. As an on-call traffic engineer, Rawad supports CSUDH on various projects that aim at enhancing campus circulation and accessibility. He carried out VMT analysis to support the feasibility of new on-campus developments, managed a campus-wide parking needs assessment, carried out signal warrants and traffic analysis and advised on various transit and parking projects.

Traffic Analysis, Nature's Medicines, Moreno Valley, CA

Traffic Engineer. Rawad managed this TIA that identified the development's potential traffic-related impacts per the City's Traffic Impact Analysis Preparation Guides. The project was developed in two phases with the second phase consisting of medical offices.

Traffic Analysis, Clean Harbors, Westmoreland, CA

Traffic Engineer. As part of a Supplemental Environmental Impact Report (SEIR), Rawad provided traffic analysis services to the Department of Toxic Substances Control (DTSC) in reviewing the project's application for a renewed Hazardous Waste Management Permit. The analysis focused on vehicle miles travel considerations and the changes from the previous EIR.

Pomona Emergency Shelter Parking, Pomona, CA

Traffic Engineer. Rawad led the lighting design for the emergency shelter parking lot. The design utilized the City's standards and included photometric analysis and electrical designs.

Parking and Traffic Analysis, Notre Dame High School, Los Angeles, CA

Traffic Engineer. Rawad led the traffic and parking analysis for the school's master plan which included a 183-spaces parking structure among other developments and renovations. He carried out the analysis of the City of Los Angeles guidelines and assisted with the planning commission meetings.

EIR Transportation Analysis, Santa Monica-Malibu John Adams Middle School (JAMS), CA

Traffic Engineer. As part of the environmental team, Rawad led the traffic/TIA to identify potential transportation-related impacts associated with the construction activities of the John Adams Middle School auditorium replacement project. The analysis focused on construction traffic and followed the City of Santa Monica guidelines.

APPENDIX E – MITIGATION MONITORING AND REPORTING PLAN

MITIGATION MONITORING AND REPORTING PROGRAM
Citrus College 2020-2030 Educational and Facilities Master Plan
GLENDORA, CALIFORNIA

Prepared for:

Citrus Community College District
1000 W. Foothill Boulevard
Glendora, CA 91741

Prepared by:

CHAMBERS GROUP, INC.
3151 Airway Avenue, Suite F208
Costa Mesa, California 92626
(949) 261-5414

September 2025

MITIGATION MONITORING AND REPORTING PROGRAM

Public Resources Code, Section 21081.6 (Assembly Bill 3180) requires that mitigation measures identified in environmental review documents prepared in accordance with California Environmental Quality Act (CEQA) are implemented after a project is approved. Therefore, this Mitigation Monitoring and Reporting Program (MMRP) has been prepared to ensure compliance with the adopted mitigation measures during the demolition and construction phases of Proposed Project.

The Citrus Community College District is the agency responsible for implementation of the mitigation measures identified in the MND. This MMRP provides the Citrus Community College District with a convenient mechanism for quickly reviewing all the mitigation measures including the ability to focus on select information such as timing. The MMRP includes the following information for each mitigation measure:

- The phase of the project during which the required mitigation measure must be implemented;
- The phase of the project during which the required mitigation measure must be monitored; and
- The enforcement agency.

The MMRP includes a checklist to be used during the mitigation monitoring period. The checklist will verify the name of the monitor, the date of the monitoring activity, and any related remarks for each mitigation measure.

MITIGATION MONITORING AND REPORTING PROGRAM							
Mitigation Measure	Implementation Phase	Monitoring Phase	Enforcement Agency	Level of Significance After Mitigation Less than Significant (LTS)	Verification of Compliance		
					Initial	Date	Remarks
Biological Resources							
BIO-1: The City Forester shall consider whether there is any impact on existing private trees and, if there is, shall recommend project alternatives that encourage the preservation of mature trees. Trees that are removed from private property when done for the purpose of accommodating a project subject to discretionary zoning approval shall require replacement based on the following schedule. Private Trees of any species removed with a DBH of 10 inches or more must be replaced, according to the current size scale set forth by the City Forester. Any Oak Trees removed from private property with a DBH of 8 inches or more would be replaced, according to the current size scale set forth by the City Forester.	Pre-Construction	Construction		LTS			
BIO-2: A nesting bird pre-construction survey will be conducted by a Qualified Biologist and submitted to the District three days prior to demolition and/or vegetation removal activities during nesting bird season (February 15 through August 31) within 250 feet of each of the Project sites for passerines and 500 feet for raptors and/or listed species, where feasible. Should nesting birds be found, an exclusionary buffer will be established by a Qualified Biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer will be clearly marked in the field by construction personnel under guidance of the Qualified Biologist, and construction or clearing will not be conducted within this zone until the Qualified Biologist determines that the young have fledged or the nest is no longer active. Nesting bird habitat within the Project site will be resurveyed during bird breeding season if a lapse in construction activities lasts longer than seven days. A survey must be completed for the Center for Excellence and Major Capital Projects listed in the 2020-2030 EFMP.	Pre-Construction	Construction		LTS			
Cultural Resources							
CUL-1: A qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for architectural history or history review Project plans involving improvements to the Performing Arts building to identify potential impacts on character-defining features of the resource and adherence to the Secretary of the Interior's Standards. Should potential impacts be identified, additional studies may be required.	Pre-Construction	Construction		LTS			
Geology and Soils							

MITIGATION MONITORING AND REPORTING PROGRAM							
Mitigation Measure	Implementation Phase	Monitoring Phase	Enforcement Agency	Level of Significance After Mitigation Less than Significant (LTS)	Verification of Compliance		
					Initial	Date	Remarks
GEO-1: Detailed geotechnical investigations shall be performed prior to the design of each of the Major Capital Projects in the 2020-2030 EFMP and the Center for Excellence. The geotechnical investigations shall include borings and laboratory testing to provide supporting data for geotechnical design recommendations.	Pre-Construction			LTS			
GEO-2: After the completion of grading, additional testing will be performed in order to confirm the preliminary expansion index test results remain valid for each site.	Construction			LTS			
Hazards and Hazardous Materials							
HAZ-1: Prior to the demolition and renovation of the buildings identified in the 2020-2030 EFMP, including the Center for Excellence, a Hazardous Materials Building Survey shall be prepared for each building. The Hazardous Materials Building Survey shall include identification of suspect asbestos containing building materials, lead-containing building materials, loose & peeling lead containing paint, mercury light tubes, mercury thermostat switches, and polychlorinated biphenyl (PCB)-light ballasts, and PCB-containing building materials that may be impacted during the demolition of the five buildings. If the inspection confirms the presence of asbestos-contain materials (ACMs) or other hazardous building materials in any of the building, the hazardous materials shall be removed from these buildings prior to demolition and be transported in compliance with State and Federal requirements.	Pre-Construction	Pre-Construction		LTS			
HAZ-2: Prior to the initiation of grading and excavation activities, a Phase I ESA Report for the subject property shall be prepared in accordance with the American Society for Testing and Materials Standard Practice for ESAs: Phase I Site Assessment Process E 1527-13 and the United States Environmental Protection Agency (USEPA) 40 Code of Federal Regulations (CFR) Part 312 Standards and Practices for All Appropriate Inquiries (AAI) – Final Rule adopted November 1, 2006, and amended December 30, 2013.	Pre-Construction			LTS			
Tribal Cultural Resources							

MITIGATION MONITORING AND REPORTING PROGRAM							
Mitigation Measure	Implementation Phase	Monitoring Phase	Enforcement Agency	Level of Significance After Mitigation Less than Significant (LTS)	Verification of Compliance		
					Initial	Date	Remarks
TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities A. The lead agency (Citrus Community College District) shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of "ground-disturbing activity" for the Proposed Project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include heavy grading, excavation and trenching associated with Proposed Project building work. B. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the commencement of ground-disturbing activity. C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the lead agency by the Tribe. D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the lead agency that ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.	Pre-Construction	Construction					

MITIGATION MONITORING AND REPORTING PROGRAM							
Mitigation Measure	Implementation Phase	Monitoring Phase	Enforcement Agency	Level of Significance After Mitigation Less than Significant (LTS)	Verification of Compliance		
					Initial	Date	Remarks
TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial) A. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and the Kizh monitor and/or Kizh archaeologist will be included in the consultation on the recommended procedure/process to move forward. While adhering to the Project CPM baseline schedule, the Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.	Construction	Construction					
TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute. B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed. C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2). D. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods. E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.	Construction	Construction					

APPENDIX F – LEVEL OF SERVICE ANALYSIS (NEW)

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11900 W Olympic Blvd #450, Los Angeles, CA 90064
GTS | General Technologies and Solutions

LEVEL OF SERVICE ANALYSIS

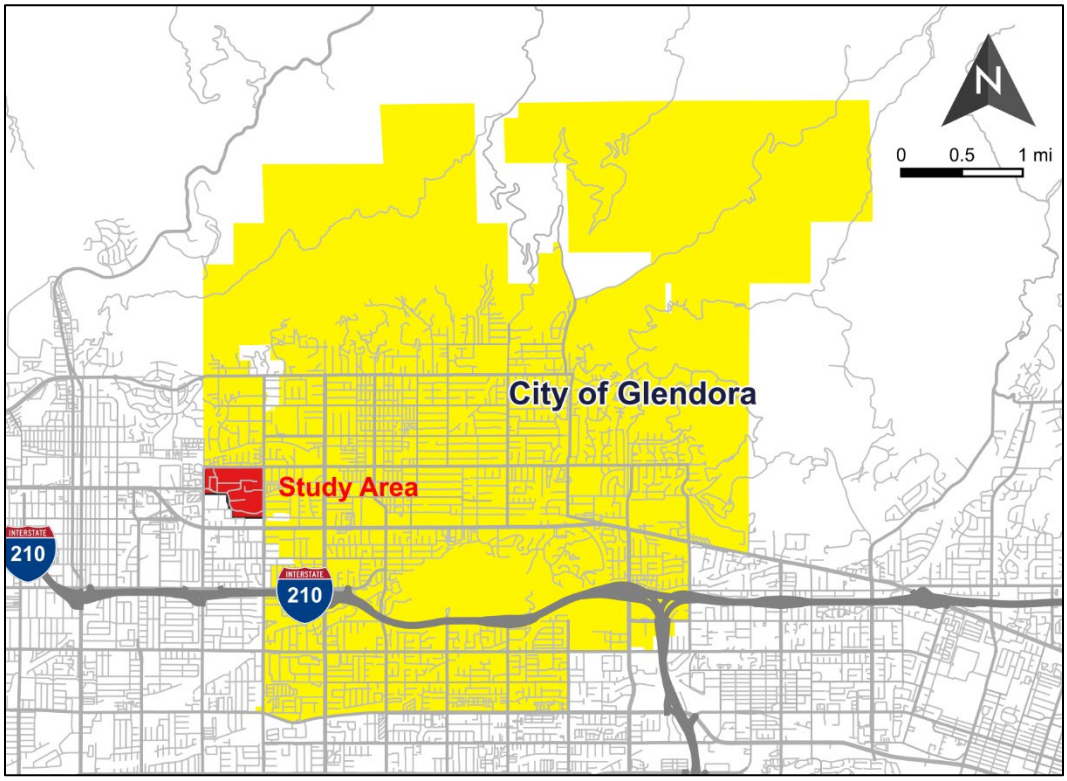
Date:	August 12, 2025	**GTS**	250514
To:	Citrus College		
From	GTS		
Cc:	Chambers Group		
Subjct:	Level of Service nalysis – Citrus College		

Citrus College, located in the City of Glendora, CA, proposes to construct seven (7) new buildings on the campus. Based on enrollment projections, the project is expected to result in an additional 162 students attending Citrus College. The location within the City of Glendora is shown in Exhibit 1.

GTS conducted a Level of Service Analysis (LOS) to evaluate the impacts of the proposed project on traffic. This Memorandum contains the following sections:

1. Description of the proposed project
2. Description of the existing roadway network
3. Existing traffic volumes
4. Traffic safety analysis
5. Description of non-motorized facilities in the study area
6. Description of transit services in the study area
7. Estimates of project trip generation
8. Estimates of project trip distribution and assignment
9. Analysis of traffic volumes and operations impact
10. Analysis of non-motorized impact
11. Analysis of transit impact
12. Site access analysis
13. Discussion of mitigation measures

Exhibit 1. Study area location



1. Project Description

Citrus College, located in the City of Glendora, CA, proposes constructing seven (7) new buildings on the campus, described as follows:

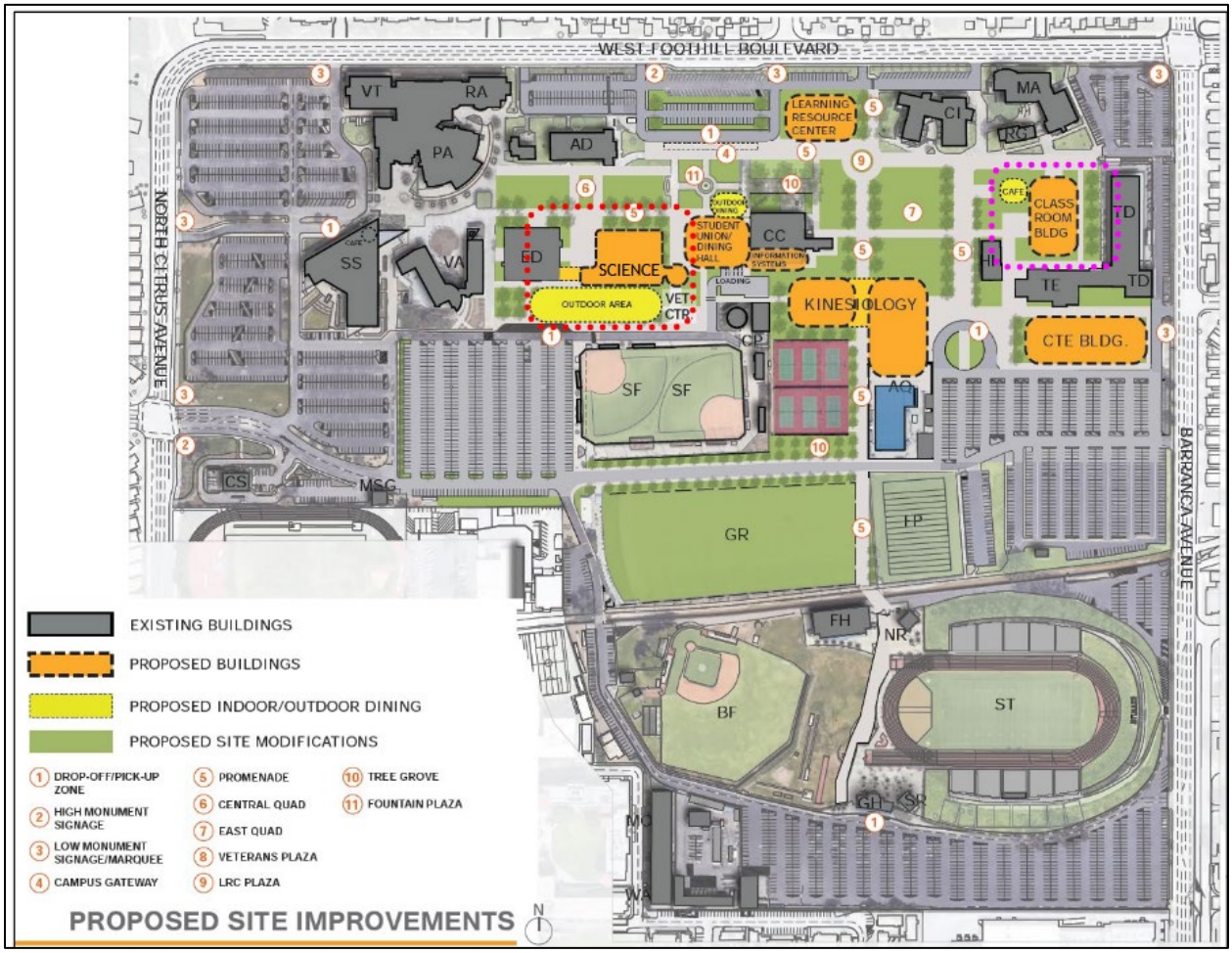
1) Science and Veterans Success Center
2) Career Technical Education Building (CTE)
3) Classroom and Information Services Building
4) Center for Excellence
5) Student Union/Dining Hall
6) Library/Learning Resource Center
7) Kinesiology Building

Additional construction may include solar photovoltaic parking canopies associated with the construction of the new buildings.

The locations of the proposed buildings are shown in Exhibit 2.

Students and staff visiting the proposed new buildings will utilize existing parking facilities. No parking expansion is planned as part of this project.

Exhibit 2. Citrus College proposed site improvements.
Source: Citrus College (https://files.citruscollege.edu/general/reportsplans/efmasterplanupdate24ada.pdf)



2. Existing Roadway Network

Citrus College is bordered by the following major roads:

- **Foothill Blvd** runs along the north side of the campus. Foothill Blvd has four travel lanes (two westbound and two eastbound) plus a two-way left turn lane. There are sidewalks on both sides. The speed limit is 35 mph.
- **Barranca Ave** runs along the east side of the campus. Barranca Ave has four travel lanes (two northbound and two southbound) plus a two-way left turn lane. There are sidewalks on both sides. The speed limit is 40 mph.
- **Citrus Ave** runs along the west side of the campus. Citrus Ave has four travel lanes (two northbound and two southbound) plus a two-way left turn lane and pocket left and right turn lanes at various intersections. There are sidewalks on both sides. The speed limit is 35 mph.

- The south side of the campus is partly bordered by **Shire Way, Trinity Lane,** and **Campus Drive**, which are local streets.
- **Historic Route 66 (Alosta Ave)** is a nearby major arterial running east-west along the south edge of Azusa Pacific University, a campus that is adjacent to Citrus College. Route 66 has four travel lanes (two westbound and two eastbound) separated by intermittent landscaped medians and two-way left turn lanes, plus pocket left and right turn lanes at various intersections. There are sidewalks on both sides. The speed limit is 40 mph.

This study includes the following study intersections:

1. **Barranca Ave & W Foothill Blvd** is a signalized four-way intersection. There are dedicated left-turn lanes on all four approaches with protected left-turn signals. There are striped, yellow crosswalks on all four legs with pedestrian crossing signals.
2. **N Citrus Ave & W Foothill Blvd** is a signalized T-intersection. There is a dedicated left turn lane on the northbound Citrus Ave approach. There are striped crosswalks on the north and east legs with pedestrian crossing signals.
3. **N Citrus Ave & E Foothill Blvd/Campus Dr** is a signalized four-way intersection. There are dedicated left-turn lanes on all four approaches with protected left-turn signals. There are dedicated right turn lanes on the northbound, eastbound, and westbound approaches. There are striped crosswalks on all four legs with pedestrian crossing signals.
4. **N Citrus Ave & University Dr** is a signalized T-intersection. There is a dedicated left-turn lane on the southbound Citrus Ave approach. There are striped crosswalks on the south and east legs with pedestrian crossing signals.
5. **Historic Rte 66 & N Citrus Ave** is a signalized four-way intersection. There are dedicated left-turn lanes on all four approaches with protected left-turn signals. There are dedicated right-turn lanes on the eastbound and westbound approaches. There are yellow striped crosswalks on all four legs with pedestrian crossing signals.
6. **Historic Rte 66 & Barranca Ave** is a signalized four-way intersection. There are dedicated left-turn lanes on all four approaches with protected left-turn signals on the eastbound and westbound approaches, and protected+permitted left-turn signals on the northbound and southbound approaches. There are dedicated right-turn lanes on the eastbound and westbound approaches. There are striped crosswalks on all four legs with pedestrian crossing signals.

There are no dedicated bicycle lanes or paths in the study area. The roads surrounding the Citrus College campus are served by Foothill Transit and City of Glendora shuttle services, and the Metro A Line APU/Citrus College station is about 500 feet from the northwest corner of the campus.

3. Existing Traffic Volumes

Existing weekday AM and PM peak period traffic volumes were collected at the study intersections listed below. The locations of the study intersections are shown in Exhibit 3.

1. Barranca Ave & W Foothill Blvd
2. N Citrus Ave & W Foothill Blvd
3. N Citrus Ave & E Foothill Blvd/Campus Dr
4. N Citrus Ave & University Dr
5. Historic Rte 66 & N Citrus Ave
6. Historic Rte 66 & Barranca Ave

The counts were collected on Thursday June 5, 2025, a typical weekday of a non-holiday week while the College and local K-12 schools were in session. The existing volumes are shown in Exhibit 4 and Exhibit 5. The raw traffic count data are provided as an attachment to this memo.

Exhibit 3. Study intersection locations

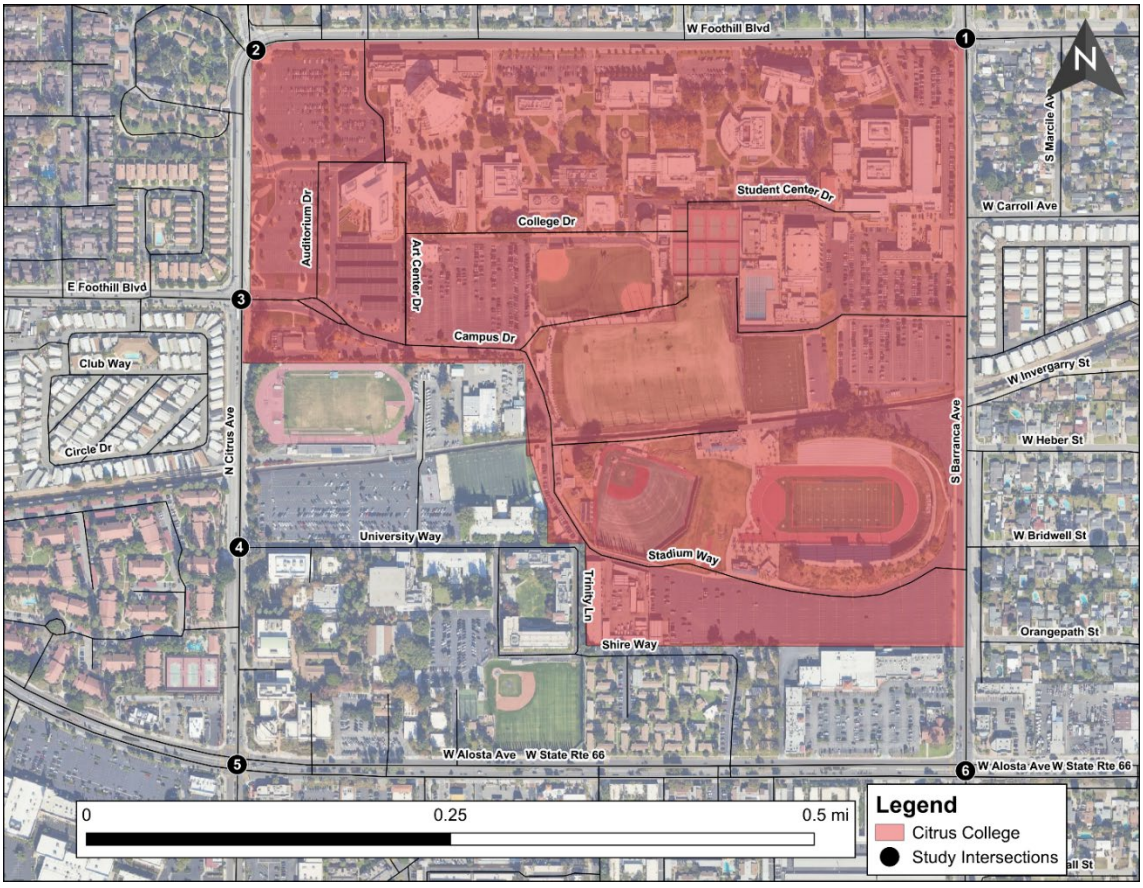


Exhibit 4. Existing peak hour traffic volumes (TMC 1-4)

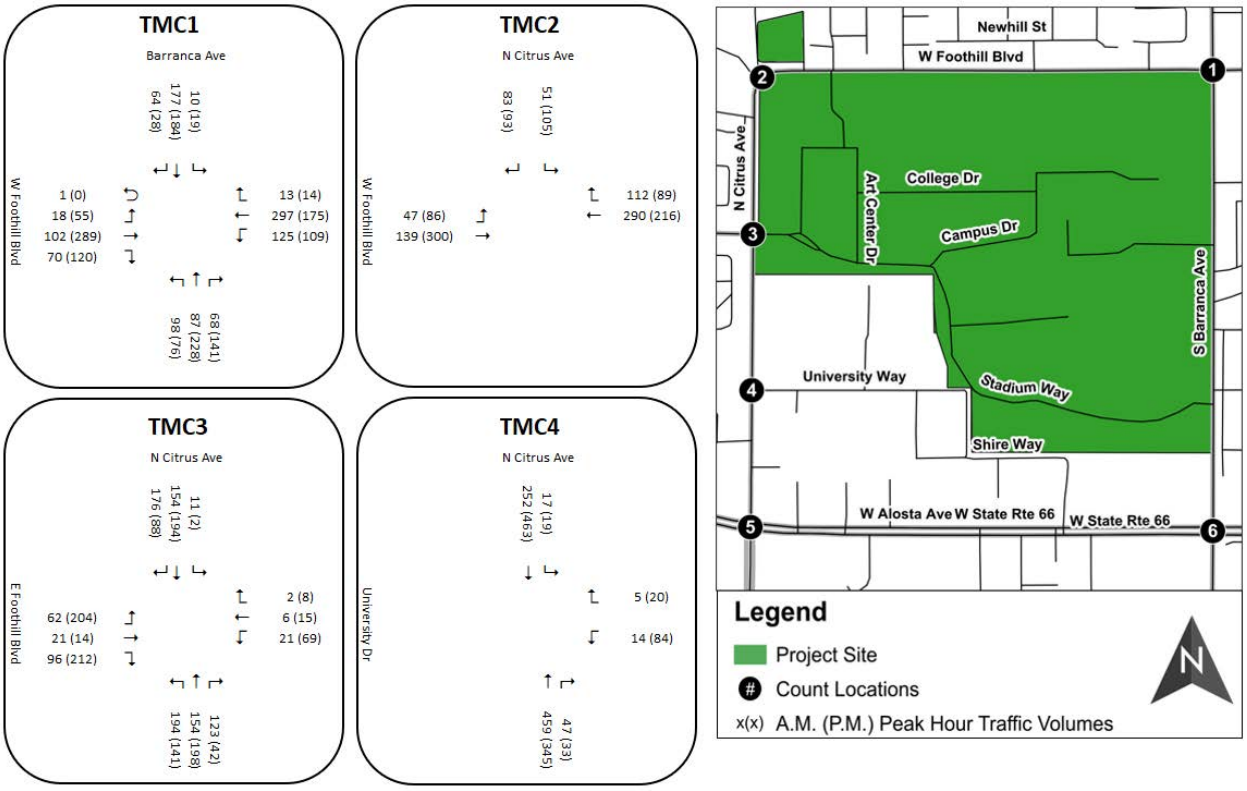
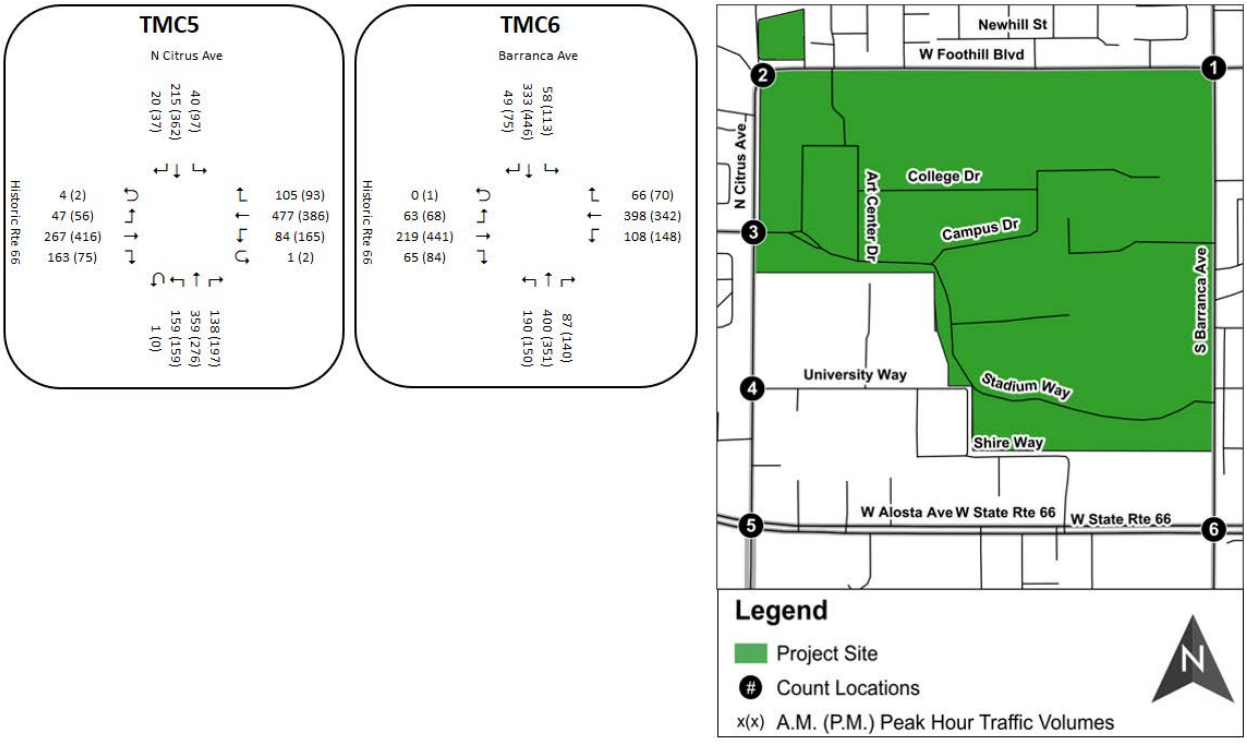


Exhibit 5. Existing peak hour traffic volumes (TMC 5-6)

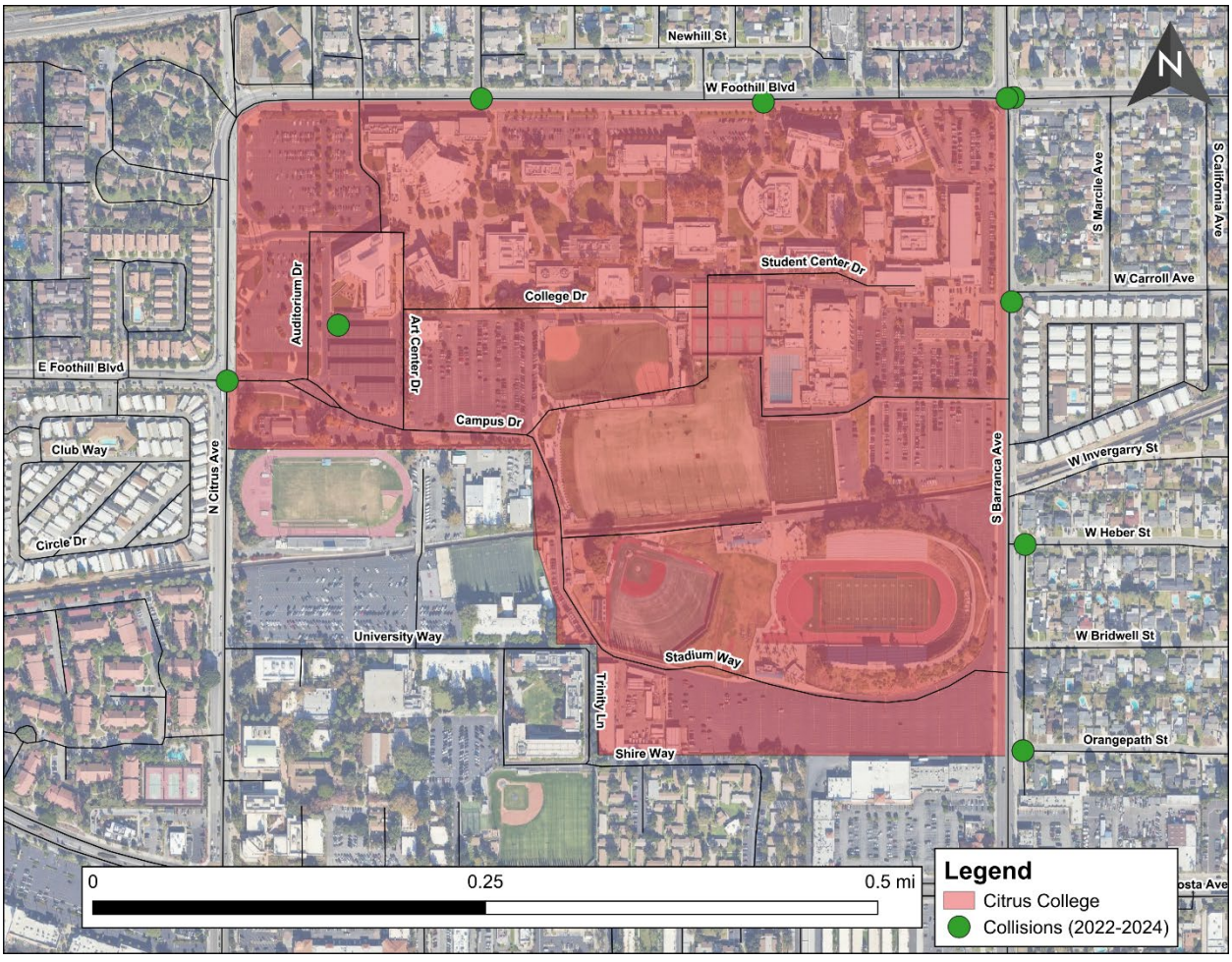


4. Traffic Safety Analysis

GTS conducted an analysis of collisions within and directly along the perimeter of the campus over a 3-year period (January 1, 2022 through December 31, 2024). Collision data for the analysis was collected from the California Crash Reporting System and from the City of Glendora. According to the available data, there were 10 collisions during that timeframe in and directly surrounding the campus. One collision, which occurred at Foothill Blvd and Citrus Ave, involved pedestrians. Four collisions occurred in 2022, zero in 2023, and six in 2024.Eight occurred on weekdays (with three on Wednesdays) and two on weekends. Exhibit 6 shows the locations of collisions occurring within the study area during the three-year analysis period. Except for two collisions at the Barranca Ave / Foothill Blvd intersection, no location had more than one collision. In addition, only one collision was reported as having occurred within the campus itself. Six collisions were rear end collisions, with others being broadside, sideswipe, and hit object.

Six collisions resulted in property damage only, three resulted in complaint of pain injuries, and one resulted in other visible injuries. The primary contributing factors (PCF) for four collisions was Unsafe Speed, and one each was due to Unsafe Starting or Backing, Automobile Right of Way Violation, and Pedestrian Right of Way Violation. The data for the remaining two collisions did not specify any primary collision factors. Out of the eight collisions with lighting data, five occurred in daylight, one during dusk/dawn, one dark with streetlights, and one dark without streetlights.

Exhibit 6. Collisions within and directly surrounding Citrus College (2022-2024).



5. Non-Motorized Facilities

The Citrus College campus has a network of pedestrian pathways which connect to the locations of the proposed new buildings and connect to the existing parking facilities that will be used by people accessing the proposed buildings. The campus pedestrian pathway network also connects to the sidewalks on the surrounding roads, providing access to the transit stops that serve the campus. Signalized crosswalks are available at key pedestrian crossing points, most importantly the connection to the Metro A Line (for which pedestrians need to cross Foothill Blvd) and the bus stops around the intersection of Barranca Ave and Foothill Blvd.

Sidewalks are present on both sides of the major roads that surround the campus (Barranca Ave, Foothill Blvd, and Citrus Ave). The sidewalks are of varying width, but are generally at least 6 feet wide. Most of the sidewalks do not have buffer zones between pedestrians and the roadway. In some locations, sign posts partially block the clear zone of the sidewalk.

Pedestrian crosswalks and push-button crossing signals are present at the study intersections, as described above. The paint of some crosswalks has deteriorated, reducing their prominence.

According to Glendora Community Plan 2025 (Chapter 3), there are no existing bikeways in the vicinity of Citrus College campus.

6. Transit Services

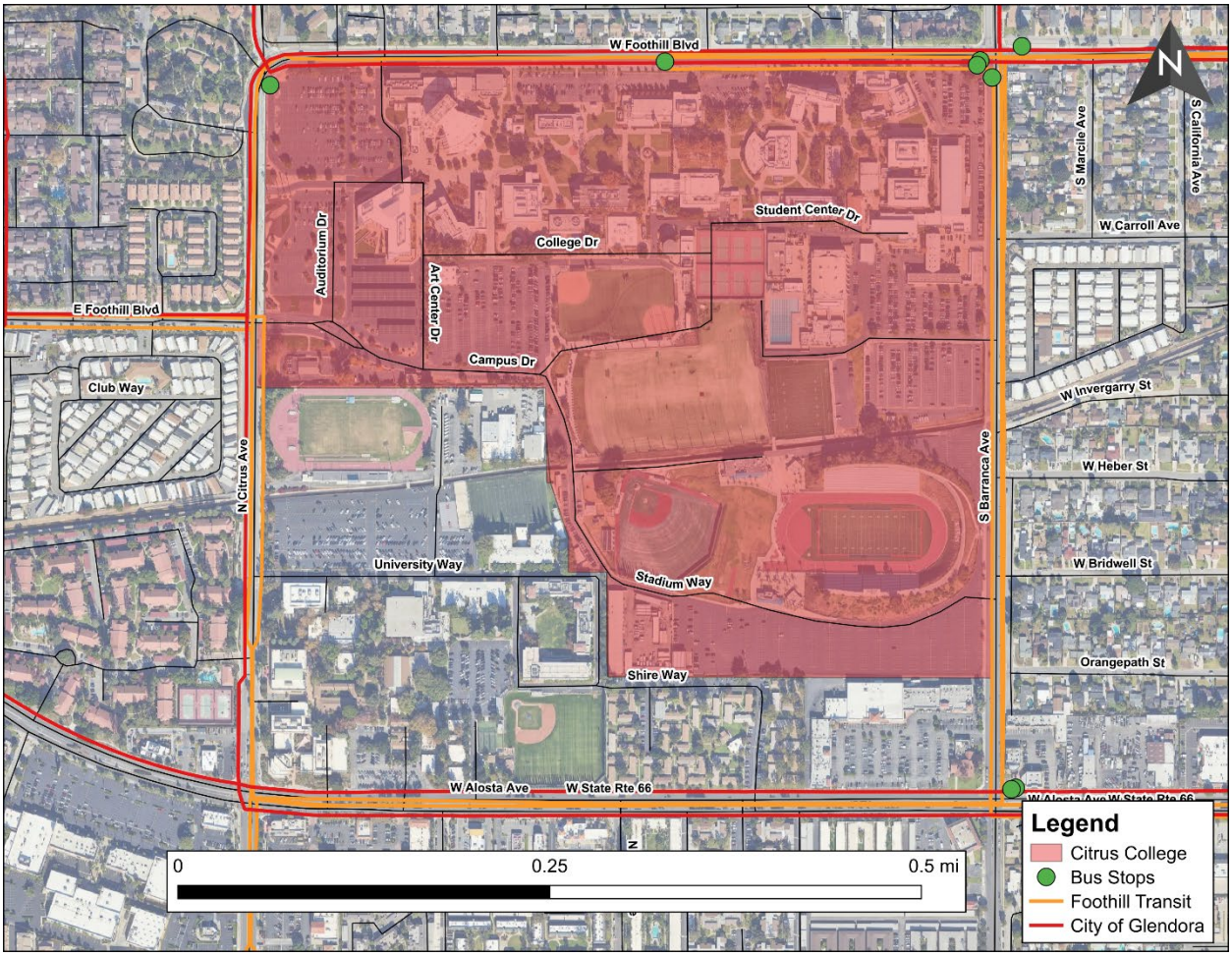
The following transit services operate in the vicinity of Citrus College (see Exhibit 7):

The City of Glendora shuttle service provides access from/to Citrus College, with the Gold Line Commuter Shuttle running along W Foothill Blvd, N Citrus Ave, and Historic Route 66 with service from around 5:00 AM to 8:00 PM on weekdays, running every 20 – 30 minutes during peak hours. In addition, the Morning Pilot Route runs along Barranca Ave, making 3 daily runs in the AM peak hour. (Website: https://www.cityofglendora.gov/Services/Transportation/Transit-Services)

Foothill Transit Bus Lines provide connections across Glendora and neighboring cities via Route 188, 281, 284, and 488. Stops are available at W Foothill Blvd, N Citrus Ave, and Historic Rte 66. Buses run from around 5:00 AM to 7 PM on weekdays, running every 30 – 60 minutes during peak hours. (Website: https://www.foothilltransit.org/routes/map)

Metro Rail (A Line) provides rail access to Downtown Los Angeles and other areas. The APU/Citrus College station is located approximately 500 feet from the northwest corner of the Citrus College campus. Trains run from around 5:00 AM to 2:00 AM, 10 minutes apart during peak hours. (Website: https://www.metro.net/riding/schedules-2/)

Exhibit 7. Transit map



7. Project Trip Generation

For the sake of completeness, the project trip generation has been calculated using two different approaches for the analysis:

1) Exhibit 8 shows the project's trip generation calculated according to the latest version of the Institute of Transportation Engineers (ITE) Trip Generation Manual. By this calculation, the project is expected to generate 186 daily trips, which includes 18 new AM peak hour trips (15 inbound and 3 outbound) and 18 PM peak hour trips (10 inbound and 8 outbound).
2) Exhibit 9 shows the project's trip generation calculated based on observed traffic volumes. The number of vehicles entering the campus was counted on a typical weekday, with classes in session, in June 2025. Trip rates per student were then calculated based on the May 2025 full-time equivalent (FTE) enrollment (9,625 students). By this calculation, the project is expected to generate 176 daily trips, which includes 14 new AM peak hour trips (11 inbound and 3 outbound) and 15 PM peak hour trips (8 inbound and 7 outbound).

Exhibit 8. Project Trip Generation based on ITE methodology

				AM Peak Hour			PM Peak Hour		
Land Use	**Quantity**	**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
Community College[1]	162	Students	**1.15**	0.09	0.02	**0.11**	0.06	0.05	**0.11**
Project Trip Generation									
Community College[1]	162	Students	**186**	**15**	**3**	**18**	**10**	**8**	**18**
Project Trip Generation			**186**	**15**	**3**	**18**	**10**	**8**	**18**

[1] Institute of Transportation Engineers (ITE), *Trip Generation*, 11th Edition, 2021, Land Use 540 - Junior/Community College

Exhibit 9. Project Trip Generation based on the Citrus College Trip Generation Counts

				AM Peak Hour of Adjacent Streets			PM Peak Hour of Adjacent Streets		
Land Use	**Quantity**	**Units**	**Daily**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Trip Rates									
Community College[1]	162	Students	**1.09**	0.066	0.019	**0.085**	0.051	0.040	**0.090**
Project Trip Generation									
Community College[1]	162	Students	**176**	**11**	**3**	**14**	**8**	**7**	**15**
Project Trip Generation			**176**	**11**	**3**	**14**	**8**	**7**	**15**

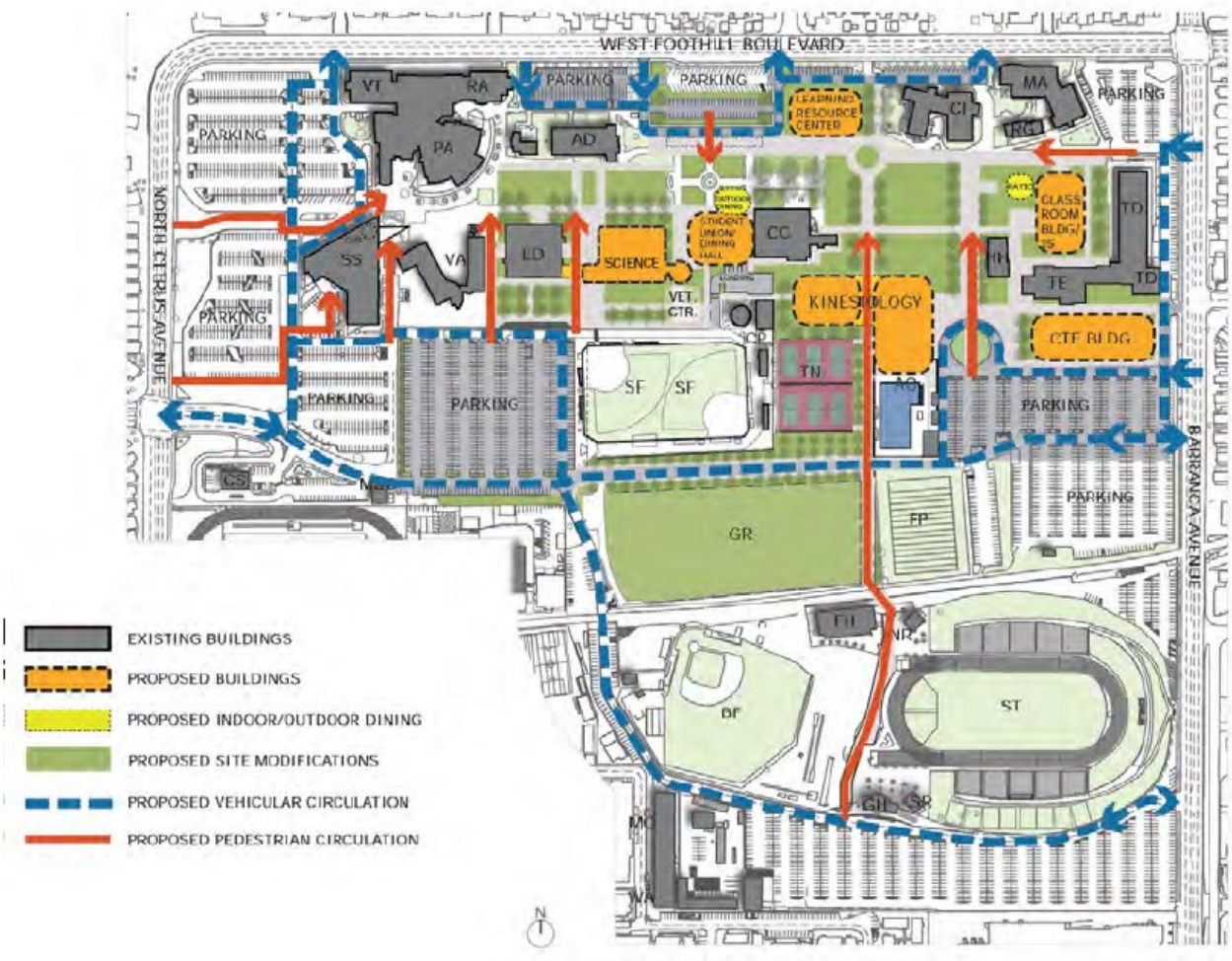
[1] Rates from traffic counts carried out in June 2025.

8. Project Trip Distribution and Assignment

Currently, vehicles enter and exit the campus via W Foothill Blvd, N Citrus Ave, and Barranca Ave via driveways that provide access to campus buildings.

The project will not change traffic patterns and all current directional entry and exit points will remain the same across campus. Exhibit 10 shows the site circulation plan.

Exhibit 10. Site circulation plan



Source: Citrus College 2020-2030 Educational and Facilities Master Plan Initial Study, Chambers Group, 2024

The distribution of trips generated by the college onto surrounding streets, shown in Exhibit 11, was determined based on existing circulation patterns.

The project generated traffic volumes were assigned through the network as shown in Exhibit 12 and Exhibit 13.

Exhibit 11. Trip distribution

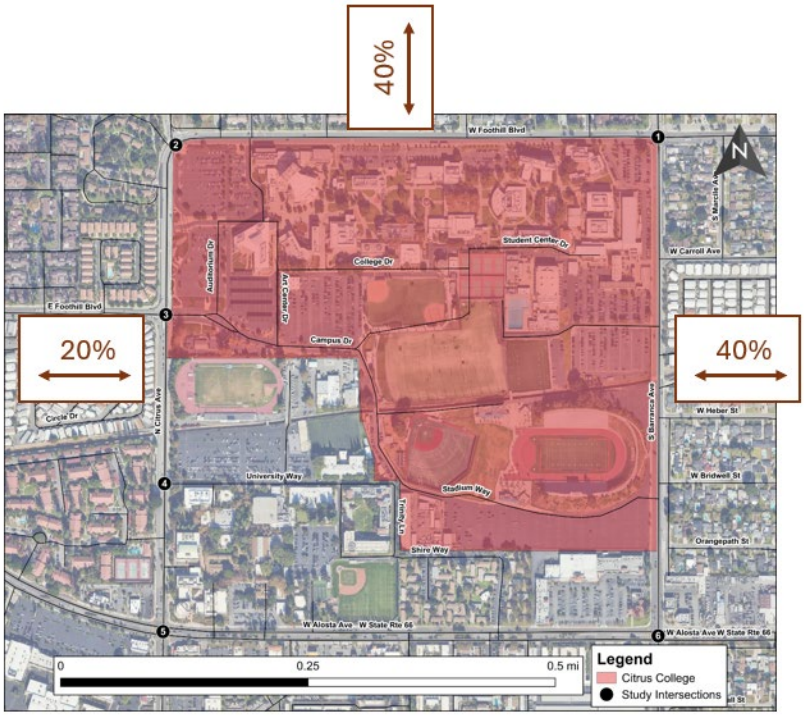


Exhibit 12. Project trips (TMC1-4)

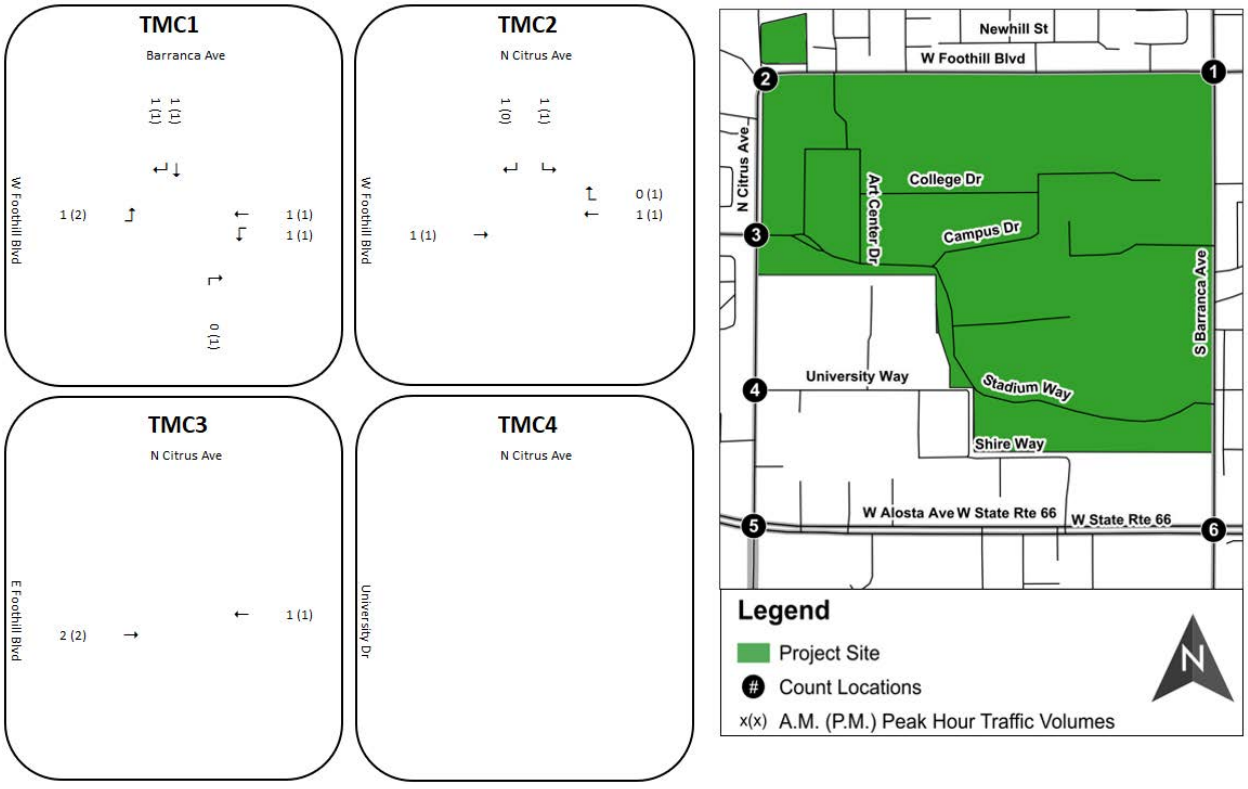


Exhibit 13. Project trips (TMC5-6)



9. Traffic Volumes and Operations Impact

Future without-project AM and PM peak hour traffic volumes are estimated at the study intersections based on an annual growth rate. The growth rate is based on the TAZ-level growth projection household data provided in the *2024–2050 Regional Transportation Plan/Sustainable Communities Strategy* for the City of Glendora and it is found to be 0.34%. Future with-project traffic volumes are calculated by adding the project trips to the projected traffic volumes. The levels of service of the study intersections were determined – based on the *Highway Capacity Manual* 7th Edition – for the following scenarios according to the scoping agreement:

- Existing
- Horizon year (2040)
- Horizon year (2040) Plus Project

Existing intersection level of service

The study intersection levels of service for existing conditions are shown in Exhibit 14. Detailed level of service worksheets are provided as an attachment to this memo.

As shown in Exhibit 14, the study intersections currently operate within acceptable levels of service.

Exhibit 14. Existing conditions peak hours levels of service

Intersection	Control Type	AM Peak		PM Peak	
		Delay	LOS	Delay	LOS
1. W Foothill Blvd & Barranca Ave	Signalized	30.8	C	26.1	C
2. N Citrus Ave & W Foothill Blvd	Signalized	9.9	A	9.7	A
3. N Citrus Ave & E Foothill Blvd	Signalized	22.9	C	27.8	C
4. N Citrus Ave & University Dr	Signalized	15.9	B	13.1	B
5. Historic Rte 66 & N Citrus Ave	Signalized	34.0	C	33.1	C
6. Historic Rte 66 & Barranca Ave	Signalized	21.5	C	28.1	C

Delay is reported in seconds per vehicle
LOS = Level of Service

Horizon year (2040) intersection level of service

Existing peak hour traffic volumes were projected to the horizon year (2040) using an annual growth rate of 0.34%. Horizon year (2040) peak hour traffic volumes are shown in Exhibit 15 and Exhibit 16.

