City of Cupertino
Community Development Department

20860 McClellan Road Subdivision Project

Categorical Exemption Memorandum

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A. INTRODUCTION AND SUMMARY

On October 20, 2015, the City of Cupertino adopted an amended General Plan[1] and certified an associated Environmental Impact Report (EIR).[2] 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 buildout of the General Plan.

Section 21084 of the Public Resources Code requires the CEQA Guidelines to include a list of classes of projects which have been determined not to have a significant effect on the environment and which shall, therefore, be exempt from the provisions of CEQA. In response to that mandate, the Secretary of the Natural Resources Agency has found that several classes of projects listed in Article 19 do not have a significant effect on the environment and, thus, are declared to be categorically exempt from the requirement for the preparation of environmental documents.

The purpose of this Memorandum is to evaluate the 20860 McClellan Road Project (proposed project) to determine whether the proposed project is exempt from review under CEQA. As will be demonstrated below, the proposed project can be considered exempt from CEQA, consistent with CEQA Guidelines Section 15332, In-Fill Development Projects. In addition, none of the exceptions to categorical exemptions specified by CEQA Guidelines Section 15300.2 are applicable to the proposed project.

B. PROJECT DESCRIPTION

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

Project Location and Setting

The approximately 1.25-acre project site (APN 359-20-030) is located at 20860 McClellan Road in the City of Cupertino, California (see Figure 1). The project site is currently developed with a single-family residence, garage, and accessory structure in the northern portion of the site, as well as a barn and truck yard in the southern portion of the site, which are used as rental storage space for automobiles and boats. The barn is constructed of wood with a bare dirt floor and has an attached workshop to the north with a concrete foundation. The workshop is used by the current on-site tenant for private vehicle maintenance. In addition, various piles of debris are located throughout the site, including a pile of debris that contains discarded gas cans, paint, and spray paint cans in the northeast corner of the site. The site was historically used as a fruit orchard in the 1940s to early 1960s. A total of 21 trees remain scattered throughout the site. The project site is bound by McClellan Road to the north and Cherryland Drive to the east. Surrounding existing uses include single-family residences to the north, across McClellan Road, east, across Cherryland Drive, and south; and two churches and an adult day services center to the west. De Anza College is located approximately 0.25-mile northwest of the project site (see Figure 2). The site is located approximately 0.4-mile from State Route (SR) 85, and approximately 1.3-miles south of SR 280. The Cupertino General Plan designates the site as Low Density Residential (1-5 dwelling units per acre [du/ac]) and the site is zoned Single-Family Residential with a minimum lot area of 10,000 square feet (sf) (R1-10).

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1 City of Cupertino. *General Plan: Community Vision 2015 – 2040.* Adopted October 20, 2015.
2 City of Cupertino. *General Plan Amendment, Housing Element Update, and Associated Rezoning Draft EIR.* June 18, 2014.

Figure 1
Regional Project Location

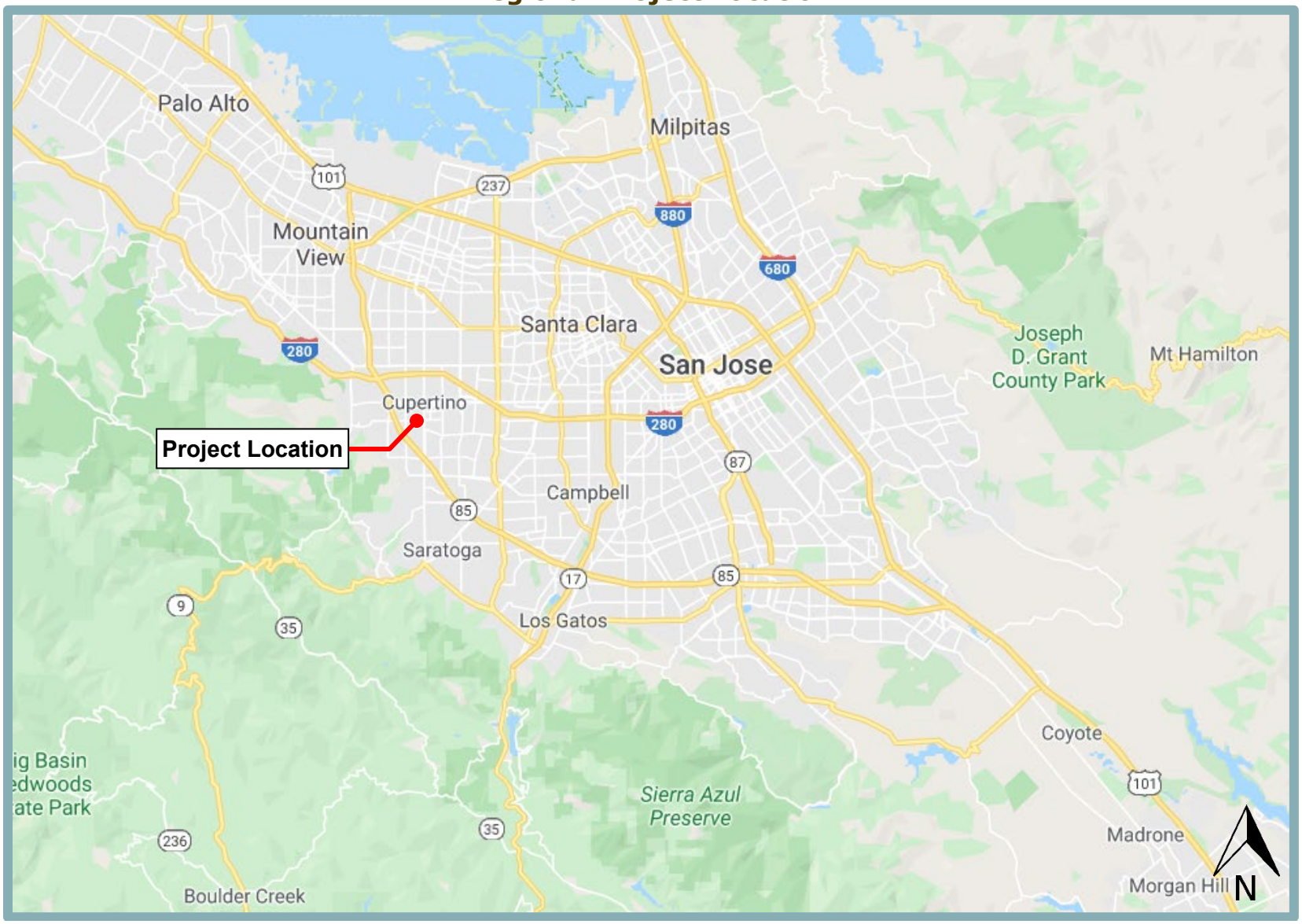

Figure 2
Project Site Boundaries Map

Project Components

The proposed project would include demolition of all existing buildings and removal of a number of on-site unprotected trees as reviewed in the Arborist Report (see Appendix A) to allow for the development of six residences on lots ranging from 7,526 sf to 9,615 sf.

Each residential lot would include a two-story single-family residence ranging in size between 2,970 sf and 3,610 sf of living space, a two-car garage, and one accessory dwelling unit (ADU) ranging between 557 sf and 600 sf. Table 1 provides a more detailed breakdown of the proposed on-site development.

Table 1
Proposed Lot and Residence Sizes

Lot	Lot Size (sf)	Residence Size (sf)	ADU Size (sf)	Garage Size (sf)	Floor Area Ratio (FAR) (%)	Lot Coverage (%)
1	8,581	3,304	563	415	43%	29.5%
2	7,535	2,970	600	415	44.9%	29.9%
3	7,532	2,970	600	415	44.9%	29.9%
4	7,526	2,970	600	415	45%	30%
5	8,469	3,330	557	415	43.3%	30%
6	9,615	3,610	560	415	42%	31%

Each residence would include a two-car garage, and three off-street uncovered driveway spaces. In addition, six off-site, guest parking spaces will be available on Cherryland Drive, for a total of 36 parking spaces to be developed as part of the proposed project. Access to each of the proposed residential lots would be provided by 20-foot wide, full-access driveways located along Cherryland Drive, which would connect each proposed garage to the roadway. The proposed project would include roadway improvements, such as the widening of Cherryland Drive by 14.5 feet to allow for curb, gutter, sidewalk and parking along the western portion of Cherryland Drive and to facilitate two-lane travel and an emergency fire truck turnaround along the fully-widened private road.

Each lot would include between 2,538 sf and 3,653 sf of landscaped areas. Landscaping would include, but not be limited to, trees, shrubs, ground cover, and lawn areas. Furthermore, the landscaping plan includes a privacy protection planting plan as required to comply with Cupertino Municipal Code Section 19.28.120, Landscape Requirements. The privacy protection plan provides screening shrubs to be installed along the property lines based on the 30-degree cone of vision from the window jamb, of the proposed residences viewsheds, as defined in the Municipal Code, in order to mitigate privacy impacts to adjacent neighbors. All landscaping improvements would be consistent with Chapter 14.15, Landscape Ordinance, of the City's Municipal Code and would be irrigated by an automatic irrigation system. The project will include a landscape documentation package to be submitted for review and approval by the Planning Division prior to building permit issuance and the project is conditioned to comply with the Water Efficient Landscape Ordinance requirements pursuant to Cupertino Municipal Code Chapter 14.15.

The proposed project would remove up to 17 unprotected trees of the 21 trees as reviewed in the Arborist Report prepared by Advanced Tree Care (see Appendix A) that currently exist on-site, eight of which are currently unhealthy or dead. However, 13 trees would be planted within the project site to replace the trees proposed to be removed. The proposed tree removal does not include the removal of protected trees pursuant to Cupertino Municipal Code Section 14.18.050; therefore, a tree removal permit is not required for the proposed project.

Stormwater runoff within the project site would flow to a series of bioretention basins located in the landscaped areas of the project site. Each individual lot would have its own independent bioretention basin. Roof and yard drainage would filter through landscaped areas to provide storm water pre-treatment before being directed into the basins. The bioretention basins would have a maximum ponding depth of 9 inches, with 24-inch soil media backfill placed over 18-inch drain rock bed. The project would also include permeable pavement for the proposed driveways and roadway to further reduce impervious surfaces and promote stormwater infiltration. A series of new pipes, including a 24-inch detention pipe, would collect and detain the on-site stormwater and convey any overflow water to the existing 30-inch stormwater drainage pipe located along McClellan Road.[3]

Infrastructure required to provide utilities such as water and sewer to the proposed residences would include connections to the existing utility mains within the project vicinity. Specifically, the proposed project would include connection to the existing six-inch water main and eight-inch sewer main located along Cherryland Drive, at the eastern boundary of the project site. Electricity would be provided to the project site by PG&E transmission and distribution systems; however, the project site is supplied energy by Silicon Valley Clean Energy, a local Community Choice Electricity (CCE) Aggregator, which provides 100 percent carbon-free electricity. It should be noted that each residential unit has the option to "opt-out" from the CCE and revert to PG&E for both electricity supply and distribution services. In addition, in accordance with the 2019 Building Energy Efficiency Standards, the proposed project would be required to include on-site renewable energy systems (using either the performance pathway or prescriptive compliance) to meet each home's expected annual electric needs.

While, the project would be within the allowed density of the site's current 1-5 dwelling unit per acre Low Density Residential General Plan land use designation, the project does not meet the City's zoning standards of minimum lot size of 10,000 sf per lot. However, under changes to the Housing Accountability Act (AB 3194), in effect since 2018, developments do not have to meet the zoning standard if the zoning standard prohibits the development of the site at the densities allowed under the General Plan. As a result, a rezone would not be required for the proposed project. As discussed in further detail below, state law allows the City to determine that the closest appropriate zoning district standards for the proposed project – which it has determined to be the standards set forth in Chapter 19.28 of the Cupertino Municipal Code for the following zoning district: Single-Family Residential with a minimum lot area of 7,500 sf (R1-7.5).

Project Approvals

The proposed project would require the following approvals from the City of Cupertino:

- Approval of a Tentative Tract Map to subdivide one parcel into six parcels;
- Approval of six Two-Story Permits to develop six two-story single-family homes; and
- Approval of six Minor Residential Permits for six second-story balconies, one with each residence.

C. DISCUSSION

The following section contains substantial evidence showing that the proposed project can be considered exempt from CEQA and is not subject to any of the exceptions set forth in Section 15300.2 of the CEQA Guidelines. As demonstrated in the analysis below, the proposed project qualifies for exemption under CEQA Guidelines Section 15332, Class 32.

[3] City of Cupertino. *Storm Drain Master Plan*. September 2018.

