

**CITY OF ELK GROVE
DEVELOPMENT SERVICES DEPARTMENT**

**Sheldon Farms North Project
SUPPLEMENTAL INITIAL STUDY/MITIGATED
NEGATIVE DECLARATION**



July 2020



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Air Quality and GHG Modeling Results

INITIAL STUDY

July 2020

A. BACKGROUND

1. Project Title: Sheldon Farms North Project
2. Lead Agency Name and Address: City of Elk Grove
Current Planning Department
8401 Laguna Palms Way
Elk Grove, CA 95758
3. Contact Person and Phone Number: Sarah Kirchgessner
Project Planner
(916) 478-2245
4. Project Location: Southeast of Sheldon Road/Bruceville Road Intersection
Elk Grove, CA 95758
5. Project Sponsor's Name and Address: Carl Stein
Sheldon Farms North
P.O. Box 490
Carmichael, CA 95609
(916) 451-1110
6. Existing General Plan Designations: Low Density Residential (LDR)
Medium Density Residential (MDR)
Community Commercial
Public/Quasi-Public and Open Space (POS)
7. Existing Zoning Designation: Low Density Residential (RD-6 and RD-10)
High Density Residential (RD-25)
General Commercial (GC)
Open Space (O)
8. Required Approvals from Other Public Agencies: None

9. Surrounding Land Uses and Setting:

Currently, the Project site is vacant and undeveloped. The site consists primarily of ruderal grasses, which are regularly mowed and baled. The Project site is bounded by Bruceville Road to the west, Sheldon Road to the north, and Lewis Stein Road to the east. The site is located to the north of Laguna Creek Bypass Channel (Laguna Creek), which is separated from the site by a raised berm used for flood control purposes. Surrounding uses include multi-family residential uses to the west across Bruceville Road (Laguna Creek Apartments), condominiums (Laguna Pointe) and single-family homes to the north across Sheldon Road, and commercial development and multi-family residential uses (Terracina at Park Meadows) to the east of the site across Lewis Stein Road. The commercial uses include a gas station, a WinCo Foods grocery store, drive-thru restaurants, and various other retail uses.

10. Project Description Summary:

The Sheldon Farms North Project (Project) would include subdivision of the Project site into 391 single-family residential lots, a 6.3-acre multi-family residential lot, a 5.3-acre commercial lot, a 2.5-acre park, and a total of 7.9 acres of public open space, including a 3.8-acre water quality detention basin area. The single-family units would be located within the central and eastern portions of the site, while the commercial and high-density residential uses would be located within the western portion of the site, southwest of the Sheldon Road/Bruceville Road intersection. The proposed open space areas would parallel the site's southern boundary adjacent to Laguna Creek. The Project would require City approval of a Tentative Subdivision Map, Subdivision Design Review, and an amendment to the City's Bicycle, Pedestrian, and Trails Master Plan to modify the location of a proposed Class 1 multi-purpose trail alignment.

11. Status of Native American Consultation Pursuant to Public Resources Code Section 21080.3.1:

In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), on May 28, 2019, the City provided formal notification letters to local tribes that had requested notification. The City received responses from Auburn Rancheria, Wilton Rancheria, and the United Auburn Indian Community requesting to initiate formal consultation. The tribes requested inclusion of specific mitigation measures in the IS/MND. The City coordinated with the tribes to refine those measures, which have been incorporated into Section V, Cultural Resources, of this IS/MND. The refined measures were provided to the tribes on August 7, 2019. No further response was received.

B. SOURCES

All of the technical reports and modeling results used for the Project analysis are available upon request at the City of Elk Grove Current Planning Department, 8401 Laguna Palms Way, Elk Grove, California, Monday through Friday between 8:00 AM and 5:00 PM. The following

documents are referenced information sources used for the purposes of this Supplemental Initial Study/Mitigated Negative Declaration (IS/MND):

1. California Department of Conservation. *California Important Farmland Finder*. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed January 2019.
2. California Department of Transportation. *California Scenic Highway Mapping System*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed September 2018.
3. City of Elk Grove. *General Plan Update Draft Environmental Impact Report*. February 2019.
4. City of Elk Grove. *General Plan*. February 2019.
5. City of Elk Grove. *Transportation Analysis Guidelines*. February 2019.
6. Federal Emergency Management Agency. *National Flood Hazard Layer FIRMette*. Exported January 2019.
7. Fehr & Peers. *Sheldon Farms North Draft Traffic Report*. January 27, 2019.
8. Madrone Ecological Consulting. *Biological Resources Assessment for the Sheldon Farms Property, City of Elk Grove, Sacramento County, California*. May 6, 2016.
9. Peak & Associates, Inc. *Cultural Resources Assessment for the Sheldon Farms North Project, City of Elk Grove, California*. February 2018.
10. Sacramento Area Sewer District. *Sewer Ordinance*. January 10, 2018.
11. Sacramento County Water Agency. *Water Supply Assessment for Sheldon Farms North*. January 2019.
12. Sacramento Metropolitan Air Quality Management District. *Air Quality Pollutants and Standards*. Available at: <http://www.airquality.org/Air-Quality-Health/Air-Quality-Pollutants-and-Standards>. Accessed June 2018.
13. Sacramento Metropolitan Air Quality Management District. *Guide to Air Quality Assessment in Sacramento County*. May 2018. Available at: <http://www.airquality.org/ceqa/ceqaguideupdate.shtml>. Accessed June 2018.
14. Sacramento Metropolitan Air Quality Management District. *SMAQMD Thresholds of Significance Table*. Available at: <http://www.airquality.org/ceqa/CH2ThresholdsTables5-2015.pdf>. May 2015. Accessed June 2018.
15. State Water Resources Control Board. *GeoTracker*. Available at: <https://geotracker.waterboards.ca.gov/>. Accessed January 2019.
16. Wood Rodgers. *Preliminary Drainage Study, Sheldon Farms North, City of Elk Grove, California*. June 2018.

C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project, involving at least one impact that is “Less-Than-Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

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

D. DETERMINATION

On the basis of this initial study:

- ☐ I find that the Proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- ☒ I find that although the Proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ☐ I find that the Project MAY have a “potentially significant impact” or “potentially significant unless mitigated” on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ☐ I find that although the Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the Project, nothing further is required.

Signature

Sarah Kirchgessner, Project Planner
Printed Name

Date

City of Elk Grove
For

E. BACKGROUND AND INTRODUCTION

This Initial Study identifies and analyzes the potential environmental impacts of the Project. The information and analysis presented in this document is organized in accordance with the order of the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines. Where the analysis provided in this document identifies potentially significant environmental effects of the Project, mitigation measures are prescribed. The mitigation measures prescribed for environmental effects described in this IS/MND would be implemented in conjunction with the Project, as required by CEQA. The mitigation measures would be incorporated into the Project through project conditions of approval. The City would adopt findings and a Mitigation Monitoring/Reporting Program for the Project in conjunction with approval of the Project.

In February 2019, the City of Elk Grove approved a new General Plan and certified an associated Environmental Impact Report (EIR) for the updated General Plan. The General Plan EIR is a program EIR, prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000 *et seq.*). The General Plan EIR analyzed full implementation of the General Plan and identified measures to mitigate the significant adverse impacts associated with the General Plan.

As discussed in this IS/MND, the modifications proposed as part of the Project would not result in any new significant impacts, nor would any previously identified impact increase in severity from what was originally documented in the General Plan EIR certified February 27, 2019. The Project would be consistent with the Project site's current General Plan land use designations. Additionally, no mitigation identified in the EIR and found to be infeasible has now been determined feasible, and the Project proponent has accepted all mitigation measures previously adopted. The City of Elk Grove has determined that only items further analyzed within this IS/MND would be necessary for it to adequately address the impacts of the proposed Project. Therefore, the City has prepared this Supplemental IS/MND.

F. PROJECT DESCRIPTION

The following provides a description of the Project site's current location and setting, as well as the Project components and the discretionary actions required for the Project.

Project Location and Setting

The Project site consists of approximately 79.2 acres located south of Sheldon Road between Bruceville Road and Lewis Stein Road in the City of Elk Grove, California (see Figure 1 and Figure 2). The site is identified by Assessor's Parcel Numbers (APNs) 116-0012-051 and -059. Per the City's General Plan, the site is designated Low Density Residential (LDR), Medium Density Residential (MDR), High Density Residential (HDR), Community Commercial, and Public/Quasi-Public and Open Space (POS). The site is zoned RD-6, RD-10, RD-25, GC, and O.

Currently, the Project site is vacant and undeveloped. The site consists primarily of ruderal grasses, which are regularly mowed and baled. The site does not contain any existing trees, wetland features, or waterways.

Figure 1
Regional Project Location

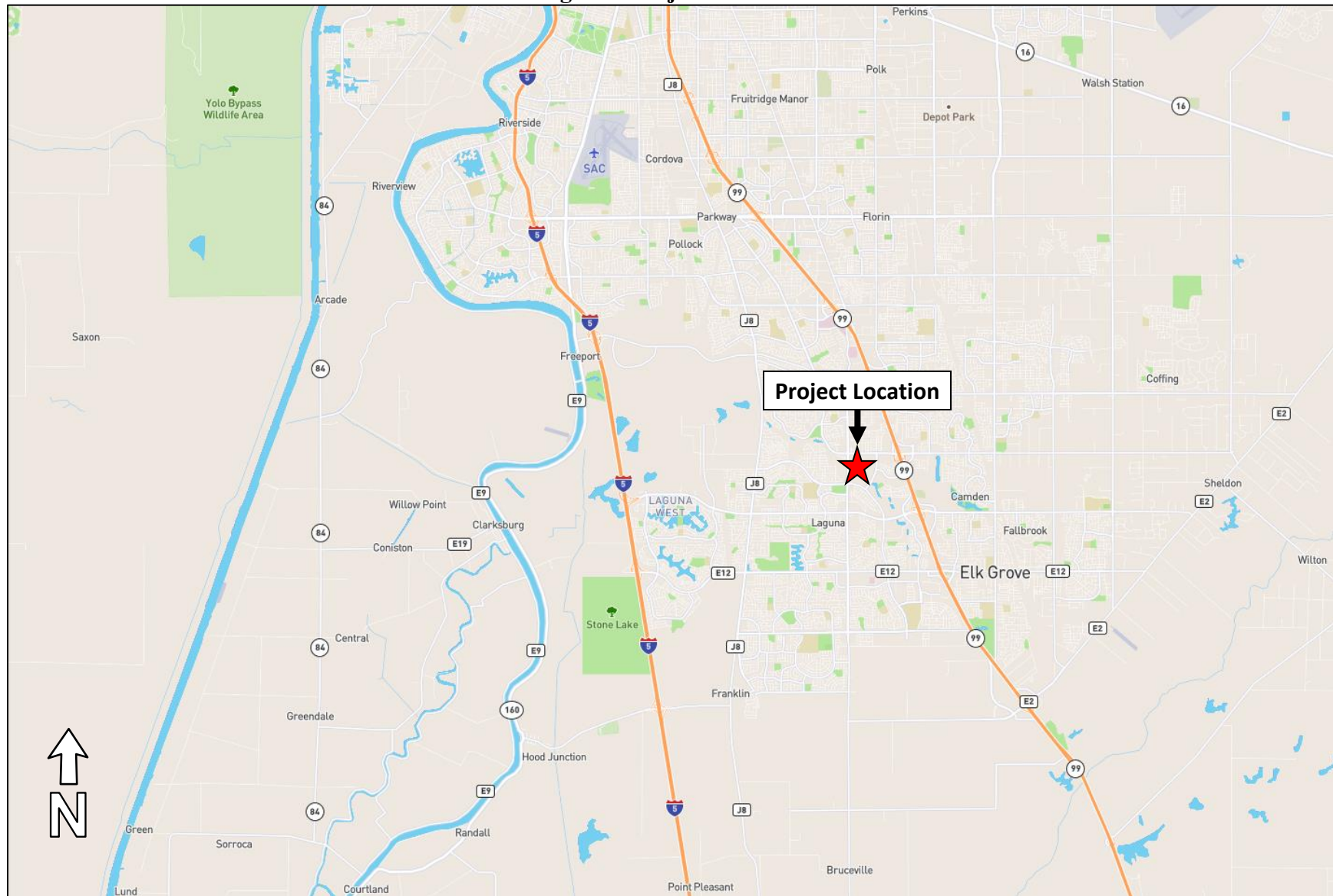


Figure 2
Project Site Boundaries



With the exception of a low berm within the eastern portion of the site, the topography of the site is relatively level. The Project site is bounded by Bruceville Road to the west, Sheldon Road to the north, and Lewis Stein Road to the east. The site is located to the north of Laguna Creek Bypass Channel (Laguna Creek), which is separated from the site by a raised berm used for flood control purposes.

Surrounding uses include multi-family residential uses to the west across Bruceville Road (Laguna Creek Apartments), condominiums (Laguna Pointe) and single-family homes to the north across Sheldon Road, and commercial development and multi-family residential uses (Terracina at Park Meadows) to the east of the site across Lewis Stein Road. The commercial uses include a gas station, a WinCo Foods grocery store, drive-thru restaurants, and various other retail uses.

Project Components

The Project would include subdivision of the Project site into 391 single-family residential lots, a 6.3-acre multi-family residential lot, a 5.3-acre commercial lot, a 2.5-acre park, and a total of 7.9 acres of public open space, including, a 3.8-acre water quality detention basin area (see Figure 3 Figure 4). The single-family units would be located within the central and eastern portions of the site, while the commercial and high-density residential uses would be located within the western portion of the site, southeast of the Sheldon Road/Bruceville Road intersection. The proposed open space areas would parallel the site's southern boundary adjacent to Laguna Creek. The Project components, including the requested approvals, are discussed in detail below.

Tentative Subdivision Map

Within the central and eastern portions of the site, the proposed Tentative Subdivision Map would provide for a total of 391 single-family residential lots, including 122 low-density lots and 269 medium-density lots. The low-density development areas would have a typical lot size of 50 feet by 100 feet, whereas the medium-density development areas would include typical lot sizes of 40 feet by 80 feet and 45 feet by 80 feet. The proposed subdivision would incorporate a 'modified grid' street pattern.

The proposed 6.3-acre multi-family lot within the western portion of the site (Lot B) would allow for future development with a total of 126 units at a density of 23.8 dwelling units per acre (du/ac) (net). Immediately north of Lot B, the proposed 5.3-acre commercial lot (Lot A) would allow for future development of up to 45,800 square feet (sf) of commercial uses. While the specific type and intensity of uses to be constructed within Lot A is not yet known at this time, the proposed zoning designation allows for a wide range of retail, wholesale commercial, entertainment, office, service, and professional uses

Overall, the Project would include the development of 391 single-family homes and 126 multi-family residential units, resulting in a total of 517 dwelling units.

Figure 3
Tentative Subdivision Map

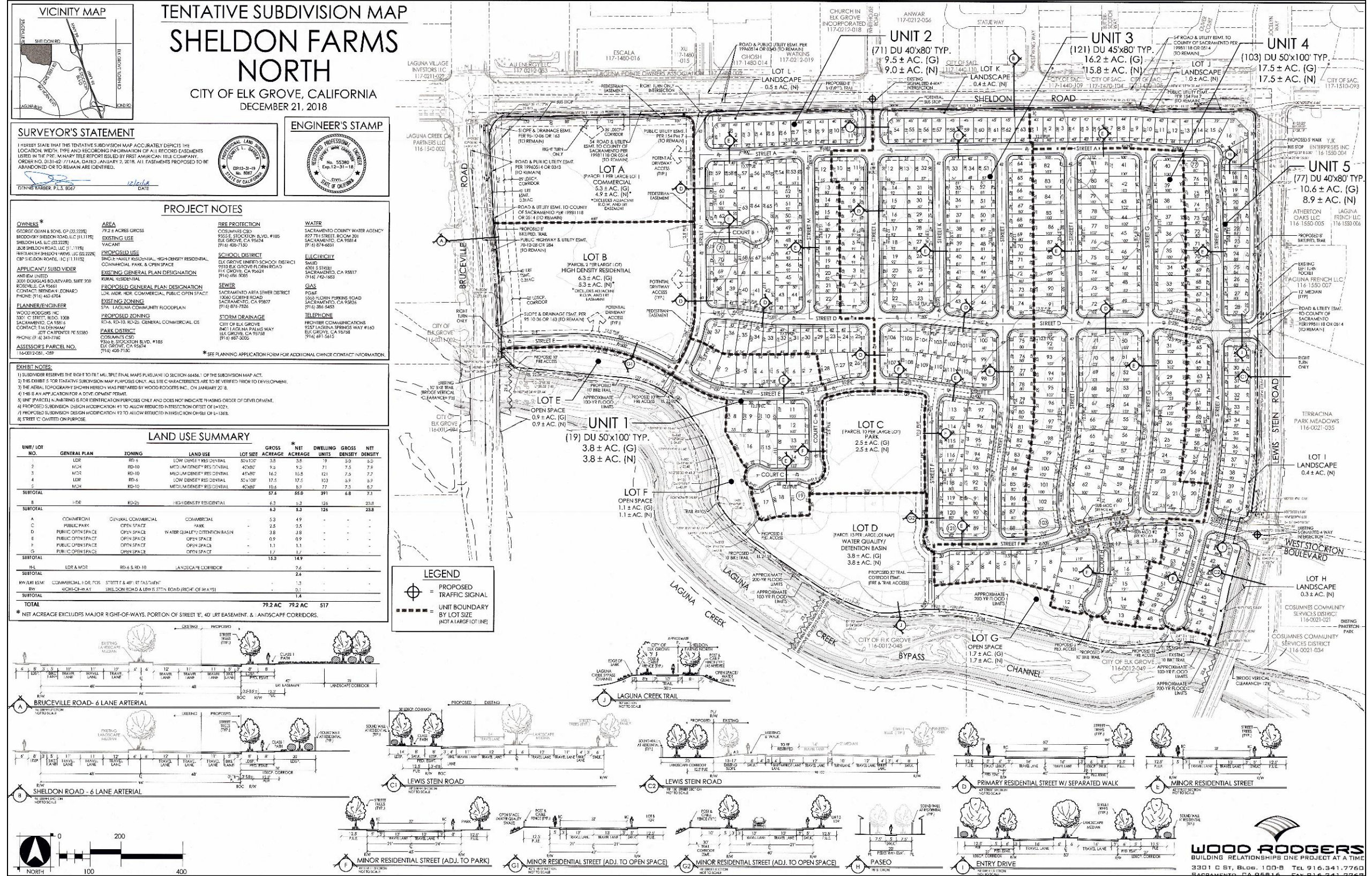


Figure 4
Illustrative Site Plan



Access and Circulation

The Project would include a total of five vehicle access points, including one access at Bruceville Road to the west, two access points along Sheldon Road, and two access points at Lewis Stein Road to the east. Entrances into the residential portion of the Project from Bruceville Road (“Street E”), the first street to the east off of Sheldon Road (“Street N”), and the first access on Lewis Stein Road (“Street D”) would be right-turn-only. The southern extension of Whitehouse Road into the Project site and the western extension of West Stockton Road into the site would be signalized four-way intersections.

In addition to the five aforementioned access points, the Project would provide for potential future driveways to serve Lot A and Lot B. The Lot A driveway would provide right-in/right-out access to Sheldon Road, with a second internal driveway connecting to the proposed internal roadway system (Street N). The potential future driveways to serve Lot B would provide internal access from Street E and Street N. The specific ingress and egress configurations for the commercial and mixed-use sites, including any requests to provide access from Bruceville Road would be designed in the future as part of the site layouts for both parcels and subject to further review.

Along the western site boundary, the Project would provide for a 40-foot-wide easement to accommodate the planned extension of a light rail transit (LRT) line. At the eastern site boundary, the Project would include construction of a bus stop at Lewis Stein Road.

The Project would provide for attached sidewalks along all of the proposed internal roadways, with the exception of Street L and Street D, which would include detached sidewalks. In addition, new sidewalks would be provided along the Project frontages to the north, east, and west. Within the southern portion of the Project site, the Project would include the construction of a 10-foot-wide bike trail along the length of Laguna Creek, with multiple connections extending northward to the proposed commercial and residential development. The proposed trail would connect to existing bike trail segments located west and east of the site.

Landscaping and Open Space

In total, the Project would provide for a total of 7.9 acres of open space, including a 2.5-acre public park (Lot C) and a 3.8-acre water quality detention basin area (Lot D). The public park would be located near the center of the site (Lot C), with a connection provided to the proposed bike trail to the south. In addition, the Project would provide for landscaped strips along each of the Project frontages, with the exception of the northern frontage of Lot A at Sheldon Road. Landscaping elements would similarly be provided along a portion of the interior roadways within the Project site. In addition, landscaping would be provided with future development of the proposed commercial center. The water quality detention basin area would be contiguous with additional open space areas along Laguna Creek to the west and east (Lots E, F, and G). The proposed open space lots would be graded and landscaped as part of the Project.

Utilities

Water supply to the proposed development would be provided by the Sacramento County Water Agency (SCWA) by way of the following new connections: a new 12-inch water line connecting to the SCWA's existing 42-inch water main located in Bruceville Road near the proposed Street E access; a new 12-inch water line connecting to the SCWA's existing 24-inch water main located in Sheldon Road to the north; and a new eight-inch water line connecting to the SCWA's existing 18-inch water main located in Lewis Stein Road to the east (see Figure 5). As discussed in Section XIX, Utilities and Service Systems, of this IS/MND, a Water Supply Assessment (WSA) has been prepared for the Project.

Sewer service would be provided by the Sacramento Area Sewer District (SASD) by way of new a new 10-inch line connecting to the SASD's existing 18-inch sewer main located in Sheldon Road and a new eight-inch sewer line connecting to the SASD's existing 15-inch sewer line in Lewis Stein Road to the east.

Stormwater generated by impervious surfaces within the Project site would be captured by a series of curb inlets and conveyed, by way of a system of new underground storm drains, to a series of vegetated swales along the southern boundary of the site. From the vegetated swales, stormwater would be directed to the proposed water quality detention basin at the southern portion of the site (Lot D) (see Figure 6). The water quality detention basin would provide for detention and treatment of stormwater prior to discharging treated runoff to Laguna Creek by way of a new 42-inch outfall. The basin would treat stormwater primarily by filtering runoff slowly through an active layer of soil, allowing for removal of pollutants.

Off-site utility improvements to be constructed with the Project would be limited to connections to existing infrastructure within the paved rights-of-way along the Project frontages.

Phasing

The Project would be constructed over a total of three phases (see Figure 7). Phase I would include buildout of approximately 198 single-family residential units within the central and southeastern portions of the site, as well as construction of necessary on-site and off-site utility improvements and grading and landscaping of the open space areas within Lots D, E, F, and G. Phase II would include buildout of the eastern portion of the Project site with an additional 193 single-family homes. The proposed multi-family residential and commercial lots would be developed as part of Phase III.

Subdivision Design Review

Pursuant to Section 23.16.080 of the City of Elk Grove Municipal Code, a subdivision design review is required for any tentative subdivision map within the City. The purpose of the design review process is to ensure physical, visual, and functional compatibility between uses and encourage development in keeping with the desired character of the City.

Figure 5
Preliminary Water and Sewer Plan

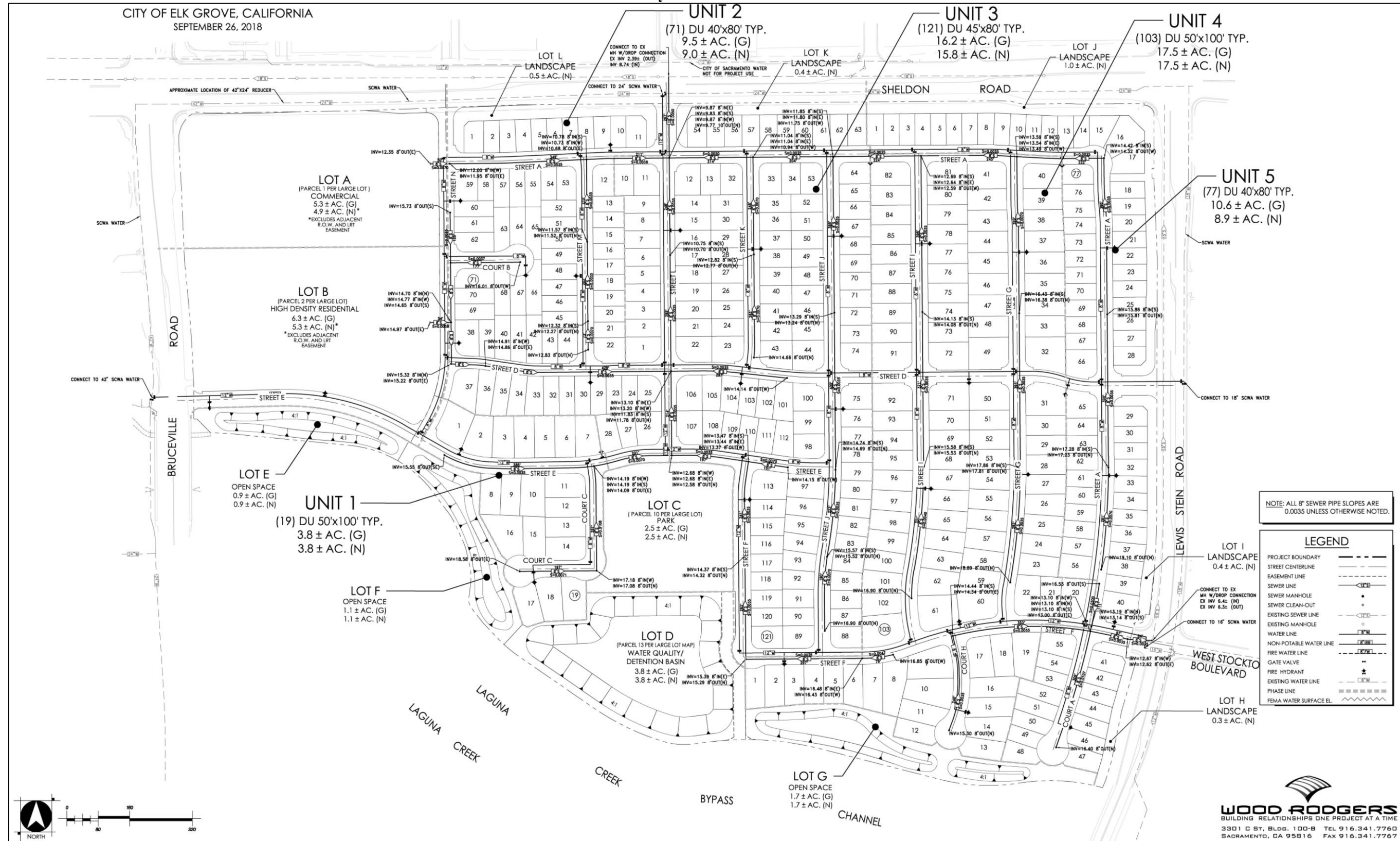


Figure 6
Preliminary Grading and Drainage Plan

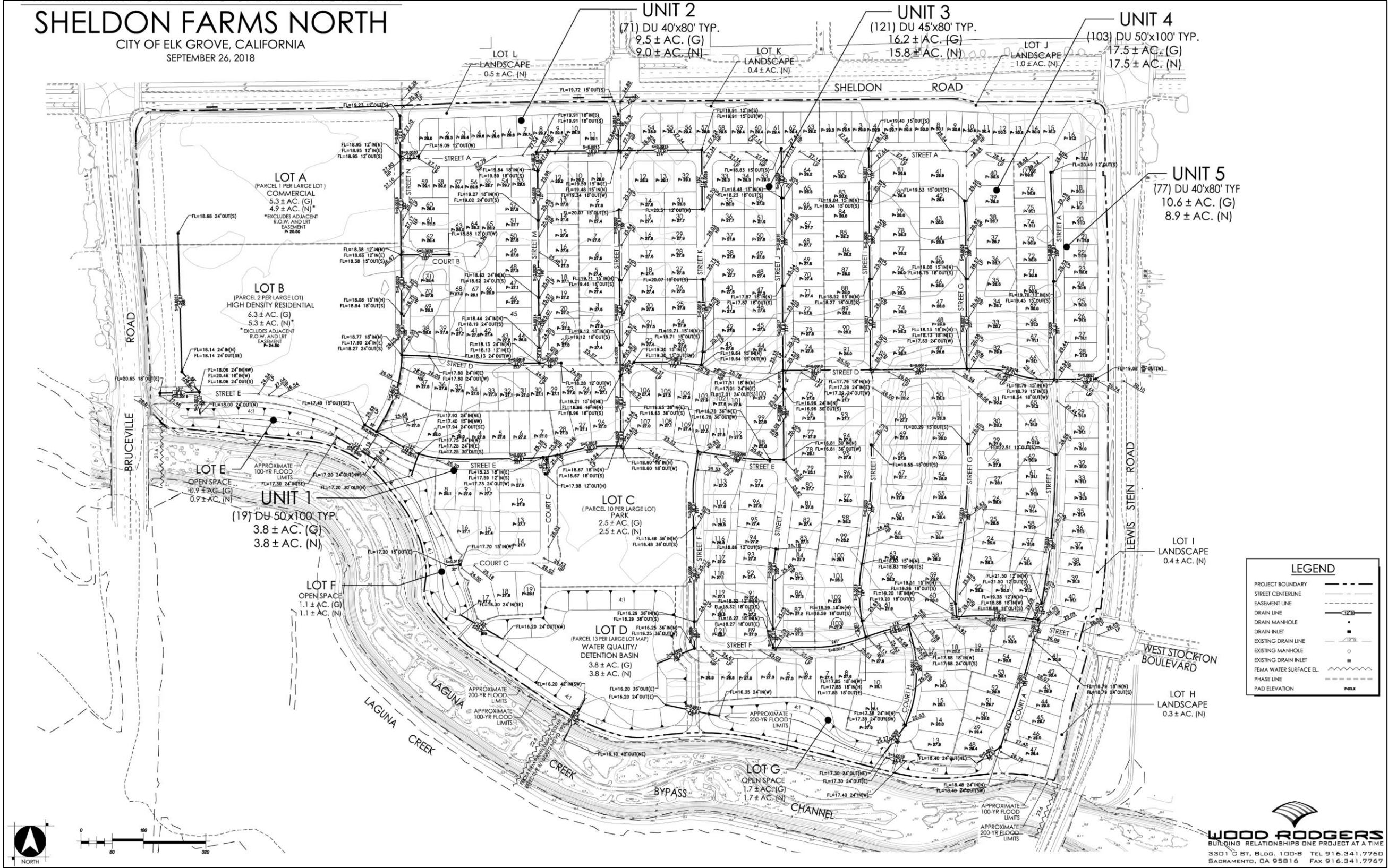
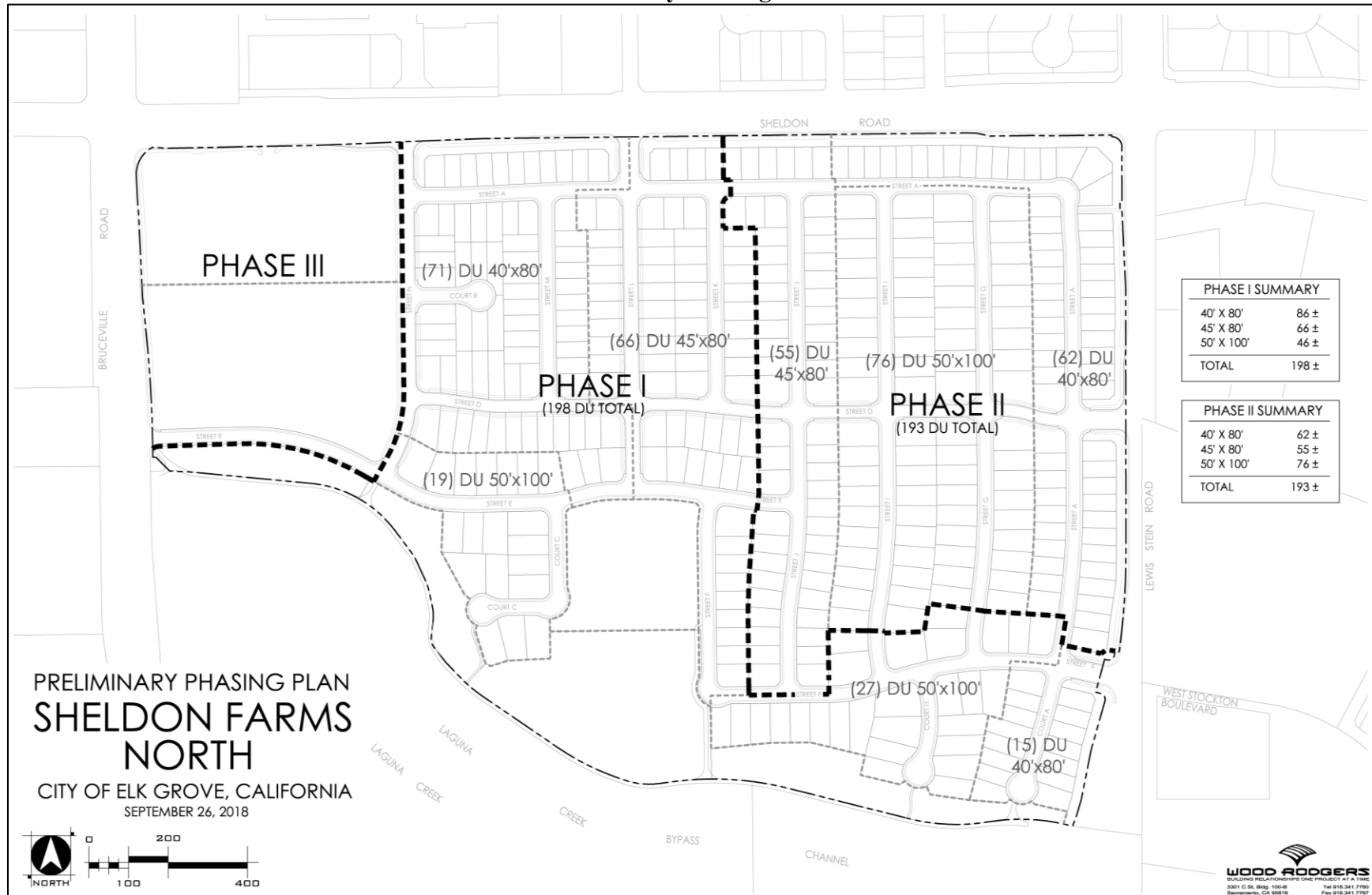


Figure 7
Preliminary Phasing Plan



Per Section 23.16.080(F), a design review permit or any modification thereto may only be granted when the following conditions are met:

1. The proposed project is consistent with the objectives of the General Plan, complies with applicable zoning regulations, specific plan provisions, special planning area provisions, Citywide and/or other applicable design guidelines, and improvement standards adopted by the City;
2. The proposed architecture, site design, and landscape are suitable for the purposes of the building and the site and will enhance the character of the neighborhood and community;
3. The architecture, including the character, scale and quality of the design, relationship with the site and other buildings, building materials, colors, screening of exterior appurtenances, exterior lighting and signing and similar elements establishes a clear design concept and is compatible with the character of buildings on adjoining and nearby properties;
4. The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation; and
5. For residential subdivision design review applications, the residential subdivision is well integrated with the City's street network, creates unique neighborhood environments, reflects traditional architectural styles, and establishes a pedestrian friendly environment.

Amendment to the City's Bicycle, Pedestrian, and Trails Master Plan

As noted previously, the Project would include the construction of a 10-foot-wide bike trail along the length of Laguna Creek within the southern portion of the Project site. The Project would adjust the alignment of the trail from what has been anticipated in the City's Bicycle, Pedestrian, and Trails Master Plan. As such, the Project would require City approval of an amendment to the City's Bicycle, Pedestrian, and Trails Master Plan to modify the Class 1 multi-purpose trail alignment.

Project Approvals

The Project would require City approval of the following:

- Tentative Subdivision Map;
- Subdivision Design Review; and
- An amendment to the City's Bicycle, Pedestrian, and Trails Master Plan to modify the location of a proposed Class 1 multi-purpose trail alignment.

G. ENVIRONMENTAL CHECKLIST

The following Checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the Project. A discussion follows each environmental issue identified in the checklist. Included in each discussion are Project-specific mitigation measures recommended, as appropriate, as part of the Project. For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The Project would not have any impact.

I. AESTHETICS. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a. Have a substantial adverse effect on a scenic vista?	☐	☐	✘	☐	No
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	✘	☐	No
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?	☐	☐	✘	☐	No
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	✘	☐	No

Discussion

- a,b. Examples of typical scenic vistas would include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a Project's impact to a scenic vista would occur if development of the Project would substantially change or remove a scenic vista. The City's General Plan does not identify any scenic vistas in the Project area. Thus, the proposed residential development would not have a substantial adverse effect on a scenic vista. In addition, according to the California Scenic Highway Mapping System, the Project site is located approximately five miles east of the nearest State Scenic Highway, State Route (SR) 160.¹ The Project site is not visible from SR 160.

Conclusion

The General Plan EIR did not identify any significant impacts related to scenic vistas or State Scenic Highways. Based on the above, the Project would not have a substantial adverse effect on a scenic vista and would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. Thus, a less-than-significant impact would occur. ***There is no new or substantially more severe impact.***

¹ California Department of Transportation. *California Scenic Highway Mapping System*. Available at: http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/index.htm. Accessed September 2018.