Exhibit 15. Horizon year (2040) traffic PH volumes (TMC 1-4)

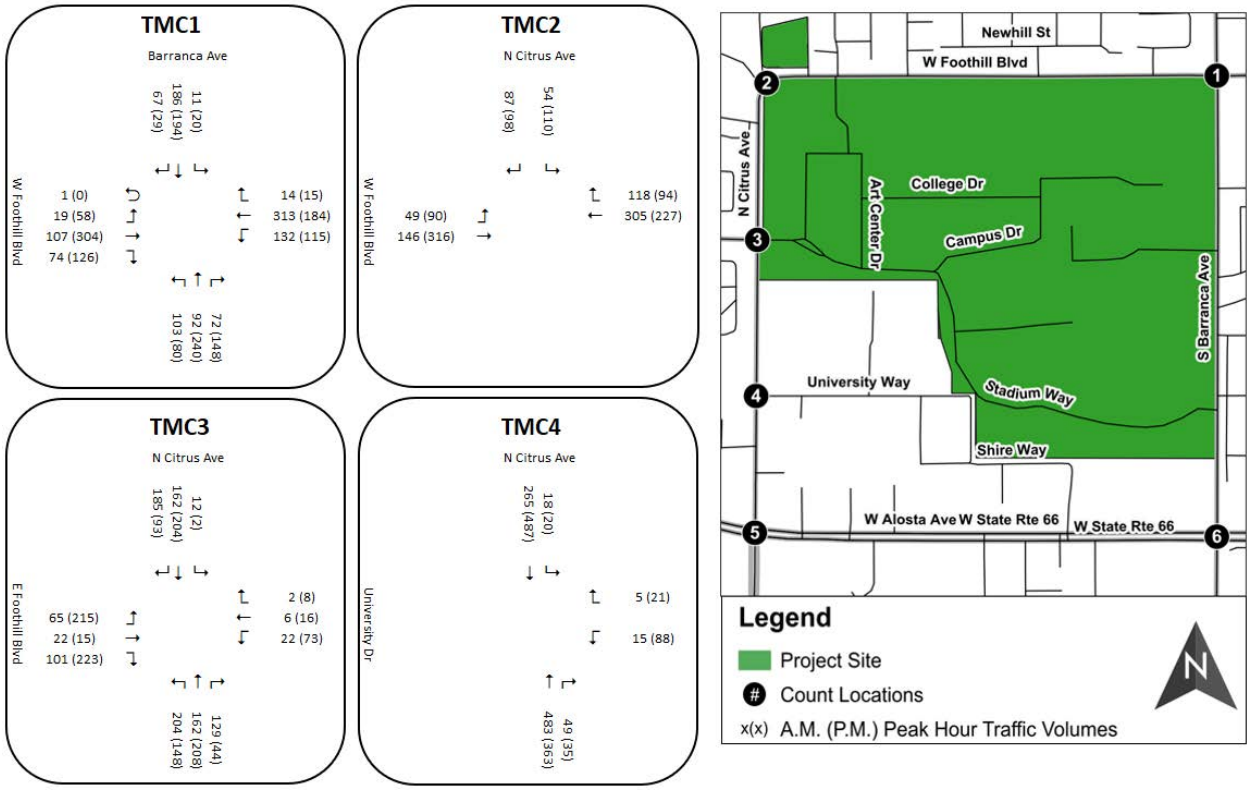
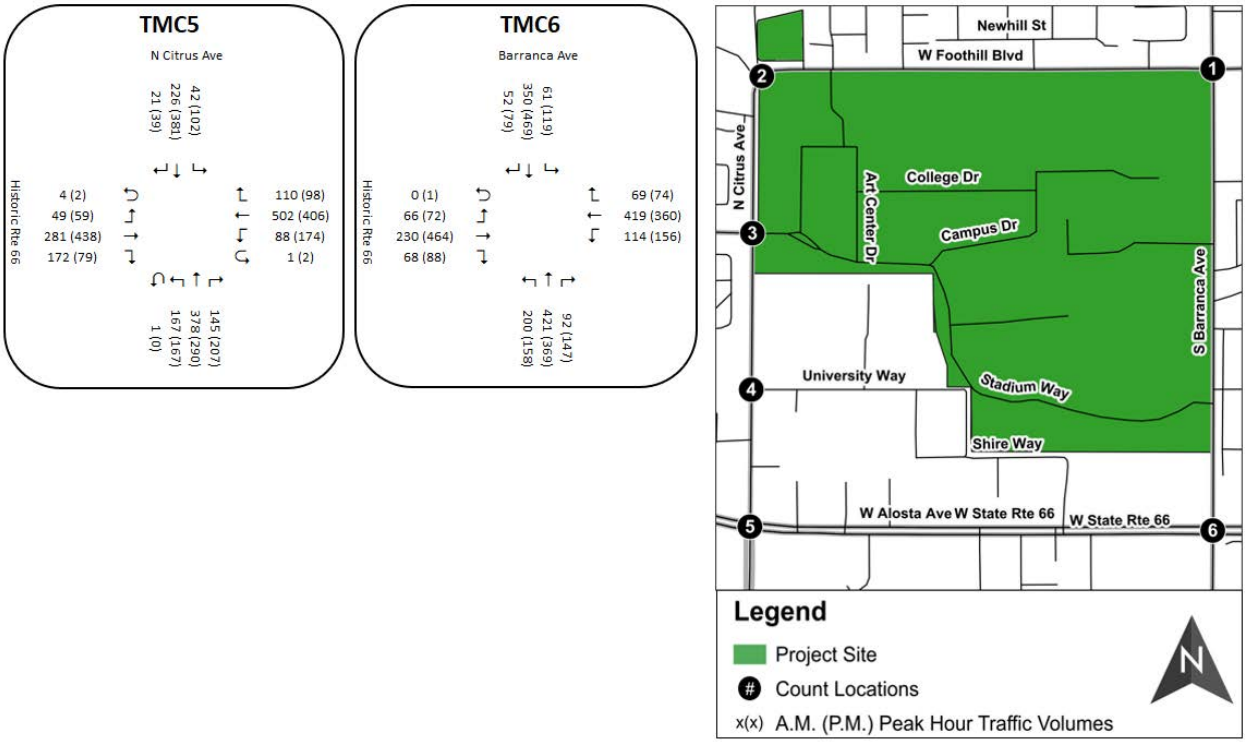


Exhibit 16. Horizon year (2040) traffic PH volumes (TMC 5-6)



The study intersection levels of service for the horizon year (2040) conditions are shown in Exhibit 17. Detailed level of service worksheets are provided as an attachment to this memo.

As shown in Exhibit 17, the study intersections are projected to operate within acceptable levels of service.

Exhibit 17. Horizon year (2040) conditions peak hours levels of service

		AM Peak		PM Peak	
Intersection	**Control Type**	**Delay**	**LOS**	**Delay**	**LOS**
1. W Foothill Blvd & Barranca Ave	Signalized	32.7	C	27.5	C
2. N Citrus Ave & W Foothill Blvd	Signalized	10.0	B	9.8	A
3. N Citrus Ave & E Foothill Blvd	Signalized	24.6	C	28.3	C
4. N Citrus Ave & University Dr	Signalized	16.2	B	13.2	B
5. Historic Rte 66 & N Citrus Ave	Signalized	36.1	D	35.1	D
6. Historic Rte 66 & Barranca Ave	Signalized	22.4	C	29.8	C

Delay is reported in seconds per vehicle
LOS = Level of Service

Horizon year (2040) with project conditions intersection level of service

Project trips (shown in Exhibit 12 and Exhibit 13) are added to the projected traffic volumes in the horizon year (shown in Exhibit 15 and Exhibit 16). Horizon year (2040) with project peak hour traffic volumes are shown in Exhibit 18 and Exhibit 19.

The study intersection levels of service for the horizon year (2040) with project conditions are shown in Exhibit 20. Detailed level of service worksheets are provided as an attachment to this memo.

As shown in Exhibit 20, the study intersections are projected to operate within acceptable levels of service.

Exhibit 18. Horizon year (2040) with project traffic PH volumes (TMC 1-4)

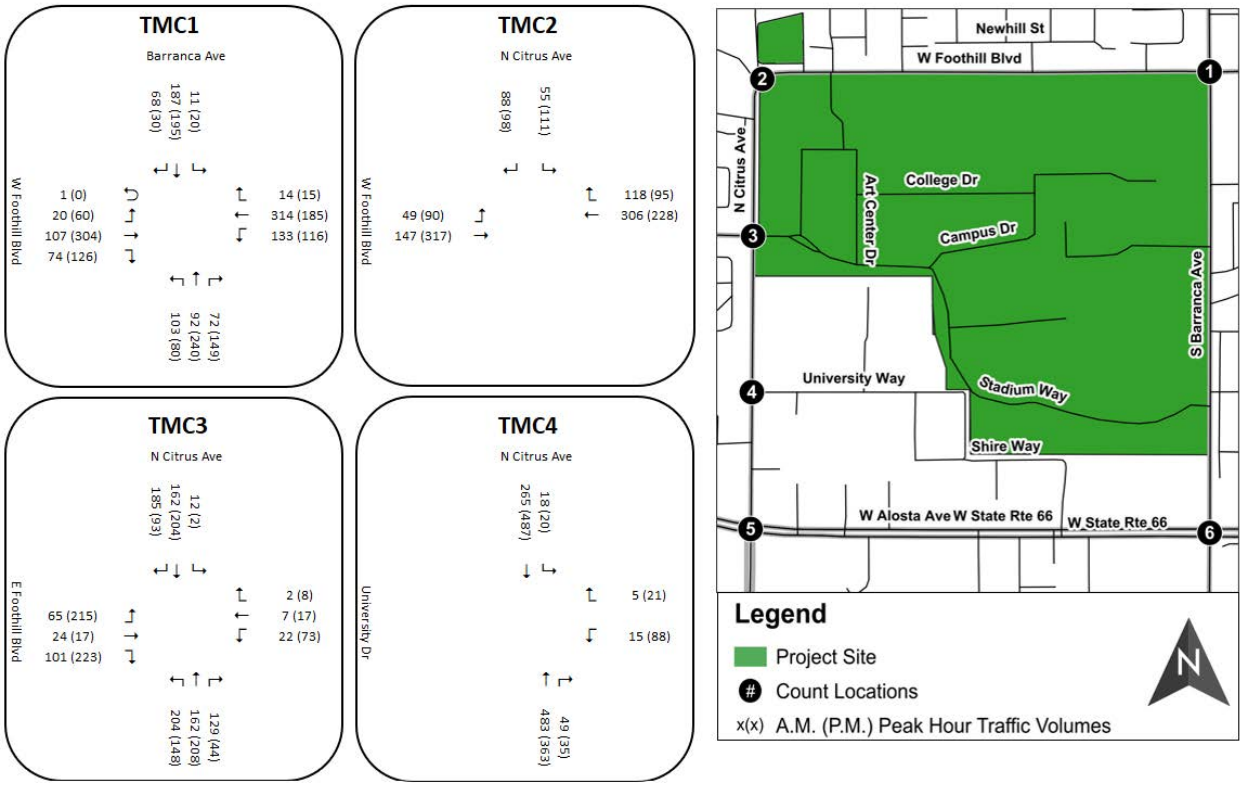


Exhibit 19. Horizon year (2040) with project traffic PH volumes (TMC 5-6)

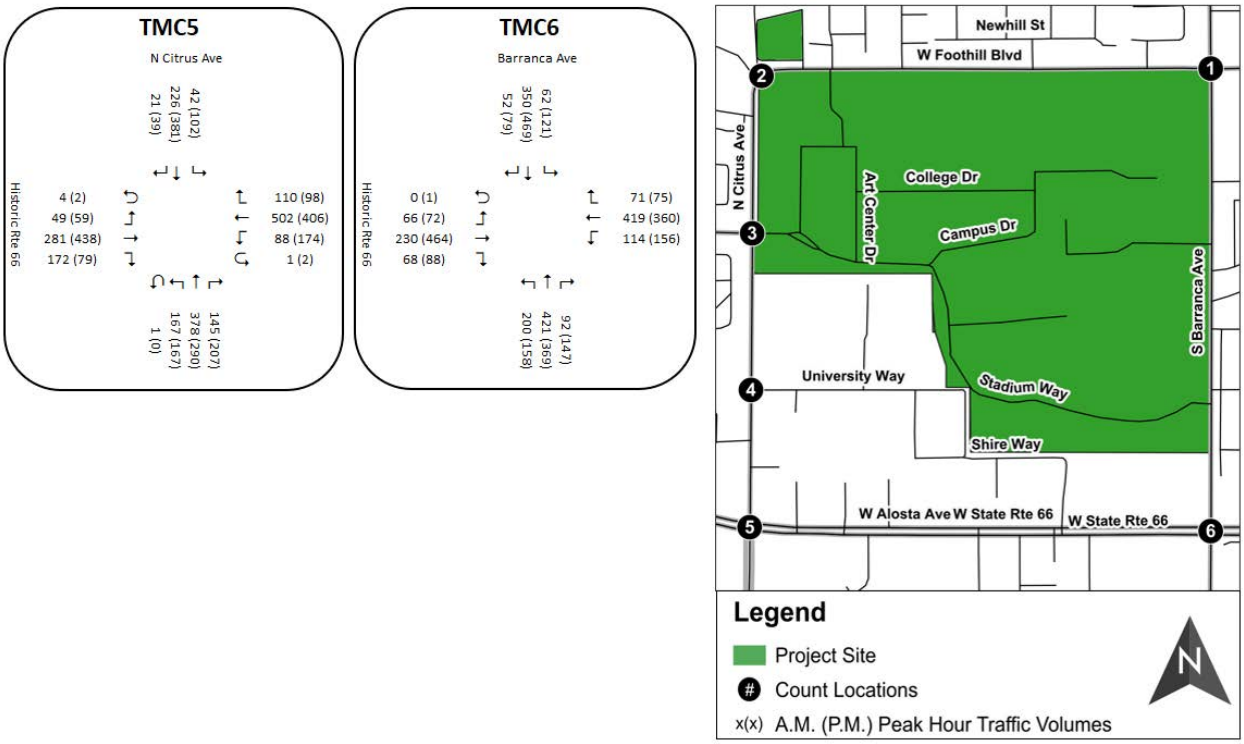


Exhibit 20. Horizon year (2040) with project conditions peak hours levels of service

		AM Peak		PM Peak	
Intersection	**Control Type**	**Delay**	**LOS**	**Delay**	**LOS**
1. W Foothill Blvd & Barranca Ave	Signalized	33.0	C	27.7	C
2. N Citrus Ave & W Foothill Blvd	Signalized	10.0	B	9.8	A
3. N Citrus Ave & E Foothill Blvd	Signalized	24.6	C	28.3	C
4. N Citrus Ave & University Dr	Signalized	16.2	B	13.2	B
5. Historic Rte 66 & N Citrus Ave	Signalized	36.1	D	35.1	D
6. Historic Rte 66 & Barranca Ave	Signalized	22.4	C	29.8	C

Delay is reported in seconds per vehicle
LOS = Level of Service

10. Non-Motorized Impact

The project is not expected to have any significant impact on non-motorized traffic.

11. Transit Impact

The project is not expected to have any significant impact on existing or future transit facilities and/or service.

12. Site Access

The proposed new buildings are not expected to require any changes in traffic operations, turn lane requirements, or traffic signal warrants. Vehicular access is provided via the campus entry/exit driveways leading to the parking lots. The new buildings will be accessed via campus walkways, which connect to the campus parking lots and to the sidewalks on the surrounding roads. An overview of site access and circulation is shown in Exhibit 10.

13. Mitigation Measures

Since the study intersections are found to operate within acceptable LOS under all scenarios, and no expected impact on non-motorized traffic or transit services, no mitigation measures are proposed for the project.

Attachments

- **Traffic Count Data**
- **Level of Service Worksheets**

INTERSECTION TURNING MOVEMENT COUNTS

T012524

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jun 5, 25

LOCATION: Glendora
NORTH & SOUTH: Barranca Ave
EAST & WEST: W Foothill Blvd

PROJECT #: SC5451
LOCATION #: 1
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Barranca Ave			SOUTHBOUND Barranca Ave			EASTBOUND W Foothill Blvd			WESTBOUND W Foothill Blvd			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 0	TOTAL
AM	7:00 AM	14	14	16	1	30	18	4	20	3	18	58	3	199
	7:15 AM	21	17	15	4	35	15	2	25	16	37	91	3	281
	7:30 AM	24	20	8	2	46	12	3	21	10	39	76	3	264
	7:45 AM	23	21	29	2	46	17	7	32	27	22	71	2	299
	8:00 AM	30	29	16	2	50	20	6	24	17	27	59	5	285
	8:15 AM	24	26	14	1	55	7	7	34	20	23	60	1	272
	8:30 AM	20	31	23	3	41	11	4	29	15	22	39	5	243
	8:45 AM	16	30	31	6	44	13	9	39	21	28	46	2	285
	VOLUMES	172	188	152	21	347	113	42	224	129	216	500	24	2,129
	APPROACH %	34%	37%	30%	4%	72%	23%	11%	57%	33%	29%	68%	3%	
	APP/DEPART	512	/	254	481	/	692	396	/	397	740	/	786	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	98	87	68	10	177	64	18	102	70	125	297	13	1,130
	APPROACH %	39%	34%	27%	4%	71%	25%	9%	53%	37%	29%	68%	3%	
	PEAK HR FACTOR		0.843			0.872			0.713			0.830		0.942
	APP/DEPART	253	/	118	251	/	372	191	/	180	435	/	460	0
PM	02:00 PM	15	37	31	4	48	13	9	39	12	37	42	7	294
	2:15 PM	22	41	45	4	50	12	11	55	26	23	46	1	336
	2:30 PM	23	42	38	6	47	7	8	54	22	22	36	4	309
	2:45 PM	20	38	37	4	47	5	14	61	26	22	31	5	310
	3:00 PM	11	42	37	5	41	7	10	58	22	24	38	4	299
	3:15 PM	29	35	28	10	45	2	14	66	26	36	35	4	330
	3:30 PM	23	50	27	1	45	8	11	57	18	27	46	5	318
	3:45 PM	22	51	49	8	49	10	9	59	23	34	37	4	355
	4:00 PM	29	32	31	0	48	8	12	66	31	20	45	4	326
	4:15 PM	16	57	31	3	52	8	9	75	28	23	43	3	348
	4:30 PM	21	46	31	10	29	2	14	72	22	19	33	3	302
	4:45 PM	17	73	45	4	53	12	11	65	38	36	54	4	412
	5:00 PM	22	52	34	2	50	6	21	77	32	31	45	4	376
	5:15 PM	17	55	31	3	35	14	9	71	40	21	36	2	334
	5:30 PM	15	45	35	3	38	9	21	54	22	29	40	4	315
	5:45 PM	19	40	30	3	46	12	21	76	29	26	41	4	347
	VOLUMES	321	736	560	70	723	135	204	1,005	417	430	648	62	5,311
	APPROACH %	20%	46%	35%	8%	78%	15%	13%	62%	26%	38%	57%	5%	
	APP/DEPART	1,617	/	1,002	928	/	1,570	1,626	/	1,635	1,140	/	1,104	0
	BEGIN PEAK HR		4:15 PM											
	VOLUMES	76	228	141	19	184	28	55	289	120	109	175	14	1,438
	APPROACH %	17%	51%	32%	8%	80%	12%	12%	62%	26%	37%	59%	5%	
	PEAK HR FACTOR		0.824			0.837			0.892			0.793		0.873
	APP/DEPART	445	/	297	231	/	413	464	/	449	298	/	279	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	1	0	1

NB	SB	EB	WB
0	0	1	0

NB	SB	EB	WB	TTL
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

NB	SB	EB	WB
0	0	0	0



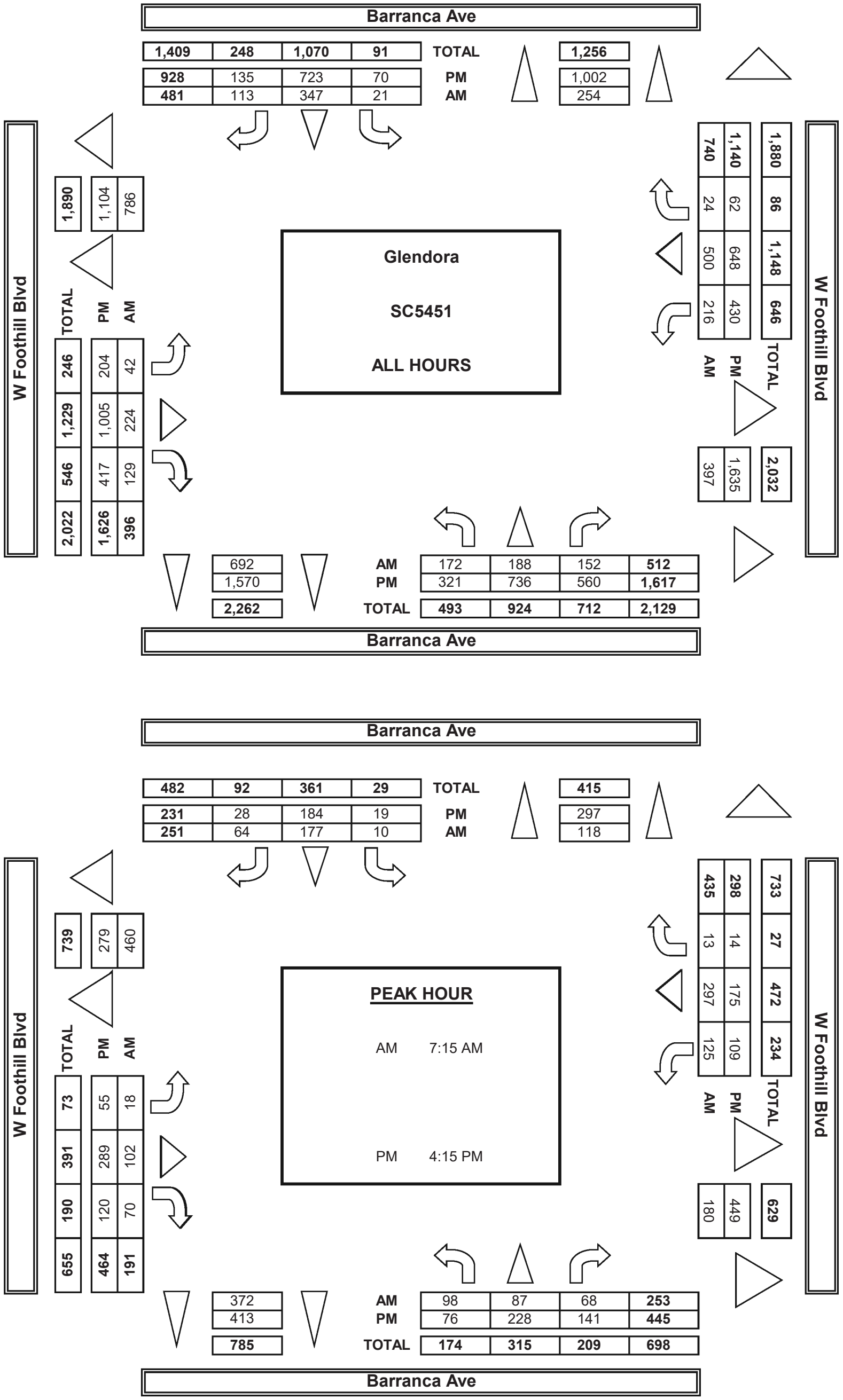
		ALL PED + BIKE & SCOOTER				
		N LEG	S LEG	E LEG	W LEG	TOTAL
AM	7:00 AM	0	0	1	2	3
	7:15 AM	0	1	1	0	2
	7:30 AM	0	3	1	1	5
	7:45 AM	2	0	1	0	3
	8:00 AM	2	1	5	3	11
	8:15 AM	1	2	1	2	6
	8:30 AM	1	0	1	1	3
	8:45 AM	0	2	0	1	3
	TOTAL	6	9	11	10	36
	BEGIN PEAK HR	7:15 AM				
PM	2:00 PM	0	4	0	0	4
	2:15 PM	2	2	0	0	4
	2:30 PM	2	2	0	0	4
	2:45 PM	1	1	0	0	2
	3:00 PM	2	1	0	3	6
	3:15 PM	2	2	0	0	4
	3:30 PM	5	0	0	2	7
	3:45 PM	0	1	1	0	2
	4:00 PM	1	1	2	1	5
	4:15 PM	3	1	2	5	11
	4:30 PM	4	1	1	1	7
	4:45 PM	0	2	0	4	6
	5:00 PM	0	2	4	0	6
	5:15 PM	3	0	0	0	3
	5:30 PM	3	2	0	3	8
	5:45 PM	2	2	2	0	6
	TOTAL	30	24	12	19	85
	BEGIN PEAK HR	4:15 PM				

		PEDESTRIAN CROSSINGS				
		N LEG	S LEG	E LEG	W LEG	TOTAL
AM	7:00 AM	0	0	1	2	3
	7:15 AM	0	1	1	0	2
	7:30 AM	0	2	0	1	3
	7:45 AM	2	0	1	0	3
	8:00 AM	0	1	1	1	3
	8:15 AM	0	2	1	2	5
	8:30 AM	0	0	1	1	2
	8:45 AM	0	1	0	1	2
	TOTAL	2	7	6	8	23
	BEGIN PEAK HR	2	4	3	2	11
PM	2:00 PM	0	3	0	0	3
	2:15 PM	0	2	0	0	2
	2:30 PM	0	1	0	0	1
	2:45 PM	0	1	0	0	1
	3:00 PM	0	0	0	2	2
	3:15 PM	1	0	0	0	1
	3:30 PM	3	0	0	2	5
	3:45 PM	0	1	1	0	2
	4:00 PM	0	0	0	0	0
	4:15 PM	2	1	1	5	9
	4:30 PM	2	1	0	1	4
	4:45 PM	0	2	0	2	4
	5:00 PM	0	2	2	0	4
	5:15 PM	1	0	0	0	1
	5:30 PM	1	0	0	2	3
	5:45 PM	0	0	1	0	1
	TOTAL	10	14	5	14	43
	BEGIN PEAK HR	4	6	3	8	21

		BICYCLE & SCOOTER CROSSINGS				
		NL	SL	EL	WL	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	0	0
	7:30 AM	0	1	1	0	2
	7:45 AM	0	0	0	0	0
	8:00 AM	2	0	4	2	8
	8:15 AM	1	0	0	0	1
	8:30 AM	1	0	0	0	1
	8:45 AM	0	1	0	0	1
	TOTAL	4	2	5	2	13
	BEGIN PEAK HR	2	1	5	2	10
PM	2:00 PM	0	1	0	0	1
	2:15 PM	2	0	0	0	2
	2:30 PM	2	1	0	0	3
	2:45 PM	1	0	0	0	1
	3:00 PM	2	1	0	1	4
	3:15 PM	1	2	0	0	3
	3:30 PM	2	0	0	0	2
	3:45 PM	0	0	0	0	0
	4:00 PM	1	1	2	1	5
	4:15 PM	1	0	1	0	2
	4:30 PM	2	0	1	0	3
	4:45 PM	0	0	0	2	2
	5:00 PM	0	0	2	0	2
	5:15 PM	2	0	0	0	2
	5:30 PM	2	2	0	1	5
	5:45 PM	2	2	1	0	5
	TOTAL	20	10	7	5	42
	BEGIN PEAK HR	3	0	4	2	9

AimTD LLC

TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

T012524

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jun 5, 25

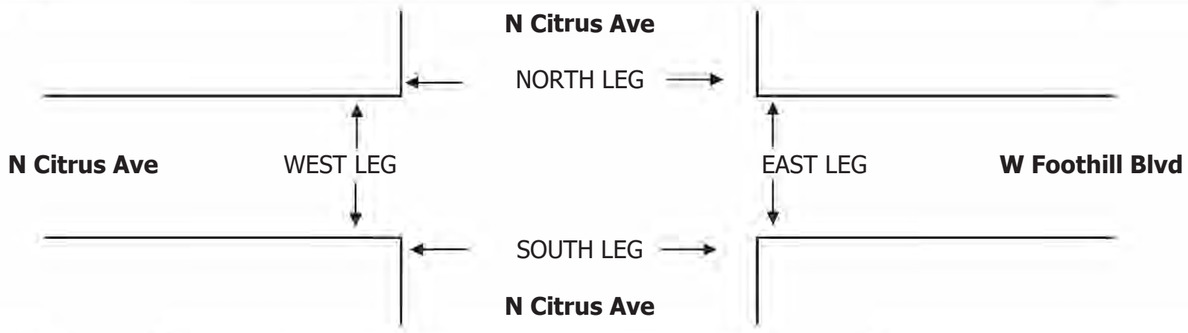
LOCATION: Glendora
NORTH & SOUTH: N Citrus Ave
EAST & WEST: W Foothill Blvd

PROJECT #: SC5451
LOCATION #: 2
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER — ▲ N, ◄ W, E ►, S ▼

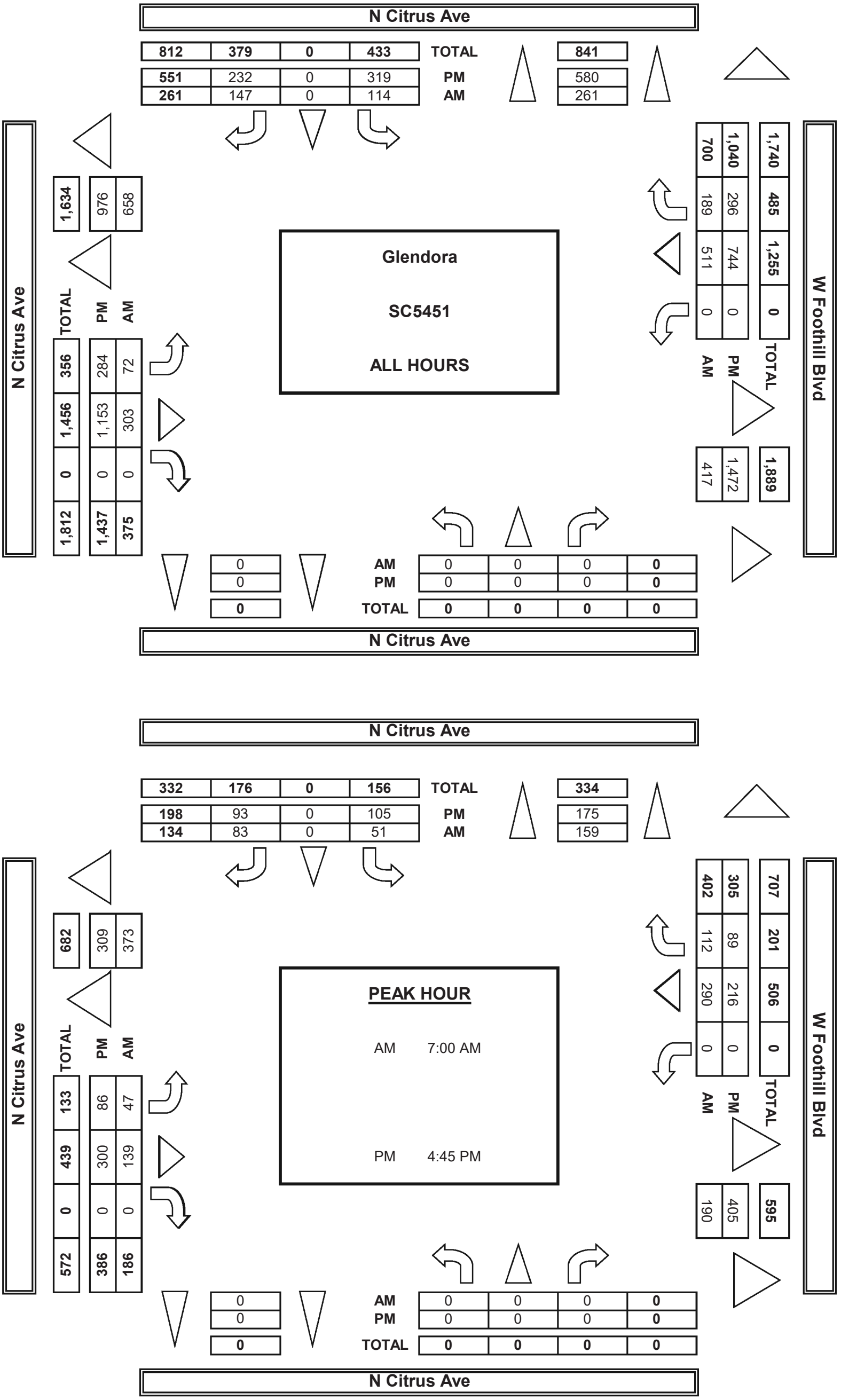
		NORTHBOU N Citrus Ave			SOUTHBOUND N Citrus Ave			EASTBOUND N Citrus Ave			WESTBOUND W Foothill Blvd				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 1	ST X	SR 1	EL 1	ET 2	ER X	WL X	WT 2	WR 0	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	0	0	13	0	20	14	27	0	0	63	26	163		0	0	0	0
	7:15 AM	0	0	0	7	0	19	12	33	0	0	90	37	198		0	0	0	0
	7:30 AM	0	0	0	15	0	19	14	36	0	0	75	27	186		0	0	0	0
	7:45 AM	0	0	0	16	0	25	7	43	0	0	62	22	175		0	0	0	0
	8:00 AM	0	0	0	11	0	20	7	43	0	0	53	26	160		0	0	0	0
	8:15 AM	0	0	0	20	0	13	7	39	0	0	63	18	160		0	0	0	0
	8:30 AM	0	0	0	12	0	20	5	33	0	0	53	18	141		0	0	0	0
	8:45 AM	0	0	0	20	0	11	6	49	0	0	52	15	153		0	0	0	0
	VOLUMES	0	0	0	114	0	147	72	303	0	0	511	189	1,336		0	0	0	0
	APPROACH %	0%	0%	0%	44%	0%	56%	19%	81%	0%	0%	73%	27%						
	APP/DEPART	0	/	261	261	/	0	375	/	417	700	/	658	0					
	BEGIN PEAK HR		7:00 AM																
	VOLUMES	0	0	0	51	0	83	47	139	0	0	290	112		0	0	0	0	
	APPROACH %	0%	0%	0%	38%	0%	62%	25%	75%	0%	0%	72%	28%						
	PEAK HR FACTOR		0.000			0.			0.930			0.791		0.912					
	APP/DEPART	0	/	159	134	/	0	186	/	190	402	/	373						
PM	02:00 PM	0	0	0	9	0	11	12	59	0	0	47	15		0	0	0	0	0
	2:15 PM	0	0	0	20	0	11	11	62	0	0	62	13		0	0	0	0	0
	2:30 PM	0	0	0	13	0	5	7	71	0	0	47	17		0	0	0	0	0
	2:45 PM	0	0	0	20	0	10	15	60	0	0	32	22		0	0	0	0	0
	3:00 PM	0	0	0	12	0	18	17	72	0	0	42	14		0	0	0	0	0
	3:15 PM	0	0	0	14	0	7	15	85	0	0	36	14		0	0	0	0	0
	3:30 PM	0	0	0	17	0	11	10	60	0	0	48	19		0	0	0	0	0
	3:45 PM	0	0	0	15	0	4	20	77	0	0	33	11		0	0	0	0	0
	4:00 PM	0	0	0	26	0	10	17	62	0	0	49	29		0	0	0	0	0
	4:15 PM	0	0	0	14	0	11	23	90	0	0	47	14		0	0	0	0	0
	4:30 PM	0	0	0	20	0	17	16	82	0	0	39	18		0	0	0	0	0
	4:45 PM	0	0	0	43	0	27	24	64	0	0	57	29		0	0	0	0	0
	5:00 PM	0	0	0	23	0	22	21	94	0	0	40	23		0	0	0	0	0
	5:15 PM	0	0	0	24	0	23	18	69	0	0	62	21		0	0	0	0	0
	5:30 PM	0	0	0	15	0	21	23	73	0	0	57	16		0	0	0	0	0
	5:45 PM	0	0	0	34	0	24	35	73	0	0	46	21		0	0	0	0	0
	VOLUMES	0	0	0	319	0	232	284	1,153	0	0	744	296	028	0	0	0	0	0
	APPROACH %	0%	0%	0%	58%	0%	42%	20%	80%	0%	0%	72%	28%						
	APP/DEPART	0	/	580	551	/	0	1,437	/	1,472	1,040	/	976						
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	0	0	105	0	93	86	300	0	0	216	89		0	0	0	0	
	APPROACH %	0%	0%	0%	53%	0%	47%	22%	78%	0%	0%	71%	29%						
	PEAK HR FACTOR		0.000			0.			0.839			0.887		0.911					
	APP/DEPART	0	/	175	198	/	0	386	/	405	305	/	309						



		ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
		N LEG	S LEG	E LEG	W LEG	TOTAL	N LEG	S LEG	E LEG	W LEG	TOTAL	NL	SL	EL	WL	TOTAL
AM	7:00 AM	2	0	2	0	4	2	0	2	0	4	0	0	0	0	0
	7:15 AM	8	0	7	0	15	8	0	7	0	15	0	0	0	0	0
	7:30 AM	3	0	2	4	9	3	0	2	3	8	0	0	0	1	1
	7:45 AM	6	0	5	1	12	6	0	5	1	12	0	0	0	0	0
	8:00 AM	9	0	5	0	14	5	0	4	0	9	4	0	1	0	5
	8:15 AM	6	0	5	0	11	6	0	5	0	11	0	0	0	0	0
	8:30 AM	4	0	5	1	10	4	0	5	1	10	0	0	0	0	0
	8:45 AM	5	0	5	1	11	3	0	4	1	8	2	0	1	0	3
	TOTAL	43	0	36	7	86	37	0	34	6	77	6	0	2	1	9
	BEGIN PEAK HR			7:00 AM			19	0	16	4	39	0	0	0	1	1
PM	2:00 PM	14	0	11	2	27	13	0	11	1	25	1	0	0	1	2
	2:15 PM	11	0	8	0	19	9	0	7	0	16	2	0	1	0	3
	2:30 PM	8	0	5	0	13	6	0	5	0	11	2	0	0	0	2
	2:45 PM	6	0	5	1	12	6	0	5	0	11	0	0	0	1	1
	3:00 PM	8	0	9	0	17	6	0	7	0	13	2	0	2	0	4
	3:15 PM	7	0	6	0	13	5	0	5	0	10	2	0	1	0	3
	3:30 PM	5	0	6	1	12	4	0	4	1	9	1	0	2	0	3
	3:45 PM	6	0	3	0	9	5	0	3	0	8	1	0	0	0	1
	4:00 PM	6	0	6	0	12	4	0	5	0	9	2	0	1	0	3
	4:15 PM	5	0	5	0	10	4	0	5	0	9	1	0	0	0	1
	4:30 PM	9	0	4	0	13	7	0	3	0	10	2	0	1	0	3
	4:45 PM	6	0	5	1	12	5	0	4	1	10	1	0	1	0	2
	5:00 PM	6	0	5	1	12	5	0	4	0	9	1	0	1	1	3
	5:15 PM	6	0	5	0	11	5	0	4	0	9	1	0	1	0	2
	5:30 PM	0	0	0	2	2	0	0	0	1	1	0	0	0	1	1
	5:45 PM	5	0	2	1	8	4	0	2	0	6	1	0	0	1	2
	TOTAL	108	0	85	9	202	88	0	74	4	166	20	0	11	5	36
	BEGIN PEAK HR			4:45 PM			15	0	12	2	29	3	0	3	2	8

AimTD LLC

TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

T012524

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jun 5, 25

LOCATION: Glendora
NORTH & SOUTH: N Citrus Ave
EAST & WEST: E Foothill Blvd

PROJECT #: SC5451
LOCATION #: 3
CONTROL: SIGNAL

NOTES:

AM PM MD OTHER OTHER

▲ N
◄ W E ►
S ▼

☐ Add U-Turns to Left Turns

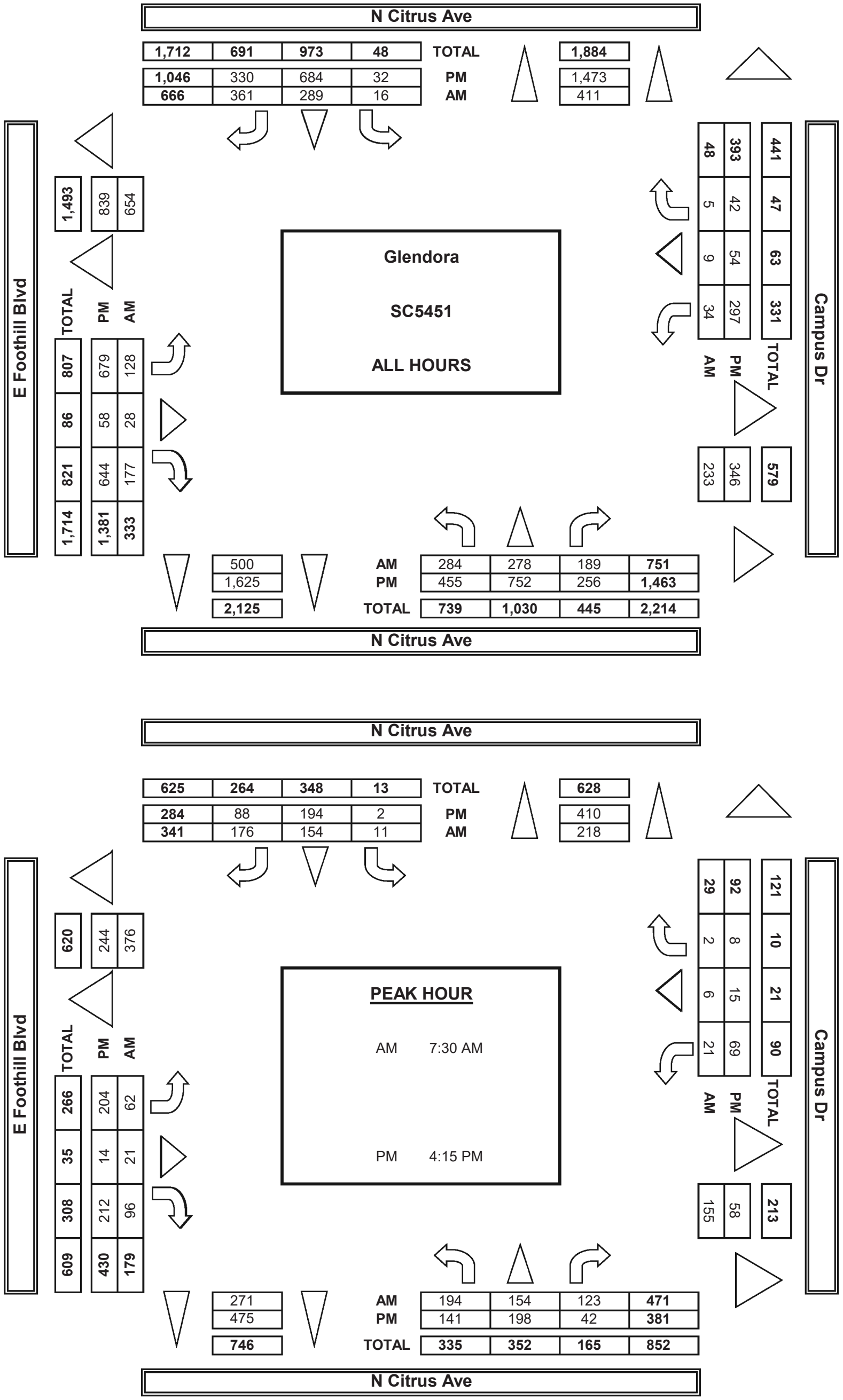
	NORTHBOUND N Citrus Ave			SOUTHBOUND N Citrus Ave			EASTBOUND E Foothill Blvd			WESTBOUND Campus Dr			
LANES:	NL 1	NT 2	NR 1	SL 1	ST 2	SR 0	EL 1	ET 1	ER 1	WL 1	WT 1	WR 1	TOTAL
7:00 AM	18	30	6	0	28	46	11	1	17	0	0	0	157
7:15 AM	25	30	12	1	42	68	15	1	17	1	0	1	213
7:30 AM	41	33	10	1	40	55	15	2	21	1	0	0	219
7:45 AM	70	39	25	2	36	49	17	3	21	1	3	0	266
8:00 AM	60	43	50	3	43	36	14	9	26	14	1	2	301
8:15 AM	23	39	38	5	35	36	16	7	28	5	2	0	234
8:30 AM	21	29	30	3	37	34	15	1	22	4	2	1	199
8:45 AM	26	35	18	1	28	37	25	4	25	8	1	1	209
VOLUMES	284	278	189	16	289	361	128	28	177	34	9	5	1,798
APPROACH %	38%	37%	25%	2%	43%	54%	38%	8%	53%	71%	19%	10%	
APP/DEPART	751	/	411	666	/	500	333	/	233	48	/	654	0
BEGIN PEAK HR		7:30 AM											
VOLUMES	194	154	123	11	154	176	62	21	96	21	6	2	1,020
APPROACH %	41%	33%	26%	3%	45%	52%	35%	12%	54%	72%	21%	7%	
PEAK HR FACTOR		0.770			0.888			0.877			0.426		0.847
APP/DEPART	471	/	218	341	/	271	179	/	155	29	/	376	0
02:00 PM	22	39	10	3	35	22	27	4	38	21	5	5	231
2:15 PM	24	34	17	7	49	24	39	5	28	29	5	3	264
2:30 PM	19	34	14	4	32	28	41	6	41	28	2	5	254
2:45 PM	34	44	15	1	29	9	31	5	32	11	4	1	216
3:00 PM	18	44	17	4	35	21	41	3	22	19	1	4	229
3:15 PM	18	53	20	4	26	15	50	3	33	13	4	3	242
3:30 PM	20	36	33	0	41	24	39	1	34	13	2	4	247
3:45 PM	40	68	55	2	22	20	45	6	50	14	0	1	323
4:00 PM	24	40	9	1	44	21	40	4	56	16	5	2	262
4:15 PM	36	46	13	0	38	20	66	4	63	14	1	1	302
4:30 PM	37	56	9	2	43	25	38	3	47	17	5	2	284
4:45 PM	38	48	13	0	57	27	39	5	53	13	4	2	299
5:00 PM	30	48	7	0	56	16	61	2	49	25	5	3	302
5:15 PM	29	49	9	1	65	20	35	1	36	25	5	2	277
5:30 PM	28	47	4	2	51	21	46	4	34	23	4	2	266
5:45 PM	38	66	11	1	61	17	41	2	28	16	2	2	285
VOLUMES	455	752	256	32	684	330	679	58	644	297	54	42	4,283
APPROACH %	31%	51%	17%	3%	65%	32%	49%	4%	47%	76%	14%	11%	
APP/DEPART	1,463	/	1,473	1,046	/	1,625	1,381	/	346	393	/	839	0
BEGIN PEAK HR		4:15 PM											
VOLUMES	141	198	42	2	194	88	204	14	212	69	15	8	1,187
APPROACH %	37%	52%	11%	1%	68%	31%	47%	3%	49%	75%	16%	9%	
PEAK HR FACTOR		0.934			0.845			0.808			0.697		0.983
APP/DEPART	381	/	410	284	/	475	430	/	58	92	/	244	0

U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0	0	0	0
0	0	0	0	0
0	0	0	0	0

AimTD LLC

TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

T012524

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jun 5, 25

LOCATION: Glendora
NORTH & SOUTH: N Citrus Ave
EAST & WEST: Historic Rte 66

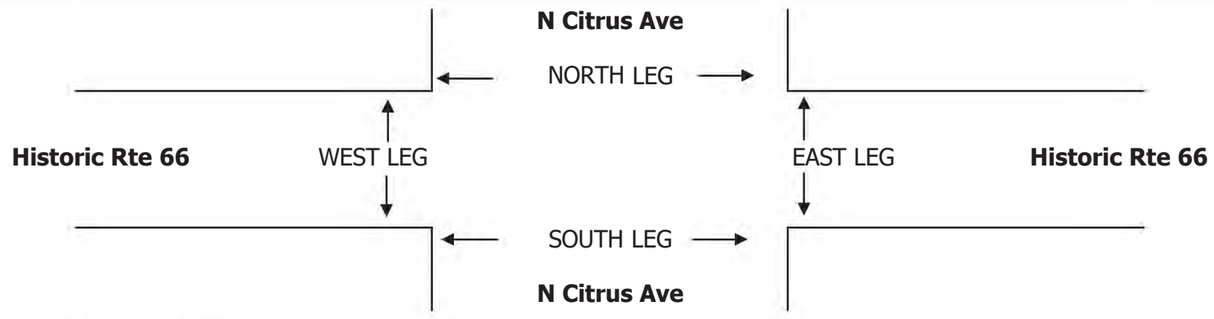
PROJECT #: SC5451
LOCATION #: 4
CONTROL: SIGNAL

NOTES:

AM / PM / MD / OTHER / OTHER

N ▲ S ▼ W ◄ E ►

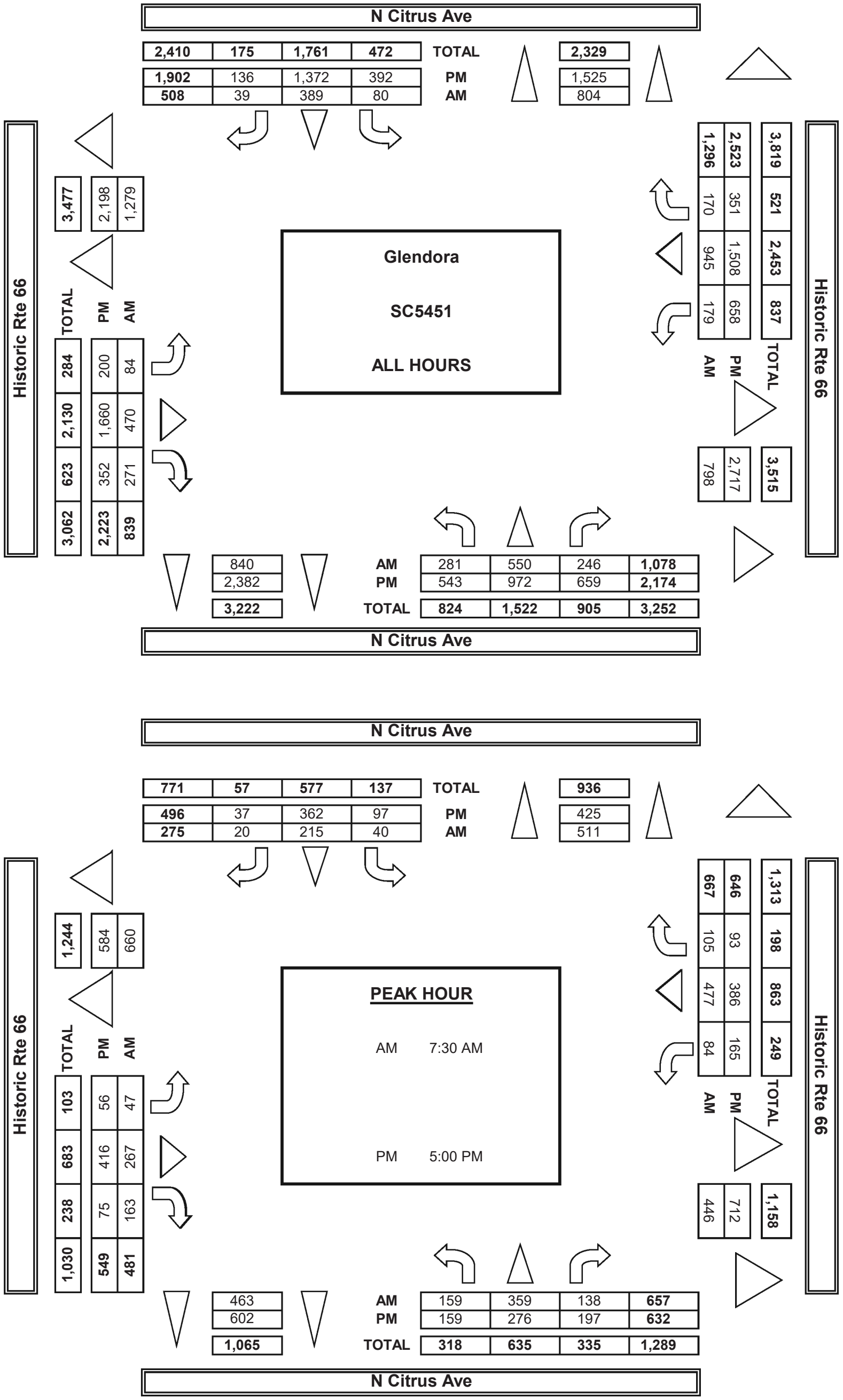
		NORTHBOUND N Citrus Ave			SOUTHBOUND N Citrus Ave			EASTBOUND Historic Rte 66			WESTBOUND Historic Rte 66				U-TURNS				
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 1	WL 2	WT 2	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	29	31	8	5	40	2	5	39	19	19	151	14	362	0	0		0	1
	7:15 AM	50	45	25	8	45	6	10	34	26	14	165	22	450	0	0	3		3
	7:30 AM	32	68	29	9	49	4	8	61	35	25	152	20	492	0	0	1		1
	7:45 AM	42	119	35	7	51	2	12	69	40	21	122	24	544	1	0		0	2
	8:00 AM	41	103	37	16	62	5	14	63	50	18	132	36	577	0	0	2	0	2
	8:15 AM	44	69	37	8	53	9	13	74	38	20	71	25	461	0	0	0	1	1
	8:30 AM	17	54	36	14	45	7	14	63	36	29	73	17	405	0	0	4	0	
	8:45 AM	26	61	39	13	44	4	8	67	27	33	79	12	413	0	0		1	3
	VOLUMES	281	550	246	80	389	39	84	470	271	179	945	170	3,721	1	0		2	17
	APPROACH %	26%	51%	23%	16%	77%	8%	10%	56%	32%	14%	73%	13%						
	APP/DEPART	1,078	/	804	508	/	840	839	/	798	1,296	/	1,279	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	159	359	138	40	215	20	47	267	163	84	477	105	2,080	1	0	4	1	
	APPROACH %	24%	55%	21%	15%	78%	7%	10%	56%	34%	13%	72%	16%						
	PEAK HR FACTOR		0.834			0.828			0.932			0.846		0.898					
	APP/DEPART	657	/	511	275	/	463	481	/	446	667	/	660	0					
PM	02:00 PM	27	35	45	21	72	7	13	98	36	47	121	21	543	0	0		0	3
	2:15 PM	32	44	44	22	93	15	16	96	30	54	99	19	564	0	0	2		3
	2:30 PM	21	40	48	23	77	14	9	102	26	45	102	25	532	0	0	1		1
	2:45 PM	30	58	45	16	66	4	8	106	14	34	77	20	478	0	0		1	1
	3:00 PM	32	51	30	26	55	6	11	112	17	37	91	20	488	0	0	0	0	0
	3:15 PM	35	62	34	20	52	6	14	110	29	50	93	21	526	0	0	2	0	2
	3:30 PM	26	65	41	23	100	9	9	102	27	37	99	19	557	0	2	1	0	
	3:45 PM	38	108	15	23	83	8	14	107	11	41	79	27	554	0	0		0	0
	4:00 PM	31	54	34	28	90	9	6	111	25	30	112	21	551	0	0		0	0
	4:15 PM	40	56	43	35	101	7	15	101	23	44	74	25	564	0	0		1	1
	4:30 PM	27	52	34	27	104	6	15	103	27	41	92	22	550	0	0		1	1
	4:45 PM	45	71	49	31	117	8	14	96	12	33	83	18	577	0	0		0	0
	5:00 PM	42	58	56	23	99	9	16	107	17	55	94	19	595	0	0		0	1
	5:15 PM	44	60	52	24	90	10	13	94	19	39	91	24	560	0	0		0	0
	5:30 PM	37	71	36	22	88	9	11	98	18	33	100	23	546	0	0		0	1
	5:45 PM	36	87	53	28	85	9	16	117	21	38	101	27	618	0	0	0	2	2
	VOLUMES	543	972	659	392	1,372	136	200	1,660	352	658	1,508	351	8,822	0	2		6	19
	APPROACH %	25%	45%	30%	21%	72%	7%	9%	75%	16%	26%	60%	14%						
	APP/DEPART	2,174	/	1,525	1,902	/	2,382	2,223	/	2,717	2,523	/	2,198	0					
	BEGIN PEAK HR		5:00 PM																
	VOLUMES	159	276	197	97	362	37	56	416	75	165	386	93	2,323	0	0	2	2	
	APPROACH %	25%	44%	31%	20%	73%	7%	10%	76%	14%	26%	60%	14%						
	PEAK HR FACTOR		0.898			0.947			0.891			0.961		0.937					
	APP/DEPART	632	/	425	496	/	602	549	/	712	646	/	584	0					



		ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
		N LEG	S LEG	E LEG	W LEG	TOTAL	N LEG	S LEG	E LEG	W LEG	TOTAL	NL	SL	EL	WL	TOTAL
AM	7:00 AM	2	2	2	2	8	1	2	2	2	7	1	0	0	0	1
	7:15 AM	0	3	1	1	5	0	2	0	1	3	0	1	1	0	2
	7:30 AM	2	3	1	5	11	2	3	0	5	10	0	0	1	0	1
	7:45 AM	4	6	1	4	15	4	6	1	4	15	0	0	0	0	0
	8:00 AM	0	1	0	1	2	0	1	0	0	1	0	0	0	1	1
	8:15 AM	3	3	2	5	13	2	3	1	4	10	1	0	1	1	3
	8:30 AM	0	2	0	1	3	0	1	0	1	2	0	1	0	0	1
	8:45 AM	3	1	1	5	10	1	0	1	3	5	2	1	0	2	5
	TOTAL	14	21	8	24	67	10	18	5	20	53	4	3	3	4	14
	BEGIN PEAK HR			7:30 AM			8	13	2	13	36	1	0	2	2	5
PM	2:00 PM	4	0	1	7	12	3	0	0	5	8	1	0	1	2	4
	2:15 PM	5	3	2	9	19	5	3	2	8	18	0	0	0	1	1
	2:30 PM	2	2	2	4	10	2	1	1	4	8	0	1	1	0	2
	2:45 PM	3	1	1	3	8	2	1	1	2	6	1	0	0	1	2
	3:00 PM	5	2	1	6	14	3	1	1	4	9	2	1	0	2	5
	3:15 PM	2	4	1	12	19	2	2	1	10	15	0	2	0	2	4
	3:30 PM	1	3	1	5	10	1	2	1	4	8	0	1	0	1	2
	3:45 PM	1	9	2	2	14	0	7	2	2	11	1	2	0	0	3
	4:00 PM	1	3	0	3	7	1	1	0	3	5	0	2	0	0	2
	4:15 PM	2	5	6	14	27	2	4	5	13	24	0	1	1	1	3
	4:30 PM	3	6	4	4	17	2	6	2	4	14	1	0	2	0	3
	4:45 PM	4	3	1	6	14	2	1	1	5	9	2	2	0	1	5
	5:00 PM	1	11	7	12	31	1	8	5	9	23	0	3	2	3	8
	5:15 PM	1	0	0	4	5	1	0	0	2	3	0	0	0	2	2
	5:30 PM	6	6	2	6	20	2	5	2	6	15	4	1	0	0	5
	5:45 PM	3	2	1	9	15	2	1	1	8	12	1	1	0	1	3
	TOTAL	44	60	32	106	242	31	43	25	89	188	13	17	7	17	54
	BEGIN PEAK HR			5:00 PM			6	14	8	25	53	5	5	2	6	18

AimTD LLC

TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

T012524

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jun 5, 25

LOCATION: Glendora
NORTH & SOUTH: Barranca Ave
EAST & WEST: Historic Rte 66

PROJECT #: SC5451
LOCATION #: 5
CONTROL: SIGNAL

NOTES:

AM
PM
MD
OTHER
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		NORTHBOUND Barranca Ave			SOUTHBOUND Barranca Ave			EASTBOUND Historic Rte 66			WESTBOUND Historic Rte 66			
	LANES:	NL 1	NT 2	NR 0	SL 1	ST 2	SR 0	EL 1	ET 2	ER 0	WL 1	WT 2	WR 1	TOTAL
AM	7:00 AM	44	47	16	6	49	10	2	33	15	19	118	10	369
	7:15 AM	33	68	9	14	64	12	13	30	13	18	149	24	447
	7:30 AM	51	94	19	9	84	10	16	38	21	31	113	19	505
	7:45 AM	49	124	29	13	88	12	17	67	13	29	104	21	566
	8:00 AM	51	93	20	21	82	16	17	60	14	27	103	11	515
	8:15 AM	39	89	19	15	79	11	13	54	17	21	78	15	450
	8:30 AM	30	69	36	12	66	5	8	64	14	30	72	17	423
	8:45 AM	33	100	32	24	71	11	15	64	21	19	67	15	472
	VOLUMES	330	684	180	114	583	87	101	410	128	194	804	132	3,747
	APPROACH %	28%	57%	15%	15%	74%	11%	16%	64%	20%	17%	71%	12%	
	APP/DEPART	1,194	/	917	784	/	905	639	/	704	1,130	/	1,221	0
	BEGIN PEAK HR		7:30 AM											
	VOLUMES	190	400	87	58	333	49	63	219	65	108	398	66	2,036
	APPROACH %	28%	59%	13%	13%	76%	11%	18%	63%	19%	19%	70%	12%	
	PEAK HR FACTOR		0.838			0.924			0.894			0.877		0.899
	APP/DEPART	677	/	529	440	/	506	347	/	364	572	/	637	0
PM	02:00 PM	29	84	34	34	94	25	16	108	14	29	89	18	574
	2:15 PM	36	87	36	47	139	32	11	84	24	35	87	22	640
	2:30 PM	42	93	38	27	116	19	25	109	22	32	92	16	631
	2:45 PM	34	84	30	22	90	11	12	130	25	40	83	17	578
	3:00 PM	38	87	36	17	101	13	20	118	13	41	80	15	579
	3:15 PM	37	75	30	28	96	20	20	95	14	34	84	19	552
	3:30 PM	43	95	40	27	93	15	13	101	12	21	89	14	563
	3:45 PM	40	119	46	26	99	14	23	91	26	38	83	19	624
	4:00 PM	38	73	31	21	100	10	11	108	15	38	86	21	552
	4:15 PM	33	87	42	25	90	14	14	117	26	33	91	16	588
	4:30 PM	42	100	33	23	80	9	16	108	15	25	72	19	542
	4:45 PM	30	110	34	33	117	13	17	102	27	31	88	27	629
	5:00 PM	42	91	28	29	121	10	18	124	23	32	98	11	627
	5:15 PM	30	93	24	21	122	20	18	105	15	38	84	16	586
	5:30 PM	40	85	43	21	86	16	15	90	14	32	97	11	550
	5:45 PM	39	70	26	24	107	15	22	127	13	29	92	18	582
	VOLUMES	593	1,433	551	425	1,651	256	271	1,717	298	528	1,395	279	9,398
	APPROACH %	23%	56%	21%	18%	71%	11%	12%	75%	13%	24%	63%	13%	
	APP/DEPART	2,577	/	1,983	2,332	/	2,477	2,287	/	2,693	2,202	/	2,245	0
	BEGIN PEAK HR		2:15 PM											
	VOLUMES	150	351	140	113	446	75	68	441	84	148	342	70	2,429
	APPROACH %	23%	55%	22%	18%	70%	12%	11%	74%	14%	26%	61%	13%	
	PEAK HR FACTOR		0.926			0.727			0.889			0.972		0.949
	APP/DEPART	641	/	489	634	/	678	594	/	694	560	/	568	0

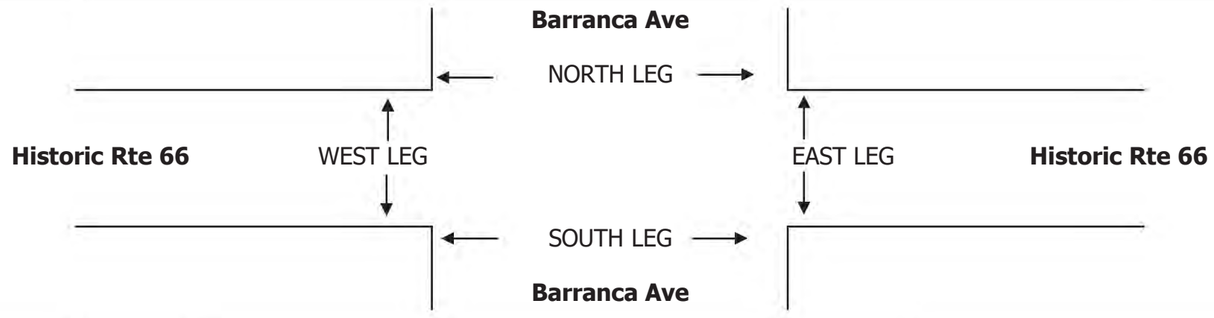
U-TURNS

NB	SB	EB	WB	TTL
0	0	0	0	
0	0		0	0
0	0		0	0
0	0		0	0
0	0		0	0
0	0	0	0	
0	0	0	0	
0	0	0		0
0	0		0	0
0	0		0	0

0	0	0	0

NB	SB	EB	WB	TTL
0	0		0	0
0	0		0	0
0	0		0	1
0	0		0	0
0	0	0	0	
0	0	0	0	
0	0	0		0
0	0		0	0
0	0		0	0
0	0		0	0
0	0		0	0
0	0		0	0
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0	0	1	0



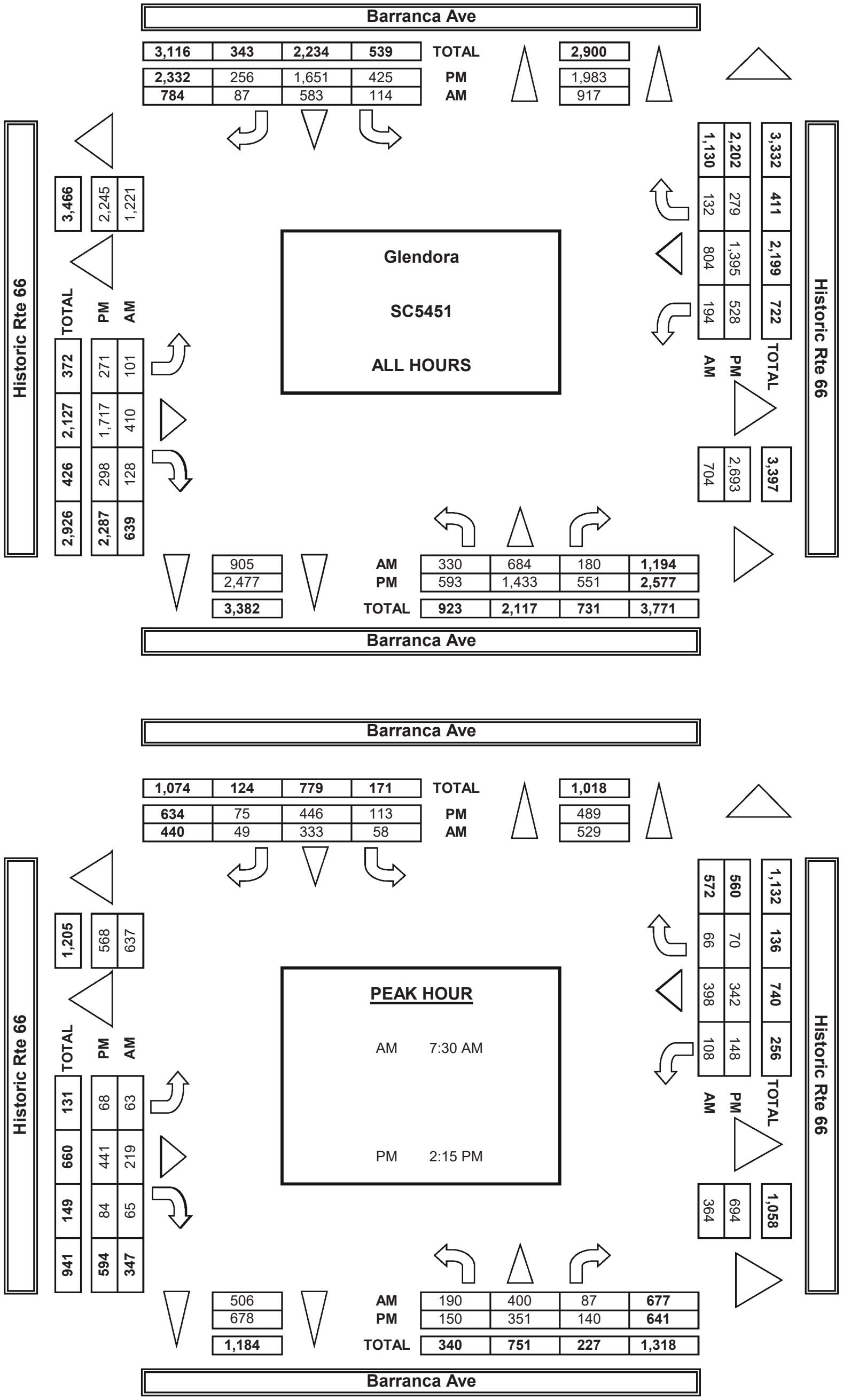
		ALL PED + BIKE & SCOOTER				
		N LEG	S LEG	E LEG	W LEG	TOTAL
AM	7:00 AM	3	0	0	0	3
	7:15 AM	0	2	0	3	5
	7:30 AM	2	0	1	0	3
	7:45 AM	1	1	0	0	2
	8:00 AM	2	2	4	1	9
	8:15 AM	3	3	2	3	11
	8:30 AM	5	2	3	2	12
	8:45 AM	3	2	1	1	7
	TOTAL	19	12	11	10	52
	BEGIN PEAK HR	7:30 AM				
PM	2:00 PM	0	0	0	2	2
	2:15 PM	3	0	1	4	8
	2:30 PM	2	0	0	2	4
	2:45 PM	3	2	1	3	9
	3:00 PM	3	2	1	2	8
	3:15 PM	3	4	2	2	11
	3:30 PM	2	4	2	4	12
	3:45 PM	0	3	0	1	4
	4:00 PM	3	1	1	0	5
	4:15 PM	0	2	1	3	6
	4:30 PM	6	1	1	3	11
	4:45 PM	2	4	1	1	8
	5:00 PM	1	1	1	1	4
	5:15 PM	4	3	2	6	15
	5:30 PM	0	1	1	2	4
	5:45 PM	1	3	2	3	9
	TOTAL	33	31	17	39	120
	BEGIN PEAK HR	2:15 PM				

		PEDESTRIAN CROSSINGS				
		N LEG	S LEG	E LEG	W LEG	TOTAL
AM	7:00 AM	3	0	0	0	3
	7:15 AM	0	2	0	2	4
	7:30 AM	2	0	1	0	3
	7:45 AM	1	1	0	0	2
	8:00 AM	2	1	2	0	5
	8:15 AM	1	3	1	3	8
	8:30 AM	2	2	2	2	8
	8:45 AM	3	2	1	1	7
	TOTAL	14	11	7	8	40
	BEGIN PEAK HR	6	5	4	3	18
PM	2:00 PM	0	0	0	2	2
	2:15 PM	3	0	1	3	7
	2:30 PM	2	0	0	2	4
	2:45 PM	2	1	0	1	4
	3:00 PM	2	1	1	2	6
	3:15 PM	1	3	2	1	7
	3:30 PM	2	3	2	2	9
	3:45 PM	0	0	0	1	1
	4:00 PM	2	0	1	0	3
	4:15 PM	0	1	1	3	5
	4:30 PM	2	0	1	1	4
	4:45 PM	0	4	0	1	5
	5:00 PM	0	0	0	1	1
	5:15 PM	1	3	0	4	8
	5:30 PM	0	1	1	1	3
	5:45 PM	1	2	2	2	7
	TOTAL	18	19	12	27	76
	BEGIN PEAK HR	9	2	2	8	21

		BICYCLE & SCOOTER CROSSINGS				
		NL	SL	EL	WL	TOTAL
AM	7:00 AM	0	0	0	0	0
	7:15 AM	0	0	0	1	1
	7:30 AM	0	0	0	0	0
	7:45 AM	0	0	0	0	0
	8:00 AM	0	1	2	1	4
	8:15 AM	2	0	1	0	3
	8:30 AM	3	0	1	0	4
	8:45 AM	0	0	0	0	0
	TOTAL	5	1	4	2	12
	BEGIN PEAK HR	2	1	3	1	7
PM	2:00 PM	0	0	0	0	0
	2:15 PM	0	0	0	1	1
	2:30 PM	0	0	0	0	0
	2:45 PM	1	1	1	2	5
	3:00 PM	1	1	0	0	2
	3:15 PM	2	1	0	1	4
	3:30 PM	0	1	0	2	3
	3:45 PM	0	3	0	0	3
	4:00 PM	1	1	0	0	2
	4:15 PM	0	1	0	0	1
	4:30 PM	4	1	0	2	7
	4:45 PM	2	0	1	0	3
	5:00 PM	1	1	1	0	3
	5:15 PM	3	0	2	2	7
	5:30 PM	0	0	0	1	1
	5:45 PM	0	1	0	1	2
	TOTAL	15	12	5	12	44
	BEGIN PEAK HR	2	2	1	3	8

AimTD LLC

TURNING MOVEMENT COUNTS



INTERSECTION TURNING MOVEMENT COUNTS

T012524

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE: Thu, Jun 5, 25

LOCATION: Glendora
NORTH & SOUTH: N Citrus Ave
EAST & WEST: University Dr

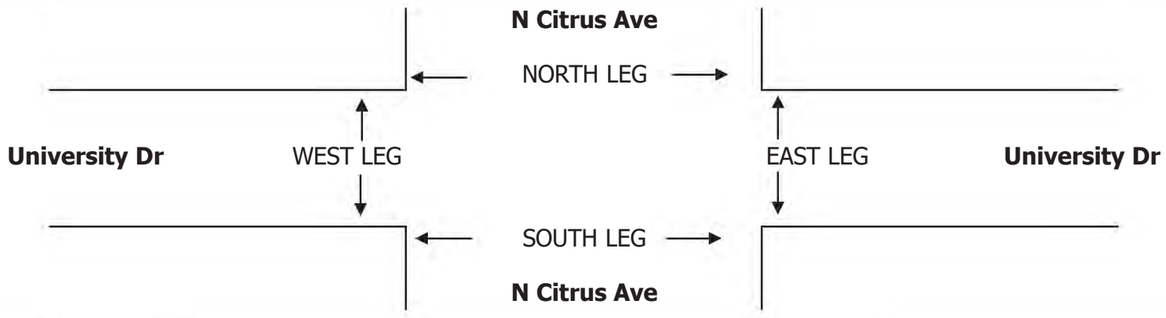
PROJECT #: SC5451
LOCATION #: 6
CONTROL: SIGNAL

NOTES:

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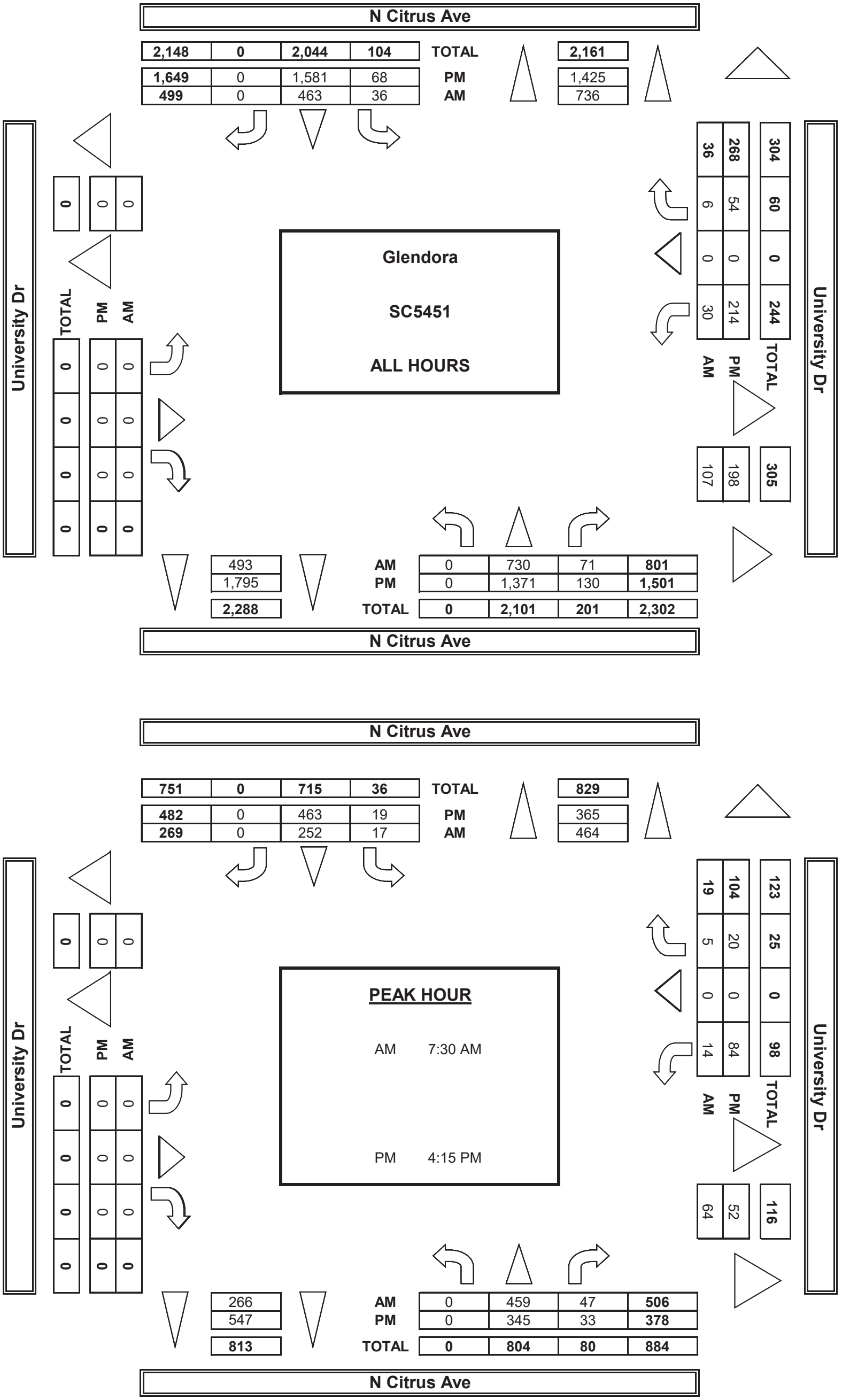
		NORTHBOUND N Citrus Ave			SOUTHBOUND N Citrus Ave			EASTBOUND University Dr			WESTBOUND University Dr				U-TURNS				
	LANES:	NL X	NT 2	NR 0	SL 1	ST 2	SR X	EL X	ET X	ER X	WL 1	WT X	WR 1	TOTAL	NB 0	SB 0	EB 0	WB 0	TTL
AM	7:00 AM	0	53	1	3	43	0	0	0	0	2	0	0	102	0	0		0	0
	7:15 AM	0	63	8	3	55	0	0	0	0	1	0	0	130	0	0		0	0
	7:30 AM	0	92	9	4	59	0	0	0	0	2	0	2	168	0	0		0	0
	7:45 AM	0	123	13	1	55	0	0	0	0	4	0	1	197	0	0		0	0
	8:00 AM	0	149	11	7	75	0	0	0	0	5	0	1	248	0	0	0	0	
	8:15 AM	0	95	14	5	63	0	0	0	0	3	0	1	181	0	0	0	0	
	8:30 AM	0	79	9	6	58	0	0	0	0	8	0	0	160	0	0	0		0
	8:45 AM	0	76	6	7	55	0	0	0	0	5	0	1	150	0	0		0	0
	VOLUMES	0	730	71	36	463	0	0	0	0	30	0	6	1,336	0	0		0	0
	APPROACH %	0%	91%	9%	7%	93%	0%	0%	0%	0%	83%	0%	17%						
	APP/DEPART	801	/	736	499	/	493	0	/	107	36	/	0	0					
	BEGIN PEAK HR		7:30 AM																
	VOLUMES	0	459	47	17	252	0	0	0	0	14	0	5	794	0	0	0	0	
	APPROACH %	0%	91%	9%	6%	94%	0%	0%	0%	0%	74%	0%	26%						
	PEAK HR FACTOR		0.791			0.820			0.000			0.792		0.800					
	APP/DEPART	506	/	464	269	/	266	0	/	64	19	/	0	0					
PM	02:00 PM	0	66	1	4	92	0	0	0	0	4	0	3	170	0	0		0	0
	2:15 PM	0	71	8	6	101	0	0	0	0	18	0	2	206	0	0		0	0
	2:30 PM	0	63	10	4	101	0	0	0	0	9	0	2	189	0	0		0	0
	2:45 PM	0	82	5	1	73	0	0	0	0	12	0	6	179	0	0		0	0
	3:00 PM	0	78	4	5	72	0	0	0	0	14	0	3	176	0	0	0	0	
	3:15 PM	0	85	3	7	67	0	0	0	0	6	0	2	170	0	0	0	0	
	3:30 PM	0	80	1	1	80	0	0	0	0	31	0	3	196	0	0	0		0
	3:45 PM	0	156	6	4	92	0	0	0	0	13	0	4	275	0	0		0	0
	4:00 PM	0	70	4	2	117	0	0	0	0	8	0	2	203	0	0		0	0
	4:15 PM	0	90	6	2	115	0	0	0	0	19	0	5	237	0	0		0	0
	4:30 PM	0	88	4	4	110	0	0	0	0	29	0	9	244	0	0		0	0
	4:45 PM	0	92	14	5	119	0	0	0	0	25	0	4	259	0	0		0	0
	5:00 PM	0	75	9	8	119	0	0	0	0	11	0	2	224	0	0		0	0
	5:15 PM	0	83	10	3	121	0	0	0	0	5	0	5	227	0	0		0	0
	5:30 PM	0	79	21	4	102	0	0	0	0	4	0	1	211	0	0		0	0
	5:45 PM	0	113	24	8	100	0	0	0	0	6	0	1	252	0	0	0	0	
	VOLUMES	0	1,371	130	68	1,581	0	0	0	0	214	0	54	3,418	0	0		0	0
	APPROACH %	0%	91%	9%	4%	96%	0%	0%	0%	0%	80%	0%	20%						
	APP/DEPART	1,501	/	1,425	1,649	/	1,795	0	/	198	268	/	0	0					
	BEGIN PEAK HR		4:15 PM																
	VOLUMES	0	345	33	19	463	0	0	0	0	84	0	20	964	0	0	0	0	
	APPROACH %	0%	91%	9%	4%	96%	0%	0%	0%	0%	81%	0%	19%						
	PEAK HR FACTOR		0.892			0.949			0.000			0.684		0.931					
	APP/DEPART	378	/	365	482	/	547	0	/	52	104	/	0	0					



		ALL PED + BIKE & SCOOTER					PEDESTRIAN CROSSINGS					BICYCLE & SCOOTER CROSSINGS				
		N LEG	S LEG	E LEG	W LEG	TOTAL	N LEG	S LEG	E LEG	W LEG	TOTAL	NL	SL	EL	WL	TOTAL
AM	7:00 AM	0	1	1	3	5	0	1	1	2	4	0	0	0	1	1
	7:15 AM	0	0	1	2	3	0	0	1	1	2	0	0	0	1	1
	7:30 AM	0	1	4	6	11	0	1	3	5	9	0	0	1	1	2
	7:45 AM	0	4	4	2	10	0	4	3	2	9	0	0	1	0	1
	8:00 AM	0	1	1	1	3	0	1	1	1	3	0	0	0	0	0
	8:15 AM	0	0	0	3	3	0	0	0	2	2	0	0	0	1	1
	8:30 AM	0	0	4	1	5	0	0	2	1	3	0	0	2	0	2
	8:45 AM	0	1	1	2	4	0	1	0	1	2	0	0	1	1	2
	TOTAL	0	8	16	20	44	0	8	11	15	34	0	0	5	5	10
	BEGIN PEAK HR	7:30 AM					0	6	7	10	23	0	0	2	2	4
PM	2:00 PM	0	4	3	6	13	0	3	0	5	8	0	1	3	1	5
	2:15 PM	0	2	2	2	6	0	2	2	1	5	0	0	0	1	1
	2:30 PM	0	0	2	2	4	0	0	1	2	3	0	0	1	0	1
	2:45 PM	0	3	4	5	12	0	3	1	3	7	0	0	3	2	5
	3:00 PM	0	0	0	5	5	0	0	0	5	5	0	0	0	0	0
	3:15 PM	0	2	2	5	9	0	2	2	4	8	0	0	0	1	1
	3:30 PM	0	4	1	4	9	0	4	1	4	9	0	0	0	0	0
	3:45 PM	0	5	3	3	11	0	5	3	3	11	0	0	0	0	0
	4:00 PM	0	2	4	4	10	0	2	3	4	9	0	0	1	0	1
	4:15 PM	0	2	2	3	7	0	2	1	1	4	0	0	1	2	3
	4:30 PM	0	1	4	5	10	0	1	3	3	7	0	0	1	2	3
	4:45 PM	0	4	4	1	9	0	4	3	0	7	0	0	1	1	2
	5:00 PM	0	4	2	6	12	0	4	1	5	10	0	0	1	1	2
	5:15 PM	0	2	3	1	6	0	2	2	0	4	0	0	1	1	2
	5:30 PM	0	1	0	2	3	0	1	0	1	2	0	0	0	1	1
	5:45 PM	0	0	1	1	2	0	0	1	1	2	0	0	0	0	0
	TOTAL	0	36	37	55	128	0	35	24	42	101	0	1	13	13	27
	BEGIN PEAK HR	4:15 PM					0	11	8	9	28	0	0	4	6	10

AimTD LLC

TURNING MOVEMENT COUNTS



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SB
Lane Configurations												
Traffic Volume (veh/h)	1	18	102	70	125	297	13	98	87	68	10	17
Future Volume (veh/h)	1	18	102	70	125	297	13	98	87	68	10	17
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Ped-Bike Adj(A_pbT)		1.00		0.98	1.00		0.98	1.00		0.98	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Work Zone On Approach			No			No			No			N
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	187
Adj Flow Rate, veh/h		19	109	74	133	316	14	104	93	72	11	18
Peak Hour Factor		0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.9
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h		40	226	141	139	570	25	133	1025	721	25	117
Arrive On Green		0.02	0.11	0.11	0.08	0.16	0.16	0.07	0.52	0.52	0.01	0.4
Sat Flow, veh/h		1781	2079	1296	1781	3463	153	1781	1979	1392	1781	257
Grp Volume(v), veh/h		19	92	91	133	162	168	104	83	82	11	12
Grp Sat Flow(s),veh/h/ln		1781	1777	1598	1781	1777	1839	1781	1777	1593	1781	177
Q Serve(g_s), s		0.7	3.1	3.5	4.8	5.3	5.4	3.7	1.5	1.7	0.4	2.
Cycle Q Clear(g_c), s		0.7	3.1	3.5	4.8	5.3	5.4	3.7	1.5	1.7	0.4	2.
Prop In Lane		1.00		0.81	1.00		0.08	1.00		0.87	1.00	
Lane Grp Cap(c), veh/h		40	194	174	139	293	303	133	920	825	25	81
V/C Ratio(X)		0.48	0.47	0.52	0.96	0.55	0.56	0.78	0.09	0.10	0.45	0.1
Avail Cap(c_a), veh/h		139	500	449	139	500	517	139	920	825	139	81
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.0
Uniform Delay (d), s/veh		30.9	26.8	26.9	29.4	24.6	24.6	29.1	7.8	7.8	31.3	10.
Incr Delay (d2), s/veh		8.6	1.8	2.4	62.7	1.6	1.6	23.6	0.2	0.2	12.0	0.
Initial Q Delay(d3), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.
%ile BackOfQ(50%),veh/ln		0.4	1.3	1.3	4.3	2.2	2.3	2.3	0.5	0.5	0.2	1.
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		39.5	28.6	29.4	92.1	26.2	26.2	52.7	8.0	8.1	43.3	10.
LnGrp LOS		D	C	C	F	C	C	D	A	A	D	B
Approach Vol, veh/h			202			463			269			26
Approach Delay, s/veh			30.0			45.1			25.3			12.
Approach LOS			C			D			C			B

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.4	37.6	9.5	11.5	9.3	33.7	5.9	15.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	2.4	3.7	6.8	5.5	5.7	4.8	2.7	7.4
Green Ext Time (p_c), s	0.0	0.7	0.0	0.7	0.0	1.1	0.0	1.2

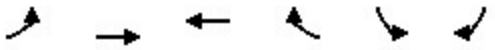
Intersection Summary	
HCM 7th Control Delay, s/veh	30.8
HCM 7th LOS	C

Notes

User approved ignoring U-Turning movement.



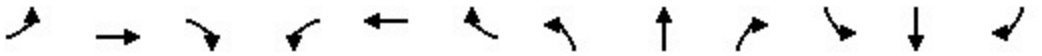
Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	64
Future Volume (veh/h)	64
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	0.99
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	68
Peak Hour Factor	0.94
Percent Heavy Veh, %	2
Cap, veh/h	410
Arrive On Green	0.46
Sat Flow, veh/h	897
Grp Volume(v), veh/h	128
Grp Sat Flow(s),veh/h/ln	1693
Q Serve(g_s), s	2.8
Cycle Q Clear(g_c), s	2.8
Prop In Lane	0.53
Lane Grp Cap(c), veh/h	774
V/C Ratio(X)	0.17
Avail Cap(c_a), veh/h	774
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	10.2
Incr Delay (d2), s/veh	0.5
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	10.7
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	47	139	290	112	51	83
Future Volume (veh/h)	47	139	290	112	51	83
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	52	153	319	123	56	91
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	455	1421	1009	381	713	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	947	3647	2615	954	1781	1585
Grp Volume(v), veh/h	52	153	223	219	56	91
Grp Sat Flow(s),veh/h/ln	947	1777	1777	1699	1781	1585
Q Serve(g_s), s	1.8	1.2	3.9	4.0	0.9	1.6
Cycle Q Clear(g_c), s	5.8	1.2	3.9	4.0	0.9	1.6
Prop In Lane	1.00			0.56	1.00	1.00
Lane Grp Cap(c), veh/h	455	1421	711	679	713	634
V/C Ratio(X)	0.11	0.11	0.31	0.32	0.08	0.14
Avail Cap(c_a), veh/h	455	1421	711	679	713	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.3	8.5	9.3	9.3	8.4	8.6
Incr Delay (d2), s/veh	0.5	0.2	1.2	1.3	0.2	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	1.4	1.4	0.3	0.5
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	11.8	8.6	10.4	10.6	8.6	9.1
LnGrp LOS	B	A	B	B	A	A
Approach Vol, veh/h		205	442		147	
Approach Delay, s/veh		9.4	10.5		8.9	
Approach LOS		A	B		A	

Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		22.5		22.5	22.5
Change Period (Y+Rc), s		4.5		4.5	4.5
Max Green Setting (Gmax), s		18.0		18.0	18.0
Max Q Clear Time (g_c+I1), s		7.8		3.6	6.0
Green Ext Time (p_c), s		0.8		0.3	2.1

Intersection Summary	
HCM 7th Control Delay, s/veh	9.9
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	21	96	21	6	2	194	154	123	11	154	176
Future Volume (veh/h)	62	21	96	21	6	2	194	154	123	11	154	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	25	113	25	7	2	228	181	145	13	181	207
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	96	248	442	49	290	78	267	2015	884	28	769	674
Arrive On Green	0.05	0.13	0.13	0.03	0.11	0.11	0.15	0.57	0.57	0.02	0.43	0.43
Sat Flow, veh/h	1781	1870	1546	1781	2745	741	1781	3554	1560	1781	1777	1557
Grp Volume(v), veh/h	73	25	113	25	4	5	228	181	145	13	181	207
Grp Sat Flow(s),veh/h/ln	1781	1870	1546	1781	1777	1709	1781	1777	1560	1781	1777	1557
Q Serve(g_s), s	2.8	0.8	4.0	1.0	0.2	0.2	8.7	1.6	3.1	0.5	4.5	6.1
Cycle Q Clear(g_c), s	2.8	0.8	4.0	1.0	0.2	0.2	8.7	1.6	3.1	0.5	4.5	6.1
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	96	248	442	49	188	181	267	2015	884	28	769	674
V/C Ratio(X)	0.76	0.10	0.26	0.51	0.02	0.03	0.85	0.09	0.16	0.46	0.24	0.31
Avail Cap(c_a), veh/h	127	481	635	127	457	439	267	2015	884	127	769	674
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.93	0.93	0.93	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	26.7	19.4	33.6	28.1	28.1	29.0	6.9	7.2	34.1	12.5	13.0
Incr Delay (d2), s/veh	16.7	0.2	0.3	8.0	0.0	0.1	21.2	0.1	0.4	11.0	0.7	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	0.4	1.4	0.5	0.1	0.1	5.1	0.5	1.0	0.3	1.7	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	49.4	26.9	19.7	41.6	28.1	28.1	50.2	7.0	7.6	45.2	13.3	14.2
LnGrp LOS	D	C	B	D	C	C	D	A	A	D	B	
Approach Vol, veh/h		211			34			554			401	
Approach Delay, s/veh		30.8			38.0			25.0			14.8	
Approach LOS		C			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.6	44.2	6.4	13.8	15.0	34.8	8.3	11.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	24.0	5.0	18.0	10.5	18.5	5.0	18.0
Max Q Clear Time (g_c+I1), s	2.5	5.1	3.0	6.0	10.7	8.1	4.8	2.2
Green Ext Time (p_c), s	0.0	1.5	0.0	0.3	0.0	1.7	0.0	0.0

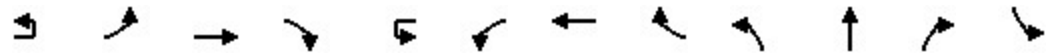
Intersection Summary	
HCM 7th Control Delay, s/veh	22.9
HCM 7th LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	14	5	459	47	17	252
Future Volume (veh/h)	14	5	459	47	17	252
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	18	6	574	59	21	315
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	717	638	1061	109	44	1542
Arrive On Green	0.40	0.40	0.33	0.33	0.02	0.43
Sat Flow, veh/h	1781	1585	3335	332	1781	3647
Grp Volume(v), veh/h	18	6	314	319	21	315
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1797	1781	1777
Q Serve(g_s), s	0.3	0.1	7.9	8.0	0.6	3.0
Cycle Q Clear(g_c), s	0.3	0.1	7.9	8.0	0.6	3.0
Prop In Lane	1.00	1.00		0.18	1.00	
Lane Grp Cap(c), veh/h	717	638	582	588	44	1542
V/C Ratio(X)	0.03	0.01	0.54	0.54	0.47	0.20
Avail Cap(c_a), veh/h	717	638	582	588	162	1542
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.94	0.94	0.98	0.98
Uniform Delay (d), s/veh	9.9	9.9	15.1	15.1	26.5	9.7
Incr Delay (d2), s/veh	0.1	0.0	3.4	3.4	7.4	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	3.3	3.3	0.3	1.0
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	10.0	9.9	18.5	18.5	33.9	10.0
LnGrp LOS	A	A	B	B	C	A
Approach Vol, veh/h	24		633			336
Approach Delay, s/veh	10.0		18.5			11.5
Approach LOS	A		B			B

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		26.6	5.9	22.5		28.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0
Max Q Clear Time (g_c+I1), s		2.3	2.6	10.0		5.0
Green Ext Time (p_c), s		0.0	0.0	2.3		1.5

Intersection Summary	
HCM 7th Control Delay, s/veh	15.9
HCM 7th LOS	B



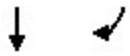
Movement	EBU	EBL	EBT	EBR	WU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	4	47	267	163	1	84	477	105	159	359	138	40
Future Volume (veh/h)	4	47	267	163	1	84	477	105	159	359	138	40
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00		0.98		1.00		0.97	1.00		0.98	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No		
Adj Sat Flow, veh/h/ln		1870	1870	1870		1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		52	297	181		93	530	117	177	399	153	44
Peak Hour Factor		0.90	0.90	0.90		0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %		2	2	2		2	2	2	2	2	2	2
Cap, veh/h		84	720	439		218	777	403	139	1028	389	76
Arrive On Green		0.05	0.20	0.20		0.06	0.22	0.22	0.08	0.41	0.41	0.04
Sat Flow, veh/h		1781	3554	1555		3456	3554	1537	1781	2504	947	1781
Grp Volume(v), veh/h		52	297	181		93	530	117	177	281	271	44
Grp Sat Flow(s),veh/h/ln		1781	1777	1555		1728	1777	1537	1781	1777	1674	1781
Q Serve(g_s), s		1.8	4.7	6.1		1.7	8.8	3.9	5.0	7.1	7.3	1.6
Cycle Q Clear(g_c), s		1.8	4.7	6.1		1.7	8.8	3.9	5.0	7.1	7.3	1.6
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.57	1.00
Lane Grp Cap(c), veh/h		84	720	439		218	777	403	139	729	687	76
V/C Ratio(X)		0.62	0.41	0.41		0.43	0.68	0.29	1.27	0.39	0.39	0.58
Avail Cap(c_a), veh/h		139	999	561		270	999	499	139	729	687	139
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	0.99
Uniform Delay (d), s/veh		29.9	22.2	18.7		28.9	23.0	18.9	29.5	13.2	13.3	30.1
Incr Delay (d2), s/veh		7.2	0.4	0.6		1.3	1.3	0.4	166.7	1.5	1.7	6.9
Initial Q Delay(d3), s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.9	1.8	2.0		0.7	3.4	1.3	8.4	2.8	2.7	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		37.2	22.6	19.4		30.2	24.3	19.3	196.2	14.8	15.0	37.0
LnGrp LOS		D	C	B		C	C	B	F	B	B	D
Approach Vol, veh/h			530				740			729		
Approach Delay, s/veh			22.9				24.2			58.9		
Approach LOS			C				C			E		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.2	30.8	8.5	17.5	9.5	28.5	7.5	18.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	3.6	9.3	3.7	8.1	7.0	5.2	3.8	10.8
Green Ext Time (p_c), s	0.0	2.2	0.0	1.7	0.0	1.1	0.0	2.2

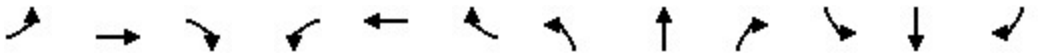
Intersection Summary	
HCM 7th Control Delay, s/veh	34.0
HCM 7th LOS	C

Notes

User approved ignoring U-Turning movement.



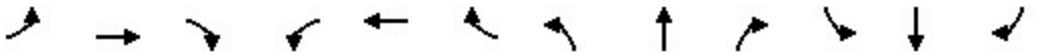
Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	215	20
Future Volume (veh/h)	215	20
Initial Q (Qb), veh	0	0
Lane Width Adj.	1.00	1.00
Ped-Bike Adj(A_pbT)		0.98
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	239	22
Peak Hour Factor	0.90	0.90
Percent Heavy Veh, %	2	2
Cap, veh/h	1231	112
Arrive On Green	0.37	0.37
Sat Flow, veh/h	3285	299
Grp Volume(v), veh/h	128	133
Grp Sat Flow(s),veh/h/ln	1777	1808
Q Serve(g_s), s	3.1	3.2
Cycle Q Clear(g_c), s	3.1	3.2
Prop In Lane		0.17
Lane Grp Cap(c), veh/h	666	678
V/C Ratio(X)	0.19	0.20
Avail Cap(c_a), veh/h	666	678
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.99	0.99
Uniform Delay (d), s/veh	13.5	13.5
Incr Delay (d2), s/veh	0.6	0.6
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	1.3
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	14.1	14.1
LnGrp LOS	B	B
Approach Vol, veh/h	305	
Approach Delay, s/veh	17.4	
Approach LOS	B	
Timer - Assigned Phs		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	219	65	108	398	66	190	400	87	58	333	49
Future Volume (veh/h)	63	219	65	108	398	66	190	400	87	58	333	49
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	70	243	72	120	442	73	211	444	97	64	370	54
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	99	446	129	139	666	290	555	1223	265	481	1236	179
Arrive On Green	0.06	0.16	0.16	0.08	0.19	0.19	0.08	0.42	0.42	0.05	0.40	0.40
Sat Flow, veh/h	1781	2704	780	1781	3554	1547	1781	2895	627	1781	3108	450
Grp Volume(v), veh/h	70	157	158	120	442	73	211	271	270	64	210	214
Grp Sat Flow(s),veh/h/ln	1781	1777	1707	1781	1777	1547	1781	1777	1745	1781	1777	1781
Q Serve(g_s), s	2.5	5.2	5.4	4.3	7.4	2.6	4.5	6.7	6.8	1.3	5.2	5.3
Cycle Q Clear(g_c), s	2.5	5.2	5.4	4.3	7.4	2.6	4.5	6.7	6.8	1.3	5.2	5.3
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.36	1.00		0.25
Lane Grp Cap(c), veh/h	99	293	282	139	666	290	555	751	738	481	706	708
V/C Ratio(X)	0.71	0.54	0.56	0.86	0.66	0.25	0.38	0.36	0.37	0.13	0.30	0.30
Avail Cap(c_a), veh/h	139	500	480	139	999	435	555	751	738	525	706	708
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	24.5	24.6	29.2	24.1	22.2	10.3	12.6	12.6	10.2	13.2	13.2
Incr Delay (d2), s/veh	9.0	1.5	1.7	39.0	1.1	0.5	0.4	1.3	1.4	0.1	1.1	1.1
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	2.1	2.1	3.2	2.9	0.9	1.5	2.5	2.5	0.4	2.0	2.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.7	26.0	26.3	68.1	25.3	22.6	10.7	13.9	14.0	10.4	14.2	14.3
LnGrp LOS	D	C	C	E	C	C	B	B	B	B	B	B
Approach Vol, veh/h		385			635			752			488	
Approach Delay, s/veh		28.5			33.1			13.1			13.8	
Approach LOS		C			C			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.9	31.5	9.5	15.1	9.5	29.9	8.1	16.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	3.3	8.8	6.3	7.4	6.5	7.3	4.5	9.4
Green Ext Time (p_c), s	0.0	2.1	0.0	1.2	0.0	1.7	0.0	1.9

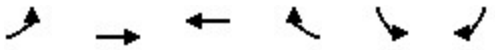
Intersection Summary	
HCM 7th Control Delay, s/veh	21.5
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	55	289	120	109	175	14	76	228	141	19	184	28
Future Volume (veh/h)	55	289	120	109	175	14	76	228	141	19	184	28
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	63	332	138	125	201	16	87	262	162	22	211	32
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	94	479	195	139	735	58	111	893	532	45	1184	177
Arrive On Green	0.05	0.20	0.20	0.08	0.22	0.22	0.06	0.42	0.42	0.03	0.38	0.38
Sat Flow, veh/h	1781	2456	1001	1781	3330	263	1781	2124	1265	1781	3092	461
Grp Volume(v), veh/h	63	238	232	125	106	111	87	218	206	22	120	123
Grp Sat Flow(s),veh/h/ln	1781	1777	1679	1781	1777	1816	1781	1777	1613	1781	1777	1777
Q Serve(g_s), s	2.2	8.0	8.2	4.5	3.2	3.2	3.1	5.2	5.4	0.8	2.9	2.9
Cycle Q Clear(g_c), s	2.2	8.0	8.2	4.5	3.2	3.2	3.1	5.2	5.4	0.8	2.9	2.9
Prop In Lane	1.00		0.60	1.00		0.14	1.00		0.78	1.00		0.26
Lane Grp Cap(c), veh/h	94	347	328	139	392	401	111	747	678	45	681	681
V/C Ratio(X)	0.67	0.69	0.71	0.90	0.27	0.28	0.78	0.29	0.30	0.49	0.18	0.18
Avail Cap(c_a), veh/h	139	500	472	139	500	511	139	747	678	139	681	681
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.8	23.9	24.0	29.2	20.7	20.7	29.6	12.3	12.3	30.8	13.1	13.1
Incr Delay (d2), s/veh	8.1	2.4	2.8	47.2	0.4	0.4	19.9	1.0	1.2	8.0	0.6	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.3	3.2	3.6	1.2	1.3	1.8	1.9	1.9	0.4	1.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	37.8	26.4	26.9	76.5	21.0	21.1	49.4	13.2	13.5	38.7	13.6	13.7
LnGrp LOS	D	C	C	E	C	C	D	B	B	D	B	B
Approach Vol, veh/h		533			342			511			265	
Approach Delay, s/veh		27.9			41.3			19.5			15.7	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.1	31.4	9.5	17.0	8.5	29.0	7.9	18.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	2.8	7.4	6.5	10.2	5.1	4.9	4.2	5.2
Green Ext Time (p_c), s	0.0	1.7	0.0	1.6	0.0	1.0	0.0	0.8

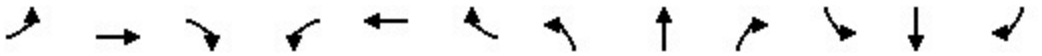
Intersection Summary	
HCM 7th Control Delay, s/veh	26.1
HCM 7th LOS	C



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	86	300	216	89	105	93
Future Volume (veh/h)	86	300	216	89	105	93
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	330	237	98	115	102
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	509	1421	990	397	713	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1045	3647	2569	993	1781	1585
Grp Volume(v), veh/h	95	330	168	167	115	102
Grp Sat Flow(s),veh/h/ln	1045	1777	1777	1692	1781	1585
Q Serve(g_s), s	3.0	2.8	2.8	3.0	1.9	1.9
Cycle Q Clear(g_c), s	6.0	2.8	2.8	3.0	1.9	1.9
Prop In Lane	1.00			0.59	1.00	1.00
Lane Grp Cap(c), veh/h	509	1421	711	677	713	634
V/C Ratio(X)	0.19	0.23	0.24	0.25	0.16	0.16
Avail Cap(c_a), veh/h	509	1421	711	677	713	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.0	8.9	8.9	9.0	8.7	8.7
Incr Delay (d2), s/veh	0.8	0.4	0.8	0.9	0.5	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.9	1.0	1.0	0.7	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	11.8	9.3	9.7	9.9	9.1	9.2
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h		425	335		217	
Approach Delay, s/veh		9.9	9.8		9.2	
Approach LOS		A	A		A	

Timer - Assigned Phs			4		6	8
Phs Duration (G+Y+Rc), s			22.5		22.5	22.5
Change Period (Y+Rc), s			4.5		4.5	4.5
Max Green Setting (Gmax), s			18.0		18.0	18.0
Max Q Clear Time (g_c+I1), s			8.0		3.9	5.0
Green Ext Time (p_c), s			1.8		0.5	1.6

Intersection Summary	
HCM 7th Control Delay, s/veh	9.7
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	204	14	212	69	15	8	141	198	42	2	194	88
Future Volume (veh/h)	204	14	212	69	15	8	141	198	42	2	194	88
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	208	14	216	70	15	8	144	202	43	2	198	90
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	248	328	435	91	200	96	179	1885	826	5	1035	451
Arrive On Green	0.14	0.18	0.18	0.05	0.09	0.09	0.10	0.53	0.53	0.00	0.43	0.43
Sat Flow, veh/h	1781	1870	1569	1781	2295	1104	1781	3554	1556	1781	2393	1043
Grp Volume(v), veh/h	208	14	216	70	11	12	144	202	43	2	145	143
Grp Sat Flow(s),veh/h/ln	1781	1870	1569	1781	1777	1622	1781	1777	1556	1781	1777	1659
Q Serve(g_s), s	8.5	0.5	8.7	2.9	0.4	0.5	5.9	2.1	1.0	0.1	3.8	4.0
Cycle Q Clear(g_c), s	8.5	0.5	8.7	2.9	0.4	0.5	5.9	2.1	1.0	0.1	3.8	4.0
Prop In Lane	1.00		1.00	1.00		0.68	1.00		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	248	328	435	91	155	142	179	1885	826	5	769	718
V/C Ratio(X)	0.84	0.04	0.50	0.77	0.07	0.08	0.80	0.11	0.05	0.41	0.19	0.20
Avail Cap(c_a), veh/h	273	556	626	171	426	389	202	1885	826	119	769	718
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.4	25.7	22.8	35.1	31.4	31.5	33.0	8.8	8.5	37.3	13.1	13.2
Incr Delay (d2), s/veh	18.7	0.1	0.9	12.6	0.2	0.2	18.2	0.1	0.1	47.8	0.5	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.8	0.2	3.2	1.5	0.2	0.2	3.4	0.7	0.3	0.1	1.5	1.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	50.1	25.7	23.7	47.8	31.6	31.7	51.2	8.9	8.6	85.1	13.7	13.8
LnGrp LOS	D	C	C	D	C	C	D	A	A	F	B	B
Approach Vol, veh/h		438			93			389			290	
Approach Delay, s/veh		36.3			43.8			24.5			14.3	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	44.3	8.3	17.7	12.1	36.9	15.0	11.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	22.5	7.2	22.3	8.5	19.0	11.5	18.0
Max Q Clear Time (g_c+I1), s	2.1	4.1	4.9	10.7	7.9	6.0	10.5	2.5
Green Ext Time (p_c), s	0.0	1.2	0.0	0.6	0.0	1.3	0.1	0.0

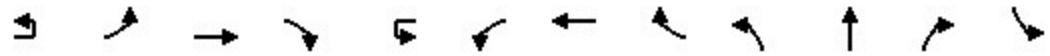
Intersection Summary	
HCM 7th Control Delay, s/veh	27.8
HCM 7th LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	84	20	345	33	19	463
Future Volume (veh/h)	84	20	345	33	19	463
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		0.96	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	90	22	371	35	20	498
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	718	639	1071	100	43	1539
Arrive On Green	0.40	0.40	0.33	0.33	0.02	0.43
Sat Flow, veh/h	1781	1585	3365	307	1781	3647
Grp Volume(v), veh/h	90	22	200	206	20	498
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1801	1781	1777
Q Serve(g_s), s	1.7	0.5	4.7	4.8	0.6	5.1
Cycle Q Clear(g_c), s	1.7	0.5	4.7	4.8	0.6	5.1
Prop In Lane	1.00	1.00		0.17	1.00	
Lane Grp Cap(c), veh/h	718	639	582	590	43	1539
V/C Ratio(X)	0.13	0.03	0.34	0.35	0.47	0.32
Avail Cap(c_a), veh/h	718	639	582	590	162	1539
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.94	0.94	0.97	0.97
Uniform Delay (d), s/veh	10.3	9.9	14.0	14.0	26.5	10.3
Incr Delay (d2), s/veh	0.4	0.1	1.5	1.5	7.6	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2	1.9	1.9	0.3	1.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	10.7	10.0	15.5	15.6	34.1	10.8
LnGrp LOS	B	B	B	B	C	B
Approach Vol, veh/h	112		406			518
Approach Delay, s/veh	10.5		15.6			11.7
Approach LOS	B		B			B

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		26.7	5.8	22.5		28.3
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0
Max Q Clear Time (g_c+I1), s		3.7	2.6	6.8		7.1
Green Ext Time (p_c), s		0.2	0.0	1.7		2.4

Intersection Summary	
HCM 7th Control Delay, s/veh	13.1
HCM 7th LOS	B



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	2	56	416	75	2	165	386	93	159	276	197	97
Future Volume (veh/h)	2	56	416	75	2	165	386	93	159	276	197	97
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00		0.96		1.00		0.96	1.00		0.97	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No		
Adj Sat Flow, veh/h/ln		1870	1870	1870		1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		60	443	80		176	411	99	169	294	210	103
Peak Hour Factor		0.94	0.94	0.94		0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		2	2	2		2	2	2	2	2	2	2
Cap, veh/h		91	709	428		267	801	462	139	729	503	132
Arrive On Green		0.05	0.20	0.20		0.08	0.23	0.23	0.08	0.37	0.37	0.07
Sat Flow, veh/h		1781	3554	1525		3456	3554	1530	1781	1980	1366	1781
Grp Volume(v), veh/h		60	443	80		176	411	99	169	263	241	103
Grp Sat Flow(s),veh/h/ln		1781	1777	1525		1728	1777	1530	1781	1777	1569	1781
Q Serve(g_s), s		2.1	7.3	2.6		3.2	6.5	3.1	5.0	7.0	7.3	3.6
Cycle Q Clear(g_c), s		2.1	7.3	2.6		3.2	6.5	3.1	5.0	7.0	7.3	3.6
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.87	1.00
Lane Grp Cap(c), veh/h		91	709	428		267	801	462	139	654	578	132
V/C Ratio(X)		0.66	0.62	0.19		0.66	0.51	0.21	1.21	0.40	0.42	0.78
Avail Cap(c_a), veh/h		139	999	553		270	999	547	139	654	578	139
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	0.98
Uniform Delay (d), s/veh		29.8	23.4	17.6		28.7	21.7	16.8	29.5	15.0	15.1	29.1
Incr Delay (d2), s/veh		7.8	0.9	0.2		5.7	0.5	0.2	145.2	1.8	2.2	23.0
Initial Q Delay(d3), s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.0	2.8	0.8		1.4	2.5	1.0	7.6	2.8	2.7	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		37.6	24.3	17.8		34.4	22.2	17.0	174.7	16.8	17.3	52.1
LnGrp LOS		D	C	B		C	C	B	F	B	B	D
Approach Vol, veh/h			583				686			673		
Approach Delay, s/veh			24.8				24.6			56.6		
Approach LOS			C				C			E		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.2	28.1	9.4	17.3	9.5	27.8	7.8	18.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	5.6	9.3	5.2	9.3	7.0	7.5	4.1	8.5
Green Ext Time (p_c), s	0.0	2.0	0.0	2.0	0.0	1.7	0.0	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	33.1
HCM 7th LOS	C

Notes

User approved ignoring U-Turning movement.