In-Fill Development Project Exemption

Article 19 of the CEQA Guidelines, Sections 15300 through 15333, includes a list of classes of projects that have been determined not to have a significant effect on the environment, and are therefore exempt from CEQA. Section 15332 of the CEQA Guidelines provides a categorical exemption for infill development projects that meet the following criteria:

(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.
(b) The proposed development occurs within the city limits on a project site of no more than five acres substantially surrounded by urban uses.
(c) The project site has no value as habitat for endangered, rare or threatened species.
(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.
(e) The site can be adequately served by all required utilities and public services.

The applicability of the above criteria to the proposed project is described in the following sections.

Criterion 15332(a): General Plan and Zoning Consistency

The CEQA Guidelines provide that a project is "consistent" with applicable general plan and zoning standards if "the density of the proposed project is the same or less than the standard expressed for the involved parcel in the general plan, community plan or zoning action for which an EIR has been certified, and that the project complies with the density-related standards contained in that plan or zoning." (CEQA Guidelines, Section 15183(i)(2)) The City's General Plan designates the site Low Density Residential at a density of 1-5 dwelling units per acre and the site is zoned R1-10. The Low Density Residential (1-5 du/ac) land use designation is intended to promote a suburban lifestyle of detached single-family homes. According to the City's General Plan, planned residential communities can be incorporated into the Low Density Residential land use category if the development form is compatible with adjoining residential development. The Low Density Residential land use designation allows for a density of one to five du/ac. The maximum residential unit yield for the 1.25-acre project site at the maximum density of five dwelling units per acre is six units, which is what the applicant proposes. Thus, the project would be consistent with the maximum allowable density for the land use designation and compatible with surrounding densities within the neighborhood.

The R1 zoning districts are divided into multiple subzones allowing for a range of permitted residential densities. With regard to zoning, according to Section 19.28.010 of the City's Municipal Code, the R1 single-family residence districts are intended to create, preserve, and enhance areas suitable for detached dwellings in order to enhance the identity of residential neighborhoods, ensure provision of light, air and a reasonable level of privacy to individual residential parcels, ensure a reasonable level of compatibility in scale of structures within residential neighborhoods, and reinforce the predominantly low-intensity setting in the community. According to the Housing Accountability Act (Government Code section 65589.5(j)(4)):

> A proposed housing development project is not inconsistent with the applicable zoning standards and criteria, and shall not require a rezoning, if the housing development project is consistent with the objective general plan standards and criteria but the zoning for the project site is inconsistent with the general plan. […] the local agency may require the proposed housing development project to comply with the objective standards and criteria of the zoning which is consistent with the general plan, however, the standards and criteria

> shall be applied to facilitate and accommodate development at the density allowed on the site by the general plan and proposed by the proposed housing development project.

The California Department of Housing and Community Development (HCD) Guidance provides an example of how this standard should be applied in practice, stating that "[…] if a site has a general plan land use designation of high density residential, but the site is zoned industrial, then a local government can require the project to comply with objective development standards in zoning districts that are consistent with the high density residential designation, such as a multifamily high density residential zone."[4]

Because buildout of the project site consistent with the R1-10 zoning standards would not allow the development of six units on the site, based on HCD's Guidance, the project is deemed consistent with applicable zoning standards pursuant to Government Code section 65589.5(j)(4). However, the City could apply objective standards in the Zoning Ordinance that are consistent with the General Plan density, such as the R1-7.5 zoning standards. The project site is approximately 54,244 sf, and the parcels adjacent to the project site are primarily zoned R1-7.5 or R1-6. Therefore, the City has determined that the appropriate zoning district standards for the proposed project would be the standards set forth in Chapter 19.28 of the Cupertino Municipal Code for the R1-7.5 zoning district. As such, a rezone would not be required for the proposed project.

To ensure the proposed project would comply with applicable General Plan policies and zoning regulations adopted for the purpose of avoiding and/or mitigating adverse environmental effects, such as the City's Tree Protection Ordinance, an Arborist Report was prepared for the proposed project by Advanced Tree Care (see Appendix A), to assess all trees on-site and evaluate the health and structural condition of the trees. Based on a visual inspection from the ground, the Arborist Report determined which trees could be preserved and removed, and provided guidelines for tree preservation during the design, construction, and maintenance phases of development. According to the Arborist Report, the project site currently contains 21 trees, three of which are considered protected trees pursuant to Chapter 14.18 of the Cupertino Municipal Code. The proposed project does not include the three protected trees on-site, but does include the removal of 17 unprotected trees. Nonetheless, to avoid any inadvertent damage to the three protected trees that would be retained on-site during development of the proposed project, pursuant to Section 14.18.060 of the Municipal Code, the project applicant would be required to adopt a maintenance plan for the protected trees that would be implemented as part of the project. Based on the City's Municipal Code standards, activities required by the maintenance plan may include, but are not limited to, pruning, and the establishment of tree protection zones during construction of the proposed project. Furthermore, while not anticipated, if the proposed project would require removal of any of the three protected trees during construction, pursuant to Section 14.18.050 of the City's Municipal Code, a Tree Removal Permit must be obtained. The information required when submitting a Tree Removal Permit application, includes, but is not limited to, the following:

- A drawing outlining the location of the tree(s) and proposed tree replacements.
- A written explanation of why the tree(s) should be removed.
- An Arborist report prepared by a certified, licensed Arborist assessing the proposed removal and replacement.

In addition, the City would impose tree replacement standards or in-lieu fees pursuant to Section 14.18.160 of the Municipal Code for any protected trees proposed for removal. Because the

[4] California Department of Housing and Community Development Division of Housing Policy Development. *Housing Accountability Act Technical Assistance Advisory (Government Code Section 65589.5)*. September 15, 2020.

proposed project would comply with Chapter 14.18 of the City's Municipal Code, the project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The proposed project would also comply with other applicable General Plan policies and zoning regulations adopted for the purpose of avoiding and/or mitigating adverse environmental effects. For example, the proposed project would comply with all relevant City policies and guidelines, including, but not limited to, the standards set forth in Chapter 10.48, Community Noise Control, Chapter 9.18, Stormwater Pollution Prevention and Watershed Protection, and Chapter 17.04, Environmental Protections Ordinance, of the City's Municipal Code. Chapter 17.04 of the City's Municipal Code provides standard environmental protection requirements that all construction projects must meet, including but not limited to environmental mitigation measures, standard technical report submittal requirements, and standard permit submittal requirements.

Based on the above, the proposed project meets Criterion 15332(a).

Criterion 15332(b): Project Location, Size, and Context

The project site consists of a 1.25-acre parcel located within the Cupertino city limits. The project site is currently developed and is surrounded by existing development. Thus, the proposed project meets Criterion 15332(b).

Criterion 15332(c): Endangered, Rare, or Threatened Species

Endangered, rare, or threatened 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.

A search of the California Natural Diversity Database (CNDDB) was conducted in November 2021 for the project site U.S. Geological Survey (USGS) topographic quadrangle to identify if any endangered, rare, or threatened species have the potential to exist within the project site. The intent of the database review was to identify documented occurrences of endangered, rare, or threatened species in the vicinity of the project area, to determine their locations relative to the project site, and to evaluate whether the site meets the habitat requirements of such species.

The project site is currently developed. As such, the project site does not contain sensitive habitats supporting endangered, rare, or threatened species, and the site does not meet the habitat requirements for any of the documented endangered, rare, or threatened species known to occur within the project region. Additionally, all documented occurrences of the endangered, rare, or threatened species identified have occurred outside of the immediate project vicinity. Based on the limited habitat provided on-site and the developed nature of the project area, along with the previously recorded locations of endangered, rare, or threatened species occurrences in the project region, as specified in the CNDDB search results, endangered, rare, or threatened plant and wildlife species are not likely to occur on the project site and would not be impacted by the proposed project. Moreover, this section of the exemption criteria focuses narrowly on whether the project site has value as habitat for endangered, rare, or threatened species. Thus, the relevant inquiry is not whether any endangered, rare, or threatened species could occur on-site due to the habitat types present, but, more specifically, whether on-site habitats provide value to endangered, rare, or threatened species. As stated above, the project site does not contain any valuable habitat for endangered, rare, or threatened species and, thus, the proposed project meets Criterion 15332(c).

In addition, while not endangered, rare, or threatened species listed under the federal and State Endangered Species Acts and, thus, not subject to Criterion 15332(c), the potential exists for nesting birds and raptors protected under Migratory Bird Treaty Act (MBTA) of 1918 to occur within the existing on-site trees. Under the MBTA, destroying active nests, eggs, and young is illegal. In addition, although special-status bat species are not known to occur within the project site, if vacated prior to the initiation of demolition activities, the existing on-site structures could provide suitable roosting habitat for special-status bat species. Special-status bat species include any bat species listed as 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. Although CDFW Species of Special Concern generally do not have special legal status, they are given special consideration under CEQA. Nonetheless, habitat for nesting birds and raptors and roosting bats is not uncommon within the project area. Furthermore, the City standard conditions of approval related to the protection of nesting birds, consistent with Section 17.04.050(D)(1) of the Cupertino Municipal Code, as well as City standard conditions of approval related to the protection of special-status bats, consistent with Section 17.04.050(D)(2) of the Cupertino Municipal Code would be implemented, which would ensure that impacts to nesting raptors, migratory birds, and other protected birds, as well as special-status bats, would not occur. Again, the above discussion is for informational purposes and the aforementioned species are not subject to Criterion 15332(c), which focuses on endangered, rare, or threatened species and their habitat.

Based on the above, the proposed project meets Criterion 15332(c).

Criterion 15332(d): Traffic, Noise, Air Quality, and Water Quality

The following sections present analysis regarding potential effects related to traffic, noise, air quality, and water quality resulting from implementation of the proposed project.

Traffic

Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of vehicle miles travelled (VMT) attributable to a project is the most appropriate measure of transportation impacts. Other relevant considerations may include the effects of the project on transit and non-motorized travel. The Governor's Office of Planning and Research (OPR) released *The Technical Advisory on Evaluating Transportation Impacts in CEQA*, which includes screening thresholds to identify when a lead agency may screen out VMT impacts.[5] The City of Cupertino adopted VMT thresholds of significance in March 2021, pursuant to CEQA Guidelines Section 15064.7(b), which are based upon the Governor's OPR's screening thresholds. Similar to the OPR Technical Advisory, the City of Cupertino VMT thresholds identify different project types that are assumed to cause a less-than-significant transportation impact and, thus, a detailed VMT study is not necessary. The OPR recommendations include the following screening criteria:

- Office or residential projects not exceeding a level of 15 percent below existing VMT per capita;
- Projects (including office, residential, retail, and mixed-use developments) proposed within half a mile of an existing major transit stop or within a quarter of a mile of an existing stop along a high-quality transit corridor;
- Projects proposing 100 percent affordable residential development in infill locations; and
- Projects that generate or attract fewer than 110 trips per day.

[5] Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA*. December 2018.

Any project that meets any of the above criteria would be considered to result in a less-than-significant impact related to VMT.

Although Chapter 17.08 of the Cupertino Municipal Code, which identifies the City's VMT thresholds, does not specifically include the screening criterion for projects that generate or attract fewer than 110 trips per day, the City generally relies on the OPR Guidelines regarding small projects.[6]

The anticipated trip generation for the proposed project was estimated using standard rates published in the 10th Edition of the ITE Trip Generation Manual (2017). A trip rate of 9.44 average daily trips (ADT) per residential unit, based on the ITE "Single-Family Residential" land use (ITE Land Use Category #210), was applied to the six proposed single-family residences. In addition, because the ITE Trip Generation Manual does not provide trip rates for ADUs, the trip rate of 7.32 ADT, based on the ITE "Multi-Family Housing (Low-Rise)" land use (ITE Land Use Category #220), was conservatively applied to the six proposed ADUs. Based on the ITE trip rates described above, the proposed project would be expected to generate an average of 101 trips per day. Therefore, the proposed project would meet the OPR screening criteria for projects that generate or attract fewer than 110 trips per day, and the project would not be considered to conflict or be inconsistent with CEQA Guidelines Section 15064.3(b). Consequently, the proposed project would result in a less-than-significant effect related to VMT.

Noise

Residences are not typically associated with the generation of substantial noise. Operation of the proposed project would include typical residential noise, which would be compatible with the adjacent existing residential uses. As such, the proposed project is not anticipated to contribute a measurable operational noise level increase to the existing ambient noise environment at any sensitive receptor locations.