- c. Distinguishing between public and private views is important when evaluating changes to visual character or quality, because private views are views seen from privately-owned land and are typically associated with individual viewers, including views from private residences. Public views are experienced by the collective public, and include views of significant landscape features and along scenic roads. According to CEQA (Pub. Resources Code, § 21000 et seq.) case law, only public views, not private views, are protected under CEQA. For example, in *Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720 [3 Cal. Rptr.2d 488], the court determined that “we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188 [129 Cal.Rptr. 739]: ‘[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.’” Therefore, the focus in this section is on potential impacts to public views. Sensitive public viewers in the surrounding area include motorists, bicyclists, and pedestrians travelling on Bruceville Road, Sheldon Road, and Lewis Stein Road in the Project vicinity. In addition, the site is visible to bicyclists and pedestrians on the shared-use trail that extends along the south side of the Laguna Creek corridor between Bruceville Road and Lewis Stein Road.

The Project would change the visual character and quality of the site from a vacant lot to a residential and commercial development. However, the Project site is already located within an urban area and is surrounded by existing development to the north, east, and west. In addition, the Project would provide for landscaped strips with trees, shrubs, and groundcover along each of the Project frontages, with the exception of the northern frontage of Lot A at Sheldon Road. Such landscaped buffers would help to screen public views of the proposed buildings from the surrounding roadways. In addition, the Project would include a total of 7.9 acres of open space, including a 2.5-acre public park and a 3.8-acre water quality detention basin area, located within the southern portion of the site. The proposed open space areas would not be developed with residential or commercial structures as part of the Project, and would maintain the aesthetically pleasing viewshed for bicyclists and pedestrians on the shared-use trail to the south of the site, as well as motorists travelling on Bruceville Road and Lewis Stein Road. Furthermore, all architectural elements of the Project would be designed in compliance with the applicable sections of the City’s Design Guidelines.

The Project site is located in an urbanized area, and the Project would essentially serve as an extension of the existing residential and commercial development in the Project vicinity. The proposed single-family residences along the northern portion of the Project site would include lot sizes similar to the single-family residential development to the north of the site across Sheldon Road, while the proposed commercial area at the northwestern corner of the site would be compatible with the existing commercial uses (Shell gas station, Mexican restaurant, tea shop) located northwest of the site. The multi-family residential component of the Project would be located across from the existing Laguna Creek Apartments to the west of the site. All components of the Project would be subject to the City’s design review process pursuant to Section 23.16.080 of the City’s Municipal Code, which is intended to encourage development in keeping with the desired character of the City and to ensure

physical, visual, and functional compatibility between uses. Required findings for a design review permit are as follows:

1. The proposed project is consistent with the objectives of the General Plan, complies with applicable zoning regulations, specific plan provisions, special planning area provisions, Citywide and/or other applicable design guidelines, and improvement standards adopted by the City;
2. The proposed architecture, site design, and landscape are suitable for the purposes of the building and the site and will enhance the character of the neighborhood and community;
3. The architecture, including the character, scale and quality of the design, relationship with the site and other buildings, building materials, colors, screening of exterior appurtenances, exterior lighting and signing and similar elements establishes a clear design concept and is compatible with the character of buildings on adjoining and nearby properties;
4. The proposed project will not create conflicts with vehicular, bicycle, or pedestrian transportation modes of circulation; and
5. For residential subdivision design review applications, the residential subdivision is well integrated with the City's street network, creates unique neighborhood environments, reflects traditional architectural styles, and establishes a pedestrian friendly environment.

Conclusion

The Project would be consistent with the site's current General Plan land use designations. The General Plan EIR concluded that buildout of the General Plan could result in a significant and unavoidable impact related to degradation of the visual character and quality of the Planning Area (including the Project site). As such, changes to the visual character and quality of the site have been anticipated by the City and analyzed in the General Plan EIR. In addition, as discussed above, the Project would include landscaping elements to screen public views of the site and would be visually compatible with the existing commercial and residential development to the north, east, and south of the site. Therefore, impacts related to degrading the existing visual character of the site and its surroundings or a conflict with applicable zoning and other regulations governing scenic quality would be less-than-significant. ***There is no new or substantially more severe impact.***

- d. The Project site is currently undeveloped and, thus, does not contain any existing sources of light or glare. Implementation of the Project would develop the site with residential and commercial buildings, and, thus, would introduce new sources of light and glare where none currently exists. Potential sources of light and glare associated with the Project would include interior light spilling through windows, exterior lighting on homes, street lighting on the internal street system, lighting from parking areas associated with the proposed commercial uses, and light reflected off windows.

While the site does not currently contain sources of light or glare, the site is bordered by existing development that currently generates light and glare in the area. Furthermore, the

Project would be subject to compliance with all applicable regulations included in Chapter 23.56, Lighting, of the City's Municipal Code. For example, per Section 23.56.030(A), all multifamily and nonresidential outdoor lighting must be constructed with full shielding. Where the light source from an outdoor light fixture is visible beyond the property line, shielding is required to reduce glare so that the light source is not visible from within any residential dwelling unit. In addition, per Section 23.56.030(B), the Project applicant would be required to submit a point-by-point photometric calculation listing the number, type, height, and level of illumination of all outdoor lighting fixtures in conjunction with the development permit application and prior to issuance of a building permit or site improvement plans. The photometric plan would be required to demonstrate compliance with the following City standards:

1. Parking lots, driveways, trash enclosures/areas, public phones, and group mailboxes shall be illuminated with a minimum maintained one (1 fc) foot-candle of light and an average not to exceed four (4 fc) foot-candles of light.
2. Pedestrian walkways shall be illuminated with a minimum maintained one-half (0.5 fc) foot-candle of light and an average not to exceed two (2 fc) foot-candles of light.
3. Exterior doors of nonresidential structures shall be illuminated during the hours of darkness with a minimum maintained one (1 fc) foot-candle of light, measured within a five (5' 0") foot radius on each side of the door at ground level.
4. In order to minimize light trespass on abutting residential, agricultural-residential, and agricultural property, illumination measured at the nearest residential structure or rear yard setback line shall not exceed the moon's potential ambient illumination of one-tenth (0.1 fc) foot-candle.

Furthermore, the Project would be required to comply with the maximum height restrictions for freestanding and exterior light fixtures specified by Section 23.56.030(C) of the Municipal Code.

Compliance with such standards would ensure that on-site lighting would be directed within the Project site and would not substantially illuminate adjacent properties. In addition, new landscaping elements along the Project frontages help to further screen the proposed exterior light fixtures.

Conclusion

The General Plan EIR identified a significant and unavoidable impact related to creation of new sources of light and glare. However, given the consistency of the Project with surrounding residential and commercial development, and the added assurance of the design review process, implementation of the Project would result in a less-than-significant impact with respect to creating a new source of substantial light or glare that would adversely affect day or nighttime views in the area. ***There is no new or substantially more severe impact.***

II. AGRICULTURE AND FOREST RESOURCES. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use?	☐	☐	✗	☐	No
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	✗	No
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))?	☐	☐	☐	✗	No
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	✗	No
e. Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use?	☐	☐	✗	☐	No

Discussion

- a.e. The Project site is currently vacant and undeveloped and consists primarily of ruderal grasses, which are regularly mowed and baled. Currently, the site is designated as “Farmland of Local Importance” and “Grazing Land” per the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP).² While the General Plan EIR identified a significant and unavoidable impact related to cumulative loss of Important Farmland (Prime Farmland, Unique Farmland, and Farmland of Statewide Importance), Farmland of Local Importance and Grazing Land are not considered “Important Farmland” under CEQA.³ The City’s General Plan does not require mitigation for conversion of Farmland of Local Importance or Grazing Land.

² California Department of Conservation. *California Important Farmland Finder*. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed January 2019.

³ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.2-8]. February 2019.

The site is not zoned or designated in the General Plan for agriculture uses, and such uses would be incompatible with surrounding land uses in the area.

Conclusion

The General Plan EIR concluded that buildout of the General Plan, including the Project site, could result in a significant and unavoidable impact related to conversion of Farmland. However, given the FMMP designations for the site, development of the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or otherwise result in the loss of Farmland to non-agricultural use. Therefore, the Project would have a less-than-significant impact. ***There is no new or substantially more severe impact.***

- b. The Project site is not under a Williamson Act contract and is not designated or zoned for agricultural uses.

Conclusion

The General Plan EIR concluded that buildout of the General Plan, including the Project site, could result in a significant and unavoidable impact related to conflicts with Williamson Act contracts. However, based on the above, buildout of the Project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and no impact would occur. ***There is no new or substantially more severe impact.***

- c,d. The Project area is not considered forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), and is not zoned Timberland Production (as defined by Government Code section 51104[g]). In addition, the site is designated by the General Plan for residential, commercial, and open space uses, which are not compatible with timberland production.

Conclusion

Per the General Plan EIR, the City's planning area does not contain any forest land; thus, the EIR did not identify any significant impacts related to forest land or timber resources. Based on the above, the Project would have no impact with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning. ***There is no new or substantially more severe impact.***

III. AIR QUALITY. <i>Would the Project:</i>		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a.	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	✗	☐	No
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?	☐	☐	✗	☐	No
c.	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	✗	☐	No
d.	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	✗	☐	No
a,b.	The City of Elk Grove is located within Sacramento County, which is within the boundaries of the Sacramento Valley Air Basin (SVAB) and under the jurisdiction of the Sacramento Metropolitan Air Quality Management District (SMAQMD). Federal and State ambient air quality standards (AAQS) have been established for six common air pollutants, known as criteria pollutants, due to the potential for pollutants to be detrimental to human health and the environment. The criteria pollutants include particulate matter (PM), ground-level ozone, carbon monoxide (CO), sulfur oxides, nitrogen oxides (NO_x), and lead. At the federal level, Sacramento County is designated as severe nonattainment for the 8-hour ozone AAQS, nonattainment for the 24-hour PM_{2.5} AAQS, and attainment or unclassified for all other criteria pollutant AAQS. At the State level, the area is designated as a serious nonattainment area for the 1-hour ozone AAQS, nonattainment for the 8-hour ozone AAQS, nonattainment for the PM₁₀ and PM_{2.5} AAQS, and attainment or unclassified for all other State AAQS.					

Due to the nonattainment designations, SMAQMD, along with the other air districts in the SVAB region, is required to develop plans to attain the federal and State AAQS for ozone and particulate matter. The attainment plans currently in effect for the SVAB are the *2013 Revisions to the Sacramento Regional 8-Hour Ozone Attainment and Reasonable Further Progress Plan* (2013 Ozone Attainment Plan), *PM_{2.5} Implementation/Maintenance Plan and Re-designation Request for Sacramento PM_{2.5} Nonattainment Area* (PM_{2.5} Implementation/Maintenance Plan), and the 1991 Air Quality Attainment Plan (AQAP), including triennial reports. The air quality plans include emissions inventories to measure the sources of air pollutants, to evaluate how well different control measures have worked, and show how air pollution would be reduced. In addition, the plans include the estimated future levels of pollution to ensure that the area would meet air quality goals.

Nearly all development projects in the Sacramento region have the potential to generate air pollutants that may increase the difficulty of attaining federal and State AAQS. Therefore,

evaluation of air quality impacts is required. In order to evaluate ozone and other criteria air pollutant emissions and support attainment goals for those pollutants that the area is designated nonattainment, SMAQMD has developed the *Guide to Air Quality Assessment in Sacramento County* (SMAQMD Guide), which includes recommended thresholds of significance, including mass emission thresholds for construction-related and operational ozone precursors, as the area is under nonattainment for ozone. The SMAQMD's recommended thresholds of significance for the ozone precursors reactive organic compounds (ROG) and NO_x, which are expressed in pounds per day (lbs/day), are presented in Table 1.

Table 1		
SMAQMD Thresholds of Significance (lbs/day)		
Pollutant	Construction Thresholds	Operational Thresholds
NO _x	85	65
ROG	-	65
PM ₁₀	80	80
PM _{2.5}	82	82
<i>Source: SMAQMD, May 2015.</i>		

The Project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2016.3.2 - a Statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information should be applied in the model. Accordingly, the Project's modeling assumed the following:

- Construction would likely commence in April of 2020;
- Construction would occur over an approximately three-year period;
- Off-site improvements would be limited to connections to existing utility infrastructure within the paved rights-of-way along the Project frontages;
- Trip generation rates were adjusted based on the Traffic Report prepared for the Project; and
- Vehicle trip lengths were adjusted based on project-specific vehicle miles travelled (VMT) provided by Fehr & Peers.

The Project's estimated emissions associated with construction and operations are presented and discussed in further detail below. A discussion of the Project's contribution to cumulative air quality conditions is provided below as well. All CalEEMod results are included in the appendix to this IS/MND.

Construction Emissions

According to the CalEEMod results, the Project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the

Project's construction emissions would be below the applicable SMAQMD thresholds of significance for NO_x, ROG, PM₁₀, and PM_{2.5}. In addition, development within the Project site would be required to comply with the SMAQMD Basic Construction Emission Control Practices, which would likely further reduce emissions beyond the estimates shown in the table below. Thus, in accordance with SMAQMD guidance, the Project would be considered to have a less-than-significant impact on air quality during construction.

Table 2 Maximum Construction Emissions (lbs/day)			
Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
NO _x	50.24	85	NO
ROG	18.89	--	NO
PM ₁₀	20.40	80	NO
PM _{2.5}	2.02	82	NO
<i>Source: CalEEMod, April 2019 (see appendix).</i>			

Operational Emissions

According to the CalEEMod results, the Project would result in maximum operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the Project's operational emissions would be below the applicable thresholds of significance. As such, the Project would not result in a significant air quality impact during operations.

Table 3 Maximum Operational Emissions (lbs/day)			
Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
NO _x	33.94	65	NO
ROG	33.87	65	NO
PM ₁₀	19.08	80	NO
PM _{2.5}	5.56	82	NO
<i>Source: CalEEMod, April 2019 (see appendix).</i>			

Cumulative Emissions

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, SMAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SVAB's existing air quality conditions. If a project

exceeds the significance thresholds presented in Table 1, the Project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the Project would result in emissions below the applicable thresholds of significance established by SMAQMD for criteria pollutants, the project would not result in a cumulatively considerable contribution to the region's existing air quality conditions.

Conclusion

As stated previously, the applicable regional air quality plans currently in effect for the SVAB are the 2013 Ozone Attainment Plan, the PM_{2.5} Implementation/Maintenance Plan, and the 1991 AQAP, including triennial reports. According to SMAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. The General Plan EIR concluded that buildout of the General Plan, including the Project site, could result in a significant and unavoidable impact related to construction-related and operational emissions of criteria pollutants.

Because construction-related and operational emissions associated with the Project would be below the applicable SMAQMD thresholds of significance, the Project would not conflict with or obstruct implementation of regional air quality plans. Therefore, the Project would not contribute to the region's nonattainment status of ozone, and a less-than-significant impact would occur. ***There is no new or substantially more severe impact.***

- c. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptors would be the single- and multi-family residences located approximately 125 feet north of the site across Sheldon Road and the multi-family residences located approximately 175 feet west of the site across Bruceville Road.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and toxic air contaminant (TAC) emissions, which are addressed in further detail below. In addition, a discussion of health effects related to criteria pollutants is provided. Issues related to odors are discussed under question 'd' below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. Implementation of the Project would increase traffic volumes

on streets near the Project site; therefore, the Project would be expected to increase local CO concentrations. Concentrations of CO approaching the ambient air quality standards are only expected where background levels are high, and traffic volumes and congestion levels are high. The SMAQMD's preliminary screening methodology for localized CO emissions provides a conservative indication of whether project-generated vehicle trips would result in the generation of CO emissions that contribute to an exceedance of the applicable threshold of significance. The first tier of SMAQMD's recommended screening criteria for localized CO states that a project would result in a less-than-significant impact to air quality for local CO if:

- Traffic generated by the project would not result in deterioration of intersection level of service (LOS) to LOS E or F; and
- The project would not contribute additional traffic to an intersection that already operates at LOS of E or F.

Even if a project would result in either of the above, under the SMAQMD's second tier of localized CO screening criteria, if all of the following criteria are met, the project would still result in a less-than-significant impact to air quality for localized CO:

- The project would not result in an affected intersection experiencing more than 31,600 vehicles per hour;
- The project would not contribute traffic to a tunnel, parking garage, bridge underpass, urban street canyon, or below-grade roadway; or other locations where horizontal or vertical mixing of air would be substantially limited; and
- The mix of vehicle types at the intersection is not anticipated to be substantially different from the County average (as identified by the EMFAC or CalEEMod models).

As discussed in Section XVII, Transportation & Circulation, of this IS/MND, the Project would add traffic to study intersections that already operate at LOS E. However, per the Traffic Report prepared for the Project by Fehr & Peers, the traffic volumes at the foregoing intersections would be a maximum of 1,574 vehicles per hour, which is well below the SMAQMD's second tier screening criteria of 31,600 vehicles.⁴ Furthermore, neither of the foregoing intersections are below-grade or include limitations to vertical or horizontal mixing such as tunnels or street canyons. Finally, the mix of vehicle types associated with the Project would be standard for other commercial and residential developments within Sacramento County, and would not be anticipated to be significantly different than the County average. Consequently, the Project is not anticipated to result in significant impacts to air quality related to localized CO emissions.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended

⁴ Fehr & Peers. *Sheldon Farms North Draft Traffic Report* [Figure 8]. September 18, 2018.

setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk.

The Project would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the Project would not generate any substantial pollutant concentrations during operations. However, short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. Construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the Project. Specifically, as noted above, construction would occur over an approximately three-year period. Mass grading of the Project site, when emissions would be most intensive, would occur over the period of approximately four weeks. Health risks are typically associated with exposure to high concentrations of TACs over extended periods of time (e.g., 30 years or greater), whereas the construction period associated with the Project would be limited to approximately three years.

All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. The In-Use Off-Road Diesel Vehicle Regulation includes the following standards:

- Imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles;
- Requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled;
- Restricts the adding of older vehicles into fleets; and
- Requires fleets to reduce their emissions by retiring, replacing, or repowering older engines, or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits).

In addition, construction equipment would operate intermittently throughout the day and only on portions of the site at a time, and construction activity occurring adjacent to existing residential uses would be limited to the hours of 7:00 AM to 7:00 PM per Section 6.32.100 of the City's Municipal Code. Because construction equipment on-site would not operate for long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire Project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, the potential for any one sensitive receptor in the area to be exposed to concentrations of pollutants for

a permanent or substantially extended period of time would be low. Therefore, construction of the Project would not be expected to expose nearby sensitive receptors to substantial pollutant concentrations.

Criteria Pollutants

The SMAQMD thresholds of significance were established with consideration given to the health-based air quality standards established by the NAAQS and CAAQS, and are designed to aid the district in achieving attainment of the NAAQS and CAAQS. The SMAQMD's thresholds of significance are intended to aid achievement of the NAAQS and CAAQS for which the SVAB is in nonattainment, but the thresholds of significance do not represent a level above which individual project-level emissions would directly result in public health impacts. Rather, the thresholds of significance represent emissions levels that would ensure that project-specific emissions would not inhibit attainment of regional NAAQS and CAAQS. As noted previously, the Project would not result in short-term construction-related or long-term operational emissions of criteria pollutants that would exceed SMAQMD standards. Thus, the Project would not inhibit attainment of regional NAAQS and CAAQS. Accordingly, the Project would not expose sensitive receptors to excess concentrations of criteria pollutants.

Conclusion

The General Plan EIR concluded that buildout of the General Plan, including the Project site, could result in a significant and unavoidable impact related to exposure of existing or planned sensitive land uses to stationary or mobile-source TACs. However, based on the above discussion, the Project would not expose any sensitive receptors to substantial concentrations of localized CO or TACs during construction or operation. Therefore, the Project would result in a less-than-significant impact related to the exposure of sensitive receptors to substantial pollutant concentrations. ***There is no new or substantially more severe impact.***

- d. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact do not exist. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The Project would not introduce any such land uses and is not located in the vicinity of any such existing or planned land uses.

Construction activities often include diesel fueled equipment and heavy-duty trucks, which could create odors associated with diesel fumes that may be considered objectionable. However, as discussed above, construction activities would be temporary, and operation of construction equipment adjacent to existing residential uses would be restricted to the hours of 7:00 AM to 7:00 PM per the City's Municipal Code. Project construction would also be required to comply with all applicable SMAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions as well as any associated odors. Accordingly,

substantial objectionable odors would not be expected to occur during construction activities.

SMAQMD regulates objectionable odors through Rule 402 (Nuisance), which prohibits any person or source from emitting air contaminants that cause detriment, nuisance, or annoyance to a considerable number of persons or the public. Rule 402 is enforced based on complaints. If complaints are received, SMAQMD is required to investigate the complaint, as well as determine and ensure a solution for the source of the complaint, which could include operational modifications. Thus, although not anticipated, if odor complaints are made after the Project is approved, SMAQMD would ensure that such odors are addressed and any potential odor effects reduced to less than significant.

Conclusion

There General Plan EIR concluded that buildout of the General Plan, including development of the project site, could result in a significant and unavoidable impact related to odors. However, for the reasons discussed above, construction and operation of the Project would not create objectionable odors affecting a substantial number of people, and a less-than-significant impact related to objectionable odors would result. ***There is no new or substantially more severe impact.***

IV. BIOLOGICAL RESOURCES. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant 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 Wildlife or U.S. Fish and Wildlife Service?	☐	✘	☐	☐	No
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	✘	☐	No
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?	☐	☐	☐	✘	No
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	✘	☐	No
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	✘	☐	No
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	✘	No

Discussion

- a. The following discussion is based primarily on a Biological Resources Assessment prepared for the Project by Madrone Ecological Consulting.⁵

Currently, the Project site is vacant and undeveloped. The site consists primarily of ruderal grasses, which are regularly mowed and baled. The site does not contain any existing trees, wetland features, or waterways. The site consists primarily of relatively flat terrain ranging from 20 to 30 feet above mean sea level (msl).

Special-status species include those plant and wildlife species that have been formally listed, are proposed as endangered or threatened, or are candidates for such listing under the federal and State Endangered Species Acts. Both acts afford protection to listed and proposed species. In addition, California Department of Fish and Wildlife (CDFW) Species of Special Concern, which are species that face extirpation in California if current population and habitat trends continue, U.S. Fish and Wildlife Service (USFWS) Birds of Conservation Concern, sensitive species included in USFWS Recovery Plans, and CDFW special-status invertebrates are all considered special-status species. Although CDFW Species of Special Concern generally do not have special legal status, they are given special consideration under CEQA. In addition to regulations for special-status species, most birds in the U.S., including non-status species, are protected by the Migratory Bird Treaty Act (MBTA) of 1918. Under the MBTA, destroying active nests, eggs, and young is illegal. In addition, plant species on California Native Plant Society (CNPS) Lists 1 and 2 are considered special-status plant species and are protected under CEQA.

In January of 2019, a query was conducted for published records of special-status plant and wildlife species for the Florin USGS 7.5" quadrangle, in which the Project site occurs, using the California Natural Diversity Data Base (CNDDB) Rarefind 5 application. The intent of the database review was to identify documented occurrences of special-status species in the vicinity of the Project area, to determine their locations relative to the Project site, and for use in the field assessment of habitats suitable for special-status species within the site. As part of the Biological Resource Assessment prepared for the Project, Madrone Ecological Consulting conducted a site visit on April 19, 2016. In addition, historic aerial photography was reviewed to determine prior uses of the Project site.

The results of the CNDDB search and the site survey are discussed below.

Special-Status Plants

Based on the results of the CNDDB search, a total of 15 special-status plant species have been recorded within the Project region. Of the 15 species, all are considered absent from or unlikely to occur on the site due to a lack of suitable habitat, such as vernal pools and serpentine or alkaline soils. Special-status plant species were not observed on-site during the 2016 site visit. In addition, as noted previously, the Project site is regularly mowed. As

⁵ Madrone Ecological Consulting. *Biological Resources Assessment for the Sheldon Farms Property, City of Elk Grove, Sacramento County, California*. May 6, 2016.

such, special-status plant species are unlikely to occur on the Project site, and development of the Project would not result in significant impacts to such species.

Special-Status Wildlife

Based on the results of the CNDDDB search, a total of 12 special-status wildlife species have been recorded within the Project region. Of the 12 species, nine species would be absent from or unlikely to occur on the site due to a lack of suitable habitat. For example, as noted in the Biological Resource Assessment, because the site lacks vernal pool/depressional seasonal wetland habitat, federally-listed vernal pool invertebrates do not occur on the site. In addition, the site does not contain any elderberry shrubs, which are the exclusive host for the federally-listed valley elderberry longhorn beetle. However, as described in the following sections, the project area contains suitable habitat for burrowing owl, Swainson's hawk, and giant garter snake, as well as migratory birds and raptors protected under the MBTA.

Burrowing Owl

While burrowing owls were not identified on-site during the 2016 site visit, squirrel burrows were noted. Because burrowing owls can occupy squirrel burrows, the potential exists for the species to occur on-site. Thus, in the absence of mitigation, the Project could result in adverse effects to burrowing owl.

Swainson's Hawk

Swainson's hawk is a State-listed threatened species. Historically, Swainson's hawks foraged in the agricultural lands in and around Elk Grove.⁶ Given that the species has been known to occur within the Project region, the potential exists for Swainson's hawk to nest in existing trees located to the south of the Project site and forage on the site.

In 2003, the City established and adopted Chapter 16.130 (Swainson's Hawk Impact Mitigation Fees) of the Elk Grove Municipal Code, which establishes mitigation policies tailored for projects in Elk Grove that have been determined through the CEQA process to result in a "potential significant impact" on Swainson's hawk foraging habitat. Chapter 16.130 of the Municipal Code serves as a conservation strategy that is achieved through the selection of appropriate replacement lands and through management of suitable habitat value on those lands in perpetuity.⁷

The Project would include grading of the entire Project site, thereby resulting in the removal of approximately 79.2-acres of non-native annual grassland that provides foraging habitat for Swainson's hawk. The CDFW considers five or more vacant acres within ten miles of an active nest within the last five years to be significant foraging habitat for

⁶ City of Elk Grove. *Swainson's Hawk Program*. Available at: http://www.elkgrovecity.org/city_hall/departments_divisions/planning/resources_and_policies/swainsons_hawk_program. Accessed July 2019.

⁷ *Ibid.*

Swainson's hawk, the conversion of which to urban uses is considered a significant impact and requires mitigation. Per CNDDDB, the nearest documented occurrence of an active Swainson's hawk nest is from 2015, approximately 8.75 miles northwest of the site (Occurrence Number 2736). Given that the Project site is located within 8.75 miles of a Swainson's hawk nest that has been active within the last five years and would convert more than five acres of vacant land to urban uses, mitigation for Swainson's hawk would be required.

Based on the above, Project implementation could result in permanent and temporary direct impacts to Swainson's hawk, related to habitat loss and construction disturbance, respectively.

Giant Garter Snake

Because the site is located adjacent to Laguna Creek, the potential exists for giant garter snakes to occur in the site vicinity. Although it is unlikely that any giant garter snakes would venture beyond the lower creek corridor, ground-disturbing activities associated with the Project would result in adverse effects to the species if individuals migrate northward into the site.

Migratory Birds and Raptors

The potential exists for migratory birds and raptors protected under the MBTA to nest within the trees located to the south of the Project site within the Laguna Creek corridor. Buildout of the Project during the nesting period for migratory birds (i.e., typically between February 1 to August 31), including initial grading activities, could pose a risk of nest abandonment and death of any live eggs or young that may be present within nests that are near the Project site.

Conclusion

Based on the above, special-status plant species are not likely to occur on-site. Implementation of the Project could potentially result in adverse effects to burrowing owls, Swainson's hawk, giant garter snakes, and migratory birds and raptors protected by the MBTA. However, implementation of Mitigation Measures IV-1 through IV-5 below would ensure that the Project would not have an adverse effect, either directly or through habitat modifications, on species identified as special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS. Therefore, the impact would be less-than-significant with mitigation incorporated. The General Plan EIR concluded that buildout of the General Plan, including the Project site, could result in a significant and unavoidable impact related to special-status species. ***There is no new or substantially more severe impact.***

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a less-than-significant level.

Burrowing Owl

- IV-1. *If clearing and construction activities are planned to occur during the nesting period for burrowing owls (February 1–August 31), a qualified biologist shall conduct "take avoidance" surveys for burrowing owls on the Project site within 14 days prior to construction initiation, as described in CDFG's Staff Report on Burrowing Owl Mitigation, published March 7, 2012. Surveys shall be repeated if Project activities are suspended or delayed for more than 14 days during nesting season. The results of the surveys shall be submitted to the Development Services Department.*

If burrowing owls are not detected, further mitigation is not required. If active burrowing owls nest sites are detected, the Project proponent shall implement the avoidance, minimization, and mitigation methodologies outlined in the CDFW's Staff Report on Burrowing Owl Mitigation prior to initiating Project-related activities that may impact burrowing owls.

Swainson's Hawk

- IV-2(a). *Prior to the commencement of construction activities during the nesting season for Swainson's hawk (between March 1 and September 15), a qualified biologist shall conduct protocol-level preconstruction surveys within at least 2 (two) of the recommended survey periods within the nesting season that coincides with the commencement of construction activities, in accordance with the Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley (Swainson's Hawk Technical Advisory Committee 2000). At least one survey shall be conducted within each survey period selected; the dates should be adjusted in consideration of early or late nesting seasons for the year in which the surveys are conducted. If the final survey is completed more than 14 days prior to initiation of construction, an additional survey shall be conducted within 14 days of the start of construction to ensure that nesting has not been initiated within the intervening time. The qualified biologist shall conduct surveys for nesting Swainson's hawk within 0.25 mile of the Project Site, where legally permitted. The qualified biologist shall use binoculars to visually determine whether Swainson's hawk nests occur within the 0.25-mile survey area, if access is denied on adjacent properties. If no active Swainson's hawk nests are identified on or within 0.25 mile of the Project site within the recommended survey periods, a letter report summarizing the survey results shall be submitted to the City of Elk Grove within 30 days following the final survey, and no further avoidance and minimization measures for nesting habitat are required.*

If active Swainson's hawk nests are found within 0.25-mile of construction activities, the qualified biologist shall contact the City of Elk Grove within one business day following the pre-construction survey to report the

findings. For the purposes of this mitigation measure, construction activities are defined to include heavy equipment operation associated with vegetation clearing, grading, construction (use of cranes or draglines, new rock crushing) or other Project-related activities that could cause nest abandonment or forced fledging within 0.25-mile of a nest site between February 15 and August 31. Should an active nest be present within 0.25-mile of the construction area, the City of Elk Grove shall be consulted to establish take avoidance plan. Such a plan could include measures such as establishment of a construction setback, placement of high-visibility construction fencing along the setback boundaries, and monitoring of the nest during construction activities. The qualified biologist shall have the authority to stop construction activities if the hawks show signs of distress; if this occurs, construction may not resume until the City of Elk Grove is consulted and the construction setback is increased or other take-avoidance measures are modified. A letter report summarizing the survey results and describing implementation of the take avoidance measures will be submitted to the City of Elk Grove within 30 days of the final monitoring event. No further avoidance and minimization measures for nesting habitat would be required after submittal of the report.

- IV-2(a). *Prior to initiation of construction activities, the Project applicant shall mitigate for the loss of Swainson's hawk foraging habitat at a 1:1 ratio. Mitigation shall be accomplished through acquisition of a conservation easement(s) or other instrument suitable to preserve foraging habitat for the Swainson's hawk in accordance with either Section 16.130.040 or 16.130.110 of the Elk Grove Municipal Code.*

Giant Garter Snake

- IV-3. *Within 14 days prior to initiation of any ground disturbing activities, a pre-construction survey shall be conducted by a qualified biologist to determine the presence or absence of giant garter snakes. Results of the surveys shall be submitted to the Development Services Department. If the species is not found, further mitigation is not required. If the giant garter snake is found on-site, the following measures shall be implemented during construction and shall be reflected on the grading plans, subject to approval by the Development Services Department:*

- 1. A qualified biologist shall stake or otherwise mark the restriction limits of a "no disturbance" zone prior to initiation of construction;*
- 2. Construction personnel shall receive CDFW-approved worker environmental awareness training. The training shall include instruction on methods of identifying giant garter snakes and their habitat;*
- 3. The Project area shall be surveyed for giant garter snakes 24-hours prior to construction activities. Survey of the Project area shall be*

repeated if a lapse in construction activity of two weeks or greater has occurred. If a snake is encountered during construction, activities shall cease until appropriate corrective measures have been completed or the determination has been made that the snake will not be harmed; and

- 4. Any dewatered habitat should remain dry for at least 15 consecutive days after April 15 and prior to excavating or filling of the dewatered habitat.*

Proof of compliance with the aforementioned measure shall be submitted to the Development Services Department.

Migratory Birds

- IV-4. If vegetation clearing, grading and/or construction activities are planned to occur during the migratory bird nesting season (April 15 to August 15), preconstruction surveys to identify active migratory bird nests shall be conducted by a qualified biologist within 14 days prior to construction initiation. Focused surveys shall be performed by a qualified biologist for the purposes of determining presence/absence of active nest sites within the Project site, including construction access routes and a 200-foot buffer (if feasible). The results of the surveys shall be submitted to the Development Services Department.*

If active nest sites are identified on or within 200 feet of the Project site, the applicant shall impose a limited operating period (LOP) for all active nest sites prior to commencement of any Project construction activities to avoid construction- or access-related disturbances to migratory bird nesting activities. An LOP constitutes a period during which Project-related activities (i.e., vegetation removal, earth moving, and construction) may not occur, and shall be imposed within 100 feet of any active nest sites until the nest is deemed inactive by a qualified biologist. Activities permitted within and the size (i.e., 100 feet) of LOPs may be adjusted through consultation with the City.

Raptors

- IV-5. If clearing and/or construction activities are planned to occur during the raptor nesting season (January 15 to August 15), preconstruction surveys to identify active raptor nests shall be conducted by a qualified biologist within 14 days prior to construction initiation. Focused surveys shall be performed by a qualified biologist for the purposes of determining presence/absence of active nest sites within the Project site, including construction access routes and a 500-foot buffer (if feasible). The results of the surveys shall be submitted to the Development Services Department.*

If active nest sites are identified on or within 500 feet of the Project site, the applicant shall impose an LOP for all active nest sites prior to commencement of any Project construction activities to avoid construction- or access-related disturbances to nesting raptors. An LOP constitutes a period during which Project-related activities (i.e., vegetation removal, earth moving, and construction) may not occur, and shall be imposed within 250 feet of any active nest sites until the nest is deemed inactive by a qualified biologist. Activities permitted within and the size (i.e., 250 feet) of LOPs may be adjusted through consultation with the City.

- b. The Project site consists of annual non-native grasses and ruderal vegetation. In addition, the site does not contain any sensitive plant communities. Laguna Creek is located to the south of the Project site, but is not included within the site boundaries. Per General Plan Standard NR-1.2d, development adjacent to natural streams are required to provide a “stream buffer zone”. For Laguna Creek, the buffer zone requirements is at least 50 feet from the stream centerline. Development of trails and greenbelts, as well as vegetative filtration, is permitted within the buffer zone.

The proposed commercial and residential structures would be located approximately 110 feet minimum from the centerline of Laguna Creek. In addition, the proposed bio-retention basin would be located approximately 70 feet minimum from the stream centerline. As such, the Project would comply with the stream buffer requirements established by General Plan Standard NR-1.2d.

As part of the Project’s stormwater drainage system, the proposed water quality detention basin would discharge treated stormwater runoff to Laguna Creek by way of a new 42-inch outfall. The USACE regulates the filling or grading of waters of the U.S. under the authority of Section 404 of the Clean Water Act. The extent of jurisdiction within drainage channels is defined by “ordinary high-water mark” (OHWM) on opposing channel banks. All activities that involve the discharge of dredge or fill material into waters of the U.S. are subject to the permit requirements of the USACE. If the proposed outfall would be located within the OHWM of Laguna Creek, which is under the jurisdiction of the USACE, the Project would be subject to the permit requirements of Section 404 of the Clean Water Act.

In addition, under the Porter-Cologne Water Quality Control Act of 1969, the State Water Resources Control Board (SWRCB) has regulatory authority to protect the water quality of all surface water and groundwater in the State of California (“waters of the State”). Nine Regional Water Quality Control Boards (RWQCBs) oversee water quality at the local and regional level. The RWQCB for a given region regulates discharges of fill or pollutants into waters of the State through the issuance of various permits and orders. Discharges into waters of the State that are also waters of the U.S. require a Section 401 Water Quality Certification from the RWQCB as a prerequisite to obtaining certain federal permits, such as a Section 404 Clean Water Act permit. Discharges into all waters of the State, even those that are not also waters of the U.S., require Waste Discharge Requirements (WDRs), or waivers of WDRs, from the RWQCB.