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	362	37
Future Volume (veh/h)	362	37
Initial Q (Qb), veh	0	0
Lane Width Adj.	1.00	1.00
Ped-Bike Adj(A_pbT)		0.96
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	385	39
Peak Hour Factor	0.94	0.94
Percent Heavy Veh, %	2	2
Cap, veh/h	1182	119
Arrive On Green	0.36	0.36
Sat Flow, veh/h	3247	327
Grp Volume(v), veh/h	209	215
Grp Sat Flow(s),veh/h/ln	1777	1797
Q Serve(g_s), s	5.4	5.5
Cycle Q Clear(g_c), s	5.4	5.5
Prop In Lane		0.18
Lane Grp Cap(c), veh/h	647	654
V/C Ratio(X)	0.32	0.33
Avail Cap(c_a), veh/h	647	654
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.98	0.98
Uniform Delay (d), s/veh	14.7	14.7
Incr Delay (d2), s/veh	1.3	1.3
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.2	2.2
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	16.0	16.0
LnGrp LOS	B	B
Approach Vol, veh/h	527	
Approach Delay, s/veh	23.1	
Approach LOS	C	
Timer - Assigned Phs		



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	1	68	441	84	148	342	70	150	351	140	113	446
Future Volume (veh/h)	1	68	441	84	148	342	70	150	351	140	113	446
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00		0.97	1.00		0.98	1.00		0.98	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		72	464	88	156	360	74	158	369	147	119	469
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h		100	642	121	139	845	368	445	882	346	448	1051
Arrive On Green		0.06	0.22	0.22	0.08	0.24	0.24	0.08	0.36	0.36	0.07	0.35
Sat Flow, veh/h		1781	2970	559	1781	3554	1545	1781	2479	971	1781	3035
Grp Volume(v), veh/h		72	276	276	156	360	74	158	263	253	119	273
Grp Sat Flow(s),veh/h/ln		1781	1777	1752	1781	1777	1545	1781	1777	1673	1781	1777
Q Serve(g_s), s		2.5	9.2	9.4	5.0	5.5	2.5	3.6	7.2	7.4	2.7	7.6
Cycle Q Clear(g_c), s		2.5	9.2	9.4	5.0	5.5	2.5	3.6	7.2	7.4	2.7	7.6
Prop In Lane		1.00		0.32	1.00		1.00	1.00		0.58	1.00	
Lane Grp Cap(c), veh/h		100	384	379	139	845	368	445	632	595	448	616
V/C Ratio(X)		0.72	0.72	0.73	1.12	0.43	0.20	0.35	0.42	0.43	0.27	0.44
Avail Cap(c_a), veh/h		139	500	493	139	999	435	445	632	595	464	616
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		29.7	23.3	23.3	29.5	20.7	19.5	12.2	15.6	15.6	12.1	16.2
Incr Delay (d2), s/veh		10.2	3.5	3.8	112.5	0.3	0.3	0.5	2.0	2.2	0.3	2.3
Initial Q Delay(d3), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.3	3.8	3.9	6.3	2.1	0.8	1.2	2.8	2.8	0.9	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		39.9	26.8	27.2	142.0	21.0	19.8	12.7	17.6	17.9	12.5	18.5
LnGrp LOS		D	C	C	F	C	B	B	B	B	B	B
Approach Vol, veh/h			624			590			674			667
Approach Delay, s/veh			28.5			52.8			16.5			17.4
Approach LOS			C			D			B			B

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.9	27.3	9.5	18.3	9.5	26.7	8.1	19.7
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	4.7	9.4	7.0	11.4	5.6	9.7	4.5	7.5
Green Ext Time (p_c), s	0.0	1.9	0.0	1.7	0.0	2.0	0.0	1.7

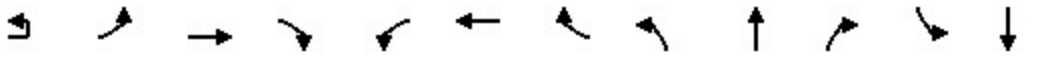
Intersection Summary	
HCM 7th Control Delay, s/veh	28.1
HCM 7th LOS	C

Notes

User approved ignoring U-Turning movement.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	75
Future Volume (veh/h)	75
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	79
Peak Hour Factor	0.95
Percent Heavy Veh, %	2
Cap, veh/h	176
Arrive On Green	0.35
Sat Flow, veh/h	508
Grp Volume(v), veh/h	275
Grp Sat Flow(s),veh/h/ln	1766
Q Serve(g_s), s	7.7
Cycle Q Clear(g_c), s	7.7
Prop In Lane	0.29
Lane Grp Cap(c), veh/h	612
V/C Ratio(X)	0.45
Avail Cap(c_a), veh/h	612
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	16.2
Incr Delay (d2), s/veh	2.4
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(50%),veh/ln	3.1
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	18.6
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	1	19	107	74	132	313	14	103	92	72	11	186
Future Volume (veh/h)	1	19	107	74	132	313	14	103	92	72	11	186
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00		0.98	1.00		0.98	1.00		0.98	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		20	114	79	140	333	15	110	98	77	12	198
Peak Hour Factor		0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h		42	231	147	139	578	26	139	1008	720	27	1161
Arrive On Green		0.02	0.11	0.11	0.08	0.17	0.17	0.08	0.51	0.51	0.02	0.45
Sat Flow, veh/h		1781	2061	1312	1781	3460	155	1781	1965	1403	1781	2578
Grp Volume(v), veh/h		20	97	96	140	170	178	110	88	87	12	134
Grp Sat Flow(s),veh/h/ln		1781	1777	1596	1781	1777	1838	1781	1777	1591	1781	1777
Q Serve(g_s), s		0.7	3.3	3.6	5.0	5.7	5.7	3.9	1.6	1.8	0.4	2.9
Cycle Q Clear(g_c), s		0.7	3.3	3.6	5.0	5.7	5.7	3.9	1.6	1.8	0.4	2.9
Prop In Lane		1.00		0.82	1.00		0.08	1.00		0.88	1.00	
Lane Grp Cap(c), veh/h		42	199	179	139	297	307	139	912	817	27	800
V/C Ratio(X)		0.48	0.49	0.54	1.01	0.57	0.58	0.79	0.10	0.11	0.45	0.17
Avail Cap(c_a), veh/h		139	500	449	139	500	517	139	912	817	139	800
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		30.9	26.7	26.8	29.5	24.6	24.6	29.0	8.0	8.0	31.3	10.5
Incr Delay (d2), s/veh		8.3	1.8	2.5	77.9	1.8	1.7	25.7	0.2	0.3	11.3	0.5
Initial Q Delay(d3), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.4	1.4	1.4	5.0	2.3	2.4	2.5	0.5	0.6	0.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		39.2	28.5	29.3	107.4	26.3	26.3	54.7	8.2	8.3	42.6	10.9
LnGrp LOS		D	C	C	F	C	C	D	A	A	D	B
Approach Vol, veh/h			213			488			285			281
Approach Delay, s/veh			29.9			49.6			26.2			12.3
Approach LOS			C			D			C			B

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	37.4	9.5	11.7	9.5	33.3	6.0	15.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	2.4	3.8	7.0	5.6	5.9	5.0	2.7	7.7
Green Ext Time (p_c), s	0.0	0.7	0.0	0.7	0.0	1.1	0.0	1.3

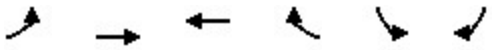
Intersection Summary	
HCM 7th Control Delay, s/veh	32.7
HCM 7th LOS	C

Notes

User approved ignoring U-Turning movement.



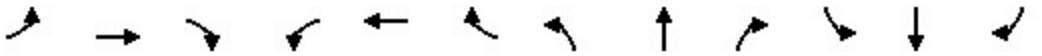
Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	67
Future Volume (veh/h)	67
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	0.99
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	71
Peak Hour Factor	0.94
Percent Heavy Veh, %	2
Cap, veh/h	402
Arrive On Green	0.45
Sat Flow, veh/h	893
Grp Volume(v), veh/h	135
Grp Sat Flow(s),veh/h/ln	1694
Q Serve(g_s), s	3.0
Cycle Q Clear(g_c), s	3.0
Prop In Lane	0.53
Lane Grp Cap(c), veh/h	763
V/C Ratio(X)	0.18
Avail Cap(c_a), veh/h	763
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	10.5
Incr Delay (d2), s/veh	0.5
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.0
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	11.0
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	146	305	118	54	87
Future Volume (veh/h)	49	146	305	118	54	87
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	160	335	130	59	96
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	444	1421	1006	384	713	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	928	3647	2609	959	1781	1585
Grp Volume(v), veh/h	54	160	235	230	59	96
Grp Sat Flow(s),veh/h/ln	928	1777	1777	1698	1781	1585
Q Serve(g_s), s	1.9	1.3	4.1	4.2	0.9	1.7
Cycle Q Clear(g_c), s	6.2	1.3	4.1	4.2	0.9	1.7
Prop In Lane	1.00			0.56	1.00	1.00
Lane Grp Cap(c), veh/h	444	1421	711	679	713	634
V/C Ratio(X)	0.12	0.11	0.33	0.34	0.08	0.15
Avail Cap(c_a), veh/h	444	1421	711	679	713	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.5	8.5	9.3	9.4	8.4	8.6
Incr Delay (d2), s/veh	0.6	0.2	1.2	1.4	0.2	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	1.5	1.5	0.3	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	12.1	8.6	10.6	10.7	8.6	9.1
LnGrp LOS	B	A	B	B	A	A
Approach Vol, veh/h		214	465		155	
Approach Delay, s/veh		9.5	10.6		8.9	
Approach LOS		A	B		A	

Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		22.5		22.5	22.5
Change Period (Y+Rc), s		4.5		4.5	4.5
Max Green Setting (Gmax), s		18.0		18.0	18.0
Max Q Clear Time (g_c+I1), s		8.2		3.7	6.2
Green Ext Time (p_c), s		0.8		0.4	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	10.0
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	22	101	22	6	2	204	162	129	12	162	185
Future Volume (veh/h)	65	22	101	22	6	2	204	162	129	12	162	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	26	119	26	7	2	240	191	152	14	191	218
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	249	443	50	291	79	267	2006	881	30	767	672
Arrive On Green	0.06	0.13	0.13	0.03	0.11	0.11	0.15	0.56	0.56	0.02	0.43	0.43
Sat Flow, veh/h	1781	1870	1546	1781	2745	741	1781	3554	1560	1781	1777	1557
Grp Volume(v), veh/h	76	26	119	26	4	5	240	191	152	14	191	218
Grp Sat Flow(s),veh/h/ln	1781	1870	1546	1781	1777	1709	1781	1777	1560	1781	1777	1557
Q Serve(g_s), s	2.9	0.9	4.2	1.0	0.2	0.2	9.3	1.7	3.3	0.5	4.8	6.5
Cycle Q Clear(g_c), s	2.9	0.9	4.2	1.0	0.2	0.2	9.3	1.7	3.3	0.5	4.8	6.5
Prop In Lane	1.00		1.00	1.00		0.43	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	249	443	50	189	181	267	2006	881	30	767	672
V/C Ratio(X)	0.77	0.10	0.27	0.51	0.02	0.03	0.90	0.10	0.17	0.46	0.25	0.32
Avail Cap(c_a), veh/h	127	481	635	127	457	439	267	2006	881	127	767	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	26.7	19.5	33.5	28.0	28.0	29.2	7.0	7.4	34.1	12.7	13.1
Incr Delay (d2), s/veh	19.4	0.2	0.3	7.9	0.0	0.1	28.4	0.1	0.4	10.5	0.8	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.4	1.5	0.5	0.1	0.1	5.8	0.6	1.0	0.3	1.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.1	26.9	19.8	41.4	28.1	28.1	57.6	7.1	7.7	44.6	13.4	14.4
LnGrp LOS	D	C	B	D	C	C	E	A	A	D	B	B
Approach Vol, veh/h		221			35			583			423	
Approach Delay, s/veh		31.7			38.0			28.1			15.0	
Approach LOS		C			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	44.0	6.5	13.8	15.0	34.7	8.4	11.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	24.0	5.0	18.0	10.5	18.5	5.0	18.0
Max Q Clear Time (g_c+I1), s	2.5	5.3	3.0	6.2	11.3	8.5	4.9	2.2
Green Ext Time (p_c), s	0.0	1.5	0.0	0.3	0.0	1.7	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	24.6
HCM 7th LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	15	5	483	49	18	265
Future Volume (veh/h)	15	5	483	49	18	265
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	6	604	61	22	331
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	715	636	1063	107	46	1546
Arrive On Green	0.40	0.40	0.33	0.33	0.03	0.44
Sat Flow, veh/h	1781	1585	3341	327	1781	3647
Grp Volume(v), veh/h	19	6	330	335	22	331
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1798	1781	1777
Q Serve(g_s), s	0.4	0.1	8.4	8.5	0.7	3.2
Cycle Q Clear(g_c), s	0.4	0.1	8.4	8.5	0.7	3.2
Prop In Lane	1.00	1.00		0.18	1.00	
Lane Grp Cap(c), veh/h	715	636	582	589	46	1546
V/C Ratio(X)	0.03	0.01	0.57	0.57	0.48	0.21
Avail Cap(c_a), veh/h	715	636	582	589	162	1546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	0.98	0.98
Uniform Delay (d), s/veh	10.0	9.9	15.3	15.3	26.4	9.7
Incr Delay (d2), s/veh	0.1	0.0	3.7	3.7	7.3	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	3.5	3.6	0.4	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	10.0	9.9	19.0	19.0	33.7	10.0
LnGrp LOS	B	A	B	B	C	A
Approach Vol, veh/h	25		665			353
Approach Delay, s/veh	10.0		19.0			11.5
Approach LOS	B		B			B

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		26.6	5.9	22.5		28.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0
Max Q Clear Time (g_c+I1), s		2.4	2.7	10.5		5.2
Green Ext Time (p_c), s		0.0	0.0	2.4		1.6

Intersection Summary	
HCM 7th Control Delay, s/veh	16.2
HCM 7th LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	4	49	281	172	1	88	502	110	167	378	145	42
Future Volume (veh/h)	4	49	281	172	1	88	502	110	167	378	145	42
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00		0.98		1.00		0.97	1.00		0.98	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No		
Adj Sat Flow, veh/h/ln		1870	1870	1870		1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		54	312	191		98	558	122	186	420	161	47
Peak Hour Factor		0.90	0.90	0.90		0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %		2	2	2		2	2	2	2	2	2	2
Cap, veh/h		86	741	448		223	799	416	139	1005	381	79
Arrive On Green		0.05	0.21	0.21		0.06	0.22	0.22	0.08	0.40	0.40	0.04
Sat Flow, veh/h		1781	3554	1555		3456	3554	1538	1781	2503	948	1781
Grp Volume(v), veh/h		54	312	191		98	558	122	186	297	284	47
Grp Sat Flow(s),veh/h/ln		1781	1777	1555		1728	1777	1538	1781	1777	1674	1781
Q Serve(g_s), s		1.9	4.9	6.4		1.7	9.2	4.0	5.0	7.7	7.8	1.7
Cycle Q Clear(g_c), s		1.9	4.9	6.4		1.7	9.2	4.0	5.0	7.7	7.8	1.7
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.57	1.00
Lane Grp Cap(c), veh/h		86	741	448		223	799	416	139	713	672	79
V/C Ratio(X)		0.63	0.42	0.43		0.44	0.70	0.29	1.34	0.42	0.42	0.60
Avail Cap(c_a), veh/h		139	999	561		270	999	503	139	713	672	139
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	0.99
Uniform Delay (d), s/veh		29.9	22.0	18.6		28.8	22.8	18.6	29.5	13.8	13.8	30.0
Incr Delay (d2), s/veh		7.3	0.4	0.6		1.4	1.6	0.4	192.0	1.8	1.9	6.9
Initial Q Delay(d3), s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.9	1.9	2.1		0.7	3.6	1.3	9.4	3.0	2.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		37.2	22.4	19.2		30.2	24.4	19.0	221.5	15.5	15.8	37.0
LnGrp LOS		D	C	B		C	C	B	F	B	B	D
Approach Vol, veh/h			557				778			767		
Approach Delay, s/veh			22.7				24.3			65.6		
Approach LOS			C				C			E		

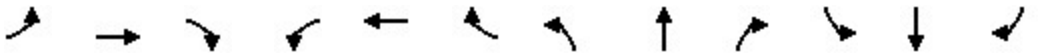
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	30.2	8.6	17.8	9.5	28.0	7.6	18.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	3.7	9.8	3.7	8.4	7.0	5.4	3.9	11.2
Green Ext Time (p_c), s	0.0	2.2	0.0	1.8	0.0	1.1	0.0	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	36.1
HCM 7th LOS	D

Notes

User approved ignoring U-Turning movement.

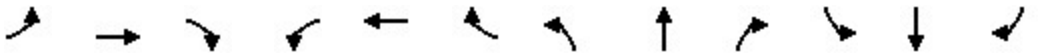
Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	226	21
Future Volume (veh/h)	226	21
Initial Q (Qb), veh	0	0
Lane Width Adj.	1.00	1.00
Ped-Bike Adj(A_pbT)		0.98
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	251	23
Peak Hour Factor	0.90	0.90
Percent Heavy Veh, %	2	2
Cap, veh/h	1208	110
Arrive On Green	0.37	0.37
Sat Flow, veh/h	3287	298
Grp Volume(v), veh/h	135	139
Grp Sat Flow(s),veh/h/ln	1777	1808
Q Serve(g_s), s	3.3	3.4
Cycle Q Clear(g_c), s	3.3	3.4
Prop In Lane		0.17
Lane Grp Cap(c), veh/h	653	665
V/C Ratio(X)	0.21	0.21
Avail Cap(c_a), veh/h	653	665
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.99	0.99
Uniform Delay (d), s/veh	13.8	13.9
Incr Delay (d2), s/veh	0.7	0.7
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.4
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	14.6	14.6
LnGrp LOS	B	B
Approach Vol, veh/h	321	
Approach Delay, s/veh	17.8	
Approach LOS	B	
Timer - Assigned Phs		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	230	68	114	419	69	200	421	92	61	350	52
Future Volume (veh/h)	66	230	68	114	419	69	200	421	92	61	350	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	256	76	127	466	77	222	468	102	68	389	58
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	466	135	139	689	300	536	1197	259	462	1208	179
Arrive On Green	0.06	0.17	0.17	0.08	0.19	0.19	0.08	0.41	0.41	0.05	0.39	0.39
Sat Flow, veh/h	1781	2702	782	1781	3554	1548	1781	2895	627	1781	3098	458
Grp Volume(v), veh/h	73	166	166	127	466	77	222	286	284	68	222	225
Grp Sat Flow(s),veh/h/ln	1781	1777	1707	1781	1777	1548	1781	1777	1745	1781	1777	1779
Q Serve(g_s), s	2.6	5.5	5.7	4.5	7.8	2.7	4.8	7.2	7.3	1.4	5.6	5.7
Cycle Q Clear(g_c), s	2.6	5.5	5.7	4.5	7.8	2.7	4.8	7.2	7.3	1.4	5.6	5.7
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.36	1.00		0.26
Lane Grp Cap(c), veh/h	101	307	295	139	689	300	536	734	721	462	693	694
V/C Ratio(X)	0.72	0.54	0.56	0.91	0.68	0.26	0.41	0.39	0.39	0.15	0.32	0.32
Avail Cap(c_a), veh/h	139	500	480	139	999	435	536	734	721	503	693	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	24.2	24.3	29.3	23.9	21.9	10.7	13.1	13.2	10.5	13.6	13.6
Incr Delay (d2), s/veh	10.8	1.5	1.7	50.8	1.2	0.4	0.5	1.6	1.6	0.1	1.2	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.2	2.2	3.8	3.1	0.9	1.6	2.7	2.7	0.5	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.5	25.7	26.0	80.1	25.1	22.3	11.2	14.7	14.8	10.7	14.8	14.9
LnGrp LOS	D	C	C	F	C	C	B	B	B	B	B	B
Approach Vol, veh/h		405			670			792			515	
Approach Delay, s/veh		28.5			35.2			13.7			14.3	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	31.0	9.5	15.5	9.5	29.5	8.1	16.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	3.4	9.3	6.5	7.7	6.8	7.7	4.6	9.8
Green Ext Time (p_c), s	0.0	2.1	0.0	1.3	0.0	1.8	0.0	2.0

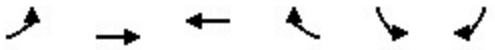
Intersection Summary	
HCM 7th Control Delay, s/veh	22.4
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	58	304	126	115	184	15	80	240	148	20	194	29
Future Volume (veh/h)	58	304	126	115	184	15	80	240	148	20	194	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	67	349	145	132	211	17	92	276	170	23	223	33
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	97	494	202	139	749	60	118	878	522	47	1158	169
Arrive On Green	0.05	0.20	0.20	0.08	0.23	0.23	0.07	0.41	0.41	0.03	0.37	0.37
Sat Flow, veh/h	1781	2455	1002	1781	3327	266	1781	2125	1265	1781	3103	452
Grp Volume(v), veh/h	67	251	243	132	112	116	92	229	217	23	126	130
Grp Sat Flow(s),veh/h/ln	1781	1777	1679	1781	1777	1815	1781	1777	1613	1781	1777	1778
Q Serve(g_s), s	2.4	8.4	8.7	4.7	3.3	3.4	3.3	5.6	5.8	0.8	3.1	3.2
Cycle Q Clear(g_c), s	2.4	8.4	8.7	4.7	3.3	3.4	3.3	5.6	5.8	0.8	3.1	3.2
Prop In Lane	1.00		0.60	1.00		0.15	1.00		0.78	1.00		0.25
Lane Grp Cap(c), veh/h	97	358	338	139	400	409	118	734	666	47	663	664
V/C Ratio(X)	0.69	0.70	0.72	0.95	0.28	0.28	0.78	0.31	0.33	0.49	0.19	0.20
Avail Cap(c_a), veh/h	139	500	472	139	500	511	139	734	666	139	663	664
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	23.8	23.9	29.4	20.5	20.5	29.4	12.7	12.7	30.7	13.5	13.6
Incr Delay (d2), s/veh	8.5	2.5	3.2	60.6	0.4	0.4	21.1	1.1	1.3	7.8	0.6	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.4	3.4	4.2	1.3	1.3	2.0	2.1	2.0	0.4	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.2	26.3	27.0	90.0	20.9	20.9	50.5	13.8	14.0	38.6	14.2	14.2
LnGrp LOS	D	C	C	F	C	C	D	B	B	D	B	B
Approach Vol, veh/h		561			360			538			279	
Approach Delay, s/veh		28.0			46.2			20.2			16.2	
Approach LOS		C			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	30.9	9.5	17.4	8.7	28.4	8.0	18.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	2.8	7.8	6.7	10.7	5.3	5.2	4.4	5.4
Green Ext Time (p_c), s	0.0	1.8	0.0	1.6	0.0	1.0	0.0	0.9

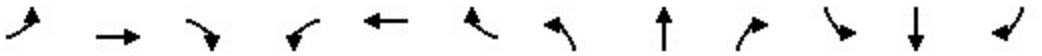
Intersection Summary	
HCM 7th Control Delay, s/veh	27.5
HCM 7th LOS	C



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	90	316	227	94	110	98
Future Volume (veh/h)	90	316	227	94	110	98
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	347	249	103	121	108
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	500	1421	989	398	713	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1029	3647	2567	995	1781	1585
Grp Volume(v), veh/h	99	347	177	175	121	108
Grp Sat Flow(s),veh/h/ln	1029	1777	1777	1691	1781	1585
Q Serve(g_s), s	3.2	2.9	3.0	3.1	2.0	2.0
Cycle Q Clear(g_c), s	6.3	2.9	3.0	3.1	2.0	2.0
Prop In Lane	1.00			0.59	1.00	1.00
Lane Grp Cap(c), veh/h	500	1421	711	677	713	634
V/C Ratio(X)	0.20	0.24	0.25	0.26	0.17	0.17
Avail Cap(c_a), veh/h	500	1421	711	677	713	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	9.0	9.0	9.0	8.7	8.7
Incr Delay (d2), s/veh	0.9	0.4	0.8	0.9	0.5	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.0	1.1	1.1	0.7	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	12.0	9.4	9.8	10.0	9.2	9.3
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h		446	352		229	
Approach Delay, s/veh		10.0	9.9		9.2	
Approach LOS		A	A		A	

Timer - Assigned Phs	4	6	8
Phs Duration (G+Y+Rc), s	22.5	22.5	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	8.3	4.0	5.1
Green Ext Time (p_c), s	1.9	0.6	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	9.8
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	15	223	73	16	8	148	208	44	2	204	93
Future Volume (veh/h)	215	15	223	73	16	8	148	208	44	2	204	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	219	15	228	74	16	8	151	212	45	2	208	95
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	259	335	447	96	205	93	187	1864	816	5	1008	442
Arrive On Green	0.15	0.18	0.18	0.05	0.09	0.09	0.10	0.52	0.52	0.00	0.42	0.42
Sat Flow, veh/h	1781	1870	1569	1781	2344	1064	1781	3554	1556	1781	2388	1047
Grp Volume(v), veh/h	219	15	228	74	12	12	151	212	45	2	153	150
Grp Sat Flow(s),veh/h/ln	1781	1870	1569	1781	1777	1631	1781	1777	1556	1781	1777	1658
Q Serve(g_s), s	9.0	0.5	9.1	3.1	0.5	0.5	6.2	2.3	1.1	0.1	4.1	4.3
Cycle Q Clear(g_c), s	9.0	0.5	9.1	3.1	0.5	0.5	6.2	2.3	1.1	0.1	4.1	4.3
Prop In Lane	1.00		1.00	1.00		0.65	1.00		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	259	335	447	96	155	142	187	1864	816	5	750	700
V/C Ratio(X)	0.85	0.04	0.51	0.77	0.08	0.09	0.81	0.11	0.06	0.41	0.20	0.21
Avail Cap(c_a), veh/h	273	519	602	207	426	391	202	1864	816	119	750	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	25.5	22.5	35.0	31.4	31.5	32.8	9.0	8.7	37.3	13.7	13.8
Incr Delay (d2), s/veh	20.3	0.1	0.9	12.5	0.2	0.3	19.5	0.1	0.1	47.8	0.6	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.2	3.3	1.6	0.2	0.2	3.6	0.8	0.4	0.1	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	51.5	25.5	23.4	47.5	31.6	31.7	52.3	9.1	8.9	85.1	14.3	14.5
LnGrp LOS	D	C	C	D	C	C	D	A	A	F	B	B
Approach Vol, veh/h		462			98			408			305	
Approach Delay, s/veh		36.8			43.6			25.1			14.8	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	43.8	8.5	17.9	12.4	36.2	15.4	11.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	22.5	8.7	20.8	8.5	19.0	11.5	18.0
Max Q Clear Time (g_c+I1), s	2.1	4.3	5.1	11.1	8.2	6.3	11.0	2.5
Green Ext Time (p_c), s	0.0	1.3	0.0	0.6	0.0	1.3	0.0	0.0

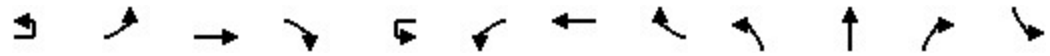
Intersection Summary	
HCM 7th Control Delay, s/veh	28.3
HCM 7th LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	88	21	363	35	20	487
Future Volume (veh/h)	88	21	363	35	20	487
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		0.96	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	23	390	38	22	524
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	715	636	1067	103	46	1546
Arrive On Green	0.40	0.40	0.33	0.33	0.03	0.44
Sat Flow, veh/h	1781	1585	3354	316	1781	3647
Grp Volume(v), veh/h	95	23	211	217	22	524
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1799	1781	1777
Q Serve(g_s), s	1.9	0.5	5.0	5.1	0.7	5.4
Cycle Q Clear(g_c), s	1.9	0.5	5.0	5.1	0.7	5.4
Prop In Lane	1.00	1.00		0.18	1.00	
Lane Grp Cap(c), veh/h	715	636	582	589	46	1546
V/C Ratio(X)	0.13	0.04	0.36	0.37	0.48	0.34
Avail Cap(c_a), veh/h	715	636	582	589	162	1546
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.92	0.92	0.97	0.97
Uniform Delay (d), s/veh	10.4	10.0	14.1	14.1	26.4	10.3
Incr Delay (d2), s/veh	0.4	0.1	1.6	1.6	7.2	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2	2.0	2.0	0.4	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	10.8	10.1	15.7	15.8	33.6	10.9
LnGrp LOS	B	B	B	B	C	B
Approach Vol, veh/h	118		428			546
Approach Delay, s/veh	10.7		15.8			11.8
Approach LOS	B		B			B

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		26.6	5.9	22.5		28.4
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0
Max Q Clear Time (g_c+I1), s		3.9	2.7	7.1		7.4
Green Ext Time (p_c), s		0.2	0.0	1.8		2.5

Intersection Summary	
HCM 7th Control Delay, s/veh	13.2
HCM 7th LOS	B



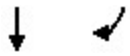
Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	2	59	438	79	2	174	406	98	167	290	207	102
Future Volume (veh/h)	2	59	438	79	2	174	406	98	167	290	207	102
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00		0.96		1.00		0.97	1.00		0.97	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No		
Adj Sat Flow, veh/h/ln		1870	1870	1870		1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		63	466	84		185	432	104	178	309	220	109
Peak Hour Factor		0.94	0.94	0.94		0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		2	2	2		2	2	2	2	2	2	2
Cap, veh/h		94	728	436		270	818	476	139	708	489	139
Arrive On Green		0.05	0.20	0.20		0.08	0.23	0.23	0.08	0.36	0.36	0.08
Sat Flow, veh/h		1781	3554	1526		3456	3554	1530	1781	1979	1366	1781
Grp Volume(v), veh/h		63	466	84		185	432	104	178	276	253	109
Grp Sat Flow(s),veh/h/ln		1781	1777	1526		1728	1777	1530	1781	1777	1568	1781
Q Serve(g_s), s		2.2	7.7	2.7		3.3	6.8	3.2	5.0	7.6	7.9	3.8
Cycle Q Clear(g_c), s		2.2	7.7	2.7		3.3	6.8	3.2	5.0	7.6	7.9	3.8
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.87	1.00
Lane Grp Cap(c), veh/h		94	728	436		270	818	476	139	636	561	139
V/C Ratio(X)		0.67	0.64	0.19		0.69	0.53	0.22	1.28	0.44	0.45	0.78
Avail Cap(c_a), veh/h		139	999	553		270	999	554	139	636	561	139
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	0.97
Uniform Delay (d), s/veh		29.8	23.3	17.4		28.7	21.6	16.4	29.5	15.6	15.7	29.0
Incr Delay (d2), s/veh		8.1	0.9	0.2		7.0	0.5	0.2	169.5	2.2	2.6	24.0
Initial Q Delay(d3), s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.1	3.0	0.9		1.5	2.6	1.0	8.6	3.1	2.9	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		37.8	24.2	17.6		35.7	22.1	16.6	199.0	17.8	18.3	53.0
LnGrp LOS		D	C	B		D	C	B	F	B	B	D
Approach Vol, veh/h			613				721			707		
Approach Delay, s/veh			24.7				24.8			63.6		
Approach LOS			C				C			E		

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	27.4	9.5	17.6	9.5	27.4	7.9	19.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	5.8	9.9	5.3	9.7	7.0	7.9	4.2	8.8
Green Ext Time (p_c), s	0.0	2.0	0.0	2.0	0.0	1.8	0.0	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	35.1
HCM 7th LOS	D

Notes

User approved ignoring U-Turning movement.



Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	381	39
Future Volume (veh/h)	381	39
Initial Q (Qb), veh	0	0
Lane Width Adj.	1.00	1.00
Ped-Bike Adj(A_pbT)		0.96
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	405	41
Peak Hour Factor	0.94	0.94
Percent Heavy Veh, %	2	2
Cap, veh/h	1161	117
Arrive On Green	0.36	0.36
Sat Flow, veh/h	3247	327
Grp Volume(v), veh/h	220	226
Grp Sat Flow(s),veh/h/ln	1777	1797
Q Serve(g_s), s	5.8	5.9
Cycle Q Clear(g_c), s	5.8	5.9
Prop In Lane		0.18
Lane Grp Cap(c), veh/h	636	643
V/C Ratio(X)	0.35	0.35
Avail Cap(c_a), veh/h	636	643
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.97	0.97
Uniform Delay (d), s/veh	15.1	15.1
Incr Delay (d2), s/veh	1.5	1.5
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	2.4
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	16.5	16.6
LnGrp LOS	B	B
Approach Vol, veh/h	555	
Approach Delay, s/veh	23.7	
Approach LOS	C	
Timer - Assigned Phs		



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	1	72	464	88	156	360	74	158	369	147	119	469
Future Volume (veh/h)	1	72	464	88	156	360	74	158	369	147	119	469
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00		0.97	1.00		0.98	1.00		0.98	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		76	488	93	164	379	78	166	388	155	125	494
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h		103	661	125	139	863	376	427	862	339	430	1031
Arrive On Green		0.06	0.22	0.22	0.08	0.24	0.24	0.08	0.35	0.35	0.07	0.34
Sat Flow, veh/h		1781	2967	562	1781	3554	1546	1781	2475	974	1781	3036
Grp Volume(v), veh/h		76	291	290	164	379	78	166	277	266	125	288
Grp Sat Flow(s),veh/h/ln		1781	1777	1752	1781	1777	1546	1781	1777	1672	1781	1777
Q Serve(g_s), s		2.7	9.7	9.9	5.0	5.8	2.6	3.8	7.7	7.9	2.9	8.2
Cycle Q Clear(g_c), s		2.7	9.7	9.9	5.0	5.8	2.6	3.8	7.7	7.9	2.9	8.2
Prop In Lane		1.00		0.32	1.00		1.00	1.00		0.58	1.00	
Lane Grp Cap(c), veh/h		103	396	390	139	863	376	427	619	582	430	604
V/C Ratio(X)		0.74	0.74	0.74	1.18	0.44	0.21	0.39	0.45	0.46	0.29	0.48
Avail Cap(c_a), veh/h		139	500	493	139	999	435	427	619	582	445	604
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		29.7	23.1	23.2	29.5	20.5	19.3	12.6	16.1	16.2	12.5	16.6
Incr Delay (d2), s/veh		12.7	4.2	4.6	132.2	0.4	0.3	0.6	2.3	2.6	0.4	2.7
Initial Q Delay(d3), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.4	4.1	4.1	7.1	2.2	0.9	1.3	3.1	3.0	1.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		42.4	27.3	27.7	161.7	20.9	19.6	13.2	18.4	18.7	12.9	19.3
LnGrp LOS		D	C	C	F	C	B	B	B	B	B	B
Approach Vol, veh/h			657			621			709			702
Approach Delay, s/veh			29.2			57.9			17.3			18.2
Approach LOS			C			E			B			B

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	26.8	9.5	18.8	9.5	26.2	8.2	20.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	4.9	9.9	7.0	11.9	5.8	10.3	4.7	7.8
Green Ext Time (p_c), s	0.0	2.0	0.0	1.7	0.0	2.0	0.0	1.8

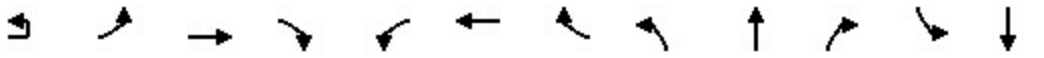
Intersection Summary	
HCM 7th Control Delay, s/veh	29.8
HCM 7th LOS	C

Notes

User approved ignoring U-Turning movement.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	79
Future Volume (veh/h)	79
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	83
Peak Hour Factor	0.95
Percent Heavy Veh, %	2
Cap, veh/h	172
Arrive On Green	0.34
Sat Flow, veh/h	507
Grp Volume(v), veh/h	289
Grp Sat Flow(s),veh/h/ln	1766
Q Serve(g_s), s	8.3
Cycle Q Clear(g_c), s	8.3
Prop In Lane	0.29
Lane Grp Cap(c), veh/h	600
V/C Ratio(X)	0.48
Avail Cap(c_a), veh/h	600
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	16.7
Incr Delay (d2), s/veh	2.8
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(50%),veh/ln	3.4
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	19.4
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	1	20	107	74	133	314	14	103	92	72	11	187
Future Volume (veh/h)	1	20	107	74	133	314	14	103	92	72	11	187
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00		0.98	1.00		0.98	1.00		0.98	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		21	114	79	141	334	15	110	98	77	12	199
Peak Hour Factor		0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h		43	231	147	139	575	26	139	1008	720	27	1158
Arrive On Green		0.02	0.11	0.11	0.08	0.17	0.17	0.08	0.51	0.51	0.02	0.45
Sat Flow, veh/h		1781	2061	1312	1781	3460	155	1781	1965	1403	1781	2571
Grp Volume(v), veh/h		21	97	96	141	171	178	110	88	87	12	135
Grp Sat Flow(s),veh/h/ln		1781	1777	1596	1781	1777	1838	1781	1777	1591	1781	1777
Q Serve(g_s), s		0.7	3.3	3.6	5.0	5.7	5.7	3.9	1.6	1.8	0.4	2.9
Cycle Q Clear(g_c), s		0.7	3.3	3.6	5.0	5.7	5.7	3.9	1.6	1.8	0.4	2.9
Prop In Lane		1.00		0.82	1.00		0.08	1.00		0.88	1.00	
Lane Grp Cap(c), veh/h		43	199	179	139	295	305	139	912	817	27	800
V/C Ratio(X)		0.48	0.49	0.54	1.01	0.58	0.58	0.79	0.10	0.11	0.45	0.17
Avail Cap(c_a), veh/h		139	500	449	139	500	517	139	912	817	139	800
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		30.8	26.7	26.8	29.5	24.6	24.6	29.0	8.0	8.0	31.3	10.5
Incr Delay (d2), s/veh		8.1	1.8	2.5	79.8	1.8	1.8	25.7	0.2	0.3	11.3	0.5
Initial Q Delay(d3), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.4	1.4	1.4	5.0	2.3	2.4	2.5	0.5	0.6	0.3	1.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		39.0	28.5	29.3	109.3	26.4	26.4	54.7	8.2	8.3	42.6	10.9
LnGrp LOS		D	C	C	F	C	C	D	A	A	D	B
Approach Vol, veh/h			214			490			285			283
Approach Delay, s/veh			29.9			50.3			26.2			12.3
Approach LOS			C			D			C			B

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.5	37.4	9.5	11.7	9.5	33.3	6.1	15.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	2.4	3.8	7.0	5.6	5.9	5.1	2.7	7.7
Green Ext Time (p_c), s	0.0	0.7	0.0	0.7	0.0	1.1	0.0	1.3

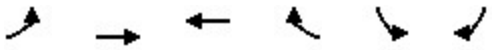
Intersection Summary	
HCM 7th Control Delay, s/veh	33.0
HCM 7th LOS	C

Notes

User approved ignoring U-Turning movement.



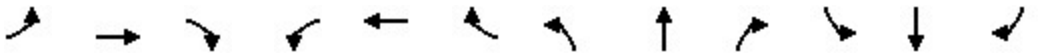
Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	68
Future Volume (veh/h)	68
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	0.99
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	72
Peak Hour Factor	0.94
Percent Heavy Veh, %	2
Cap, veh/h	404
Arrive On Green	0.45
Sat Flow, veh/h	898
Grp Volume(v), veh/h	136
Grp Sat Flow(s),veh/h/ln	1693
Q Serve(g_s), s	3.1
Cycle Q Clear(g_c), s	3.1
Prop In Lane	0.53
Lane Grp Cap(c), veh/h	762
V/C Ratio(X)	0.18
Avail Cap(c_a), veh/h	762
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	10.5
Incr Delay (d2), s/veh	0.5
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(50%),veh/ln	1.1
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	11.0
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	49	146	305	118	55	88
Future Volume (veh/h)	49	146	305	118	55	88
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	54	160	335	130	60	97
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	444	1421	1006	384	713	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	928	3647	2609	959	1781	1585
Grp Volume(v), veh/h	54	160	235	230	60	97
Grp Sat Flow(s),veh/h/ln	928	1777	1777	1698	1781	1585
Q Serve(g_s), s	1.9	1.3	4.1	4.2	0.9	1.8
Cycle Q Clear(g_c), s	6.2	1.3	4.1	4.2	0.9	1.8
Prop In Lane	1.00			0.56	1.00	1.00
Lane Grp Cap(c), veh/h	444	1421	711	679	713	634
V/C Ratio(X)	0.12	0.11	0.33	0.34	0.08	0.15
Avail Cap(c_a), veh/h	444	1421	711	679	713	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.5	8.5	9.3	9.4	8.4	8.6
Incr Delay (d2), s/veh	0.6	0.2	1.2	1.4	0.2	0.5
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.4	1.5	1.5	0.3	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	12.1	8.6	10.6	10.7	8.6	9.1
LnGrp LOS	B	A	B	B	A	A
Approach Vol, veh/h		214	465		157	
Approach Delay, s/veh		9.5	10.6		8.9	
Approach LOS		A	B		A	

Timer - Assigned Phs		4		6	8
Phs Duration (G+Y+Rc), s		22.5		22.5	22.5
Change Period (Y+Rc), s		4.5		4.5	4.5
Max Green Setting (Gmax), s		18.0		18.0	18.0
Max Q Clear Time (g_c+I1), s		8.2		3.8	6.2
Green Ext Time (p_c), s		0.8		0.4	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	10.0
HCM 7th LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	65	24	101	22	7	2	204	162	129	12	162	185
Future Volume (veh/h)	65	24	101	22	7	2	204	162	129	12	162	185
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.97	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	76	28	119	26	8	2	240	191	152	14	191	218
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	249	443	50	300	71	267	2006	880	30	767	672
Arrive On Green	0.06	0.13	0.13	0.03	0.11	0.11	0.15	0.56	0.56	0.02	0.43	0.43
Sat Flow, veh/h	1781	1870	1546	1781	2828	673	1781	3554	1560	1781	1777	1557
Grp Volume(v), veh/h	76	28	119	26	5	5	240	191	152	14	191	218
Grp Sat Flow(s),veh/h/ln	1781	1870	1546	1781	1777	1724	1781	1777	1560	1781	1777	1557
Q Serve(g_s), s	2.9	0.9	4.2	1.0	0.2	0.2	9.3	1.7	3.3	0.5	4.8	6.5
Cycle Q Clear(g_c), s	2.9	0.9	4.2	1.0	0.2	0.2	9.3	1.7	3.3	0.5	4.8	6.5
Prop In Lane	1.00		1.00	1.00		0.39	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	98	249	443	50	189	183	267	2006	880	30	767	672
V/C Ratio(X)	0.77	0.11	0.27	0.51	0.03	0.03	0.90	0.10	0.17	0.46	0.25	0.32
Avail Cap(c_a), veh/h	127	481	635	127	457	443	267	2006	880	127	767	672
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.92	0.92	0.92	1.00	1.00	1.00
Uniform Delay (d), s/veh	32.6	26.7	19.5	33.5	28.0	28.0	29.2	7.0	7.4	34.1	12.7	13.2
Incr Delay (d2), s/veh	19.4	0.2	0.3	7.9	0.1	0.1	28.4	0.1	0.4	10.5	0.8	1.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.7	0.4	1.5	0.5	0.1	0.1	5.8	0.6	1.0	0.3	1.9	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.1	26.9	19.8	41.4	28.1	28.1	57.6	7.1	7.7	44.6	13.4	14.4
LnGrp LOS	D	C	B	D	C	C	E	A	A	D	B	B
Approach Vol, veh/h		223			36			583			423	
Approach Delay, s/veh		31.7			37.7			28.1			15.0	
Approach LOS		C			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	5.7	44.0	6.5	13.8	15.0	34.7	8.4	11.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	24.0	5.0	18.0	10.5	18.5	5.0	18.0
Max Q Clear Time (g_c+I1), s	2.5	5.3	3.0	6.2	11.3	8.5	4.9	2.2
Green Ext Time (p_c), s	0.0	1.5	0.0	0.3	0.0	1.7	0.0	0.0

Intersection Summary	
HCM 7th Control Delay, s/veh	24.6
HCM 7th LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	15	7	483	49	19	265
Future Volume (veh/h)	15	7	483	49	19	265
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		0.97	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	19	9	604	61	24	331
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	711	633	1063	107	50	1553
Arrive On Green	0.40	0.40	0.33	0.33	0.03	0.44
Sat Flow, veh/h	1781	1585	3341	327	1781	3647
Grp Volume(v), veh/h	19	9	330	335	24	331
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1798	1781	1777
Q Serve(g_s), s	0.4	0.2	8.4	8.5	0.7	3.2
Cycle Q Clear(g_c), s	0.4	0.2	8.4	8.5	0.7	3.2
Prop In Lane	1.00	1.00		0.18	1.00	
Lane Grp Cap(c), veh/h	711	633	582	589	50	1553
V/C Ratio(X)	0.03	0.01	0.57	0.57	0.48	0.21
Avail Cap(c_a), veh/h	711	633	582	589	162	1553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.93	0.93	0.98	0.98
Uniform Delay (d), s/veh	10.0	10.0	15.3	15.3	26.3	9.6
Incr Delay (d2), s/veh	0.1	0.0	3.7	3.7	7.0	0.3
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.1	3.5	3.6	0.4	1.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	10.1	10.0	19.0	19.0	33.3	9.9
LnGrp LOS	B	B	B	B	C	A
Approach Vol, veh/h	28		665			355
Approach Delay, s/veh	10.1		19.0			11.5
Approach LOS	B		B			B

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		26.5	6.0	22.5		28.5
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0
Max Q Clear Time (g_c+I1), s		2.4	2.7	10.5		5.2
Green Ext Time (p_c), s		0.0	0.0	2.4		1.6

Intersection Summary	
HCM 7th Control Delay, s/veh	16.2
HCM 7th LOS	B

Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	4	49	281	172	1	88	502	110	167	378	145	42
Future Volume (veh/h)	4	49	281	172	1	88	502	110	167	378	145	42
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00		0.98		1.00		0.97	1.00		0.98	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No		
Adj Sat Flow, veh/h/ln		1870	1870	1870		1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		54	312	191		98	558	122	186	420	161	47
Peak Hour Factor		0.90	0.90	0.90		0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %		2	2	2		2	2	2	2	2	2	2
Cap, veh/h		86	741	448		223	799	416	139	1005	381	79
Arrive On Green		0.05	0.21	0.21		0.06	0.22	0.22	0.08	0.40	0.40	0.04
Sat Flow, veh/h		1781	3554	1555		3456	3554	1538	1781	2503	948	1781
Grp Volume(v), veh/h		54	312	191		98	558	122	186	297	284	47
Grp Sat Flow(s),veh/h/ln		1781	1777	1555		1728	1777	1538	1781	1777	1674	1781
Q Serve(g_s), s		1.9	4.9	6.4		1.7	9.2	4.0	5.0	7.7	7.8	1.7
Cycle Q Clear(g_c), s		1.9	4.9	6.4		1.7	9.2	4.0	5.0	7.7	7.8	1.7
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.57	1.00
Lane Grp Cap(c), veh/h		86	741	448		223	799	416	139	713	672	79
V/C Ratio(X)		0.63	0.42	0.43		0.44	0.70	0.29	1.34	0.42	0.42	0.60
Avail Cap(c_a), veh/h		139	999	561		270	999	503	139	713	672	139
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	0.99
Uniform Delay (d), s/veh		29.9	22.0	18.6		28.8	22.8	18.6	29.5	13.8	13.8	30.0
Incr Delay (d2), s/veh		7.3	0.4	0.6		1.4	1.6	0.4	192.0	1.8	1.9	6.9
Initial Q Delay(d3), s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		0.9	1.9	2.1		0.7	3.6	1.3	9.4	3.0	2.9	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		37.2	22.4	19.2		30.2	24.4	19.0	221.5	15.5	15.8	37.0
LnGrp LOS		D	C	B		C	C	B	F	B	B	D
Approach Vol, veh/h			557				778			767		
Approach Delay, s/veh			22.7				24.3			65.6		
Approach LOS			C				C			E		

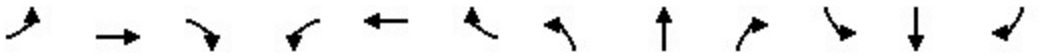
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	7.3	30.2	8.6	17.8	9.5	28.0	7.6	18.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	3.7	9.8	3.7	8.4	7.0	5.4	3.9	11.2
Green Ext Time (p_c), s	0.0	2.2	0.0	1.8	0.0	1.1	0.0	2.2

Intersection Summary	
HCM 7th Control Delay, s/veh	36.1
HCM 7th LOS	D

Notes

User approved ignoring U-Turning movement.