Based upon the Federal Interagency Committee on Noise (FICON) guidance for determining increases in traffic noise, where existing traffic noise levels are between 60 and 65 dB L_{dn}, at the outdoor activity areas of noise-sensitive uses, a +3 dB L_{dn} increase in roadway noise levels would be considered significant. According to Table 4.10-10 of the General Plan EIR, the existing traffic noise level on the segment of McClellan Road between S. Stelling Road to S. De Anza Boulevard, on which the project site is located, is 64.6 dB L_{dn}. Generally, a doubling in traffic volumes is required to increase traffic noise levels by 3.0 dB, which is considered to be the threshold for a significant increase pursuant to the FICON. As shown in Table 4.13-7 of the General Plan EIR, the roadway segments in the project vicinity experience between 20,598 and 28,730 ADT. As discussed above, the proposed project would be expected to generate an average of 101 trips per day. Accordingly, the proposed project would not double traffic volumes on local roadways and, thus, would not substantially increase traffic noise in the project vicinity. Additionally, the project site is currently developed with a residential use and the proposed project is consistent with the site's current land use designation. Therefore, traffic noise level increases associated with a single-family residential development on the project site have been previously anticipated by the City. Therefore, the proposed project would not result in operational noise increases that would be considered to result in significant effects on sensitive receptors in the project vicinity.

[6] Personal communication between Chris Corrao, Senior Transit and Transportation Planner, City of Cupertino Public Works Department, and Nick Pappani, Vice President, Raney Planning and Management, Inc., November 19, 2021.

During the construction of the proposed project, heavy equipment would be used for demolition and building construction, which would temporarily increase ambient noise levels when in use. 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 backhoes, loaders, and trucks, would be used on-site.

Table 2 shows maximum noise levels associated with typical construction equipment. Based on the table, activities involved in typical construction would generate maximum noise levels up to 85 dB at a distance of 50 feet. As one increases the distance between equipment, or increases separation of areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of combining separate noise sources. The noise levels from a source decrease at a rate of approximately 6 dB per every doubling of distance from the noise source.

Pursuant to Section 10.48.053 of the City's Municipal Code, grading, construction, and demolition activities are permitted to exceed the City's established noise limits during daytime hours provided that any piece of equipment involved in such activities has high-quality noise mufflers and abatement devices installed, is in good condition, and the activities meet the established criteria that individual devices do not produce a noise level more than 87 dBA at a distance of 25 feet, or the noise level on any nearby property does not exceed 80 dBA.

Table 2
Construction Equipment Noise

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

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

The nearest noise-sensitive receptor is located less than 50 feet from the southern project site boundary. Thus, construction activities associated with the proposed project could exceed the levels shown in Table 2 at the nearest noise-sensitive receptor. However, the proposed project would be required to comply with Chapter 10.48 of the Cupertino Municipal Code, which prohibits construction activities on Saturdays, Sundays and holidays, and during the nighttime period, in areas within 750 feet of a residential area. In addition, the proposed project would be required to comply with the City's standard conditions of approval regarding construction noise, as required in Section 17.04.050(G) of the Cupertino Municipal Code, which would reduce construction noise levels sufficient to ensure that the proposed project would not result in construction noise increases that would be considered to result in significant effects on sensitive receptors in the project vicinity.

Based on the above, the proposed project is not anticipated to result in short-term construction-related or long-term operational noise generation that would be considered to have the potential to result in significant effects on the environment.

Air Quality

The City of Cupertino is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The SFBAAB area is currently designated as a nonattainment area for State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State respirable particulate matter 10 microns in diameter (PM_{10}) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation. The USEPA has not yet approved a request for redesignation of the SFBAAB; therefore, the SFBAAB remains in nonattainment for 24-hour $PM_{2.5}$.

In compliance with regulations, due to the nonattainment designations of the area, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans are prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2017 Clean Air Plan, adopted on April 19, 2017. The 2017 Clean Air Plan was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the State PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 Clean Air Plan. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. For development projects, BAAQMD establishes significance thresholds for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_X), as well as for PM_{10}, and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr). The thresholds are listed in Table 3. Thus, by exceeding the BAAQMD's mass emission thresholds for operational emissions of ROG, NO_X, or PM_{10}, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 3
BAAQMD Thresholds of Significance

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

Source: BAAQMD, CEQA Guidelines, May 2017.

The proposed project would involve demolition of the existing on-site development and redevelopment of the project site with six single-family residences. The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2020.4.0 - a Statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such information is applied in the model. The proposed project's modeling assumed the following:

- Construction would commence in May of 2022[7] and occur over an approximately one-year period;
- Approximately 15,425 sf of material would be demolished during demolition activities; and
- The project would apply a 20 percent water conservation strategy compliant with the State Model Water Efficient Landscape Ordinance (MWELO), as adopted by the City and reflected in Chapter 14.15 of the Cupertino Municipal Code.

It should be noted that in accordance with the 2019 Building Energy Efficiency Standards, the proposed project would be required to include on-site renewable energy systems (using either the performance pathway or prescriptive compliance) to meet each home's expected annual electric needs. However, project-specific information regarding on-site solar is not available at this time; therefore, inherent default values were applied regarding energy emissions associated with the proposed project.

The proposed project's estimated emissions associated with construction and operations are provided below. All CalEEMod results are included as Appendix B to this Memorandum.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 4. As shown in the table, the proposed project's construction emissions would be below the applicable thresholds of significance.

Table 4
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	3.34	54	**NO**
NO_X	33.12	54	**NO**
PM_{10} (exhaust)	1.61	82	**NO**
PM_{10} (fugitive)	19.80	None	**N/A**
$PM_{2.5}$ (exhaust)	1.48	54	**NO**
$PM_{2.5}$ (fugitive)	10.14	None	**N/A**

Source: CalEEMod, November 2021 (see Appendix B).

[7] It is noted that when the air quality analysis was conducted, project construction was anticipated to commence in May 2022. While this is no longer the case, the analysis presented is considered conservative, as construction fleets and electricity generation are becoming more efficient over time due to compliance with federal and State regulations; thus, emissions associated with construction equipment and activities would correspondingly reduce over time.

Although thresholds of significance for mass emissions of fugitive dust PM_{10} and $PM_{2.5}$ have not been identified by the City of Cupertino or BAAQMD, the proposed project's estimated fugitive dust emissions have been included for informational purposes. Section 17.04.050(A) of the Cupertino Municipal Code includes the City's Air Quality Permit Requirements. The requirements are imposed as standard conditions of approval for all projects within the City. In addition, all projects within the jurisdiction of the BAAQMD are required to implement the BAAQMD's Basic Construction Mitigation Measures, which would be included as conditions of approval for the project:

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

The proposed project's implementation of the requirements listed in Section 17.04.050(A) of the Cupertino Municipal Code, as well as implementation of BAAQMD's Basic Construction Mitigation Measures listed above for the project's construction activities, would help to further minimize construction-related emissions.

Because the proposed project would be below the applicable thresholds of significance for construction emissions, project construction would not result in a significant air quality impact.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 5. As shown in the table, the proposed project's operational emissions would be well below the applicable thresholds of significance. As such, the proposed project would not result in a significant air quality impact during operations.

Table 5
Maximum Unmitigated Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	13.36	0.23	54	10	**NO**
NO_X	0.70	0.08	54	10	**NO**
PM_{10} (exhaust)	2.29	0.02	82	15	**NO**
PM_{10} (fugitive)	0.56	0.10	None	None	**N/A**
$PM_{2.5}$ (exhaust)	2.29	0.03	54	10	**NO**
$PM_{2.5}$ (fugitive)	0.15	0.02	None	None	**N/A**

Source: CalEEMod, November 2021 (see Appendix B).

As discussed above, the proposed project is not anticipated to result in short-term construction-related or long-term operational emissions of air quality pollutants that would be considered to have the potential to result in significant effects on the environment.

Water Quality

The following section describes the project's consistency with applicable water quality standards and waste discharge requirements during construction and operation.

Construction

The project site is currently developed with a single-family residence, garage, and accessory structure in the northern portion of the site, as well as a barn and truck yard in the southern portion of the site. As such, the site contains a substantial amount of impervious areas. Nonetheless, during the early stages of future construction activities, topsoil would be exposed due to grading of the site. After grading and prior to overlaying the ground surface with impervious surfaces and structures, the potential exists for wind and water erosion to discharge sediment and/or urban pollutants into stormwater runoff, which could adversely affect water quality downstream.

New development within the City that disturbs one or more acres of land is required to comply with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit and to prepare a Storm Water Pollution Prevention Plan (SWPPP) incorporating best management practices (BMPs) to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. In California, the NPDES permitting program is administered by the State Water Resources Control Board (SWRCB) through nine Regional Water Quality Control Boards (RWQCBs). The proposed project would disturb approximately 1.25 acres, and, thus, would be subject to such requirements. Additionally, the proposed project would be required to comply with Chapter 9.18, Stormwater Pollution Prevention and Watershed Prevention, of the City's Municipal Code, in order to prevent siltation and erosion. Furthermore, Chapter 16.08, Excavations, Grading, and Retaining Walls, of the City's Municipal Code, requires applicants to provide and comply with an Interim Erosion and Sediment Control Plan (Interim Plan). Because the project would comply with the above requirements, the proposed project would not violate any water quality standards or waste discharge requirements, or otherwise degrade water quality, during construction.

Operation

Residential use of the project site 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, the potential for urban runoff would be increased with the addition of impervious surfaces on the site, which could contain pollutants if the runoff comes into contact with vehicle

fluids on parking surfaces and/or landscape fertilizers and herbicides prior to reaching downstream waters

All new development or redevelopment projects that create and/or replace 10,000 sf or more of impervious surfaces would be required to incorporate source control, site design, and stormwater treatment measures into the project, pursuant to the requirements in the Santa Clara Valley Urban Runoff Pollution Prevention Program C.3 Stormwater Handbook. The C.3 requirements include minimization of impervious surfaces, measures to detain or infiltrate runoff from peak flows, and agreements to ensure that the stormwater treatment and flow control facilities are maintained in perpetuity.

The proposed project would create and/or replace a total of 27,539 sf of impervious surface. Thus, the project would be subject to the C.3 requirements. The proposed project would involve seven drainage management areas (DMAs), consisting of one DMA on each proposed lot and one within the widened portion of Cherryland Drive. Runoff from the DMA on each lot would be directed towards an associated bioretention basin. The bioretention basins and pervious areas (i.e., landscaped areas) would treat stormwater primarily by filtering runoff slowly through an active layer of soil, naturally allowing for removal of pollutants. The bioretention basins would have a maximum ponding depth of 9 inches, with 24-inch soil media backfill placed over 18-inch drain rock bed. Roof and yard drainage would filter through landscaped areas to provide stormwater pre-treatment before being directed into the basins. It should be noted that, pursuant to Section 9.18.210 of the Municipal Code, the City prohibits the use of copper metal roofing and copper architectural materials.

The project would also include permeable pavers for the proposed driveways and roadway to further reduce impervious surfaces and promote stormwater infiltration. A series of new on-site pipes, including a 24-inch detention pipe, would collect and detain the on-site stormwater and convey any overflow water to the existing 30-inch stormwater drainage pipe located along McClellan Road.

According to the Preliminary Stormwater Analysis prepared for the proposed project (see Appendix C),[8] each of the bioretention basins would be sized to exceed the minimum volume requirement necessary to adequately handle all runoff from the proposed impervious surfaces and landscaping within each DMA. Thus, the proposed project would comply with the requirements of the SWRCB and the RWQCB, and would meet or exceed C.3 requirements. Furthermore, Section 17.04.050(F) of the Cupertino Municipal Code includes the City's Hydrology and Water Quality Permit Requirements. The requirements are imposed as standard conditions of approval for all projects within the City. Accordingly, the project would comply with all relevant water quality standards and waste discharge requirements, and would not degrade water quality during operation.

Based on the above, the proposed project would not result in any significant effects related to water quality during construction or operation.

Conclusion

Based on the above, the proposed project is not anticipated to result in any significant effects related to traffic, noise, air quality, or water quality during construction or operation. Thus, the project would meet Criterion 15332(d).

[8] MH Engineering Co. *Preliminary Stormwater Analysis 20860 McClellan Road 6 Lot Single Family Residential Project (APN 359-20-030) Cherryland Drive.* August 5, 2021.

Criterion 15332(e): Utilities and Public Services

Sewer service for the project site would be provided by the Cupertino Sanitary District, and water service would be provided by San Jose Water Company. Infrastructure required to provide utilities such as water and sewer to the proposed residences would include connections to the existing mains located within the project vicinity. Specifically, the proposed project would include connection to the existing six-inch water main and eight-inch sewer main located along Cherryland Drive, at the eastern boundary of the project site. The project would detain and treat all on-site stormwater runoff prior to discharge into the City's stormwater drainage system, consistent with the City's C.3 Stormwater Standards. Stormwater would be conveyed and discharged to an existing 30-inch stormwater drainage pipe located along McClellan Road. Electricity, natural gas, and telecommunications services would be provided by way of connections to existing infrastructure located within the immediate project vicinity. Natural gas infrastructure would not be provided in any of the proposed single-family homes under the City's all-electric reach code. However, ADUs are exempt from the City's all-electric requirement and, thus, may include natural gas connections. It should be noted that the project would be required to adhere to Section 16.54 of the Cupertino Municipal Code, which would require all new buildings have all-electric appliances and electric vehicle charging provisions. As such, PG&E may need to upgrade transformers or other electrical infrastructure at the neighborhood level. However, adequate electric power supplies exist to serve the project and neighborhood level upgrades would not require new or expanded electric power facilities.