The CDFW has jurisdiction over the bed and bank of natural drainages and lakes according to provisions of Section 1601 and 1602 of the California Fish and Game Code. Activities that may substantially modify such waters through the diversion or obstruction of their natural flow, change or use of any material from their bed or bank, or the deposition of debris require a Notification of Lake or Streambed Alteration. If CDFW determines that an activity may adversely affect fish and wildlife resources, a Lake or Streambed Alteration Agreement must be prepared. Such an agreement typically stipulates that certain measures would be implemented to protect the habitat values of the lake or drainage in question. Because the proposed outfall structure would require modification of the Laguna Creek bank, the Project could potentially impact CDFW-jurisdictional features.

Conclusion

The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a less-than-significant impact related to riparian vegetation or sensitive natural communities. Because the Project may include the construction of an outfall structure within the OHWM of Laguna Creek, the Project may require issuance of a USACE Section 404 Clean Water Act Permit. In addition, the Project would require issuance of Section 401 Water Quality Certification if a Section 404 Clean Water Act permit were required. A notification of Lake or Streambed Alteration would have to be submitted to CDFW regardless of the outfall's placement in relation to the OHWM and, if required, a Streambed Alteration Agreement obtained prior to initiation of outfall construction activities. With implementation of Mitigation of Mitigation Measures IV-5(a) through IV-5(c) below, which would require compliance with the necessary permitting requirements prior to the start of construction activities, the impact related to having a substantial adverse effect on a riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS would be less-than-significant with mitigation incorporated. ***There is no new or substantially more severe impact.***

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a less-than-significant level.

- IV-5(a) *Prior to initiation of outfall construction activities, the applicant shall obtain permit authorization if necessary, as determined by USACE, to fill waters of the U.S. under Section 404 of the federal Clean Water Act (Section 404 Permit) from USACE. The Section 404 Permit application shall include an assessment of directly impacted, avoided, and preserved acreages of waters of the U.S. Mitigation measures may be developed as part of the Section 404 Permit to ensure no net loss of wetland function and values, although the USACE may not require compensatory mitigation for the loss of less than 1/10 acre of wetlands, or for the loss of streams or other open waters. Final mitigation requirements shall be developed in consultation with USACE. A copy of the Section 404 Permit issued for the Project shall be submitted to the City Development Services Department.*

- IV-5(b) *If required and prior to initiation of outfall construction activities, the Project applicant shall submit to the Central Valley Regional Water Quality Control Board an application for Clean Water Act Section 401 Water Quality Certification and/or Waste Discharge Requirements for Projects Involving Discharge of Dredged and/or Fill Material to Waters of the State. The Project applicant shall be responsible for conducting all Project activities in accordance with the permit provisions outlined in the applicable Central Valley Water Board permit. A copy of the Water Quality Certification or waiver issued for the Project shall be submitted to the City Development Services Department.*
- IV-5(c) *Prior to initiating outfall construction activities, the Project applicant shall submit a complete Lake or Streambed Alteration notification form to the CDFW regional office. If CDFW determines that the Project will not substantially alter a river, stream, or lake, CDFW will provide written verification and refund the notification fee, and the Project applicant shall submit a copy of the verification letter to the City Development Services Department. Alternatively, if CDFW determines that a Lake or Streambed Alteration Agreement is required, the Project applicant shall comply with all provisions associated with the Agreement, and a copy of the issued Agreement for the Project shall be submitted to the City Development Services Department.*
- c. Per the Biological Resources Assessment, the Project site does not contain any existing wetlands or other waters of the U.S. or State.

Conclusion

- The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a less-than-significant impact related to State or federally protected wetlands, given compliance with existing regulations and applicable General Plan policies. Based on the above, the Project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. Thus, a less-than-significant impact would occur. ***There is no new or substantially more severe impact.***
- d. The Project site is bordered by existing development to the north, east, and west. Such development limits the potential for use of the Project site as a wildlife movement corridor. In addition, the Project site does not contain streams or other waterways that could be used by migratory fish or as a wildlife corridor for other wildlife species. It should be noted that while wildlife may move through the Laguna Creek corridor to the south of the site, the Project would not include any alterations to the corridor that would limit such existing movement.

Conclusion

The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a less-than-significant impact related to interfering with wildlife movement. Based on the above, the Project would not interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites. Thus, a less-than-significant impact would occur. ***There is no new or substantially more severe impact.***

- e. Section 19.12 of the City of Elk Grove Municipal Code contains the City's Tree Preservation and Protection Ordinance. The ordinance provides protections for landmark trees, trees of local importance, secured trees, and trees on City property or in a public right-of-way. Currently, the Project site does not contain any trees. In addition, the site is not located adjacent to any trees that overhang the site.

Conclusion

Based on the above, the Project would not conflict with Section 19.12 of the City's Municipal Code. Furthermore, The General Plan EIR concluded that buildout of the General Plan, including the Project site, would not result in any significant impacts related to conflicting with local policies or ordinances protecting biological resources. As a result, the Project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, and a less-than-significant impact could occur. ***There is no new or substantially more severe impact.***

- f. Sacramento County, the City of Rancho Cordova, the City of Galt, and other local partners have adopted the South Sacramento Habitat Conservation Plan (SSHCP). However, the City of Elk Grove is not a participating city. Furthermore, as noted above, this IS/MND includes mitigation measures to address potential impacts to species which are covered by the SSHCP, including burrowing owl, Swainson's hawk, and giant garter snake. The mitigation measures included herein generally do not conflict with the avoidance and minimization measures included in Chapter 5 of the SSHCP.

Conclusion

The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in no impact related to conflicting with the provisions of an adopted HCP. Based on the above, the Project site is not located in an area with an approved HCP/NCCP, or local, regional, or State habitat conservation plan. As a result, no impact would occur regarding a conflict with the provisions of such a plan. ***There is no new or substantially more severe impact.***

V. CULTURAL RESOURCES. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	✗	☐	No
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	☐	✗	☐	☐	No
c. Disturb any human remains, including those interred outside of dedicated cemeteries.	☐	✗	☐	☐	No

Discussion

The following discussion is based on a Cultural Resources Assessment prepared for the Project by Peak & Associates, Inc.⁸

- a. Historical resources are features that are associated with the lives of historically important persons and/or historically significant events, that embody the distinctive characteristics of a type, period, region or method of construction, or that have yielded, or may be likely to yield, information important to the pre-history or history of the local area, California, or the nation. Examples of typical historical resources include, but are not limited to, buildings, farmsteads, rail lines, bridges, and trash scatters containing objects such as colored glass and ceramics.

The Cultural Resources Assessment included archival research at the Northwest Information Center for records of previously recorded cultural resources within the Project area. Per the Cultural Resources Assessment, one historic site has been recorded across Bruceville Road from the Project site (CA-SAC-549H), consisting of a small residential complex and dairy dating to 1937. However, the Project site does not contain any existing permanent structures or any other resources that could be considered historic.

Conclusion

The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a less-than-significant impact related to historical resources, provided that development projects within the City identify any on-site historical resources and include mitigation, as necessary, to avoid potential impacts. Based on the above, the Project would not cause a substantial adverse change in the significance of a historical resource,

⁸ Peak & Associates, Inc. *Cultural Resources Assessment for the Sheldon Farms North Project, City of Elk Grove, California*. February 2018.

and a less-than-significant impact would occur. ***There is no new or substantially more severe impact.***

- b,c. Based on the results of the archival research conducted by Peak & Associates, Inc., the Project site and the immediate surrounding area does not contain any recorded prehistoric sites. In addition, a 2006 field survey conducted by Peak & Associates, Inc. did not identify any cultural resources within the Project area. The 2006 survey covered the Project area as part of a larger project unrelated to the current development proposal.

A second survey of the Project site was conducted by Peak & Associates, Inc. on November 3 through 5, 2017. At the time of the 2017 survey, the site had been recently plowed, resulting in excellent ground visibility throughout the survey area. Per the Cultural Resources Assessment, the 2017 survey did not identify any cultural resources on the Project site.

It should be noted that although the Project site is located adjacent to Laguna Creek, very few cultural resource sites have been identified in associated with the drainage. Campsites and villages would more likely be located near the larger, more reliable water sources. As a result, it is likely that the Native American inhabitants of the region used the Project area but did not live in the immediate area. Probable uses include collection of plant foods and hunting; however, such activities leave little physical evidence. Close inspection was given to the edge of Laguna Creek during the 2017 survey for possible signs of historic or prehistoric human occupation; however, signs of such occupation were not noted. Tribal cultural resources are discussed further in Section XVIII of this IS/MND.

Conclusion

Unknown archaeological resources, including human remains, may exist in the Project area and be obscured by vegetation, siltation, or historic agricultural activities, resulting in an absence of surficial evidence. Such resources may have the potential to be uncovered during ground-disturbing construction and excavation activities at the Project site.

The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a less-than-significant impact related to cultural resources, provided that development projects within the City implement project-level mitigation to avoid resources. Implementation of Mitigation Measures V-1 through V-3 would ensure that if previously unknown resources are encountered during construction activities, the Project would not cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5 and/or disturb human remains, including those interred outside of dedicated cemeteries, during construction. Therefore, impacts would be considered less than significant with mitigation incorporated. ***There is no new or substantially more severe impact.***

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

- V-1. *In the event of the accidental discovery or recognition of any human remains, the Development Services Department shall be notified, and further excavation or disturbance of the find or any nearby area reasonably suspected to overlie adjacent human remains shall not occur until compliance with the provisions of CEQA Guidelines Section 15064.5(e)(1) and (2) has occurred. The Guidelines specify that in the event of the discovery of human remains other than in a dedicated cemetery, no further excavation at the site or any nearby area suspected to contain human remains shall occur and the County Coroner shall be notified to determine if an investigation into the cause of death is required. If the coroner determines that the remains are Native American, then, within 24 hours, the Coroner must notify the Native American Heritage Commission, which in turn will notify the most likely descendants who may recommend treatment of the remains and any grave goods. If the Native American Heritage Commission is unable to identify a most likely descendant or most likely descendant fails to make a recommendation within 48 hours after notification by the Native American Heritage Commission, or the landowner or his authorized agent rejects the recommendation by the most likely descendant and mediation by the Native American Heritage Commission fails to provide a measure acceptable to the landowner, then the landowner or his authorized representative shall rebury the human remains and grave goods with appropriate dignity at a location on the property not subject to further disturbances. Should human remains be encountered, a copy of the resulting County Coroner report noting any written consultation with the Native American Heritage Commission shall be submitted as proof of compliance to the Development Services Department. Work on the project site cannot commence until after the human remains are removed from the area.*
- V-2. *In the event that cultural resources or tribal cultural resources are discovered during grading or construction activities during development of the Project, work shall halt immediately within 100 feet of the discovery, the Development Services Director shall be immediately notified. The Applicant's on-site Construction Supervisor, the City of Elk Grove, an archaeologist meeting the Secretary of the Interior's Standards in Archaeology, and any applicable Native American tribes shall assess the discovery to determine if it qualifies as a tribal cultural resource. The appropriate treatment of the discovery, including any applicable avoidance or mitigation strategies, shall be determined in consultation with the City and the applicable tribes. Construction activities within 100 feet of the discovery shall not commence until the appropriate treatment has been determined and any applicable mitigation has been completed. Mitigation shall follow the recommendations detailed in Public Resources Code sections 21084.3(a) and (b), and CEQA Guidelines section 15370. Work may continue on other parts of the Project site while historical or unique*

archaeological resource mitigation takes place (Public Resources Code Section 21083.2).

- V-3. *The applicant shall retain the services of a qualified professional to conduct a worker environmental training session for the construction crew that will be conducting grading and excavation at the project site. The worker environmental training shall include archaeological and Tribal Cultural Resource awareness. The training shall be developed in coordination with the applicable tribes and approved by the City. The training shall identify the appropriate point of contact in the case of tribal cultural resource discovery and shall include relevant information regarding tribal cultural resources, including applicable regulations, protocols for avoidance, and consequences of violating State laws and regulations. The training shall also underscore the requirement for confidentiality and culturally-appropriate treatment of tribal cultural resources.*

VI. ENERGY. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	✗	☐	No
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	✗	☐	No

Discussion

- a,b. The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2016 California Green Building Standards Code and the Building Energy Efficiency Standards, with which the Project would be required to comply, as well as discussions regarding the Project's potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The 2016 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11), is a portion of the California Building Standards Code (CBSC), which became effective with the rest of the CBSC on January 1, 2017. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of Electric Vehicle (EV) charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills;
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board; and

- For some single-family and low-rise residential development developed after January 1, 2020, mandatory on-site solar energy systems capable of producing 100 percent of the electricity demand created by the residence(s). Certain residential developments, including those developments that are subject to substantial shading, rendering the use of on-site solar photovoltaic systems infeasible, are exempted from the foregoing requirement.

Building Energy Efficiency Standards

The 2016 Building Energy Efficiency Standards is a portion of the CBSC, which expands upon energy efficiency measures from the 2013 Building Energy Efficiency Standards resulting in a 28 percent reduction in energy consumption from the 2013 standards for residential structures. Energy reductions relative to previous Building Energy Efficiency Standards are achieved through various regulations including requirements for the use of high-efficacy lighting, improved water heating system efficiency, and high-performance attics and walls.

Construction Energy Use

Construction of the Project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the sites where energy supply cannot be met via a hookup to the existing electricity grid. Project construction would not involve the use of natural gas appliances or equipment.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only portions of the Project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the Project site, rather than a single location. In addition, all construction equipment and operation thereof would be regulated per the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing limits on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. The In-Use Off-Road Diesel Vehicle Regulation would subsequently help to improve fuel efficiency and reduce energy use. Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to reduce demand on oil and emissions associated with construction.

The CARB has recently prepared the *2017 Climate Change Scoping Plan Update* (2017 Scoping Plan),⁹ which builds upon previous efforts to reduce GHG emissions and is

⁹ California Air Resources Board. *The 2017 Climate Change Scoping Plan Update*. January 20, 2017.

designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes, zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The regulations described above, with which the Project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

Based on the above, the temporary increase in energy use occurring during construction of the Project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the Project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand.

Operational Energy Use

Following implementation of the Project, PG&E would provide natural gas to the Project site. Electricity would be provided by SMUD. Energy use associated with operation of the Project would be typical of residential uses, requiring electricity and natural gas for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment. In addition to on-site energy use, the Project would result in transportation energy use associated with vehicle trips generated by the proposed development.

The Project would be subject to all relevant provisions of the most recent update of the CBSC, including the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards, including the more stringent Tier 1 standards required per the City's Climate Action Plan (CAP), would ensure that the proposed structures would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. Required compliance with the CBSC would ensure that the building energy use associated with the Project would not be wasteful, inefficient, or unnecessary. The City's CAP would require approximately 10 percent of the proposed residential units to be all-electric; thus, such units would not involve any natural gas demand. In addition, electricity supplied to the Project by SMUD would comply with the State's Renewables Portfolio Standard, which requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020 and to 60 percent by 2030. For 2024, the first full year that this IS/MND assumes the Project would be operational, SMUD's renewable portfolio standard is anticipated to be approximately 43.8 percent. Thus, a

portion of the energy consumed during Project operations would originate from renewable sources.

With regard to transportation energy use, the Project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. Per the City's CAP, the proposed residential units would be required to be EV-ready. In addition, as discussed in Section XVII, Transportation, of this Initial Study, the cumulative VMT associated with development of the Project and other existing and planned development within the City of Elk Grove would be below the established city-wide VMT threshold.

Conclusion

Based on the above, construction and operation of the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, a less-than-significant impact would occur. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact related to wasteful, inefficient, or unnecessary consumption of energy, given compliance with the City's CAP (see Table 4). ***There is no new or substantially more severe impact.***

VII. GEOLOGY AND SOILS. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less- Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:					No
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 based on other substantial evidence of a known fault?	☐	☐	✗	☐	No
ii. Strong seismic ground shaking?	☐	☐	✗	☐	No
iii. Seismic-related ground failure, including liquefaction?	☐	☐	✗	☐	No
iv. Landslides?	☐	☐	✗	☐	No
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	✗	☐	No
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?	☐	☐	✗	☐	No
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?	☐	☐	✗	☐	No
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	✗	No
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	✗	☐	No

Discussion

- ai-ii. As noted in the General Plan EIR, Sacramento County is less affected by seismic events and geologic hazards than other portions of the state.¹⁰ The California Geological Survey's (CGS) map of seismic shaking hazards in California shows that most of Sacramento

¹⁰ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.6-1]. February 2019.

County, including the City of Elk Grove, is located in a relatively low-intensity ground shaking zone. The nearest mapped fault is the Foothills Fault System, located approximately 21 miles east of the City. The City does not contain any active or potentially active faults, and is not located within an Alquist-Priolo Earthquake Fault Zone. Thus, the potential for surface rupture due to faulting occurring beneath the Project site during the design life of the proposed development would be low.

Due to the site's proximity to the nearest active faults, the potential exists for the proposed apartment buildings to be subject to seismic ground shaking. However, the proposed buildings would be properly engineered in accordance with the California Building Code (CBC), which includes engineering standards appropriate for the seismic area in which the Project site is located. The most recent edition of the CBC is adopted as Section 16.04.010 of the City's Municipal Code. Conformance with the design standards is enforced through building plan review and approval by the City of Elk Grove Division of Building prior to the issuance of building permits. Proper engineering of the Project would ensure that seismic-related effects would not cause adverse impacts. Therefore, a less-than-significant impact would occur related to seismic surface rupture and strong seismic ground shaking. ***There is no new or substantially more severe impact.***

aiii,aiv,c,d.

The Project's potential effects related to liquefaction, subsidence, landslides, lateral spreading, and expansive soils are discussed in detail below.

Liquefaction

Liquefaction is the loss of soil strength due to seismic forces generating various types of ground failure. As noted in the General Plan EIR, the soils underlying the City's Planning Area are relatively dense/stiff, and the upper 50 feet of soil are above the depth of groundwater; therefore, the potential for liquefaction within the City, including the Project site, is considered low.¹¹ Project-specific design features related to liquefaction hazards would not be required.

Landslides

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. The Project site does not contain, and is not adjacent to, any steep slopes. Thus, landslides are not likely to occur on- or off-site as a result of the Project.

Lateral Spreading

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. The Project site does not contain open faces within

¹¹ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.6-3]. February 2019.

a distance that would be considered susceptible to lateral spreading. Therefore, the potential for lateral spreading to affect the site is low.

Subsidence and Expansive Soils

When subsurface earth materials move, the movement can cause the gradual settling or sudden sinking of ground. The phenomenon of settling or sinking ground is referred to as subsidence, or settlement. Expansive soils are soils which undergo significant volume change with changes in moisture content. Specifically, such soils shrink and harden when dried and expand and soften when wetted, potentially resulting in damage to building foundations.

As noted above, the City of Elk Grove has adopted the most recent edition of the CBC in Section 16.04.010 of the City's Municipal Code. As discussed in the General Plan EIR, The CBC's accepted engineering practices require special design and construction methods for dealing with expansive soils. The two most common methods to prevent damage from expansive soils are to design the building's foundation to resist soil movement and to control surface drainage in order to reduce seasonal fluctuations in soil moisture. Pursuant to the CBC, the Project applicant would be required to submit a geotechnical report for the site prior to issuance of building permits. The geotechnical study would identify appropriate construction and structural design methods to reduce the potential for damage from unstable soil conditions, including subsidence and expansive soils, and associated risks to the proposed development would not occur.

Conclusion

Based on the above discussion, the Project would not result in potential hazards or risks related to liquefaction, landslides, lateral spreading, or subsidence. Therefore, the Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving liquefaction or landslides, and would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse. In addition, substantial risks would not occur related to being located on expansive soil. Thus, a less-than-significant impact would occur. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact related to related to liquefaction, landslides, lateral spreading, or subsidence, given compliance with existing State and local regulations and standards. ***There is no new or substantially more severe impact.***

- b. During grading activities associated with development of the Project, and prior to overlaying of the ground with impervious surfaces and landscaping elements, topsoil would temporarily be exposed. Thus, the potential exists for wind and water to erode portions of the exposed topsoil during construction, which could adversely affect downstream storm drainage facilities. However, as noted in the General Plan EIR, Chapter 16.44, Land Grading and Erosion Control, of the City's Municipal Code establishes administrative procedures, minimum standards of review, and implementation and

enforcement procedures for controlling erosion caused by land clearing, grubbing, grading, filling, and land excavation activities. Section 16.44.050 includes the following requirement:

Except as provided by EGMC Section 16.44.060, 16.44.065 or 16.44.070, a grading and erosion control permit shall be required to: A) grade, fill, excavate, store or dispose of three hundred fifty (350 yd³) cubic yards or more of soil or earthy material, or B) clear and grub one (1) acre or greater of land within the City. A separate permit is required for work on each site unless sites are contiguous, have the same ownership, and are included in the approved plan. Any determination by the Director as to whether a permit is required may be appealed pursuant to the provisions of EGMC Section 16.44.300.

Furthermore, per Section 16.44.090, plans submitted to the City must include the location, implementation schedule, and maintenance schedule of all erosion control measures and sediment control measures to be implemented or constructed prior to, during or after the proposed activity, along with a description of measures designed to control dust and stabilize the construction site road and entrance. Per Section 16.44.150, grading and erosion control permit applications and improvement plans may only be issued or approved by the City if the Public Works Director finds that the Project would not adversely affect surrounding properties and public rights-of-way, the water quality of watercourses, or existing drainage.

Based on the above, the Project would be required to comply with all applicable standards established in Chapter 16.44, including issuance of a grading and erosion control permit as required by Section 16.44.050.

Conclusion

Given compliance with Chapter 16.44 and other applicable City regulations related to erosion control, the Project would result in a less-than-significant impact related to substantial soil erosion or loss of topsoil during construction. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact related to related to soil erosion, given compliance with existing State and local regulations and standards. ***There is no new or substantially more severe impact.***

- e. The Project would connect to the existing City sanitary sewer lines located in the Project vicinity. The construction or operation of septic tanks or other alternative wastewater disposal systems is not included as part of the Project.

Conclusion

Based on the above, no impact regarding the capability of soil to adequately support the use of septic tanks or alternative wastewater disposal systems would occur. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact related to related to alternative waste disposal systems. ***There is no new or substantially more severe impact.***

- f. As noted in the General Plan EIR, impacts to paleontological resources can occur when excavation activities encounter fossiliferous geological deposits and cause physical destruction of fossil remains. The potential for impacts on fossils depends on the sensitivity of the geologic unit and the amount and depth of grading and excavation. Much of the City's Planning Area is considered highly sensitive for paleontological resources.

Conclusion

Based on the above, ground-disturbing activities associated with the Project could potentially result in the uncovering of paleontological resources. However, Implementation of Mitigation Measure VII-1, as adopted from Mitigation Measure 5.6.5 of the General Plan EIR, would ensure that the Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact to paleontological resources, given implementation of Mitigation Measure 5.6.5. Thus, a less-than-significant impact would occur with implementation of mitigation. ***There is no new or substantially more severe impact.***

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impact to a less-than-significant level.

- VII-1. *Before the start of any earthmoving activities, the Project applicant shall retain a qualified scientist (e.g., geologist, biologist, paleontologist) to train all construction personnel involved with earthmoving activities, including the site superintendent, regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. Training on paleontological resources shall also be provided to all other construction workers but may use videotape of the initial training and/or written materials rather than in-person training.*

If any paleontological resources (fossils) are discovered during grading or construction activities within the Project area, work shall be halted immediately within 50 feet of the discovery, and the City Planning Division shall be immediately notified. The Project applicant shall retain a qualified paleontologist to evaluate the resource and prepare a recovery plan in accordance with Society of Vertebrate Paleontology guidelines (SVP 2010). The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum storage coordination for any specimen recovered, and a report of findings. Recommendations in the recovery plan that are determined by the City to be necessary and feasible shall be implemented by the applicant before construction activities resume in the area where the paleontological resources were discovered.

VIII. GREENHOUSE GAS EMISSIONS. <i>Would the Project:</i>		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a.	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	✘	☐	☐	No
b.	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	✘	☐	☐	No
a,b.	Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.					

Implementation of the Project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO₂) and, to a lesser extent, other GHG pollutants, such as methane (CH₄) and nitrous oxide (N₂O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the Project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO₂ equivalents (MTCO_{2e}/yr).

In September 2006, Assembly Bill (AB) 32 was enacted, which requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. AB 32 delegated the authority for implementation to the CARB and directs the CARB to enforce the statewide cap. In accordance with AB 32, CARB prepared the Climate Change Scoping Plan (Scoping Plan) for California, which was approved in 2008 and subsequently revised in 2014 and 2017. The 2017 revision to the Scoping Plan updated the plan in compliance with Senate Bill (SB) 32. SB 32 codified emissions reduction targets for the year 2030, which had previously been established by Executive Order B-30-15.

Per SMAQMD and Section 15183.5 of the CEQA Guidelines, a project may satisfy applicable GHG analysis requirements under CEQA by demonstrating compliance with a qualified CAP.¹² Specifically, Section 15183.5 states the following:

Lead agencies may analyze and mitigate the significant effects of greenhouse gas emissions at a programmatic level, such as in a general plan, a long range development plan, or a separate plan to reduce greenhouse gas emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. Project-specific environmental documents may rely on an EIR containing a programmatic analysis of greenhouse gas emissions as provided in section 15152 (tiering), 15167 (staged EIRs) 15168 (program EIRs), 15175-15179.5 (Master EIRs), 15182 (EIRs Prepared for Specific Plans), and 15183 (EIRs Prepared for General Plans, Community Plans, or Zoning).

On February 27, 2019, the City of Elk Grove adopted an updated CAP that includes city-wide goals and strategies for the reduction of GHG emissions. The City's CAP includes per-capita GHG emissions targets of 7.6 metric tons of CO₂ equivalents (MTCO_{2e}/yr) by 2020, 4.1 MTCO_{2e}/yr by 2030, and 1.4 MTCO_{2e}/yr by 2050. As calculated per CalEEMod (see the appendix to this IS/MND), using the same assumptions as presented in the Air Quality section of this IS/MND and relying on the population estimates provided in the Population and Housing section of this IS/MND, the Project would generate a per capita total of 3.69 MTCO_{2e}/yr (for a worst-case scenario), which is below both the 2020 and 2030 targets (6282.19 MTCO₂/yr / 1,701 residents. However, such targets are not intended for use as CEQA thresholds but, rather, are plan-level, community-wide emissions reductions targets developed to demonstrate consistency with the State's GHG reduction targets. It should be noted that the CAP does not include a threshold of significance for construction emissions.

The CAP is a qualified plan for GHG emissions. The General Plan EIR concluded that with implementation of the CAP, buildout of the City's Planning Area would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing the emissions of GHGs, and a less-than-significant impact would occur. As such projects that are implement all applicable CAP measures and are consistent with the CAP may streamline based on the CAP, and would similarly result in less-than-significant impacts.

As demonstrated in Table 4 below, the Project would be consistent with all applicable measures included in the City's CAP, upon implementation of Mitigation Measure VIII-1. Furthermore, the Project is consistent with the Project site's current General Plan land use designations. As such, buildout of the site and associated GHG emissions has been previously anticipated by the City and analyzed in the General Plan EIR.

¹² Sacramento Metropolitan Air Quality Management District. *Climate Action Planning in the Sacramento Metropolitan Air Quality Management District*. November 2017.

Table 4 CAP Consistency	
CAP Implementation Measure	Project Consistency
BE-4. Building Stock: Encourage or Require Green Building Practices in New Construction	Implement Mitigation Measure VIII-1.
BE-5. Building Stock: Phase in Zero Net Energy Standards in New Construction	Implement Mitigation Measure VIII-1.
BE-6. Building Stock: Electrification in New and Existing Residential Development	Implement Mitigation Measure VIII-1.
BE-7. Building Stock: Solar Photovoltaics in Residential and Commercial Development	The Project would be required to comply with 2019 Title 24 standards, which include requirements related to installation of PV systems for new residential development and construct PV-ready commercial buildings.
BE-8. SMUD Greenergy and SolarShares Programs (only if on-site solar is not deemed feasible)	Given consistency with BE-7, this measure is not applicable to the Project.
TACM-2. Transit-Oriented Development	The Project would include construction of both medium-density and high-density residential uses, as well as future construction of on-site commercial uses. Thus, the Project would contribute to increased densities within the project area. In addition, at the eastern site boundary, the Project would include construction of a bus stop at Lewis Stein Road.
TACM-4. Pedestrian and Bicycle Travel	The Project would provide for attached sidewalks along all of the proposed internal roadways, and new sidewalks would be provided along the Project frontages to the north, east, and west. Within the southern portion of the Project site, the Project will include the construction of a 10-foot-wide bike trail along the length of Laguna Creek, with multiple connections extending northward to the proposed commercial and residential development. The proposed trail would connect to existing bike trail segments located west and east of the site.
TACM-6. Limit Vehicle Miles Traveled	As discussed in Section XVII, Transportation, of this Supplemental IS/MND, the estimated VMT associated with the Project would not exceed the thresholds established by General Plan Policy MOB-1-1.
TACM-8. Tier 4 Final Construction Equipment	Implement Mitigation Measure VIII-1.
TACM-9. EV Charging Requirements	Implement Mitigation Measure VIII-1.

For disclosure purposes, the Project's GHG emissions were quantified with CalEEMod using the same assumptions as presented in the Air Quality section of this Supplemental IS/MND. The Project's required compliance with the 2016 California Building Energy

Efficiency Standards Code was assumed in the modeling; however, given that building permits would be issued after January 1, 2020, the project would be required to comply with the more stringent 2019 standards. Thus, the modeling assumptions provide a conservative estimate of project emissions. In addition, the CO₂ intensity factor within the model was adjusted to reflect the Sacramento Municipal Utility District's anticipated progress towards statewide renewable portfolio standard goals. All CalEEMod results are included in an appendix to this Supplemental IS/MND.

Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Nonetheless, the Project's construction-related GHG emissions have been estimated and are presented in Table 5 below. The construction modeling assumptions are described in the Air Quality section of this Supplemental IS/MND and included in the appendix.

Table 5	
Unmitigated Annual Project Construction GHG Emissions	
Year	Annual GHG Emissions (MTCO₂e/yr)
2020	816.46
2021	1,171.13
2022	1,148.03
2023	427.94
<i>Source: CalEEMod, April 2019 (see Appendix).</i>	

Emissions modeling for construction showed that the most intensive year of construction of the proposed development would result in GHG emission of 1,171.13 MTCO₂e/yr. The City does not have a threshold of significance for construction-related emissions. However, in order to provide a meaningful analysis of GHG emissions, the emissions from the most intensive year of construction have been added to the annual operational emissions. According to the CalEEMod results, the Project would result in total annual GHG emissions as shown in Table 6 below, including the maximum annual expected construction emissions. As noted above, the emissions estimates presented herein are for disclosure purposes only, and do not affect the conclusions of this analysis.

Table 6	
Maximum Unmitigated Project GHG Emissions	
	Annual GHG Emissions
Construction-Related GHG Emissions:	1,171.13 (MTCO ₂ e/yr)
Operational GHG Emissions	5,111.06 (MTCO ₂ e/yr)
Area	8.92 (MTCO ₂ e/yr)
Energy	1,358.24 (MTCO ₂ e/yr)
Mobile	3,426.43 (MTCO ₂ e/yr)
Solid Waste	242.78 (MTCO ₂ e/yr)
Water	74.71 (MTCO ₂ e/yr)
Total Annual GHG Emissions	6,282.19 (MTCO₂e/yr)
<i>Source: CalEEMod, April 2019 (see Appendix).</i>	

Conclusion

As noted previously, the City's CAP was established to ensure the City's compliance with the statewide GHG reduction goals required by AB 32 and SB 32. Therefore, given that the Project would implement all applicable CAP measures within the CAP, as required by Mitigation Measure VIII-1, and would be consistent with the site's current General Plan land use designations, the Project would not result in increased GHG emissions relative to what was previously considered by the City and analyzed in the General Plan EIR. Thus, the Project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact related to related to GHG emissions given compliance with the City's CAP and applicable General Plan policies. The Project is consistent with that determination upon implementation of the proposed Mitigation Measures. ***There is no new or substantially more severe impacts than those previously analyzed.***

Mitigation Measure(s)

VIII-1. *Prior to issuance of building permits, Project Building Plans shall demonstrate compliance with the following applicable measures included in the City's Climate Action Plan, to the satisfaction of the City of Elk Grove Planning Division:*

- *BE-4: The Project shall comply with 2016 CalGreen Tier 1 standards, including a 15 percent improvement over minimum Title 24, Part 6, Building Energy Efficiency Standards. If building permits are issued subsequent to January 1, 2020, the Project shall provide a level of efficiency at least that of Tier 1 of the 2016 CalGreen Code, or baseline of the current CalGreen Code, whichever is more efficient.*
- *BE-5: Should any residential portion of the Project (including single-family and multi-family) be constructed after January 1, 2025, these units shall be constructed as Zero Net Energy units. The Project shall achieve a Total Energy Design Rating (Total EDR) and Energy Efficiency Design Rating (Efficiency EDR) of zero, consistent with the standards in Title 24, Part 6 of the California Code of Regulations, for all units permitted after January 1, 2025.*
- *BE-6: At least 10 percent of all residential units shall include all-electric appliances and HVAC systems, including, but not limited to, (A) a heat pump water heater with a minimum Uniform Energy Factor of 2.87, and (B) an induction cooktop/range for all cooking surfaces in the unit.*
- *TACM-8: A minimum of 25 percent of the off-road construction fleet used during construction of the Project shall include Environmental*

Protection Agency certified off-road Tier 4 diesel engines (or better).

- *TACM-9: The Project shall, at a minimum, provide the following minimum electrical vehicle service equipment:*
 - *EV-ready for all single-family units;*
 - *For multi-family units, 2.5 percent of parking stalls with EV charging equipment installed and 2.5 percent of parking stalls EV-ready; and*
 - *For retail uses, 3 percent of parking stalls with EV charging equipment installed and 3 percent of parking stalls EV-ready.*

Should the City adopt a higher standard prior to issuance of any applicable building permit, such higher standards shall apply.

IX. HAZARDS AND HAZARDOUS MATERIALS. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	✘	☐	No
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	☐	✘	☐	No
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	✘	No
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	✘	No
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	✘	No
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	✘	☐	No
g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	☐	☐	✘	☐	No

Discussion

- a. Residential and commercial land uses are not typically associated with the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. Future residents, as well as future on-site commercial uses, may use common household cleaning products, fertilizers, and herbicides on-site, any of which could contain potentially hazardous chemicals; however, such products would be expected to be used in accordance with label instructions. Due to the amount utilized on the site, routine use of such products would not represent a substantial risk to public health or the environment. In addition, the City provides a special waste collection center for the proper disposal of household hazardous wastes.

Conclusion

Therefore, the Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, and a less-than-significant impact would occur. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact. ***There is no new or substantially more severe impact.***

- b. The following discussion provides an analysis of potential hazards and hazardous materials associated with upset or accident conditions related to the proposed construction activities and existing on-site conditions.

Construction Activities

Construction activities associated with the Project would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. Small quantities of potentially toxic substances (e.g., petroleum and other chemicals used to operate and maintain construction equipment) would be used at the Project site and transported to and from the site during construction. However, the Project contractor would be required to comply with all California Health and Safety Codes and local City ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Pursuant to California Health and Safety Code Section 25510(a), except as provided in subdivision (b),¹³ the handler or an employee, authorized representative, agent, or designee of a handler, shall, upon discovery, immediately report any release or threatened release of a hazardous material to the unified program agency (in the case of the Project, the Contra Costa Health Services Department) in accordance with the regulations adopted pursuant to this section. The handler or an employee, authorized representative, agent, or designee of the handler shall provide all State, city, or county fire or public health or safety personnel and emergency response personnel with access to the handler's facilities. In the case of this Project, the contractor is required to notify the Contra Costa Health Services Department in the event of an

¹³ Subdivision (a) does not apply to a person engaged in the transportation of a hazardous material on a highway that is subject to, and in compliance with, the requirements of Sections 2453 and 23112.5 of the Vehicle Code.

accidental release of a hazardous material, who would then monitor the conditions and recommend appropriate remediation measures.

Existing On-Site Hazardous Materials

The Project site is currently vacant and undeveloped. Per a Phase I and Limited Phase II Environmental Site Assessment (ESA) prepared for the project site by Geocon Consultants, Inc. (Geocon),¹⁴ the site does not contain any recognized environmental conditions (RECs) such as stressed vegetation, septic systems, wells, above-ground storage tanks (ASTs), or underground storage tanks (USTs). It should be noted that the Project site contains an existing 12-foot-high soil stockpile, located along the eastern portion of the site, that was added to the site in 2002 as a result of channelization and trail creation work completed south and east of the site along Laguna Creek. Per the Phase I ESA, the soil stockpile is not likely to have created an REC on the Project site.

Given that the site was previously used for agricultural production, Geocon conducted a limited Phase II soil investigation to evaluate the presence of organochlorine pesticides (OCPs) and or other agricultural chemicals within on-site soils. As part of the Phase II analysis, a total of ten soil samples were collected throughout the site and submitted to a laboratory for analysis. Based on the results of the laboratory analysis, OCPs were not detected in any of the soil samples. In addition, concentrations of arsenic are within naturally occurring background concentrations for local soils. Therefore, Geocon concluded that on-site soils have not been impacted by prior agricultural uses, and contaminated soils would not pose a risk to the Project, and development of the Project site would not result in the release of hazardous materials into the environment.