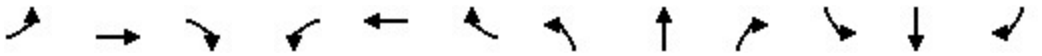
Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	226	21
Future Volume (veh/h)	226	21
Initial Q (Qb), veh	0	0
Lane Width Adj.	1.00	1.00
Ped-Bike Adj(A_pbT)		0.98
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	251	23
Peak Hour Factor	0.90	0.90
Percent Heavy Veh, %	2	2
Cap, veh/h	1208	110
Arrive On Green	0.37	0.37
Sat Flow, veh/h	3287	298
Grp Volume(v), veh/h	135	139
Grp Sat Flow(s),veh/h/ln	1777	1808
Q Serve(g_s), s	3.3	3.4
Cycle Q Clear(g_c), s	3.3	3.4
Prop In Lane		0.17
Lane Grp Cap(c), veh/h	653	665
V/C Ratio(X)	0.21	0.21
Avail Cap(c_a), veh/h	653	665
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.99	0.99
Uniform Delay (d), s/veh	13.8	13.9
Incr Delay (d2), s/veh	0.7	0.7
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	1.4
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	14.6	14.6
LnGrp LOS	B	B
Approach Vol, veh/h	321	
Approach Delay, s/veh	17.8	
Approach LOS	B	
Timer - Assigned Phs		



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	66	230	68	114	419	69	200	421	92	61	350	52
Future Volume (veh/h)	66	230	68	114	419	69	200	421	92	61	350	52
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	73	256	76	127	466	77	222	468	102	68	389	58
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	101	466	135	139	689	300	536	1197	259	462	1208	179
Arrive On Green	0.06	0.17	0.17	0.08	0.19	0.19	0.08	0.41	0.41	0.05	0.39	0.39
Sat Flow, veh/h	1781	2702	782	1781	3554	1548	1781	2895	627	1781	3098	458
Grp Volume(v), veh/h	73	166	166	127	466	77	222	286	284	68	222	225
Grp Sat Flow(s),veh/h/ln	1781	1777	1707	1781	1777	1548	1781	1777	1745	1781	1777	1779
Q Serve(g_s), s	2.6	5.5	5.7	4.5	7.8	2.7	4.8	7.2	7.3	1.4	5.6	5.7
Cycle Q Clear(g_c), s	2.6	5.5	5.7	4.5	7.8	2.7	4.8	7.2	7.3	1.4	5.6	5.7
Prop In Lane	1.00		0.46	1.00		1.00	1.00		0.36	1.00		0.26
Lane Grp Cap(c), veh/h	101	307	295	139	689	300	536	734	721	462	693	694
V/C Ratio(X)	0.72	0.54	0.56	0.91	0.68	0.26	0.41	0.39	0.39	0.15	0.32	0.32
Avail Cap(c_a), veh/h	139	500	480	139	999	435	536	734	721	503	693	694
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	24.2	24.3	29.3	23.9	21.9	10.7	13.1	13.2	10.5	13.6	13.6
Incr Delay (d2), s/veh	10.8	1.5	1.7	50.8	1.2	0.4	0.5	1.6	1.6	0.1	1.2	1.2
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	2.2	2.2	3.8	3.1	0.9	1.6	2.7	2.7	0.5	2.1	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.5	25.7	26.0	80.1	25.1	22.3	11.2	14.7	14.8	10.7	14.8	14.9
LnGrp LOS	D	C	C	F	C	C	B	B	B	B	B	B
Approach Vol, veh/h		405			670			792			515	
Approach Delay, s/veh		28.5			35.2			13.7			14.3	
Approach LOS		C			D			B			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	8.0	31.0	9.5	15.5	9.5	29.5	8.1	16.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	3.4	9.3	6.5	7.7	6.8	7.7	4.6	9.8
Green Ext Time (p_c), s	0.0	2.1	0.0	1.3	0.0	1.8	0.0	2.0

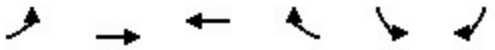
Intersection Summary	
HCM 7th Control Delay, s/veh	22.4
HCM 7th LOS	C



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	60	304	126	116	185	15	80	240	149	20	195	30
Future Volume (veh/h)	60	304	126	116	185	15	80	240	149	20	195	30
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.98	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	69	349	145	133	213	17	92	276	171	23	224	34
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	98	494	202	139	747	59	118	876	524	47	1154	172
Arrive On Green	0.06	0.20	0.20	0.08	0.22	0.22	0.07	0.41	0.41	0.03	0.37	0.37
Sat Flow, veh/h	1781	2455	1002	1781	3329	263	1781	2120	1269	1781	3091	462
Grp Volume(v), veh/h	69	251	243	133	113	117	92	230	217	23	127	131
Grp Sat Flow(s),veh/h/ln	1781	1777	1679	1781	1777	1816	1781	1777	1612	1781	1777	1776
Q Serve(g_s), s	2.4	8.4	8.7	4.8	3.4	3.4	3.3	5.6	5.9	0.8	3.1	3.2
Cycle Q Clear(g_c), s	2.4	8.4	8.7	4.8	3.4	3.4	3.3	5.6	5.9	0.8	3.1	3.2
Prop In Lane	1.00		0.60	1.00		0.15	1.00		0.79	1.00		0.26
Lane Grp Cap(c), veh/h	98	358	338	139	398	407	118	734	666	47	663	663
V/C Ratio(X)	0.70	0.70	0.72	0.96	0.28	0.29	0.78	0.31	0.33	0.49	0.19	0.20
Avail Cap(c_a), veh/h	139	500	472	139	500	511	139	734	666	139	663	663
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	29.7	23.8	23.9	29.4	20.6	20.6	29.4	12.7	12.7	30.7	13.5	13.6
Incr Delay (d2), s/veh	8.7	2.5	3.2	62.7	0.4	0.4	21.1	1.1	1.3	7.8	0.6	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.2	3.4	3.4	4.3	1.3	1.4	2.0	2.1	2.0	0.4	1.2	1.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.4	26.3	27.0	92.1	20.9	21.0	50.5	13.8	14.0	38.6	14.2	14.2
LnGrp LOS	D	C	C	F	C	C	D	B	B	D	B	B
Approach Vol, veh/h		563			363			539			281	
Approach Delay, s/veh		28.1			47.0			20.2			16.2	
Approach LOS		C			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	6.2	30.9	9.5	17.4	8.7	28.4	8.0	18.9
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	2.8	7.9	6.8	10.7	5.3	5.2	4.4	5.4
Green Ext Time (p_c), s	0.0	1.8	0.0	1.6	0.0	1.0	0.0	0.9

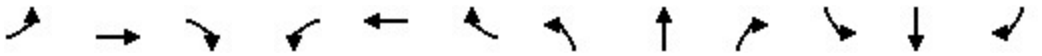
Intersection Summary	
HCM 7th Control Delay, s/veh	27.7
HCM 7th LOS	C



Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (veh/h)	90	316	227	95	111	98
Future Volume (veh/h)	90	316	227	95	111	98
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00			1.00	1.00	1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No	No		No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	99	347	249	104	122	108
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	500	1421	986	400	713	634
Arrive On Green	0.40	0.40	0.40	0.40	0.40	0.40
Sat Flow, veh/h	1028	3647	2560	1001	1781	1585
Grp Volume(v), veh/h	99	347	177	176	122	108
Grp Sat Flow(s),veh/h/ln	1028	1777	1777	1690	1781	1585
Q Serve(g_s), s	3.2	2.9	3.0	3.1	2.0	2.0
Cycle Q Clear(g_c), s	6.3	2.9	3.0	3.1	2.0	2.0
Prop In Lane	1.00			0.59	1.00	1.00
Lane Grp Cap(c), veh/h	500	1421	711	676	713	634
V/C Ratio(X)	0.20	0.24	0.25	0.26	0.17	0.17
Avail Cap(c_a), veh/h	500	1421	711	676	713	634
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.2	9.0	9.0	9.0	8.7	8.7
Incr Delay (d2), s/veh	0.9	0.4	0.8	0.9	0.5	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	1.0	1.1	1.1	0.7	0.6
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	12.0	9.4	9.8	10.0	9.2	9.3
LnGrp LOS	B	A	A	A	A	A
Approach Vol, veh/h		446	353		230	
Approach Delay, s/veh		10.0	9.9		9.2	
Approach LOS		A	A		A	

Timer - Assigned Phs	4	6	8
Phs Duration (G+Y+Rc), s	22.5	22.5	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	8.3	4.0	5.1
Green Ext Time (p_c), s	1.9	0.6	1.7

Intersection Summary	
HCM 7th Control Delay, s/veh	9.8
HCM 7th LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	215	17	223	73	17	8	148	208	44	2	204	93
Future Volume (veh/h)	215	17	223	73	17	8	148	208	44	2	204	93
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.98	1.00		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	219	17	228	74	17	8	151	212	45	2	208	95
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	
Cap, veh/h	259	335	447	96	209	90	187	1864	816	5	1008	442
Arrive On Green	0.15	0.18	0.18	0.05	0.09	0.09	0.10	0.52	0.52	0.00	0.42	0.42
Sat Flow, veh/h	1781	1870	1569	1781	2390	1026	1781	3554	1556	1781	2388	1047
Grp Volume(v), veh/h	219	17	228	74	12	13	151	212	45	2	153	150
Grp Sat Flow(s),veh/h/ln	1781	1870	1569	1781	1777	1639	1781	1777	1556	1781	1777	1658
Q Serve(g_s), s	9.0	0.6	9.1	3.1	0.5	0.5	6.2	2.3	1.1	0.1	4.1	4.3
Cycle Q Clear(g_c), s	9.0	0.6	9.1	3.1	0.5	0.5	6.2	2.3	1.1	0.1	4.1	4.3
Prop In Lane	1.00		1.00	1.00		0.63	1.00		1.00	1.00		0.63
Lane Grp Cap(c), veh/h	259	335	447	96	155	143	187	1864	816	5	750	700
V/C Ratio(X)	0.85	0.05	0.51	0.77	0.08	0.09	0.81	0.11	0.06	0.41	0.20	0.21
Avail Cap(c_a), veh/h	273	519	602	207	426	393	202	1864	816	119	750	700
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	0.98	0.98	0.98	1.00	1.00	1.00
Uniform Delay (d), s/veh	31.2	25.5	22.5	35.0	31.4	31.5	32.8	9.0	8.7	37.3	13.7	13.8
Incr Delay (d2), s/veh	20.3	0.1	0.9	12.5	0.2	0.3	19.5	0.1	0.1	47.8	0.6	0.7
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.2	3.3	1.6	0.2	0.2	3.6	0.8	0.4	0.1	1.6	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	51.5	25.6	23.4	47.5	31.7	31.7	52.3	9.1	8.9	85.1	14.3	14.5
LnGrp LOS	D	C	C	D	C	C	D	A	A	F	B	
Approach Vol, veh/h		464			99			408			305	
Approach Delay, s/veh		36.8			43.5			25.1			14.8	
Approach LOS		D			D			C			B	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	4.7	43.8	8.5	17.9	12.4	36.2	15.4	11.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	22.5	8.7	20.8	8.5	19.0	11.5	18.0
Max Q Clear Time (g_c+I1), s	2.1	4.3	5.1	11.1	8.2	6.3	11.0	2.5
Green Ext Time (p_c), s	0.0	1.3	0.0	0.6	0.0	1.3	0.0	0.0

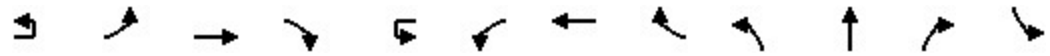
Intersection Summary	
HCM 7th Control Delay, s/veh	28.3
HCM 7th LOS	C



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	88	22	363	35	22	487
Future Volume (veh/h)	88	22	363	35	22	487
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)	1.00	1.00		0.96	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	95	24	390	38	24	524
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	2	2	2	2	2	2
Cap, veh/h	711	633	1067	103	50	1553
Arrive On Green	0.40	0.40	0.33	0.33	0.03	0.44
Sat Flow, veh/h	1781	1585	3354	316	1781	3647
Grp Volume(v), veh/h	95	24	211	217	24	524
Grp Sat Flow(s),veh/h/ln	1781	1585	1777	1799	1781	1777
Q Serve(g_s), s	1.9	0.5	5.0	5.1	0.7	5.4
Cycle Q Clear(g_c), s	1.9	0.5	5.0	5.1	0.7	5.4
Prop In Lane	1.00	1.00		0.18	1.00	
Lane Grp Cap(c), veh/h	711	633	582	589	50	1553
V/C Ratio(X)	0.13	0.04	0.36	0.37	0.48	0.34
Avail Cap(c_a), veh/h	711	633	582	589	162	1553
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.92	0.92	0.97	0.97
Uniform Delay (d), s/veh	10.5	10.1	14.1	14.1	26.3	10.2
Incr Delay (d2), s/veh	0.4	0.1	1.6	1.6	6.9	0.6
Initial Q Delay(d3), s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	0.2	2.0	2.0	0.4	1.8
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	10.9	10.2	15.7	15.8	33.2	10.8
LnGrp LOS	B	B	B	B	C	B
Approach Vol, veh/h	119		428			548
Approach Delay, s/veh	10.7		15.8			11.8
Approach LOS	B		B			B

Timer - Assigned Phs		2	3	4		8
Phs Duration (G+Y+Rc), s		26.5	6.0	22.5		28.5
Change Period (Y+Rc), s		4.5	4.5	4.5		4.5
Max Green Setting (Gmax), s		18.0	5.0	18.0		18.0
Max Q Clear Time (g_c+I1), s		3.9	2.7	7.1		7.4
Green Ext Time (p_c), s		0.2	0.0	1.8		2.5

Intersection Summary	
HCM 7th Control Delay, s/veh	13.2
HCM 7th LOS	B



Movement	EBU	EBL	EBT	EBR	WBU	WBL	WBT	WBR	NBL	NBT	NBR	SBL
Lane Configurations												
Traffic Volume (veh/h)	2	59	438	79	2	174	406	98	167	290	207	102
Future Volume (veh/h)	2	59	438	79	2	174	406	98	167	290	207	102
Initial Q (Qb), veh		0	0	0		0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00		0.96		1.00		0.97	1.00		0.97	1.00
Parking Bus, Adj		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No				No			No		
Adj Sat Flow, veh/h/ln		1870	1870	1870		1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		63	466	84		185	432	104	178	309	220	109
Peak Hour Factor		0.94	0.94	0.94		0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %		2	2	2		2	2	2	2	2	2	2
Cap, veh/h		94	728	436		270	818	476	139	708	489	139
Arrive On Green		0.05	0.20	0.20		0.08	0.23	0.23	0.08	0.36	0.36	0.08
Sat Flow, veh/h		1781	3554	1526		3456	3554	1530	1781	1979	1366	1781
Grp Volume(v), veh/h		63	466	84		185	432	104	178	276	253	109
Grp Sat Flow(s),veh/h/ln		1781	1777	1526		1728	1777	1530	1781	1777	1568	1781
Q Serve(g_s), s		2.2	7.7	2.7		3.3	6.8	3.2	5.0	7.6	7.9	3.8
Cycle Q Clear(g_c), s		2.2	7.7	2.7		3.3	6.8	3.2	5.0	7.6	7.9	3.8
Prop In Lane		1.00		1.00		1.00		1.00	1.00		0.87	1.00
Lane Grp Cap(c), veh/h		94	728	436		270	818	476	139	636	561	139
V/C Ratio(X)		0.67	0.64	0.19		0.69	0.53	0.22	1.28	0.44	0.45	0.78
Avail Cap(c_a), veh/h		139	999	553		270	999	554	139	636	561	139
HCM Platoon Ratio		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	0.97
Uniform Delay (d), s/veh		29.8	23.3	17.4		28.7	21.6	16.4	29.5	15.6	15.7	29.0
Incr Delay (d2), s/veh		8.1	0.9	0.2		7.0	0.5	0.2	169.5	2.2	2.6	24.0
Initial Q Delay(d3), s/veh		0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.1	3.0	0.9		1.5	2.6	1.0	8.6	3.1	2.9	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		37.8	24.2	17.6		35.7	22.1	16.6	199.0	17.8	18.3	53.0
LnGrp LOS		D	C	B		D	C	B	F	B	B	D
Approach Vol, veh/h			613				721			707		
Approach Delay, s/veh			24.7				24.8			63.6		
Approach LOS			C				C			E		

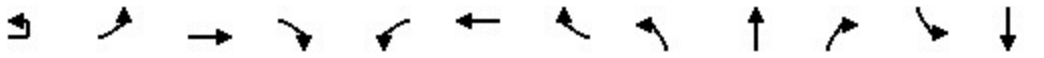
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.5	27.4	9.5	17.6	9.5	27.4	7.9	19.2
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	5.8	9.9	5.3	9.7	7.0	7.9	4.2	8.8
Green Ext Time (p_c), s	0.0	2.0	0.0	2.0	0.0	1.8	0.0	2.0

Intersection Summary	
HCM 7th Control Delay, s/veh	35.1
HCM 7th LOS	D

Notes

User approved ignoring U-Turning movement.

Movement	SBT	SBR
Lane Configurations		
Traffic Volume (veh/h)	381	39
Future Volume (veh/h)	381	39
Initial Q (Qb), veh	0	0
Lane Width Adj.	1.00	1.00
Ped-Bike Adj(A_pbT)		0.96
Parking Bus, Adj	1.00	1.00
Work Zone On Approach	No	
Adj Sat Flow, veh/h/ln	1870	1870
Adj Flow Rate, veh/h	405	41
Peak Hour Factor	0.94	0.94
Percent Heavy Veh, %	2	2
Cap, veh/h	1161	117
Arrive On Green	0.36	0.36
Sat Flow, veh/h	3247	327
Grp Volume(v), veh/h	220	226
Grp Sat Flow(s),veh/h/ln	1777	1797
Q Serve(g_s), s	5.8	5.9
Cycle Q Clear(g_c), s	5.8	5.9
Prop In Lane		0.18
Lane Grp Cap(c), veh/h	636	643
V/C Ratio(X)	0.35	0.35
Avail Cap(c_a), veh/h	636	643
HCM Platoon Ratio	1.00	1.00
Upstream Filter(I)	0.97	0.97
Uniform Delay (d), s/veh	15.1	15.1
Incr Delay (d2), s/veh	1.5	1.5
Initial Q Delay(d3), s/veh	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	2.4
Unsig. Movement Delay, s/veh		
LnGrp Delay(d), s/veh	16.5	16.6
LnGrp LOS	B	B
Approach Vol, veh/h	555	
Approach Delay, s/veh	23.7	
Approach LOS	C	
Timer - Assigned Phs		



Movement	EBU	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations												
Traffic Volume (veh/h)	1	72	464	88	156	360	74	158	369	147	119	469
Future Volume (veh/h)	1	72	464	88	156	360	74	158	369	147	119	469
Initial Q (Qb), veh		0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped-Bike Adj(A_pbT)		1.00		0.97	1.00		0.98	1.00		0.98	1.00	
Parking Bus, Adj		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach			No			No			No			No
Adj Sat Flow, veh/h/ln		1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h		76	488	93	164	379	78	166	388	155	125	494
Peak Hour Factor		0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %		2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h		103	661	125	139	863	376	427	862	339	430	1031
Arrive On Green		0.06	0.22	0.22	0.08	0.24	0.24	0.08	0.35	0.35	0.07	0.34
Sat Flow, veh/h		1781	2967	562	1781	3554	1546	1781	2475	974	1781	3036
Grp Volume(v), veh/h		76	291	290	164	379	78	166	277	266	125	288
Grp Sat Flow(s),veh/h/ln		1781	1777	1752	1781	1777	1546	1781	1777	1672	1781	1777
Q Serve(g_s), s		2.7	9.7	9.9	5.0	5.8	2.6	3.8	7.7	7.9	2.9	8.2
Cycle Q Clear(g_c), s		2.7	9.7	9.9	5.0	5.8	2.6	3.8	7.7	7.9	2.9	8.2
Prop In Lane		1.00		0.32	1.00		1.00	1.00		0.58	1.00	
Lane Grp Cap(c), veh/h		103	396	390	139	863	376	427	619	582	430	604
V/C Ratio(X)		0.74	0.74	0.74	1.18	0.44	0.21	0.39	0.45	0.46	0.29	0.48
Avail Cap(c_a), veh/h		139	500	493	139	999	435	427	619	582	445	604
HCM Platoon Ratio		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh		29.7	23.1	23.2	29.5	20.5	19.3	12.6	16.1	16.2	12.5	16.6
Incr Delay (d2), s/veh		12.7	4.2	4.6	132.2	0.4	0.3	0.6	2.3	2.6	0.4	2.7
Initial Q Delay(d3), s/veh		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln		1.4	4.1	4.1	7.1	2.2	0.9	1.3	3.1	3.0	1.0	3.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh		42.4	27.3	27.7	161.7	20.9	19.6	13.2	18.4	18.7	12.9	19.3
LnGrp LOS		D	C	C	F	C	B	B	B	B	B	B
Approach Vol, veh/h			657			621			709			702
Approach Delay, s/veh			29.2			57.9			17.3			18.2
Approach LOS			C			E			B			B

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	9.0	26.8	9.5	18.8	9.5	26.2	8.2	20.1
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	5.0	18.0	5.0	18.0	5.0	18.0	5.0	18.0
Max Q Clear Time (g_c+I1), s	4.9	9.9	7.0	11.9	5.8	10.3	4.7	7.8
Green Ext Time (p_c), s	0.0	2.0	0.0	1.7	0.0	2.0	0.0	1.8

Intersection Summary	
HCM 7th Control Delay, s/veh	29.8
HCM 7th LOS	C

Notes

User approved ignoring U-Turning movement.



Movement	SBR
Lane Configurations	
Traffic Volume (veh/h)	79
Future Volume (veh/h)	79
Initial Q (Qb), veh	0
Lane Width Adj.	1.00
Ped-Bike Adj(A_pbT)	0.98
Parking Bus, Adj	1.00
Work Zone On Approach	
Adj Sat Flow, veh/h/ln	1870
Adj Flow Rate, veh/h	83
Peak Hour Factor	0.95
Percent Heavy Veh, %	2
Cap, veh/h	172
Arrive On Green	0.34
Sat Flow, veh/h	507
Grp Volume(v), veh/h	289
Grp Sat Flow(s),veh/h/ln	1766
Q Serve(g_s), s	8.3
Cycle Q Clear(g_c), s	8.3
Prop In Lane	0.29
Lane Grp Cap(c), veh/h	600
V/C Ratio(X)	0.48
Avail Cap(c_a), veh/h	600
HCM Platoon Ratio	1.00
Upstream Filter(I)	1.00
Uniform Delay (d), s/veh	16.7
Incr Delay (d2), s/veh	2.8
Initial Q Delay(d3), s/veh	0.0
%ile BackOfQ(50%),veh/ln	3.4
Unsig. Movement Delay, s/veh	
LnGrp Delay(d), s/veh	19.4
LnGrp LOS	B
Approach Vol, veh/h	
Approach Delay, s/veh	
Approach LOS	
Timer - Assigned Phs	

Rawad Hani PE, TE, PTOE, PTP

Traffic Studies | General Technology Solutions (GTS)

Education

MS, Civil Engineering, Focus Area Transportation Planning and Engineering, American University

Registrations

Civil Engineer in CA, PE #83730

Traffic Engineer in CA, TE #2817

PTOE - Professional Traffic Operations Engineer

PTP - Professional Transportation Planner

RSP1 - Road Safety Professional 1

Professional Summary

Rawad Hani is a traffic engineer and transportation planner with over 20 years of experience. He specializes in traffic engineering, parking analysis, demand modeling, and technology applications. Rawad has managed engineering design projects in the US and internationally where he advised public, private, and institutional clients. His recent experience includes assisting local governments across Southern California with transportation plans, traffic studies, parking management strategies, and signal and street lighting designs. His project experience includes the cities of Hermosa Beach, Irvine, Buena Park, Commerce, Santa Monica, and Glendora among others. Rawad understands the importance of striking the right balance between engineering (mobility and safety) and planning (livability and sustainability) considerations. He has worked on context-sensitive design projects and has helped planning and transportation agencies achieve effective solutions.

Project Experience

Environmental Impact Report (EIR) Transportation Analysis, Glendale Community College District, Glendale, CA

Traffic Engineer. Rawad lead the traffic/transportation analysis for the campus Master Plan which includes three campuses across the City: the Verdugo Campus, the Garfield Campus, and the Montrose Campus. The project includes scoping with the City, parking analysis, and transportation analysis using both VMT Senate Bill 743 (SB 743) and level of service (LOS) methodologies.

City of Moorpark Environmental On-Call, Moorpark, CA

Traffic Engineer. Traffic Impact Studies Peer Review - Conducted a peer review of the TIS for the Everett Street Terraces project in the City of Moorpark

J-90 Energy Storage Vehicle Miles Traveled (VMT) Analysis, Los Angeles, CA

Traffic Engineer. Carried out the VMT analysis for the proposed energy storage facility in Los Angeles County Transport Street Self Storage VMT Analysis, Ventura, CA. Carried out the VMT analysis for the proposed Transport Street Self Storage in the City of Ventura.

Hudson Ranch Mineral Recovery, Imperial County, CA

Traffic Engineer. As part of the Chambers Group team, GTS provided a review of the traffic study submitted by the applicant on behalf of Imperial County. The review advised on VMT considerations that were then incorporated in the environmental document.

VMT Analysis, Rancho Vista Industrial Park, Palmdale, CA

Traffic Engineer. Rawad managed the VMT analysis for the proposed industrial park in the City of Palmdale. The VMT analysis used the Los Angeles County Public Works Traffic Impact Analysis (TIA) Guidelines and the Southern California Association of Governments (SCAG) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Travel Demand Model.

VMT Analysis, Seneca Villas, Victorville, CA

Traffic Engineer. Rawad led the VMT analysis for this 310-unit multifamily housing project. The study utilized the City's VMT Analysis Guidelines and the San Bernardino Transportation Analysis Model (SBTAM) model to estimate the VMT per capita and evaluate the project impact for the opening and horizon years.

Government Campus Master Plan, San Bernardino County, CA

Traffic Engineer. Provided parking and traffic circulation analysis for the update campus master plan. The parking component includes access considerations for visitors and employees.

Traffic and Parking Analysis, CSU Dominguez Hills (CSUDH) VMT, Carson, CA

Traffic Engineer. As an on-call traffic engineer, Rawad supports CSUDH on various projects that aim at enhancing campus circulation and accessibility. He carried out VMT analysis to support the feasibility of new on-campus developments, managed a campus-wide parking needs assessment, carried out signal warrants and traffic analysis and advised on various transit and parking projects.

Traffic Analysis, Nature's Medicines, Moreno Valley, CA

Traffic Engineer. Rawad managed this TIA that identified the development's potential traffic-related impacts per the City's Traffic Impact Analysis Preparation Guides. The project was developed in two phases with the second phase consisting of medical offices.

Traffic Analysis, Clean Harbors, Westmoreland, CA

Traffic Engineer. As part of a Supplemental Environmental Impact Report (SEIR), Rawad provided traffic analysis services to the Department of Toxic Substances Control (DTSC) in reviewing the project's application for a renewed Hazardous Waste Management Permit. The analysis focused on vehicle miles travel considerations and the changes from the previous EIR.

Pomona Emergency Shelter Parking, Pomona, CA

Traffic Engineer. Rawad led the lighting design for the emergency shelter parking lot. The design utilized the City's standards and included photometric analysis and electrical designs.

Parking and Traffic Analysis, Notre Dame High School, Los Angeles, CA

Traffic Engineer. Rawad led the traffic and parking analysis for the school's master plan which included a 183-spaces parking structure among other developments and renovations. He carried out the analysis of the City of Los Angeles guidelines and assisted with the planning commission meetings.

EIR Transportation Analysis, Santa Monica-Malibu John Adams Middle School (JAMS), CA

Traffic Engineer. As part of the environmental team, Rawad led the traffic/TIA to identify potential transportation-related impacts associated with the construction activities of the John Adams Middle School auditorium replacement project. The analysis focused on construction traffic and followed the City of Santa Monica guidelines.

APPENDIX G – REDLINED DRAFT IS/MND (UPDATED)

Redlined Citrus College 2020-2030 Educational and Facilities Master Plan Initial Study Mitigated Negative Declaration Glendora, California

Prepared for:

CITRUS COMMUNITY COLLEGE DISTRICT
1000 W. Foothill Boulevard
Glendora, California 91741

Prepared by:

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December 2023

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SECTION 1.0 – PROJECT DESCRIPTION AND ENVIRONMENTAL SETTING

1.1 PROJECT PURPOSE AND BACKGROUND

The Citrus College 2020-2030 Educational and Facilities Master Plan (Proposed Project) requires discretionary approval by the Citrus Community College District (District) Board of Trustees and is subject to environmental review requirements in accordance with California Environmental Quality Act (CEQA). All "projects" within the State of California are required to undergo environmental review to determine any potential environmental impacts associated with project implementation (CEQA Guidelines Section 15021).

CEQA was enacted in 1970 by the California Legislature to disclose to decision-makers and the public the significant environmental effects of a proposed project and to identify possible ways to avoid or minimize significant environmental effects of a project by requiring implementation of mitigation measures or recommending feasible alternatives. CEQA applies to all California agencies at all levels, including local, regional, and State governments, as well as boards, commissions, and special districts. The District is the Lead Agency for the Proposed Project and is required to conduct an environmental review to analyze any potential environmental effects associated with project implementation.

Pursuant to Section 15063(a) of the State CEQA Guidelines, the District is required to undertake the preparation of an Initial Study to determine whether the proposed action will have a significant effect on the environment. The purpose of this Initial Study is to: (1) identify potential environmental impacts, (2) provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration, (3) enable the Lead Agency to modify the Project (through mitigation of potential adverse impacts, if any), (4) facilitate assessment of potential environmental impacts early in the design of the Project, and (5) provide documentation for the potential finding that the Project will not have a significant effect on the environment or can be mitigated to a level of insignificance (CEQA Guidelines, Section 15063[c]). This Initial Study is also an informational document providing an environmental basis for subsequent discretionary actions that could be required from other Responsible Agencies.

This Initial Study evaluates the potential environmental impacts that may result from development of the Project.

Consistent with State CEQA Guidelines Sections 15050, 15051, and 15368, the District is the Lead Agency under CEQA, and it is responsible for adoption or certification of the environmental document and approval of the Project.

The Citrus College Educational and Facilities Master Plan (EFMP) supports the college's mission, vision, and values, and serves as a long-range roadmap for the future. Developed in concert with the college's strategic plan, the 2020-2030 EFMP guides the long-term educational, student support services technology and facilities needs of the college.

1.2 PROJECT BACKGROUND

The District is a single-college district located in the City of Glendora (City), California. Founded in 1915, Citrus College is the oldest community college in Los Angeles County and the fifth oldest in California. Serving nearly 20,000 students annually, Citrus College grants associate degrees in 44 fields of study –

including 28 associate degrees for transfer to four-year institutions – and more than 50 certificates of achievement, certificates of competency, and skill awards in academic and career/technical areas. Citrus College serves the cities of Azusa, Bradbury, Claremont, Duarte, Glendora, and Monrovia in eastern Los Angeles County, and portions of other neighboring communities, including Arcadia, Covina, Irwindale, La Verne, Pomona, and San Dimas.

The mission of Citrus College is to provide students with quality educational experiences and support services that lead to the successful completion of degrees, transfer, certificates, career/technical education, and basic skills proficiency. The college fosters academic and career success through the development of critical thinking, effective communication, creativity, and cultural awareness in a safe, accessible, and affordable learning environment. In meeting the needs of a demographically diverse student population, the District embraces equity and accountability through measurable learning outcomes, ethical data-driven decisions, and student achievement.

To meet the needs of an ever-increasing student body, the college made significant strides in the previous decade to expand and improve its infrastructure and facilities. With support from resident voters, in 2004, the District passed Measure G, a $121-million General Obligation Bond resulting in eight new campus facilities: the Visual and Performing Arts Building (VPA), Student Services Building (SS), Louis E. Zellers Center for Innovation, Campus Safety Building, Mathematics/Sciences Building, Central Plant, Technician Development Center (CI), and the Field House (FH). Major renovations were also completed, including the reconstruction of Hayden Hall (HH), the college's oldest building, and the modernization of the Administration Building (AD) and the Ross L. Handy Campus Center (CC), a hub for student activity.

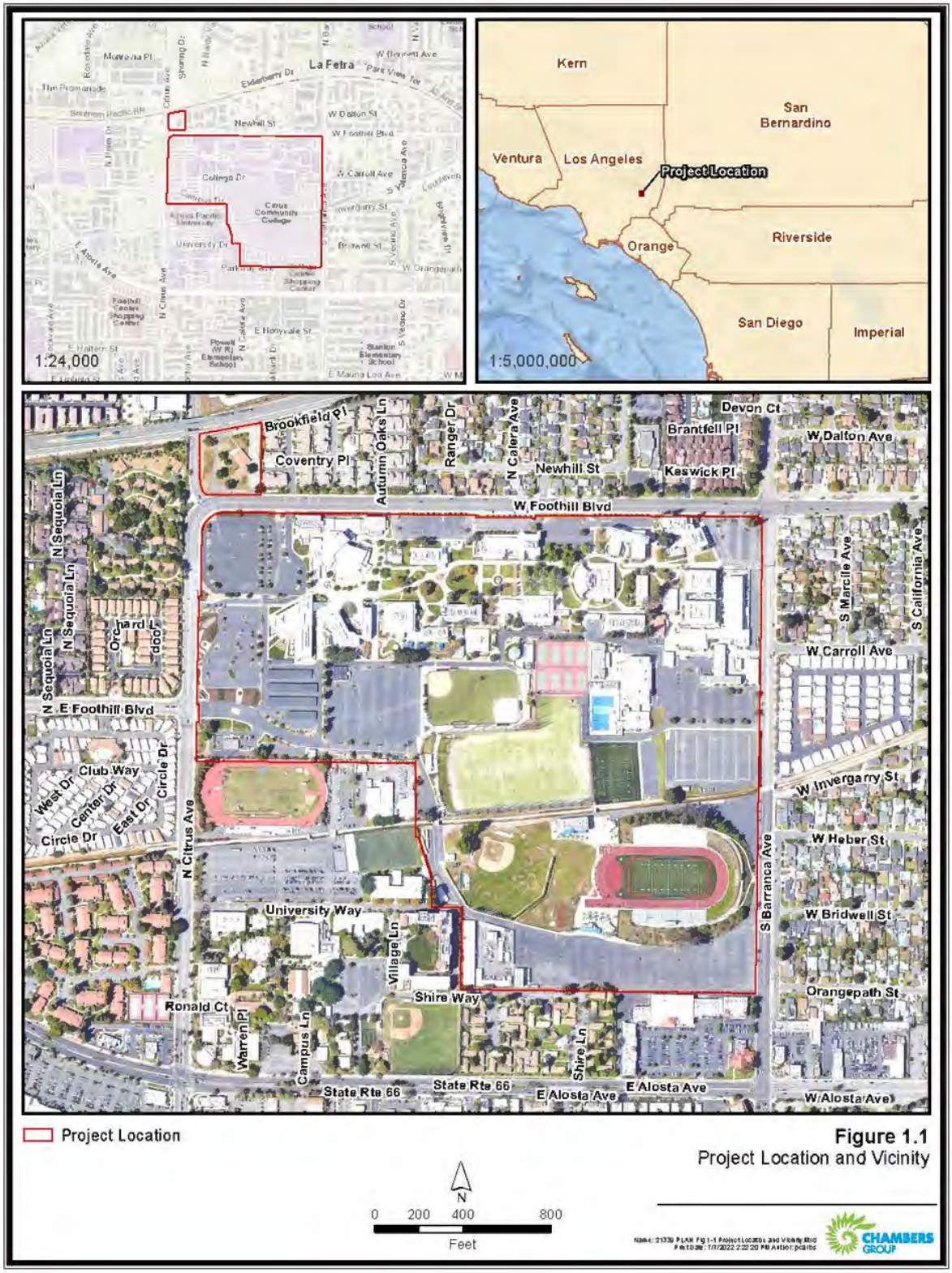
On July 21, 2020, by unanimous vote, the Citrus College Board of Trustees asked the County of Los Angeles to call a bond election for November 3, 2020. Measure Y, the Citrus College Career Education, Repair, Affordable Higher Education Measure, is a $298-million General Obligation Bond measure, to retain well-qualified teachers and improve the quality of education at Citrus College by upgrading job training, science, technology classrooms, and laboratories; meeting earthquake, fire, and clean drinking water safety; providing resources for students/veterans preparing for university transfer/jobs; and removing leaky roofs, mold, and lead paint. Voters in the District approved Measure Y during the Nov. 3, 2020, general election.

1.3 PROJECT LOCATION AND SITE CHARACTERISTICS

1.3.1 Location

Citrus College is located at 1000 W. Foothill Boulevard in Glendora, California, at the foothills of the San Gabriel Mountains, approximately 25 miles northeast of metropolitan Los Angeles, as shown in Figure ~~1-~~ 1 *Site and Project Vicinity*. The college is the oldest community college in Los Angeles County and occupies a 104-acre campus near regional transportation routes, including the Foothill Freeway (Interstate 210), which connects to Interstate 5 and State Route 134 and Interstate 605. There is a proposed Center for Excellence site north of the campus and east of Citrus Avenue, at 1155 W. Foothill Boulevard. This site currently has a fully operational church on the property.

Figure ~~1-~~1. Site and Project Vicinity (See Figure 1-1 of Draft MND)



Existing School Operations

The Citrus College campus hours of operation are from 7:00 am to 10:30 pm, Monday through Friday. Competitive athletic events occur throughout the school year under the same hours of operation, as well as limited times on some Saturdays. Limited athletic operations on Saturdays occur approximately 15 times per year.

1.3.2 General Plan ~~Designation~~/Zoning

The Citrus College Campus and the off-campus site are in the western portion of the City of Glendora. The campus has a land use designation of Civic/Institutional and is zoned ~~R-1~~, Single Family Residential (R-1). The off-campus site has a land use designation of Medium/High Density and is currently zoned Garden Apartment.

1.3.3 Surrounding Land Uses and Project Setting

The 104-acre campus is bounded by North Citrus Avenue to the west, W. Foothill Boulevard to the north, Barranca Avenue to the east, and Azusa Pacific University to the south. The existing land uses surrounding the campus and the church site are Low-Medium Residential and Medium Density Residential. The City of Azusa is directly west of North Citrus Avenue and has land use designations of Medium Density Residential and University District.

Citrus College has 10 parking lots, over 60 buildings, an ~~one~~ off-site property (the existing church site), which also includes an ~~one~~ off-site parking facility (see Figure ~~1-~~2). Much of the history of constructed facilities on the Citrus College campus originates back to the 1930's and 1940's with most of the buildings constructed during the 1960's, as indicated in Table ~~1-~~1, Citrus College Existing Building Inventory. Major additions were subsequently completed in the 1990's and since the year 2000. The campus also has modular and portable classroom buildings.

Table ~~1-~~1. Citrus College Campus Existing Building Inventory

Building/Department Name	Building Letter	Gross Square Feet	Year Built	Year Modernized
Hayden Hall	HH	4,615	1934	2018
Earth Science	ES	6,944	1954	-
Physical Education Gym.	PE	45,076	1954	1963
Diesel Tech. 1	DT-1	7,150	1956	1975
Professional Center	PC	37,416	1967	1997
Physical Science	PS	28,577	1965	1994
Lecture Hall/Life Science	LH/LS	21,003	1963	1993
Owl Bookshop/ Ross L. Handy Campusenter	BK/CC	33,688	1963	2020
Information Services	IS	11,172	1963	-
Liberal Arts/Business	LB	39,435	1964	-
Hayden Library	LI	43,380	1961	2000
Administration	AD	26,041	1966	2016
North Stadium Restroom	R2	1,558	1963	-
South Stadium Restroom	R1	1,558	1963	-
Automotive Annex	AA	4,600	1975	-
Technology Center	TC	23,432	1973	1997

Building/Department Name	Building Letter	Gross Square Feet	Year Built	Year Modernized
Education Development Center	ED	32,414	1977	2023
Haugh Performing Arts Center	PA	66,162	1968	-
Maintenance Oper./Warehouse/Purchasing	MO/WA	14,740	1974	-
Diesel Technology 2	DT-2	6,851	1944	-
Portable 1	P1	6,240	1998	-
Portable 3	P3	3,000	2007	-
Adaptive Physical Education	AP	9,777	1999	-
Aquatic Center	AQ	2,536	1992	-
North Bungalow	NB	1,575	1993	-
South Bungalow	SB	2,175	1999	-
Integrated Success Center	IC	8,194	1992	-
Life Long Learning Center	LL	5,760	1998	-
Recording Technology	RA	8,930	1998	-
Video Technology	VT	19,250	1998	-
Technician Develop./Tech. Eng.	TD/TE	31,689	2010	-
Mathematics/Science	MA	33,058	2005	-
Reprographics (Print Shop)	RG	3,240	2005	-
Louis E. Zellers Center for Innovation	CI	33,058	2005	-
Portable 2	P2	1,440	2007	-
Central Plant	CP	4,633	2007	-
Student Services	SS	54,450	2012	-
Campus Safety	CS	2,363	2007	-
Field House	FH	8,416	2012	-
Gate House `	GH	1,525	2012	-
Visual Arts	VA	36,938	2014	-

Note: Individual building square footage does not account for the area of auxiliary equipment structures. The gross square footage of the Project area, including auxiliary structures, is accounted for in Table 2. Projected Space Needs and Demolition.

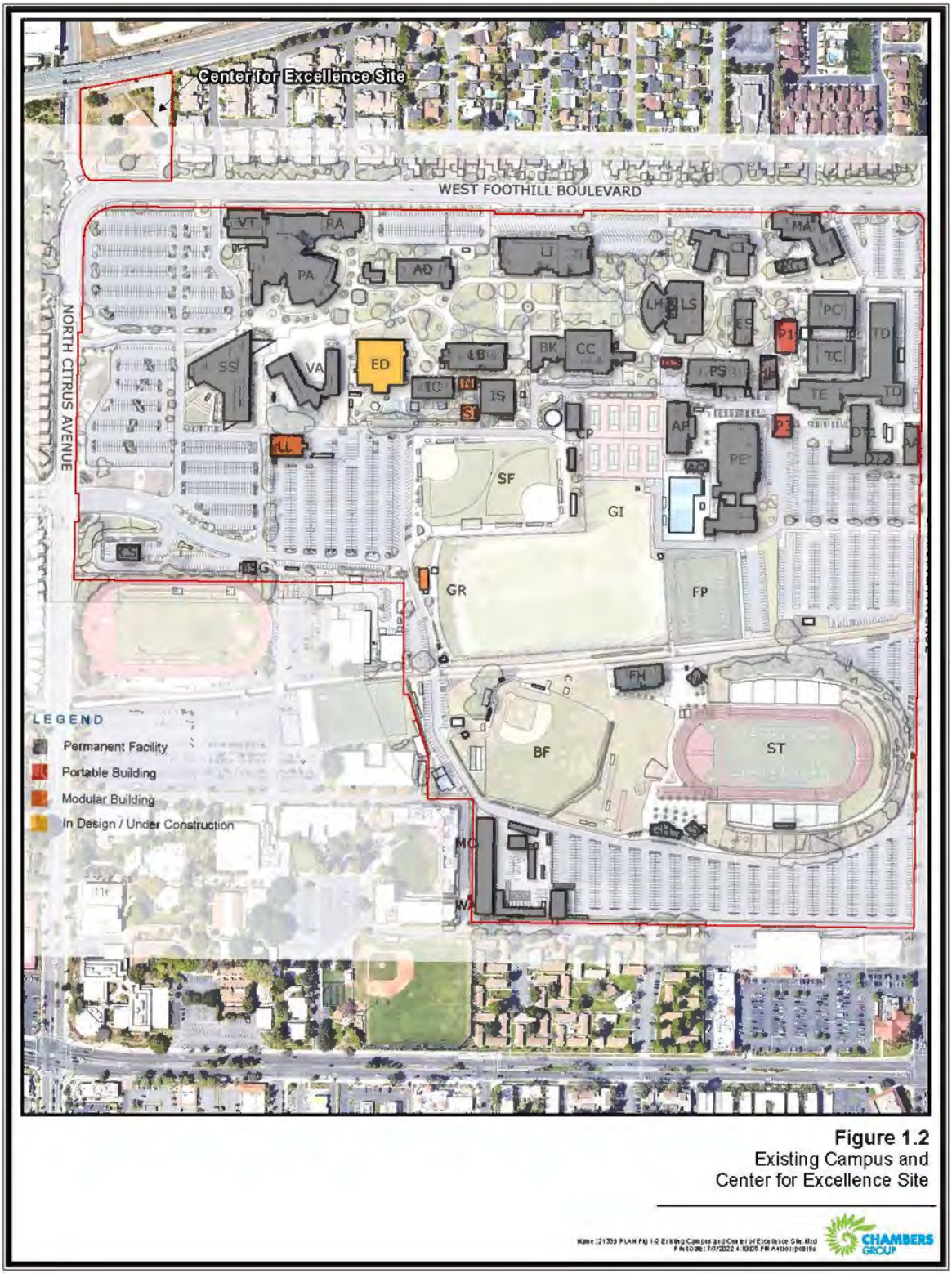
Table reproduced from Table 1-1 of the Draft MND (Section 1.3.3, p. 9) without revisions.

Center for Excellence Site

The Project site for the proposed Center for Excellence is approximately 1.77 acres and is north of W. Foothill Boulevard and East of Citrus Avenue. The site is largely developed with a one-story church and an asphalt parking lot and lawn area. A Los Angeles County Flood Control easement extends along the western portion of the Proposed Project site.

The Metro Rail ~~Foothill Gold~~ A Line is immediately north of this parcel, medium density residential is to the east and Citrus Avenue is to the west. Medium Density residential is west of Citrus Avenue in the City of Azusa. Citrus College is south of the Center for Excellence on W. Foothill Boulevard.

Figure ~~1~~ 2. Existing Campus and Center for Excellence (See Figure 1-2 of Draft MND)



1.4 PROJECT GOALS AND OBJECTIVES

The following objectives would be met with development of the Proposed Project:

- Improve connectivity of on-site parking facilities
- Refine existing and additional drop-off/pick-up zones
- Improve pedestrian access and wayfinding
- Address programming needs for flexible and technologically advanced classrooms and laboratory technology upgrades
- Improve space efficiency and utilization of space
- Improve existing infrastructure
- Contribute to becoming a Zero Net Energy (ZNE) campus

1.5 PROJECT DESCRIPTION

The Citrus College 2020-2030 EFMP supports the college's mission, vision, and values, and serves as a long-range roadmap for the future. Developed in concert with the college's strategic plan, the 2020-2030 EFMP guides the long-term educational, student support services technology and facilities needs of the college.

The Proposed Project comprises the adoption and implementation of the Citrus College 2020-2030 Educational and Facilities Master Plan ("Master Plan"). ~~As of 2019 there were 12,429 full-time equivalent students (FTES) enrolled at Citrus College. By 2030 there is anticipated to be 13,321 full-time students enrolled at Citrus College, which would result in an increase of 892 students.~~ In fall 2019, Citrus College's headcount[1] dropped by 1.33% compared to its fall 2018 headcount of 13,154. Subsequently, the COVID-19 pandemic further impacted the college's enrollments as headcount continuously declined through fall 2021 at which time the headcount was 9,483. Despite some increases in headcount in fall 2023 and fall 2024, the college's headcount in fall 2024 (10,157) remained below its fall 2018 level by 22.8%. At the start of the fall 2025 semester, the college is once again experiencing declines in headcount due to concerns over federal actions. Based on recent enrollment trends for fall 2025, the college has projected a decline of 6%, bringing the projected fall 2025 headcount to 9,548. This would result in an overall cumulative decline in headcount from fall 2018 to fall 2025 (projected) of 27.4%. When the Master Plan was originally created the college anticipated an annual growth rate of approximately 0.5% per year, however, this did not account for the unforeseen pandemic and recent federal actions and the negative impacts they have imposed on Citrus College's enrollments.

During the peak years of the COVID-19 pandemic, in 2020 and 2021 Citrus College experienced a significant decline in headcount, totaling a loss of approximately 29%. Despite some building back of enrollments, the total headcount as of the fall 2024 term was 10,157, still significantly below the projected 2019 level. Even assuming that Citrus College has hit the end of the declining enrollment era, applying the annual growth rates projected in the Master Plan would result in a headcount projected for fall 2030 of roughly 9,784, approximately 25.6% less than the actual headcount served by Citrus College in fall 2018.

1 All headcount references are taken from reports run on the California Community College Chancellor's Office Management Information Systems Data Mart web page: https://datamart.cccco.edu/Datamart.aspx.

As of 2019 there were 12,983 students enrolled at Citrus College, based on fall 2019 headcount. When the Master Plan was originally created, Citrus College anticipated there would to be 13,321 students enrolled at Citrus College by 2030, which would result in an increase of 162 students over the projected 2019 levels. However, as discussed in the paragraph above, Citrus College has experienced declines in enrollments and actual students enrolled at Citrus College in 2030 are expected to be less than the initial projections in the Master Plan. Therefore, for purposes of evaluating environmental impact, a projected increase of 162 students is a worst-case outcome. Like the headcount projections, actual students enrolled at Citrus College in 2030 are anticipated to be less than 2019 levels.

Pursuant to the Master Plan, site improvements will include connectivity of on-site parking facilities, refinement of existing and additional drop-off/pick-up zones, improved pedestrian access and wayfinding. Renovations will address programming needs for flexible and technologically advanced classrooms and laboratory technology upgrades, improvements to space efficiency and utilization of space, improvements to existing infrastructure, and sustainability improvements that will contribute to becoming a Zero Net Energy (ZNE) campus.

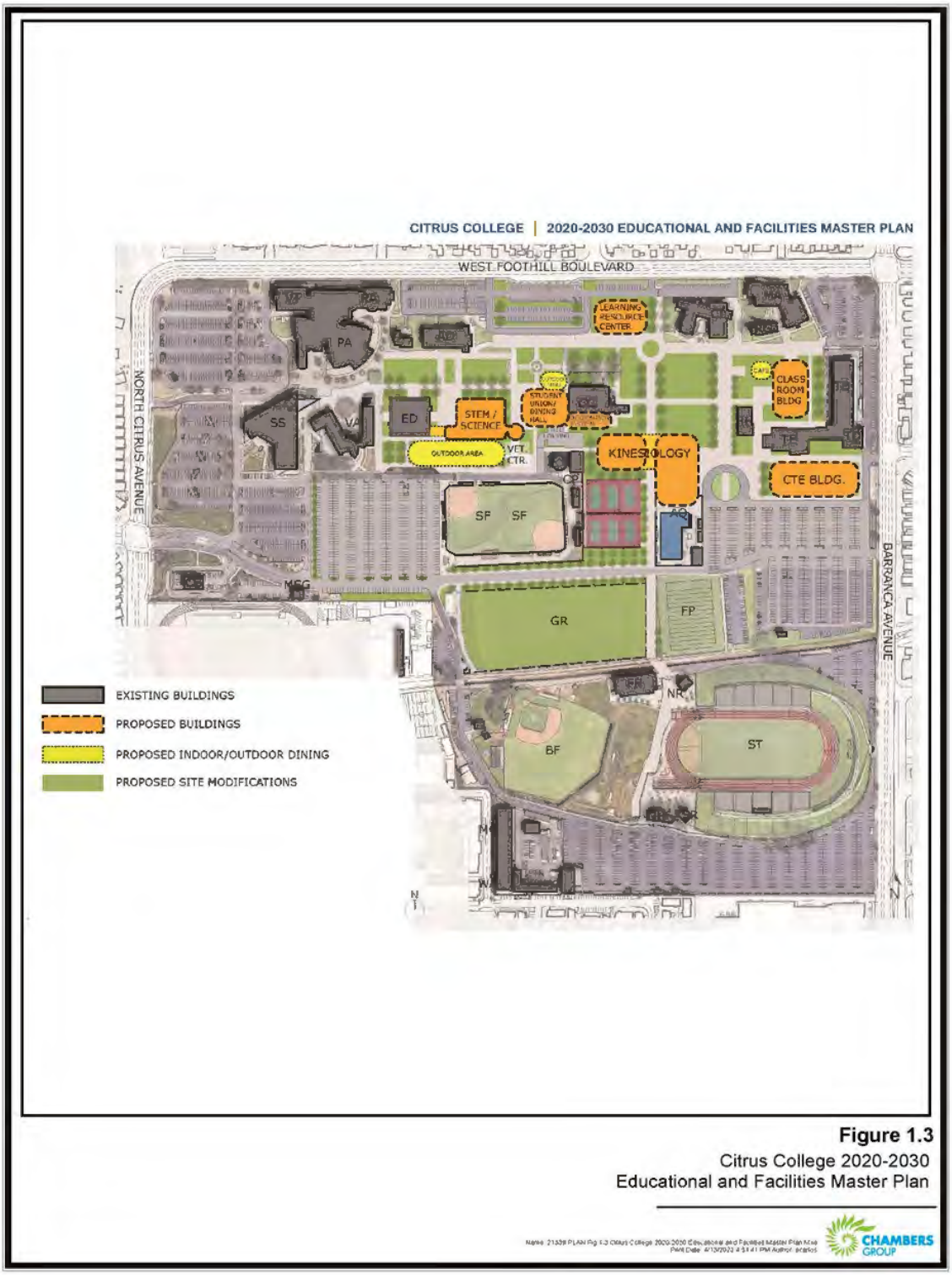
The Master Plan also involves construction of new buildings:

- Buildings to replace existing buildings that do not meet the requirements for renovation
- Buildings that will address the needs of Citrus College to meet the demands of its current and future students, changing population demographics, and the changing labor market as defined in the educational component of the master plan
- Buildings that maximize efficiency and implement a comprehensive sustainable building design
- Sustainable strategies that will contribute to becoming a ZNE campus

These new buildings include: 1) Science, Technology, Engineering and Mathematics (STEM) / Science and Veterans Success Center, 2) Career Technical Education Building (CTE), 3) Classroom Building, 4) Center for Excellence, 5) Student Union/Dining Hall/Information Systems Building, 6) Library/Learning Resource Center, and 7) Kinesiology Building. Additional construction may include solar photovoltaic parking canopies associated with the construction of the new buildings.