Given the presence of existing utilities in the immediate project vicinity, the relocation or construction of new or expanded water, wastewater treatment, stormwater drainage, or other utility infrastructure would not be required. In addition, given that the proposed project is consistent with the site's current General Plan land use designation, increases in demand on existing utilities and public services such as fire, police, and schools, associated with the project have been previously anticipated in the General Plan and accounted for in local planning efforts. Thus, the site would be adequately served by all required utilities and public services and the proposed project would meet Criterion 15332(e).

Exceptions to Categorical Exemptions analysis

Even if a project is ordinarily exempt under any of the potential categorical exemptions, CEQA Guidelines Section 15300.2 provides specific instances where exceptions to otherwise applicable exemptions apply. Exceptions to a categorical exemption apply in the following circumstances:

(a) Location. Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located – a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

(b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.

(c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

(d) Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.

(e) Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.
(f) Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

The following analysis addresses whether any of the exceptions to the CEQA exemption apply to the proposed project.

Criterion 15300.2(a): Location

CEQA exemption classes 3, 4, 5, 6, or 11 are qualified by consideration of where the project is to be located. Given that the proposed project qualifies for exemption under CEQA Guidelines Section 15332, Class 32, an exception to the exemption under CEQA Guidelines Section 15300.2(a) does not apply to the proposed project.

Criterion 15300.2(b): Cumulative Impact

Pursuant to CEQA Guidelines Section 15300.2(b), in applying this exception, the cumulative impact must result from "successive projects of the same type in the same place." Both the "same type" and "same place" limitations restrict the scope of this exception.[9] The project site is located within an urbanized area of the City, which is entirely developed.

Because the proposed project is consistent with the project site's General Plan land use designation, cumulative impacts associated with buildout of the project site have been previously anticipated by the City and analyzed in the General Plan EIR. As discussed above, the project would not require off-site utility upsizing or other related improvements with the potential to result in cumulatively considerable impacts. The project does not include any unique features that would result in new or more severe cumulative impacts beyond what has been analyzed in the General Plan EIR, and an exception to the exemption pursuant to CEQA Guidelines Section 15300.2(b) does not apply to the proposed project.

Criterion 15300.2(c): Significant Effect

In listing a class of projects as exempt, the Secretary has determined that the environmental changes typically associated with projects in that class are not significant effects within the meaning of CEQA, even though an argument might be made that they are potentially significant. The plain language of *Guidelines Section 15300.2, subdivision (c)*, requires that a potentially significant effect must be "due to unusual circumstances" for the exception to apply.

The determination as to whether there are "unusual circumstances" (*Guidelines, § 15300.2, subd. (c)*) is reviewed under PRC *Section 21168.5*'s substantial evidence prong. Whether a particular project presents circumstances that are unusual for projects in an exempt class is an essentially factual inquiry. As to this question, the lead agency serves as "the finder of fact".

As the courts have noted, local conditions are relevant in determining whether the environmental effects of a proposed project are unusual or typical. In general, the project site is located in an urbanized area and does not contain any unique or unusual features with the potential to result in a potentially significant effect. For example, the project site does not include any aquatic features and, as discussed further below, is not included on any lists of hazardous waste sites. Thus, an exception to the exemption under CEQA Guidelines Section 15300.2(c) does not apply to the proposed project.

[9] Stephen L. Kostka and Michael H. Zischke. *Practice Under the California Environmental Quality Act, Second Edition* [pg. 5-68]. March 2019 Update.

Criterion 15300.2(d): Scenic Highway

According to the California Scenic Highway Mapping System, the project site is not located within the vicinity of an officially designated State Scenic Highway.[10] The nearest officially designated State Scenic Highway is the portion of SR 280 beginning west of Stanford University and north of SR 85, which is located over 10 miles away and is not visible from the project site. Thus, an exception to the exemption under CEQA Guidelines Section 15300.2(d) does not apply to the proposed project.

Criterion 15300.2(e): Hazardous Waste Sites

Pursuant to CEQA Guidelines Section 15300.2(e), a categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code. The California Environmental Protection Agency provides a list of data resources that provide information regarding the facilities or sites identified as meeting the "Cortese List" requirements, pursuant to Government Code 65962.5. The project site is not located on the Department of Toxic Substances Control (DTSC) Hazardous Waste and Substances Site List, which is a component of the Cortese List.[11] The other components of the Cortese List include the list of leaking underground storage tank sites from the SWRCB's GeoTracker database, the list of solid waste disposal sites identified by the SWRCB, and the list of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the SWRCB. The project site is not located on any of the aforementioned components of the Cortese List.[12] Thus, the project site is not located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, and an exception to the exemption under CEQA Guidelines Section 15300.2(e) does not apply to the proposed project.

Criterion 15300.2(f): Historical Resources

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.

Currently, the site is developed with a single-family residence, barn, garage, accessory structure, and a truck yard. A records search of the California Historic Resources Information System (CHRIS) was performed by the Northwest Information Center (NWIC) for cultural resource site records and survey reports within the project area.[13] The NWIC concluded that the project site does not contain any recorded archaeological resources. However, the records search determined that the on-site structures were constructed between 1948 and 1953, and, thus, meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value. Four criteria are used to determine if a potential resource may be considered significant and eligible for listing on the National Register of Historic Places (NRHP) and/or the California Register of Historic Resources (CRHR). The criteria include resources that:

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[10] California Department of Transportation. *Scenic Highways*. Available at: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed June 2022.

[11] Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese).* Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed June 2022.

[12] CalEPA. *Cortese List Data Resources*. Available at: https://calepa.ca.gov/sitecleanup/corteselist/. Accessed June 2022.

[13] Northwest Information Center. *Records Search Results for the Proposed 20860 McClellan Road Subdivision Project.* November 8, 2021.

A. Are associated with events that have made a significant contribution to the broad patterns of history; or
B. Are associated with the lives of persons significant in our past; or
C. Embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D. Have yielded or may likely yield information important in prehistory or history.

A review of historic aerial photographs revealed that prior to 1948, the project site and vicinity are occupied by fruit orchards. By 1953, most of the fruit trees had been removed from the project site and surrounding area, and McClellan Road had been developed, as well as residential uses along the roadway, including the on-site structures. In the years following 1953, the project site remained relatively the same, while residential development continued to replace the remaining orchards in the surrounding area. By 1991, all of the remaining orchards had been replaced with development within the project vicinity.

Few changes have occurred to the overall project area between 1991 and present day. However, some building re-configuring and cosmetic updates have been made to the buildings on the project site since their original construction (between 1948 and 1953). Accordingly, the buildings have been modified from their original construction, which has diminished the buildings' integrity of design, materials, workmanship, and feeling. In addition, the on-site buildings are substantially similar in the design, style, and construction of the other residential development in the project vicinity, and the residential development within the project vicinity is not associated with important events, personalities and/or technologies important in State or regional history. As such, the existing on-site buildings lack any distinctive characteristics of type, religion, method of construction, or artistic value, and would not meet any of the criteria to be listed in the NRHP or CRHR.

Therefore, the proposed project would not result in a substantial adverse change in the significance of a historical resource, and an exception to the exemption under CEQA Guidelines Section 15300.2(f) does not apply to the proposed project.

D. CONCLUSION

This Memorandum demonstrates that the proposed project can be considered exempt from CEQA under Section 15332, and does not meet any of the exceptions to categorical exemptions set forth in Section 15300.2 of the CEQA Guidelines.

Appendix A

Arborist Report

Alok Ventures LLC., Alok Damireddy
7756 Country Lane
Pleasanton, CA 94566

Site: 20860 McLellan Rd., Cupertino

Dear Alok,

At your request I visited the above site for the purpose of inspecting and commenting on the regulated trees around the property. Six new homes are planned for this location, prompting the need for this tree protection report.

Method:
Cupertino protects trees according to specimen and size as seen below:

All **Street Trees.**

Specimen Trees of the species listed below with either a minimum single trunk diameter of 12 inches (38 inch circumference) or a minimum multi-trunk diameter of 24 inches (75 inch circumference) measured 4.5 feet above ground level.

Aesculus californica, Acer macrophyllum, Cedrus atlantica 'Glauca', Cedrus deodara, Platanus racemose, Quercus agrifolia, Quercus douglasii, Quercus kelloggii, Quercus lobate, Quercus wislizenii, Umbellularia californica

The location of the trees on this site can be found on the plan provided by you. Each tree is given an identification number. The trees are measured at 54 inches above ground level (DBH or Diameter at Breast Height). A condition rating of 1 to 100 is assigned to each tree representing form and vitality on the following scale:

1 to 29	Very Poor
30 to 49	Poor
50 to 69	Fair
70 to 89	Good
90 to 100	Excellent

The height and spread of each tree is estimated. A Comments section is provided for any significant observations affecting the condition rating of the tree.

A Summary and Tree Protection Plan are at the end of the survey providing recommendations for maintaining the health and condition of the trees during and after construction.

If you have any questions, please don't hesitate to call.

Sincerely

Robert Weatherill
Certified Arborist WE 1936A

Tree Survey

Tree#	Species	DBH	Ht/Sp	Con Rating	Comments
1	Douglas fir *Pseudotsuga menziesii*	12.3”	40/20	40	Good health, poor condition, one sided, unbalanced, **Not Regulated**
2	Fig *Ficus spp*	8.6”/8.9”	12/15	50	Good health, fair condition, topped **Not Regulated**
3	Persimmon *Diospyros japonica*	11.2”	25/15	60	Fair health and condition **Not Regulated**
4	Walnut *Juglans nigra*	14.3”	15/20	10	Very poor health and condition **Not Regulated**
5	Citrus *Citrus spp*	10.0”@1’	12/10	60	Fair health and condition **Not Regulated**
6	Aleppo pine *Pinus halepensis*	4.0”	60/50	50	Fair health and condition **Not Regulated**
7	Monterey pine *Pinus radiata*	33.2”	55/40	50	Fair health and condition, topped, **Not Regulated**
8	Monterey pine *Pinus radiata*	21.5”	50/20	45	Poor health and condition, topped **Not Regulated**
9	Incense cedar *Calocedrus decurrens*	11.2”	35/6	45	Poor health and condition **Not Regulated**
10	Incense cedar *Calocedrus decurrens*	12.2”	35/6	45	Poor health and condition **Not Regulated**
11	Coast live oak *Quercus agrifolia*	8.0”/8.3”/8.1”	25/18	60	Good health, poor condition, codominant at 2’, **Regulated**
12	Coast live oak *Quercus agrifolia*	12.3”	25/20	60	Good health, poor condition **Regulated**
13	Monterey pine *Pinus radiata*	32.2”	50/50	50	Fair health and condition, neighbors tree, **Not Regulated**
14	Citrus *Citrus spp*	4.7”/4.3”@grade	10/5	10	Very poor health and condition, almost dead, **Not Regulated**
15	Irish yew *Taxus baccata*	19.6”@grade	15/15	30	Poor health and condition, codominant at grade, **Not Regulated**
16	Deodar cedar *Cedrus deodara*	31.3”	60/30	50	Good health, poor condition, topped, broken limbs, **Regulated**
17	Monterey pine *Pinus radiata*	33.0”	50/30	50	Fair health, poor condition, thin canopy topped, **Not Regulated**
18	Stump				

Tree Survey

Tree#	Species	DBH	Ht/Sp	Con Rating	Comments
19	Incense cedar *Calocedrus decurrens*	17.5”	35/20	40	Poor health and condition **Not Regulated**
20	Douglas fir *Pseudotsuga menziesii*	22.5”	35/20	0	Dead **Not Regulated**
21	Pittosporum *Pittosporum tobira*	4.5”/4.2”/5.1”	12/15	70	Good health and condition **Not Regulated**

Summary:

Tree #s 1, 4, 9, 10, 14, 15, 19 and 20 are either dead or in very poor health and condition and should be removed.

Tree #s 6, 7, 8, 13, 17 are pines. Pines are not Regulated trees. Pines are not tolerant to construction impacts and even with all tree protection measures in place, they may decline further during the construction period and eventually become infested with beetles, which will ultimately kill the trees.

Tree # 18 is a stump standing 1 foot tall

Tree # 13 is on the neighbor’s property and should be protected during construction.