Conclusion

Construction activities would be required to adhere to all relevant guidelines and ordinances regulating the handling, storage, and transportation of hazardous materials. In addition, known hazardous materials have not been identified on the Project site. Thus, the Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment, and a less-than-significant impact would occur. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact related to construction hazards, given compliance with General Plan EIR Mitigation Measure 5.8.2, which requires evaluation of development sites for potential hazards. There is no new or substantially more severe impact.

- c. The Project site is not located within a quarter mile of any existing or proposed schools. The nearest school is the Irene B. West Elementary School, located approximately 0.38-

¹⁴ Geocon Consultants, Inc. *Phase I and Limited Phase II Environmental Site Assessment Report, Sheldon Farms – APN 116-0012-051 and 116-0012-059, Sheldon Road at Bruceville Road, Elk Grove, Sacramento County, California*. October 2017.

mile north of the site. Furthermore, as discussed above, hazardous materials would not be emitted during construction or operation of the Project.

Conclusion

Therefore, the Project would have ***no impact related*** to hazardous emissions or the handling of hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact. ***There is no new or substantially more severe impact.***

- d. Per the SWRCB GeoTracker data management system, the Project site is not located on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.¹⁵

Conclusion

Therefore, the Project would not create a significant hazard to the public or the environment associated with such, and no impact would occur. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact. ***There is no new or substantially more severe impact.***

- e. The nearest airport to the site is the private use Borges-Clarksburg Airport, located approximately 4.75 miles west of the site. As such, the Project site is not located within two miles of any public airports or private airstrips, and does not fall within an airport land use plan area.

Conclusion

Therefore, no impact related to a safety hazard for people residing or working in the Project area related to such would occur. The General Plan EIR did not identify any significant impacts related to aircraft hazards. ***There is no new or substantially more severe impact.***

- f. As noted in the City's General Plan EIR, Elk Grove participates in the multijurisdictional Sacramento County Local Hazard Mitigation Plan (LHMP), last updated in 2016.¹⁶ The purpose of the LHMP is to guide hazard mitigation planning to better protect the people and property of the County from the effects of hazard events. The Sacramento LHMP includes policies and programs for participating jurisdictions to implement that reduce the risk of hazards and protect public health, safety, and welfare. In addition to participating in the County's LHMP, the City of Elk Grove maintains an Emergency Operations Plan (EOP) that provides a strategy for the City to coordinate and conduct emergency response. The intent of the EOP is to provide direction on how to respond to an emergency from the initial onset, through an extended response, and into the recovery process.

¹⁵ State Water Resources Control Board. *GeoTracker*. Available at: <https://geotracker.waterboards.ca.gov/>. Accessed January 2019.

¹⁶ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.8-13]. February 2019.

Conclusion

Given that the Project is consistent with the site's current land use and zoning designations, the Project would not physically interfere with the LHMP or the EOP, particularly with identified emergency routes. Specifically, development of the site and associated effects on emergency evacuation has been anticipated by the City and analyzed in the General Plan EIR. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact related to conflicting with evacuation routes in the event of an emergency. Therefore, the Project would not interfere with an emergency evacuation or response plan, and a less-than-significant impact would occur. ***There is no new or substantially more severe impact.***

- g. According to the City of Elk Grove General Plan EIR, the City does not contain any areas that are designated as moderate, high, or very high Fire Hazard Severity Zones (FHSZs).¹⁷ In addition, the Project site is surrounded by existing development to the north, east and west, and is located within a developed urban area within the City. Thus, the potential for wildland fires to reach the Project site would be relatively limited. Furthermore, all new development within the Project site would be required per the California Fire Code to incorporate ignition resistant construction standards such as ignition-resistant materials and design to resist the intrusion of flame or embers projected by a vegetation fire (wildfire exposure). In addition to Fire Code requirements, the City is responsible for ensuring that fire safe standards for defensible space are included in project design to reduce the intensity of a wildland fire by reducing the volume and density of fuels (e.g., vegetation that can transmit fire to a building or structure), providing increased safety for fire equipment and evacuating civilians, and providing a point of attack or defense from a wildland fire. The current defensible space clearance requirement to be maintained around buildings and structures is 100 feet.

Conclusion

Therefore, the Project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and a less-than-significant impact would occur. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact related to wildfire risk. ***There is no new or substantially more severe impact.***

¹⁷ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.11-1]. February 2019.

X. HYDROLOGY AND WATER QUALITY.	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
<i>Would the Project:</i>					
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	✗	☐	☐	No
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	✗	☐	No
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:					No
i. Result in substantial erosion or siltation on- or off-site;	☐	☐	✗	☐	No
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	✗	☐	No
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	☐	☐	✗	☐	No
iv. Impede or redirect flood flows?	☐	☐	☐	✗	No
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	✗	No
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	✗	☐	No

Discussion

- a. The following discussion provides a summary of the Project's potential to violate water quality standards/waste discharge requirements or otherwise degrade water quality during construction and operation.

Construction

During the early stages of Project construction activities, topsoil would be exposed due to grading, trenching for utilities, and other standard ground-disturbing activities. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality downstream.

The SWRCB regulates stormwater discharges associated with construction activities where clearing, grading, or excavation results in a land disturbance of one or more acres. The City's National Pollutant Discharge Elimination System (NPDES) permit requires applicants to show proof of coverage under the State's General Construction Permit prior to receipt of any construction permits. The State's General Construction Permit requires that subject projects must file a Notice of Intent with the SWRCB and develop a site-specific Storm Water Pollution Prevention Plan (SWPPP). A SWPPP describes Best Management Practices (BMPs) to control or minimize pollutants from entering stormwater and must address both grading/erosion impacts and non-point source pollution impacts of the development project. BMPs include, but are not limited to, tracking controls, perimeter sediment controls, drain inlet protection, wind erosion/dust controls, and waste management control. Because the Project would disturb greater than one acre of land, the Project would be subject to the requirements of the State's General Construction Permit.

Operation

The proposed residential and commercial uses would not involve operations typically associated with the generation or discharge of polluted water. Thus, typical operations on the Project site would not violate any water quality standards or waste discharge requirements, nor degrade water quality. However, addition of the impervious surfaces on the site would result in the generation of urban runoff, which could contain pollutants if the runoff comes into contact with vehicle fluids on parking surfaces and/or landscape fertilizers and herbicides.

The NPDES discharge requirements address waste discharge, such as stormwater, from municipal separate storm sewer systems (MS4s).¹⁸ The City jointly participates as an MS4 permittee, together with Citrus Heights, Folsom, Galt, Rancho Cordova, Sacramento, and the County of Sacramento. NPDES permit terms are five years. The current region-wide permit (Order No. R5- 2016-0040) adopted by the Central Valley RWQCB in June 2016 allows each permittee to discharge urban runoff from MS4s in its respective municipal jurisdiction, and requires Phase I MS4 permittees to enroll under the region-wide permit as their current individual permits expire. Regional MS4 permit activities are managed jointly by the Sacramento Stormwater Quality Partnership, which consists of the seven jurisdictions covered by the permit. Under the permit, each permittee is also responsible for ensuring that stormwater quality management plans are developed and implemented that meet the discharge requirements of the permit. Under the 2016 permit, measures should be included in the stormwater quality management plans that demonstrate how new development would incorporate low-impact development (LID) design in projects. The

¹⁸ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.9-22]. February 2019.

City's Department of Public Works is responsible for ensuring its specific MS4 permit (Order No. R5-2016-0040-005) requirements are implemented. Compliance with the MS4 permit, as regulated through Chapter 15.12 of the City's Municipal Code, would ensure that impacts to water quality standards or waste discharge requirements would not occur during operation of the Project.

The Conceptual Water Quality Control Plan and Preliminary Drainage Study prepared for the Project verifies that the Project would comply with all City stormwater requirements related to water quality.¹⁹ Stormwater within the developed portions of the Project site would be collected by drain inlets and conveyed through underground storm drainage pipes to water quality swales located adjacent to Laguna Creek within Lots E, F, and G (see Figure 6). The underground drainage infrastructure would be sized to meet City standards. The water quality swales would total 1,600 lineal feet and would be between seven and eight feet deep. Ultimately, runoff from the swales would be directed to a proposed 3.9-acre bio-retention basin located within Lot D in the Project site. The bio-retention basin would be constructed at an approximate depth of 10 to 12 feet and would include a drainage outfall designed to discharge treated runoff to Laguna Creek by way of a new 42-inch outfall. The basin would treat stormwater primarily by filtering runoff slowly through an active layer of soil, allowing for removal of pollutants. The bio-retention basin would be sized to exceed the minimum volume requirement necessary to adequately handle all runoff from the proposed impervious surfaces and landscaping, consistent with the requirements of the regional MS4 permit.

Based on the above, the Project would comply with the water quality requirements established by Chapter 5.12 of the City's Municipal Code, the SWRCB, and the RWQCB. Therefore, during operation, the Project would comply with all relevant water quality standards and waste discharge requirements, and would not degrade water quality.

Conclusion

Based on the SWMP prepared for the Project, the Project would comply with all applicable regulations during operation, does not involve uses associated with the generation or discharge of polluted water, and would be designed to adequately treat stormwater runoff from the site prior to discharge. With implementation of Mitigation Measures X-1 and X-2, which would ensure that adequate BMPs are incorporated during construction and operation in accordance with SWRCB regulations, the Project would result in a less-than-significant impact with regard to violation of water quality standards and degradation of water quality. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact related to water quality. ***There is no new or substantially more severe impact.***

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

¹⁹ Wood Rodgers. *Preliminary Drainage Study, Sheldon Farms North, City of Elk Grove, California*. June 2018.

- X-1. *Prior to issuance of grading permits, the contractor shall prepare a Storm Water Pollution Prevention Plan (SWPPP) for review and approval by the RWRCB. The developer shall file the Notice of Intent (NOI) and associated fee to the SWRCB. The SWPPP shall serve as the framework for identification, assignment, and implementation of BMPs. The contractor shall implement BMPs to reduce pollutants in stormwater discharges to the maximum extent practicable. Construction (temporary) BMPs for the project may include, but are not limited to: fiber rolls, straw bale barrier, straw wattles, storm drain inlet protection, velocity dissipation devices, silt fences, wind erosion control, stabilized construction entrance, hydroseeding, revegetation techniques, and dust control measures. The SWPPP shall be submitted to the Director of Public Works/City Engineer for review and approval and shall remain on the project site during all phases of construction. Following implementation of the SWPPP, the contractor shall subsequently demonstrate the SWPPP's effectiveness and provide for necessary and appropriate revisions, modifications, and improvements to reduce pollutants in stormwater discharges to the maximum extent practicable.*
- X-2. *Prior to issuance of grading permits, the Project improvement plans shall demonstrate, to the satisfaction of the City Engineer, that the Project design is compliant with the City of Elk Grove MS4 permit (Order No. R5-2016-0040-005), consistent with Chapter 15.12 of the City's Municipal Code.*
- b,e. Groundwater demands associated with the Project are evaluated in a WSA prepared for the Project by the SCWA.²⁰ As noted in the WSA, water demands associated with the Project, as well as demands associated with the larger SCWA Zone 40 service area within which the Project site is located, would ultimately be met by conjunctive use of groundwater, surface water, and a small portion of recycled water. The SCWA pumps groundwater from the South American Sub-basin, as defined by the California Department of Water Resources (DWR) Bulletin 118. The Sacramento Central Groundwater Authority (SCGA) manages groundwater in the Central Basin portion of the South American Subbasin within which the Project site is located. Currently, SCGA is undergoing discussions with other groundwater basin users of the South American Subbasin to evaluate options for formation of a Groundwater Sustainability Agency and development of a Groundwater Sustainability Plan (GSP), consistent with the requirements of the Sustainable Groundwater Management Act (SGMA). However, DWR has not approved a GSP for the Subbasin at this time.
- Pursuant to the WSA, the estimated long term annual sustainable yield of groundwater from the Central Basin is 273,000 acre-feet per year (afy). The determination of the sustainable yield of the Central Basin (273,000 afy) was negotiated by the Water Forum Groundwater Negotiating Team (GWNT) and involved a complex process that developed the long-term average annual pumping limit of the basin. The long-term average annual pumping limit is described as the hydro-geologic process under which groundwater can be pumped and not exceed average natural recharge over a long-term period of time. As noted in the General Plan EIR, monitoring and data analysis by the SCGA indicate that subbasin

²⁰ Sacramento County Water Agency. *Water Supply Assessment for Sheldon Farms North*. January 2019.

groundwater pumping operations from 2005 through 2017 have not exceeded the sustainable yield conditions set forth in the Water Forum Agreement.

Conclusion

Given that the Project is consistent with the site's current General Plan land use and zoning designations, groundwater use associated with development of the Project has been anticipated by the City and accounted for in regional planning efforts and analyzed in the General Plan EIR. Therefore, consistent with the conclusions of the WSA prepared for the Project, the Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin, and a less-than-significant impact would occur. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact related to groundwater, given compliance with General Plan EIR Mitigation Measure 5.12.1.1 related to new annexations into the City. ***There is no new or substantially more severe impact.***

- ci-iii. Development of the Project would result in an increase in impervious surfaces on the Project site, which would alter the existing drainage pattern of the site. As noted in the General Plan EIR, Section 16.44 of the City's Municipal Code requires projects that would increase drainage flows and have the potential to exceed the capacity of existing drainage facilities to identify, on project plans, the improvements needed to accommodate the increased flows. As noted previously, such improvements must comply with the performance standards set forth in the regional NPDES MS4 permit. As required by Mitigation Measure X-2, consistent with Section 16.44 of the Municipal Code, the Project would include appropriate site design measures, source controls, and hydraulically-sized stormwater treatment measures to limit the rate and amount of stormwater runoff leaving the site.

As part of the Preliminary Drainage Study prepared for the Project by Wood Rodgers, the proposed on-site drainage system was evaluated for consistency with the 1996 Sacramento City/County Drainage Manual (Volume 2) developed for the Sacramento County Department of Water Resources, as well as the City of Elk Grove 2007 Improvement standards. The proposed drainage system was evaluated against the minimum velocity, freeboard, and cover requirements outlined in the City's standards. In addition, future on-site stormwater flows were modeled to determine whether such flows would be equal to or less than existing conditions for the following storm events: 10-year, 24-hour; 100-year, 24-hour; and 100-year, 10-day.

Table 7 below provides a summary of the modeled existing and proposed peak flows, presented in cubic feet per second (CFS) at the proposed outfall for each modeled storm event, along with the initial hydraulic grade line (HGL) and proposed stage for the on-site bio-retention basin during each event. It should be noted that an existing hydraulic model of the Laguna Creek Bypass Channel could not be acquired at the time the Preliminary Drainage Study was prepared, nor could a stage hydrograph for the 10-year and 100-year storm events. Thus, in order to provide a conservative approach, Wood Rodgers used the

static elevations reported in the FEMA Flood Insurance Study (FIS) for a 10-year storm of 21.0 feet and a 100-year storm of 22.6 feet to determine the maximum tailwater conditions.

Table 7					
Existing and Proposed Peak Flows and Basin Stages					
FEMA FIS Static HGL	Basin Initial HGL	Total Area	Existing Flows (CFS)	Proposed Flows (CFS)	Proposed Basin Stage
10-Year, 24-Hour					
21.0 feet	17.2 feet	78 acres	43.2	1.9	21.2 feet
100-Year, 24-Hour					
22.6 feet	17.4 feet	78 acres	74.7	3.7	22.6 feet
18.1 feet			74.7	13.2	21.5 feet
100-Year, 10-Day					
22.6 feet	17.4 feet	78 acres	40.6	39.8	23.0 feet
18.1 feet			40.6	19.2	21.7 feet
Note: HGLs of 21.0 feet for the 10-year flood event and 22.6 feet for the 100-year flood events are used to determine maximum tailwater conditions. Alternate scenarios were analyzed for the minimum tailwater conditions to determine the maximum discharge from the proposed basin outfall. Specifically, the 10-year and 100-year models were simulated with the 42-inch outfall pipe full at elevation 18.1 feet to verify that the detention/water quality basin does not increase discharge flows when coincident with a lower water surface in the Laguna Creek Bypass Channel.					
Source: Wood Rogers, 2018.					

As shown in the table, the Project would result in reduced stormwater flows from the Project site for all modeled storm events. Therefore, the Project would not conflict with the drainage requirements established in Section 16.44 of the City's Municipal Code and the regional MS4 permit. The capacity of the City's existing stormwater drainage infrastructure would not be exceeded, and alterations to such infrastructure would not be needed. In addition, pursuant to Section 15.10.020 of the Municipal Code, the proposed residential and commercial development would be subject to payment of monthly drainage fees, to be used by the City for the acquisition, construction, reconstruction, maintenance, and operation of City storm drainage facilities. Furthermore, prior to approval of improvement plans, the Project would be subject to payment of drainage impact fees to the City.

Conclusion

In conclusion, the Project would not substantially alter the existing drainage pattern of the site or area in a manner which would result in erosion, siltation, or flooding on- or off-site, 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. Consequently, the Project would result in a less-than-significant impact. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact related to increases in stormwater runoff. ***There is no new or substantially more severe impact.***

- civ-d. According to the Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map numbers 06067C0308H and 06067C0316H, the Project site is located within Zone

X.²¹ FEMA defines Zone X as an area located outside of the 100-year year floodplain. Thus, the Project would not include any development within a Special Flood Hazard Area, and would not be subject to the flood damage regulations included in Chapter 16.60 of the City's Municipal Code. It should be noted that the southernmost portion of the Project site is located within a FEMA-designated 500-year floodplain. In addition, Laguna Creek to the south of the site is designated as a Special Flood Hazard Area located within a 100-year floodplain. However, the Project would not include development of any buildings or permanent structures within the 100-year, 200-year, or 500-year floodplain associated with the Laguna Creek corridor. As part of the Project, the southern portion of the site nearest Laguna Creek would be retained as open space, with a shared use pedestrian/bike path extending along the northern edge of the creek corridor. As discussed previously in Section IV, Biological Resources, the proposed commercial and residential structures would be located approximately 110 feet minimum from the centerline of Laguna Creek. In addition, the proposed bio-retention basin would be located approximately 70 feet minimum from the stream centerline. As such, the Project would comply with the stream buffer requirements established by General Plan Standard NR-1.2d.

Pursuant to the General Plan EIR, in the event of dam failure, Folsom Dam and Sly Park Dam have the potential to cause flooding in the Planning Area. While the Project site is located outside of the Sly Park Dam inundation zone, the site is within the dam failure inundation zone for Folsom Dam.²² As noted in the General Plan EIR, the US Army Corps of Engineers is completing improvements to the Folsom Dam spillway on the American River to help reduce downstream flood risk. The General Plan EIR concluded that future development in the Planning Area may occur in locations subject to 100- and/or 200-year flood risk, including flooding from levee failure, or could place structures where they may have the potential to impede or redirect flood flows. However, with implementation of General Plan policies and existing regulations, exposure of new development to flood hazard risk and the potential for future development to cause new flooding or exacerbate flood hazards was determined to be less than significant. For example, General Plan Policies ER-2-2 and ER-2-13 provide a mechanism to ensure new development would not site structures or features where they have the potential to affect floodplain storage capacity or adversely redirect or impede flood flows.

Conclusion

Based on the above, the Project would not place housing or structures within the 100-year floodplain, nor would the Project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. Therefore, no impact would result. The General Plan EIR concluded that buildout of the City, including the Project site, would result in a less-than-significant impact related to flooding. ***There is no new or substantially more severe impact.***

- d. Tsunamis are defined as sea waves created by undersea fault movement, whereas a seiche is a long-wavelength, large-scale wave action set up in a closed body of water such as a

²¹ Federal Emergency Management Agency. *National Flood Hazard Layer FIRMette*. Exported January 2019.

²² City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [Figure 5.9-5]. February 2019.

lake or reservoir. The Project site is not located within the vicinity of an ocean or a large closed body of water. Thus, the Project site would not be exposed to flooding risks associated with tsunamis or seiches. In addition, as noted above, the Project site is not located within a flood hazard zone. Furthermore, the General Plan EIR concluded that buildout of the Planning Area, including the Project site, would result in no impacts related to inundation by tsunami or seiche.

Conclusion

Based on the above, no impact would occur with development of the Project. The General Plan EIR did not identify any significant impacts related to tsunamis or seiches associated with buildout of the City, including the Project site. ***There is no new or substantially more severe impact.***

XI. LAND USE AND PLANNING. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a. Physically divide an established community?	☐	☐	✘	☐	No
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?	☐	☐	✘	☐	No

Discussion

- a. A project risks dividing an established community if the project would introduce infrastructure or alter land use so as to change the land use conditions in the surrounding community, or isolate an existing land use. The Project site does not contain existing housing or other development. In addition, the Project would be compatible with the existing residential uses to the north, east, and west of the site. The Project would not alter the existing general development trends in the area or isolate an existing land use.

Conclusion

Based on the above, the Project would not physically divide an established community and a less-than-significant impact would occur. The General Plan EIR did not identify any significant impacts related to physically dividing an established community. ***There is no new or substantially more severe impact.***

- b. The Project site is currently designated LDR, MDR, Community Commercial, and POS per the City's General Plan and is zoned RD-6, RD-10, RD-25, GC, and O.

As discussed throughout this IS/MND, the Project would essentially serve as an extension of the existing residential development located to the north, east, and west of the site. Therefore, should the City of Elk Grove City Council approve the requested Subdivision Design Review, the Project would not conflict with any applicable land use plans, policies, or regulations of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect. Furthermore, this IS/MND does not identify any significant impacts which cannot be mitigated to less-than-significant levels.

Conclusion

Based on the above, the Project would not conflict with applicable land use plans, policies, regulations adopted for the purpose of avoiding or mitigating an environmental effect and a less-than-significant impact would occur. The General Plan EIR did not identify any

significant impacts related to land use and planning. ***There is no new or substantially more severe impact.***

XII. MINERAL RESOURCES. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant 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?	☐	☐	☐	✗	No
b. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	✗	No

Discussion

- a,b. According to the City's General Plan, mineral deposits or mineral extraction activities are not located within the City's Planning Area.²³ Therefore, the Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State or result in the loss of availability of a locally-important mineral resource recovery site delineated in the City's General Plan.

Conclusion

Based on the above, no impact to mineral resources would occur as a result of development of the Project. The General Plan EIR did not identify any significant impacts related to mineral resources. ***There is no new or substantially more severe impact.***

²³ City of Elk Grove. *General Plan* [pg. 7-25]. February 2019.

XIII. NOISE. <i>Would the Project result in:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant 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?	☐	☐	✗	☐	No
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	✗	☐	No
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?	☐	☐	☐	✗	No

Discussion

- a. Some land uses are considered more sensitive to noise than others, and, thus, are referred to as sensitive noise receptors. Land uses often associated with sensitive noise receptors generally include residences, schools, libraries, hospitals, and passive recreational areas. Noise sensitive land uses are typically given special attention in order to achieve protection from excessive noise. In the vicinity of the Project site, the nearest existing noise sensitive land uses include the single-family and multi-family residential developments located to the north, east, and west of the site.

Pursuant to the General Plan EIR, the noise environment in the City's Planning Area is defined primarily by vehicular traffic on State Route (SR) 99, Interstate 5 (I-5), and local roadways. To a lesser extent, railroad traffic, occasional aircraft overflights, nearby agricultural activities, and landscape maintenance activities at residential and commercial uses also contribute on an intermittent basis to ambient noise levels.

Project Construction Noise

During the construction of the Project, heavy equipment would be used for grading, excavation, paving, and building construction, which could result in temporary noise level increases at nearby sensitive receptors. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the Project site would vary depending on the proximity of construction activities to that point. Standard construction

equipment, such as graders, backhoes, loaders, and trucks, would be used on-site. Per the General Plan EIR, typical construction site noise levels may be as high as 93 dB L_{eq} at 25 feet and 81 dB L_{eq} at 100 feet.

The noise levels from construction operations decrease at a rate of approximately 6 dB per doubling of distance from the source. As noted previously, the nearest existing sensitive receptors are the single- and multi-family residences located approximately 125 feet north of the site across Sheldon Road and the multi-family residences located approximately 175 feet west of the site across Bruceville Road. Thus, the worst-case construction noise levels at 125 feet and 175 feet from the Project site would be approximately 79 dB and 76 dB L_{eq} , respectively. Accordingly, construction noise could exceed the City's 55 dB L_{eq} (daytime) and 45 dB L_{eq} (nighttime) standards for non-transportation noise sources. However, per Section 6.32.100(E) of the City's Municipal Code, noise sources associated with construction are exempt from the City's noise standards, provided such activities only occur between the hours of 7:00 AM and 7:00 PM when located adjacent to residential uses.²⁴ Section 6.32.100(E) of the Municipal Code is reproduced below as follows:

Noise sources associated with construction, repair, remodeling, demolition, paving or grading of any real property, provided said activities only occur between the hours of 7:00 a.m. and 7:00 p.m. when located in close proximity to residential uses. Noise associated with these activities not located in close proximity to residential uses may occur between the hours of 6:00 a.m. and 8:00 p.m. However, when an unforeseen or unavoidable condition occurs during a construction project and the nature of the project necessitates that work in progress be continued until a specific phase is completed, the contractor or owner shall be allowed to continue work after 7:00 p.m. and to operate machinery and equipment necessary until completion of the specific work in progress can be brought to conclusion under conditions which will not jeopardize inspection acceptance or create undue financial hardships for the contractor or owner;

Implementation of Mitigation Measure XIII-1 below specifies standards to reduce noise from construction activities consistent with Section 6.32.100 of the City's Municipal Code. In addition, noise associated with construction activities would be temporary in nature. Per the General Plan EIR, with application of Section 6.32.100(E) of the City's Municipal Code and General Plan Policy N-1-7 related to construction of City infrastructure, construction noise associated with buildout of the General Plan was determined to be less than significant.

Based on the above, with implementation of Mitigation Measure XIII-1, construction of the Project would result in a less-than-significant impact related to creation of a substantial temporary or periodic increase in ambient noise levels in the Project vicinity above levels existing without the Project.

²⁴ City of Elk Grove. *Municipal Code, Section 62.32.100*. Current through May 8, 2019.

Project Operational Noise

As part of the General Plan EIR, the FHWA Highway Traffic Noise Prediction Model was used to determine noise levels associated with existing vehicle traffic on major roadways in the City. In addition, traffic associated with future buildout of the City, including the Project site, was modeled in order to determine potential noise level increases that would occur due to increased traffic volumes.

The General Plan EIR determined that under buildout of the City's General Plan, including development of the Project site, traffic noise levels at the Project site would range from 60 to 70 dB (see Figure 8). Thus, noise levels at existing sensitive receptors in the Project vicinity could exceed the City's noise exposure standard of 60 dB L_{dn} for outdoor activity areas. In addition, increases in traffic noise associated with General Plan buildout could exceed the City's recommended criteria for substantial increases in ambient noise levels, reproduced as Table 8 below.

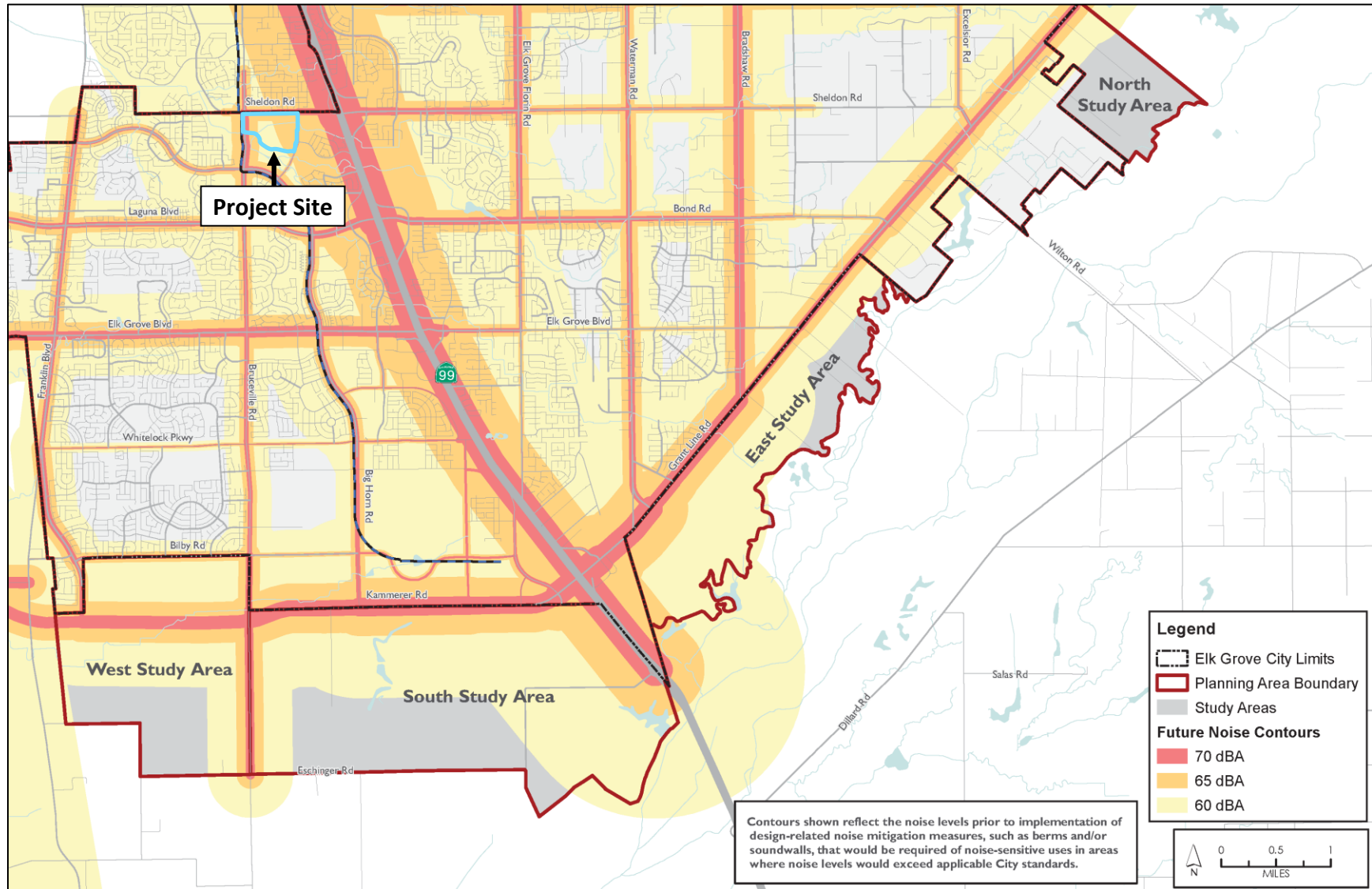
Table 8	
Recommended Criteria for Evaluation of Increases in Ambient Noise Levels	
Ambient Noise Level Without Project	Increase Required for Significant Impact
< 60 dB	5.0 dB, or greater
60 to 65 dB	3.0 dB, or greater
> 65 dB	1.5 dB, or greater
<i>Source: City of Elk Grove, 2019.</i>	

Based on the above, the General Plan EIR concluded that buildout of the General Plan, including the Project site, could result in a significant and unavoidable impact related to traffic noise, even with implementation of General Plan policies designed to limit traffic noise exposure at sensitive receptors.

In addition to noise exposure at existing sensitive receptors in the Project vicinity, noise levels at the proposed residential uses could exceed the City's 60 dB L_{dn} standard. However, such an effect would constitute the environment's effect on the Project. Thus, the exceedance is not considered an impact under CEQA. Nonetheless, in order to reduce exterior noise levels at the proposed residences and ensure compliance with the City's noise standards, the City would require preparation of a project-level acoustical analysis as a condition of approval. Consistent with General Plan Policy N-1-2, the use of noise barriers shall be considered a means of achieving the City's noise standards only after all other practical design-related noise reducing features have been integrated into the Project.

Given that the Project would be consistent with the Project site's current General Plan land use and zoning designations, operational noise associated with development of the Project has been anticipated by the City and analyzed in the City's General Plan EIR. Pursuant to Public Resources Code Section 21083.3(b), if a development project is consistent with the General Plan, the subsequent analysis of the project's environmental impacts should be limited to the effects on the environment which are peculiar to the project and which were not addressed as significant effects in the General Plan EIR.

Figure 8
Future Noise Contours: General Plan Buildout



Source: City of Elk Grove, 2019.

The proposed land uses would not include any unique sources of noise that were not analyzed in the General Plan EIR. Thus, the traffic noise generated from the Project would not be a peculiar effect requiring analysis pursuant to Section 21083.3(b), and further environmental analysis is not required.

Based on the above, the Project would not result in new or more severe operational noise impacts beyond what was analyzed in the General Plan EIR.

Conclusion

The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a significant and unavoidable impact related to transportation noise. With implementation of Mitigation Measure XIII-1, which specifies standards to reduce noise from construction activities consistent with Section 6.32.100 of the City's Municipal Code and General Plan Policy N-1-7, construction noise associated with the Project would be less than significant. In addition, the Project does not include any unique noise sources that would result in increased operational noise relative to what was previously analyzed in the General Plan EIR. Therefore, the Project would not result in the 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. Thus, a less-than-significant impact would occur with implementation of mitigation. ***There is no new or substantially more severe impact.***

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a less-than-significant level.

XIII-1 The following measures, when applicable, shall be followed throughout all phases of construction to reduce noise from construction activities and shall be the responsibility of the construction contractor and project applicant:

- *Construction equipment shall be well maintained and used judiciously to be as quiet as practical. Equip all internal combustion engine--driven equipment with mufflers, which are in good condition and appropriate for the equipment.*
- *Use "quiet" models of air compressors and other stationary noise sources where technology exists.*
- *Locate stationary noise--generating equipment and construction staging areas as far as feasible from sensitive receptors, including neighboring residential uses, when sensitive receptors adjoin or are near a construction area.*
- *Prohibit unnecessary idling of internal combustion engines.*
- *Designate a "construction liaison" who shall be responsible for responding to any local complaints about construction noise. The liaison shall determine the cause of the noise complaints (e.g., starting too early, bad muffler, or similar failure to use best*

practices) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site.

- *Hold a pre-construction meeting with the job inspectors and the general contractor/on-site project manager to confirm that noise mitigation and practices (including construction hours, construction schedule, and noise coordinator) are completed.*

- b. Vibration can be measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration measures in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV. Per the General Plan EIR, a vibration threshold of 0.2 in/sec PPV is typically considered sufficient to protect against structural damage. The same threshold represents the level at which vibrations would be potentially annoying to people in buildings.

During Project construction, heavy equipment would be used for grading, excavation, paving, and building construction, which would generate localized vibration in the immediate vicinity of construction. The range of vibration source levels for typical construction equipment are shown in

Table 12
Project VMT by Land Use Designation

below, as adapted from Table 5.10-14 of the General Plan EIR. As shown in the table, construction activities associated with development projects that do not require the use of pile drivers typically generate groundborne vibration levels of approximately 0.09 in/sec PPV or less at 25 feet.

Table 12 Vibration Levels for Various Construction Equipment	
Equipment Type	Vibration Level at 25 feet (in/sec PPV)
Pile Drive (impact) upper range	1.518
<i>Typical</i>	0.644
Pile Driver (sonic) upper range	0.734
<i>Typical</i>	0.170
Blasting	1.13
Large Dozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Rock Breaker	0.059
Jackhammer	0.035
Small Dozer	0.003
<i>Source: City of Elk Grove, 2019.</i>	

The Project would not require the use of pile drivers. In addition, the nearest existing sensitive receptors are the single- and multi-family residences located approximately 125 feet north of the site across Sheldon Road and the multi-family residences located approximately 175 feet west of the site across Bruceville Road. Based on the typical vibration levels shown in the table above, such sensitive receptors would not experience excessive vibration levels associated with construction activities on the Project site.

Conclusion

Based on the above, the Project would not result in the exposure of persons to or generation of excessive groundborne vibration levels at the Project site. Additionally, construction activities would be temporary in nature and would be limited to between 7:00 AM and 7:00 PM per Chapter 6.32 of the City's Municipal Code. Therefore, a less-than-significant impact would occur related to exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. ***There is no new or substantially more severe impact.***

- c. The nearest airport to the Project site is the private use Borges-Clarksburg Airport, located approximately 4.75 miles west of the site. Given the substantial distance between the airport and the Project site, noise levels resulting from aircraft at the nearest airport would be negligible at the site.

Conclusion

Based on the above, no impact would occur. The General Plan EIR did not identify any significant impacts related to aircraft noise. ***There is no new or substantially more severe impact.***

XIV. POPULATION AND HOUSING. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	✘	☐	No
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✘	No

Discussion

- a. The Project would include the development of 391 single-family homes and 126 multi-family residential units, resulting in a total of 517 dwelling units. Per the General Plan EIR, the average household size for the City in 2017 was 3.29 persons per household.²⁵ Thus, the Project would accommodate an estimated 1,701 future residents (3.29 persons/household X 517 dwelling units).

The Project would be consistent with the Project site's current General Plan land use designations. In addition, the Project site is located within an urbanized area within the City of Elk Grove and is bordered by existing development to the north, east, and west. The Project would not include extension of major infrastructure.