The site plan for the 2020-2030 EFMP planning process is shown in Figure ~~1~~–3. This site plan includes new construction, building renovations and site development projects identified in the educational component of the EFMP. The proposed sequence of buildings shown on Figure ~~1~~–3 is subject to change, as locations of the buildings may shift slightly. However, the buildings will all remain within the footprint analyzed in this document.

Figure ~~1-~~3. Citrus College 2020-2030 Educational and Facilities Master Plan (Updated; See Figure 1-3 of Draft MND)



Outlined below is a list of Minor, Moderate, and Major Renovation/Replacement needs (projects) for existing campus buildings as provided in the EFMP.

Minor Renovation

The following buildings/facilities were constructed and/or modernized more recently and are thus in need of only minor renovations to bring them up to current code requirements, to address items identified in the college's Americans with Disabilities Act (ADA) Transition Plan, to address technology and utilities infrastructure upgrades, to enhance functionality, and to improve efficiency for serving students, staff and visitors:

VA - Visual Arts
CI - Center for Innovation
MA - Math/Science
RG - Reprographics
FH - Field House
GH - Gate House
SS - Student Services
IC – Integrated Success Center
CS - Campus Safety
AD- Administration

Moderate Renovation

The buildings/facilities listed below are in need of moderate renovations to address the following items:

- Facilities need to be brought up to current code compliance
- Improvements are needed to address building security
- The quantity and infrastructure of restrooms do not support current building capacities
- Technology improvements are needed to support current needs, adapt to future needs, and to remain flexible and adaptable to future technological changes
- Buildings need a more cohesive relationship to their surroundings
- Improvements are needed for accessibility and to meet current standards
- Moderate renovations are needed to address items in Citrus College's ADA Transition Plan
- Moderate enhancements are needed to address functionality and to meet programmatic needs

NRR/SRR - North and South Stadium Restrooms
RA - Recording Arts
VT - Video Technology
TD/TE - Technician Development/Technology Engineering
Athletic Facilities
CP - Central Plant

Major Renovation / Replacement

The buildings/facilities listed below are in need of major renovations or replacement to address the following items:

- Improvements are needed to address building security
- Building construction makes it difficult and costly to renovate for better space utilization and to achieve energy efficiency
- Evidence of substantial structural slab cracking with areas of exposed rebar
- Restrooms are not to current code compliance
- Requires ADA upgrades
- Roofing needs replacement
- Existing facilities are qualified with a high Facilities Condition Index
- Classrooms have outdated lighting and internal environment is void of natural light
- Lab equipment and stations do not meet accessibility quantities and requirements
- Air handling units have reached the end of their useful life and are past due for replacement
- Current physical conditions of facilities inhibit the ability for technological implementation and flexibility
- Better efficiency of space utilization to adapt to programmatic needs

PE - Physical Education Gym
DT1 - Diesel Technology 1
DT2 - Diesel Technology 2
PC - Professional Center
PS - Physical Science
LH - Lecture Hall
LS - Life Science
LB - Liberal Arts/Business
AA - Automotive Annex
TC - Technology Center
PA - Performing Arts
LI – Library
BK - Bookstore
CC (lower level) - Dining Room and Kitchen
IS - Information Systems
MO & WA - Maintenance & Warehouse

Major Capital Projects / Proposed New Building Construction

The following is an overview of the EFMP'S major capital projects / proposed new building construction: 1) Science, Technology, Engineering and Mathematics (STEM) / Science and Veterans Success Center, 2) Career Technical Education Building (CTE), 3) Classroom Building, 4) Center for Excellence, 5) Student Union/Dining Hall/Information Systems Building, 6) Library/Learning Resource Center, and 7) Kinesiology Building. Additional construction may include solar photovoltaic parking canopies associated with the construction of the new buildings and other Campus-wide improvements.

STEM / Science and Veterans Success Center

A new 65,000 sq. ft. STEM / Science Building ~~and Veterans Success Center~~ will provide multiple upgrades for all science and related disciplinary programs and is shown in Figure 1-3. Classrooms, labs, and interactive teaching and learning spaces will be expanded to meet present and future needs of growing programs. ~~Located near the existing Educational Development Center, this~~ This building cluster will increase Citrus College's ability to remain competitive, enhance student enrollment, and attract new students. The new building will have an additional area designated for a Veterans Success Center ~~will occupy a portion of this construction along~~ with ~~photovoltaic arrays~~ private access and ~~outdoor~~ separate support spaces ~~that complement the building uses~~.

The buildings to be replaced in conjunction with this recommendation are: Liberal Arts (LB), Information Systems (IS), Integrated Success Center (IC), North Bungalow (NB) and South Bungalow (SB)~~Life Science (LS), Lecture Hall (LH), and Physical Science (PS) building~~. After construction, Physical Science (PS), Lecture Hall (LH), Life Science (LS), and Earth Science (ES) will move into this building. The existing buildings will be obsolete and will be removed following the completion of the STEM building or used as temporary swing space for subsequent construction.

~~The buildings to be removed in conjunction with the construction of this building are Liberal Arts (LB), Information Systems (IS), North Bungalow (NB), South Bungalow (SB) and Integrated Success Center (IC).~~

Career Technical Education Building (CTE)

A new ~~79,000~~ 79,762 sq. ft. CTE building will be constructed adjacent to the existing Technician Development (TD) and Technology Engineering (TE) buildings, as shown in Figure ~~1-~~3. The new CTE building replaces similar outdated structures, allowing for the sharing of instructional support spaces while also providing specialty spaces to support new and existing CTE programs. Data collected from the educational component of the EFMP indicates significant growth in the CTE programs. Classroom and lab spaces will be expanded and designed to accommodate future programmatic needs and educational technologies.

The buildings to be removed in conjunction with the construction of this building are Professional Center (PC), Automotive Annex (AA), Diesel Technology 1 (DT1), Diesel Technology 2 (DT2) and Portable 3 (P3).

Classroom Building

A new ~~42,000~~ 44,000 sq. ft. instructional building (classroom building) will function as an interdisciplinary facility that will provide flexibility for advanced teaching methods. The building will be designed to accommodate technological learning environments that meet expanded classroom needs including high-flexible space to accommodate future programmatic needs and educational technologies for interactive teaching and learning facilities. The classroom building will also be outfitted with modern information technology infrastructure to house the Technology and Computer Services Department.

The Professional Center (PC) and Technology Center (TC) and Portable 1 (PT1) are in the footprint of the building ~~to~~ and will be removed ~~in conjunction with the construction of this building is Portable 1 (P1)~~.

Center for Excellence - Conference Center

The recommendation for the off-site facility is to build a modern, technology-enhanced conference center, the Center for Excellence, which would be available for Citrus College and the community. The prime location of this facility renders a great opportunity for college use as well as a venue for broader organizational use. Additionally, the facility's proximity to the Metro ~~Gold~~A Line station makes it ideally accessible to the greater community. The ~~Project site for~~ property of the proposed Center for Excellence is approximately 1.77 acres and is north of W. Foothill Boulevard and east of Citrus Avenue. The new two-story Center for Excellence building will be approximately ~~20,000~~ 7,017 sq. ft. The existing 10,000 sq. ft. church will be demolished, and the existing parking lot be removed and reconfigured. The site plan for the Center for Excellence is shown in Figure ~~1-~~4.

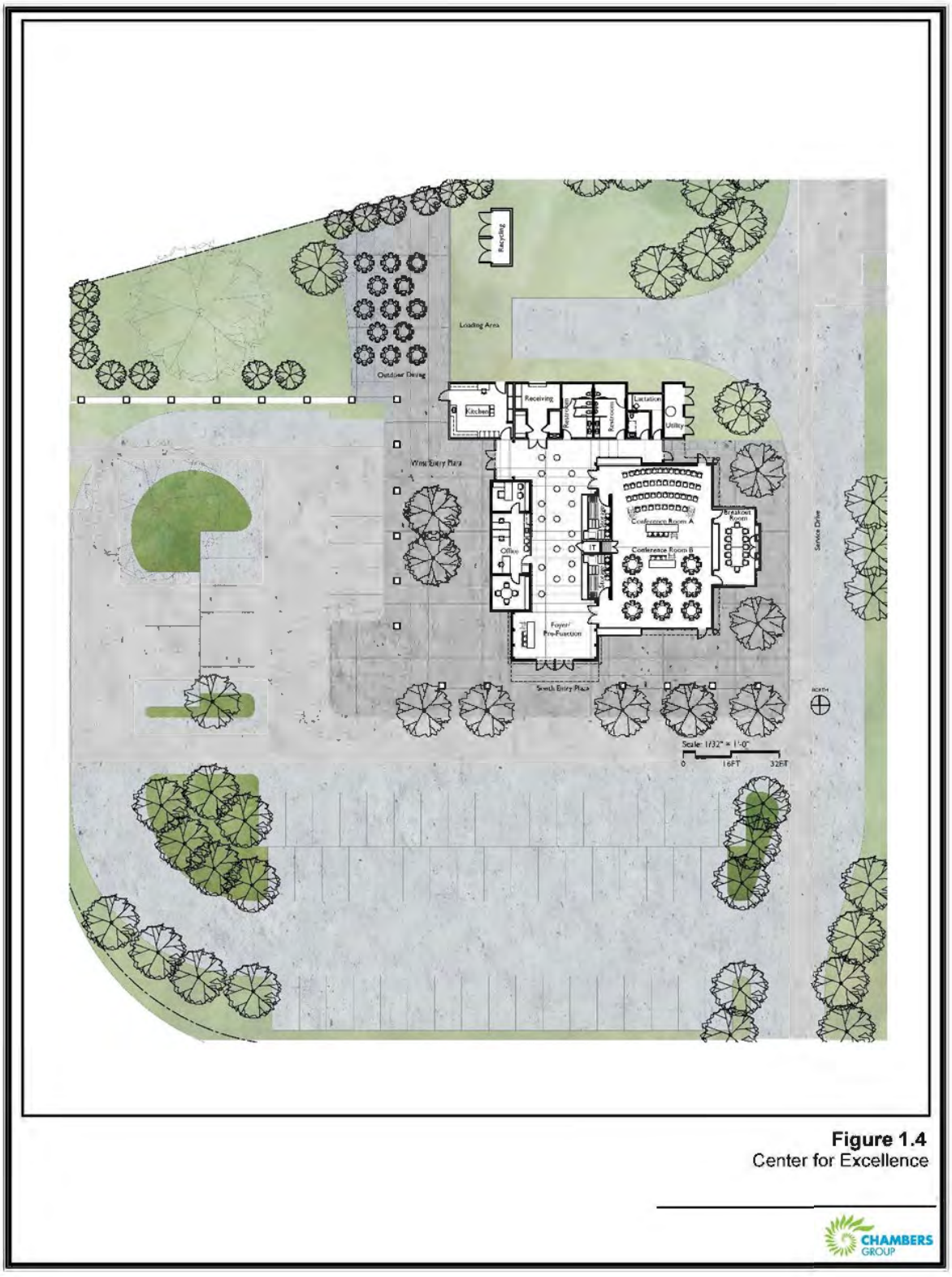
The Citrus College Center for Excellence multi-purpose space will be used for community meetings, educational advancement, and to facilitate collegial and regional employment opportunities. In addition, the Center for Excellence will provide space for extended education seminars, workshops, workplace resources, training sessions, community meetings, event space, career advancement, continuing education, short-term vocational, non-credit courses, English as a Second Language, and Adult High School.

Student Union / Dining Hall / Information Systems Building

A new Student Union / Dining Hall / Information Systems Building will be 15,000 sq. ft. and is proposed to be constructed at the location of the existing bookstore, as shown in Figure ~~1-~~3. The Student Union/Dining Hall will absorb the kitchen and dining hall services from the lower level of the Campus Center and bring those services up to the same level as the campus quad. This new facility will extend into the central quad and provide options for indoor and outdoor dining. This facility will serve as a space for student gathering and informal collaboration and should be accessible to everyone on campus. The lower level of the Campus Center will be modernized for Information Services~~, allowing the college's Technology and Computing Services area to be housed in the lower level of the Campus Center, near the college's fiber-optic hub~~.

The building~~s~~ to be replaced in conjunction with this recommendation ~~are~~is the existing Bookstore ~~and Information Systems~~.

Figure ~~1~~-4. Center for Excellence (Updated: Figure 1-4 of Draft MND)



Library / Learning Resource Center

The new ~~56,000~~ 50,049 sq. ft. Library / Learning Resource Center redefines a traditional library by providing less space for physical books and more space for technological resources as shown in Figure ~~1~~ 3. The new Library building will improve efficiency and utilization of space, provide technologically advanced resources, and enhance learning environments conducive to all methods of learning. These newly designed educational spaces will incorporate technology, accommodate flexible and collaborative learning spaces for small and large groups and include areas for individual study.

The existing library building will be replaced with this new Library / Learning Resource Center and existing on grade parking area will be repurposed as well.

Kinesiology Building

A new ~~65,000~~ 61,000 sq. ft. Kinesiology building will be adjacent to the existing gym facility and physical education buildings as shown in Figure ~~1~~ 3. The new Kinesiology building will enhance the college's existing athletic programs and provide an opportunity to grow competitive sports teams as well as academic programs. It is recommended that the new facility includes universally accessible gym facilities and equipment, in addition to classrooms and offices for instructional use.

The buildings to be replaced in conjunction with this recommendation are Adaptive Physical Education (AP), Aquatic Center (AQ), and Physical Education Gymnasium (PE). The Tennis Complex (TN), ~~Adaptive Physical Education (AP),~~ and Aquatic Center (AQ) are in the footprint of the new building and will ~~be removed~~ have their boundaries adjusted.

Minor Capital Projects

The following is an overview of the EFMP'S Minor Capital Projects, or proposed site improvements. There are several opportunities to reinforce the campus image and provide a cohesive and welcoming experience for all students, faculty, staff, and visitors. A number of site improvement projects are recommended to enrich the campus identity and enhance the overall campus community environment. These recommendations are listed below and shown in Figure ~~1~~ 5.

- **Drop-Off / Pick-Up Zones** transforms the way buildings interface with adjacent parking lots as entry plazas from the drop-off / pick-up zones and visitor arrival areas at these locations
- **High Monument Signage** enhances existing high monument signage to emphasize the primary campus point-of-entry and reinforce branding and college identity
- **Low Monument Signage / Marquee** updates the existing marquee to better represent Citrus College with its location at the primary entrance to the college. Repeat a variation of the high monument sign at multiple locations along the street frontage identifying entrances to buildings and parking lot locations
- **Campus Gateway** enhances this area of the campus as a primary drop-off / pick-up area and threshold to the college
- **Promenade** improves pedestrian circulation paths with paving, sustainable landscaping, signage, and lighting
- **Central Quad** strengthens the campus core and sense of community with a redefined and reimagined central quad. Activated by student-oriented spaces on each end with major

pedestrian pathways connecting to all areas of the campus, the central quad becomes the "heart of the campus"

- **East Quad** enhances the east quad to support a variety of activities including informal study spaces, career fairs, ceremonies, and special events. Additionally, functions in adjacent buildings can extend out into the east quad
- **Veterans Plaza** creates a Veterans Plaza as an outdoor extension of the Veterans Success Center and strengthens the sense of community amongst the Veterans group and with the rest of the college
- **Library / Learning Resource Center Plaza** creates a Learning Resource Center Plaza to provide a collaborative outdoor space for students to gather and learn. Adjacent areas to this facility will enhance the use of outdoor space for studying and social interaction
- **Tree Grove** will provide similar planted tree species along major arterial paths to add identity and enhance the campus image
- **Fountain Plaza** enhances the central quad and create a link between outdoor space and the new Student Union/Dining Hall/Information Systems Facility by renovating the existing Owl fountain and bringing it into compliance with current water usage standards

Proposed Circulation

As seen in Figure ~~1~~ 6, the proposed circulation plan enhances vehicular and pedestrian circulation by creating new paths of travel from multiple points of entry to designated drop-off/pick-up zones.

The proposed plan links the two existing student parking lots to the south of the central quad with a new road running between the softball fields and golf driving range. The new road will allow drivers to navigate through campus without needing to leave the campus to get to their desired destination. The proposed road is also the route to the proposed new drop-off/pick-up zones.

There are currently 3,321 parking spaces and the proposed project would increase the number of parking spaces to 3,350 spaces, which would result in an increase of 29 parking spaces. It is anticipated that implementation of the proposed project would result in the installation of up to 5 acres of new pavement area for the new paths of travel and parking spaces.

Figure ~~1~~ 5. Proposed Site Improvements (Figure 1-5 of Draft MND)

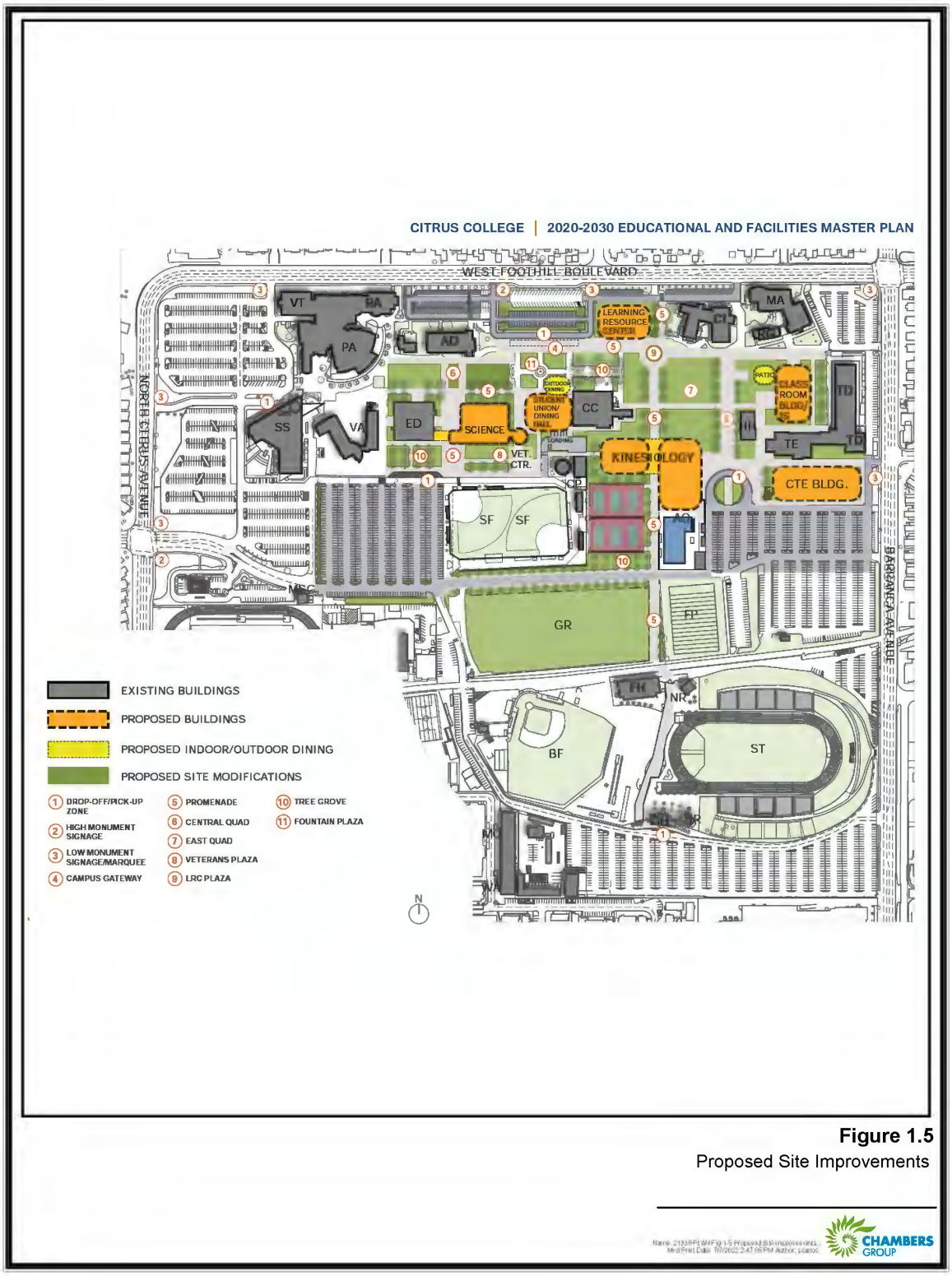
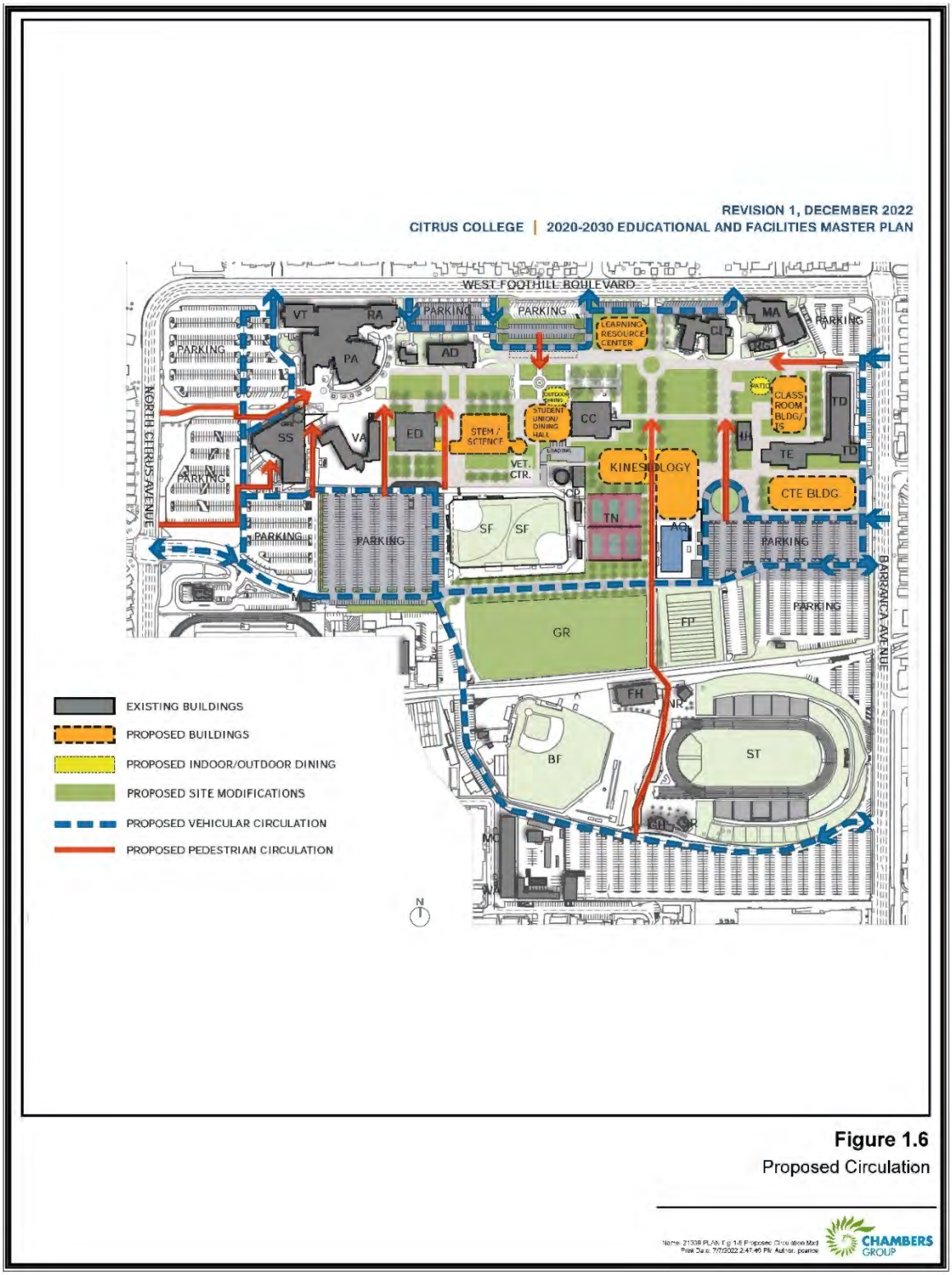


Figure 1.5
Proposed Site Improvements

Figure ~~1~~ 6. Proposed Circulation (Figure 1-6 of Draft MND)



Projected Space Needs and Demolition

Table ~~1.~~2 compares Citrus College's existing space, proposed modifications, improvements, and space re-alignment, in order to project future space needs. The methodology used for these projections was based upon the estimated overall annual growth rate of ~~0.49%~~ 0.56%[2] for Citrus College. The facilities improvements recommended will minimally increase the total campus gross square feet (GSF) by less than 1%, or approximately 4,924 GSF. However, the proposed recommendations will increase assignable square feet (ASF) by ~~3.5%~~ 1.4%, or approximately ~~17,812~~ 6,876 ASF by better utilization of space design. The proposed removal and replacement of older buildings will significantly improve the efficiency and flexibility of the college's instructional spaces.

Table ~~1.~~2. Projected Space Needs and Demolition

Type of Space[1]	2019	Planned Demolition	Planned New	Difference	Projected 2030
GSF	759,786[2]	(316,904)	321,828	4,924	764,710
ASF	501,306[2]	(218,288)	236,100[2]	17,812	519,118

Note: Table reproduced from Table 1-2 of the Draft MND (Section 1.4, p. 23) without revisions.

~~Notes:~~
[1] GSF = Gross Square Feet; ASF = Assignable Square Feet.
[2] ± 5%

Planned Development Schedule

~~Build-out~~ Planning of all of the projects will occur in eight development phases (Table ~~1.~~3). Phase 1, campus-wide improvements ~~will begin~~ began in Fall of 2022, with improvements limited to minor electronic modifications for safety purposes. Phase 2 (~~STEM/SCIENCE/Veterans~~Center for Excellence) is anticipated to begin in Winter ~~2023~~ 2026. ~~Standard construction hours would be 7:00 am to 7:00 pm Monday through Friday. If it is necessary to occasionally conduct construction activities on Saturdays, construction activities will start at 9:00 am.~~

Table ~~1.~~3. Planned Development Phases

Development Phase	Building / Use
1. 2022*** – 2031	Campus Wide Improvements
2. ~~2023 – 2026~~ 2026-2029	~~STEM Science/ Veterans Success Center~~ Center for Excellence
3. ~~2024 – 2025~~ 2025-2031	~~Career Technical Education~~ Campus Center and Dining Hall**
4. ~~2025 – 2027~~ 2025-2030	~~Classroom Building~~ Career Technical Education
5. ~~To be determined~~ 2025-2030	~~Center for Excellence* and **~~ STEM/ Veterans Success Center
6. ~~2028 – 2030~~ 2026-2031	~~Student Union/ Dining Hall/ Information Systems~~ Classroom Building
7. ~~2029 – 2031~~ 2028-2031	Library / Learning Resource Center **
8. ~~2030 – 2032~~ 2029-2032	Kinesiology **

2 Citrus College. 2025. Educational and Facilities Master Plan 2024 Update. https://files.citruscollege.edu/general/reportsplans/efmp24update-ada.pdf

Development Phase	Building / Use

Note: Table reproduced from Table 1-3 of the Draft MND (Section 1.4, p. 23) with revisions.

* The proposed sequencing of buildings is subject to change. Any major change will be reviewed for CEQA consistency.

** Buildings may be initiated / completed as District funding becomes available.

*** Improvements occurring between 2022-2026 are limited to non-ground-disturbing work, including routine building maintenance and upgrading building locks for safety purposes.

1.6 CONSTRUCTION SCHEDULE

The Proposed Project construction will occur in specific development phases and is expected to occur over a 6-year period, approximately between Summer 2026 through 2032. Standard construction hours would be 7:00 am to 7:00 pm Monday through Friday. If it is necessary to occasionally conduct construction activities on Saturdays, construction activities will start at 9:00 a.m. and end before 9:00 p.m., in accordance with Section 9.44.110 of the City of Glendora Municipal Code.

1.7 REQUIRED PERMITS AND APPROVALS

~~As required by the CEQA Guidelines, this section provides, to the extent the information is known to the District, a list of permits and approvals to implement the Proposed Project and a list of agencies that will review this Draft Initial Study / Mitigated Negative Declaration (MND) and be used in their decision-making process.~~

The ~~f~~Final Initial Study / MND must be approved by the District Board of Trustees (Board) as to its adequacy in complying with the requirements of CEQA before taking any action on the Proposed Project. The Board will consider the information contained in the Final Initial Study / MND in making a decision to approve or deny the Proposed Project. The analysis in the Final Initial Study / MND is intended to provide environmental review for the whole of the Proposed Project, including the project planning, demolition of existing structures, site clearance, site excavation, and construction of school buildings and ancillary facilities in accordance with CEQA requirements.

~~1.7.1 Other Required Permits and Approvals~~

~~Other required permits and approvals may be necessary in order to approve and implement the Proposed Project as the District finds appropriate. Approvals include, but are not limited to, architectural plan and design, landscaping, lighting, transportation permits and approvals for driveways and routes, grading, hauling, and public utilities. Potential responsible and trustee agencies may include:~~

- ~~Division of the State Architect (DSA); Approval of plans and specifications)~~
- ~~California State Fire Marshal~~
- ~~California Geological Survey~~

~~1.7.2 Reviewing Agencies~~

Reviewing Agencies include those agencies that do not have discretionary powers, but that ~~may review~~ have reviewed the Draft Initial Study / MND for adequacy and accuracy. Potential Reviewing Agencies include the following:

State Agencies

- California Department of Transportation (Caltrans)
- California Environmental Protection Agency (Cal EPA)
- California Department of Fish and Wildlife (CDFW)
- Department of Toxic Substances Control (DTSC)
- Integrated Waste Management Board (IWMB)
- Regional Water Quality Control Board (RWQCB)

Regional Agencies

- Southern California Association of Governments (SCAG)
- South Coast Air Quality Management District (SCAQMD)
- City of Glendora Planning Department
- City of Azusa Planning Department
- Los Angeles County Fire Department

On September 2nd , 2025 Caltrans also received notice of the posting of the Final Initial Study / MND.

1.7.3 Permits and Approvals

Other required permits and approvals may be necessary in order to approve and implement the Proposed Project as appropriate. Approvals include, but are not limited to, architectural plan and design, landscaping, lighting, transportation permits and approvals for driveways and routes, grading, hauling, and public utilities. Potential responsible and trustee agencies may include:

- Division of the State Architect (DSA); (Approval of plans and specifications)
- California State Fire Marshal
- California Geological Survey
- City of Glendora

SECTION 2.0 – ENVIRONMENTAL DETERMINATION

2.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would potentially be affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklists on the following pages. For each of the potentially affected factors, mitigation measures are recommended that would reduce the impacts to less than significant levels.

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

2.2 DETERMINATION

On the basis of this initial evaluation:

1. I find that the project **could not** have a significant effect on the environment, and a **NEGATIVE DECLARATION** will be prepared. ☐

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

3. I find the Proposed Project **may have a significant effect** on the environment, and an **ENVIRONMENTAL IMPACT REPORT** is required. ☐

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

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

Signature _____ Date _____

Name _____ Title _____

SECTION 3.0 – EVALUATION OF ENVIRONMENTAL IMPACTS

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

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

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

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

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

    a. Earlier Analysis Used. Identify and state where they are available for review.

    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

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

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

8. The explanation of each issue should identify:

   a. The significance criteria or threshold, if any, used to evaluate each question; and

   b. The mitigation measure identified, if any, to reduce the impact to less than significant.

   *Note: Instructions may be omitted from final document.

SECTION 4.0 – CHECKLIST OF ENVIRONMENTAL ISSUES

4.1 AESTHETICS

1.	**AESTHETICS.** **Except as provided in Public Resources Code Section 21099, would the project:**	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
(a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☒
(b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
(c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
(d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

4.1.1 Impact Analysis

a) Would the project have a substantial adverse effect on a scenic vista?

No Impact. No scenic vistas are identified in the City within the General Plan (City 2008). The campus is generally flat but has a gentle slope to the south. Views of the San Gabriel Mountains are to the north of the Campus. The area surrounding the campus is mixed with residential and Azusa Pacific University immediately adjacent to Citrus College. The Center for Excellence site would require demolition of the existing church facility and establish a modern two-story Center for Excellence and a new reconfigured parking lot. This new facility would be one story higher than the existing church site but would be consistent in height with nearby multifamily housing.

The major capital projects identified in the EFMP would be similar in scale and heights to the existing campus facilities maintaining the campus profile. Consequently, views of the campus from adjacent and nearby properties would be similar as with existing conditions. Build-out of the 2020-2030 EFMP would not adversely affect any scenic views from properties adjacent to the campus or within the immediate vicinity of the campus. Build-out of the 2020-2030 EFMP, and Center for Excellence would result in no impacts to scenic vistas.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact. The major capital projects and renovations identified in the 2020-2030 EFMP would be similar in scale and heights to the existing campus facilities maintaining the campus profile. Consequently, views of the campus from adjacent and nearby properties would be similar to existing conditions. The Citrus College campus is not within a designated scenic highway (Caltrans 2022), and the nearest eligible highway Route 39, is located approximately 1.1 miles west of the Project site.

There are no rock outcroppings or historic buildings on the campus. The proposed structures associated with the Project would not be visible from any designated State scenic Highway. Project development would not result in impacts to scenic resources within a designated State scenic highway. Build-out of the 2020-2030 EFMP, and Center for Excellence would result in no impacts to scenic resources within a State scenic highway.

c) *Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Less than Significant Impact. The Proposed Project is in an urbanized area and is not considered to be a visually prominent site. The Center for Excellence site would remove the existing single-story church and establish a new two-story Center for Excellence and reconfigured parking lot. This new facility would be one story higher than the existing church site but would be consistent in height with nearby multifamily housing. The Proposed Project is located in an urbanized area and would not conflict with any zoning and other regulations governing scenic quality.

The Proposed Project represents the planned build-out of the Citrus College campus as identified in the 2020-2030 EFMP. Although the proposed new buildings associated with the major capital projects identified in the EFMP have not yet been designed, the new buildings would be similar in scale and height of the existing buildings, ranging from one to three stories. The Proposed Project would not substantially degrade the existing visual quality or character of the campus or surrounding area. New campus buildings and landscaping would be designed to complement the existing campus and visual impacts would be less than significant.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Less than Significant Impact. The Proposed Project site and its surroundings are fully developed. Other existing sources of light are present within and adjacent to the Proposed Project. Sources of illumination include the existing campus buildings lighting in the Proposed Project site, street lighting, interior buildings lighting of the adjacent homes, streetlamps, lighting in parking lots, security lighting, and vehicle lights. The new Center for Excellence would include demolition of the existing church and introduce new lighting as part of the facility. Lighting would be adequate to provide safety and security for the facility and associated parking lot, while also meeting the goal of maintaining a Zero Net Energy facility. Light fixtures are to be Design Light Consortium (DLC)-compliant, photometrically limiting the amount of light emitted into the sky and focus light on the ground.

The 2020-2030 EFMP would require demolition of existing facilities and would introduce new facilities and lighting as part of the full build-out of the Project. Lighting impacts associated with the planned facilities and renovations would be less than significant.

4.2 AGRICULTURE & FORESTRY RESOURCES

2.	**AGRICULTURE & FOREST RESOURCES. (In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:**	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
(a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
(b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
(c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
(d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
(e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or the conversion of forest land to non-forest use?	☐	☐	☐	☒

4.2.1 Impact Analysis

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The area surrounding the Project is classified as Urban and Built-Up land, with existing buildings onsite (California Department of Conservation [DOC] 2022a). No farmland or agricultural activities exist on or near the Project site. Conversion of the existing church facility to the Center for Excellence would not impact any agricultural lands and reconstruct a building onsite. Additionally, the site is not identified as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. No impacts to farmland or agricultural resources would occur.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project site is zoned as Single-Family Residential, while the Center for Excellence site is zoned as Garden Apartment and (City 2022a). The campus and Center for Excellence site are not under a Williamson Act contract. No impacts to land zoned for agricultural use or subject to a Williamson Act contract would occur.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The Project site is zoned single-family residential, while the Center for Excellence is zoned Garden Apartment, and the surrounding area is composed of urban built-up land. The Project site and Center for Excellence are not zoned as forestland or timberland, and there is no timberland production at the Project site. The Project site is not zoned as forestland or timberland, and there is no timberland production at the Project site. No impacts would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As discussed in threshold (c), the Project site and Center for Excellence are not zoned as forestland. While there is ornamental landscaping onsite, no designated forested lands exist on or near the Project site. Therefore, no impacts to forestland would occur.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or the conversion of forest land to non-forest use?

No Impact. The existing land uses surrounding the Project site is composed of low-medium residential, medium density residential, and University District. Neither the Project site, nor the Center for Excellence site are currently utilized for agricultural, or forestry uses. The Project site is not classified in any Farmland category designated by the State of California. No impact to farmlands or timberlands would occur.

4.3 AIR QUALITY

3.	AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
(b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?	☐	☐	☒	☐
(c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐

3.	**AIR QUALITY. Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:**	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
(d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

4.3.1 Environmental Setting

An Air Quality, Energy, and Greenhouse Gas Emissions Report was provided that analyzed the Proposed Project and its potential impacts (Appendix A). The Project site is located within Los Angeles County, which is part of the South Coast Air Basin (SCAB or Air Basin) that includes the non-desert portions of Riverside, San Bernardino, and Los Angeles Counties and all of Orange County. The Air Basin is located on a coastal plain with connecting broad valleys and low hills to the east. Regionally, the Air Basin is bounded by the Pacific Ocean to the southwest and high mountains to the east forming the inland perimeter.

Atmospheric Setting

The climate of the southeastern portion of Los Angeles County is characterized by hot dry summers, mild moist winters with infrequent rainfall, moderate afternoon breezes, and generally fair weather. The general region lies in the semi-permanent high-pressure zone of the eastern Pacific. As a result, the climate is mild, tempered by cool sea breezes. Occasional periods of strong Santa Ana winds and winter storms interrupt the otherwise mild weather pattern.

Although the Air Basin has a semi-arid climate, the air near the surface is typically moist because of the presence of a shallow marine layer. Except for infrequent periods when dry air is brought into the Air Basin by offshore winds, the ocean effect is dominant. Periods of heavy fog are frequent and low stratus clouds, often referred to as “high fog” are a characteristic climate feature.

Winds are an important parameter in characterizing the air quality environment of a project site because they determine the regional pattern of air pollution transport and control the rate of dispersion near a source. Daytime winds in Los Angeles County are usually light breezes from off the coast as air moves regionally onshore from the cool Pacific Ocean to the warm Mojave Desert interior of Southern California. These winds are usually the strongest in the dry summer months. Nighttime winds in Los Angeles County are a result mainly from the drainage of cool air off of the mountains to the east and they occur more often during the winter months and are usually lighter than the daytime winds. Between the periods of dominant airflow, periods of air stagnation may occur, both in the morning and evening hours. Whether such a period of stagnation occurs is one of the critical determinants of air quality conditions on any given day.

During the winter and fall months, surface high-pressure systems north of the Air Basin combined with other meteorological conditions, can result in very strong winds, called “Santa Ana Winds”, from the northeast. These winds normally have durations of a few days before predominant meteorological conditions are reestablished. The highest wind speed typically occurs during the afternoon due to daytime thermal convection caused by surface heating. This convection brings about a downward transfer of

momentum from stronger winds aloft. It is not uncommon to have sustained winds of 60 miles per hour with higher gusts during a Santa Ana Wind event.

Regulatory Setting

The Proposed Project site lies within the SCAB, which is managed by the SCAQMD. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) have been established for the following criteria pollutants: carbon monoxide (CO), ozone (O_3), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), inhalable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead. The CAAQS also set standards for sulfates, hydrogen sulfide, and visibility.

Areas are classified under the Federal Clean Air Act as either "attainment" or "nonattainment" areas for each criteria pollutant, based on whether the NAAQS have been achieved or not. Attainment relative to the state standards is determined by the California Air Resources Board (CARB). The SCAB has been designated by the United States Environmental Protection Agency (USEPA) as a nonattainment area for O_3 and suspended particulates ($PM_{2.5}$). Currently, the SCAB is in attainment with the ambient air quality standards for CO, SO_2, PM_{10} and NO_2. The SCAB is designated as partial nonattainment for lead, based on two source-specific monitors in Vernon and in the City of Industry that are both near battery recycling facilities.

The USEPA has designated the SCAB as extreme nonattainment for the 8-hour average ozone standard. The 1997 8-hour ozone NAAQS was strengthened from 0.08 ppm to 0.075 ppm, effective May 27, 2008. The 1997 8-hour ozone standard was revoked in implementation rules for the 2008 ozone NAAQS, effective April 6, 2015. On October 1, 2015, the USEPA again strengthened the 8-hour ozone NAAQS to 0.070 ppm, effective December 28, 2015, retaining the same form as the previous 1997 and 2008 standards. The 2008 ozone NAAQS is a primary focus of the 2016 Air Quality Management Plan (AQMP).

Additionally, the USEPA has designated the SCAB as nonattainment for $PM_{2.5}$. In 1997, the USEPA established standards for $PM_{2.5}$ (particles less than 2.5 micrometers), which were not implemented until March 2002. $PM_{2.5}$ is a subset of the PM_{10} emissions whose standards were developed to complement the PM_{10} standards that cover a full range of inhalable particle matter. For the PM_{10} health standards, the annual PM_{10} standard was revoked by the USEPA on October 17, 2006, and the 24-hour average PM_{10} nonattainment status was re-designated to attainment (maintenance) on July 26, 2013.

The 2012 AQMP provides measures to reduce $PM_{2.5}$ emissions to within the Federal standard by 2015. On January 25, 2013, the CARB approved the 2012 AQMP that was prepared per the Federal Clean Air Act requirements to show attainment of the $PM_{2.5}$ standard by the revised date of 2014. The 2012 AQMP builds upon the approaches taken in the 2007 AQMP utilized to reduce $PM_{2.5}$ emissions in the SCAB. On December 14, 2012, the USEPA revised the primary annual $PM_{2.5}$ NAAQS from 15 $\mu g/m^3$ to 12 $\mu g/m^3$. The 2016 AQMP includes implementation strategies to meet the revised $PM_{2.5}$ standard.

The SCAB has been designated by CARB as a nonattainment area for O_3, NO_2, PM_{10}, $PM_{2.5}$, and lead. Currently, the SCAB is in attainment with the state ambient air quality standards for CO, SO_2, and sulfates and is unclassified for visibility-reducing particles and hydrogen sulfide. The 2007, 2012, and 2016 AQMPs provide measures to meet the state standards for O_3, NO_2, PM_{10}, and $PM_{2.5}$.

Table 4-1 presents the designations and classifications applicable to the Proposed Project area.

Table 4-1. South Coast Air Basin Attainment Status

Criteria Pollutan	Standar	Averaging Time	Designation[a)]	Attainment Date[b)]
1-Hour Ozone[c)]	NAAQS	1979 1-Hour (0.12 ppm)	Nonattainment (Extreme)	2/6/2023 (revised deadline)
	CAAQS	1-Hour (0.09 ppm)	Nonattainment	N/A
8-Hour Ozone[d)]	NAAQS	1997 8-Hour (0.08 ppm)	Nonattainment (Extreme)	6/15/2024
	NAAQS	2008 8-Hour (0.075 ppm)	Nonattainment (Extreme)	8/3/2038
	NAAQS	2015 8-Hour (0.070 ppm)	Pending – Expect Nonattainment (Extreme)	Pending (beyond 2032)
	CAAQS	8-Hour (0.070 ppm)	Nonattainment	Beyond 2032
CO	NAAQS	1-Hour (35 ppm) 8-Hour (9 ppm)	Attainment (Maintenance)	6/11/2007 (attained)
	CAAQS	1-Hour (20 ppm) 8-Hour (9 ppm)	Attainment	6/11/2007 (attained)
NO_2[e)]	NAAQS	2010 1-Hour (0.10 ppm	Unclassifiable/ Attainment	N/A (attained)
	NAAQS	1971 Annual (0.053 ppm	Attainment (Maintenance)	9/22/1998 (attained)
	CAAQS	1-Hour (0.18 ppm) Annual (0.030 ppm)	Attainment	---
SO_2[f)]	NAAQS	2010 1-Hour (75 ppb)	Designations Pending (expect Unclassifiable/ Attainment)	N/A (attained)
	NAAQS	1971 24-Hour (0.14 ppm 1971 Annual (0.03 ppm	Unclassifiable/ Attainment	3/19/1979 (attained)
PM_{10}	NAAQS	1987 24-hour (150 µg/m^3)	Attainment (Maintenance)[g)]	7/26/2013 (attained)
	CAAQS	24-hour (50 µg/m^3) Annual (20 µg/m^3)	Nonattainment	N/A
PM2.5[h)]	NAAQS	2006 24-Hour (35 µg/m^3)	Nonattainment (Serious)	12/31/2019
	NAAQS	1997 Annual (15.0 µg/m^3)	Attainment (final determination pending)	8/24/2016 (attained 2013)
	NAAQS	2012 Annual (12.0 µg/m^3)	Nonattainment (Moderate)	12/31/2025
	CAAQS	Annual (12.0 µg/m^3)	Nonattainment	N/A
Lead[i)]	NAAQS	2008 3-Months Rollin (0.15 µg/m^3)	Nonattainment (Partial) (Attainment determination requested)	12/31/2015

Source: SCAQMD, February 2016
Notes:
a) U.S. EPA often only declares Nonattainment areas; everywhere else is listed as Unclassifiable/Attainment or Unclassifiable
b) A design value below the NAAQS for data through the full year or smog season prior to the attainment date is typically required for attainment demonstration
c) The 1979 1-hour ozone standard (0.12 ppm) was revoked, effective June 15, 2005; however, the Basin has not attained this standard and therefore has some continuing obligations with respect to the revoked standard
d) The 2008 8-hour ozone NAAQS (0.075 ppm) was revised to 0.070 ppm. Effective 12/28/15 with classifications and implementation goals to be finalized by 10/1/17; the 1997 8-hour ozone NAAQS (0.08 ppm) was revoked in the 2008 ozone implementation rule, effective 4/6/15; there are continuing obligations under the revoked 1997 and revised 2008 ozone until they are attained.
e) New NO2 1-hour standard, effective August 2, 2010; attainment designations January 20, 2012; annual NO2 standard retained

f) The 1971 annual and 24-hour SO_2 standards were revoked, effective August 23, 2010; however, these 1971 standards will remain in effect until one year after USEPA promulgates area designations for the 2010 SO2 1-hour standard. Area designations are still pending, with Basin expected to be designated Unclassifiable /Attainment.
g) Annual PM_{10} standard was revoked, effective December 18, 2006; 24-hour PM_{10} NAAQS deadline was 12/31/2006; SCAQMD request for attainment redesignation and PM_{10} maintenance plan was approved by USEPA on June 26, 2013, effective July 26, 2013.
h) The attainment deadline for the 2006 24-Hour $PM_{2.5}$ NAAQS was 12/31/15 for the former "moderate" classification; USEPA approved reclassification to "serious", effective 2/12/16 with an attainment deadline of 12/31/19; the 2012 (proposal year) annual $PM_{2.5}$ NAAQS was revised on 1/15/13, effective 3/18/13, from 15 to 12 $\mu g/m^3$; new annual designations were final 1/15/15, effective 4/15/15; on July 25, 2016 USEPA finalized a determination that the Basin attained the 1997 annual (15.0 $\mu g/m^3$) and 24-hour $PM_{2.5}$ (65 $\mu g/m^3$) NAAQS, effective August 24, 2016
i) Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors. Expect to remain in attainment based on current monitoring data; attainment re-designation request pending.

4.3.2 Impact Analysis

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact. The Proposed Project would not conflict with or obstruct implementation of the SCAQMD AQMP. The following section discusses the Proposed Project's consistency with the SCAQMD AQMP.

SCAQMD Air Quality Management Plan

CEQA requires a discussion of any inconsistencies between a proposed project and applicable General Plans and regional plans (CEQA Guidelines Section 15125). The regional plan that applies to the Proposed Project includes the SCAQMD AQMP. Therefore, this section discusses any potential inconsistencies of the Proposed Project with the AQMP.

The purpose of this discussion is to set forth the issues regarding consistency with the assumptions and objectives of the AQMP and discuss whether the Proposed Project would interfere with the region's ability to comply with Federal and State air quality standards. If the decision-makers determine that the Proposed Project is inconsistent, the lead agency may consider project modifications or inclusion of mitigation to eliminate the inconsistency.

The SCAQMD CEQA Handbook states that "New or amended GP Elements (including land use zoning and density amendments), Specific Plans, and significant projects must be analyzed for consistency with the AQMP." Strict consistency with all aspects of the plan is usually not required. A proposed project should be considered consistent with the AQMP if it furthers one or more policies and does not obstruct other policies. The SCAQMD CEQA Handbook identifies two key indicators of consistency:

(1) Whether the project will result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations, or delay timely attainment of air quality standards or the interim emission reductions specified in the AQMP.
(2) Whether the project will exceed the assumptions in the AQMP or increments based on the year of project build-out and phase.

Both criteria are evaluated below.

Criterion 1 - Increase in the Frequency or Severity of Violations?

Based on the air quality modeling analysis contained in this report, short-term regional construction air emissions would not result in significant impacts based on SCAQMD regional thresholds of

significance. The ongoing operation of the Proposed Project would generate air pollutant emissions that are inconsequential on a regional basis and would not result in significant impacts based on SCAQMD thresholds of significance. The analysis for long-term local air quality impacts showed that local pollutant concentrations would not exceed the air quality standards. Therefore, a less than significant long-term impact would occur, and no mitigation would be required.

Therefore, based on the information provided above, the Proposed Project would be consistent with the first criterion.

Criterion 2 - Exceed Assumptions in the AQMP?

Consistency with the AQMP assumptions is determined by performing an analysis of the Proposed Project with the assumptions in the AQMP. The emphasis of this criterion is to ensure that the analyses conducted for the Proposed Project are based on the same forecasts as the AQMP. The AQMP is developed through use of the planning forecasts provided in the Connect SoCal and 2019 Federal Transportation Improvement Program (FTIP). The Connect SoCal is a major planning document for the regional transportation and land use network within Southern California. The Connect SoCal is a long-range plan that is required by Federal and State requirements placed on SCAG and is updated every four years. The 2019 FTIP provides long-range planning for future transportation improvement projects that are constructed with State and/or Federal funds within Southern California. Local governments are required to use these plans as the basis of their plans for the purpose of consistency with applicable regional plans under CEQA. For this Project, the City of Glendora Land Use Plan defines the assumptions that are represented in AQMP.

The campus currently has a land use designation of Civic/Institution and is zoned R-1, Single Family Residential. The existing church site has a land use designation of Medium/High Density and is currently zoned Garden Apartment. Educational uses are allowed in both land use designations. It should also be noted that the Project site is located in proximity to existing transit stops that promote alternative transportation methods. As such, the Proposed Project is not anticipated to exceed the AQMP assumptions for the project site and is found to be consistent with the AQMP for the second criterion.

Based on the above, the Proposed Project will not result in an inconsistency with the SCAQMD AQMP. Therefore, a less than significant impact will occur in relation to implementation of the AQMP.

b) *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard?*

Less than Significant Impact. The Proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable Federal or State ambient air quality standard.

The SCAQMD has published a report on how to address cumulative impacts from air pollution: White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution (http://www.aqmd.gov/docs/default-source/Agendas/Environmental-Justice/cumulative-impacts-working-group/cumulative-impacts-white-paper.pdf). In this report the SCAQMD clearly states (Page D-3):

> "*…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or Environmental Impact Report (EIR). The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for TAC emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility- wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts. Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Therefore, this analysis assumes that individual projects that do not generate operational or construction emissions that exceed the SCAQMD's recommended daily thresholds for project- specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Air Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed SCAQMD thresholds for project-specific impacts would be considered cumulatively considerable. The following section calculates the potential air emissions associated with the construction and operations of the Proposed Project and compares the emissions to the SCAQMD standards.

Construction Emissions

Build-out of all of the projects will occur in eight development phases. Phase 1, campus-wide improvements will begin in Fall of 2022 and all construction would be completed by 2032. In order to provide a worst-case analysis, all eight phases of construction activities were modeled in CalEEMod as occurring in one phase. The phases of construction activities that have been analyzed include: 1) Demolition; 2) Site Preparation; 3) Grading, 4) Building Construction, 5) Application of Architectural Coatings; and 6) Paving. The construction emissions have been analyzed for both regional and local air quality impacts.

Construction-Related Regional Impacts

The CalEEMod model has been utilized to calculate the construction-related regional emissions from the Proposed Project and the input parameters utilized in this analysis have been detailed in Section 8.1 of Appendix A. The worst-case summer or winter daily construction-related criteria pollutant emissions from the Proposed Project for each phase of construction activities are shown below in Table 4-2 and the CalEEMod daily printouts are shown in Appendix A. Since it is possible that building construction, paving, and architectural coating activities may occur concurrently towards the end of the building construction phase, Table 4-2 also shows the combined regional criteria pollutant emissions from building construction, paving and architectural coating phases of construction.

Table 4-2. Construction-Related Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Demolition[1]						
Onsite[2]	2.64	25.72	20.59	0.04	5.30	1.77
Offsite[3]	0.28	8.44	2.47	0.03	1.07	0.33
Total	**2.91**	**34.16**	**23.07**	**0.07**	**6.37**	**2.10**
Site Preparation[1]						
Onsite	3.17	33.08	19.70	0.04	9.28	5.42
Offsite	0.07	0.05	0.71	<0.01	0.20	0.05
Total	**3.24**	**33.13**	**20.41**	**0.04**	**9.48**	**5.48**
Grading[1]						
Onsite	3.62	38.84	29.04	0.06	5.22	2.93
Offsite	0.07	0.06	0.79	<0.01	0.23	0.06
Total	**1.78**	**18.96**	**15.55**	**0.03**	**3.84**	**2.13**
Building Construction Year 2023						
Onsite	1.57	14.38	16.24	0.03	0.70	0.66
Offsite	0.88	4.10	9.53	0.04	3.13	0.87
Total	**2.45**	**18.48**	**25.78**	**0.06**	**3.83**	**1.52**
Combined Building Construction and Architectural Coatings (Year 2024)						
Onsite	29.32	14.66	17.98	0.03	0.67	0.64
Offsite	0.97	4.14	10.45	0.04	3.64	1.00
Total	**30.29**	**18.80**	**28.43**	**0.07**	**4.31**	**1.64**
Paving						
Onsite	1.36	9.52	14.63	0.02	0.47	0.43
Offsite	0.05	0.03	0.51	<0.01	0.17	0.05
Total	**1.41**	**9.56**	**15.13**	**0.02**	**0.64**	**0.48**
Maximum Daily Construction Emissions	**30.29**	**38.90**	**29.83**	**0.07**	**9.48**	**5.48**
SCAQMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Demolition, Site Preparation and Grading based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
[2] Onsite emissions from equipment not operated on public roads.
[3] Offsite emissions from vehicles operating on public roads.
Source: CalEEMod Version 2020.4.0.