Tree #s 11, 12 and 16 are Specimen trees by merit of their size and species and should be protected during construction

The remaining trees, #s 2, 3, 5 and 21 are smaller trees that are not specimen trees and can be removed if desired.

Tree Protection Plan

1. The Tree Protection Zone (TPZ) should be defined with protective fencing. This should be cyclone or chain link fencing on 1½" or 2" posts driven at least 2 feet in to the ground standing at least 6 feet tall. Normally a TPZ is defined by the dripline of the tree. I recommend the TPZ's as follows:-

Tree # 11: TPZ should be at 11 feet radius from the trunk of the tree in accordance with Type I Tree Protection as outlined and illustrated in image 2.15-1 and 2 [(6)].

Tree # 12: TPZ should be at 8 feet radius from the trunk of the tree in accordance with Type I Tree Protection as outlined and illustrated in image 2.15-1 and 2 [(6)].

Tree # 13: TPZ should be at 20 feet radius from the trunk of the tree closing on the sidewalk in accordance with Type I Tree Protection as outlined and illustrated in image 2.15-1 and 2 [(6)].

Tree # 16: TPZ should be at 20 feet radius from the trunk of the tree closing on the sidewalk in accordance with Type I Tree Protection as outlined and illustrated in image 2.15-1 and 2 [(6)].

IMAGE 2.15-1
Tree Protection Fence at the Dripline

IMAGE 2.15-2
Tree Protection Fence at the Dripline

• Type I Tree Protection
The fences shall enclose the entire area under the **canopy dripline or TPZ** of the tree(s) to be saved throughout the life of the project, or until final improvement work within the area is required, typically near the end of the project (*see Images 2.15-1 and 2.15-2*). Parking Areas: If the fencing must be located on paving or sidewalk that will not be demolished, the posts may be supported by an appropriate grade level concrete base.

2. Any pruning and maintenance of the trees shall be carried out before construction begins. This should allow for any clearance requirements for both the new structure and any construction machinery. This will eliminate the possibility of damage during construction. **The pruning should be carried out by an arborist, not by construction personnel**. No limbs greater than 4" in diameter shall be removed.

   Tree # 16 has a lot of dead wood and broken limbs. If this tree is to remain, this tree should be pruned for safety and clearances.

3. Any excavation in ground where there is a potential to damage roots of 1" or more in diameter should be carefully hand dug. Where possible, roots should be dug around rather than cut.*(2)*

4. If roots are broken, every effort should be made to remove the damaged area and cut it back to its closest lateral root. A clean cut should be made with a saw or pruners. This will prevent any infection from damaged roots spreading throughout the root system and into the tree.*(2)*

5. **Do Not**:.*(4)*
   a. Allow run off or spillage of damaging materials into the area below any tree canopy.
   b. Store materials, stockpile soil, park or drive vehicles within the TPZ of the tree.
   c. Cut, break, skin or bruise roots, branches or trunk without first obtaining permission from the city arborist.
   d. Allow fires under any adjacent trees.
   e. Discharge exhaust into foliage.
   f. Secure cable, chain or rope to trees or shrubs.
   g. Apply soil sterilants under pavement near existing trees.

6. Where roots are exposed, they should be kept covered with the native soil or four layers of wetted, untreated burlap. Roots will dry out and die if left exposed to the air for too long.(4)

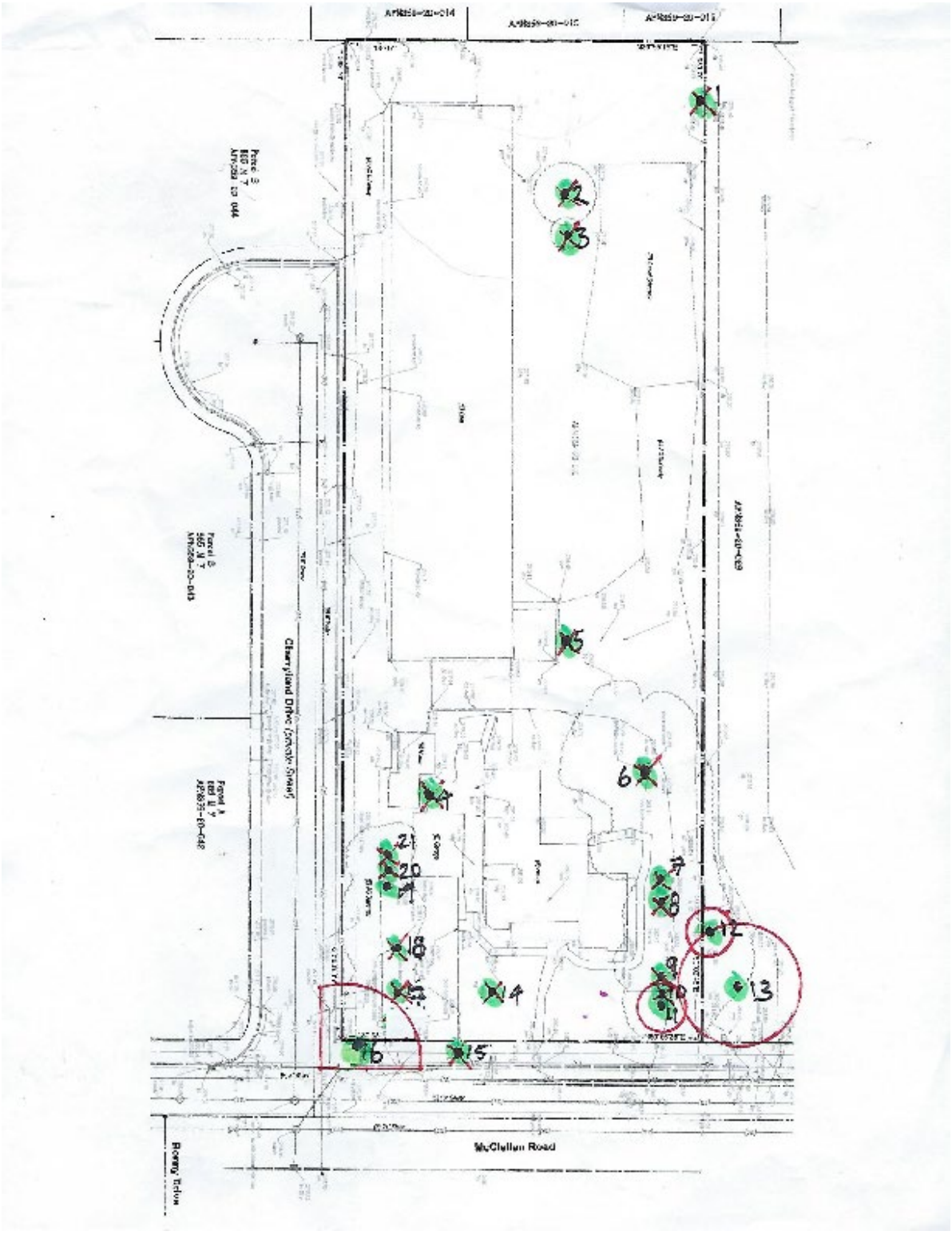
7. Route pipes into alternate locations to avoid conflict with roots.(4)

8. Where it is not possible to reroute pipes or trenches, the contractor is to bore beneath the dripline of the tree. The boring shall take place no less than 3 feet below the surface of the soil in order to avoid encountering "feeder" roots.(4)

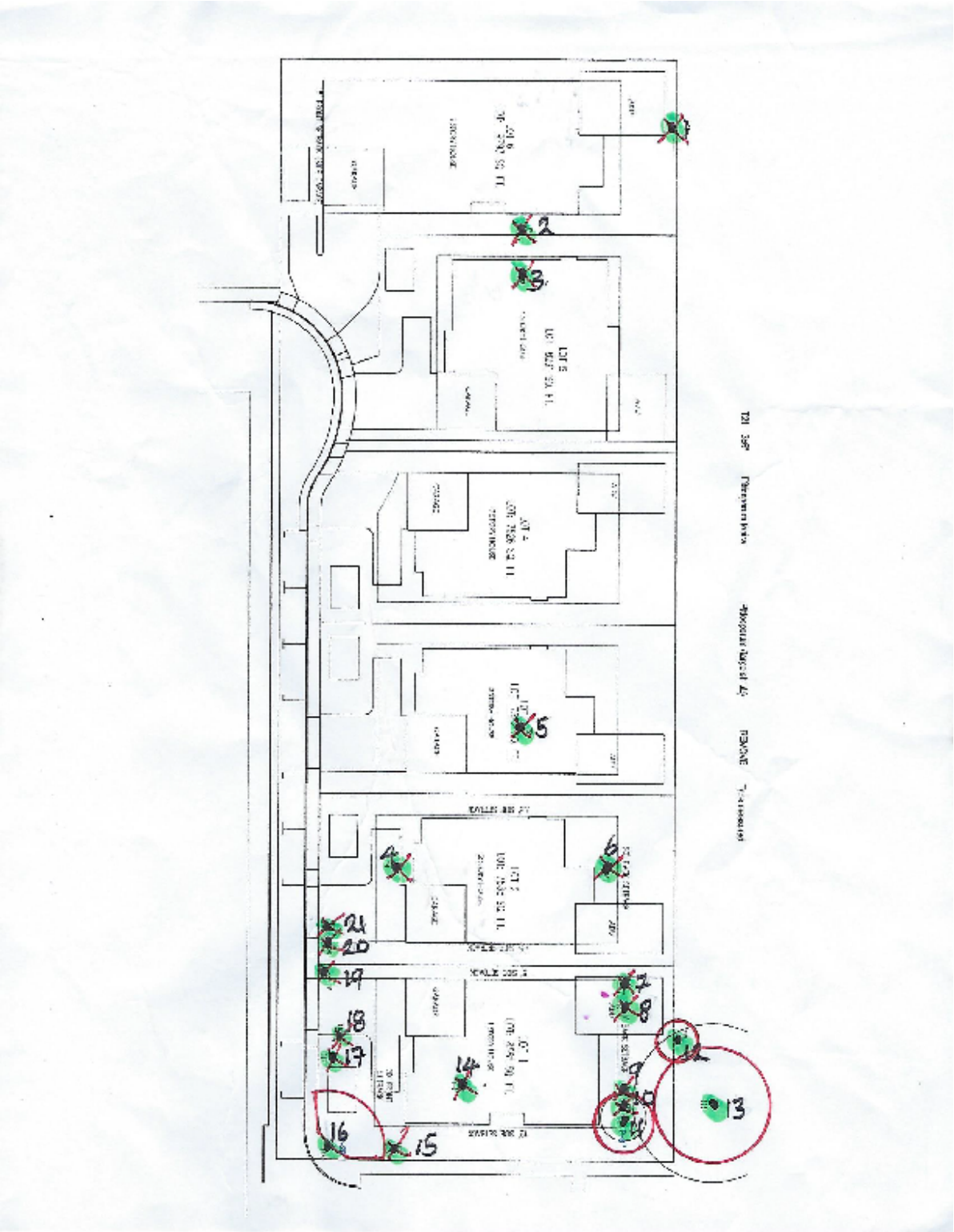
9. Compaction of the soil within the dripline shall be kept to a minimum.(2) If access is required to go through the TPZ of a protected tree, the area within the TPZ should be protected from compaction either with steel plates or with 4" of wood chip overlaid with plywood.

10. Any damage due to construction activities shall be reported to the project arborist or city arborist within 6 hours so that remedial action can be taken.

11. Ensure upon completion of the project that the original ground level is restored



Location of existing buildings, protected trees
and their Tree Protection Zones



Location of proposed construction, protected trees
and their Tree Protection Zones

Glossary

Canopy	The part of the crown composed of leaves and small twigs.(2)
Cavities	An open wound, characterized by the presence of extensive decay and resulting in a hollow.(1)
Decay	Process of degradation of woody tissues by fungi and bacteria through the decomposition of cellulose and lignin(1)
Dripline	The width of the crown as measured by the lateral extent of the foliage.(1)
Genus	A classification of plants showing similar characteristics.
Root crown	The point at which the trunk flares out at the base of the tree to become the root system.
Species	A Classification that identifies a particular plant.
Standard height	Height at which the girth of the tree is measured. Typically 4 1/2 feet above ground level

References

(1) Matheny, N.P., and Clark, J.P. Evaluation of Hazard Trees in Urban Areas. International Society of Arboriculture,1994.

(2) Harris, R.W., Matheny, N.P. and Clark, J.R.. Arboriculture: Integrated Management of Landscape Trees, Shrubs and Vines. Prentice Hall, 1999.

(3) Carlson, Russell E. Paulownia on The Green: An Assessment of Tree Health and Structural Condition. Tree Tech Consulting, 1998.