Conclusion

Based on the above, the Project would not result in more intensive population growth beyond what has been previously analyzed for the site in the General Plan EIR, and a less-than-significant impact would occur. The General Plan EIR did not identify any significant impacts related to population growth. ***There is no new or substantially more severe impact.***

- b. The Project site is currently vacant and does not contain existing housing or other habitable structures. As such, the Project would not displace a substantial number of existing housing or people and would not necessitate the construction of replacement housing elsewhere.

Conclusion

Based on the above, no impact would occur. The General Plan EIR did not identify any significant impacts related to displacing existing people or housing. ***There is no new or substantially more severe impact.***

²⁵ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 3.0-2]. February 2019.

XV. PUBLIC SERVICES.

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:

	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a. Fire protection?	☐	✗	☐	☐	No
b. Police protection?	☐	✗	☐	☐	No
c. Schools?	☐	✗	☐	☐	No
d. Parks?	☐	☐	✗	☐	No
e. Other Public Facilities?	☐	☐	✗	☐	No

Discussion

- a. Fire protection services in the City of Elk Grove are provided by the Cosumnes Community Services District (CCSD).²⁶ Services include fire suppression, emergency medical services, technical rescue, and arson and explosion investigations. The CCSD has 175 personnel in its Operations Division and operates out of eight fire stations with eight advanced life support engine companies, one aerial ladder truck company, six rescue ambulance units, and one command vehicle, as well as other specialized apparatus for specialized emergency circumstances. In 2016, the CCSD responded to 18,592 incidents, an 8.2 percent decrease from 2015. The nearest fire station to the Project site is Fire Station 76, located at 8545 Sheldon Road, approximately 1.8 miles east of the site.

Upon completion, the CCSD would provide fire protection services to the proposed residential and commercial development. The General Plan EIR concluded that while buildout of the Planning Area, including the Project site, would result in an increased demand for fire protection and emergency medical services, compliance with applicable regulations and General Plan policies would ensure that new fire station siting and resources are available and that required environmental review under CEQA would be conducted as specific fire protection facilities are proposed. As noted in the General Plan EIR, three new fire stations are currently planned within the City's Planning Area: Station 77, to be located within the Laguna Ridge Specific Plan Area near Whitelock Parkway; Station 78, to be located within the South Pointe Land Use Policy Area near Kammerer Road; and Station 79, to be located within the Eastern Elk Grove Community Plan Area near Grant Line Road. Therefore, demand for fire protection facilities associated with the Project could either be met by the existing Fire Station 76 or by future fire station facilities planned by the City.

²⁶ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.11-1]. February 2019.

Given that the Project is consistent with the Project site's current General Plan land use and zoning designations, buildout of the Project and associated demands for fire protection services has been anticipated by the City and analyzed in the General Plan EIR. The Project would not result in increased demand for fire protection facilities beyond what has been analyzed in the General Plan EIR.

In addition, per Mitigation Measure XV-1, the Project would be subject to payment of a fire impact fee in accordance with Chapter 16.95 of the City's Municipal Code, which is used to pay for costs associated with development of new fire stations. Furthermore, the proposed buildings would be constructed in accordance with the fire protection requirements of the most recent California Fire Code. The CCSD would review the Project building plans to ensure compliance with all code requirements.

Conclusion

Based on the above, with implementation of mitigation, the Project would have a less-than-significant impact related to the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts. The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a less-than-significant impact related to fire protection facilities. ***There is no new or substantially more severe impact.***

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

XV-1(a) Prior to issuance of building permits, the Project applicant shall pay all applicable development fees to the City as required by Section 16.95.050 of the City's Municipal Code.

- b. Police protection services within the City of Elk Grove are provided by the City of Elk Grove Police Department (EGPD). As noted in the General Plan EIR, the EGPD operates primarily out of two facilities located in the City Hall complex at 8380 and 8400 Laguna Palms Way. The service area is split into five police beats that are regularly patrolled. As of 2017, the EGPD has an authorized strength of 141 sworn officers and 86 civilian personnel and responds to an average of 52,000 calls for service per year. In addition to the EGPD, the California Highway Patrol (CHP) provides traffic regulation enforcement, emergency accident management, and service and assistance on State roadways, as well as traffic regulation enforcement throughout the State (including in the City), from its station located at 6 Massie Court, near the interchange of Mack Road and State Route 99.

The General Plan EIR concluded that while buildout of the Planning Area, including the Project site, would result in an increased demand for law enforcement services, resulting in new patrols, identified growth areas within the City will be adequately served by the EGPD's existing facilities, and construction of new facilities is not likely to be required. New staff and equipment necessary to provide law enforcement services to new

development would be funded by the City's Capital Facilities Fee levied on new development, as well as ongoing payments of property taxes. Payment of the Capital Facilities Fee would be required per Mitigation Measure XV-1.

Conclusion

As noted previously, the Project is consistent with the Project site's current General Plan land use designations. Thus, buildout of the Project and associated demands for police protection services has been anticipated by the City and analyzed in the General Plan EIR. Given required payment of the City's Capital Facilities Fee, as required by Mitigation Measure XV-1 consistent with Chapter 16.95 of the City's Municipal Code, the Project would have a less-than-significant impact related to the need for new or physically altered police protection facilities, the construction of which could cause significant environmental impacts. The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a less-than-significant impact related to police protection facilities. ***There is no new or substantially more severe impact.***

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

XV-1 Prior to issuance of building permits, the Project applicant shall pay all applicable development fees to the City as required by Section 16.95.050 of the City's Municipal Code.

- c. School services in the City are provided by the Elk Grove Unified School District (EGUSD). As noted in the General Plan EIR, the EGUSD provides education to over 62,000 students and operates 66 schools: 42 elementary schools, 9 middle schools, 9 high schools, 1 alternative education school, 4 continuation schools, and 1 special education school. Enrollment at the EGUSD has remained relatively constant since the 2011/12 school year.

The Project would include the development of the Project site with a total of 517 residential units and, thus, would increase demand for school facilities and services. However, given that the Project is consistent with the site's current General Plan land use designations, buildout of the site and associated increases in demand for school facilities and services has been anticipated by the City and analyzed in the General Plan EIR.

Furthermore, the EGUSD collects development fees for new residential and commercial Projects on a per square foot basis. The development fees serve to offset school facility costs associated with serving new students. Proposition 1A/SB 50 prohibits local agencies from using the inadequacy of school facilities as a basis for denying or conditioning approvals of any "[...] legislative or adjudicative act...involving ...the planning, use, or development of real property" (Government Code 65996(b)). Satisfaction of the Proposition 1A/SB 50 statutory requirements by a developer is deemed to be "full and complete mitigation."

Conclusion

Because the Project applicant would be required to pay development fees to the EGUSD, the Project would result in a less-than-significant impact regarding an increase in demand for schools. The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a significant and unavoidable impact related to school facilities. ***There is no new or substantially more severe impact.***

- d,e. Parks and recreation services within the City are provided by the Cosumnes Community Services District (CCSD) through the CCSD's Parks and Recreation Department. The CCSD plans and designs new parks, owns, operates, and maintains parks and community centers, manages rentals of community centers, picnic sites, and sports fields, and offers recreation programs. Currently, the CCSD manages 98 parks, 18 miles of off-street trails, two community centers, four recreation centers, and two aquatics complexes. Within the City of Elk Grove, as of 2016, a total of 883.3 acres of parkland are available. The CCSD parkland standards, Section 22.40.032 of the City's Municipal Code, and General Plan Policy PT-1-3 require a minimum of five acres of developed parkland per 1,000 residents. In addition to parkland requirements established in Policy PT-1-3, General Plan Policy PT-1-5 requires assurance of funding for maintenance of parks and/or trails prior to City approval of any Final Subdivision Map that contain or contributes to the need for public parks and facilities.

In total, the Project would provide for a total of 7.9 acres of public open space, including a 2.5-acre public park. In addition, within the southern portion of the Project site, the Project would include the construction of a 10-foot-wide bike trail along the length of Laguna Creek, with multiple connections extending northward to the proposed commercial and residential development. The proposed trail would connect to existing bike trail segments located west and east of the site. The public park would be located near the center of the site, with a connection provided to the proposed bike trail to the south.

As discussed in Section XIV, Population and Housing, of this IS/MND, the Project would house an estimated 1,701 future residents. Thus, in order to meet the City's parkland standard of five acres per 1,000 residents, the Project is required to provide a minimum of 8.5 acres of parkland on-site. Given that the Project would include only 2.5 acres of dedicated parkland, payment of an in-lieu fee would be required pursuant to Section 22.40.040 of the City's Municipal Code.

Conclusion

With required payment of in-lieu park fees, as required by Mitigation Measure XV-1, the Project would have a less-than-significant impact related to the need for new or physically altered parks or other public facilities, the construction of which could cause significant environmental impacts. The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a less-than-significant impact related to park and recreation facilities. ***There is no new or substantially more severe impact.***

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

XV-2 The Project applicant shall pay all applicable in-lieu park fees to the City as required by Section 22.40.035 of the City's Municipal Code.

XVI. RECREATION. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant 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?	☐	✘	☐	☐	No
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

Discussion

- a,b. As discussed under Section XV, Public Services, of this IS/MND, parks and recreation services within the City are provided through the CCSD's Parks and Recreation Department. Within the City of Elk Grove, as of 2016, a total of 883.3 acres of parkland are available. The CCSD parkland standards, Chapter 22.40 of the City's Municipal Code, and General Plan Policy PT-1-3 require a minimum of five acres of developed parkland per 1,000 residents. In addition to parkland requirements established in Policy PT-1-3, General Plan Policy PT-1-5 requires assurance of funding for maintenance of parks and/or trails prior to City approval of any Final Subdivision Map that contain or contributes to the need for public parks and facilities.

As discussed in Section XIV, Population and Housing, of this IS/MND, the Project would house an estimated 1,701 future residents. Thus, in order to meet the City's parkland standard of five acres per 1,000 residents, the Project is required to provide a minimum of 8.5 acres of parkland on-site. Given that the Project would include only 2.5 acres of dedicated parkland, payment of an in-lieu fee would be required pursuant to Chapter 22.40 of the City's Municipal Code. Consistent with Section 22.40.035, Mitigation Measure XVI-1 would require payment of fees at the time of the recording of the Final Subdivision Map. Combined, dedication of on-site parkland and payment of in-lieu fees would ensure that the Project would meet the City's park standards.

Conclusion

Based on the above, the increase in population associated with the Project would not be expected to result in substantial physical deterioration of any existing neighborhood or regional parks or other recreational facilities, and would not result in adverse physical effects related to the construction or expansion of new facilities. Thus, a less-than-significant impact would occur with implementation of mitigation. The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a

less-than-significant impact related to recreation facilities. ***There is no new or substantially more severe impact.***

Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

XVI-1 Implement Mitigation Measure XV-2.

XVII. TRANSPORTATION. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than- Significant with Mitigation Incorporated	Less-Than- Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, taking into account all modes of transportation, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	✗	☐	No
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	✗	☐	No
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	✗	☐	No
d. Result in inadequate emergency access?	☐	☐	✗	☐	No

Background

The following is based on a Traffic Report prepared for the Project by Fehr & Peers.²⁷ The Traffic Report evaluates the consistency of the Project with the City's policies and the impacts of the Project in accordance with the standards set forth by the City.

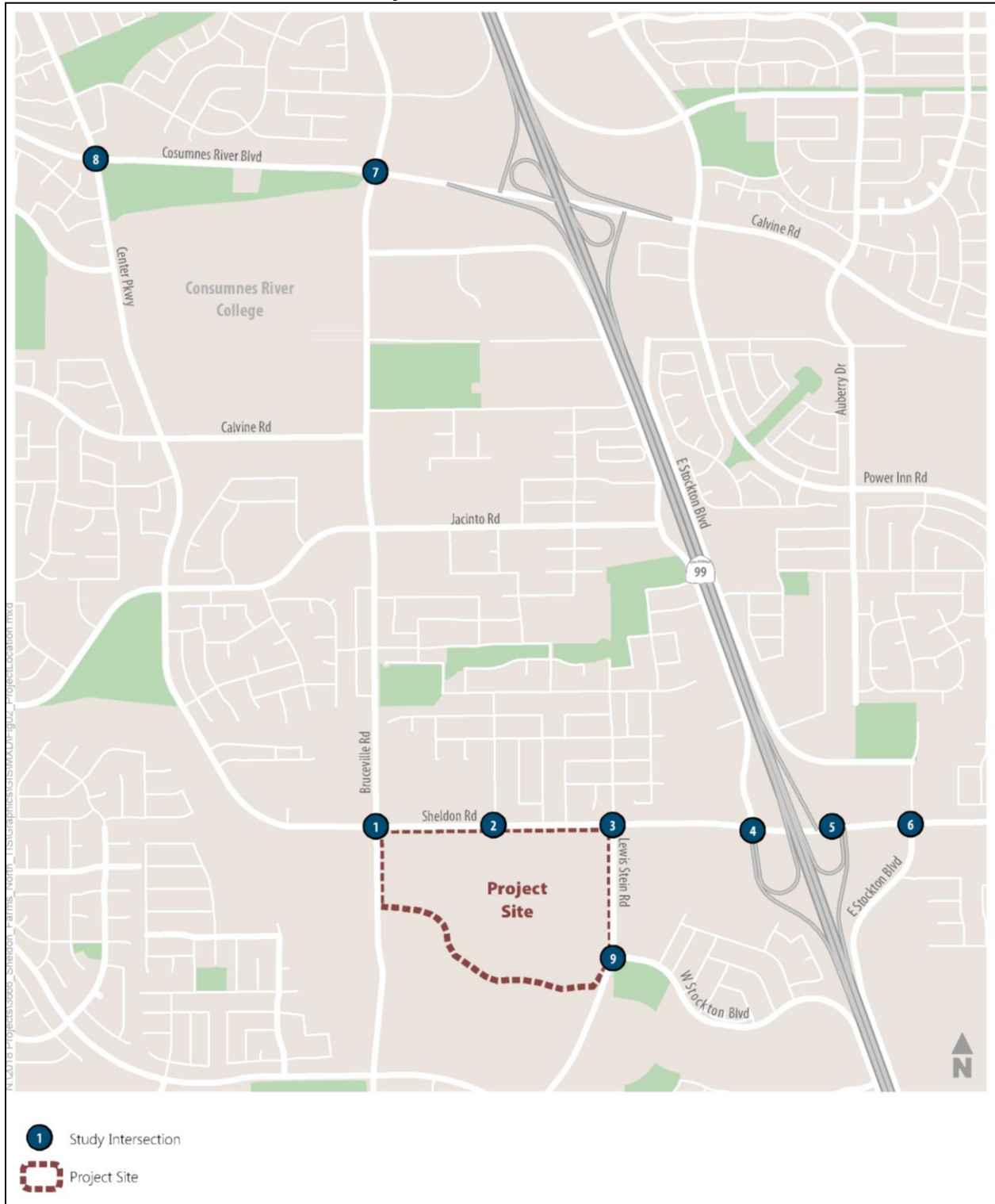
In preparing the Traffic Report, Fehr & Peers considered applicable aspects of the Project, including the land use mix and design of the Project and roadway segments and intersections around and proximate to the Project. Specifically, the following intersections were considered in the analysis; these are also illustrated in Figure 9.

1. Bruceville Road/Center Parkway/Sheldon Road;
2. Whitehouse Road/Sheldon Road;
3. Jocelyn Way/Lewis Stein Road/Sheldon Road;
4. W. Stockton Boulevard/State Route (SR) 99 SB Ramp/Sheldon Road;
5. SR 99 Northbound (NB) Ramps/Sheldon Road;
6. E. Stockton Boulevard/Sheldon Road;
7. Bruceville Road/Cosumnes River Boulevard (City of Sacramento);
8. Center Parkway/Cosumnes River Boulevard (City of Sacramento); and
9. Lewis Stein Road/W. Stockton Boulevard.

The analysis also considered the access conditions into the Project, which is shown in Figure 10.

²⁷ Fehr & Peers. *Sheldon Farms North Draft Traffic Report*. January 27, 2019.

Figure 9
Study Intersection Locations



Source: Fehr & Peers, 2019.

Figure 10
Project Access



Source: Fehr & Peers, 2019.

The Project includes the following five access intersections that will provide direct access to the adjacent roadway system:

- Access 1 – Right-in/right-out access to Bruceville Road
- Access 2 – Right-in/right-out access to Sheldon Road (about 760 feet east of Bruceville Road)
- Access 3 – Full access to Sheldon Road at Whitehouse Road
- Access 4 – Right-in/right-out access to Lewis Stein Road (about 760 feet south of Sheldon Road)
- Access 5 – Full access to Lewis Stein Road at W. Stockton Boulevard

The Project includes potential driveways to serve Lot A and Lot B. One Lot A driveway would provide right-in/right-out access to Sheldon Road and one driveway would be internal to the project to/from Street N. The potential driveways serving Lot B would be internal to the project with access from Street E and Street N. No driveway access is proposed on Bruceville Road.

The Project includes the following components that will support transit and active transportation:

- A 40-foot easement along the west side of the project (along Bruceville Road) to accommodate the planned extension of LRT
- A multi-use trail on the south edge of the project, adjacent to the Laguna Creek bypass channel that will complete a gap in the Laguna Creek Trail that currently exists between Lewis Stein and Bruceville Road
- A bus stop on Lewis Stein Road, south of Sheldon Road

The Project has also been conditioned to complete the following improvements to the transportation system:

- Dedicate, design, and construct the east half section of Bruceville Road based upon an ultimate 6-lane facility. Based upon existing conditions this will result in the construction of the outside northbound lane along the Project frontage. The intersection at Bruceville Road and Sheldon Road will be widened to incorporate the new lane.
- Dedicate, design, and construct the south half section of Sheldon Road based upon an ultimate 6-lane facility. Based upon existing conditions this will result in the construction of the outside eastbound lane along the Project frontage. The intersections at Bruceville Road and Sheldon Road and Sheldon Road and Lewis Stein Road will be widened to incorporate the new lane.
- Dedicate, design, and improve the intersection at Sheldon Road and Street L/Whitehouse Road and modify the existing traffic signal at this intersection to accommodate the fourth leg.
- Dedicate, design, and improve the intersection at Lewis Stein Road and Street F and modify the existing traffic signal at this intersection to accommodate the fourth leg.

To complete the analysis, Fehr & Peers calculated the Project Trip Generation as presented in Table 9.

Table 9 Project Trip Generation								
Land Use	Land Use Code	Quantity	Trip Generation Rate ¹			Trip Generation		
			Daily	Peak Hour		Daily	Peak Hour	
				AM	PM		AM	PM
Single Family Detached Housing	210	391 units	9.44	0.74	0.99	3,691	289	387
Multi-Family Housing (Mid-Rise)	221	126 units	5.44	0.36	0.44	685	45	55
Shopping Center ²	820	46,000 sf	77.19	0.94	6.66	3,535	43	305
Total Trips						7,911	377	747
Pass-By Trips (Applied to Commercial Land Use) ³						-85	-8	-85
Internal Capture ⁴						-419	-31	-45
External Walk, Bike, Transit						-364	-25	-49
Net New Project Trips						7,043	313	568
Notes: ¹ Trip generation rates from ITE Trip Generation Manual, 10 th Edition. ² Trip generation for Daily and PM peak hour were developed based on regression equation. Trip generation for AM peak hour based on weighted average trip generation rate. ³ A pass-by factor of 30 percent was applied to the commercial land use based on pass-by rates document in the Trip Generation Handbook, 3 rd Edition. The factor was applied to the commercial land use after accounting for internal trip interactions with the Project's residential land uses. ⁴ Internal trips were estimated using the MXD+ model. Inbound/Outbound Percentages: - Land use Code 210 – AM (0.25/0.75), PM (0.63/0.37) - Land use Code 221 – AM (0.26/0.74), PM (0.61/0.39) - Land use Code 820 – AM (0.62/0.38), PM (0.48/0.52)								
Source: Fehr & Peers, 2019.								

Based upon the trip generation data, existing traffic counts, and output from the modified SACMET travel demand forecasting model prepared for the analysis, Fehr & Peers identified the distribution of trips illustrated in Figure 11.

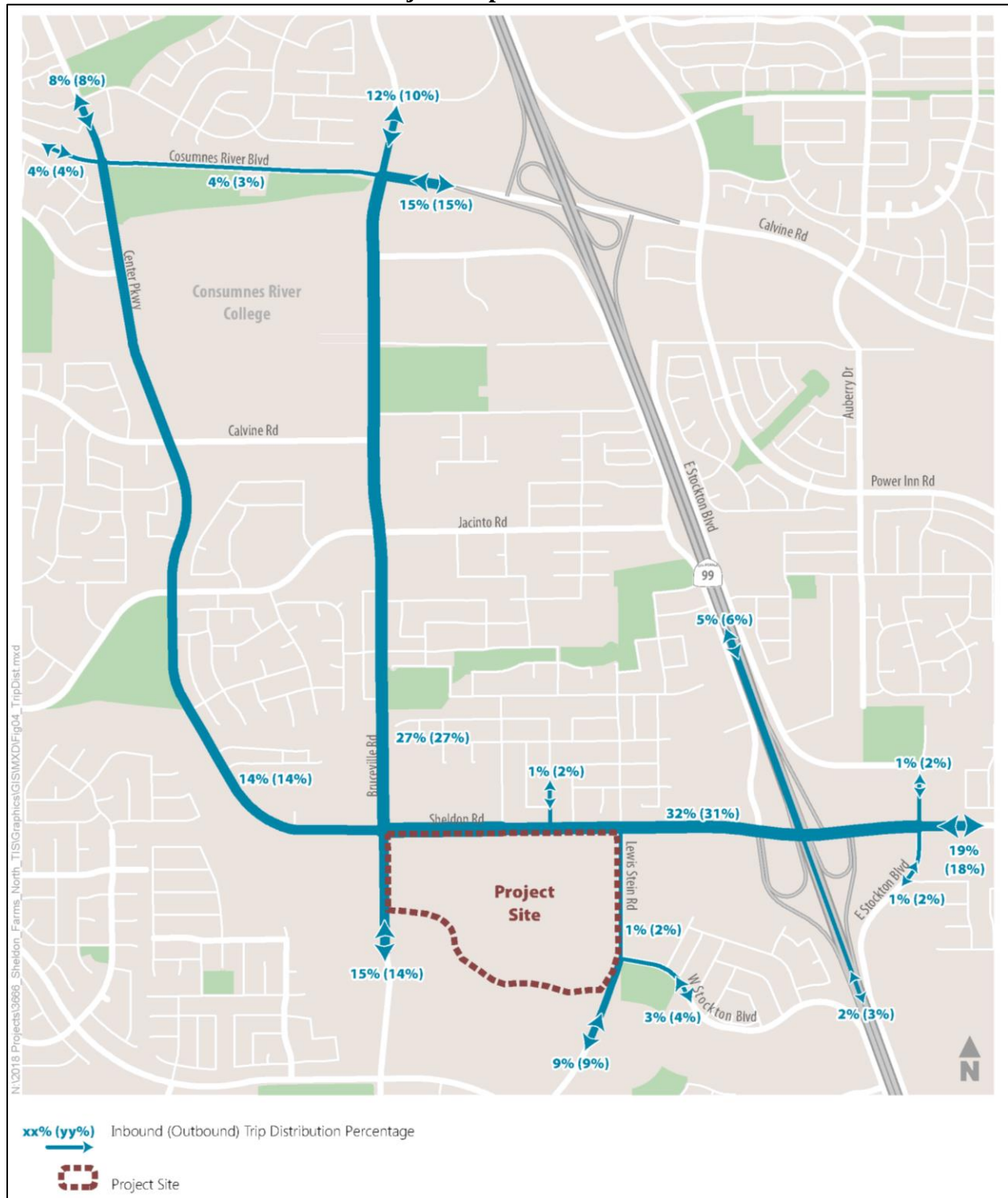
Discussion

- a. This section discusses any potential conflict between the Project and any applicable programs, plans, ordinances, or policy addressing the circulation system. This includes all modes of transportation, including transit, roadway, bicycle, and pedestrian facilities.

Consistency with City of Elk Grove General Plan Policies - Roadway Sizing

The City's General Plan establishes performance targets for the operation of roadway segments and intersections. The intent of this policy is to balance the effectiveness of design requirements to achieve the targets with the character of the surrounding areas, as well as the cost to complete the improvements and ongoing maintenance obligations. Generally, the City's Transportation Network Diagram and Roadway Sizing Diagram, located within the General Plan, identify the planned improvements based upon planned land uses.

Figure 11
Project Trip Distribution



Source: Fehr & Peers., 2019.

If a proposed development project is consistent with the General Plan, it will be conditioned to complete the improvements provided in the diagram. If a project proposes amendments to the General Plan the trips generated by the project may trigger revisions to the planned roadway sizing. An analysis of trips generated by the Project is necessary to understand the consistency between a project and the General Plan.

The Roadway Sizing Diagram identifies that Bruceville Road and Sheldon Road are to both be 6-lane arterials. They are currently constructed as 4-lane and 5-lane (three westbound and 2 eastbound), respectively. Lewis Stein Road is designated as a 2-lane minor arterial/collector and is constructed as such.

As discussed in the Land Use section, the proposed land uses are consistent with the General Plan and no amendments to the General Plan are proposed as part of the Project. The trips generated by the Project are consistent with the anticipated trips used to prepare the Roadway Sizing Diagram. Therefore, the roadway improvements that will be conditioned are appropriate and consistent with the General Plan and no further roadway segment improvements are required.

Consistency with City of Elk Grove General Plan Policies - Intersection Control

The City's General Plan also establishes performance targets for intersections. As with the roadway sizing, this is meant as a guideline and the City may allow deviations as part of project approval. Table 10 identifies the City's Intersection Performance Targets by intersection type.

Table 10	
Vehicular Design Considerations: Intersection Performance Targets	
Intersection Control	Intersection Control (Delay in Seconds)
Stop (Side-Street & All-Way)	< 35.1
Signal	< 55.1
Roundabout	< 35.1

Fehr & Peers calculated the forecasted intersection delay for both the existing conditions with Project and the cumulative conditions with Project for the nine study area intersections. Table 11 summarizes the results of this analysis.

As indicated in Table 11, the Bruceville Road/Center Parkway/Sheldon Road intersection would operate above the City's performance target in the cumulative plus project conditions; however, it would operate within the target in the existing conditions plus project condition. Therefore, increases in operational delay at this intersection would occur as a result of growth in background traffic from development other than the Project and there are no Project-specific impacts and a less-than-significant impact would occur. The City may optimize the intersection through a number of improvements in response to cumulative development; however, based upon the General Plan policy it is not obligated to do so. Since the increase in delay is not caused by the Project, no Project mitigation is required. The City will monitor the intersection and determine if improvements are necessary.

Table 11 Forecasted Intersection Operations							
Intersection	Traffic Control (Existing)	Existing Conditions without Project		Existing Conditions with Project		Cumulative Conditions with Project	
		AM Delay	PM Delay	AM Delay	AM Delay	PM Delay	AM Delay
1. Bruceville Rd/Center Pkwy/Sheldon Rd	Signal	30	38	32	46	46	65
2. Whitehouse Rd/Sheldon Rd	Signal	5	6	13	18	14	26
3. Jocelyn Wy/Lewis Stein Rd/Sheldon Rd	Signal	22	23	24	29	37	38
4. W. Stockton Blvd/SR 99 SB Ramp/Sheldon Road	Signal	21	26	21	25	28	35
5. SR 99 NB Ramps/Sheldon Rd	Signal	8	9	8	11	17	22
6. E Stockton Blvd/Sheldon Rd	Signal	25	26	26	26	43	47
7. Bruceville Road/Cosumnes River Blvd ¹	Signal	53	66	53	55	80	79
8. Center Pkw/Cosumnes River Blvd ¹	Signal	67	58	69	60	101	86
9. Lewis Stein Rd/W Stockton Blvd	Signal	9	21	11	16	16	25
Notes: 1. All portions of intersection located outside of the City of Elk Grove. 2. Bold intersections forecasted to operate at a delay above the performance target. <i>Source: Fehr & Peers., 2019.</i>							

It should be noted that the Project will be conditioned to pay the City's Roadway Fee Program, which provides fair-share funding towards projects that improve traffic operations and construct eligible roadway facilities identified in the General Plan. A project to optimization this signal may be included in the Roadway Fee Program.

For intersections 8 and 9, please see the discussion below regarding consistency with City of Sacramento policies.

Consistency with City of Elk Grove General Plan Policies - Transit, Bicycle, and Pedestrian Facilities

The following section discusses the availability of bicycle and pedestrian facilities and transit service and facilities in the Project area.

Bicycle and Pedestrian Facilities

Currently, Class II bicycle lanes (on-street with signage and striping) are provided in both directions on Sheldon Road, Bruceville Road, and Lewis Stein Road adjacent to the Project. In addition, connections to the Laguna Creek Trail are available on Lewis Stein Road and Bruceville Road at Laguna Creek. A gap exists in the Laguna Creek Trail between Lewis Stein Road and Bruceville Road on the southern Project boundary.

Pedestrian facilities are generally provided along improved frontages, including attached and separated sidewalks. A paved off-street sidewalk is provided along Sheldon Road between Bruceville Road and Lewis Stein Road. Gaps in the sidewalk coverage exist along the western and eastern boundary of the Project on Bruceville Road and Lewis Stein Road, respectively. In addition, a gap exists at the sidewalk on the north side of Sheldon Road (west of Whitehouse Road) along the Hatton Veterinary Hospital property.

Pedestrian crosswalks are provided on all four legs of the Sheldon Road/Bruceville Road/Center Parkway, Sheldon Road/Lewis Stein Road/Jocelyn Way, and W. Stockton Boulevard/Lewis Stein Road intersections. The Sheldon Road/Whitehouse Road intersection includes pedestrian crosswalks on the west and north legs.

The Project would provide for attached sidewalks along all of the proposed internal roadways, except as provided below. In addition, new sidewalks would be provided along the Project frontages to the north, east, and west. Two north-south streets (Street L and Street N) and one east-west street (Street D) will have separated sidewalks. Within the southern portion of the Project site, the Project would include the construction of a 10-foot-wide bike trail along the length of Laguna Creek, with multiple connections extending northward to the proposed commercial and residential development. The proposed trail would connect to existing bike trail segments located west and east of the site. The Project would include an amendment to the City's Bicycle, Pedestrian, and Trails Master Plan to modify the alignment of the Class 1 multi-purpose trail identified in the Master Plan. However, the proposed alignment would be consistent with other elements of the Master Plan and would provide for a similar level of bicycle and pedestrian connectivity as was envisioned in the Master Plan.

Given that the Project would incorporate new bicycle and pedestrian improvements to serve the local community, a less-than-significant impact would occur.

Transit Service and Facilities

Transit service within the study area is provided by the City's e-Tran transit service, which operates seven local routes within Elk Grove and ten commuter routes with service to Downtown Sacramento and Rancho Cordova. Three local routes and one commuter route provide service within the study area, with bus stops along Bruceville Road, Sheldon Road, and Lewis Stein Road. The local and commuter routes are described briefly below:

- Route 110 is a local route that provides service between Cosumnes River College and Kaiser Medical Center near the Grant Line Road interchanges. Route 110 runs Monday through Friday from approximately 6:00 AM to 10:00 PM every 30 minutes until 6:12 PM, when the route runs hourly. Near the Project site, Route 110 travels on Bruceville Road (stop at Sheldon Road), Sheldon Road (stop at Lewis Stein), and Lewis Stein Road (stop at W. Stockton Boulevard).
- Route 114 is a local route that provides service between Laguna, Cosumnes River College, and east Calvine Road (near Bader Road). Route 114 runs Monday through Friday from approximately 6:06 AM to 7:44 PM on one-hour headways and on Saturday from approximately 6:58 AM to 6:16 PM on 90-minute headways. Route 114 travels on Bruceville Road with a stop at Sheldon Road.
- Route 116 is a local route that provides service between Cosumnes River College and east Elk Grove Boulevard (near Clarke Farms Drive). Route 116 runs Monday through Friday from approximately 6:08 AM to 8:23 PM on one-hour headways and on Saturday from approximately 7:23 AM to 6:23 PM on one-hour headways. Route 116 travels on Bruceville Road with a stop at Sheldon Road.
- Route 10 is a commuter route that travels between the Big Horn Boulevard/Civic Center Drive intersection and Downtown Sacramento. With the Project area, the route travels on Lewis Stein Road and Sheldon Road with stops at W. Stockton Boulevard and Sheldon Road. Route 10 provides four inbound buses in the morning and four outbound buses in the evening, Monday through Friday.

Along the western site boundary, the Project would provide for a 40-foot-wide easement to accommodate the planned extension of the Blue Line Light Rail line (or development of a bus rapid transit connection between the current Blue Line terminus at Cosumnes River College and the City). At the eastern site boundary, the Project would include construction of a bus stop at Lewis Stein Road. Therefore, the Project would not conflict with any existing or planned transit facilities. In addition, given that the Project is consistent with the site's current General Plan land use and zoning designations, increased demand on transit services associated with buildout of the Project site has been previously anticipated by the City and evaluated as part of local transit planning efforts. Thus, any potential increases in transit ridership occurring as a result of the Project would not result in conflicts with any transit plans or goals of the City, and a less-than-significant impact would occur.

Consistency with City of Sacramento General Plan Policies

As identified in Table 11, the effect of Project-generated traffic was evaluated at the following intersections located within the City of Sacramento:

7. Bruceville Road/Cosumnes River Boulevard; and
8. Center Parkway/Cosumnes River Boulevard.

The City of Sacramento continues to implement Level of Service (LOS) thresholds for intersection delay. The City of Sacramento is allowed to do this as the relevant provisions of State CEQA Guidelines limiting the use of LOS thresholds do not apply until either a

local agency chooses to implement them or a deadline of July 1, 2020, whichever occurs first.

Based on the results of the analysis summarized in Table 11, the Project would not cause either of the subject intersections to exceed the minimum operations standards established by the City of Sacramento under Existing Plus Project or Cumulative Plus Project conditions. This is because the City of Sacramento uses a threshold of increased delay of five seconds or more. The Project would increase delay by two seconds. Thus, the Project would not conflict with applicable City of Sacramento policies, and a less-than-significant impact would occur.

Consistency with California Department of Transportation Facilities

Table 11 includes intersections 4 and 5, which are intersections at the end of State Highway offramps. As indicated in the table, the intersections would perform in both the existing conditions plus project and cumulative conditions plus project scenarios consistent with City policies for intersection delay. Therefore, the Project would have a less-than-significant impact on these facilities.

Prior project analysis has identified that in the cumulative conditions, continued development in Elk Grove and other portions of south Sacramento County will have impacts on State facilities. To address this, the I-5 Subregional Fee program was developed between the City, the Cities of Sacramento and West Sacramento, and Caltrans. Policy MOB-7-4 in the City General Plan requires development applications to pay this fee in order to fund the necessary improvements. Payment of the fee would be required by Mitigation Measure XVII-1. Thus, the Project would not conflict with applicable Caltrans policies, and a less-than-significant impact would occur with implementation of mitigation.

Conclusion

Based on the above, the Project will complete improvements to roadway segments as identified in the General Plan within and adjacent to the Project Site, as applicable, and as described in the Traffic Report, and no new segments improvements need to be considered. Further, intersection delay at the study area intersections as a result of the Project operate within the performance targets provided in the General Plan. The Project will also construct pedestrian, trail, and transit improvements as required by the General Plan. Intersection impacts within the City of Sacramento were also determined to be less than significant.

As noted above, Mitigation Measure XVII-1 would require the Project applicant to pay the applicable I-5 Subregional Fee to address cumulative impacts to the State Highway system.

Therefore, the Project would not conflict with a program, plan, ordinance or policy addressing the circulation system, taking into account all modes of transportation, including transit, roadway, bicycle, and pedestrian facilities. Thus, a less-than-significant impact would occur. The General Plan EIR concluded that buildout of the General Plan,

including the Project site, would result in a significant and unavoidable related to intersection and roadway LOS. ***There is no new or substantially more severe impact.***

Mitigation Measure(s)

XVII-1. Prior to issuance of building permits, the Project applicant shall pay the applicable I-5 Subregional Fee in effect at the time of payment, consistent with Sections 16.97.040 and 16.97.050 of the City's Municipal Code. Receipt of payment shall be provided to the City of Elk Grove Planning Division.

- b. Pursuant to General Plan Policy MOB-1-1, new development projects are required to demonstrate a 15 percent reduction in VMT from 2015 conditions. To demonstrate this reduction, conformance with following land use and cumulative VMT limits is required:
1. Development projects shall demonstrate that the VMT produced by the project at buildout is equal to or less than the VMT limit of the project's General Plan land use designation, as shown in Table 6-1 of the General Plan, which incorporates the 15 percent reduction from 2015 conditions;
 2. Development projects located within the existing City limits shall demonstrate that cumulative VMT within the City, including the project, would be equal to or less than the established Citywide limit of 6,367,833 VMT (total daily VMT); and

As part of the Traffic Report prepared for the Project, VMT associated with the proposed development was calculated using the methods provided in the City's *Transportation Analysis Guidelines* and compared to the City's established VMT thresholds.²⁸ The VMT analysis accounted for bicycle and pedestrian facility improvements that would be constructed with the Project. It should be noted that the proposed frontage improvements along Sheldon Road, Bruceville Road, and Lewis Stein Road are consistent with the City of Elk Grove General Plan and the SACOG MTP/SCS; thus, induced VMT associated with such improvements has been accounted for in the General Plan EIR, and further analysis is not required.