Table 4-2 shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds during either demolition, site preparation, grading, combined building construction and architectural coatings or paving phases. Therefore, a less than significant regional air quality impact would occur from construction of the Proposed Project.

Construction-Related Local Impacts

Construction-related air emissions may have the potential to exceed the State and Federal air quality standards in the Project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

The local air quality emissions from construction were analyzed through utilizing the methodology described in *Localized Significance Threshold Methodology* (LST Methodology), prepared by SCAQMD, revised October 2009. The LST Methodology found the primary criteria pollutant emissions of concern are NOx, CO, PM_{10}, and $PM_{2.5}$. In order to determine if any of these pollutants require a detailed analysis of the local air quality impacts, each phase of construction was screened using the SCAQMD's Mass Rate LST Look-up Tables. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily onsite emissions of CO, NOx, PM_{10}, and $PM_{2.5}$ from the Proposed Project could result in a significant impact to the local air quality. Table 4-3 shows the onsite emissions from the CalEEMod model for the different construction phases and the calculated localized emissions thresholds. Since it is possible that building construction and architectural coating activities may occur concurrently towards the end of the building construction phase, Table 4-3 also shows the combined local criteria pollutant emissions from building construction and architectural coating phases of construction.

Table 4-3. Construction-Related Local Criteria Pollutant Emissions

Construction Phase	Pollutant Emissions (pounds/day)			
	NOx	CO	PM_{10}	$PM_{2.5}$
Demolition[1]	25.72	20.59	5.30	1.77
Site Preparation[1]	33.08	19.70	9.28	5.42
Grading[1]	38.84	29.04	5.22	2.93
Building Construction (Year 2023)	14.38	16.24	0.70	0.66
Combined Building Construction and Architectural Coatings (Year 2024)	14.66	17.98	0.67	0.64
Paving	9.52	14.63	0.47	0.43
Maximum Daily Construction Emissions	**38.84**	**29.04**	**9.28**	**5.42**
SCAQMD Local Construction Thresholds[2]	**203**	**1,733**	**14**	**8**
Exceeds Threshold?	No	No	No	No

Notes:
[1] Demolition, Site Preparation and Grading phases based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
[2] The nearest offsite sensitive receptors are homes located as near as 15 feet east of the Center for Excellence site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for 5 acres in Air Monitoring Area 9, East San Gabriel Valley.

The data provided in Table 4-3 shows that none of the analyzed criteria pollutants would exceed the local emissions thresholds during either demolition, site preparation, grading, combined building construction and architectural coatings or paving phases. Therefore, a less than significant local air quality impact would occur from construction of the Proposed Project.

Operational Emissions

The on-going operation of the Proposed Project would result in a long-term increase in air quality emissions. This increase would be due to emissions from the Project-generated vehicle trips, emissions from onsite area sources and emissions from energy usage created from the on-going use of the Proposed Project. The following section provides an analysis of potential long-term air quality impacts due to regional air quality and local air quality impacts with the on-going operations of the Proposed Project.

Operations-Related Regional Criteria Pollutant Analysis

The operations-related regional criteria air quality impacts created by the Proposed Project have been analyzed through use of the CalEEMod model and the input parameters utilized in this analysis are available in Appendix A. The worst-case summer or winter volatile organic compound (VOC), NOx, CO, SO_2, PM_{10}, and $PM_{2.5}$ daily emissions created from the Proposed Project's long-term operations have been calculated and are summarized below in Table 4-4 and the CalEEMod daily emissions printouts are shown in Appendix A.

Table 4-4. Operational Regional Criteria Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM_{10}	$PM_{2.5}$
Area Sources[1]	7.28	<0.01	0.02	<0.01	<0.01	<0.01
Energy Usage[2]	0.26	2.32	1.95	0.01	0.18	0.18
Mobile Sources[3]	0.39	0.35	3.42	<0.01	0.88	0.24
Total Emissions	**7.93**	**2.67**	**5.38**	**0.02**	**1.06**	**0.41**
SCAQMD Operational Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Area sources consist of emissions from consumer products, architectural coatings, and landscaping equipment.
[2] Energy usage consist of emissions from natural gas usage.
[3] Mobile sources consist of emissions from vehicles and road dust.
Source: Calculated from CalEEMod Version 2020.4.0.

The data provided in Table 4-4 shows that none of the analyzed criteria pollutants would exceed the regional emissions thresholds. Therefore, a less than significant regional air quality impact would occur from operation of the Proposed Project.

Operations-Related Local Air Quality Impacts

Project-related air emissions may have the potential to exceed the State and Federal air quality standards in the Project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin. The Proposed Project has been analyzed for the potential local CO emission impacts from the project-generated vehicular trips and from the potential local air quality impacts from on-site operations. The following analyzes the vehicular CO emissions and local impacts from on-site operations.

Local CO Hotspot Impacts from Project-Generated Vehicular Trips

CO is the pollutant of major concern along roadways because the most notable source of CO is motor vehicles. For this reason, CO concentrations are usually indicative of the local air quality generated by a roadway network and are used as an indicator of potential local air quality impacts. Local air quality impacts can be assessed by comparing future without and with project CO levels to the State and Federal CO standards of 20 ppm over one hour or 9 ppm over 8 hours.

At the time of the 1993 Handbook, the Air Basin was designated nonattainment under the CAAQS and NAAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the Air Basin and in the State have steadily declined. In 2007, the Air Basin was designated in attainment for CO under both the CAAQS and NAAQS. SCAQMD conducted a CO hot spot analysis for attainment at the busiest intersections in Los Angeles during the peak morning and afternoon periods and did not predict a violation of CO standards. Since the nearby intersections to the Proposed Project are much smaller with less traffic than what was analyzed by the SCAQMD, no local CO Hotspot are anticipated to be created from the Proposed Project and no CO Hotspot modeling was performed. Therefore, a less than significant long-term air quality impact is anticipated to local air quality with the on-going use of the Proposed Project.

Local Criteria Pollutant Impacts from Onsite Operations

Project-related air emissions from onsite sources such as architectural coatings, landscaping equipment, and onsite usage of natural gas appliances may have the potential to create emissions areas that exceed the State and Federal air quality standards in the Project vicinity, even though these pollutant emissions may not be significant enough to create a regional impact to the Air Basin.

The local air quality emissions from onsite operations were analyzed using the SCAQMD's Mass Rate LST Look-up Tables and the methodology described in LST Methodology. The Look-up Tables were developed by the SCAQMD in order to readily determine if the daily emissions of CO, NOx, PM_{10}, and $PM_{2.5}$ from the Proposed Project could result in a significant impact to the local air quality. Table 4-5 shows the onsite emissions from the CalEEMod model that includes area sources and energy usage and the calculated emissions thresholds.

Table 4-5. Operations-Related Local Criteria Pollutant Emissions

Onsite Emission Source	Pollutant Emissions (pounds/day)			
	NOx	CO	PM_{10}	$PM_{2.5}$
Area Sources	<0.01	0.02	<0.01	<0.01
Energy Usage	2.32	1.95	0.18	0.18
Mobile Sources[1]	0.04	0.43	0.11	0.03
Total Emissions	**2.36**	**2.39**	**0.29**	**0.21**
SCAQMD Local Operational Thresholds[2]	**203**	**1,733**	**4**	**2**
Exceeds Threshold?	No	No	No	No

Notes:
[1] Mobile sources are based on 1/8 of the gross vehicular emissions, which is the estimated portion of vehicle emissions occurring within a quarter mile of the project site.
[2] The nearest offsite sensitive receptors are homes located as near as 15 feet east of the Center for Excellence site. According to SCAQMD methodology, all receptors closer than 25 meters are based on the 25-meter threshold.
Source: Calculated from SCAQMD's Mass Rate Look-up Tables for 5 acres in Air Monitoring Area 9, East San Gabriel Valley.

The data provided in Table 4-5 shows that the on-going operations of the Proposed Project would not exceed the local NOx, CO, PM_{10} and $PM_{2.5}$ thresholds of significance. Therefore, the on-going operations of the Proposed Project would create a less than significant operations-related impact to local air quality due to onsite emissions and no mitigation would be required. Therefore, the Proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. The Proposed Project would not expose sensitive receptors to substantial pollutant concentrations. The local concentrations of criteria pollutant emissions produced in the nearby vicinity of the Proposed Project, which may expose sensitive receptors to substantial concentrations have been calculated above in Section 4.3.2 (b) for both construction and operations, which are discussed separately below. The discussion below also includes an analysis of the potential impacts from local criteria pollutant and toxic air contaminant emissions. The nearest sensitive receptors to the Project site are homes located as near as 15 feet east of the Center for Excellence site. There are also homes as near as 15 feet from the south side, 80 feet from the east side, and 90 feet from the north and west sides of the existing Citrus College site.

Construction-Related Sensitive Receptor Impacts

Construction activities may expose sensitive receptors to substantial pollutant concentrations of localized criteria pollutant concentrations and from toxic air contaminant emissions created from onsite construction equipment, which are described below.

Local Criteria Pollutant Impacts from Construction

The local air quality impacts from construction of the Proposed Project have been analyzed in Section 10.3 of Appendix A and found that the construction of the Proposed Project would not exceed the local NOx, CO, PM_{10} and $PM_{2.5}$ thresholds of significance discussed in Section 9.2 of Appendix A. Therefore, construction of the Proposed Project would create a less than significant construction-related impact to local air quality and no mitigation would be required.

Toxic Air Contaminants Impacts from Construction

Construction activities associated with the Proposed Project are anticipated to generate toxic air contaminants (TACs) emissions from diesel particulate matter (DPM) associated with the operation of trucks and off-road equipment . ACM is tested and contained as a requirement of Federal law and SCAQMD.

Diesel Particulate Matter Emissions

The greatest potential for toxic air contaminant emissions would be related to DPM emissions associated with heavy equipment operations during construction of the Proposed Project. According to SCAQMD methodology, health effects from carcinogenic air toxics are usually described in terms of "individual cancer risk." "Individual Cancer Risk" is the likelihood that a person exposed to concentrations of toxic air contaminants over a 70-year lifetime will contract cancer, based on the use of standard risk-assessment methodology. It should be noted that the most current cancer risk assessment methodology recommends analyzing a 30-year exposure period for the nearby sensitive receptors (California Office of Environmental Health Hazard Assessment 2015).

Given the relatively limited number of heavy-duty construction equipment, the varying distances that construction equipment would operate to the nearby sensitive receptors, and the short-term construction schedule, the Proposed Project would not result in a long-term (i.e., 30 or 70 years) substantial source of toxic air contaminant emissions and corresponding individual cancer risk. In

addition, California Code of Regulations (CCR) Title 13, Article 4.8, Chapter 9, Section 2449 regulates emissions from off-road diesel equipment in California. This regulation limits idling of equipment to no more than five minutes, requires equipment operators to label each piece of equipment and provide annual reports to CARB of their fleet's usage and emissions. This regulation also requires systematic upgrading of the emission Tier level of each fleet, and currently no commercial operator is allowed to purchase Tier 0 or Tier 1 equipment and by January 2023 no commercial operator is allowed to purchase Tier 2 equipment. In addition to the purchase restrictions, equipment operators need to meet fleet average emissions targets that become more stringent each year between years 2014 and 2023. As of January 2019, 25 percent or more of all contractors' equipment fleets must be Tier 2 or higher. Therefore, no significant short-term toxic air contaminant impacts from DPM emissions would occur during construction of the Proposed Project.

Asbestos Emissions

It is possible that the existing onsite structures to be demolished contains asbestos. According to SCAQMD Rule 1403 requirements, prior to the start of demolition activities, the existing structures located onsite shall be thoroughly surveyed for the presence of asbestos by a person that is certified by California Occupational Safety and Health Administration for asbestos surveys. Rule 1403 requires that the SCAQMD be notified a minimum of 10 days before any demolition activities begin with specific details of all asbestos to be removed, start and completion dates of demolition, work practices and engineering controls to be used to contain the asbestos emissions, estimates on the amount of asbestos to be removed, the name of the waste disposal site where the asbestos will be taken, and names and addresses of all contractors and transporters that will be involved in the asbestos removal process. Therefore, through adherence to the asbestos removal requirements, detailed in SCAQMD Rule 1403, a less than significant asbestos impact would occur during construction of the Proposed Project.

As such, construction of the Proposed Project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

Operations-Related Sensitive Receptor Impacts

The on-going operations of the Proposed Project may expose sensitive receptors to substantial pollutant concentrations of local CO emission impacts from the Project-generated vehicular trips and from the potential local air quality impacts from onsite operations. The following analyzes Local criteria pollutant impacts from onsite operations, and toxic air contaminant impacts.

Local Criteria Pollutant Impacts from Onsite Operations

The local air quality impacts from the operation of the Proposed Project would occur from onsite sources such as architectural coatings, landscaping equipment, and onsite usage of natural gas appliances. The analysis provided in Section 9.3 of Appendix A found that the operation of the Proposed Project would not exceed the local NOx, CO, PM_{10} and $PM_{2.5}$ thresholds of significance discussed in Section 9.2 of Appendix A. Therefore, the on-going operations of the Proposed Project would create a less than significant operations-related impact to local air quality due to on-site emissions and no mitigation would be required.

Operations-Related Toxic Air Contaminant Impacts

Particulate matter (PM) from diesel exhaust is the predominant TAC in most areas and according to The California Almanac of Emissions and Air Quality 2013 Edition, prepared by CARB, about 80 percent of the outdoor TAC cancer risk is from diesel exhaust. Some chemicals in diesel exhaust, such as benzene and formaldehyde, have been listed as carcinogens by State Proposition 65 and the Federal Hazardous Air Pollutants program. Due to the nominal number of diesel truck trips generated by the Proposed Project, a less than significant TAC impact would occur during the on-going operations of the Proposed Project and no mitigation would be required. Therefore, operation of the Proposed Project would result in a less than significant exposure of sensitive receptors to substantial pollutant concentrations.

d) *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

Less than Significant Impact. The Proposed Project would not result in other emissions, such as those leading to odors that would adversely affect a substantial number of people. The local concentrations of criteria pollutant emissions, and TAC emissions that may adversely impact a substantial number of people have been analyzed in Section 10.4 of Appendix A for both construction and operations, which found that these types of emissions would create less than significant impacts. As such, the following analysis is limited to odors that would have the potential to adversely affect a substantial number of people.

Individual responses to odors are highly variable and can result in a variety of effects. Generally, the impact of an odor results from a variety of factors such as frequency, duration, offensiveness, location, and sensory perception. The frequency is a measure of how often an individual is exposed to an odor in the ambient environment. The intensity refers to an individual's or group's perception of the odor strength or concentration. The duration of an odor refers to the elapsed time over which an odor is experienced. The offensiveness of the odor is the subjective rating of the pleasantness or unpleasantness of an odor. The location accounts for the type of area in which a potentially affected person lives, works, or visits; the type of activity in which he or she is engaged; and the sensitivity of the impacted receptor.

Sensory perception has four major components: detectability, intensity, character, and hedonic tone. The detection (or threshold) of an odor is based on a panel of responses to the odor. There are two types of thresholds: the odor detection threshold and the recognition threshold. The detection threshold is the lowest concentration of an odor that will elicit a response in a percentage of the people that live and work in the immediate vicinity of the project site and is typically presented as the mean (or 50 percent of the population). The recognition threshold is the minimum concentration that is recognized as having a characteristic odor quality, this is typically represented by recognition by 50 percent of the population. The intensity refers to the perceived strength of the odor. The odor character is what the substance smells like. The hedonic tone is a judgment of the pleasantness or unpleasantness of the odor. The hedonic tone varies in subjective experience, frequency, odor character, odor intensity, and duration. Potential odor impacts have been analyzed separately for construction and operations below.

Construction-Related Odor Impacts

Potential sources that may emit odors during construction activities include the application of coatings such as asphalt pavement, paints, and solvents and from emissions from diesel equipment.

Standard construction requirements that limit the time of day when construction may occur as well as SCAQMD Rule 1108 that limits VOC content in asphalt and Rule 1113 that limits the VOC content in paints and solvents would minimize odor impacts from construction. As such, the objectionable odors that may be produced during the construction process would be temporary and would not likely be noticeable for extended periods of time beyond the Project site's boundaries. Through compliance with the applicable regulations that reduce odors and due to the transitory nature of construction odors, a less than significant odor impact would occur, and no mitigation would be required.

Operations-Related Odor Impacts

Potential sources that may emit odors during the on-going operations of the Proposed Project would primarily occur from odor emissions from the trash storage area and from vehicle emissions. Pursuant to City regulations, permanent trash enclosures that protect trash bins from rain as well as limit air circulation would be required for the trash storage areas. Perceptible odors may also be emitted from substances from other on campus activities such as laboratory uses and combustion of fuels. However, the nominal amount of these substances would not result in a significant odor impact. Due to the distance of the nearest receptors from the project site and through compliance with City trash storage regulations, no significant impact related to odors would occur during the on-going operations of the Proposed Project. Therefore, a less than significant odor impact would occur, and no mitigation would be required.

4.4 BIOLOGICAL RESOURCES

4.	BIOLOGICAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
(b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
(c)	Have a substantial adverse effect on state or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
(d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
(e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐

4.	BIOLOGICAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Glendora Community Services Department Urban Forestry Manual

The City of Glendora Community Services Department Urban Forestry Manual requires trees having a diameter at breast height (DBH) of 10 inches or more and native oaks with a DBH of 8 inches or more be preserved unless authorization by a permit submitted to the Glendora Building office. The Urban Forestry Manual also requires the replacement of all mature trees, including specific requirements for oak (Quercus spp.) trees. A Tree Report was prepared for the Project (Appendix B). The tree report summarizes the findings of the 2022 tree inventory (Inventory) for the proposed off-site Center for Excellence portion of the project and presents a preliminary tree assessment for the Citrus College campus.

4.4.1 Impact Analysis

a) *Would the project have a substantial adverse effect, either directly or through habitat modification, on any species identified as candidate, sensitive or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*

Less than Significant Impact with Mitigation. The Project site is a fully developed area. No known threatened, endangered, or rare species or their habitats, designated species, designated natural communities, riparian, or wetland habitats exist on the Project site. The Project site is not designated as a critical habitat for threatened and endangered species. The Project site and its surrounding area is not mapped within a Significant Ecological Area.

Citrus College Campus

There were three native tree species identified on the Citrus Community College campus. These native species include California Bay (*Umbellularia californica*), California Sycamore (*Platanus racemosa*), and Coast Live Oak (see Table 3 of Appendix B). Three (3) California Bay Trees were identified within the Campus Property, and one (1) tree on the border of the property; fourteen (14) native Coast Live Oak Trees were identified within the campus property, and seventeen (17) trees on the border of the property; five (5) California Sycamore were identified within the Campus Property, and none were found on the border of the property. Many other non-native tree species, including non-native Oak Trees (*Quercus* spp.), were observed during the assessment including four within the campus property and two on the border of the property. Mitigation or minimization measures will be required if Project activities impact or occur in the vicinity (within the drip line) of any protected tree with a DBH of 8 inches or more for oak trees, or 10 inches or more for other tree species. As the full extent or timeline of construction activities is currently unknown, botanists did not inventory the DBH of all trees present on site. When construction activities are finalized and the specific footprint of new development is

better understood, a botanist or certified arborist will need to conduct a full inventory of the trees on campus to appropriately calculate current DBH measurements and determine mitigation at that time.

Center for Excellence Site

A total of 16 trees are present within the proposed Center for Excellence location (Church Site) representing 1 native and 5 non-native tree species (See Table 2 of Appendix B. The single native species on site was Coast Live Oak (*Quercus agrifolia*) along with non-native species such as Bradford Pear (*Pyrus calleryana* 'Bradford'), White Mulberry (*Morus alba*), Shamel Ash (*Fraxinus uhdei*), Italian Stone Pine (*Pinus pinea*), and Carob (*Ceratonia siliqua*). Any tree species with a DBH of 10 inches or more is afforded special protection by the Urban Forestry Manual (City 2018) and must be replaced according to values in Table 4 of Appendix B. In addition, Oak Trees with a DBH of 8 inches or more are also afforded special protection and have a more stringent replacement scale due to their slow growth and high ecological value (Table 5 of Appendix B).

Of the 16 trees observed on site at the proposed Center for Excellence location, there are 10 trees that have a DBH of 8 inches (Oak Trees) or 10 inches (other species) or more and are thus considered protected by the City. These 10 trees will require mitigation as part of the Project activities (emboldened rows in Table 2 of Appendix B). One additional tree (Tree ID 16) was observed in the southeastern corner of the Church Site with its trunk and drip line growing approximately halfway within the proposed Center for Excellence site and halfway within the adjacent Autumn Oaks residential community property. If this tree is deemed unnecessary for removal during Project activities, avoidance and minimization measures may still be required to protect the tree's canopy and root system.

The following avoidance or minimization measures as identified in the Urban Forestry Manual must be implemented as part of the construction specifications for protected trees that will remain in place and have their drip line near an active construction work area.

Protective Fencing

Temporary, protective fencing shall be installed around any existing tree that is to be preserved on a Project site. This fencing must be made of a material that has high visibility, such as fluorescent-colored, and must be posted at regular intervals around the tree. This fencing shall be placed at a minimum distance of 15 feet from the trunk of the tree or 5 feet outside the drip line of the tree, whichever distance is greater. No activity shall take place within this fenced-in area.

Grade Changes

A change of grade around a tree, even well outside of a tree's root zone, can have serious impact on the tree due to reduced aeration or poor drainage. Excavation Requirements - Whenever possible, services such as water lines and utilities shall be routed around the drip line of trees that are being preserved on a site. If department staff determines that excavation within the drip line of a preserved tree is unavoidable, then every effort shall be made to tunnel under or through the tree's root system with a minimal amount of pruning, rather than to trench across the tree's roots. All root pruning shall be in accordance with the Maintenance Guidelines established for such activity in this manual and the City's Tree Preservation Ordinance.

Construction Mulching

If department staff determines that traffic encroachment within the drip line of a preserved tree is unavoidable, then a 6-to-12-inch layer of temporary mulch shall be placed over the affected area to disperse the weight of traffic and equipment. Additional weight dispersal and mobility may require the placement of large plywood sheets over the mulched area. Construction mulching and plywood must be removed carefully, so as not to damage the tree, as soon as the required activity within the drip line of the tree has been completed. Department staff shall recommend that development specifications include requirements for mitigating such impacts to trees that are to be preserved on a Project site based upon the type of grade changes that are to be implemented, tree species, drainage patterns, soil conditions, and future irrigation and maintenance plans. Department staff shall employ the following mitigation measures whenever feasible:

- Raised Grades - If a grade around an existing tree is to be raised with a backfill less than 6 inches in depth, then department staff should consider vertical mulching as a mitigation measure. If a grade around an existing tree is to be raised more than 6 inches, then department staff should consider specifying the construction of a tree well as a mitigation measure.

- Lowered Grades - If a grade around an existing tree is to be lowered along the side of its root zone, then department staff should consider specifying the construction of a terraced dry wall as a mitigation measure. If a grade around an existing tree is to be lowered along all sides of its root zone, then department staff should consider specifying the construction of a tree island as a mitigation measure.

In the event minimization efforts cannot minimize impacts on protected trees, the following mitigation measure would be incorporated to reduce impacts to a level less than significant.

MM-BIO-1: The City Forester shall consider the impact on existing private trees and shall recommend project alternatives that encourage the preservation of mature trees. Trees that are removed from private property when done for the purpose of accommodating a project subject to discretionary zoning approval shall require replacement based on the following schedule. Private Trees of any species removed with a DBH of 10 inches or more must be replaced, according to the current size scale set forth by the City Forester. Any Oak Trees removed from private property with a DBH of 8 inches or more would be replaced, according to the current size scale set forth by the City Forester.

In addition, the existing trees located on the campus and Center for Excellence site could provide nesting areas for Migratory Bird Treaty Act (MBTA) covered species. The MBTA prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The trustee agency that addresses issues related to the MBTA is the United States Fish and Wildlife Service (USFWS). Migratory birds protected under this law include all native birds and certain game birds (e.g., turkeys and pheasants). This act encompasses whole birds, parts of birds, and bird nests and eggs. The MBTA protects active nests from destruction and all nests of species protected by the MBTA, whether active or not, cannot be possessed. An active nest under the MBTA, as described by the Department of the Interior in its 16 April 2003 Migratory Bird Permit Memorandum, is one having eggs or young. Nest starts, prior to egg laying, are not protected from destruction.

Construction of the Center for Excellence would result in the demolition of one building. If demolition occurs during the nesting season (February to August), disturbances of nests could result in a significant impact. Implementation of Mitigation Measure BIO-2 would reduce impacts to a level less than significant. Implementation of the 2020-2030 EFMP would require demolition and construction of multiple buildings on the campus as described in the Project Description. Prior to demolition and construction of the various Major Capital Projects, Mitigation Measure BIO-2 would be implemented to check for the presence of nesting birds. With implementation of Mitigation Measure BIO-2, impacts would be less than significant.

MM-BIO-2: A nesting bird pre-construction survey will be conducted by a Qualified Biologist and submitted to the District three days prior to demolition and/or vegetation removal activities during nesting bird season (February 15 through August 31) within 250 feet of each of the Project sites for passerines and 500 feet for raptors and/or listed species, where feasible. Should nesting birds be found, an exclusionary buffer will be established by a Qualified Biologist. The buffer may be up to 500 feet in diameter depending on the species of nesting bird found. This buffer will be clearly marked in the field by construction personnel under guidance of the Qualified Biologist, and construction or clearing will not be conducted within this zone until the Qualified Biologist determines that the young have fledged or the nest is no longer active. Nesting bird habitat within the Project site will be resurveyed during bird breeding season if a lapse in construction activities lasts longer than seven days. A survey must be completed for the Center for Excellence and Major Capital Projects listed in the 2020-2030 EFMP.

b) *Would the project 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?*

No Impact. The Citrus College campus is developed and does not contain any riparian habitat or sensitive natural communities (USFWS 2022). Build-out of the 2020-2030 EFMP and Center for Excellence would not impact any riparian habitat or sensitive natural communities. Therefore, no impacts to riparian habitats or sensitive natural communities would occur.

c) *Would the project have a substantial adverse effect on State or Federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact. The Citrus College campus is developed and does not contain any wetland communities onsite (USFWS 2022). Build-out of the 2020-2030 EFMP and Center for Excellence would not impact any wetland communities. Therefore, no impacts to wetland communities would occur.

d) *Would the project Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Less than Significant Impact with Mitigation. Build-out of the 2020-2030 EFMP and Center for Excellence has the potential to interfere with migratory movement of species that may nest on

campus trees or buildings. Implementation of Mitigation Measure BIO-2 would reduce impacts to the level less than significant.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less than Significant with Mitigation Incorporated. The Center for Excellence is located adjacent to an existing public community college campus and will serve the campus. The Glendora Municipal Code (GMC) includes a tree preservation ordinance (GMC 20.08.130.6) that affects existing trees that have a DBH of 6 inches or greater. However, trees with those DBH dimensions are located on right-of-way for the extension of Citrus Avenue, which is on adjacent property the college does not own and is not a part of this project. The Citrus Community College District, as a State agency, is exempt from provisions of the GMC. However, the college will make its best effort to relocate the trees on the Center for Excellence site and those affected by full build-out of the 2020-2030 EFMP or replace them with similar trees in the proposed landscaping area of the project site.

As discussed in threshold 4.4.1 (a), the City of Glendora Urban Forestry Manual requires a permit issued by the Public Works Office prior to beginning any grading for projects that will remove protected trees. The Project construction specifications would include the minimization measures from the Urban Forestry Manual for protected trees, and in the event protected trees would have to be removed, Mitigation Measure BIO-1 would reduce impacts to a level less than significant.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservancy Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project is not subject to an adopted Habitat Conservation Plans, Natural Conservancy Conservation Plan, or other approved local, regional, or State habitat conservation plan. Therefore, there are no impacts to a Habitat Conservation Plan or a Natural Community Conservation Plan.

4.5 CULTURAL RESOURCES

5.	CULTURAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
(b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☐	☒
(c)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

4.5.1 Environmental Setting

A pedestrian survey was completed as part of a Historic Resources Report in June 2022, for the Citrus College Campus and Center for Excellence site to check for the presence of historic or archaeological resources. The Historic Resources Report is provided as Appendix C.

4.5.2 Impact Analysis

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Less than Significant with Mitigation Incorporated. The Historic Resources Report identified two historic-period cultural resources onsite including: the Citrus College Campus, which is comprised of 19 potentially contributing elements, and the church located at Assessor's Inventory Number 8625-022-903. A cultural resource records search was conducted for records maintained by the California Historical Records Information System at the South Central Coastal Information Center (SCCIC) at California State University, Fullerton in Fullerton, California, on June 9, 2022 (SCCIC File No.: 23750.9868). The records search encompassed the Project area and a 0.5-mile buffer radius. Results of the records search indicate that three previous cultural resources studies have been conducted, but that no previously identified cultural resources have been located within the Project area. In addition to the records search, general contextual and site-specific research was conducted for the Project area and the surrounding area. Additional sources consulted include the National Register of Historic Places, the Office of Historic Preservation Directory of Properties in the Historic Property Data File, and others (Appendix C). The period of significance for the campus is defined as beginning in 1934, when the earliest extant building was constructed, and 1977, when the most recent extant building was constructed that is within the threshold for consideration as a historical resource.

The Citrus College Campus historical buildings do not meet any of the California Register of Historical Resources (CRHR) criterion due to significant modification of buildings onsite, lack of historic significance for historic or cultural heritage, or likely to provide information important to prehistory or history. However individually, the Performing arts appears to be eligible for the CRHR for representing a good example of Brutalism. The building displays many of the character defining features of Brutalism including bold geometric shapes; sculptural façade articulation; exposed, roughly finished cast-in-place or pre-cast concrete construction; window and door openings as voids in otherwise solid volumes; and raised plazas and base articulation. However, the building also incorporated elements of Late Moderne Style, including rounded protrusions evoking Streamline Moderne and the use of globe lighting on the exterior of the building creating a contrast with the angular and monumental forms of the building. These stylistic callbacks to an earlier design style amidst the Brutalism and International buildings make the Performing Arts building unique to the campus and to the region (Appendix C). In order to maintain the characteristics of the Performing arts building and reduce impacts associated with the EFMP on the building, Mitigation Measure CUL-1 is proposed to reduce impacts to a level less than significant.

MM-CUL-1: A qualified architectural historian or historian who meets the Secretary of the Interior's Professional Qualification Standards for architectural history or history review Project plans involving improvements to the Performing Arts building to identify potential impacts on character-defining features of the resource and adherence to the Secretary of the Interior's Standards. Should potential impacts be identified, additional studies may be required.

The church located on the planned site for the Center for Excellence does not meet any of the CRHR criterion for the following reasons: little information is provided about the site and it is unlikely to be associated with any significant historical events, no associations with persons of historical significance,

does not represent a characteristic or style of an important person or having high artistic value, and is unlikely to provide information important to prehistory or history.

With the incorporation of Mitigation Measure CUL-1, impacts to historic resources would be less than significant.

b) *Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

No Impact. As discussed in Section 4.5.2 (a), no historic or archeologic resources were identified onsite from the cultural resources records search. The work area associated with the EFMP would be located within previously disturbed areas of the Campus, and inadvertent discoveries are unlikely to occur. Additionally, the CTE site has also been previously disturbed, was constructed in 1963 and has been in use since. Therefore, with the low chance for inadvertent discovery, no impacts would occur.

c) *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

Less than Significant Impact. The Citrus College Campus is already developed and located in an area surrounded by development. Thus, the disturbance of human remains is not expected in conjunction with project grading and excavation activities. While no formal cemeteries, other places of human internment, or burial ground sites are known to occur within the immediate Project site area, human remains could always possibly be encountered during construction. Should human remains be encountered unexpectedly during grading or construction activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code (PRC) Section 5097.98. No further excavation or disturbance of the Project site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, if the remains are human. In the event human remains are discovered, a less than significant impact would occur.

4.6 ENERGY

6.	ENERGY Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
(b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

4.6.1 Impact Analysis

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact. The Proposed Project would impact energy resources during construction and operation. Energy resources that would be potentially impacted include electricity, natural gas, and petroleum-based fuel supplies and distribution systems. This analysis includes a discussion of the potential energy impacts of the Proposed Project, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. A general definition of each of these energy resources are provided below.

Electricity, a consumptive utility, is a man-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and/or nuclear resources, into energy. The delivery of electricity involves a number of system components, including substations and transformers that lower transmission line power (voltage) to a level appropriate for on-site distribution and use. The electricity generated is distributed through a network of transmission and distribution lines commonly called a power grid. Conveyance of electricity through transmission lines is typically responsive to market demands. In 2020, Los Angeles County consumed 65,650 Gigawatt-hours of electricity per year (California Energy Commission [CEC] 2020a).

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs, mainly located outside the State, and delivered through high-pressure transmission pipelines. The natural gas transportation system is a nationwide network and, therefore, resource availability is typically not an issue. Natural gas satisfies almost one-third of the State's total energy requirements and is used in electricity generation, space heating, cooking, water heating, industrial processes, and as a transportation fuel. Natural gas is measured in terms of cubic feet. In 2020, Los Angeles County consumed 2,936.69 Million Therms of natural gas (CEC 2020b).

Petroleum-based fuels currently account for a majority of the California's transportation energy sources and primarily consist of diesel and gasoline types of fuels. However, the State has been working on developing strategies to reduce petroleum use. Over the last decade California has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and greenhouse gas (GHG) emissions from the transportation sector, and reduce vehicle miles traveled (VMT). Accordingly, petroleum-based fuel consumption in California has declined. In 2017, 3,659 million gallons of gasoline and 300 million gallons of diesel was sold in Los Angeles County.

The following section calculates the potential energy consumption associated with the construction and operations of the Proposed Project and provides a determination if any energy utilized by the Proposed Project is wasteful, inefficient, or unnecessary consumption of energy resources. In addition, the calculations used in the analysis are included in Appendix A.

Construction Energy

Build-out of all of the projects will occur in eight development phases. Phase 1, campus-wide improvements will begin in Fall of 2022 and all construction would be completed by 2032. In order to provide a worst-case analysis, all eight phases of construction activities were modeled in CalEEMod as occurring in one phase. The phases of construction activities that have been analyzed include: 1) Demolition; 2) Site Preparation; 3) Grading, 4) Building Construction, 5) Application of Architectural Coatings; and 6) Paving. The Proposed Project would consume energy resources during construction in three (3) general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, as well as delivery and haul truck trips (e.g., hauling of material to disposal facilities);

2. Electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and

3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Construction-Related Electricity

During construction, the Proposed Project would consume electricity to construct the proposed buildings and infrastructure. Electricity would be supplied to the Project site by Southern California Edison and would be obtained from the existing electrical lines on the Project site. The use of electricity from existing power lines rather than temporary diesel or gasoline powered generators would minimize impacts on fuel consumption. Electricity consumed during Project construction would vary throughout the construction period based on the construction activities being performed. Various construction activities include electricity associated with the conveyance of water that would be used during project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power. Such electricity demand would be temporary, nominal, and would cease upon the completion of construction. Overall, construction activities associated with the Proposed Project would require limited electricity consumption that would not be expected to have an adverse impact on available electricity supplies and infrastructure. Therefore, the use of electricity during Project construction would not be wasteful, inefficient, or unnecessary.

Since there is currently power provided to the Project site, it is anticipated that no improvements would be required to Southern California Edison distribution lines and equipment with development of the Proposed Project. Compliance with code guidelines and requirements would ensure that the Proposed Project fulfills its responsibilities relative to infrastructure installation, coordinates any electrical infrastructure removals or relocations, and limits any impacts associated with construction of the Project. Construction of the Project's electrical infrastructure is not anticipated to adversely affect the electrical infrastructure serving the surrounding uses or utility system capacity.

Construction-Related Natural Gas

Construction of the Proposed Project typically would not involve the consumption of natural gas. Natural gas would not be supplied to support construction activities, thus there would be no demand generated by construction. Since there is currently natural gas service to of the Project site, construction of the Proposed Project would be limited to installation of new natural gas connections within the project site. Development of the Proposed Project would likely not require extensive infrastructure improvements to serve the Project site. Construction-related energy usage impacts associated with the installation of natural gas connections are expected to be confined to trenching in order to place the lines below surface. In addition, prior to ground disturbance, the Proposed Project would notify and coordinate with SoCalGas to identify the locations and depth of all existing gas lines and avoid disruption of gas service. Therefore, construction-related impacts to natural gas supply and infrastructure would be less than significant.

Construction-Related Petroleum Fuel Use

Petroleum-based fuel usage represents the highest amount of transportation energy potentially consumed during construction, which would be utilized by both off-road equipment operating on the Project site and on-road automobiles transporting workers to and from the Project site and on-road trucks transporting equipment and supplies to the Project site.

The off-road construction equipment fuel usage was calculated through use of the off-road equipment assumptions and fuel use assumptions in Appendix A, which found that construction of the Proposed Project would consume 60,560 gallons of gasoline and 121,330 gallons of diesel fuel. This equates to 0.002 percent of the gasoline and 0.04 percent of the diesel used annually in Los Angeles County. As such, the construction-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates.

Construction activities associated with the Proposed Project would be required to adhere to all State and SCAQMD regulations for off-road equipment and on-road trucks, which provide minimum fuel efficiency standards. As such, construction activities for the Proposed Project would not result in the wasteful, inefficient, and unnecessary consumption of energy resources. Impacts regarding transportation energy would be less than significant. Development of the project would not result in the need to manufacture construction materials or create new building material facilities specifically to supply the Proposed Project. It is difficult to measure the energy used in the production of construction materials such as asphalt, steel, and concrete; it is reasonable to assume that the production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest of minimizing the cost of doing business.

Operational Energy

The on-going operation of the Proposed Project would require the use of energy resources for multiple purposes including, but not limited to, heating/ventilating/air-conditioning (HVAC), refrigeration, lighting, appliances, and electronics. Energy would also be consumed during operations related to water usage, solid waste disposal, landscape equipment, and vehicle trips.

Operations-Related Electricity

Operation of the Proposed Project would result in consumption of electricity at the Project site. The Proposed Project would consume 3,118,510 kilowatt-hours per year of electricity (Appendix A). This

equates to 0.005 percent of the electricity consumed annually in Los Angeles County. It should be noted that this provides for a worst-case electrical use consumption rate, since the Project Description details that all development on the campus will be designed to transform the campus to a ZNE campus. As such, the operations-related electricity use would be nominal, when compared to current electricity usage rates in the County.

It should be noted that in addition to designing all structures to be ZNE, the Proposed Project would comply with all Federal, State, and local requirements related to the consumption of electricity, which includes CCR Title 24, Part 6 Building Energy Efficiency Standards and CCR Title 24, Part 11: California Green Building Standards. The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed structures, including enhanced insulation, use of energy efficient lighting and appliances as well as requiring a variety of other energy-efficiency measures to be incorporated into the proposed structures. Therefore, it is anticipated the Proposed Project will be designed and built to minimize electricity use and that existing and planned electricity capacity and electricity supplies would be sufficient to support the Proposed Project's electricity demand. Thus, the Project would not result in the wasteful or inefficient use of electricity and no mitigation measures would be required.

Operations-Related Natural Gas

Operation of the Proposed Project would result in increased consumption of natural gas at the Project site. As detailed above in Appendix A, the Proposed Project would consume 8,631 MBTU (1,000 British Thermal Units) per year of natural gas. This equates to 0.003 percent of the natural gas consumed annually in Los Angeles County. It should be noted that this provides for a worst-case natural gas consumption rate, since the Project Description details that all development on the campus will be designed to transform the campus to a ZNE campus. As such, the operations-related natural gas use would be nominal, when compared to current natural gas usage rates in the County.

It should be noted that in addition to designing all structures to be ZNE, the Proposed Project would comply with all Federal, State, and local requirements related to the consumption of natural gas, which includes CCR Title 24, Part 6 Building Energy Efficiency Standards and CCR Title 24, Part 11: California Green Building Standards. The CCR Title 24, Part 6 and Part 11 standards require numerous energy efficiency measures to be incorporated into the proposed structures, including enhanced insulation as well as use of efficient natural gas appliances and HVAC units. Therefore, it is anticipated the Proposed Project will be designed and built to minimize natural gas use and that existing and planned natural gas capacity and natural gas supplies would be sufficient to support the Proposed Project's natural gas demand. Thus, impacts regarding natural gas supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

Operations-Related Vehicular Petroleum Fuel Usage

Operation of the Proposed Project would result in increased consumption of petroleum-based fuels related to vehicular travel to and from the Project site. As detailed in Appendix A, the Proposed Project would consume 14,953 gallons of gasoline fuel per year from vehicle travel. This equates to 0.0004 percent of the gasoline consumed annually in Los Angeles County. As such, the operations-related petroleum use would be nominal, when compared to current county-wide petroleum usage rates. Therefore, it is anticipated the Proposed Project will be designed and built to minimize transportation energy and it is anticipated that existing and planned capacity and supplies of transportation fuels

would be sufficient to support the Proposed Project's demand. Thus, impacts with regard to transportation energy supply and infrastructure capacity would be less than significant and no mitigation measures would be required.

b) *Would the project Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less than Significant. The Proposed Project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. The applicable energy plan for the Proposed Project is the *Glendora Community Plan 2025 – Chapter 8 Conservation Element* (Conservation Element), 2006. The Proposed Project's consistency with the applicable energy-related policies and programs in the Conservation Element are shown in Table 4-6.

Table 4-6. Proposed Project Compliance with Applicable General Plan Energy Policies

Policy No.	General Plan Policy	Proposed Project Implementation Actions
Goal CON-5: Reduced demand for energy resources through the use of conservation techniques.		
CON-5.1	Investigate and implement opportunities for energy conservation at all City-maintained facilities.	**Not Applicable.** This Program is for the City to implement. However, it should be noted that all development on the campus will be designed to transform the campus to a ZNE campus that will be met through both energy conservation and onsite electrical generation through photovoltaic (PV) panels.
CON-5.2	Encourage the incorporation of energy conservation features in the design of all new construction and substantial rehabilitation projects and encourage the installation of conservation devices in existing developments.	**Not Applicable.** This Program is for the City to implement. However, it should be noted that all development on the campus will be designed to transform the campus to a ZNE campus that will be met through both energy conservation and onsite electrical generation through PV panels.
CON-5.3	Encourage private energy conservation programs that minimize high energy demand and that use alternative energy sources.	**Not Applicable.** This Program is for the City to implement. However, it should be noted that all development on the campus will be designed to transform the campus to a ZNE campus that will be met through both energy conservation and onsite electrical generation through PV panels.
CON-5.4	Require all new developments to incorporate energy-efficient lighting, heating, and cooling systems pursuant to the Uniform Building Code.	**Consistent.** All new structures will be designed to meet the most current Title 24 energy efficiency standards that require installation of energy efficient lighting, heating, and cooling systems.
CON-5.5	Provide education and outreach to residents and businesses on opportunities to decrease energy consumption.	**Not Applicable.** This Program is for the City to implement; however, the College provides courses that discuss opportunities to decrease energy consumption.

Source: City of Glendora, 2006.

As shown in Table 4-6 the Proposed Project would be consistent with all applicable energy-related policies from the Conservation Element. Therefore, the Proposed Project would not conflict with or

obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

4.7 GEOLOGY AND SOILS

7.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☒	☐	☐
	ii) Strong seismic ground shaking?	☐	☒	☐	☐
	iii) Seismic-related ground failure, including liquefaction?	☐	☒	☐	☐
	iv) Landslides?	☐	☐	☐	☒
(b)	Result in substantial soil erosion or the loss of topsoil?	☐	☒	☐	☐
(c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
(d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
(e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
(f)	Directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	☐	☐	☐	☒

4.7.1 Regulatory Setting

As a result of California's Field Act, the California Building Code (CBC; Title 24 of the California Code of Regulations) contains special provisions for the design and construction of school buildings in California. The design and construction of the seven buildings identified in the 2020-2030 EFMP will be overseen by the DSA and the California Geological Survey.

Construction sites disturbing 1 or more acres are required to obtain coverage under the National Pollution Discharge Elimination System (NPDES) Construction General Permit (CGP) for Discharges of Storm Water Associated with Construction Activity. As build-out of the 2020-2030 EFMP will disturb more than 1 acre of land, the Project is subject to the CGP and requires the preparation of a Storm Water Pollution Prevention Plan (SWPPP).

4.7.2 Impact Analysis

a) i) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less than Significant Impact with Mitigation. The Project involves the construction of seven new buildings and the modernization and renovation of an existing college campus. However, the Project does not include any activities that would exacerbate any existing conditions related to faults, fault rupture, ground shaking or landslides that would directly expose people, or structures, to the risk of loss, injury, or death due to rupture of a known earthquake fault. Additionally, the Proposed Project would include seismic retrofit upgrades that would enhance the safety of the student, staff, and visitors on campus.

The Center for Excellence and a portion of the campus does contain a known earthquake fault, the Duarte Fault as part of the Sierra Madre fault zone, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map (DOC 2022c). However, the potential for future surface rupture of active faults onsite is considered very low.

The Project's new buildings would be constructed in accordance with the CBC and DSA standards. Citrus College would comply with the California Code of Regulations Title 24 requirements and the California Geological Survey Checklist for Review of Geologic/Seismic Reports. Compliance with the CBC, Title 24 and implementation of Mitigation Measure GEO-1 would reduce impacts to a level less than significant.

MM-GEO-1: Detailed geotechnical investigations shall be performed prior to the design of each of the Major Capital Projects in the 2020-2030 EFMP and the Center for Excellence. The geotechnical investigations shall include borings and laboratory testing to provide supporting data for geotechnical design recommendations.

ii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Less than Significant Impact with Mitigation. The Project site does contain a known earthquake fault, the Duarte Fault as part of the Sierra Madre fault zone, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map (DOC 2022c). The site is expected to be subject to moderate to severe ground shaking from a regional seismic event. However, the potential for future surface rupture of active faults onsite is considered very low.

The Project involves the construction of seven new buildings and the modernization and renovation of an existing college campus. Additionally, the Proposed Project would include seismic retrofit upgrades. The new buildings that would replace the demolished buildings would be constructed in accordance with the CBC and DSA standards. Citrus College would comply with the California Code of Regulations Title 24 requirements and the California Geological Survey Checklist for Review of Geologic/Seismic Reports. As the newly constructed and retrofitted buildings would comply with all of the aforementioned regulations, the Proposed Project would

improve upon Citrus College's ability to withstand strong seismic ground shaking. Implementation of Mitigation Measure GEO-1 would further reduce impacts from strong seismic shaking to a level less than significant.

iii) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Less than Significant Impact with Mitigation. Liquefaction is the process by which loose to medium dense granular, saturated soils, become fluid due to ground shaking which can result in ground failure. A portion of the campus and the Center for Excellence site is located in a liquefaction zone (DOC 2022c). However, Citrus College would comply with the California Code of Regulations Title 24 requirements and the California Geological Survey Checklist for Review of Geologic/Seismic Reports. As the newly constructed and retrofitted buildings would comply with all of the aforementioned regulations, the Proposed Project would improve upon Citrus College's ability to withstand strong seismic-related liquefaction. Implementation of Mitigation Measure GEO-1 would further reduce impacts from seismic related liquefaction to a level less than significant.

iv) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

No Impact. Significant slopes are not located on or near the site. The property is primarily flat, and no known landslides exist on site. Therefore, no impacts from potential landslides exist.

c) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact with Mitigation. The Project would result in soil disturbance associated with build-out of the 2020-2030 EFMP resulting in the potential for soil erosion during construction activities. Soil erosion may occur, and small quantities of pollutants may enter the storm drainage system, potentially degrading water quality. The District or its contractors will prepare a SWPPP, as part of 4.10.1 (a), to address accidental releases of chemicals and other pollutants; therefore, impacts from Proposed Project construction activities for each development phase would be less than significant.

d) Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less than Significant Impact with Mitigation. As discussed in thresholds a) iii and iv), there is a potential for liquification onsite and there are no slopes that would support landslides. Potential for subsidence, lateral spreading, and collapse would be confirmed during the subsequent geotechnical investigations as part of Mitigation Measure GEO-1. Impacts would be less than significant with mitigation.

e) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less than Significant Impact with Mitigation. Expansive soils shrink or swell as the moisture content decreases or increases. This activity can shift, crack, or break structures built on such soils. As stated above in section a.(ii), (iii), and (iv) all potential impact from soil quality would be reduced through compliance with proper design and construction practices. In addition, Mitigation Measure GEO-1 and GEO-2 would further reduce impacts to level less than significant.

MM-GEO-2: After the completion of grading, additional testing will be performed in order to confirm the preliminary expansion index test results remain valid for each site.

f) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

No Impact. The Proposed Project would not include the installation or use of septic tanks or alternative wastewater disposal systems. The Proposed Project would connect to the existing sanitary sewer system for wastewater disposal. Thus, no impact related to alternative wastewater disposal systems would occur.

g) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

No Impact. The Citrus College campus is developed and no known paleontological resources are known to exist onsite, based on the results of the records search, detailed in Appendix C. Further, the campus and Center for Excellence site were previously graded and located in a built-out urban area. Build-out of the 2020-2030 EFMP and Center for Excellence would not result in any impacts to paleontological resources or geological features.

4.8 GREENHOUSE GAS EMISSIONS

8.	GREENHOUSE GAS EMISSIONS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
(b)	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

4.8.1 Environmental Setting

An Air Quality, Energy, and Greenhouse Gas Emissions Report was provided that analyzed the Proposed Project and its potential impacts (Appendix A). The CARB has the primary responsibility for implementing State policy to address global climate change. However, there are State regulations related to global climate change that affect a variety of State agencies. CARB, which is a part of Cal EPA, is responsible for the coordination and administration of both the Federal and State air pollution control programs within

California. In this capacity, the CARB conducts research, sets CAAQS, compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the State Implementation Plan. In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g., hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In 2008, CARB approved a Climate Change Scoping Plan that proposes a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health" (CARB 2008). The Climate Change Scoping Plan has a range of GHG reduction actions which include direct regulations; alternative compliance mechanisms; monetary and non-monetary incentives; voluntary actions; market-based mechanisms such as a cap-and-trade system. In 2014, CARB approved the First Update to the Climate Change Scoping Plan (CARB 2014) that identifies additional strategies moving beyond the 2020 targets to the year 2050. On December 14, 2017, CARB adopted the California's 2017 Climate Change Scoping Plan, November 2017 (CARB 2017) that provides specific statewide policies and measures to achieve the 2030 GHG reduction target of 40 percent below 1990 levels by 2030 and the aspirational 2050 GHG reduction target of 80 percent below 1990 levels by 2050. In addition, the State has passed the multiple laws directing CARB to develop actions to reduce GHG emissions, which are listed in chronological order in Appendix A.

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. The SCAQMD is also responsible for GHG emissions for projects where it is the lead agency. However, for other projects in the Air Basin where it is not the lead agency, it is limited to providing resources to other lead agencies in order to assist them in determining GHG emission thresholds and GHG reduction measures. In order to assist local agencies with direction on GHG emissions, the SCAQMD organized a Working Group, which is described below.

Since neither CARB nor the Office of Planning and Research has developed GHG emissions threshold, the SCAQMD formed a Working Group to develop significance thresholds related to GHG emissions. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual threshold of 3,500 metric tons of carbon dioxide equivalent ($MTCO_2e$) for residential uses, 1,400 $MTCO_2e$ for commercial uses, 3,000 $MTCO_2e$ for mixed uses, and 10,000 $MTCO_2e$ for industrial uses.

Local jurisdictions, such as the City, have the authority and responsibility to reduce GHG emissions through their police power and decision-making authority. Specifically, the City is responsible for the assessment and mitigation of GHG emissions resulting from its land use decisions. In accordance with CEQA requirements and the CEQA review process, the City assesses the global climate change potential of new development projects, requires mitigation of potentially significant global climate change impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

4.8.2 Impact Analysis

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. The Proposed Project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. The Proposed Project is anticipated to generate GHG emissions from area sources, energy usage, mobile sources, waste disposal, water usage, and construction equipment. The project's GHG emissions have been calculated with the CalEEMod model based on the construction and operational parameters detailed above in Section 8.1. A summary of the results is shown below in Table 4-7 and the CalEEMod model run is provided in Appendix A.

Table 4-7. Project Related Greenhouse Gas Annual Emissions

Category	Greenhouse Gas Emissions (Metric Tons per Year)			
	CO_2	CH_4	N_2O	CO_2e
Area Sources[1]	<0.01	<0.01	0.00	<0.01
Energy Usage[2]	1,013.66	0.06	0.01	1,019.25
Mobile Sources[3]	96.89	<0.01	<0.01	98.34
Solid Waste[4]	6.00	0.35	0.00	14.87
Water and Wastewater[5]	1.83	0.01	<0.01	2.17
Construction[6]	54.28	<0.01	<0.01	55.15
Total GHG Emissions	1,172.66	0.43	0.02	**1,189.78**
SCAQMD Draft Threshold of Significance				**3,000**

Notes:
[1] Area sources consist of GHG emissions from consumer products, architectural coatings, hearths, and landscaping equipment.
[2] Energy usage consists of GHG emissions from electricity and natural gas usage.
[3] Mobile sources consist of GHG emissions from vehicles.
[4] Waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[5] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
[6] Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.
Source: CalEEMod Version 2020.4.0.