(4) Extracted from a copy of Tree Protection guidelines. Anon

(5) T. D. Sydnor, Arboricultural Glossary. School of Natural Resources, 2000

(6) D Dockter, Tree Technical Manual. City of Palo Alto, June, 2001

Certification of Performance [3]

I, Robert Weatherill certify:

* That I have personally inspected the tree(s) and/or the property referred to in this report, and have stated my findings accurately. The extent of the evaluation and appraisal is stated in the attached report and the Terms and Conditions;

* That I have no current or prospective interest in the vegetation or the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved;

* That the analysis, opinions and conclusions stated herein are my own, and are based on current scientific procedures and facts;

* That my compensation is not contingent upon the reporting of a predetermined conclusion that favors the cause of the client or any other party, nor upon the results of the assessment, the attainment of stipulated results, or the occurrence of any subsequent events;

* That my analysis, opinions, and conclusions were developed and this report has been prepared according to commonly accepted Arboricultural practices;

* That no one provided significant professional assistance to the consultant, except as indicated within the report.

I further certify that I am a member of the International Society of Arboriculture and a Certified Arborist. I have been involved in the practice of arboriculture and the care and study of trees for over 20 years.

Signed

Robert Weatherill
Certified Arborist WE 1936a
Date: 5/25/21

Terms and Conditions(3)

The following terms and conditions apply to all oral and written reports and correspondence pertaining to consultations, inspections and activities of Advanced Tree Care :

1. All property lines and ownership of property, trees, and landscape plants and fixtures are assumed to be accurate and reliable as presented and described to the consultant, either verbally or in writing. The consultant assumes no responsibility for verification of ownership or locations of property lines, or for results of any actions or recommendations based on inaccurate information.
2. It is assumed that any property referred to in any report or in conjunction with any services performed by Advanced Tree Care, is not in violation of any applicable codes, ordinances, statutes, or other governmental regulations, and that any titles and ownership to any property are assumed to be good and marketable. Any existing liens and encumbrances have been disregarded.
3. All reports and other correspondence are confidential, and are the property of Advanced Tree Care and it's named clients and their assignees or agents. Possession of this report or a copy thereof does not imply any right of publication or use for any purpose, without the express permission of the consultant and the client to whom the report was issued. Loss, removal or alteration of any part of a report invalidates the entire appraisal/evaluation.
4. The scope of any report or other correspondence is limited to the trees and conditions specifically mentioned in those reports and correspondence. Advanced Tree Care and the consultant assume no liability for the failure of trees or parts of trees, either inspected or otherwise. The consultant assumes no responsibility to report on the condition of any tree or landscape feature not specifically requested by the named client.
5. All inspections are limited to visual examination of accessible parts, without dissection, excavation, probing, boring or other invasive procedures, unless otherwise noted in the report. No warrantee or guarantee is made, expressed or implied, that problems or deficiencies of the plants or the property will not occur in the future, from any cause. The consultant shall not be responsible for damages caused by any tree defects, and assumes no responsibility for the correction of defects or tree related problems.
6. The consultant shall not be required to provide further documentation, give testimony, be deposed, or attend court by reason of this appraisal/report unless subsequent contractual arrangements are made, including payment of additional fees for such services as described by the consultant or in the fee schedules or contract.
7. Advanced Tree Care has no warrantee, either expressed or implied, as to the suitability of the information contained in the reports for any purpose. It remains the responsibility of the client to determine applicability to his/her particular case.
8. Any report and the values, observations, and recommendations expressed therein represent the professional opinion of the consultants, and the fee for services is in no manner contingent upon the reporting of a specified value nor upon any particular finding to be reported.
9. Any photographs, diagrams, graphs, sketches, or other graphic material included in any report, being intended solely as visual aids, are not necessarily to scale and should not be construed as engineering reports or surveys, unless otherwise noted in the report. Any reproductions of graphs material or the work product of any other persons is intended solely for the purpose of clarification and ease of reference. Inclusion of said information does not constitute a representation by Advanced Tree Care or the consultant as to the sufficiency or accuracy of that information.

Appendix B

Air Quality and Greenhouse Gas Modeling Results

20860 McClellan Road Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

20860 McClellan Road Project

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	12.00	Space	0.11	2,497.00	0
Parking Lot	12.00	Space	0.11	4,800.00	0
Single Family Housing	12.00	Dwelling Unit	3.90	22,617.00	34

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - ADUs were included in the single-family residential unit count as a conservative approach. Square footage was based on the site plan prepared for the proposed project.

Construction Phase - Architectural coating phase assumed to begin two weeks after the initiation of building construction, and last for the same duration.

Water Mitigation - Compliant with MWELO.

Demolition - Based on information provided in the Phase I ESA prepared for the proposed project.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	230.00
tblLandUse	LandUseSquareFeet	4,800.00	2,497.00
tblLandUse	LandUseSquareFeet	21,600.00	22,617.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.0 Emissions Summary

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					
2022	0.2511	1.5723	1.5694	2.7200e-003	0.0938	0.0796	0.1734	0.0425	0.0748	0.1172	0.0000	236.3661	236.3661	0.0559	9.0000e-004	238.0313
2023	0.1768	0.8434	0.9770	1.6500e-003	4.0900e-003	0.0412	0.0453	1.1000e-003	0.0391	0.0402	0.0000	142.4146	142.4146	0.0302	3.8000e-004	143.2843
Maximum	**0.2511**	**1.5723**	**1.5694**	**2.7200e-003**	**0.0938**	**0.0796**	**0.1734**	**0.0425**	**0.0748**	**0.1172**	**0.0000**	**236.3661**	**236.3661**	**0.0559**	**9.0000e-004**	**238.0313**

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					
2022	0.2511	1.5723	1.5694	2.7200e-003	0.0938	0.0796	0.1734	0.0425	0.0748	0.1172	0.0000	236.3658	236.3658	0.0559	9.0000e-004	238.0311
2023	0.1768	0.8434	0.9770	1.6500e-003	4.0900e-003	0.0412	0.0453	1.1000e-003	0.0391	0.0402	0.0000	142.4144	142.4144	0.0302	3.8000e-004	143.2841
Maximum	**0.2511**	**1.5723**	**1.5694**	**2.7200e-003**	**0.0938**	**0.0796**	**0.1734**	**0.0425**	**0.0748**	**0.1172**	**0.0000**	**236.3658**	**236.3658**	**0.0559**	**9.0000e-004**	**238.0311**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	N20	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	**5-1-2022**	**7-31-2022**	0.6985	0.6985
2	**8-1-2022**	**10-31-2022**	0.6731	0.6731
3	**11-1-2022**	**1-31-2023**	0.6566	0.6566
4	**2-1-2023**	**4-30-2023**	0.6032	0.6032
5	**5-1-2023**	**7-31-2023**	0.2110	0.2110
		Highest	0.6985	0.6985

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	0.1783	2.5800e-003	0.1922	2.2000e-004		0.0153	0.0153		0.0153	0.0153	1.5253	0.5205	2.0458	3.0200e-003	9.0000e-005	2.1474
Energy	2.5000e-003	0.0213	9.0800e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	34.7527	34.7527	2.1000e-003	6.5000e-004	34.9988
Mobile	0.0489	0.0554	0.4524	9.2000e-004	0.0953	6.9000e-004	0.0960	0.0255	6.4000e-004	0.0261	0.0000	85.4158	85.4158	5.8100e-003	4.2000e-003	86.8135
Waste						0.0000	0.0000		0.0000	0.0000	2.8987	0.0000	2.8987	0.1713	0.0000	7.1814
Water						0.0000	0.0000		0.0000	0.0000	0.2480	0.5511	0.7991	0.0256	6.1000e-004	1.6207
Total	**0.2297**	**0.0793**	**0.6537**	**1.2800e-003**	**0.0953**	**0.0178**	**0.1130**	**0.0255**	**0.0177**	**0.0432**	**4.6721**	**121.2400**	**125.9121**	**0.2078**	**5.5500e-003**	**132.7619**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.1783	2.5800e-003	0.1922	2.2000e-004		0.0153	0.0153		0.0153	0.0153	1.5253	0.5205	2.0458	3.0200e-003	9.0000e-005	2.1474
Energy	2.5000e-003	0.0213	9.0800e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	34.7527	34.7527	2.1000e-003	6.5000e-004	34.9988
Mobile	0.0489	0.0554	0.4524	9.2000e-004	0.0953	6.9000e-004	0.0960	0.0255	6.4000e-004	0.0261	0.0000	85.4158	85.4158	5.8100e-003	4.2000e-003	86.8135
Waste						0.0000	0.0000		0.0000	0.0000	2.8987	0.0000	2.8987	0.1713	0.0000	7.1814
Water						0.0000	0.0000		0.0000	0.0000	0.2480	0.5191	0.7672	0.0256	6.1000e-004	1.5885
Total	**0.2297**	**0.0793**	**0.6537**	**1.2800e-003**	**0.0953**	**0.0178**	**0.1130**	**0.0255**	**0.0177**	**0.0432**	**4.6721**	**121.2081**	**125.8802**	**0.2078**	**5.5500e-003**	**132.7297**

	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	N20	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**	**0.03**	**0.03**	**0.00**	**0.00**	**0.02**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	5/1/2022	5/27/2022	5	20	
2	Site Preparation	Site Preparation	5/28/2022	6/3/2022	5	5	
3	Grading	Grading	6/4/2022	6/15/2022	5	8	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	7/12/2022	5/29/2023	5	230	
5	Paving	Paving	6/16/2022	7/11/2022	5	18	
6	Architectural Coating	Architectural Coating	7/26/2022	6/12/2023	5	230	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 0.22

Residential Indoor: 45,799; Residential Outdoor: 15,266; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 438 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	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	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Demolition	6	15.00	0.00	70.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	7.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 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					
Fugitive Dust					7.5900e-003	0.0000	7.5900e-003	1.1500e-003	0.0000	1.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**7.5900e-003**	**0.0124**	**0.0200**	**1.1500e-003**	**0.0116**	**0.0127**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

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	1.6000e-004	6.0300e-003	1.2800e-003	2.0000e-005	5.9000e-004	5.0000e-005	6.5000e-004	1.6000e-004	5.0000e-005	2.1000e-004	0.0000	2.1940	2.1940	7.0000e-005	3.5000e-004	2.2993
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	4.1000e-004	3.0000e-004	3.5900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9533	0.9533	3.0000e-005	3.0000e-005	0.9622
Total	**5.7000e-004**	**6.3300e-003**	**4.8700e-003**	**3.0000e-005**	**1.7800e-003**	**6.0000e-005**	**1.8400e-003**	**4.8000e-004**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**3.1472**	**3.1472**	**1.0000e-004**	**3.8000e-004**	**3.2615**

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					7.5900e-003	0.0000	7.5900e-003	1.1500e-003	0.0000	1.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0264	0.2572	0.2059	3.9000e-004		0.0124	0.0124		0.0116	0.0116	0.0000	33.9902	33.9902	9.5500e-003	0.0000	34.2289
Total	**0.0264**	**0.2572**	**0.2059**	**3.9000e-004**	**7.5900e-003**	**0.0124**	**0.0200**	**1.1500e-003**	**0.0116**	**0.0127**	**0.0000**	**33.9902**	**33.9902**	**9.5500e-003**	**0.0000**	**34.2289**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

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	1.6000e-004	6.0300e-003	1.2800e-003	2.0000e-005	5.9000e-004	5.0000e-005	6.5000e-004	1.6000e-004	5.0000e-005	2.1000e-004	0.0000	2.1940	2.1940	7.0000e-005	3.5000e-004	2.2993
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	4.1000e-004	3.0000e-004	3.5900e-003	1.0000e-005	1.1900e-003	1.0000e-005	1.1900e-003	3.2000e-004	1.0000e-005	3.2000e-004	0.0000	0.9533	0.9533	3.0000e-005	3.0000e-005	0.9622
Total	**5.7000e-004**	**6.3300e-003**	**4.8700e-003**	**3.0000e-005**	**1.7800e-003**	**6.0000e-005**	**1.8400e-003**	**4.8000e-004**	**6.0000e-005**	**5.3000e-004**	**0.0000**	**3.1472**	**3.1472**	**1.0000e-004**	**3.8000e-004**	**3.2615**

3.3 Site Preparation - 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					
Fugitive Dust					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9300e-003	0.0827	0.0492	1.0000e-004		4.0300e-003	4.0300e-003		3.7100e-003	3.7100e-003	0.0000	8.3599	8.3599	2.7000e-003	0.0000	8.4274
Total	**7.9300e-003**	**0.0827**	**0.0492**	**1.0000e-004**	**0.0491**	**4.0300e-003**	**0.0532**	**0.0253**	**3.7100e-003**	**0.0290**	**0.0000**	**8.3599**	**8.3599**	**2.7000e-003**	**0.0000**	**8.4274**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