As part of the Traffic Study, the VMT was calculated for each of the General Plan land use designations within the Project site under full buildout of the Project. As shown in

²⁸ City of Elk Grove. *Transportation Analysis Guidelines*. February 2019.

Table 12 Project VMT by Land Use Designation

, the Project would not exceed the City's established thresholds for the Community Commercial, LDR, MDR, and HDR land use designations.

As noted previously, development projects within the City of Elk Grove are required to demonstrate that the cumulative VMT within the City, including the Project, would be equal to or less than the City's established total VMT limit. Per the Traffic Study, the cumulative VMT with development of the Project would be 6,364,974 VMT, which is below the City's limit of 6,367,833 VMT.

Table 12 Project VMT by Land Use Designation			
Land Use Designation	VMT per Service Population		Limit Exceeded?
	Limit	Project	
Community Commercial	41.6	22.5	No
Low Density Residential	21.2	19.6	No
Medium Density Residential	20.9	19.4	No
High Density Residential	20.6	17.3	No
Source: Fehr & Peers, 2019.			

Thus, the Project would not cause a new exceedance of the citywide limit. Based on the above, the Project would not conflict with the VMT limits established by General Plan Policy MOB-1-1. Therefore, a less-than-significant impact would occur. The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a significant and unavoidable impact related to VMT. ***There is no new or substantially more severe impact.***

- c,d. This impact area looks at hazards due to a geometric design feature or interactions between adjoining uses. It also considers impacts from the Project that result in inadequate emergency access. As part of the Traffic Report, Fehr & Peers evaluated these issues and their findings are summarized herein.

Vehicle Queuing at Highway Off-Ramps

Generally, increased vehicle traffic on local roadways is managed through lane and intersection improvements. Drivers on surface streets will expect some level of speed reductions or stopped traffic at intersections. City standards provide for minimum sight distances to intersections so that drivers have advanced warning of a stop condition at an intersection. There are no unusual surface roadway designs in the vicinity of the Project; therefore, no impacts have been identified.

Along the State Highway system, unsafe conditions can occur if there are backups at off-ramps into the main travel way. Because of the Project's proximity to State Route 99, Fehr & Peers analyzed vehicle queue lengths at both the northbound and southbound off-ramps. Table 13 summarizes this under both Existing Plus Project conditions and Cumulative Plus Project conditions.

Table 13 Peak Hour Vehicle Queuing						
Location	Movement	Storage (feet)	Maximum Vehicle Storage Need			
			Existing Plus Project Conditions		Cumulative Plus Project Conditions	
			AM	PM	AM	PM
SR 99/Sheldon Road Interchange	NB Off-Ramp	1,200	175	325	475	575
	SB Off-Ramp	1,400	200	300	225	325
Source: Fehr & Peers, 2019.						

As shown, the maximum vehicle queues will be less than available storage on both off-ramps. Therefore, the addition of Project traffic would create a less than significant impact.

Project Design

As part of the Traffic Report, Fehr & Peers evaluated the consistency of the proposed circulation system with the City of Elk Grove Improvement Standards relevant to site access design, including residential street width, driveway right-turn treatment, minimum required throat depth, driveway width, and driveway placement. As described in the Traffic Report, the proposed residential street widths and driveway design would be consistent with the Improvement Standards based on the anticipated development intensity. It should be noted that the Project includes a potential right-in/right-out driveway on Sheldon Road to serve future commercial uses on Lot A. Although a detailed site plan is not currently available for the proposed commercial lot, future plans for the driveway would be required by the City to include a right-turn pocket, a minimum throat depth of 50 feet, and a minimum driveway width of 35 feet. The potential driveway would be located 175 feet or further from the curb return at Bruceville Road. Thus, overall, the proposed on-site circulation system would not create any traffic safety hazards.

Furthermore, the Project does not include changes to existing roadways or the introduction of any design features that would be considered hazardous. Final improvement plans for the Project would be subject to review by the Cosumnes Fire Department to ensure that emergency vehicles are capable of responding to incidents at the site.

Conclusion

Based on the above, the Project would not substantially increase hazards due to geometric design features or incompatible uses, and emergency access to the site would be adequate. Therefore, the Project would result in a less-than-significant impact. The General Plan EIR did not identify any significant impacts related to traffic safety hazards. ***There is no new or substantially more severe impact.***

XVIII. TRIBAL CULTURAL RESOURCES.

Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:

	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant 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).	☐	✗	☐	☐	No
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.	☐	✗	☐	☐	No

Discussion

- a,b. As discussed in Section V, Cultural Resources, of this IS/MND, the Project site does not contain any existing structures or any other known resources 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), and does not contain known resources that could be considered historic pursuant to the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. A survey of the Project site conducted in 2017 by Peak & Associates, Inc. did not identify any tribal cultural resources on the site.

In compliance with Assembly Bill (AB) 52 (Public Resources Code Section 21080.3.1), on May 28, 2019, the City provided formal notification letters to local tribes that had requested notification. The City received responses from Auburn Rancheria, Wilton Rancheria, and the United Auburn Indian Community requesting to initiate formal consultation. The tribes requested inclusion of specific mitigation measures in the IS/MND. The City worked with the tribes to refine those measures, which have been incorporated into Section V, Cultural Resources, of this IS/MND. The refined measures were provided to the tribes on August 7, 2019. No further response was received. It should be noted that the tribes did not identify any specific tribal cultural resources on the site.

Conclusion

Based on the above, known tribal cultural resources do not exist within the Project site. Nevertheless, the possibility exists that previously unknown cultural resources could be uncovered during grading or other ground-disturbing activities. However, implementation of Mitigation Measure XVIII-1 would ensure that a less-than-significant impact to tribal cultural resources would occur. The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a less-than-significant impact related to tribal cultural resources, given implementation of project-level mitigation. ***There is no new or substantially more severe impact.***

Mitigation Measure(s)

Implementation of the following mitigation measure, which refers to the mitigation measures presented previously in Section V of this IS/MND, would reduce the above impact to a *less-than-significant* level.

XVIII-1. Implement Mitigation Measures V-1, V-2, and V-3.

XIX. UTILITIES AND SERVICE SYSTEMS. <i>Would the Project:</i>	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant 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?	☐	☐	✗	☐	No
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	✗	☐	No
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?	☐	☐	✗	☐	No
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
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	✗	☐	No

Discussion

- a,c. The sections below describe the wastewater and water supply infrastructure necessary to serve the Project.

Wastewater Infrastructure

Sewer service for the Project would be provided by the Sacramento Area Sewer District (SASD) by way of new a new 10-inch line connecting to the SASD's existing 18-inch sewer main located in Sheldon Road and a new eight-inch sewer line connecting to the SASD's existing 15-inch sewer line in Lewis Stein Road to the east (see Figure 5). The

SASD is a contributing agency to the Sacramento Regional County Sanitation District (Regional San).

The SASD owns, operates, and maintains a network of 107 pump stations and approximately 80 miles of pressurized force main pipes.²⁹ SASD trunk sewer pipes function as conveyance facilities to transport the collected wastewater flows to the Regional San interceptor system. The existing City trunk line extends southeast from the Sacramento Regional Wastewater Treatment Plant (SRWTP) influent diversion structure to Laguna Boulevard, then parallel to SR 99 along East Stockton Boulevard, extending close to the southern boundary of the City of Elk Grove.

Pursuant to the General Plan EIR, the SRWTP treats an average of 181 million gallons of wastewater per day (mgd). Wastewater is treated by accelerated physical and natural biological processes before discharge to the Sacramento River. The SRWTP's reliable capacity is currently limited, based on hydraulic considerations, to an equivalent 207 mgd average dry weather flow (ADWF). This existing capacity falls short of the 218 mgd ADWF projected for 2020 per the Sacramento Regional Wastewater Treatment Plant 2020 Master Plan. Therefore, the SRWTP has been master planned to accommodate 350 mgd ADWF. In addition, Regional San has prepared a long-range master plan for the large-diameter interceptors that transport wastewater to the SRWTP. The master plan includes interceptor upgrades/expansions to accommodate anticipated growth through 2035.³⁰

As part of the General Plan EIR, potential increases in wastewater generation from buildout of the General Plan were calculated based upon equivalent dwelling units for land uses within the Planning Area, assuming 310 gallons per day per equivalent dwelling unit. Overall, buildout was calculated to generate an additional 16.2 mgd of wastewater relative to existing conditions. Given that the SRWTP has been master planned to accommodate future growth of up to 350 mgd ADWF, the General Plan EIR concluded that the addition of wastewater associated with buildout of the City of Elk Grove Planning Area would not exceed the available capacity of the treatment plant.

Because the Project is consistent with the site's current General Plan land use designations, the Project would not result in increased wastewater generation beyond what has been analyzed in the General Plan EIR. Furthermore, per the SASD Sewer Ordinance, the Project would be subject to payment of the SASD's applicable sewer impact fees, which are used to fund needed sewer system maintenance and improvements.³¹ Sewer impact fees are due prior to issuance of building permits for commercial and residential structures. Therefore, a less-than-significant impact would occur related to construction of new or expanded wastewater facilities.

²⁹ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.12-26]. February 2019.

³⁰ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.12-27]. February 2019.

³¹ Sacramento Area Sewer District. *Sewer Ordinance*. January 10, 2018.

Water Supply Infrastructure

Water supply to the proposed development would be provided by the SCWA by way of the following new connections: a new 12-inch water line connecting to the SCWA's existing 42-inch water main located in Bruceville Road near the proposed Street E access; a new 12-inch water line connecting to the SCWA's existing 24-inch water main located in Sheldon Road to the north; and a new eight-inch water line connecting to the SCWA's existing 18-inch water main located in Lewis Stein Road to the east (see Figure 5). Given that the Project would connect to existing water supply lines located in the Project vicinity, construction of substantial off-site water supply infrastructure would not be required. In addition, given that the Project is consistent with the site's current General Plan land use designations, construction of on-site water supply improvements has been previously anticipated by the City and analyzed in the General Plan EIR. Therefore, a less-than-significant impact would occur related to construction of new or expanded water supply facilities.

Stormwater Infrastructure

The Project site is currently undeveloped vacant land with ruderal vegetation. Completion of the Project would increase site runoff due to the introduction of impervious surfaces to the site. As discussed in further detail in Section X, Hydrology and Water Quality, of this IS/MND, the SWCP for the Project conforms with the most recent Sacramento County Stormwater Quality Design Manual and verifies that the Project would comply with all City stormwater requirements. In compliance with the C.3 Guidebook, the Project would include on-site bio-retention facilities sized to exceed the minimum volume requirement necessary to adequately manage all runoff from the proposed impervious surfaces. Because the proposed bio-retention facilities would be designed with adequate capacity to capture and treat runoff from proposed impervious surfaces, the Project would not generate runoff in excess of the City's existing stormwater system's capacity. Therefore, the Project would have a less-than-significant impact with respect to requiring or resulting in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Electricity, Natural Gas, and Telecommunications Facilities

The Project site is located within a developed area of the City of Elk Grove and is situated within close proximity to existing electric power, natural gas, and telecommunications facilities. Thus, substantial expansion of such off-site utilities would not be required to serve the proposed development, and associated environmental effects would not occur.

Conclusion

The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a significant and unavoidable impact related to construction of new or expanded water supply and wastewater conveyance infrastructure, while impacts related to electric, natural gas, and telephone services were determined to be less than significant.

Based on the above, the Project would not result in increased wastewater generation beyond what has been analyzed in the General Plan EIR and accounted for in regional planning efforts. Thus, adequate wastewater treatment capacity would be available to serve the Project. In addition, the Project would not require construction of substantial off-site wastewater, water supply, stormwater, electricity, natural gas, or telecommunications infrastructure.

Therefore, a less-than-significant impact would occur related to requiring or resulting 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 relocation of which could cause significant environmental effects, or resulting 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. ***There is no new or substantially more severe impact.***

- b. Per the General Plan EIR, the City of Elk Grove is served by three water service providers: the SCWA; the Elk Grove Water District; and the Omochumne-Hartnell Water District.³² As noted above, the Project would be served by the SCWA. The SCWA uses purchased water, surface water, groundwater, and recycled water as sources of water supply.

Pursuant to the WSA prepared for the Project by the SCWA, the site is located within the SCWA's 40/41 service area and within the 2030 Water Supply Master Plan (WSMP) study area.³³ The WSA was prepared to meet the requirements of Sections 10910 through 10912 of the California Water Code.

Since approval of the WSMP, the SCWA has produced amendments to the WSMP for the following areas: Cordova Hills (approved 2011), Jackson Township (pending approval), New Bridge (pending approval), and West Jackson (pending approval). In 2016, SCWA also developed the Water System Infrastructure Plan (WSIP). The WSIP is a staff-level document that describes the projected water supply infrastructure needs to meet the projected built-out water demands in Zone 40, including the demands associated with buildout of the Project site. Subsequently, the 2015 Urban Water Management Plan (UWMP) was developed based on water demand and supply information provided in the WSIP. Thus, the 2015 UWMP demand projections include the estimated demands associated with buildout of the Project site.

Per the WSA, the projected annual demand associated with the Project, including the 517 proposed residential units and the 5.3-acre commercial lot, would be approximately 185.5 acre-feet per year (afy), including system losses. Given that the Project site is located in the 2030 study area of the WSMP, and within the study area of the WSIP, the water demand associated with the Project has been accounted for in the 2015 UWMP, which describes SCWA's existing and projected water demands through 2040. As shown in Table 10 of the project-level WSA, SCWA's total projected water supplies during normal, single dry, and

³² City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.12-1]. February 2019.

³³ Sacramento County Water Agency. *Water Supply Assessment for Sheldon Farms North*. January 2019.

multiple dry years would be sufficient to meet anticipated demands through 2040. Therefore, SCWA's water supplies would be sufficient to satisfy water demands associated with the Project while still meeting the current and projected water demands of existing customers within the SCWA service area.

Conclusion

The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a significant and unavoidable impact related to water supplies. However, based on the above, sufficient water supplies would be available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Consequently, a less-than-significant impact would occur. ***There is no new or substantially more severe impact.***

- d,e. Republic Services provides solid waste collection, disposal, recycling, and yard waste services to residential development within the City of Elk Grove. Solid waste generated by commercial and multifamily residential developments is served by registered commercial haulers or county-authorized recyclers. As noted in the General Plan EIR, the City is served by a total of ten landfills, the majority of which have over 70 percent available remaining capacity.³⁴ Due to the substantial amount of available capacity remaining at the landfills serving the City, sufficient capacity would be available to accommodate the Project's solid waste disposal needs. Furthermore, given that the Project is consistent with the site's current General Plan land use designations, solid waste generation associated with the Project has been anticipated by the City and accounted for in regional planning efforts.

Conclusion

Based on the above, a less-than-significant impact related to solid waste would occur as a result of the Project. The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a less-than-significant impact related to solid waste disposal. ***There is no new or substantially more severe impact.***

³⁴ City of Elk Grove. *General Plan Update Draft Environmental Impact Report* [pg. 5.12-32]. February 2019.

XX. WILDFIRE. <i>If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:</i>	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant Impact?
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	✗	☐	No
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?	☐	☐	✗	☐	No
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?	☐	☐	✗	☐	No
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?	☐	☐	✗	☐	No

Discussion

- a-d. According to the CAL FIRE Fire and Resource Assessment Program, the Project site is not located within a Very High Fire Hazard Severity Zone.³⁵ In addition, the site is not located in or near a State Responsibility Area.

Conclusion

Based on the above, the Project would not be expected to be subject to or result in substantial adverse effects related to wildfires, and a less-than-significant impact would occur. The General Plan EIR concluded that buildout of the General Plan, including the Project site, would result in a less-than-significant impact related to wildfire risks. ***There is no new or substantially more severe impact.***

³⁵ California Department of Forestry and Fire Protection. *Contra Costa County, Very High Fire Hazard Severity Zones in LRA*. January 7, 2009.

XX. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact	New Impact or Increase Severity of Previous Significant 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?	☐	✗	☐	☐	No
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)?	☐	☐	✗	☐	No
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	✗	☐	No

Discussion

- a. As discussed in Section IV, Biological Resources, of this IS/MND, implementation of the Project would have the potential to result in adverse effects to burrowing owls, Swainson's hawk, giant garter snakes, and migratory birds and raptors protected by the MBTA. In addition, while unlikely, the Project could result in impacts related to eliminating important examples of major periods of California history or prehistory associated with undiscovered archeological and/or paleontological resources during Project construction. However, the Project would be required to comply with applicable General Plan policies and Municipal Code regulations related to biological and cultural resources, including Chapter 7.00, Historic Preservation, of the Municipal Code. In addition, this IS/MND includes mitigation measures that would reduce any potential impacts to less-than-significant levels.

Conclusion

With implementation of the mitigation measures required by this IS/MND, as well as compliance with General Plan policies and all applicable sections of the Municipal Code, development of the Project would reduce any potential impacts associated with the following: 1) degrade the quality of the environment; 2) substantially reduce or impact the habitat of fish or wildlife species; 3) cause fish or wildlife populations to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history or prehistory. Therefore, with implementation of the mitigation measures included in this IS/MND, a less-than-significant impact would occur. ***There is no new or substantially more severe impact.***

- b. The Project in conjunction with other development within the City of Elk Grove could incrementally contribute to cumulative impacts in the area. However, as demonstrated in this IS/MND, all potential environmental impacts that could occur as a result of Project implementation would be reduced to a less-than-significant level with implementation of project-specific mitigation measures and compliance with applicable General Plan policies. As discussed in Section XVII of this IS/MND, while the Project would include generation of vehicle trip on area roadways, the cumulative VMT associated with development of the Project and other existing and planned development within the City of Elk Grove would be below the established city-wide VMT threshold. As noted in Section VIII-1, Mitigation Measure VIII-1 would ensure Project consistency with the City's CAP, thereby resulting in a less-than-significant impact related to cumulative GHG emissions. In addition, the Project is consistent with the site's current land use and zoning designations.

Conclusion

When viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the Project would result in a cumulatively considerable contribution to cumulative impacts in the City of Elk Grove, and the Project's cumulative impact would be less than significant. ***There is no new or substantially more severe impact.***

- c. As described in this IS/MND, the Project would not expose any sensitive receptors to substantial pollutant concentrations during construction or operation.

Conclusion

Therefore, the Project would result in a less-than-significant impact related to the exposure of sensitive receptors to substantial pollutant concentrations, and potential direct or indirect impacts to human beings would not occur. Therefore, the Project's impact would be less than significant. ***There is no new or substantially more severe impact.***

APPENDIX

AIR QUALITY AND GHG MODELING RESULTS

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

Sheldon Farms North (unmitigated)
Sacramento Metropolitan AQMD Air District, Annual

1.0 Project Characteristics**1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	10.00	Acre	10.00	435,600.00	0
Apartment Mid Rise	126.00	Dwelling Unit	6.30	126,000.00	336
Single Family Housing	391.00	Dwelling Unit	57.60	703,800.00	1044
Regional Shopping Center	45.80	1000sqft	5.30	45,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	369.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

Project Characteristics - Intensity factor for CO2 adjusted based on SMUD's RPS reductions

Land Use - Applicant provided

Construction Phase - Applicant provided

Grading - Applicant provided

Vehicle Trips - Applicant provided

Mobile Land Use Mitigation -

Area Mitigation - Per SMAQMD rules

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	60.00	2.00
tblConstructionPhase	NumDays	155.00	21.00
tblConstructionPhase	NumDays	110.00	10.00
tblConstructionPhase	NumDays	1,550.00	783.00
tblConstructionPhase	NumDays	110.00	783.00
tblConstructionPhase	PhaseEndDate	6/23/2020	4/2/2020
tblConstructionPhase	PhaseEndDate	1/26/2021	5/1/2020
tblConstructionPhase	PhaseEndDate	6/8/2027	5/15/2020
tblConstructionPhase	PhaseEndDate	1/5/2027	5/17/2023
tblConstructionPhase	PhaseEndDate	11/9/2027	5/31/2023
tblConstructionPhase	PhaseStartDate	6/24/2020	4/3/2020
tblConstructionPhase	PhaseStartDate	1/6/2027	5/4/2020
tblConstructionPhase	PhaseStartDate	1/27/2021	5/18/2020
tblConstructionPhase	PhaseStartDate	6/9/2027	6/1/2020
tblGrading	AcresOfGrading	52.50	79.20
tblLandUse	LotAcreage	3.32	6.30
tblLandUse	LotAcreage	126.95	57.60
tblLandUse	LotAcreage	1.05	5.30

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

tblProjectCharacteristics	CO2IntensityFactor	590.31	369.35
tblVehicleTrips	CC_TL	5.00	3.00
tblVehicleTrips	CNW_TL	6.50	3.91
tblVehicleTrips	CW_TL	10.00	6.01
tblVehicleTrips	HO_TL	6.50	3.91
tblVehicleTrips	HO_TL	6.50	3.91
tblVehicleTrips	HS_TL	5.00	3.00
tblVehicleTrips	HS_TL	5.00	3.00
tblVehicleTrips	HW_TL	10.00	6.01
tblVehicleTrips	HW_TL	10.00	6.01
tblVehicleTrips	ST_TR	6.39	4.90
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	49.97	67.69
tblVehicleTrips	ST_TR	9.91	8.51
tblVehicleTrips	SU_TR	5.86	4.90
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	25.24	67.69
tblVehicleTrips	SU_TR	8.62	8.51
tblVehicleTrips	WD_TR	6.65	4.90
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	42.70	67.69
tblVehicleTrips	WD_TR	9.52	8.51

2.0 Emissions Summary

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

2.1 Overall Construction**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.5118	3.6813	3.4621	8.9800e-003	0.4968	0.1375	0.6343	0.1500	0.1293	0.2793	0.0000	814.1161	814.1161	0.0938	0.0000	816.4616
2021	2.3659	4.4151	4.5794	0.0129	0.5958	0.1458	0.7416	0.1608	0.1378	0.2986	0.0000	1,168.3818	1,168.3818	0.1098	0.0000	1,171.1260
2022	2.3105	4.0414	4.3593	0.0126	0.5935	0.1235	0.7170	0.1602	0.1168	0.2770	0.0000	1,145.3531	1,145.3531	0.1070	0.0000	1,148.0271
2023	0.9258	1.3612	1.5884	4.6900e-003	0.2269	0.0401	0.2670	0.0612	0.0380	0.0992	0.0000	426.9680	426.9680	0.0389	0.0000	427.9413
Maximum	2.3659	4.4151	4.5794	0.0129	0.5958	0.1458	0.7416	0.1608	0.1378	0.2986	0.0000	1,168.3818	1,168.3818	0.1098	0.0000	1,171.1260

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

2.1 Overall Construction**Mitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	1.5118	3.6813	3.4621	8.9800e-003	0.4968	0.1375	0.6343	0.1500	0.1293	0.2793	0.0000	814.1158	814.1158	0.0938	0.0000	816.4612
2021	2.3659	4.4151	4.5794	0.0129	0.5958	0.1458	0.7416	0.1608	0.1378	0.2986	0.0000	1,168.3814	1,168.3814	0.1098	0.0000	1,171.1256
2022	2.3105	4.0414	4.3593	0.0126	0.5935	0.1235	0.7170	0.1602	0.1168	0.2770	0.0000	1,145.3527	1,145.3527	0.1070	0.0000	1,148.0267
2023	0.9258	1.3612	1.5884	4.6900e-003	0.2269	0.0401	0.2670	0.0612	0.0380	0.0992	0.0000	426.9678	426.9678	0.0389	0.0000	427.9412
Maximum	2.3659	4.4151	4.5794	0.0129	0.5958	0.1458	0.7416	0.1608	0.1378	0.2986	0.0000	1,168.3814	1,168.3814	0.1098	0.0000	1,171.1256

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	4-1-2020	6-30-2020	1.4603	1.4603
2	7-1-2020	9-30-2020	1.8287	1.8287
3	10-1-2020	12-31-2020	1.8427	1.8427
4	1-1-2021	3-31-2021	1.6781	1.6781
5	4-1-2021	6-30-2021	1.6860	1.6860
6	7-1-2021	9-30-2021	1.7045	1.7045
7	10-1-2021	12-31-2021	1.7154	1.7154
8	1-1-2022	3-31-2022	1.5776	1.5776

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

9	4-1-2022	6-30-2022	1.5859	1.5859
10	7-1-2022	9-30-2022	1.6033	1.6033
11	10-1-2022	12-31-2022	1.6127	1.6127
12	1-1-2023	3-31-2023	1.4549	1.4549
13	4-1-2023	6-30-2023	0.8353	0.8353
		Highest	1.8427	1.8427

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.1245	0.0614	5.3301	2.8000e-004		0.0295	0.0295		0.0295	0.0295	0.0000	8.7105	8.7105	8.3600e-003	0.0000	8.9195
Energy	0.0624	0.5342	0.2324	3.4100e-003		0.0431	0.0431		0.0431	0.0431	0.0000	1,349.5848	1,349.5848	0.0693	0.0232	1,358.2350
Mobile	1.4511	5.4634	12.5059	0.0372	3.2399	0.0312	3.2711	0.8683	0.0291	0.8974	0.0000	3,422.1245	3,422.1245	0.1720	0.0000	3,426.4253
Waste						0.0000	0.0000		0.0000	0.0000	97.9939	0.0000	97.9939	5.7913	0.0000	242.7757
Water						0.0000	0.0000		0.0000	0.0000	13.1180	51.6083	64.7262	0.0492	0.0294	74.7072
Total	5.6380	6.0590	18.0684	0.0408	3.2399	0.1039	3.3438	0.8683	0.1018	0.9700	111.1118	4,832.0281	4,943.1400	6.0902	0.0526	5,111.0628

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

2.2 Overall Operational**Mitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	4.1245	0.0614	5.3301	2.8000e-004		0.0295	0.0295		0.0295	0.0295	0.0000	8.7105	8.7105	8.3600e-003	0.0000	8.9195
Energy	0.0624	0.5342	0.2324	3.4100e-003		0.0431	0.0431		0.0431	0.0431	0.0000	1,349.5848	1,349.5848	0.0693	0.0232	1,358.2350
Mobile	1.4511	5.4634	12.5059	0.0372	3.2399	0.0312	3.2711	0.8683	0.0291	0.8974	0.0000	3,422.1245	3,422.1245	0.1720	0.0000	3,426.4253
Waste						0.0000	0.0000		0.0000	0.0000	97.9939	0.0000	97.9939	5.7913	0.0000	242.7757
Water						0.0000	0.0000		0.0000	0.0000	13.1180	51.6083	64.7262	0.0492	0.0294	74.7072
Total	5.6380	6.0590	18.0684	0.0408	3.2399	0.1039	3.3438	0.8683	0.1018	0.9700	111.1118	4,832.0281	4,943.1400	6.0902	0.0526	5,111.0628

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2020	4/2/2020	5	2	
2	Grading	Grading	4/3/2020	5/1/2020	5	21	
3	Paving	Paving	5/4/2020	5/15/2020	5	10	
4	Building Construction	Building Construction	5/18/2020	5/17/2023	5	783	
5	Architectural Coating	Architectural Coating	6/1/2020	5/31/2023	5	783	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 79.2

Acres of Paving: 0

Residential Indoor: 1,680,345; Residential Outdoor: 560,115; Non-Residential Indoor: 68,700; Non-Residential Outdoor: 22,900; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	429.00	134.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	86.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

3.1 Mitigation Measures Construction**3.2 Site Preparation - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0181	0.0000	0.0181	9.9300e-003	0.0000	9.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0800e-003	0.0424	0.0215	4.0000e-005		2.2000e-003	2.2000e-003		2.0200e-003	2.0200e-003	0.0000	3.3431	3.3431	1.0800e-003	0.0000	3.3701
Total	4.0800e-003	0.0424	0.0215	4.0000e-005	0.0181	2.2000e-003	0.0203	9.9300e-003	2.0200e-003	0.0120	0.0000	3.3431	3.3431	1.0800e-003	0.0000	3.3701

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.0000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1171	0.1171	0.0000	0.0000	0.1172
Total	7.0000e-005	5.0000e-005	5.0000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1171	0.1171	0.0000	0.0000	0.1172

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3.2 Site Preparation - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0181	0.0000	0.0181	9.9300e-003	0.0000	9.9300e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.0800e-003	0.0424	0.0215	4.0000e-005		2.2000e-003	2.2000e-003		2.0200e-003	2.0200e-003	0.0000	3.3431	3.3431	1.0800e-003	0.0000	3.3701
Total	4.0800e-003	0.0424	0.0215	4.0000e-005	0.0181	2.2000e-003	0.0203	9.9300e-003	2.0200e-003	0.0120	0.0000	3.3431	3.3431	1.0800e-003	0.0000	3.3701

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.0000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1171	0.1171	0.0000	0.0000	0.1172
Total	7.0000e-005	5.0000e-005	5.0000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1171	0.1171	0.0000	0.0000	0.1172

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3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1052	0.0000	0.1052	0.0393	0.0000	0.0393	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0467	0.5271	0.3356	6.5000e-004		0.0228	0.0228		0.0210	0.0210	0.0000	57.2085	57.2085	0.0185	0.0000	57.6711
Total	0.0467	0.5271	0.3356	6.5000e-004	0.1052	0.0228	0.1281	0.0393	0.0210	0.0603	0.0000	57.2085	57.2085	0.0185	0.0000	57.6711

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	5.3000e-004	5.8100e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3666	1.3666	4.0000e-005	0.0000	1.3675
Total	7.8000e-004	5.3000e-004	5.8100e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3666	1.3666	4.0000e-005	0.0000	1.3675

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3.3 Grading - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1052	0.0000	0.1052	0.0393	0.0000	0.0393	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0467	0.5271	0.3356	6.5000e-004		0.0228	0.0228		0.0210	0.0210	0.0000	57.2084	57.2084	0.0185	0.0000	57.6710
Total	0.0467	0.5271	0.3356	6.5000e-004	0.1052	0.0228	0.1281	0.0393	0.0210	0.0603	0.0000	57.2084	57.2084	0.0185	0.0000	57.6710

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.8000e-004	5.3000e-004	5.8100e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3666	1.3666	4.0000e-005	0.0000	1.3675
Total	7.8000e-004	5.3000e-004	5.8100e-003	2.0000e-005	1.5400e-003	1.0000e-005	1.5500e-003	4.1000e-004	1.0000e-005	4.2000e-004	0.0000	1.3666	1.3666	4.0000e-005	0.0000	1.3675

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3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7800e-003	0.0703	0.0733	1.1000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.0141	10.0141	3.2400e-003	0.0000	10.0951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7800e-003	0.0703	0.0733	1.1000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.0141	10.0141	3.2400e-003	0.0000	10.0951

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.0800e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4881	0.4881	1.0000e-005	0.0000	0.4884
Total	2.8000e-004	1.9000e-004	2.0800e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4881	0.4881	1.0000e-005	0.0000	0.4884

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3.4 Paving - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.7800e-003	0.0703	0.0733	1.1000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.0141	10.0141	3.2400e-003	0.0000	10.0951
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	6.7800e-003	0.0703	0.0733	1.1000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.0141	10.0141	3.2400e-003	0.0000	10.0951

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.8000e-004	1.9000e-004	2.0800e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4881	0.4881	1.0000e-005	0.0000	0.4884
Total	2.8000e-004	1.9000e-004	2.0800e-003	1.0000e-005	5.5000e-004	0.0000	5.5000e-004	1.5000e-004	0.0000	1.5000e-004	0.0000	0.4881	0.4881	1.0000e-005	0.0000	0.4884

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3.5 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1738	1.5733	1.3816	2.2100e-003		0.0916	0.0916		0.0861	0.0861	0.0000	189.9202	189.9202	0.0463	0.0000	191.0785
Total	0.1738	1.5733	1.3816	2.2100e-003		0.0916	0.0916		0.0861	0.0861	0.0000	189.9202	189.9202	0.0463	0.0000	191.0785

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0421	1.2322	0.3437	2.7100e-003	0.0643	6.3800e-003	0.0706	0.0186	6.1000e-003	0.0247	0.0000	259.9908	259.9908	0.0154	0.0000	260.3756
Worker	0.1310	0.0888	0.9738	2.5300e-003	0.2584	1.8600e-003	0.2602	0.0687	1.7100e-003	0.0704	0.0000	228.9159	228.9159	6.4700e-003	0.0000	229.0777
Total	0.1730	1.3211	1.3174	5.2400e-003	0.3226	8.2400e-003	0.3309	0.0873	7.8100e-003	0.0951	0.0000	488.9067	488.9067	0.0219	0.0000	489.4534

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3.5 Building Construction - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1738	1.5733	1.3816	2.2100e-003		0.0916	0.0916		0.0861	0.0861	0.0000	189.9200	189.9200	0.0463	0.0000	191.0783
Total	0.1738	1.5733	1.3816	2.2100e-003		0.0916	0.0916		0.0861	0.0861	0.0000	189.9200	189.9200	0.0463	0.0000	191.0783

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0421	1.2322	0.3437	2.7100e-003	0.0643	6.3800e-003	0.0706	0.0186	6.1000e-003	0.0247	0.0000	259.9908	259.9908	0.0154	0.0000	260.3756
Worker	0.1310	0.0888	0.9738	2.5300e-003	0.2584	1.8600e-003	0.2602	0.0687	1.7100e-003	0.0704	0.0000	228.9159	228.9159	6.4700e-003	0.0000	229.0777
Total	0.1730	1.3211	1.3174	5.2400e-003	0.3226	8.2400e-003	0.3309	0.0873	7.8100e-003	0.0951	0.0000	488.9067	488.9067	0.0219	0.0000	489.4534

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3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099
Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2867	302.2867	0.0729	0.0000	304.1099

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0550	1.7889	0.4781	4.2700e-003	0.1022	4.9400e-003	0.1072	0.0296	4.7300e-003	0.0343	0.0000	410.3230	410.3230	0.0235	0.0000	410.9095
Worker	0.1939	0.1267	1.4170	3.8900e-003	0.4112	2.8700e-003	0.4141	0.1094	2.6500e-003	0.1120	0.0000	351.9068	351.9068	9.2400e-003	0.0000	352.1378
Total	0.2489	1.9156	1.8951	8.1600e-003	0.5134	7.8100e-003	0.5212	0.1389	7.3800e-003	0.1463	0.0000	762.2298	762.2298	0.0327	0.0000	763.0473

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3.5 Building Construction - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095
Total	0.2481	2.2749	2.1631	3.5100e-003		0.1251	0.1251		0.1176	0.1176	0.0000	302.2863	302.2863	0.0729	0.0000	304.1095

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0550	1.7889	0.4781	4.2700e-003	0.1022	4.9400e-003	0.1072	0.0296	4.7300e-003	0.0343	0.0000	410.3230	410.3230	0.0235	0.0000	410.9095
Worker	0.1939	0.1267	1.4170	3.8900e-003	0.4112	2.8700e-003	0.4141	0.1094	2.6500e-003	0.1120	0.0000	351.9068	351.9068	9.2400e-003	0.0000	352.1378
Total	0.2489	1.9156	1.8951	8.1600e-003	0.5134	7.8100e-003	0.5212	0.1389	7.3800e-003	0.1463	0.0000	762.2298	762.2298	0.0327	0.0000	763.0473

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3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2428	301.2428	0.0722	0.0000	303.0471

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0508	1.6920	0.4392	4.2100e-003	0.1018	4.3200e-003	0.1062	0.0294	4.1300e-003	0.0336	0.0000	405.1579	405.1579	0.0227	0.0000	405.7255
Worker	0.1805	0.1135	1.2971	3.7400e-003	0.4096	2.7900e-003	0.4124	0.1089	2.5700e-003	0.1115	0.0000	338.0020	338.0020	8.2700e-003	0.0000	338.2088
Total	0.2313	1.8055	1.7362	7.9500e-003	0.5114	7.1100e-003	0.5185	0.1384	6.7000e-003	0.1451	0.0000	743.1600	743.1600	0.0310	0.0000	743.9343

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3.5 Building Construction - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467
Total	0.2218	2.0300	2.1272	3.5000e-003		0.1052	0.1052		0.0990	0.0990	0.0000	301.2425	301.2425	0.0722	0.0000	303.0467

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0508	1.6920	0.4392	4.2100e-003	0.1018	4.3200e-003	0.1062	0.0294	4.1300e-003	0.0336	0.0000	405.1579	405.1579	0.0227	0.0000	405.7255
Worker	0.1805	0.1135	1.2971	3.7400e-003	0.4096	2.7900e-003	0.4124	0.1089	2.5700e-003	0.1115	0.0000	338.0020	338.0020	8.2700e-003	0.0000	338.2088
Total	0.2313	1.8055	1.7362	7.9500e-003	0.5114	7.1100e-003	0.5185	0.1384	6.7000e-003	0.1451	0.0000	743.1600	743.1600	0.0310	0.0000	743.9343

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3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0771	0.7049	0.7960	1.3200e-003		0.0343	0.0343		0.0323	0.0323	0.0000	113.5843	113.5843	0.0270	0.0000	114.2598
Total	0.0771	0.7049	0.7960	1.3200e-003		0.0343	0.0343		0.0323	0.0323	0.0000	113.5843	113.5843	0.0270	0.0000	114.2598