The data provided in Table 4-7 shows that the Proposed Project would create 1,189.78 $MTCO_2e$ per year. According to the SCAQMD draft threshold of significance detailed in Section 8.5 of Appendix A, a cumulative global climate change impact would occur if the GHG emissions created from the on-going operations would exceed 3,000 $MTCO_2e$ per year. Therefore, a less than significant generation of GHG emissions would occur from development of the Proposed Project. Impacts would be less than significant.

b) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant Impact. The Proposed Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing GHG emissions. The SCAQMD initiated a Working Group to develop a GHG emissions policy and provided detailed methodology for evaluating significance under CEQA. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual threshold of 3,000 $MTCO_2e$ for all land use types. Although the SCAQMD provided substantial evidence supporting the use of the above threshold, the SCAQMD Board has not yet considered or approved the Working Group's thresholds. Table 4-7 shows that the Proposed Project's GHG emissions would be well below the SCAQMD draft significance threshold of 3,000 $MTCO_2e$ per year. It should be noted that the calculated GHG emissions provided above in Table 4-7 provides for a worst-case GHG emissions rate, since the Project Description details that all development on the campus will be designed to transform the campus to a ZNE campus. Therefore, the Proposed Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

4.9 HAZARDS AND HAZARDOUS MATERIALS

9.	HAZARDS AND HAZARDOUS MATERIALS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
(b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
(c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
(d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☒
(e)	For a project 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, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
(f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
(g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

4.9.1 Impact Analysis

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact with Mitigation. Building demolition would occur during each development phase identified in the 2020-2030 EFMP. Some or all of the buildings proposed for demolition and renovation may contain asbestos-containing materials (ACM), lead-containing building materials, loose and peeling lead containing paint, and/or polychlorinated biphenyl (PCB)-containing building materials. This represents a potentially significant impact. If found in any of the buildings proposed for demolition, these materials would require removal in accordance with Federal, State, and local regulatory requirements prior to demolition. Transportation and disposal of the materials would be conducted in accordance with Federal and State waste disposal and transportation regulations. Dust from removal of ACM and lead based paint would also be controlled by performing the work under full containment and the effectiveness of the containment and other dust mitigation measures would be monitored in accordance with SCAQMD Dust Control measures. This is considered a potentially significant impact; however, with implementation of Mitigation Measure HAZ-1, potential impacts associated with hazardous building materials would be less than significant.

Build-out of the 2020-2030 EFMP will include grading and excavation, and potentially off-haul of soil during each development phase. Preparation of a Phase I Environmental Site Assessment (ESA) in accordance with American Society for Testing and Materials International and DTSC regulations and standards will be necessary to identify the presence or likely presence of hazardous substances or material based on historical or current site use. With implementation of Mitigation Measure HAZ-2, the potential impacts associated with potentially hazardous waste soil would be less than significant.

MM-HAZ-1: Prior to the demolition and renovation of the buildings identified in the 2020-2030 EFMP, including the Center for Excellence, a Hazardous Materials Building Survey shall be prepared for each building. The Hazardous Materials Building Survey shall include identification of suspect asbestos containing building materials, lead-containing building materials, loose & peeling lead containing paint, mercury light tubes, mercury thermostat switches, and polychlorinated biphenyl (PCB)-light ballasts, and PCB-containing building materials that may be impacted during the demolition of the five buildings. If the inspection confirms the presence of asbestos-contain materials (ACMs) or other hazardous building materials in any of the building, the hazardous materials shall be removed from these buildings prior to demolition and be transported in compliance with State and Federal requirements.

MM-HAZ-2: Prior to the initiation of grading and excavation activities, a Phase I ESA Report for the subject property shall be prepared in accordance with the American Society for Testing and Materials Standard Practice for ESAs: Phase I Site Assessment Process E 1527-13 and the United States Environmental Protection Agency (USEPA) 40 Code of Federal Regulations (CFR) Part 312 Standards and Practices for All Appropriate Inquiries (AAI) – Final Rule adopted November 1, 2006, and amended December 30, 2013.

b) *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Less Than Significant Impact. The Proposed Project construction may require the transportation, use, and disposal of hazardous waste materials. As referred to within Threshold (a), the buildings designated for demolition were built before the enactment of the Toxic Substances Control Act came into effect in 1976, and the existing church was built in 1963. As such, these buildings may contain materials and chemicals that would be considered hazardous.

According to the EnviroStor database on DTSC's website, the nearest cleanup site is 0.37 mile south of the Proposed Project site at the intersections of Historic Route 66 and North Calera Avenue. In addition, the handling of the hazardous waste materials is regulated by the USEPA, DTSC, Occupational Safety and Health Administration, SCAQMD, and Los Angeles County Fire Department (LACFD). The Proposed Project will comply with all applicable local, State, and Federal regulations governing such activities.

During the operation of the Proposed Project, hazardous waste use would be minimal and in small quantities. The hazardous waste material will be properly used and stored according to the manufacturers' instructions and follow any additional health and safety requirements stipulated by the District.

The Proposed Project would comply with the Toxic Substances Control Act and existing Federal, State, and local standards and regulations regarding hazardous waste. Hazardous release impacts during construction and operation of the Proposed Project would be less than significant. No mitigation or further study is required.

c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

No Impact. No schools other than the existing college building are located within 0.25 mile of the Citrus College campus. Build-out and operation of the 2020-2030 EFMP and Center for Excellence would not emit hazardous emissions. Limited quantities of hazardous materials may be used and stored on the campus, but this does not represent a significant hazardous condition for nearby schools.

d) *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

No Impact. Citrus College and the Center for Excellence are not included on the DTSC site cleanup list. Additionally, no sites were identified nearby as being part of the DTSC site cleanup list (DTSC 2022).

e) For a project 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, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. Citrus College campus and the Center for Excellence are not located within 2 miles of a public airport or public use airport (Google 2022). Therefore, no impacts from safety hazards would occur.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. Citrus College has an Emergency Operations Plan outlining the response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies. Additionally, the City of Glendora's General Plan also identifies evacuation routes within the City of Glendora, to be used in the event of a major emergency that requires evacuation of all or part of the area. Work completed on the Center for Excellence would be contained onsite, and no offsite impacts would impair evacuation routes or the Emergency Operations Plan. Build-out of the 2020-2030 EFMP would be completed in phases and construction staging and wayfinding during construction would be designed to minimize impacts on emergency operations and response plans. The Proposed Project will not result in any impacts to an adopted emergency response plan or emergency evacuation plan.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant Impact. The Project site is located in an urban area, and there is no wildland susceptible to wildfire on or near the site. The Project site is located 0.85 mile south of the nearest Very High Fire Hazard Local responsibility area (California Department of Forestry and Fire Protection [Calfire] 2022). Full build-out of the 2020-2030 EFMP and Center for Excellence would not expose people or structures to risk of loss, injury, or death; therefore, a less than significant impact would occur.

4.10 HYDROLOGY AND WATER QUALITY

10.	HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
(b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
(c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				

10.	HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
	i) Result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
	ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flood on- or off-site;	☐	☐	☒	☐
	iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
	iv) Impede or redirect flood flows?	☐	☐	☒	☐
(d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
(e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

4.10.1 Impact Analysis

a) Would the project violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality?

Less than Significant.

Construction

During construction, the Proposed Project could result in short-term adverse impacts to surface water quality. Grading and construction activities within the site would involve the disturbance of on-site soils for utility improvements and building pad preparation, thereby increasing the potential for erosion and off-site transport of sediment in stormwater runoff. The use of heavy equipment, machinery, and other materials during construction could result in adverse water quality impacts if spills were to encounter stormwater and polluted runoff were to enter downstream receiving waters. Peak stormwater runoff could result in short-term sheet erosion within areas of exposed or stockpiled soils. Additionally, the compaction of soils by heavy equipment may reduce the infiltration capacity of soils and increase runoff and erosion potential.

Construction activities involving more than 1 acre require adherence to the State NPDES permit for construction-related activities from the State Water Resources Control Board. The permit would require the preparation and implementation of a Project-specific SWPPP that indicates which BMPs are intended to reduce erosion, sedimentation, and nonpermitted discharges of materials during construction. Examples of BMPs include gravel bag berms, silt fencing, fiber rolls, street sweeping, and general housekeeping measures to prevent stormwater contact with construction materials. The District would develop and implement a SWPPP that would demonstrate compliance with the City of Glendora's NPDES permit, and associated Stormwater Quality Management Plan, during the phased construction schedule on a project-by-project basis. Through incorporation of BMPs and compliance with appropriate water quality standards, construction impacts would be less than significant.

Operation

The Proposed Project site is located in a highly developed neighborhood within the city, surrounded by developments ranging from educational facilities, commercial and multifamily housing to single-family housing. The Citrus College campus and the Center for Excellence sites are relatively flat, with surface water flows directed toward the existing municipal storm drains serving the area. The operation of the Proposed Project would introduce sources of potential stormwater pollution that are typical of a college campus (e.g., cleaning solvents, pesticides for landscaping, and petroleum products associated with parking areas). The parking areas could also contribute additional sources of contaminated runoff. Stormwater runoff from precipitation events could potentially carry urban pollutants into municipal storm drains. The Proposed Project would implement BMPs, such as the incorporation of landscaping features, and comply with applicable regulations to ensure that water discharge does not exceed current conditions for the Project Site. As such, with the preparation and implementation of a SWPPP, and implementation of BMPs, the Proposed Project would not have substantial water quality impacts. Impacts would be less than significant.

b) *Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Less than Significant. The Proposed Project will be served by the local sanitary sewer and potable water systems. The Proposed Project will not impact groundwater supplies or interfere with groundwater recharge. Build-out of the Center for Excellence would incrementally increase the impervious surfaces, however, the expected volume of infiltration and discharge during operation is expected to be comparable to the existing infiltration and discharge volume at the site. Further, areas surrounding the Center for Excellence and associated parking lot will be landscaped and allow for water infiltration. Build-out of the existing campus would result in new buildings that would maintain similar levels of pervious surfaces. As such, impacts to groundwater would be less than significant.

c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

i) result in substantial erosion or siltation on- or off-site;

Less than Significant. During construction of both the Center for Excellence and the 2020-2030 EFMP there is the potential for erosion and/or siltation to occur from demolition and grading activities. The development of the Center for Excellence site or the existing campus site will not alter the course of a stream or a river. Build-out of the 2020-2030 EFMP would not result in any alterations to the existing City of Glendora storm drain system. However, as mentioned in threshold (a), the Proposed Project would implement a SWPPP, BMPs, and monitoring for storm water discharges to ensure that sedimentation of downstream waters remain within regulatory limits. The Proposed Project would also comply with all applicable regulations from the Federal, State, and local levels, including Section 402 of the Clean Water Act, and the USEPA's NPDES program. Compliance with the existing regulations and programs would reduce the impacts of on- and off-site erosion or siltation to less than significant impact.

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

Less than Significant. Construction of the Proposed Project would produce surface runoff for dust control and other activities related to construction. However, the amount of runoff would be minimal. During operation, as mentioned within threshold (a), the Proposed Project is designed to maintain the existing and historic patterns and storm water discharge locations along the perimeter of the Project site. Runoff from the site is designed to be intercepted and captured within the Project site to the extent feasible. Irrigation systems and other water delivering features would be selected in accordance with District standards to maintain water efficiency on the campus and Center for Excellence site in order to reduce discharge. The expected volume of discharge generated by the operation of the Project site is expected to be comparable to the existing discharge volume at the site. The Project is not expected to substantially increase the rate or amount of surface runoff that would result in flooding on or off site, and as such, would result in less than significant impacts.

iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources or polluted runoff; or

Less than Significant Impact. The Proposed Project would produce runoff during construction through dust control measures and other construction related activities. However, the amount of runoff created would be minimal. During Project operation, as mentioned within threshold (a), the runoff is designed to be intercepted and captured within the Project site to the extent feasible and minimize polluted runoff from the Project site. In addition, the operation of the Proposed Project is expected to produce similar runoff volume as the existing operation of the Project site. Therefore, the impact of the Proposed Project would be less than significant.

iv) impede or redirect flood flows?

Less than Significant. The site is not located within a 100-year flood hazard area, according to the City of Glendora Community Plan 2025 Safety Element. The Center for Excellence and campus are located in areas of minimal flood hazard (Federal Emergency Management Agency 2022). The Proposed Project will comply with all existing requirements regarding hydrology and drainage.

d) Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact. The Proposed Project is not located in an area that is prone to flood hazard, and the campus is located more than 30 miles inland from the Pacific Ocean so no risk of tsunami would occur. Additionally, there are no lakes nearby that would result in a seiche that would affect the campus or Center for Excellence. Based on the location of the campus and Center for Excellence, there would be no risk of release of pollutants due to inundation.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

No Impact. As mentioned in threshold (a), the Proposed Project would implement a SWPPP, BMPs, and conduct monitoring for storm water discharges to ensure that sedimentation of downstream

waters remain within regulatory limits. The Proposed Project would also comply with all applicable regulations from the Federal, State, and local levels, including Section 402 of the Clean Water Act, and the USEPA's NPDES program. In addition, the Proposed Project would not significantly increase water usage where it would significantly impact existing groundwater usage. Therefore, the Proposed Project would not impact the implementation of a water quality control plan or sustainable groundwater management plan.

4.11 LAND USE AND PLANNING

11.	LAND USE/PLANNING Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Physically divide an established community?	☐	☐	☐	☒
(b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

4.11.1 Impact Analysis

a) Would the project physically divide an established community?

No Impact. The Citrus College campus is largely surrounded by residential land use and the Azusa Pacific University. Build-out of the 2020-2030 EFMP would maintain most of the work within the existing campus site while construction of the Center for Excellence would involve redevelopment of the church site north of W. Foothill Boulevard. Similar to the build-out of the existing campus, the reconstruction of the church site would not introduce any components that would physically divide the established community. Therefore, no impact would occur.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. The Project site is designated by the City of Glendora General Plan as "Civic/Institution" and "Garden Apartments". Under the Proposed Project, the land use of the land for the main campus would remain the same while the existing church site would be converted to educational uses. New construction of the main campus would not change the land use of the Project site and would not conflict with existing plans, policies, or regulation adopted for the purpose of avoiding or mitigating environmental effects.

Regarding the Center for Excellence site, should the City's General Plan and Zoning Law not permit the redevelopment of the church site, the District would require the rendering of the City of Glendora's General Plan and Zoning Law inapplicable to the Proposed Project. It should be noted that the State grants school districts the power to exempt school property from county and city zoning requirements, provided the school district complies with the terms of Government Code Section 53094, Regulation of Local Agencies by Counties and Cities (California Government Code Section 53090-53097.5). In compliance with Government Code Section 53094, following a two-thirds vote of the District Board, the District can exempt a school site from such local zoning requirements. Within 10 days of the action, the Board must provide the City with notice of this action. In accordance with

this process, the Proposed Project would not conflict with any local plans or policies. As such, impacts would be less than significant.

4.12 MINERAL RESOURCES

12.	MINERAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
(b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

4.12.1 Impact Analysis

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The Citrus College Campus, and Center for Excellence are located within a Zone 2, Mineral Resource Zone, an area where mineral resources are known to exist or judged that a high likelihood for their presence exists (DOC 2022b). The Project site, and Center for Excellence are located in a primarily residential area of the city, which does not support mineral resource extraction. Implementation of the 2020-2030 EFMP would not cause a loss of availability of known mineral resource valuable to the region and the State, and no impact would occur.

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The Project site is not within an area designated as a mineral resource on city or county planning maps. Therefore, the implementation of the 2020-2030 EFMP and the Center for Excellence would not result in the loss of availability of mineral resources and no impact would occur.

4.13 NOISE

13.	NOISE Would the project result in:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
(b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

13.	NOISE Would the project result in:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

4.13.1 Environmental Setting

A Noise Report was prepared for the Proposed Project and is included as Appendix D. Although the Proposed Project is not under the jurisdiction of the Federal Transit Administration (FTA), the *Transit Noise and Vibration Impact Assessment Manual* (FTA Manual), prepared by the FTA, September 2018, is the only guidance document from a government agency that defines what constitutes a significant noise impact from implementing a project. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise and a summary of the FTA findings are provided below in Table 4-8.

Table 4-8. FTA Project Effects on Cumulative Noise Exposure

Existing Noise Exposure (dBA Leq or Ldn)	Allowable Noise Impact Exposure dBA Leq or Ldn		
	Allowable Project Noise Exposure Before Moderate Impact	Allowable Combined Total Noise Exposure	Allowable Noise Exposure Increase Before Moderate Impact
45	51	52	+7
50	53	55	+5
55	55	58	+3
60	57	62	+2
65	60	66	+1
70	64	71	+1
75	65	75	0

Source: FTA, 2018.

The FTA Manual also provides guidance on construction noise and recommends developing construction noise criteria on a project-specific basis that utilizes local noise ordinances if possible. However, local noise ordinances usually relate to nuisance and hours of allowed activity and sometimes specify limits in terms of maximum levels but are generally not practical for assessing the noise impacts of a construction project. Project construction noise criteria should consider the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land uses. The FTA standards are based on extensive studies by the FTA and other governmental agencies on the human effects and reaction to noise and a summary of the FTA findings for a detailed construction noise assessment are provided below in Table 4-9.

Table 4-9. FTA Construction Noise Criteria

Land Use	Day (dBA $Leq_{(8\text{-hour})}$)	Night (dBA $Leq_{(8\text{-hour})}$)	30-day Average (dBA Ldn)
Residential	80	70	75
Commercial	85	85	80[(1)]
Industrial	90	90	85[(1)]

Notes:
[(1)] Use a 24-hour $Leq_{(24\ hour)}$ instead of $Ldn_{(30\ day)}$.
Source: FTA, 2018.

Since the Federal government has preempted the setting of standards for noise levels that can be emitted by the transportation sources, the City is restricted to regulating the noise generated by the transportation system through nuisance abatement ordinances and land use planning.

The City of Glendora General Plan and Municipal Code establishes the following applicable policies related to noise and vibration.

City of Glendora General Plan

The City has adopted the land use compatibility standards based on the State Department of Health Services for acceptable noise levels for counties and cities. The City's Land Use Compatibility standards are presented in Table 4-10.

Table 4-10. City of Glendora Noise and Land Use Compatibility Matrix

Land Use Category	Community Noise Exposure (Ldn or CNEL, dBA)			
	Normally Acceptable	Conditionally Acceptable	Normally Unacceptable	Clearly Unacceptable
Residential – Low Density, Single-Family, Duplex, Mobile Homes	50 – 60	55 – 70	70 – 75	75 – 85
Residential – Multiple Family	50 – 65	60 – 70	70 – 75	70 – 85
Transient Lodging – Motel, Hotels	50 – 65	60 – 70	70 – 80	–0 - 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 – 70	60 – 70	70 – 80	80 – 85
Auditoriums, Concert Halls, Amphitheaters	NA	50 – 70	NA	65 – 85
Sports Arenas, Outdoor Spectator Sports	NA	50 – 75	NA	70 – 85
Playgrounds, Neighborhood Parks	50 – 70	NA	67.5 – 75	72.5 – 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 – 70	NA	70 – 80	80 – 85
Office Buildings, Business Commercial and Professional	50 – 70	67.5 – 77.5	75 – 85	NA
Industrial, Manufacturing, Utilities, Agriculture	50 – 75	70 – 80	75 – 85	NA

Notes:
Ldn = day-night average sound level
CNEL = Community Noise Equivalent Levels
dBA = adjusted decibels
NA = Not Applicable
Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction

requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
mally Unacceptable – New construction or development should be discouraged. If new construction or development does proceed, a etailed analysis of the noise reduction requirements must be made and needed noise insulation features
Source: City of Glendora General Plan Table N-1.

The City's Noise Ordinance establishes the following daytime and nighttime noise standards that are defined in the General Plan and reprinted below in Table 4-11.

Table 4-11. City of Glendora Noise Ordinance Standards

Zone	Noise Level (dBA)		
	Day: 7 AM – 7 PM	Evening: 7 PM – 10 PM	Night: 10 PM – 7 AM
Single Family Residential	55	50	45
Multiple Residential (R-3 and R-4)	55	55	50
Commercial	65	65	60
Industrial and Light Manufacturing	70	70	70
Special Zones (MS)	55	50	45

Source: City of Glendora General Plan Table N-2.

The following applicable goals and policies to the Proposed Project are from the Noise Element of the General Plan.

Goal N-1: Reduced noise impacts from transportation sources.

Policy N-1.1. Ensure traffic noise mitigation measures are included and implemented in the design of new development.

Policy N-1.3 Limit construction, delivery, and through truck traffic to designated routes.

Policy N-1.4 Mitigate transportation equipment impacts at construction sites.

Goal N-2: Reduced noise impacts from non-transportation sources.

Policy N-2.2. Strive to resolve existing and potential conflicts between noise generating uses and human activities.

Policy N-2.3 Prohibit significant noise generating activities from locating adjacent to residential neighborhoods and near schools.

Policy N-2.4 Ensure that construction noise does not cause an adverse impact to the residents of the City by requiring that noise mitigation techniques be incorporated into all construction-related activities.

Goal N-3: Coordinated land use planning and noise mitigation.

Policy N-3.1. Ensure Community Noise Equivalent Levels (CNEL) levels for noise sensitive land uses meet or exceed normally acceptable levels, as defined by State of California standards.

Policy N-3.2 Enforce all noise standards as outlined in the City's Noise Ordinance.

Policy N-3.3 Enforce limits set by the State of California to control noise levels, particularly those governing motor vehicles.

Policy N-3.4 Ensure that all new development is consistent with exterior and interior noise standards.

Policy N-3.5 Incorporate noise reduction measures into all development proposals, as necessary.

Policy N-3.6 Consider noise impacts associated with the development of non-residential uses in the vicinity of residential uses.

Policy N-3.7 Require acoustical materials in all new residential and commercial developments where noise levels exceed the compatibility standards outlined in the Noise Element.

Glendora Municipal Code (GMC)

The GMC establishes the following applicable standards related to noise and vibration.

9.44.040 Ambient noise base level

When "ambient noise level" is referred to in this section, it means the higher of the following:

(1) Actual measured ambient noise level; or

(2) Ambient base level (see chart below)

Table 4-12. City of Glendora Municipal Code Ambient Noise Base Levels

Zone	Time		
	7 a.m. to 7 p.m.	7 p.m. to 10 p.m.	10 p.m. to 7 a.m.
Single Family Residential	55 dBA	50 dBA	45 dBA
Multifamily Residential	55 dBA	55 dBA	50 dBA
Commercial	65 dBA	65 dBA	60 dBA
Manufacturing	70 dBA	70 dBA	70 dBA
Special Zones (MS)	55 dBA	50 dBA	45 dBA

Source: GMC Section 9.44.040 Ambient noise base level.

Wherever two different zones are contiguous, the lower ambient noise level at the common property line shall apply.

9.44.100 Machinery, equipment, fans and air conditioning

It is unlawful for any person to operate any machinery, equipment, pump, fan, air conditioning apparatus or similar mechanical device in any manner so as to create any noise which would cause the noise level at the property line of any property to exceed the ambient noise level by more than 5 decibels.

9.44.110 Construction of buildings and projects

It is unlawful for any person within a residential zone, or within a radius of 500 feet therefrom, to operate equipment or perform any outside construction or repair work on buildings, structures or projects or to operate any pile driver, power shovel, pneumatic hammer, derrick, power hoist or any other construction type device (between the hours of 9:00 p.m. of one day and 7:00 a.m. of the next day) in such a manner that a reasonable person of normal sensitiveness residing in the area is caused discomfort or annoyance

unless beforehand a permit therefor has been duly obtained from the city. No permit shall be required to perform emergency work as defined in Section 9.44.020(c).

Additionally, noise measurements were completed onsite to establish existing noise levels to support modeling of the impacts from construction and operation.

Table 4-13. Existing (Ambient) Noise Level Measurements

Site No.	Site Description	Average (dBA L_{eq})		1-hr Average (dBA L_{eq}/Time)		Average (dBA CNEL)
		Daytime[1]	Nighttime[2]	Minimum	Maximum	
1	Located on a tree on the eastern portion of the Center for Excellence site, approximately 40 feet west of east property line and 150 feet north of Foothill Boulevard centerline.	56.8	48.0	39.2 3:37 a.m.	62.3 8:58 p.m.	58.7
2	Located on a tree on the northern portion of the Citrus College site, approximately 125 feet south of Foothill Boulevard centerline.	59.3	52.4	46.0 3:42 a.m.	62.0 7:33 a.m.	61.1
3	Located on a water valve on the eastern portion of Citrus College site, approximately 55 feet west of Barranca Avenue centerline.	66.4	59.1	50.7 2:23 a.m.	68.7 7:23 a.m.	67.9

Notes:
[1] Daytime is defined as 7:00 a.m. to 7:00 p.m. in Section 9.44.040 of the Municipal Code.
[2] Nighttime define as 10:00 p.m. to 7:00 a.m. in Section 9.44.040 of the Municipal Code.
Source: Noise measurements taken between Wednesday, May 25 and Thursday, May 26, 2022.

Table 4-13 shows that the existing daytime (7 a.m. to 7 p.m.) noise levels at all sites currently exceed the Daytime Ambient Noise Base Level of 55 dBA and the nighttime (10 p.m. to 7 a.m.) noise levels at all sites currently exceed the Nighttime Ambient Noise Base Level of 45 dBA for residential uses as defined in Section 9.44.040 of the Municipal Code. Although the noise measurements were not taken at the nearby homes, they were taken a similar distance away from W. Foothill Boulevard and Barranca Avenue as the nearby homes, so the measured noise levels provide representative noise levels at the nearby homes.

4.13.2 Impact Analysis

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant. The Proposed Project would not generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Proposed Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. The following section calculates the potential noise emissions associated with the temporary construction activities and long-term operations of the Proposed Project and compares the noise levels to the City standards.

Construction-Related Noise

Build-out of all of the projects will occur in eight development phases. Phase 1, campus-wide improvements will begin in Fall of 2022 and all construction would be completed by 2032. Noise impacts from construction activities associated with the Proposed Project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

The nearest sensitive receptors to the Proposed Project site are homes located as near as 15 feet east of the proposed Center for Excellence site. There are also homes as near as 80 feet from the east side, where the proposed CTE Building will be located, and as near as 90 feet from the north side, where the proposed Learning Resource Center will be located. All other proposed improvements would be located near the center of the Citrus College Campus that would not be in close proximity to offsite sensitive receptors.

Section 9.44.110 of the City of Glendora's Municipal Code restricts construction activities that create excessive noise from occurring between the hours of 9 p.m. and 7 a.m. As detailed above in Section 1.3, standard construction hours for the Proposed Project would be 7:00 am to 7:00 pm Monday through Friday. If it is necessary to occasionally conduct construction activities on Saturdays, construction activities will start at 9:00 am. As such, all construction activities associated with the Proposed Project would occur during the allowable hours for construction activities as detailed in Section 9.4.110 of the Municipal Code.

However, the City construction noise standards do not provide any limits to the noise levels that may be created from construction activities during allowable hours for construction activities. As such, even with adherence to the City standards, the resultant construction noise levels may result in a significant substantial temporary noise increase to the nearby residents. In order to determine if the proposed construction activities would create a significant substantial temporary noise increase, the FTA construction noise criteria thresholds detailed above have been utilized, which shows that a significant construction noise impact would occur if construction noise exceeds 80 dBA at any of the nearby homes.

Construction noise levels to the nearby sensitive receptors have been calculated through use of the Roadway Construction Noise Model (RCNM) and the parameters and assumptions detailed in Section 6.1 of Appendix D. The calculated construction noise results are shown below in Table 4-14 and the RCNM printouts are provided in Appendix D.

Table 4-14. Construction Noise Levels at the Nearby Receptors

Construction Phase	Construction Noise Level (dBA Leq) at:		
	Homes to East of Center for Excellence[1]	Homes to North of Learning Resource Center[2]	Homes to East of CTE Building[3]
Demolition	77	74	72
Site Preparation	77	74	72
Grading	78	75	73
Building Construction	78	75	72
Painting	64	61	59
Paving	72	69	67

Construction Phase	Construction Noise Level (dBA Leq) at:		
	Homes to East of Center for Excellence[1]	Homes to North of Learning Resource Center[2]	Homes to East of CTE Building[3]
FTA Construction Noise Threshold[4]	**80**	**80**	**80**
Exceed Thresholds?	**No**	**No**	**No**

[1] The distance from the center of the Center for Excellence to homes to east is 150 feet.
[2] The distance from the center of the Learning Resource Center to homes to north is 210 feet.
[3] The distance from the center of the CTE Building to homes to east is 270 feet.
[4] FTA Construction Noise Threshold obtained from Table 4-9 above.
Source: RCNM, Federal Highway Administration, 2006

Table 4-14 shows that the greatest noise impacts would occur during the grading phase of construction, with a noise level as high as 78 dBA Leq at the homes to the east of the Center for Excellence, 75 dBA Leq at the homes to north of the Learning Resource Center, and 73 dBA Leq at the homes to east of the CTE Building. Table 4-14 also shows that none of the construction phases would exceed the FTA construction noise standards of 80 dBA at the nearby homes. Therefore, through adherence to allowable construction times provided in Section 9.44.110 of the Municipal Code, the construction activities for the Proposed Project would not create a substantial temporary increase in ambient noise levels that are in excess of applicable noise standards. Impacts would be less than significant.

Operational-Related Noise

Potential noise impacts associated with the operations of the Proposed Project would be from Project-generated vehicular traffic on the nearby roadways and from onsite activities, which have been analyzed separately below.

Roadway Vehicular Noise Impacts

Vehicle noise is a combination of the noise produced by the engine, exhaust, and tires. The level of traffic noise depends on three primary factors (1) the volume of traffic, (2) the speed of traffic, and (3) the number of trucks in the flow of traffic. The Proposed Project does not propose any uses that would require a substantial number of truck trips and the Proposed Project would not alter the speed limit on any existing roadway so the Proposed Project's potential offsite noise impacts have been focused on the noise impacts associated with the change of volume of traffic that would occur with development of the Proposed Project.

General Plan Policy N-1.1 requires that traffic noise mitigation measures are included and implemented in the design of new development. However, neither General Plan Policy 9.3, nor any other General Plan policy defines what constitutes a "substantial permanent increase to ambient noise levels." As such, this impact analysis has utilized guidance from the FTA for a moderate impact, which has been detailed above in Table 4-14, that shows that the Proposed Project contribution to the noise environment can range between 0 and 7 dB, which is dependent on the existing roadway noise levels.

Due to the low level of vehicular traffic that would be generated from development of the Proposed Project, no traffic analysis was prepared for the Proposed Project. However, the Air Quality Analysis (Appendix A) utilized the default trip generation rates in the CalEEMod model for the addition of 162 students, which found that the Proposed Project would generate 186 daily trips on weekdays. The

City of Glendora General Plan details that there will be 13,700 daily vehicular trips on Foothill Boulevard just east of the Proposed Project site in the year 2025. The Proposed Project would contribute 1.4 percent of the Average Daily Traffic (ADT) if all Proposed Project traffic were to travel east of the Proposed Project site on Foothill Boulevard. In order for project-generated vehicular traffic to increase the noise level on any of the nearby roadways by 3 dB, the roadway traffic would have to double. As such, the Proposed Project's roadway noise impacts would be well below a 3 dB increase, which is the threshold of perception of an increase in noise levels. Therefore, operational roadway noise impacts would be less than significant.

Onsite Noise Impacts

The operation of the proposed improvements detailed in the EFMP 2020-2030, may create an increase in noise from rooftop equipment, parking lot activities, and delivery truck activities. It should be noted that no new sports fields or other source specific noise generating sources are proposed as part of the EFMP 2020-2030. As such, the onsite noise sources that have been analyzed in this section have been limited to rooftop equipment, parking lot activities, and delivery truck activities.

Section 9.44.100 of the City of Glendora's Municipal Code limits noise created on the Proposed Project site to the ambient noise plus 5 dBA. For the nearby homes, Section 9.44.040 of the Municipal Code details that the ambient noise level is the higher of either the actual measured noise level or the provided ambient base level. As detailed in Section 5.2 of Appendix D, all of the noise measurement sites currently exceed the Daytime Ambient Noise Base Level of 55 dBA and the nighttime (10 p.m. to 7 a.m.) noise levels at all sites currently exceed the Nighttime Ambient Noise Base Level of 45 dBA for residential uses as defined in Section 9.44.040 of the Municipal Code.

In order to determine the noise impacts from the operation of rooftop mechanical equipment, parking lots, and delivery trucks, reference noise measurements were taken of each noise source and are shown in Table 4-15 and the reference noise measurements are provided in Appendix D. The noise levels from each source were calculated through use of standard geometric spreading of noise from a point source with a drop-off rate of 6 dB for each doubling of the distance between the source and receiver.

Table 4-15. Onsite Operational Noise Levels at Nearby Sensitive Receptors

Noise Source	Operational Noise Levels[1] (dBA Leq) at the Homes Located at:		
	East of Center for Excellence	North of Learning Resource Center	East of CTE Building
Rooftop Equipment[2]	50	37	39
Parking Lot[3]	34	25	26
Delivery Truck[4]	38	43	43
City Noise Standard[5] (Day/Night)	61.8/53.0	64.3/57.4	71.4/64.1
Exceed Standard (Day/Night)?	No/No	No/No	No/No

Notes:
[1] The noise levels were calculated through use of standard geometric spreading of noise from a point source with a drop-off rate of 6 dB for each doubling of the distance between the source and receiver.
[2] Rooftop equipment is based on a reference noise measurement of 65.1 dBA at 6 feet.
[3] Parking lot is based on a reference noise measurement of 52.1 dBA at 5 feet.
[4] Delivery Truck is based on a reference noise measurement of 54.8 dBA at 30 feet.

[5] From Section 9.44.100 8.36.040 of the City's Municipal Code of ambient noise plus 5 dBA.

Table 4-15 shows that that the Proposed Project's onsite operational noise from the anticipated noise sources would not exceed the applicable noise standards for each stationary noise source. Therefore, operational onsite noise impacts from each campus would be less than significant.

b) *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Less than Significant Impact. The Proposed Project would not expose persons to or generation of excessive groundborne vibration or groundborne noise levels. The following section analyzes the potential vibration impacts associated with the construction and operations of the Proposed Project.

Construction-Related Vibration Impacts

Vibration impacts from construction activities associated with the Proposed Project would typically be created from the operation of heavy off-road equipment. The nearest sensitive receptors to the Proposed Project site are homes located as near as 15 feet east of the proposed Center for Excellence site.

Since neither the Municipal Code nor the General Plan provides a quantifiable vibration threshold level for construction activities, Caltrans guidance has been utilized, which defines the threshold of perception from transient sources at 0.25 inch per second peak particle velocity (PPV).

The primary source of vibration during construction would be from the operation of a bulldozer. From Appendix D, a large bulldozer would create a vibration level of 0.089 inch per second PPV at 25 feet. Based on typical propagation rates, the vibration level at the nearest homes (15 feet away) would be 0.16 inch per second PPV, which would be below the 0.25 inch per second PPV threshold detailed above. Impacts would be less than significant.

Operations-Related Vibration Impacts

The Proposed Project would consist of the development and operation of institutional community college land uses. The on-going operation of the Proposed Project would not include the operation of any known vibration sources. Therefore, a less than significant vibration impact is anticipated from the operation of the Proposed Project.

c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public us airport, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. The Proposed Project would not expose people residing or working in the Proposed Project area to excessive noise levels from aircraft. The nearest airport is Brackett Field Airport that is located approximately 6 miles southeast of the Proposed Project site. The Proposed Project site is located outside of the 60 dBA CNEL noise contours of Brackett Field Airport. No impacts would occur from aircraft noise.

4.14 POPULATION AND HOUSING

14.	POPULATION AND HOUSING. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
(b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

4.14.1 Impact Analysis

a) Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

Less than Significant Impact. While the Project would expand facilities at Citrus College and accommodate approximately 162 more students onsite, these improvements listed in the EFMP were approved as part of Bond Measure Y in 2020. The 2020-2030 EFMP was proposed in response to projected population increases in the Glendora area. The 2020-2030 EFMP and Center for Excellence would not introduce any unplanned growth in the area, and a less than significant impact would occur.

b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The Project site is an educational facility and is not used for housing. Build-out of the 2020-2030 EFMP and Center for Excellence would not displace existing people or housing resulting in the need for replacement housing. Therefore, no impacts to housing would occur.

4.15 PUBLIC SERVICES

15.	PUBLIC SERVICES.	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 public services:				
	i) Fire Protection?	☐	☐	☒	☐
	ii) Police Protection?	☐	☐	☒	☐

15.	PUBLIC SERVICES.	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
	iii) Schools?	☐	☐	☐	☒
	iv) Parks?	☐	☐	☒	☐
	v) Other public facilities?	☐	☐	☐	☒

4.15.1 Impact Analysis

a) i) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 fire protection?*

Less than Significant Impact. Citrus College and the City of Glendora receive fire protection services from the Los Angeles County Fire Department (LACFD). The College is served by Station 97, off E. Sierra Madre Avenue approximately one mile north of the Proposed Project site. The DSA has jurisdiction over school construction; the proposed buildings and renovated buildings would be constructed in compliance with current State fire code requirements. Build-out of the 2020-2030 EFMP, and Center for Excellence would result in a nominal increase of 162 students and would not adversely affect the ability of the LACFD to protect the campus. Additionally, the Project would not require construction of new or expanded fire stations. Therefore, a less than significant impact would occur.

ii) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 police protection?

Less than Significant Impact. Citrus College and the City receive police protection services from the City of Glendora Police Department. Campus Safety would continue to provide first response for safety and security needs on the Citrus College Campus. As needed, the College will add campus safety officers in response to increasing student population on the campus. Build-out of the 2020-2030 EFMP, and Center for Excellence would not adversely affect the ability of the Glendora Police Department to protect the campus and offsite facilities and would not require construction of new or expanded fire stations. As such, a less than significant impact would occur.

iii) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 schools?

No Impact. The 2020-2030 EFMP would be responsible for improvements to Citrus College with no impact to Glendora K-12 schools. As such, no impact would occur.

iv) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 parks?

Less than Significant Impact. Build-out of the 2020-2030 EFMP, and Center for Excellence would not adversely affect nearby public parks. Recreational facilities on campus include a gymnasium, swimming pool, baseball, softball and soccer fields, tennis courts, football, and track. The 2020-2030 EFMP would remove a portion of the tennis complex, adaptive physical education, and aquatic center to implement the new kinesiology building. The new kinesiology building would support the existing athletic programs, kinesiology academic programs, and include universally accessible gym facilities and equipment, as well as classrooms and offices for instructional use. While demolition of existing facilities would be required, existing recreational facilities would support students, faculty, and staff; therefore, a less than significant impact would occur.

v) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, 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 other public facilities?

No Impact. The 2020-2030 EFMP would be responsible for improvements to Citrus College with no impact to nearby public facilities. Therefore, no impact would occur.

4.16 RECREATION

16.	RECREATION. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
(b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

4.16.1 Impact Analysis

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The Proposed Project would update and renovate existing facilities at the Citrus College campus and support the surrounding population. Build-out of the 2020-2030 EFMP, and Center for Excellence would not adversely affect nearby public parks. Recreational facilities on campus include gymnasium, swimming pool, baseball, softball and soccer fields, tennis courts, football, and track.

Users of the campus and new offsite Center for Excellence are unlikely to use nearby recreation facilities including Slauson Park, located 0.9 mile west of the Project Site (Google 2022). No impact would occur.

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

No Impact. Citrus College has existing recreational facilities onsite with demolition proposed for the tennis complex, adaptive physical education, and aquatic center to support the new kinesiology building as part of the 2020-2030 EFMP. Full build-out of the EFMP would not require construction or expansion of recreational facilities. No impact would occur.

4.17 TRANSPORTATION

17.	TRANSPORTATION. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	☐	☐	☒	☐
(b)	Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☒	☐
(c)	Substantially increase hazards due to a geometric design feature (e. g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
(d)	Result in inadequate emergency access?	☐	☐	☒	☐

4.17.1 Impact Analysis

a) *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?*

Less Than Significant Impact. The Proposed Project activities have no components that will cause conflict or alter adopted policies, plans, or programs supporting alternate transportation. Improvements associated with the Proposed Project would include improvements to pedestrian facilities, including improvements to pedestrian circulation paths, landscaping, and wayfinding for pedestrians.

Due to the low level of vehicular traffic that would be generated from development of the Proposed Project, no traffic analysis was prepared for the Proposed Project. However, the Air Quality Analysis (Appendix A) utilized the default trip generation rates in the CalEEMod model for the addition of 162 students, which found that the Proposed Project would generate 186 daily trips on weekdays. The City of Glendora General Plan details that there will be 13,700 daily vehicular trips on Foothill Boulevard just east of the Project site in the year 2025. The Proposed Project would contribute 1.4 percent of the ADT if all Project traffic were to travel east of the Proposed Project site on Foothill Drive.

Impacts associated with the Proposed Project would be less than significant on plans, policy, or ordinances related to public transportation, bicycles, or pedestrian facilities.

b) *Would the project Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

Less Than Significant Impact. The Proposed Project area is located within 0.5 mile of numerous transit stops. Although the improvements associated with the EFMP would not likely reduce vehicle miles travelled in the Project area since the Plan assumes a small amount of growth in student population, the proximity to multiple transit stops would result in a less than significant impact associated with transportation. The enrollment growth is expected to come from local neighborhoods and is not expected to draw significantly from out-of-town students who would have a more significant impact on VMT. Furthermore, while the Proposed Project would introduce student commuters to the area, it does not include development of housing or retail that would significantly increase vehicle travel to and from the area. Therefore, the Proposed Project would be consistent with the CEQA Guidelines.

c) *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?*

Less than Significant Impact. The Citrus College EFMP does propose the addition of a new road between the Golf Driving Range and Softball Fields; however, this addition would be consistent with existing vehicular circulation patterns and connect the eastern and western portions of the campus. The new road would not introduce a new geometric design feature or incompatible use. Improvements associated with the Center for Excellence would not modify the existing driveway and would expand parking facilities at the site. Once operational, the parking uses at the site would remain the same at the Center for Excellence while providing for more users onsite; however, no increase in hazards from design or incompatible uses would occur.

d) *Would the project result in inadequate emergency access?*

Less than Significant Impact. Citrus College has an Emergency Operations Plan outlining the response to an extraordinary emergency situation associated with natural disasters, technological incidents, and national security emergencies. Additionally, the City of Glendora's General Plan identifies evacuation routes within the City in the event of any such emergencies that requires evacuation. The Citrus College campus would continue to provide adequate emergency access. During construction phases of the different major capital projects temporary impacts could reduce access to the site and analysis would be conducted to maintain access for facility users and emergency responders.

Project site plans would be reviewed by the LACFD for adequate fire access. Additionally, the Project would comply with local fire and police jurisdictions review of all construction and site plans prior to the State Fire Marshall's final approval. As such, no impacts to an adopted emergency response plan or emergency evacuation plan would occur.

4.18 TRIBAL CULTURAL RESOURCES

18.	**TRIBAL CULTURAL RESOURCES. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:**	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
(a)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐
(b)	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

4.18.1 Impact Analysis

a) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

Less Than Significant Impact. As discussed in Section 4.5.2, Citrus College is located in an urbanized area that has been previously disturbed by past activities. No historic or archeologic resources were identified onsite from the cultural resource records search, and it is unlikely for construction related Project activities to result in the discovery of new resources. The Proposed Project would not cause a substantial adverse change in the significance of a tribal cultural resources that is listed or eligible for listing. A less than significant impact would occur.

b) Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less than Significant Impact with Mitigation. As part of AB 52 consultation outreach, the Torres-Martinez Desert Cahuilla Indians, the Gabrieleno Band of Mission Indians – Kizh Nation, Gabrieleno

Tongva Indians of California Tribal Council, and the Soboba Band of Luiseno Indians were sent letters to notify the tribes of the Proposed Project. To date, the Gabrieleno Band of Mission Indians – Kizh Nation is the only tribe that responded requesting formal AB 52 consultation regarding the Project. This consultation meeting occurred on July 20, 2023. Follow-up information was provided by email from the Gabrieleno Band of Mission Indians – Kizh Nation, along with proposed mitigation measures. After multiple rounds of email correspondence, consultation was deemed complete on September 6, 2023, with the following agreed upon mitigation measures:

MM TCR-1: Retain a Native American Monitor Prior to Commencement of Ground-Disturbing Activities

A. The lead agency (Citrus Community College District) shall retain a Native American Monitor from or approved by the Gabrieleño Band of Mission Indians – Kizh Nation. The monitor shall be retained prior to the commencement of "ground-disturbing activity" for the Proposed Project at all project locations (i.e., both on-site and any off-site locations that are included in the project description/definition and/or required in connection with the project, such as public improvement work). "Ground-disturbing activity" shall include heavy grading, excavation and trenching associated with Proposed Project building work.

B. A copy of the executed monitoring agreement shall be submitted to the lead agency prior to the commencement of ground-disturbing activity.

C. The monitor will complete daily monitoring logs that will provide descriptions of the relevant ground-disturbing activities, the type of construction activities performed, locations of ground-disturbing activities, soil types, cultural-related materials, and any other facts, conditions, materials, or discoveries of significance to the Tribe. Monitor logs will identify and describe any discovered TCRs, including but not limited to, Native American cultural and historical artifacts, remains, places of significance, etc., (collectively, tribal cultural resources, or "TCR"), as well as any discovered Native American (ancestral) human remains and burial goods. Copies of monitor logs will be provided to the lead agency by the Tribe.

D. On-site tribal monitoring shall conclude upon the latter of the following (1) written confirmation to the Kizh from a designated point of contact for the lead agency that ground-disturbing activities and phases that may involve ground-disturbing activities on the project site or in connection with the project are complete; or (2) a determination and written notification by the Kizh to the project applicant/lead agency that no future, planned construction activity and/or development/construction phase at the project site possesses the potential to impact Kizh TCRs.

MM TCR-2: Unanticipated Discovery of Tribal Cultural Resource Objects (Non-Funerary/Non-Ceremonial)

A. Upon discovery of any TCRs, all construction activities in the immediate vicinity of the discovery shall cease (i.e., not less than the surrounding 50 feet) and the Kizh monitor and/or Kizh archaeologist will be included in the consultation on the recommended procedure/process to move forward. While adhering to the Project CPM baseline schedule, the Kizh will recover and retain all discovered TCRs in the form and/or manner the Tribe deems appropriate, in the Tribe's sole discretion, and for any purpose the Tribe deems appropriate, including for educational, cultural and/or historic purposes.

MM TCR-3: Unanticipated Discovery of Human Remains and Associated Funerary or Ceremonial Objects

A. Native American human remains are defined in PRC 5097.98 (d)(1) as an inhumation or cremation, and in any state of decomposition or skeletal completeness. Funerary objects, called associated grave goods in Public Resources Code Section 5097.98, are also to be treated according to this statute.

B. If Native American human remains and/or grave goods are discovered or recognized on the project site, then Public Resource Code 5097.9 as well as Health and Safety Code Section 7050.5 shall be followed.

C. Human remains and grave/burial goods shall be treated alike per California Public Resources Code section 5097.98(d)(1) and (2).

D. Preservation in place (i.e., avoidance) is the preferred manner of treatment for discovered human remains and/or burial goods.

E. E. Any discovery of human remains/burial goods shall be kept confidential to prevent further disturbance.

Therefore, a less than significant impact to Tribal Cultural Resources would occur with the incorporation of the above mitigation measures.

In addition, as discussed in Section 4.5.2, should human remains be encountered unexpectedly during grading or construction activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC Section 5097.98. No further excavation or disturbance of the Project site or any nearby area reasonably suspected to overlie adjacent remains shall occur until the County Coroner has determined, within two working days of notification of the discovery, if the remains are human. In the event human remains are discovered, a less than significant impact would occur.

4.19 UTILITIES AND SERVICE SYSTEMS

19.	UTILITIES/SERVICE SYSTEMS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
(b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
(c)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
(d)	Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	☒
(e)	Comply with Federal, State, and local management and reduction statutes and regulations related to solid wastes?	☐	☐	☐	☒

4.19.1 Impact Analysis

a) *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or expansion of which could cause significant environmental effects?*

Less than Significant Impact. The 2020-2030 EFMP could require relocation of existing utilities onsite, however an effort would be made to keep the utilities in place as much as possible. Therefore, a less than significant impact related to utilities would occur.

b) *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal dry and multiple dry years?*

Less than Significant Impact. Citrus College expects an increase in the student population over the next 10 years, which would increase water consumption at the campus. Build-out of the 2020-2030 EFMP and Center for Excellence would comply with current building code standards at the time of construction and use of water efficient facilities would be required as part of the CBC. Additionally, the City of Glendora Urban Water Management Plan provides a water supply analysis until 2040 including consecutive dry years and accommodates for increases in population (City of Glendora 2021). Based off of the results from the Urban Water Management Plan and the growth predicted in the 2020-2030 EFMP, a less than significant impact would occur.

c) *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Less than Significant Impact. Citrus College, with a projected increase in student population on campus over the next 10 years, may experience an increase in water consumption and wastewater production at the campus. Nearby wastewater facilities include the San Jose Creek Water Reclamation Plant and Joint Water Pollution Control Plant, with treatment capacities of 100 million gallons per day (MGD) and 300 MGD respectively (City of Glendora 2021). With the expected increased student population to a total of 13,321 in 2030, capacity at both facilities would have sufficient capacity to support full build-out of the 2020-2030 EFMP and Center for Excellence. Therefore, a less than significant impact would occur.

d) *Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

No Impact. Construction waste would be transported to a certified landfill with adequate capacity, most likely either Scholl Canyon Landfill or Puente Hills Landfill. Garbage service is provided by Athens Services (City of Glendora 2022b). The District will continue to work with the contractor providing solid waste services to ensure that appropriate recycling containers and waste receptacles are provided on the site. The Proposed Project will comply with applicable State regulations pertaining to solid waste disposal.

e) *Would the project comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?*

No Impact. The District will comply with Federal, State, and local statutes and regulations related to solid waste disposal.

4.20 WILDFIRE

20.	**WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:**	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
(a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
(b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
(c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐

20.	WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

4.20.1 Impact Analysis

a) Would the project impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. Citrus College has an Emergency Operations Plan outlining the response to extraordinary emergency situations associated with natural disasters, technological incidents and national security emergencies. Additionally, the City of Glendora's General Plan identifies evacuation routes within the City in the event of any such emergency that requires evacuation. The Citrus College campus would continue to provide adequate emergency access. During construction phases of the major capital projects, temporary impacts could reduce access to the site and analysis would be conducted to maintain access for facility users and emergency responders.

Project site plans would be reviewed by the LACFD for adequate fire access. Additionally, Projects would comply with the local fire authority and police jurisdiction for review of all construction and site plans prior to the State Fire Marshall's final approval. As such, no impacts to an adopted emergency response plan or emergency evacuation plan would occur.

b) Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than Significant Impact. The Project site is located in an urban area, and there is no wildland susceptible to wildfire on or near the site. The Project site is located 0.85 mile south of the nearest Very High Fire Hazard Local responsibility area (Calfire 2022). Facilities constructed as part of the EFMP, and Center for Excellence would be required to comply with the current building code which would include use of materials to reduce fire risk and susceptibility of the Project to wildfire events.

c) Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than Significant Impact. The Project site is in an urbanized area surrounded by development. The build-out of the 2020-2030 EFMP and Center for Excellence would not require the installation of new infrastructure that may exacerbate fire risk. No impact would occur.

d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability or drainage changes?

Less than Significant Impact. The Proposed Project is located within a developed area with relatively flat topography. The Angeles National Forest is located approximately 0.91 mile north of the Project site, with the most recent Glendora wildfire occurring in 2015 (ABC 2015).

4.21 MANDATORY FINDINGS OF SIGNIFICANCE

21.	MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
(b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)	☐	☐	☒	☐
(c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒	☐	☐

4.21.1 Impact Analysis

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant With Mitigation Incorporated. As discussed in Section 4.4, the Proposed Project site is located within the urbanized area of Glendora with no sensitive natural resources. Due to the highly urbanized nature of the Proposed Project area, the Proposed Project would not reduce the habitat of fish and wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. However, due to concerns about City related tree protection ordinances, Mitigation Measure BIO-1 is proposed to reduce impacts to mature trees onsite. The potential for nesting birds exists during all portions of the EFMP and Mitigation Measure BIO-2 would reduce impacts to nesting birds to a level less than significant. Additionally, the Proposed Project would not significantly impact examples of the major periods of California history or prehistory.

Project related activities could impact character defining features associated with the Performing Arts building; however, a review by a qualified historian or architectural historian would be conducted to reduce impacts on character defining features associated with the building. Implementation of Mitigation Measure CUL-1 would reduce impacts to a less-than-significant level for historic resources.

b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)*

Less Than Significant. Implementation of the Proposed Project would not have the potential cause impacts that are individually limited, but cumulatively considerable. Where the Proposed Project would have no impact, specifically with respect to agricultural resources, mineral resources, and population and housing, it would not contribute to cumulative impacts. In addition, issues specific to site conditions, such as site geology and soils, do not have cumulative effects. The Proposed Project is not growth inducing; thus, it would not contribute to the cumulative effects of population growth. The incremental effects of the Proposed Project that could contribute to cumulative impacts include air, noise, and traffic impacts associated with vehicle trips generated by the Proposed Project and construction impacts.

c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Less Than Significant With Mitigation Incorporated. Effects to human beings are generally associated with air quality, noise, hazardous materials and traffic. As discussed in the previous environmental topic areas, the Project would not result in significant impacts to human beings because the Proposed Project would not cause significant impacts to air quality and noise that could impact humans in the area. Mitigation Measure HAZ-1 would reduce impacts regarding hazardous materials, asbestos containing building materials, lead-containing building materials, loose and peeling lead containing paint, mercury light tubes, mercury thermostat switches, PCB-light ballasts, and PCB-containing building materials. Implementation of Mitigation Measure HAZ-2 would require a Phase I ESA prior to any ground disturbing activities occurring onsite. Adherence to regulatory codes, ordinances, regulations, BMPs, and standards listed throughout this document would ensure that construction and operation would not result in substantial adverse direct or indirect effects on humans. The impacts to human beings as a result of the Proposed Project would be less than significant.

SECTION 5.0 – REFERENCES

The following is a list of references used in the preparation of this document.

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Appendix A – Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis

Appendix B – Tree Inventory Assessment

Appendix C – Historical Resources Identification and Evaluation Report

Appendix D – Noise Impact Analysis

Appendix E – Mitigation, Monitoring, and Reporting Plan