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	1.2000e-004	9.0000e-005	1.0800e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2860	0.2860	1.0000e-005	1.0000e-005	0.2887
Total	**1.2000e-004**	**9.0000e-005**	**1.0800e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2860**	**0.2860**	**1.0000e-005**	**1.0000e-005**	**0.2887**

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					0.0491	0.0000	0.0491	0.0253	0.0000	0.0253	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.9300e-003	0.0827	0.0492	1.0000e-004		4.0300e-003	4.0300e-003		3.7100e-003	3.7100e-003	0.0000	8.3598	8.3598	2.7000e-003	0.0000	8.4274
Total	**7.9300e-003**	**0.0827**	**0.0492**	**1.0000e-004**	**0.0491**	**4.0300e-003**	**0.0532**	**0.0253**	**3.7100e-003**	**0.0290**	**0.0000**	**8.3598**	**8.3598**	**2.7000e-003**	**0.0000**	**8.4274**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

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	1.2000e-004	9.0000e-005	1.0800e-003	0.0000	3.6000e-004	0.0000	3.6000e-004	9.0000e-005	0.0000	1.0000e-004	0.0000	0.2860	0.2860	1.0000e-005	1.0000e-005	0.2887
Total	**1.2000e-004**	**9.0000e-005**	**1.0800e-003**	**0.0000**	**3.6000e-004**	**0.0000**	**3.6000e-004**	**9.0000e-005**	**0.0000**	**1.0000e-004**	**0.0000**	**0.2860**	**0.2860**	**1.0000e-005**	**1.0000e-005**	**0.2887**

3.4 Grading - 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					
Fugitive Dust					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e-003	0.0834	0.0611	1.2000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.4219	10.4219	3.3700e-003	0.0000	10.5062
Total	**7.7900e-003**	**0.0834**	**0.0611**	**1.2000e-004**	**0.0283**	**3.7600e-003**	**0.0321**	**0.0137**	**3.4600e-003**	**0.0172**	**0.0000**	**10.4219**	**10.4219**	**3.3700e-003**	**0.0000**	**10.5062**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

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	1.6000e-004	1.2000e-004	1.4300e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3813	0.3813	1.0000e-005	1.0000e-005	0.3849
Total	**1.6000e-004**	**1.2000e-004**	**1.4300e-003**	**0.0000**	**4.7000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3813**	**0.3813**	**1.0000e-005**	**1.0000e-005**	**0.3849**

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					0.0283	0.0000	0.0283	0.0137	0.0000	0.0137	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.7900e-003	0.0834	0.0611	1.2000e-004		3.7600e-003	3.7600e-003		3.4600e-003	3.4600e-003	0.0000	10.4219	10.4219	3.3700e-003	0.0000	10.5062
Total	**7.7900e-003**	**0.0834**	**0.0611**	**1.2000e-004**	**0.0283**	**3.7600e-003**	**0.0321**	**0.0137**	**3.4600e-003**	**0.0172**	**0.0000**	**10.4219**	**10.4219**	**3.3700e-003**	**0.0000**	**10.5062**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

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	1.6000e-004	1.2000e-004	1.4300e-003	0.0000	4.7000e-004	0.0000	4.8000e-004	1.3000e-004	0.0000	1.3000e-004	0.0000	0.3813	0.3813	1.0000e-005	1.0000e-005	0.3849
Total	**1.6000e-004**	**1.2000e-004**	**1.4300e-003**	**0.0000**	**4.7000e-004**	**0.0000**	**4.8000e-004**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**0.3813**	**0.3813**	**1.0000e-005**	**1.0000e-005**	**0.3849**

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	0.1058	0.9682	1.0145	1.6700e-003		0.0502	0.0502		0.0472	0.0472	0.0000	143.6697	143.6697	0.0344	0.0000	144.5301
Total	**0.1058**	**0.9682**	**1.0145**	**1.6700e-003**		**0.0502**	**0.0502**		**0.0472**	**0.0472**	**0.0000**	**143.6697**	**143.6697**	**0.0344**	**0.0000**	**144.5301**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

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	2.7000e-004	6.9300e-003	2.0200e-003	3.0000e-005	8.1000e-004	7.0000e-005	8.8000e-004	2.4000e-004	7.0000e-005	3.0000e-004	0.0000	2.5538	2.5538	6.0000e-005	3.8000e-004	2.6680
Worker	1.1900e-003	8.6000e-004	0.0104	3.0000e-005	3.4300e-003	2.0000e-005	3.4500e-003	9.1000e-004	2.0000e-005	9.3000e-004	0.0000	2.7581	2.7581	9.0000e-005	8.0000e-005	2.7840
Total	**1.4600e-003**	**7.7900e-003**	**0.0124**	**6.0000e-005**	**4.2400e-003**	**9.0000e-005**	**4.3300e-003**	**1.1500e-003**	**9.0000e-005**	**1.2300e-003**	**0.0000**	**5.3119**	**5.3119**	**1.5000e-004**	**4.6000e-004**	**5.4520**

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	0.1058	0.9682	1.0145	1.6700e-003		0.0502	0.0502		0.0472	0.0472	0.0000	143.6695	143.6695	0.0344	0.0000	144.5300
Total	**0.1058**	**0.9682**	**1.0145**	**1.6700e-003**		**0.0502**	**0.0502**		**0.0472**	**0.0472**	**0.0000**	**143.6695**	**143.6695**	**0.0344**	**0.0000**	**144.5300**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

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	2.7000e-004	6.9300e-003	2.0200e-003	3.0000e-005	8.1000e-004	7.0000e-005	8.8000e-004	2.4000e-004	7.0000e-005	3.0000e-004	0.0000	2.5538	2.5538	6.0000e-005	3.8000e-004	2.6680
Worker	1.1900e-003	8.6000e-004	0.0104	3.0000e-005	3.4300e-003	2.0000e-005	3.4500e-003	9.1000e-004	2.0000e-005	9.3000e-004	0.0000	2.7581	2.7581	9.0000e-005	8.0000e-005	2.7840
Total	**1.4600e-003**	**7.7900e-003**	**0.0124**	**6.0000e-005**	**4.2400e-003**	**9.0000e-005**	**4.3300e-003**	**1.1500e-003**	**9.0000e-005**	**1.2300e-003**	**0.0000**	**5.3119**	**5.3119**	**1.5000e-004**	**4.6000e-004**	**5.4520**

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	0.0834	0.7624	0.8609	1.4300e-003		0.0371	0.0371		0.0349	0.0349	0.0000	122.8565	122.8565	0.0292	0.0000	123.5872
Total	**0.0834**	**0.7624**	**0.8609**	**1.4300e-003**		**0.0371**	**0.0371**		**0.0349**	**0.0349**	**0.0000**	**122.8565**	**122.8565**	**0.0292**	**0.0000**	**123.5872**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

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	1.1000e-004	4.7100e-003	1.4700e-003	2.0000e-005	7.0000e-004	3.0000e-005	7.2000e-004	2.0000e-004	3.0000e-005	2.3000e-004	0.0000	2.0924	2.0924	4.0000e-005	3.1000e-004	2.1857
Worker	9.5000e-004	6.5000e-004	8.2300e-003	2.0000e-005	2.9300e-003	2.0000e-005	2.9500e-003	7.8000e-004	1.0000e-005	7.9000e-004	0.0000	2.2976	2.2976	7.0000e-005	6.0000e-005	2.3180
Total	**1.0600e-003**	**5.3600e-003**	**9.7000e-003**	**4.0000e-005**	**3.6300e-003**	**5.0000e-005**	**3.6700e-003**	**9.8000e-004**	**4.0000e-005**	**1.0200e-003**	**0.0000**	**4.3900**	**4.3900**	**1.1000e-004**	**3.7000e-004**	**4.5037**

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	0.0834	0.7624	0.8609	1.4300e-003		0.0371	0.0371		0.0349	0.0349	0.0000	122.8564	122.8564	0.0292	0.0000	123.5870
Total	**0.0834**	**0.7624**	**0.8609**	**1.4300e-003**		**0.0371**	**0.0371**		**0.0349**	**0.0349**	**0.0000**	**122.8564**	**122.8564**	**0.0292**	**0.0000**	**123.5870**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

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	1.1000e-004	4.7100e-003	1.4700e-003	2.0000e-005	7.0000e-004	3.0000e-005	7.2000e-004	2.0000e-004	3.0000e-005	2.3000e-004	0.0000	2.0924	2.0924	4.0000e-005	3.1000e-004	2.1857
Worker	9.5000e-004	6.5000e-004	8.2300e-003	2.0000e-005	2.9300e-003	2.0000e-005	2.9500e-003	7.8000e-004	1.0000e-005	7.9000e-004	0.0000	2.2976	2.2976	7.0000e-005	6.0000e-005	2.3180
Total	**1.0600e-003**	**5.3600e-003**	**9.7000e-003**	**4.0000e-005**	**3.6300e-003**	**5.0000e-005**	**3.6700e-003**	**9.8000e-004**	**4.0000e-005**	**1.0200e-003**	**0.0000**	**4.3900**	**4.3900**	**1.1000e-004**	**3.7000e-004**	**4.5037**

3.6 Paving - 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	8.7900e-003	0.0857	0.1098	1.7000e-004		4.3900e-003	4.3900e-003		4.0500e-003	4.0500e-003	0.0000	14.7383	14.7383	4.6300e-003	0.0000	14.8540
Paving	1.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.9300e-003**	**0.0857**	**0.1098**	**1.7000e-004**		**4.3900e-003**	**4.3900e-003**		**4.0500e-003**	**4.0500e-003**	**0.0000**	**14.7383**	**14.7383**	**4.6300e-003**	**0.0000**	**14.8540**

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3.6 Paving - 2022

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	4.9000e-004	3.6000e-004	4.3000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1439	1.1439	4.0000e-005	3.0000e-005	1.1547
Total	**4.9000e-004**	**3.6000e-004**	**4.3000e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1439**	**1.1439**	**4.0000e-005**	**3.0000e-005**	**1.1547**

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	8.7900e-003	0.0857	0.1098	1.7000e-004		4.3900e-003	4.3900e-003		4.0500e-003	4.0500e-003	0.0000	14.7383	14.7383	4.6300e-003	0.0000	14.8540
Paving	1.4000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**8.9300e-003**	**0.0857**	**0.1098**	**1.7000e-004**		**4.3900e-003**	**4.3900e-003**		**4.0500e-003**	**4.0500e-003**	**0.0000**	**14.7383**	**14.7383**	**4.6300e-003**	**0.0000**	**14.8540**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2022

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	4.9000e-004	3.6000e-004	4.3000e-003	1.0000e-005	1.4200e-003	1.0000e-005	1.4300e-003	3.8000e-004	1.0000e-005	3.9000e-004	0.0000	1.1439	1.1439	4.0000e-005	3.0000e-005	1.1547
Total	**4.9000e-004**	**3.6000e-004**	**4.3000e-003**	**1.0000e-005**	**1.4200e-003**	**1.0000e-005**	**1.4300e-003**	**3.8000e-004**	**1.0000e-005**	**3.9000e-004**	**0.0000**	**1.1439**	**1.1439**	**4.0000e-005**	**3.0000e-005**	**1.1547**

3.7 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	0.0797					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.0803	0.1034	1.7000e-004		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	14.5536	14.5536	9.5000e-004	0.0000	14.5772
Total	**0.0913**	**0.0803**	**0.1034**	**1.7000e-004**		**4.6600e-003**	**4.6600e-003**		**4.6600e-003**	**4.6600e-003**	**0.0000**	**14.5536**	**14.5536**	**9.5000e-004**	**0.0000**	**14.5772**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

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	1.6000e-004	1.1000e-004	1.3600e-003	0.0000	4.5000e-004	0.0000	4.5000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3622	0.3622	1.0000e-005	1.0000e-005	0.3656
Total	**1.6000e-004**	**1.1000e-004**	**1.3600e-003**	**0.0000**	**4.5000e-004**	**0.0000**	**4.5000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3622**	**0.3622**	**1.0000e-005**	**1.0000e-005**	**0.3656**

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	0.0797					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0117	0.0803	0.1034	1.7000e-004		4.6600e-003	4.6600e-003		4.6600e-003	4.6600e-003	0.0000	14.5535	14.5535	9.5000e-004	0.0000	14.5772
Total	**0.0913**	**0.0803**	**0.1034**	**1.7000e-004**		**4.6600e-003**	**4.6600e-003**		**4.6600e-003**	**4.6600e-003**	**0.0000**	**14.5535**	**14.5535**	**9.5000e-004**	**0.0000**	**14.5772**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