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0152	0.5390	0.1464	1.5600e-003	0.0384	7.7000e-004	0.0392	0.0111	7.4000e-004	0.0118	0.0000	149.8907	149.8907	7.6800e-003	0.0000	150.0826
Worker	0.0637	0.0385	0.4490	1.3600e-003	0.1544	1.0300e-003	0.1554	0.0411	9.4000e-004	0.0420	0.0000	122.6167	122.6167	2.7900e-003	0.0000	122.6865
Total	0.0788	0.5775	0.5955	2.9200e-003	0.1928	1.8000e-003	0.1946	0.0522	1.6800e-003	0.0538	0.0000	272.5074	272.5074	0.0105	0.0000	272.7692

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3.5 Building Construction - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0771	0.7049	0.7960	1.3200e-003		0.0343	0.0343		0.0323	0.0323	0.0000	113.5842	113.5842	0.0270	0.0000	114.2597
Total	0.0771	0.7049	0.7960	1.3200e-003		0.0343	0.0343		0.0323	0.0323	0.0000	113.5842	113.5842	0.0270	0.0000	114.2597

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0152	0.5390	0.1464	1.5600e-003	0.0384	7.7000e-004	0.0392	0.0111	7.4000e-004	0.0118	0.0000	149.8907	149.8907	7.6800e-003	0.0000	150.0826
Worker	0.0637	0.0385	0.4490	1.3600e-003	0.1544	1.0300e-003	0.1554	0.0411	9.4000e-004	0.0420	0.0000	122.6167	122.6167	2.7900e-003	0.0000	122.6865
Total	0.0788	0.5775	0.5955	2.9200e-003	0.1928	1.8000e-003	0.1946	0.0522	1.6800e-003	0.0538	0.0000	272.5074	272.5074	0.0105	0.0000	272.7692

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3.6 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0630					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0187	0.1297	0.1410	2.3000e-004		8.5400e-003	8.5400e-003		8.5400e-003	8.5400e-003	0.0000	19.6601	19.6601	1.5200e-003	0.0000	19.6981
Total	1.0816	0.1297	0.1410	2.3000e-004		8.5400e-003	8.5400e-003		8.5400e-003	8.5400e-003	0.0000	19.6601	19.6601	1.5200e-003	0.0000	19.6981

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0247	0.0167	0.1833	4.8000e-004	0.0486	3.5000e-004	0.0490	0.0129	3.2000e-004	0.0133	0.0000	43.0917	43.0917	1.2200e-003	0.0000	43.1222
Total	0.0247	0.0167	0.1833	4.8000e-004	0.0486	3.5000e-004	0.0490	0.0129	3.2000e-004	0.0133	0.0000	43.0917	43.0917	1.2200e-003	0.0000	43.1222

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3.6 Architectural Coating - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.0630					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0187	0.1297	0.1410	2.3000e-004		8.5400e-003	8.5400e-003		8.5400e-003	8.5400e-003	0.0000	19.6600	19.6600	1.5200e-003	0.0000	19.6981
Total	1.0816	0.1297	0.1410	2.3000e-004		8.5400e-003	8.5400e-003		8.5400e-003	8.5400e-003	0.0000	19.6600	19.6600	1.5200e-003	0.0000	19.6981

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0247	0.0167	0.1833	4.8000e-004	0.0486	3.5000e-004	0.0490	0.0129	3.2000e-004	0.0133	0.0000	43.0917	43.0917	1.2200e-003	0.0000	43.1222
Total	0.0247	0.0167	0.1833	4.8000e-004	0.0486	3.5000e-004	0.0490	0.0129	3.2000e-004	0.0133	0.0000	43.0917	43.0917	1.2200e-003	0.0000	43.1222

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3.6 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.8015					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0286	0.1993	0.2372	3.9000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	33.3200	33.3200	2.2900e-003	0.0000	33.3771
Total	1.8301	0.1993	0.2372	3.9000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	33.3200	33.3200	2.2900e-003	0.0000	33.3771

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0389	0.0254	0.2841	7.8000e-004	0.0824	5.8000e-004	0.0830	0.0219	5.3000e-004	0.0225	0.0000	70.5454	70.5454	1.8500e-003	0.0000	70.5917
Total	0.0389	0.0254	0.2841	7.8000e-004	0.0824	5.8000e-004	0.0830	0.0219	5.3000e-004	0.0225	0.0000	70.5454	70.5454	1.8500e-003	0.0000	70.5917

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3.6 Architectural Coating - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.8015					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0286	0.1993	0.2372	3.9000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	33.3199	33.3199	2.2900e-003	0.0000	33.3771
Total	1.8301	0.1993	0.2372	3.9000e-004		0.0123	0.0123		0.0123	0.0123	0.0000	33.3199	33.3199	2.2900e-003	0.0000	33.3771

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0389	0.0254	0.2841	7.8000e-004	0.0824	5.8000e-004	0.0830	0.0219	5.3000e-004	0.0225	0.0000	70.5454	70.5454	1.8500e-003	0.0000	70.5917
Total	0.0389	0.0254	0.2841	7.8000e-004	0.0824	5.8000e-004	0.0830	0.0219	5.3000e-004	0.0225	0.0000	70.5454	70.5454	1.8500e-003	0.0000	70.5917

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3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7946					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463
Total	1.8212	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0362	0.0228	0.2600	7.5000e-004	0.0821	5.6000e-004	0.0827	0.0218	5.2000e-004	0.0224	0.0000	67.7580	67.7580	1.6600e-003	0.0000	67.7994
Total	0.0362	0.0228	0.2600	7.5000e-004	0.0821	5.6000e-004	0.0827	0.0218	5.2000e-004	0.0224	0.0000	67.7580	67.7580	1.6600e-003	0.0000	67.7994

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3.6 Architectural Coating - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	1.7946					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0266	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463
Total	1.8212	0.1831	0.2358	3.9000e-004		0.0106	0.0106		0.0106	0.0106	0.0000	33.1923	33.1923	2.1600e-003	0.0000	33.2463

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0362	0.0228	0.2600	7.5000e-004	0.0821	5.6000e-004	0.0827	0.0218	5.2000e-004	0.0224	0.0000	67.7580	67.7580	1.6600e-003	0.0000	67.7994
Total	0.0362	0.0228	0.2600	7.5000e-004	0.0821	5.6000e-004	0.0827	0.0218	5.2000e-004	0.0224	0.0000	67.7580	67.7580	1.6600e-003	0.0000	67.7994

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3.6 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0104	0.0704	0.0978	1.6000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	13.7876	13.7876	8.2000e-004	0.0000	13.8082
Total	0.7558	0.0704	0.0978	1.6000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	13.7876	13.7876	8.2000e-004	0.0000	13.8082

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0141	8.5000e-003	0.0992	3.0000e-004	0.0341	2.3000e-004	0.0343	9.0700e-003	2.1000e-004	9.2800e-003	0.0000	27.0887	27.0887	6.2000e-004	0.0000	27.1042
Total	0.0141	8.5000e-003	0.0992	3.0000e-004	0.0341	2.3000e-004	0.0343	9.0700e-003	2.1000e-004	9.2800e-003	0.0000	27.0887	27.0887	6.2000e-004	0.0000	27.1042

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3.6 Architectural Coating - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.7455					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0104	0.0704	0.0978	1.6000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	13.7876	13.7876	8.2000e-004	0.0000	13.8082
Total	0.7558	0.0704	0.0978	1.6000e-004		3.8200e-003	3.8200e-003		3.8200e-003	3.8200e-003	0.0000	13.7876	13.7876	8.2000e-004	0.0000	13.8082

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0141	8.5000e-003	0.0992	3.0000e-004	0.0341	2.3000e-004	0.0343	9.0700e-003	2.1000e-004	9.2800e-003	0.0000	27.0887	27.0887	6.2000e-004	0.0000	27.1042
Total	0.0141	8.5000e-003	0.0992	3.0000e-004	0.0341	2.3000e-004	0.0343	9.0700e-003	2.1000e-004	9.2800e-003	0.0000	27.0887	27.0887	6.2000e-004	0.0000	27.1042

4.0 Operational Detail - Mobile

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.4511	5.4634	12.5059	0.0372	3.2399	0.0312	3.2711	0.8683	0.0291	0.8974	0.0000	3,422.1245	3,422.1245	0.1720	0.0000	3,426.4253
Unmitigated	1.4511	5.4634	12.5059	0.0372	3.2399	0.0312	3.2711	0.8683	0.0291	0.8974	0.0000	3,422.1245	3,422.1245	0.1720	0.0000	3,426.4253

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	617.40	617.40	617.40	952,604	952,604
City Park	0.00	0.00	0.00		
Regional Shopping Center	3,100.20	3,100.20	3100.20	2,606,622	2,606,622
Single Family Housing	3,327.41	3,327.41	3327.41	5,133,957	5,133,957
Total	7,045.01	7,045.01	7,045.01	8,693,183	8,693,183

4.3 Trip Type Information

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	6.01	3.00	3.91	46.50	12.50	41.00	86	11	3
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6
Regional Shopping Center	6.01	3.00	3.91	16.30	64.70	19.00	54	35	11
Single Family Housing	6.01	3.00	3.91	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.566033	0.037143	0.208217	0.113428	0.016713	0.004955	0.018463	0.024036	0.001978	0.001883	0.005758	0.000618	0.000776
City Park	0.566033	0.037143	0.208217	0.113428	0.016713	0.004955	0.018463	0.024036	0.001978	0.001883	0.005758	0.000618	0.000776
Regional Shopping Center	0.566033	0.037143	0.208217	0.113428	0.016713	0.004955	0.018463	0.024036	0.001978	0.001883	0.005758	0.000618	0.000776
Single Family Housing	0.566033	0.037143	0.208217	0.113428	0.016713	0.004955	0.018463	0.024036	0.001978	0.001883	0.005758	0.000618	0.000776

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	731.7461	731.7461	0.0575	0.0119	736.7248
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	731.7461	731.7461	0.0575	0.0119	736.7248
NaturalGas Mitigated	0.0624	0.5342	0.2324	3.4100e-003		0.0431	0.0431		0.0431	0.0431	0.0000	617.8387	617.8387	0.0118	0.0113	621.5102
NaturalGas Unmitigated	0.0624	0.5342	0.2324	3.4100e-003		0.0431	0.0431		0.0431	0.0431	0.0000	617.8387	617.8387	0.0118	0.0113	621.5102

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.22826e+006	6.6200e-003	0.0566	0.0241	3.6000e-004		4.5800e-003	4.5800e-003		4.5800e-003	4.5800e-003	0.0000	65.5447	65.5447	1.2600e-003	1.2000e-003	65.9342
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	248236	1.3400e-003	0.0122	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.2468	13.2468	2.5000e-004	2.4000e-004	13.3255
Single Family Housing	1.01014e+007	0.0545	0.4655	0.1981	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	539.0472	539.0472	0.0103	9.8800e-003	542.2505
Total		0.0624	0.5342	0.2324	3.4000e-003		0.0431	0.0431		0.0431	0.0431	0.0000	617.8387	617.8387	0.0118	0.0113	621.5102

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Mid Rise	1.22826e+006	6.6200e-003	0.0566	0.0241	3.6000e-004		4.5800e-003	4.5800e-003		4.5800e-003	4.5800e-003	0.0000	65.5447	65.5447	1.2600e-003	1.2000e-003	65.9342
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	248236	1.3400e-003	0.0122	0.0102	7.0000e-005		9.2000e-004	9.2000e-004		9.2000e-004	9.2000e-004	0.0000	13.2468	13.2468	2.5000e-004	2.4000e-004	13.3255
Single Family Housing	1.01014e+007	0.0545	0.4655	0.1981	2.9700e-003		0.0376	0.0376		0.0376	0.0376	0.0000	539.0472	539.0472	0.0103	9.8800e-003	542.2505
Total		0.0624	0.5342	0.2324	3.4000e-003		0.0431	0.0431		0.0431	0.0431	0.0000	617.8387	617.8387	0.0118	0.0113	621.5102

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

5.3 Energy by Land Use - Electricity**Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	536314	89.8510	7.0500e-003	1.4600e-003	90.4623
City Park	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	529906	88.7775	6.9700e-003	1.4400e-003	89.3815
Single Family Housing	3.30152e+006	553.1176	0.0434	8.9900e-003	556.8810
Total		731.7461	0.0575	0.0119	736.7248

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

5.3 Energy by Land Use - Electricity**Mitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Mid Rise	536314	89.8510	7.0500e-003	1.4600e-003	90.4623
City Park	0	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	529906	88.7775	6.9700e-003	1.4400e-003	89.3815
Single Family Housing	3.30152e+006	553.1176	0.0434	8.9900e-003	556.8810
Total		731.7461	0.0575	0.0119	736.7248

6.0 Area Detail**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	4.1245	0.0614	5.3301	2.8000e-004		0.0295	0.0295		0.0295	0.0295	0.0000	8.7105	8.7105	8.3600e-003	0.0000	8.9195
Unmitigated	4.1245	0.0614	5.3301	2.8000e-004		0.0295	0.0295		0.0295	0.0295	0.0000	8.7105	8.7105	8.3600e-003	0.0000	8.9195

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.4238					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1603	0.0614	5.3301	2.8000e-004		0.0295	0.0295		0.0295	0.0295	0.0000	8.7105	8.7105	8.3600e-003	0.0000	8.9195
Total	4.1245	0.0614	5.3301	2.8000e-004		0.0295	0.0295		0.0295	0.0295	0.0000	8.7105	8.7105	8.3600e-003	0.0000	8.9195

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.5405					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	3.4238					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.1603	0.0614	5.3301	2.8000e-004		0.0295	0.0295		0.0295	0.0295	0.0000	8.7105	8.7105	8.3600e-003	0.0000	8.9195
Total	4.1245	0.0614	5.3301	2.8000e-004		0.0295	0.0295		0.0295	0.0295	0.0000	8.7105	8.7105	8.3600e-003	0.0000	8.9195

7.0 Water Detail**7.1 Mitigation Measures Water**

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	64.7262	0.0492	0.0294	74.7072
Unmitigated	64.7262	0.0492	0.0294	74.7072

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	8.20941 / 5.1755	12.7921	0.0108	6.4800e-003	14.9916
City Park	0 / 11.9148	6.9865	5.5000e-004	1.1000e-004	7.0340
Regional Shopping Center	3.39252 / 2.07929	5.2514	4.4500e-003	2.6800e-003	6.1601
Single Family Housing	25.4752 / 16.0605	39.6962	0.0334	0.0201	46.5215
Total		64.7262	0.0492	0.0294	74.7072

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

7.2 Water by Land Use**Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Mid Rise	8.20941 / 5.1755	12.7921	0.0108	6.4800e-003	14.9916
City Park	0 / 11.9148	6.9865	5.5000e-004	1.1000e-004	7.0340
Regional Shopping Center	3.39252 / 2.07929	5.2514	4.4500e-003	2.6800e-003	6.1601
Single Family Housing	25.4752 / 16.0605	39.6962	0.0334	0.0201	46.5215
Total		64.7262	0.0492	0.0294	74.7072

8.0 Waste Detail

8.1 Mitigation Measures Waste

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	97.9939	5.7913	0.0000	242.7757
Unmitigated	97.9939	5.7913	0.0000	242.7757

8.2 Waste by Land Use**Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	57.96	11.7654	0.6953	0.0000	29.1482
City Park	0.86	0.1746	0.0103	0.0000	0.4325
Regional Shopping Center	48.09	9.7618	0.5769	0.0000	24.1845
Single Family Housing	375.84	76.2921	4.5087	0.0000	189.0105
Total		97.9939	5.7913	0.0000	242.7757

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

8.2 Waste by Land Use**Mitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Mid Rise	57.96	11.7654	0.6953	0.0000	29.1482
City Park	0.86	0.1746	0.0103	0.0000	0.4325
Regional Shopping Center	48.09	9.7618	0.5769	0.0000	24.1845
Single Family Housing	375.84	76.2921	4.5087	0.0000	189.0105
Total		97.9939	5.7913	0.0000	242.7757

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Annual

Equipment Type	Number
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11.0 Vegetation

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

Sheldon Farms North (unmitigated)
Sacramento Metropolitan AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	10.00	Acre	10.00	435,600.00	0
Apartment Mid Rise	126.00	Dwelling Unit	6.30	126,000.00	336
Single Family Housing	391.00	Dwelling Unit	57.60	703,800.00	1044
Regional Shopping Center	45.80	1000sqft	5.30	45,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MW hr)	369.35	CH4 Intensity (lb/MW hr)	0.029	N2O Intensity (lb/MW hr)	0.006

1.3 User Entered Comments & Non-Default Data

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

Project Characteristics - Intensity factor for CO2 adjusted based on SMUD's RPS reductions

Land Use - Applicant provided

Construction Phase - Applicant provided

Grading - Applicant provided

Vehicle Trips - Applicant provided

Mobile Land Use Mitigation -

Area Mitigation - Per SMAQMD rules

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	60.00	2.00
tblConstructionPhase	NumDays	155.00	21.00
tblConstructionPhase	NumDays	110.00	10.00
tblConstructionPhase	NumDays	1,550.00	783.00
tblConstructionPhase	NumDays	110.00	783.00
tblConstructionPhase	PhaseEndDate	6/23/2020	4/2/2020
tblConstructionPhase	PhaseEndDate	1/26/2021	5/1/2020
tblConstructionPhase	PhaseEndDate	6/8/2027	5/15/2020
tblConstructionPhase	PhaseEndDate	1/5/2027	5/17/2023
tblConstructionPhase	PhaseEndDate	11/9/2027	5/31/2023
tblConstructionPhase	PhaseStartDate	6/24/2020	4/3/2020
tblConstructionPhase	PhaseStartDate	1/6/2027	5/4/2020
tblConstructionPhase	PhaseStartDate	1/27/2021	5/18/2020
tblConstructionPhase	PhaseStartDate	6/9/2027	6/1/2020
tblGrading	AcresOfGrading	52.50	79.20
tblLandUse	LotAcreage	3.32	6.30
tblLandUse	LotAcreage	126.95	57.60
tblLandUse	LotAcreage	1.05	5.30

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

tblProjectCharacteristics	CO2IntensityFactor	590.31	369.35
tblVehicleTrips	CC_TL	5.00	3.00
tblVehicleTrips	CNW_TL	6.50	3.91
tblVehicleTrips	CW_TL	10.00	6.01
tblVehicleTrips	HO_TL	6.50	3.91
tblVehicleTrips	HO_TL	6.50	3.91
tblVehicleTrips	HS_TL	5.00	3.00
tblVehicleTrips	HS_TL	5.00	3.00
tblVehicleTrips	HW_TL	10.00	6.01
tblVehicleTrips	HW_TL	10.00	6.01
tblVehicleTrips	ST_TR	6.39	4.90
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	49.97	67.69
tblVehicleTrips	ST_TR	9.91	8.51
tblVehicleTrips	SU_TR	5.86	4.90
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	25.24	67.69
tblVehicleTrips	SU_TR	8.62	8.51
tblVehicleTrips	WD_TR	6.65	4.90
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	42.70	67.69
tblVehicleTrips	WD_TR	9.52	8.51

2.0 Emissions Summary

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	18.8928	50.2433	39.4494	0.1043	18.2032	2.1984	20.4016	9.9670	2.0225	11.9895	0.0000	10,454.08 55	10,454.08 55	1.9470	0.0000	10,478.13 36
2021	18.4027	33.4746	37.2360	0.1026	4.7239	1.1161	5.8400	1.2712	1.0551	2.3263	0.0000	10,285.98 29	10,285.98 29	0.9319	0.0000	10,309.27 95
2022	18.0264	30.7701	35.5317	0.1009	4.7238	0.9488	5.6726	1.2712	0.8975	2.1687	0.0000	10,114.826 4	10,114.826 4	0.9107	0.0000	10,137.59 29
2023	17.6736	27.3972	33.9236	0.0988	4.7237	0.8109	5.5347	1.2711	0.7670	2.0381	0.0000	9,908.324 6	9,908.324 6	0.8764	0.0000	9,930.233 4
Maximum	18.8928	50.2433	39.4494	0.1043	18.2032	2.1984	20.4016	9.9670	2.0225	11.9895	0.0000	10,454.08 55	10,454.08 55	1.9470	0.0000	10,478.13 36

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	18.8928	50.2433	39.4494	0.1043	18.2032	2.1984	20.4016	9.9670	2.0225	11.9895	0.0000	10,454.0855	10,454.0855	1.9470	0.0000	10,478.1335
2021	18.4027	33.4746	37.2360	0.1026	4.7239	1.1161	5.8400	1.2712	1.0551	2.3263	0.0000	10,285.9829	10,285.9829	0.9319	0.0000	10,309.2795
2022	18.0264	30.7701	35.5317	0.1009	4.7238	0.9488	5.6726	1.2712	0.8975	2.1687	0.0000	10,114.8264	10,114.8264	0.9107	0.0000	10,137.5929
2023	17.6736	27.3972	33.9236	0.0988	4.7237	0.8109	5.5347	1.2711	0.7670	2.0381	0.0000	9,908.3246	9,908.3246	0.8764	0.0000	9,930.2334
Maximum	18.8928	50.2433	39.4494	0.1043	18.2032	2.1984	20.4016	9.9670	2.0225	11.9895	0.0000	10,454.0855	10,454.0855	1.9470	0.0000	10,478.1335

[illegible]

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	23.0042	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363	0.0000	76.8138	76.8138	0.0737	0.0000	78.6568
Energy	0.3421	2.9272	1.2733	0.0187		0.2364	0.2364		0.2364	0.2364		3,731.784 2	3,731.784 2	0.0715	0.0684	3,753.960 3
Mobile	10.5202	29.3561	73.5945	0.2202	18.4287	0.1706	18.5993	4.9247	0.1588	5.0835		22,338.54 59	22,338.54 59	1.0452		22,364.67 47
Total	33.8665	32.7746	117.5087	0.2411	18.4287	0.6433	19.0720	4.9247	0.6315	5.5562	0.0000	26,147.14 38	26,147.14 38	1.1904	0.0684	26,197.29 18

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	23.0042	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363	0.0000	76.8138	76.8138	0.0737	0.0000	78.6568
Energy	0.3421	2.9272	1.2733	0.0187		0.2364	0.2364		0.2364	0.2364		3,731.784 2	3,731.784 2	0.0715	0.0684	3,753.960 3
Mobile	10.5202	29.3561	73.5945	0.2202	18.4287	0.1706	18.5993	4.9247	0.1588	5.0835		22,338.54 59	22,338.54 59	1.0452		22,364.67 47
Total	33.8665	32.7746	117.5087	0.2411	18.4287	0.6433	19.0720	4.9247	0.6315	5.5562	0.0000	26,147.14 38	26,147.14 38	1.1904	0.0684	26,197.29 18

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2020	4/2/2020	5	2	
2	Grading	Grading	4/3/2020	5/1/2020	5	21	
3	Paving	Paving	5/4/2020	5/15/2020	5	10	
4	Building Construction	Building Construction	5/18/2020	5/17/2023	5	783	
5	Architectural Coating	Architectural Coating	6/1/2020	5/31/2023	5	783	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 79.2

Acres of Paving: 0

Residential Indoor: 1,680,345; Residential Outdoor: 560,115; Non-Residential Indoor: 68,700; Non-Residential Outdoor: 22,900; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	429.00	134.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	86.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.1 Mitigation Measures Construction**3.2 Site Preparation - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523		3,685.1016	3,685.1016	1.1918		3,714.8975

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0776	0.0412	0.5877	1.4400e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		142.8323	142.8323	4.0900e-003		142.9346
Total	0.0776	0.0412	0.5877	1.4400e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		142.8323	142.8323	4.0900e-003		142.9346

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.2 Site Preparation - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0776	0.0412	0.5877	1.4400e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		142.8323	142.8323	4.0900e-003		142.9346
Total	0.0776	0.0412	0.5877	1.4400e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		142.8323	142.8323	4.0900e-003		142.9346

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.0217	0.0000	10.0217	3.7421	0.0000	3.7421			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.865 3	6,005.865 3	1.9424		6,054.425 7
Total	4.4501	50.1975	31.9583	0.0620	10.0217	2.1739	12.1956	3.7421	2.0000	5.7421		6,005.865 3	6,005.865 3	1.9424		6,054.425 7

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0862	0.0458	0.6530	1.5900e-003	0.1521	1.0600e-003	0.1532	0.0404	9.7000e-004	0.0413		158.7026	158.7026	4.5500e-003		158.8163
Total	0.0862	0.0458	0.6530	1.5900e-003	0.1521	1.0600e-003	0.1532	0.0404	9.7000e-004	0.0413		158.7026	158.7026	4.5500e-003		158.8163

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.3 Grading - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.0217	0.0000	10.0217	3.7421	0.0000	3.7421			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.865 3	6,005.865 3	1.9424		6,054.425 7
Total	4.4501	50.1975	31.9583	0.0620	10.0217	2.1739	12.1956	3.7421	2.0000	5.7421	0.0000	6,005.865 3	6,005.865 3	1.9424		6,054.425 7

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0862	0.0458	0.6530	1.5900e-003	0.1521	1.0600e-003	0.1532	0.0404	9.7000e-004	0.0413		158.7026	158.7026	4.5500e-003		158.8163
Total	0.0862	0.0458	0.6530	1.5900e-003	0.1521	1.0600e-003	0.1532	0.0404	9.7000e-004	0.0413		158.7026	158.7026	4.5500e-003		158.8163

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.733 4	2,207.733 4	0.7140		2,225.584 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.733 4	2,207.733 4	0.7140		2,225.584 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122
Total	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.4 Paving - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.733 4	2,207.733 4	0.7140		2,225.584 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.733 4	2,207.733 4	0.7140		2,225.584 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122
Total	0.0647	0.0343	0.4898	1.2000e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		119.0269	119.0269	3.4100e-003		119.1122

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.5 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5053	14.7138	3.9546	0.0334	0.8064	0.0767	0.8831	0.2321	0.0734	0.3054		3,532.982 7	3,532.982 7	0.2002		3,537.987 6
Worker	1.8499	0.9817	14.0069	0.0342	3.2634	0.0227	3.2861	0.8657	0.0209	0.8866		3,404.170 6	3,404.170 6	0.0975		3,406.608 8
Total	2.3552	15.6954	17.9616	0.0676	4.0698	0.0994	4.1692	1.0977	0.0943	1.1920		6,937.153 3	6,937.153 3	0.2977		6,944.596 3

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.5 Building Construction - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5053	14.7138	3.9546	0.0334	0.8064	0.0767	0.8831	0.2321	0.0734	0.3054		3,532.982 7	3,532.982 7	0.2002		3,537.987 6
Worker	1.8499	0.9817	14.0069	0.0342	3.2634	0.0227	3.2861	0.8657	0.0209	0.8866		3,404.170 6	3,404.170 6	0.0975		3,406.608 8
Total	2.3552	15.6954	17.9616	0.0676	4.0698	0.0994	4.1692	1.0977	0.0943	1.1920		6,937.153 3	6,937.153 3	0.2977		6,944.596 3

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4141	13.4590	3.4368	0.0331	0.8063	0.0369	0.8432	0.2320	0.0353	0.2673		3,503.803 9	3,503.803 9	0.1915		3,508.591 4
Worker	1.7194	0.8802	12.8337	0.0330	3.2634	0.0220	3.2854	0.8657	0.0203	0.8860		3,288.195 1	3,288.195 1	0.0875		3,290.382 5
Total	2.1335	14.3392	16.2705	0.0661	4.0697	0.0589	4.1287	1.0977	0.0556	1.1533		6,791.999 0	6,791.999 0	0.2790		6,798.973 9

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.5 Building Construction - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4141	13.4590	3.4368	0.0331	0.8063	0.0369	0.8432	0.2320	0.0353	0.2673		3,503.803 9	3,503.803 9	0.1915		3,508.591 4
Worker	1.7194	0.8802	12.8337	0.0330	3.2634	0.0220	3.2854	0.8657	0.0203	0.8860		3,288.195 1	3,288.195 1	0.0875		3,290.382 5
Total	2.1335	14.3392	16.2705	0.0661	4.0697	0.0589	4.1287	1.0977	0.0556	1.1533		6,791.999 0	6,791.999 0	0.2790		6,798.973 9

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3842	12.7957	3.1665	0.0328	0.8062	0.0323	0.8386	0.2320	0.0309	0.2629		3,473.2399	3,473.2399	0.1860		3,477.8893
Worker	1.6049	0.7916	11.8189	0.0318	3.2634	0.0215	3.2849	0.8657	0.0198	0.8854		3,170.2724	3,170.2724	0.0787		3,172.2386
Total	1.9891	13.5873	14.9854	0.0646	4.0696	0.0538	4.1234	1.0976	0.0507	1.1483		6,643.5123	6,643.5123	0.2646		6,650.1279

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.5 Building Construction - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3842	12.7957	3.1665	0.0328	0.8062	0.0323	0.8386	0.2320	0.0309	0.2629		3,473.2399	3,473.2399	0.1860		3,477.8893
Worker	1.6049	0.7916	11.8189	0.0318	3.2634	0.0215	3.2849	0.8657	0.0198	0.8854		3,170.2724	3,170.2724	0.0787		3,172.2386
Total	1.9891	13.5873	14.9854	0.0646	4.0696	0.0538	4.1234	1.0976	0.0507	1.1483		6,643.5123	6,643.5123	0.2646		6,650.1279

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079		2,570.4061

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3036	10.8539	2.8089	0.0321	0.8061	0.0153	0.8214	0.2320	0.0146	0.2465		3,408.9443	3,408.9443	0.1670		3,413.1201
Worker	1.5001	0.7126	10.8787	0.0306	3.2634	0.0209	3.2843	0.8657	0.0193	0.8849		3,051.0833	3,051.0833	0.0705		3,052.8458
Total	1.8037	11.5664	13.6877	0.0628	4.0695	0.0362	4.1057	1.0976	0.0339	1.1315		6,460.0276	6,460.0276	0.2375		6,465.9659

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.5 Building Construction - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3036	10.8539	2.8089	0.0321	0.8061	0.0153	0.8214	0.2320	0.0146	0.2465		3,408.9443	3,408.9443	0.1670		3,413.1201
Worker	1.5001	0.7126	10.8787	0.0306	3.2634	0.0209	3.2843	0.8657	0.0193	0.8849		3,051.0833	3,051.0833	0.0705		3,052.8458
Total	1.8037	11.5664	13.6877	0.0628	4.0695	0.0362	4.1057	1.0976	0.0339	1.1315		6,460.0276	6,460.0276	0.2375		6,465.9659

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.6 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	14.0469	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3708	0.1968	2.8079	6.8600e-003	0.6542	4.5500e-003	0.6588	0.1735	4.1900e-003	0.1777		682.4211	682.4211	0.0196		682.9099
Total	0.3708	0.1968	2.8079	6.8600e-003	0.6542	4.5500e-003	0.6588	0.1735	4.1900e-003	0.1777		682.4211	682.4211	0.0196		682.9099

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.6 Architectural Coating - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	14.0469	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3708	0.1968	2.8079	6.8600e-003	0.6542	4.5500e-003	0.6588	0.1735	4.1900e-003	0.1777		682.4211	682.4211	0.0196		682.9099
Total	0.3708	0.1968	2.8079	6.8600e-003	0.6542	4.5500e-003	0.6588	0.1735	4.1900e-003	0.1777		682.4211	682.4211	0.0196		682.9099

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.6 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	14.0236	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3447	0.1764	2.5727	6.6200e-003	0.6542	4.4200e-003	0.6586	0.1735	4.0700e-003	0.1776		659.1720	659.1720	0.0175		659.6105
Total	0.3447	0.1764	2.5727	6.6200e-003	0.6542	4.4200e-003	0.6586	0.1735	4.0700e-003	0.1776		659.1720	659.1720	0.0175		659.6105

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.6 Architectural Coating - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	14.0236	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3447	0.1764	2.5727	6.6200e-003	0.6542	4.4200e-003	0.6586	0.1735	4.0700e-003	0.1776		659.1720	659.1720	0.0175		659.6105
Total	0.3447	0.1764	2.5727	6.6200e-003	0.6542	4.4200e-003	0.6586	0.1735	4.0700e-003	0.1776		659.1720	659.1720	0.0175		659.6105

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	14.0093	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3217	0.1587	2.3693	6.3800e-003	0.6542	4.3000e-003	0.6585	0.1735	3.9600e-003	0.1775		635.5325	635.5325	0.0158		635.9266
Total	0.3217	0.1587	2.3693	6.3800e-003	0.6542	4.3000e-003	0.6585	0.1735	3.9600e-003	0.1775		635.5325	635.5325	0.0158		635.9266

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.6 Architectural Coating - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	14.0093	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3217	0.1587	2.3693	6.3800e-003	0.6542	4.3000e-003	0.6585	0.1735	3.9600e-003	0.1775		635.5325	635.5325	0.0158		635.9266
Total	0.3217	0.1587	2.3693	6.3800e-003	0.6542	4.3000e-003	0.6585	0.1735	3.9600e-003	0.1775		635.5325	635.5325	0.0158		635.9266

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.6 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	13.9964	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3007	0.1428	2.1808	6.1400e-003	0.6542	4.2000e-003	0.6584	0.1735	3.8700e-003	0.1774		611.6391	611.6391	0.0141		611.9924
Total	0.3007	0.1428	2.1808	6.1400e-003	0.6542	4.2000e-003	0.6584	0.1735	3.8700e-003	0.1774		611.6391	611.6391	0.0141		611.9924

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

3.6 Architectural Coating - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	13.9964	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3007	0.1428	2.1808	6.1400e-003	0.6542	4.2000e-003	0.6584	0.1735	3.8700e-003	0.1774		611.6391	611.6391	0.0141		611.9924
Total	0.3007	0.1428	2.1808	6.1400e-003	0.6542	4.2000e-003	0.6584	0.1735	3.8700e-003	0.1774		611.6391	611.6391	0.0141		611.9924

4.0 Operational Detail - Mobile

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	10.5202	29.3561	73.5945	0.2202	18.4287	0.1706	18.5993	4.9247	0.1588	5.0835		22,338.54 59	22,338.54 59	1.0452		22,364.67 47
Unmitigated	10.5202	29.3561	73.5945	0.2202	18.4287	0.1706	18.5993	4.9247	0.1588	5.0835		22,338.54 59	22,338.54 59	1.0452		22,364.67 47

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	617.40	617.40	617.40	952,604	952,604
City Park	0.00	0.00	0.00		
Regional Shopping Center	3,100.20	3,100.20	3,100.20	2,606,622	2,606,622
Single Family Housing	3,327.41	3,327.41	3,327.41	5,133,957	5,133,957
Total	7,045.01	7,045.01	7,045.01	8,693,183	8,693,183

4.3 Trip Type Information

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	6.01	3.00	3.91	46.50	12.50	41.00	86	11	3
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6
Regional Shopping Center	6.01	3.00	3.91	16.30	64.70	19.00	54	35	11
Single Family Housing	6.01	3.00	3.91	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.566033	0.037143	0.208217	0.113428	0.016713	0.004955	0.018463	0.024036	0.001978	0.001883	0.005758	0.000618	0.000776
City Park	0.566033	0.037143	0.208217	0.113428	0.016713	0.004955	0.018463	0.024036	0.001978	0.001883	0.005758	0.000618	0.000776
Regional Shopping Center	0.566033	0.037143	0.208217	0.113428	0.016713	0.004955	0.018463	0.024036	0.001978	0.001883	0.005758	0.000618	0.000776
Single Family Housing	0.566033	0.037143	0.208217	0.113428	0.016713	0.004955	0.018463	0.024036	0.001978	0.001883	0.005758	0.000618	0.000776

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3421	2.9272	1.2733	0.0187		0.2364	0.2364		0.2364	0.2364		3,731.784 2	3,731.784 2	0.0715	0.0684	3,753.960 3
NaturalGas Unmitigated	0.3421	2.9272	1.2733	0.0187		0.2364	0.2364		0.2364	0.2364		3,731.784 2	3,731.784 2	0.0715	0.0684	3,753.960 3

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3365.1	0.0363	0.3101	0.1320	1.9800e-003		0.0251	0.0251		0.0251	0.0251		395.8938	395.8938	7.5900e-003	7.2600e-003	398.2464
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	680.099	7.3300e-003	0.0667	0.0560	4.0000e-004		5.0700e-003	5.0700e-003		5.0700e-003	5.0700e-003		80.0116	80.0116	1.5300e-003	1.4700e-003	80.4871
Single Family Housing	27675	0.2985	2.5504	1.0853	0.0163		0.2062	0.2062		0.2062	0.2062		3,255.878 7	3,255.878 7	0.0624	0.0597	3,275.226 8
Total		0.3421	2.9272	1.2733	0.0187		0.2364	0.2364		0.2364	0.2364		3,731.784 2	3,731.784 2	0.0715	0.0684	3,753.960 3

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3.3651	0.0363	0.3101	0.1320	1.9800e-003		0.0251	0.0251		0.0251	0.0251		395.8938	395.8938	7.5900e-003	7.2600e-003	398.2464
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.680099	7.3300e-003	0.0667	0.0560	4.0000e-004		5.0700e-003	5.0700e-003		5.0700e-003	5.0700e-003		80.0116	80.0116	1.5300e-003	1.4700e-003	80.4871
Single Family Housing	27.675	0.2985	2.5504	1.0853	0.0163		0.2062	0.2062		0.2062	0.2062		3,255.8787	3,255.8787	0.0624	0.0597	3,275.2268
Total		0.3421	2.9272	1.2733	0.0187		0.2364	0.2364		0.2364	0.2364		3,731.7842	3,731.7842	0.0715	0.0684	3,753.9603

6.0 Area Detail**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	23.0042	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363	0.0000	76.8138	76.8138	0.0737	0.0000	78.6568
Unmitigated	23.0042	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363	0.0000	76.8138	76.8138	0.0737	0.0000	78.6568

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.9614					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	18.7603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2825	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363		76.8138	76.8138	0.0737		78.6568
Total	23.0042	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363	0.0000	76.8138	76.8138	0.0737	0.0000	78.6568

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.9614					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	18.7603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2825	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363		76.8138	76.8138	0.0737		78.6568
Total	23.0042	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363	0.0000	76.8138	76.8138	0.0737	0.0000	78.6568

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Summer

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

Sheldon Farms North (unmitigated)
Sacramento Metropolitan AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
City Park	10.00	Acre	10.00	435,600.00	0
Apartment Mid Rise	126.00	Dwelling Unit	6.30	126,000.00	336
Single Family Housing	391.00	Dwelling Unit	57.60	703,800.00	1044
Regional Shopping Center	45.80	1000sqft	5.30	45,800.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	3.5	Precipitation Freq (Days)	58
Climate Zone	6			Operational Year	2024
Utility Company	Sacramento Municipal Utility District				
CO2 Intensity (lb/MWhr)	369.35	CH4 Intensity (lb/MWhr)	0.029	N2O Intensity (lb/MWhr)	0.006

1.3 User Entered Comments & Non-Default Data

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

Project Characteristics - Intensity factor for CO2 adjusted based on SMUD's RPS reductions

Land Use - Applicant provided

Construction Phase - Applicant provided

Grading - Applicant provided

Vehicle Trips - Applicant provided

Mobile Land Use Mitigation -

Area Mitigation - Per SMAQMD rules

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	60.00	2.00
tblConstructionPhase	NumDays	155.00	21.00
tblConstructionPhase	NumDays	110.00	10.00
tblConstructionPhase	NumDays	1,550.00	783.00
tblConstructionPhase	NumDays	110.00	783.00
tblConstructionPhase	PhaseEndDate	6/23/2020	4/2/2020
tblConstructionPhase	PhaseEndDate	1/26/2021	5/1/2020
tblConstructionPhase	PhaseEndDate	6/8/2027	5/15/2020
tblConstructionPhase	PhaseEndDate	1/5/2027	5/17/2023
tblConstructionPhase	PhaseEndDate	11/9/2027	5/31/2023
tblConstructionPhase	PhaseStartDate	6/24/2020	4/3/2020
tblConstructionPhase	PhaseStartDate	1/6/2027	5/4/2020
tblConstructionPhase	PhaseStartDate	1/27/2021	5/18/2020
tblConstructionPhase	PhaseStartDate	6/9/2027	6/1/2020
tblGrading	AcresOfGrading	52.50	79.20
tblLandUse	LotAcreage	3.32	6.30
tblLandUse	LotAcreage	126.95	57.60
tblLandUse	LotAcreage	1.05	5.30

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

tblProjectCharacteristics	CO2IntensityFactor	590.31	369.35
tblVehicleTrips	CC_TL	5.00	3.00
tblVehicleTrips	CNW_TL	6.50	3.91
tblVehicleTrips	CW_TL	10.00	6.01
tblVehicleTrips	HO_TL	6.50	3.91
tblVehicleTrips	HO_TL	6.50	3.91
tblVehicleTrips	HS_TL	5.00	3.00
tblVehicleTrips	HS_TL	5.00	3.00
tblVehicleTrips	HW_TL	10.00	6.01
tblVehicleTrips	HW_TL	10.00	6.01
tblVehicleTrips	ST_TR	6.39	4.90
tblVehicleTrips	ST_TR	22.75	0.00
tblVehicleTrips	ST_TR	49.97	67.69
tblVehicleTrips	ST_TR	9.91	8.51
tblVehicleTrips	SU_TR	5.86	4.90
tblVehicleTrips	SU_TR	16.74	0.00
tblVehicleTrips	SU_TR	25.24	67.69
tblVehicleTrips	SU_TR	8.62	8.51
tblVehicleTrips	WD_TR	6.65	4.90
tblVehicleTrips	WD_TR	1.89	0.00
tblVehicleTrips	WD_TR	42.70	67.69
tblVehicleTrips	WD_TR	9.52	8.51

2.0 Emissions Summary

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)**Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	18.7424	50.2541	37.6267	0.0985	18.2032	2.1984	20.4016	9.9670	2.0225	11.9895	0.0000	9,866.1118	9,866.1118	1.9464	0.0000	9,890.2241
2021	18.2640	33.9443	35.5195	0.0969	4.7239	1.1184	5.8423	1.2712	1.0572	2.3285	0.0000	9,715.2855	9,715.2855	0.9351	0.0000	9,738.6630
2022	17.9002	31.1807	33.9033	0.0954	4.7238	0.9509	5.6748	1.2712	0.8996	2.1707	0.0000	9,561.7945	9,561.7945	0.9146	0.0000	9,584.6601
2023	17.5575	27.7063	32.3355	0.0935	4.7237	0.8123	5.5360	1.2711	0.7683	2.0394	0.0000	9,374.7933	9,374.7933	0.8792	0.0000	9,396.7730
Maximum	18.7424	50.2541	37.6267	0.0985	18.2032	2.1984	20.4016	9.9670	2.0225	11.9895	0.0000	9,866.1118	9,866.1118	1.9464	0.0000	9,890.2241

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2020	18.7424	50.2541	37.6267	0.0985	18.2032	2.1984	20.4016	9.9670	2.0225	11.9895	0.0000	9,866.1118	9,866.1118	1.9464	0.0000	9,890.2241
2021	18.2640	33.9443	35.5195	0.0969	4.7239	1.1184	5.8423	1.2712	1.0572	2.3285	0.0000	9,715.2855	9,715.2855	0.9351	0.0000	9,738.6630
2022	17.9002	31.1807	33.9033	0.0954	4.7238	0.9509	5.6748	1.2712	0.8996	2.1707	0.0000	9,561.7945	9,561.7945	0.9146	0.0000	9,584.6601
2023	17.5575	27.7063	32.3355	0.0935	4.7237	0.8123	5.5360	1.2711	0.7683	2.0394	0.0000	9,374.7933	9,374.7933	0.8792	0.0000	9,396.7730
Maximum	18.7424	50.2541	37.6267	0.0985	18.2032	2.1984	20.4016	9.9670	2.0225	11.9895	0.0000	9,866.1118	9,866.1118	1.9464	0.0000	9,890.2241

[illegible]

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	23.0042	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363	0.0000	76.8138	76.8138	0.0737	0.0000	78.6568
Energy	0.3421	2.9272	1.2733	0.0187		0.2364	0.2364		0.2364	0.2364		3,731.7842	3,731.7842	0.0715	0.0684	3,753.9603
Mobile	7.3825	30.5196	73.6370	0.1992	18.4287	0.1736	18.6023	4.9247	0.1617	5.0864		20,222.9991	20,222.9991	1.0796		20,249.9888
Total	30.7287	33.9381	117.5512	0.2201	18.4287	0.6463	19.0750	4.9247	0.6344	5.5591	0.0000	24,031.5970	24,031.5970	1.2248	0.0684	24,082.6059

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	23.0042	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363	0.0000	76.8138	76.8138	0.0737	0.0000	78.6568
Energy	0.3421	2.9272	1.2733	0.0187		0.2364	0.2364		0.2364	0.2364		3,731.7842	3,731.7842	0.0715	0.0684	3,753.9603
Mobile	7.3825	30.5196	73.6370	0.1992	18.4287	0.1736	18.6023	4.9247	0.1617	5.0864		20,222.9991	20,222.9991	1.0796		20,249.9888
Total	30.7287	33.9381	117.5512	0.2201	18.4287	0.6463	19.0750	4.9247	0.6344	5.5591	0.0000	24,031.5970	24,031.5970	1.2248	0.0684	24,082.6059

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail**Construction Phase**

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/1/2020	4/2/2020	5	2	
2	Grading	Grading	4/3/2020	5/1/2020	5	21	
3	Paving	Paving	5/4/2020	5/15/2020	5	10	
4	Building Construction	Building Construction	5/18/2020	5/17/2023	5	783	
5	Architectural Coating	Architectural Coating	6/1/2020	5/31/2023	5	783	

Acres of Grading (Site Preparation Phase): 0**Acres of Grading (Grading Phase): 79.2****Acres of Paving: 0****Residential Indoor: 1,680,345; Residential Outdoor: 560,115; Non-Residential Indoor: 68,700; Non-Residential Outdoor: 22,900; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	429.00	134.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	86.00	0.00	0.00	10.00	6.50	20.00	LD_Mix	HDT_Mix	HHDT

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.1 Mitigation Measures Construction**3.2 Site Preparation - 2020****Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216		3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523		3,685.1016	3,685.1016	1.1918		3,714.8975

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0714	0.0509	0.5032	1.2600e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		125.4399	125.4399	3.6100e-003		125.5301
Total	0.0714	0.0509	0.5032	1.2600e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		125.4399	125.4399	3.6100e-003		125.5301

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.2 Site Preparation - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					18.0663	0.0000	18.0663	9.9307	0.0000	9.9307			0.0000			0.0000
Off-Road	4.0765	42.4173	21.5136	0.0380		2.1974	2.1974		2.0216	2.0216	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975
Total	4.0765	42.4173	21.5136	0.0380	18.0663	2.1974	20.2637	9.9307	2.0216	11.9523	0.0000	3,685.1016	3,685.1016	1.1918		3,714.8975

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0714	0.0509	0.5032	1.2600e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		125.4399	125.4399	3.6100e-003		125.5301
Total	0.0714	0.0509	0.5032	1.2600e-003	0.1369	9.5000e-004	0.1379	0.0363	8.8000e-004	0.0372		125.4399	125.4399	3.6100e-003		125.5301

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.3 Grading - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.0217	0.0000	10.0217	3.7421	0.0000	3.7421			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000		6,005.865 3	6,005.865 3	1.9424		6,054.425 7
Total	4.4501	50.1975	31.9583	0.0620	10.0217	2.1739	12.1956	3.7421	2.0000	5.7421		6,005.865 3	6,005.865 3	1.9424		6,054.425 7

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0794	0.0565	0.5591	1.4000e-003	0.1521	1.0600e-003	0.1532	0.0404	9.7000e-004	0.0413		139.3777	139.3777	4.0100e-003		139.4779
Total	0.0794	0.0565	0.5591	1.4000e-003	0.1521	1.0600e-003	0.1532	0.0404	9.7000e-004	0.0413		139.3777	139.3777	4.0100e-003		139.4779

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.3 Grading - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					10.0217	0.0000	10.0217	3.7421	0.0000	3.7421			0.0000			0.0000
Off-Road	4.4501	50.1975	31.9583	0.0620		2.1739	2.1739		2.0000	2.0000	0.0000	6,005.865 3	6,005.865 3	1.9424		6,054.425 7
Total	4.4501	50.1975	31.9583	0.0620	10.0217	2.1739	12.1956	3.7421	2.0000	5.7421	0.0000	6,005.865 3	6,005.865 3	1.9424		6,054.425 7

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0794	0.0565	0.5591	1.4000e-003	0.1521	1.0600e-003	0.1532	0.0404	9.7000e-004	0.0413		139.3777	139.3777	4.0100e-003		139.4779
Total	0.0794	0.0565	0.5591	1.4000e-003	0.1521	1.0600e-003	0.1532	0.0404	9.7000e-004	0.0413		139.3777	139.3777	4.0100e-003		139.4779

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.4 Paving - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.733 4	2,207.733 4	0.7140		2,225.584 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926		2,207.733 4	2,207.733 4	0.7140		2,225.584 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084
Total	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.4 Paving - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.733 4	2,207.733 4	0.7140		2,225.584 1
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	1.3566	14.0656	14.6521	0.0228		0.7528	0.7528		0.6926	0.6926	0.0000	2,207.733 4	2,207.733 4	0.7140		2,225.584 1

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084
Total	0.0595	0.0424	0.4194	1.0500e-003	0.1141	7.9000e-004	0.1149	0.0303	7.3000e-004	0.0310		104.5333	104.5333	3.0100e-003		104.6084

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.5 Building Construction - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503		2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5323	15.0143	4.5491	0.0325	0.8064	0.0793	0.8857	0.2321	0.0758	0.3079		3,442.624 8	3,442.624 8	0.2167		3,448.0411
Worker	1.7022	1.2129	11.9934	0.0300	3.2634	0.0227	3.2861	0.8657	0.0209	0.8866		2,989.651 7	2,989.651 7	0.0860		2,991.800 7
Total	2.2345	16.2272	16.5425	0.0626	4.0698	0.1020	4.1718	1.0977	0.0967	1.1945		6,432.276 5	6,432.276 5	0.3026		6,439.841 8

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.5 Building Construction - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5
Total	2.1198	19.1860	16.8485	0.0269		1.1171	1.1171		1.0503	1.0503	0.0000	2,553.063 1	2,553.063 1	0.6229		2,568.634 5

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.5323	15.0143	4.5491	0.0325	0.8064	0.0793	0.8857	0.2321	0.0758	0.3079		3,442.624 8	3,442.624 8	0.2167		3,448.0411
Worker	1.7022	1.2129	11.9934	0.0300	3.2634	0.0227	3.2861	0.8657	0.0209	0.8866		2,989.651 7	2,989.651 7	0.0860		2,991.800 7
Total	2.2345	16.2272	16.5425	0.0626	4.0698	0.1020	4.1718	1.0977	0.0967	1.1945		6,432.276 5	6,432.276 5	0.3026		6,439.841 8

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.5 Building Construction - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013		2,553.363 9	2,553.363 9	0.6160		2,568.764 3

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4387	13.6804	3.9859	0.0322	0.8063	0.0392	0.8455	0.2320	0.0375	0.2695		3,413.677 7	3,413.677 7	0.2074		3,418.862 2
Worker	1.5834	1.0871	10.9465	0.0290	3.2634	0.0220	3.2854	0.8657	0.0203	0.8860		2,887.874 6	2,887.874 6	0.0770		2,889.798 6
Total	2.0220	14.7674	14.9324	0.0612	4.0697	0.0612	4.1310	1.0977	0.0578	1.1555		6,301.552 3	6,301.552 3	0.2843		6,308.660 8

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.5 Building Construction - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3
Total	1.9009	17.4321	16.5752	0.0269		0.9586	0.9586		0.9013	0.9013	0.0000	2,553.363 9	2,553.363 9	0.6160		2,568.764 3

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4387	13.6804	3.9859	0.0322	0.8063	0.0392	0.8455	0.2320	0.0375	0.2695		3,413.677 7	3,413.677 7	0.2074		3,418.862 2
Worker	1.5834	1.0871	10.9465	0.0290	3.2634	0.0220	3.2854	0.8657	0.0203	0.8860		2,887.874 6	2,887.874 6	0.0770		2,889.798 6
Total	2.0220	14.7674	14.9324	0.0612	4.0697	0.0612	4.1310	1.0977	0.0578	1.1555		6,301.552 3	6,301.552 3	0.2843		6,308.660 8

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.5 Building Construction - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4071	12.9834	3.6760	0.0319	0.8062	0.0345	0.8407	0.2320	0.0330	0.2649		3,383.3458	3,383.3458	0.2015		3,388.3831
Worker	1.4807	0.9773	10.0380	0.0280	3.2634	0.0215	3.2849	0.8657	0.0198	0.8854		2,784.4741	2,784.4741	0.0690		2,786.1997
Total	1.8879	13.9607	13.7140	0.0599	4.0696	0.0559	4.1255	1.0976	0.0527	1.1504		6,167.8199	6,167.8199	0.2705		6,174.5828

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.5 Building Construction - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322
Total	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612	0.0000	2,554.3336	2,554.3336	0.6120		2,569.6322

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.4071	12.9834	3.6760	0.0319	0.8062	0.0345	0.8407	0.2320	0.0330	0.2649		3,383.3458	3,383.3458	0.2015		3,388.3831
Worker	1.4807	0.9773	10.0380	0.0280	3.2634	0.0215	3.2849	0.8657	0.0198	0.8854		2,784.4741	2,784.4741	0.0690		2,786.1997
Total	1.8879	13.9607	13.7140	0.0599	4.0696	0.0559	4.1255	1.0976	0.0527	1.1504		6,167.8199	6,167.8199	0.2705		6,174.5828

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.5 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.209 9	2,555.209 9	0.6079		2,570.406 1

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3227	10.9631	3.2395	0.0313	0.8061	0.0166	0.8227	0.2320	0.0159	0.2478		3,320.945 2	3,320.945 2	0.1804		3,325.455 5
Worker	1.3875	0.8791	9.1972	0.0269	3.2634	0.0209	3.2843	0.8657	0.0193	0.8849		2,679.950 5	2,679.950 5	0.0617		2,681.493 6
Total	1.7102	11.8422	12.4367	0.0582	4.0695	0.0375	4.1070	1.0976	0.0351	1.1327		6,000.895 8	6,000.895 8	0.2421		6,006.949 1

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.5 Building Construction - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.3227	10.9631	3.2395	0.0313	0.8061	0.0166	0.8227	0.2320	0.0159	0.2478		3,320.9452	3,320.9452	0.1804		3,325.4555
Worker	1.3875	0.8791	9.1972	0.0269	3.2634	0.0209	3.2843	0.8657	0.0193	0.8849		2,679.9505	2,679.9505	0.0617		2,681.4936
Total	1.7102	11.8422	12.4367	0.0582	4.0695	0.0375	4.1070	1.0976	0.0351	1.1327		6,000.8958	6,000.8958	0.2421		6,006.9491

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.6 Architectural Coating - 2020**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928
Total	14.0469	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109		281.4481	281.4481	0.0218		281.9928

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3412	0.2431	2.4043	6.0200e-003	0.6542	4.5500e-003	0.6588	0.1735	4.1900e-003	0.1777		599.3241	599.3241	0.0172		599.7549
Total	0.3412	0.2431	2.4043	6.0200e-003	0.6542	4.5500e-003	0.6588	0.1735	4.1900e-003	0.1777		599.3241	599.3241	0.0172		599.7549

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.6 Architectural Coating - 2020**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2422	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928
Total	14.0469	1.6838	1.8314	2.9700e-003		0.1109	0.1109		0.1109	0.1109	0.0000	281.4481	281.4481	0.0218		281.9928

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3412	0.2431	2.4043	6.0200e-003	0.6542	4.5500e-003	0.6588	0.1735	4.1900e-003	0.1777		599.3241	599.3241	0.0172		599.7549
Total	0.3412	0.2431	2.4043	6.0200e-003	0.6542	4.5500e-003	0.6588	0.1735	4.1900e-003	0.1777		599.3241	599.3241	0.0172		599.7549

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.6 Architectural Coating - 2021**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309
Total	14.0236	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941		281.4481	281.4481	0.0193		281.9309

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3174	0.2179	2.1944	5.8100e-003	0.6542	4.4200e-003	0.6586	0.1735	4.0700e-003	0.1776		578.9213	578.9213	0.0154		579.3069
Total	0.3174	0.2179	2.1944	5.8100e-003	0.6542	4.4200e-003	0.6586	0.1735	4.0700e-003	0.1776		578.9213	578.9213	0.0154		579.3069

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.6 Architectural Coating - 2021**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2189	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309
Total	14.0236	1.5268	1.8176	2.9700e-003		0.0941	0.0941		0.0941	0.0941	0.0000	281.4481	281.4481	0.0193		281.9309

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.3174	0.2179	2.1944	5.8100e-003	0.6542	4.4200e-003	0.6586	0.1735	4.0700e-003	0.1776		578.9213	578.9213	0.0154		579.3069
Total	0.3174	0.2179	2.1944	5.8100e-003	0.6542	4.4200e-003	0.6586	0.1735	4.0700e-003	0.1776		578.9213	578.9213	0.0154		579.3069

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.6 Architectural Coating - 2022**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	14.0093	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2968	0.1959	2.0123	5.6000e-003	0.6542	4.3000e-003	0.6585	0.1735	3.9600e-003	0.1775		558.1930	558.1930	0.0138		558.5389
Total	0.2968	0.1959	2.0123	5.6000e-003	0.6542	4.3000e-003	0.6585	0.1735	3.9600e-003	0.1775		558.1930	558.1930	0.0138		558.5389

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.6 Architectural Coating - 2022**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	14.0093	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2968	0.1959	2.0123	5.6000e-003	0.6542	4.3000e-003	0.6585	0.1735	3.9600e-003	0.1775		558.1930	558.1930	0.0138		558.5389
Total	0.2968	0.1959	2.0123	5.6000e-003	0.6542	4.3000e-003	0.6585	0.1735	3.9600e-003	0.1775		558.1930	558.1930	0.0138		558.5389

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.6 Architectural Coating - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	13.9964	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2781	0.1762	1.8437	5.3900e-003	0.6542	4.2000e-003	0.6584	0.1735	3.8700e-003	0.1774		537.2395	537.2395	0.0124		537.5488
Total	0.2781	0.1762	1.8437	5.3900e-003	0.6542	4.2000e-003	0.6584	0.1735	3.8700e-003	0.1774		537.2395	537.2395	0.0124		537.5488

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

3.6 Architectural Coating - 2023**Mitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	13.8047					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	13.9964	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.2781	0.1762	1.8437	5.3900e-003	0.6542	4.2000e-003	0.6584	0.1735	3.8700e-003	0.1774		537.2395	537.2395	0.0124		537.5488
Total	0.2781	0.1762	1.8437	5.3900e-003	0.6542	4.2000e-003	0.6584	0.1735	3.8700e-003	0.1774		537.2395	537.2395	0.0124		537.5488

4.0 Operational Detail - Mobile

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.3825	30.5196	73.6370	0.1992	18.4287	0.1736	18.6023	4.9247	0.1617	5.0864		20,222.99 91	20,222.99 91	1.0796		20,249.98 88
Unmitigated	7.3825	30.5196	73.6370	0.1992	18.4287	0.1736	18.6023	4.9247	0.1617	5.0864		20,222.99 91	20,222.99 91	1.0796		20,249.98 88

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Mid Rise	617.40	617.40	617.40	952,604	952,604
City Park	0.00	0.00	0.00		
Regional Shopping Center	3,100.20	3,100.20	3,100.20	2,606,622	2,606,622
Single Family Housing	3,327.41	3,327.41	3,327.41	5,133,957	5,133,957
Total	7,045.01	7,045.01	7,045.01	8,693,183	8,693,183

4.3 Trip Type Information

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Mid Rise	6.01	3.00	3.91	46.50	12.50	41.00	86	11	3
City Park	10.00	5.00	6.50	33.00	48.00	19.00	66	28	6
Regional Shopping Center	6.01	3.00	3.91	16.30	64.70	19.00	54	35	11
Single Family Housing	6.01	3.00	3.91	46.50	12.50	41.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Apartments Mid Rise	0.566033	0.037143	0.208217	0.113428	0.016713	0.004955	0.018463	0.024036	0.001978	0.001883	0.005758	0.000618	0.000776
City Park	0.566033	0.037143	0.208217	0.113428	0.016713	0.004955	0.018463	0.024036	0.001978	0.001883	0.005758	0.000618	0.000776
Regional Shopping Center	0.566033	0.037143	0.208217	0.113428	0.016713	0.004955	0.018463	0.024036	0.001978	0.001883	0.005758	0.000618	0.000776
Single Family Housing	0.566033	0.037143	0.208217	0.113428	0.016713	0.004955	0.018463	0.024036	0.001978	0.001883	0.005758	0.000618	0.000776

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.3421	2.9272	1.2733	0.0187		0.2364	0.2364		0.2364	0.2364		3,731.784 2	3,731.784 2	0.0715	0.0684	3,753.960 3
NaturalGas Unmitigated	0.3421	2.9272	1.2733	0.0187		0.2364	0.2364		0.2364	0.2364		3,731.784 2	3,731.784 2	0.0715	0.0684	3,753.960 3

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3365.1	0.0363	0.3101	0.1320	1.9800e-003		0.0251	0.0251		0.0251	0.0251		395.8938	395.8938	7.5900e-003	7.2600e-003	398.2464
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	680.099	7.3300e-003	0.0667	0.0560	4.0000e-004		5.0700e-003	5.0700e-003		5.0700e-003	5.0700e-003		80.0116	80.0116	1.5300e-003	1.4700e-003	80.4871
Single Family Housing	27675	0.2985	2.5504	1.0853	0.0163		0.2062	0.2062		0.2062	0.2062		3,255.878 7	3,255.878 7	0.0624	0.0597	3,275.226 8
Total		0.3421	2.9272	1.2733	0.0187		0.2364	0.2364		0.2364	0.2364		3,731.784 2	3,731.784 2	0.0715	0.0684	3,753.960 3

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

5.2 Energy by Land Use - NaturalGas**Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Apartments Mid Rise	3.3651	0.0363	0.3101	0.1320	1.9800e-003		0.0251	0.0251		0.0251	0.0251		395.8938	395.8938	7.5900e-003	7.2600e-003	398.2464
City Park	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Regional Shopping Center	0.680099	7.3300e-003	0.0667	0.0560	4.0000e-004		5.0700e-003	5.0700e-003		5.0700e-003	5.0700e-003		80.0116	80.0116	1.5300e-003	1.4700e-003	80.4871
Single Family Housing	27.675	0.2985	2.5504	1.0853	0.0163		0.2062	0.2062		0.2062	0.2062		3,255.8787	3,255.8787	0.0624	0.0597	3,275.2268
Total		0.3421	2.9272	1.2733	0.0187		0.2364	0.2364		0.2364	0.2364		3,731.7842	3,731.7842	0.0715	0.0684	3,753.9603

6.0 Area Detail**6.1 Mitigation Measures Area**

Use only Natural Gas Hearths

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	23.0042	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363	0.0000	76.8138	76.8138	0.0737	0.0000	78.6568
Unmitigated	23.0042	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363	0.0000	76.8138	76.8138	0.0737	0.0000	78.6568

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.9614					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	18.7603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2825	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363		76.8138	76.8138	0.0737		78.6568
Total	23.0042	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363	0.0000	76.8138	76.8138	0.0737	0.0000	78.6568

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

6.2 Area by SubCategory**Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	2.9614					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	18.7603					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	1.2825	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363		76.8138	76.8138	0.0737		78.6568
Total	23.0042	0.4913	42.6409	2.2500e-003		0.2363	0.2363		0.2363	0.2363	0.0000	76.8138	76.8138	0.0737	0.0000	78.6568

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment

Sheldon Farms North (unmitigated) - Sacramento Metropolitan AQMD Air District, Winter

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
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Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type
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User Defined Equipment

Equipment Type	Number
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11.0 Vegetation

Sheldon Farms North (unmitigated)
Sacramento Metropolitan AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	2	No Change	0.00
Forklifts	Diesel	No Change	0	3	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	1	No Change	0.00
Pavers	Diesel	No Change	0	2	No Change	0.00
Paving Equipment	Diesel	No Change	0	2	No Change	0.00
Rollers	Diesel	No Change	0	2	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	4	No Change	0.00
Scrapers	Diesel	No Change	0	2	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	9	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Unmitigated tons/yr							Unmitigated mt/yr					
Air Compressors	8.41500E-002	5.82370E-001	7.11780E-001	1.16000E-003	3.52700E-002	3.52700E-002	0.00000E+000	9.99599E+001	9.99599E+001	6.79000E-003	0.00000E+000	1.00130E+002
Cranes	1.37170E-001	1.58013E+000	6.72100E-001	1.98000E-003	6.50200E-002	5.98200E-002	0.00000E+000	1.73654E+002	1.73654E+002	5.61600E-002	0.00000E+000	1.75058E+002
Excavators	5.14000E-003	5.06700E-002	6.86200E-002	1.10000E-004	2.45000E-003	2.26000E-003	0.00000E+000	9.52770E+000	9.52770E+000	3.08000E-003	0.00000E+000	9.60473E+000
Forklifts	1.45440E-001	1.33330E+000	1.36580E+000	1.79000E-003	9.25200E-002	8.51200E-002	0.00000E+000	1.57725E+002	1.57725E+002	5.10100E-002	0.00000E+000	1.59000E+002
Generator Sets	1.37250E-001	1.21217E+000	1.44238E+000	2.58000E-003	6.33600E-002	6.33600E-002	0.00000E+000	2.21279E+002	2.21279E+002	1.10800E-002	0.00000E+000	2.21556E+002
Graders	5.00000E-003	6.64200E-002	1.90500E-002	7.00000E-005	2.12000E-003	1.95000E-003	0.00000E+000	6.12218E+000	6.12218E+000	1.98000E-003	0.00000E+000	6.17168E+000
Pavers	2.63000E-003	2.81000E-002	2.89800E-002	5.00000E-005	1.37000E-003	1.26000E-003	0.00000E+000	4.13016E+000	4.13016E+000	1.34000E-003	0.00000E+000	4.16355E+000
Paving Equipment	2.07000E-003	2.14100E-002	2.53400E-002	4.00000E-005	1.07000E-003	9.90000E-004	0.00000E+000	3.57910E+000	3.57910E+000	1.16000E-003	0.00000E+000	3.60804E+000
Rollers	2.08000E-003	2.08100E-002	1.89300E-002	3.00000E-005	1.33000E-003	1.22000E-003	0.00000E+000	2.30485E+000	2.30485E+000	7.50000E-004	0.00000E+000	2.32349E+000
Rubber Tired Dozers	1.45700E-002	1.52990E-001	5.57800E-002	1.20000E-004	7.49000E-003	6.89000E-003	0.00000E+000	1.01325E+001	1.01325E+001	3.28000E-003	0.00000E+000	1.02144E+001
Scrapers	2.08500E-002	2.46790E-001	1.56630E-001	3.20000E-004	9.63000E-003	8.86000E-003	0.00000E+000	2.79479E+001	2.79479E+001	9.04000E-003	0.00000E+000	2.81739E+001
Tractors/Loaders/ Backhoes	1.90160E-001	1.92453E+000	2.37267E+000	3.27000E-003	1.10780E-001	1.01910E-001	0.00000E+000	2.87509E+002	2.87509E+002	9.29900E-002	0.00000E+000	2.89834E+002
Welders	1.15990E-001	5.85540E-001	6.71880E-001	1.00000E-003	2.78000E-002	2.78000E-002	0.00000E+000	7.36884E+001	7.36884E+001	9.41000E-003	0.00000E+000	7.39237E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Mitigated tons/yr							Mitigated mt/yr					
Air Compressors	8.41500E-002	5.82370E-001	7.11780E-001	1.16000E-003	3.52700E-002	3.52700E-002	0.00000E+000	9.99598E+001	9.99598E+001	6.79000E-003	0.00000E+000	1.00130E+002
Cranes	1.37170E-001	1.58013E+000	6.72100E-001	1.98000E-003	6.50200E-002	5.98200E-002	0.00000E+000	1.73654E+002	1.73654E+002	5.61600E-002	0.00000E+000	1.75058E+002
Excavators	5.14000E-003	5.06700E-002	6.86200E-002	1.10000E-004	2.45000E-003	2.26000E-003	0.00000E+000	9.52768E+000	9.52768E+000	3.08000E-003	0.00000E+000	9.60472E+000
Forklifts	1.45440E-001	1.33329E+000	1.36580E+000	1.79000E-003	9.25200E-002	8.51200E-002	0.00000E+000	1.57725E+002	1.57725E+002	5.10100E-002	0.00000E+000	1.59000E+002
Generator Sets	1.37250E-001	1.21216E+000	1.44238E+000	2.58000E-003	6.33600E-002	6.33600E-002	0.00000E+000	2.21278E+002	2.21278E+002	1.10800E-002	0.00000E+000	2.21556E+002
Graders	5.00000E-003	6.64200E-002	1.90500E-002	7.00000E-005	2.12000E-003	1.95000E-003	0.00000E+000	6.12217E+000	6.12217E+000	1.98000E-003	0.00000E+000	6.17167E+000
Pavers	2.63000E-003	2.81000E-002	2.89800E-002	5.00000E-005	1.37000E-003	1.26000E-003	0.00000E+000	4.13015E+000	4.13015E+000	1.34000E-003	0.00000E+000	4.16355E+000
Paving Equipment	2.07000E-003	2.14100E-002	2.53400E-002	4.00000E-005	1.07000E-003	9.90000E-004	0.00000E+000	3.57910E+000	3.57910E+000	1.16000E-003	0.00000E+000	3.60803E+000
Rollers	2.08000E-003	2.08100E-002	1.89300E-002	3.00000E-005	1.33000E-003	1.22000E-003	0.00000E+000	2.30485E+000	2.30485E+000	7.50000E-004	0.00000E+000	2.32349E+000
Rubber Tired Dozers	1.45700E-002	1.52990E-001	5.57800E-002	1.20000E-004	7.49000E-003	6.89000E-003	0.00000E+000	1.01325E+001	1.01325E+001	3.28000E-003	0.00000E+000	1.02144E+001
Scrapers	2.08500E-002	2.46790E-001	1.56630E-001	3.20000E-004	9.63000E-003	8.86000E-003	0.00000E+000	2.79479E+001	2.79479E+001	9.04000E-003	0.00000E+000	2.81739E+001
Tractors/Loaders/Balckhoes	1.90160E-001	1.92453E+000	2.37267E+000	3.27000E-003	1.10780E-001	1.01910E-001	0.00000E+000	2.87509E+002	2.87509E+002	9.29900E-002	0.00000E+000	2.89834E+002
Welders	1.15990E-001	5.85540E-001	6.71880E-001	1.00000E-003	2.78000E-002	2.78000E-002	0.00000E+000	7.36883E+001	7.36883E+001	9.41000E-003	0.00000E+000	7.39236E+001

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.10044E-006	1.10044E-006	0.00000E+000	0.00000E+000	1.19845E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.20930E-006	1.20930E-006	0.00000E+000	0.00000E+000	1.14248E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.09914E-006	2.09914E-006	0.00000E+000	0.00000E+000	1.04115E-006
Forklifts	0.00000E+000	7.50019E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.14123E-006	1.14123E-006	0.00000E+000	0.00000E+000	1.19497E-006
Generator Sets	0.00000E+000	8.24967E-006	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22018E-006	1.22018E-006	0.00000E+000	0.00000E+000	1.17352E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.63341E-006	1.63341E-006	0.00000E+000	0.00000E+000	1.62030E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.42121E-006	2.42121E-006	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.77159E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.86927E-007	9.86927E-007	0.00000E+000	0.00000E+000	9.79012E-007
Scrapers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.07342E-006	1.07342E-006	0.00000E+000	0.00000E+000	1.06482E-006
Tractors/Loaders/Balckhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.21735E-006	1.21735E-006	0.00000E+000	0.00000E+000	1.20759E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.22136E-006	1.22136E-006	0.00000E+000	0.00000E+000	1.21747E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input	Mitigation Input	Mitigation Input
No	Soil Stabilizer for unpaved Roads	PM10 Reduction	PM2.5 Reduction	
No	Replace Ground Cover of Area Disturbed	PM10 Reduction	PM2.5 Reduction	
No	Water Exposed Area	PM10 Reduction	PM2.5 Reduction	Frequency (per day)

No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

Phase	Source	Unmitigated		Mitigated		Percent Reduction	
		PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.25	0.07	0.25	0.07	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	1.54	0.42	1.54	0.42	0.00	0.00
Grading	Fugitive Dust	0.11	0.04	0.11	0.04	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.02	0.01	0.02	0.01	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Suburban Center

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value
No	Land Use	Increase Density	0.00	0.00	0.00	
No	Land Use	Increase Diversity	0.29	0.63		
No	Land Use	Improve Walkability Design	0.00	0.00		
No	Land Use	Improve Destination Accessibility	0.00	0.00		
No	Land Use	Increase Transit Accessibility	0.25	0.00		
No	Land Use	Integrate Below Market Rate Housing	0.00	0.00		
	Land Use	Land Use SubTotal	0.00			

No	Neighborhood Enhancements	Improve Pedestrian Network	2.00	Project Site and Connecting Off-Site		
No	Neighborhood Enhancements	Provide Traffic Calming Measures	0.00			
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00	0.00		
No	Parking Policy Pricing	Unbundle Parking Costs	0.00	0.00		
No	Parking Policy Pricing	On-street Market Pricing	0.00	0.00		
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00	0.00		
No	Transit Improvements	Expand Transit Network	0.00	0.00		
No	Transit Improvements	Increase Transit Frequency	0.00		0.00	
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.00			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	4.50			
No	Commute	Workplace Parking Charge		0.00		
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program	10.00			
	Commute	Commute Subtotal	0.00			

No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.00			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
Yes	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	100.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	100.00
No	Use Low VOC Paint (Parking)	100.00
No	% Electric Lawnmower	0.00
No	% Electric Leafblower	0.00
No	% Electric Chainsaw	0.00

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		
No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Apply Water Conservation on Strategy		
No	Use Reclaimed Water		
No	Use Grey Water		
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction		
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape		

Solid Waste Mitigation

Mitigation Measures	Input Value
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Institute Recycling and Composting Services Percent Reduction in Waste Disposed	
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