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	1.6000e-004	1.1000e-004	1.3600e-003	0.0000	4.5000e-004	0.0000	4.5000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3622	0.3622	1.0000e-005	1.0000e-005	0.3656
Total	**1.6000e-004**	**1.1000e-004**	**1.3600e-003**	**0.0000**	**4.5000e-004**	**0.0000**	**4.5000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3622**	**0.3622**	**1.0000e-005**	**1.0000e-005**	**0.3656**

3.7 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	0.0811					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.0756	0.1050	1.7000e-004		4.1100e-003	4.1100e-003		4.1100e-003	4.1100e-003	0.0000	14.8089	14.8089	8.9000e-004	0.0000	14.8310
Total	**0.0922**	**0.0756**	**0.1050**	**1.7000e-004**		**4.1100e-003**	**4.1100e-003**		**4.1100e-003**	**4.1100e-003**	**0.0000**	**14.8089**	**14.8089**	**8.9000e-004**	**0.0000**	**14.8310**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

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	1.5000e-004	1.0000e-004	1.2900e-003	0.0000	4.6000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3592	0.3592	1.0000e-005	1.0000e-005	0.3624
Total	**1.5000e-004**	**1.0000e-004**	**1.2900e-003**	**0.0000**	**4.6000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3592**	**0.3592**	**1.0000e-005**	**1.0000e-005**	**0.3624**

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	0.0811					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0111	0.0756	0.1050	1.7000e-004		4.1100e-003	4.1100e-003		4.1100e-003	4.1100e-003	0.0000	14.8089	14.8089	8.9000e-004	0.0000	14.8310
Total	**0.0922**	**0.0756**	**0.1050**	**1.7000e-004**		**4.1100e-003**	**4.1100e-003**		**4.1100e-003**	**4.1100e-003**	**0.0000**	**14.8089**	**14.8089**	**8.9000e-004**	**0.0000**	**14.8310**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

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	1.5000e-004	1.0000e-004	1.2900e-003	0.0000	4.6000e-004	0.0000	4.6000e-004	1.2000e-004	0.0000	1.2000e-004	0.0000	0.3592	0.3592	1.0000e-005	1.0000e-005	0.3624
Total	**1.5000e-004**	**1.0000e-004**	**1.2900e-003**	**0.0000**	**4.6000e-004**	**0.0000**	**4.6000e-004**	**1.2000e-004**	**0.0000**	**1.2000e-004**	**0.0000**	**0.3592**	**0.3592**	**1.0000e-005**	**1.0000e-005**	**0.3624**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.0489	0.0554	0.4524	9.2000e-004	0.0953	6.9000e-004	0.0960	0.0255	6.4000e-004	0.0261	0.0000	85.4158	85.4158	5.8100e-003	4.2000e-003	86.8135
Unmitigated	0.0489	0.0554	0.4524	9.2000e-004	0.0953	6.9000e-004	0.0960	0.0255	6.4000e-004	0.0261	0.0000	85.4158	85.4158	5.8100e-003	4.2000e-003	86.8135

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	113.28	114.48	102.60	258,504	258,504
Total	113.28	114.48	102.60	258,504	258,504

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking Structure	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Parking Lot	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Single Family Housing	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	10.0403	10.0403	1.6200e-003	2.0000e-004	10.1395
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	10.0403	10.0403	1.6200e-003	2.0000e-004	10.1395
NaturalGas Mitigated	2.5000e-003	0.0213	9.0800e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	24.7124	24.7124	4.7000e-004	4.5000e-004	24.8593
NaturalGas Unmitigated	2.5000e-003	0.0213	9.0800e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	24.7124	24.7124	4.7000e-004	4.5000e-004	24.8593

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Enclosed Parking Structure	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
Parking Lot	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
Single Family Housing	463094	2.5000e-003	0.0213	9.0800e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	24.7124	24.7124	4.7000e-004	4.5000e-004	24.8593
Total		**2.5000e-003**	**0.0213**	**9.0800e-003**	**1.4000e-004**		**1.7300e-003**	**1.7300e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**24.7124**	**24.7124**	**4.7000e-004**	**4.5000e-004**	**24.8593**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Enclosed Parking Structure	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
Parking Lot	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
Single Family Housing	463094	2.5000e-003	0.0213	9.0800e-003	1.4000e-004		1.7300e-003	1.7300e-003		1.7300e-003	1.7300e-003	0.0000	24.7124	24.7124	4.7000e-004	4.5000e-004	24.8593
Total		**2.5000e-003**	**0.0213**	**9.0800e-003**	**1.4000e-004**		**1.7300e-003**	**1.7300e-003**		**1.7300e-003**	**1.7300e-003**	**0.0000**	**24.7124**	**24.7124**	**4.7000e-004**	**4.5000e-004**	**24.8593**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking Structure	13109.3	1.2129	2.0000e-004	2.0000e-005	1.2249
Parking Lot	1680	0.1554	3.0000e-005	0.0000	0.1570
Single Family Housing	93726.2	8.6719	1.4000e-003	1.7000e-004	8.7577
Total		**10.0403**	**1.6300e-003**	**1.9000e-004**	**10.1395**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Enclosed Parking Structure	13109.3	1.2129	2.0000e-004	2.0000e-005	1.2249
Parking Lot	1680	0.1554	3.0000e-005	0.0000	0.1570
Single Family Housing	93726.2	8.6719	1.4000e-003	1.7000e-004	8.7577
Total		**10.0403**	**1.6300e-003**	**1.9000e-004**	**10.1395**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	0.1783	2.5800e-003	0.1922	2.2000e-004		0.0153	0.0153		0.0153	0.0153	1.5253	0.5205	2.0458	3.0200e-003	9.0000e-005	2.1474
Unmitigated	0.1783	2.5800e-003	0.1922	2.2000e-004		0.0153	0.0153		0.0153	0.0153	1.5253	0.5205	2.0458	3.0200e-003	9.0000e-005	2.1474

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	0.0161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0888					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0707	1.5500e-003	0.1029	2.1000e-004		0.0148	0.0148		0.0148	0.0148	1.5253	0.3745	1.8999	2.8800e-003	9.0000e-005	1.9979
Landscaping	2.7100e-003	1.0300e-003	0.0893	0.0000		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.1460	0.1460	1.4000e-004	0.0000	0.1495
Total	**0.1783**	**2.5800e-003**	**0.1922**	**2.1000e-004**		**0.0153**	**0.0153**		**0.0153**	**0.0153**	**1.5253**	**0.5205**	**2.0458**	**3.0200e-003**	**9.0000e-005**	**2.1474**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0161					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0888					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.0707	1.5500e-003	0.1029	2.1000e-004		0.0148	0.0148		0.0148	0.0148	1.5253	0.3745	1.8999	2.8800e-003	9.0000e-005	1.9979
Landscaping	2.7100e-003	1.0300e-003	0.0893	0.0000		4.9000e-004	4.9000e-004		4.9000e-004	4.9000e-004	0.0000	0.1460	0.1460	1.4000e-004	0.0000	0.1495
Total	**0.1783**	**2.5800e-003**	**0.1922**	**2.1000e-004**		**0.0153**	**0.0153**		**0.0153**	**0.0153**	**1.5253**	**0.5205**	**2.0458**	**3.0200e-003**	**9.0000e-005**	**2.1474**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.7672	0.0256	6.1000e-004	1.5885
Unmitigated	0.7991	0.0256	6.1000e-004	1.6207

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.781848 / 0.492904	0.7991	0.0256	6.1000e-004	1.6207
Total		**0.7991**	**0.0256**	**6.1000e-004**	**1.6207**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Enclosed Parking Structure	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	0.781848 / 0.394323	0.7672	0.0256	6.1000e-004	1.5885
Total		**0.7672**	**0.0256**	**6.1000e-004**	**1.5885**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2.8987	0.1713	0.0000	7.1814
Unmitigated	2.8987	0.1713	0.0000	7.1814

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	14.28	2.8987	0.1713	0.0000	7.1814
Total		**2.8987**	**0.1713**	**0.0000**	**7.1814**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Enclosed Parking Structure	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Single Family Housing	14.28	2.8987	0.1713	0.0000	7.1814
Total		**2.8987**	**0.1713**	**0.0000**	**7.1814**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

20860 McClellan Road Project

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	12.00	Space	0.11	2,497.00	0
Parking Lot	12.00	Space	0.11	4,800.00	0
Single Family Housing	12.00	Dwelling Unit	3.90	22,617.00	34

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - ADUs were included in the single-family residential unit count as a conservative approach. Square footage was based on the site plan prepared for the proposed project.

Construction Phase - Architectural coating phase assumed to begin two weeks after the initiation of building construction, and last for the same duration.

Water Mitigation - Compliant with MWELO.

Demolition - Based on information provided in the Phase I ESA prepared for the proposed project.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	230.00
tblLandUse	LandUseSquareFeet	4,800.00	2,497.00
tblLandUse	LandUseSquareFeet	21,600.00	22,617.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.0 Emissions Summary

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					
2022	3.3360	33.1151	21.1092	0.0421	19.8049	1.6134	21.4182	10.1417	1.4843	11.6260	0.0000	4,100.7993	4,100.7993	1.1958	0.0411	4,139.6327
2023	3.1859	15.7861	18.2738	0.0309	0.0793	0.7714	0.8507	0.0213	0.7300	0.7514	0.0000	2,938.4578	2,938.4578	0.6271	7.8100e-003	2,956.4621
Maximum	**3.3360**	**33.1151**	**21.1092**	**0.0421**	**19.8049**	**1.6134**	**21.4182**	**10.1417**	**1.4843**	**11.6260**	**0.0000**	**4,100.7993**	**4,100.7993**	**1.1958**	**0.0411**	**4,139.6327**

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					
2022	3.3360	33.1151	21.1092	0.0421	19.8049	1.6134	21.4182	10.1417	1.4843	11.6260	0.0000	4,100.7993	4,100.7993	1.1958	0.0411	4,139.6327
2023	3.1859	15.7861	18.2738	0.0309	0.0793	0.7714	0.8507	0.0213	0.7300	0.7514	0.0000	2,938.4578	2,938.4578	0.6271	7.8100e-003	2,956.4621
Maximum	**3.3360**	**33.1151**	**21.1092**	**0.0421**	**19.8049**	**1.6134**	**21.4182**	**10.1417**	**1.4843**	**11.6260**	**0.0000**	**4,100.7993**	**4,100.7993**	**1.1958**	**0.0411**	**4,139.6327**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	N20	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

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	13.0405	0.2509	17.0762	0.0303		2.2798	2.2798		2.2798	2.2798	244.5401	75.9055	320.4456	0.3041	0.0173	333.1901
Energy	0.0137	0.1169	0.0498	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003		149.2647	149.2647	2.8600e-003	2.7400e-003	150.1517
Mobile	0.3058	0.2861	2.5371	5.4300e-003	0.5565	3.8700e-003	0.5603	0.1482	3.6000e-003	0.1518		557.8649	557.8649	0.0335	0.0247	566.0561
Total	**13.3600**	**0.6539**	**19.6630**	**0.0365**	**0.5565**	**2.2931**	**2.8496**	**0.1482**	**2.2928**	**2.4410**	**244.5401**	**783.0351**	**1,027.5751**	**0.3405**	**0.0447**	**1,049.3979**

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	13.0405	0.2509	17.0762	0.0303		2.2798	2.2798		2.2798	2.2798	244.5401	75.9055	320.4456	0.3041	0.0173	333.1901
Energy	0.0137	0.1169	0.0498	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003		149.2647	149.2647	2.8600e-003	2.7400e-003	150.1517
Mobile	0.3058	0.2861	2.5371	5.4300e-003	0.5565	3.8700e-003	0.5603	0.1482	3.6000e-003	0.1518		557.8649	557.8649	0.0335	0.0247	566.0561
Total	**13.3600**	**0.6539**	**19.6630**	**0.0365**	**0.5565**	**2.2931**	**2.8496**	**0.1482**	**2.2928**	**2.4410**	**244.5401**	**783.0351**	**1,027.5751**	**0.3405**	**0.0447**	**1,049.3979**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	N20	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	Demolition	Demolition	5/1/2022	5/27/2022	5	20	
2	Site Preparation	Site Preparation	5/28/2022	6/3/2022	5	5	
3	Grading	Grading	6/4/2022	6/15/2022	5	8	
4	Building Construction	Building Construction	7/12/2022	5/29/2023	5	230	
5	Paving	Paving	6/16/2022	7/11/2022	5	18	
6	Architectural Coating	Architectural Coating	7/26/2022	6/12/2023	5	230	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 0.22

Residential Indoor: 45,799; Residential Outdoor: 15,266; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 438 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	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	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Demolition	6	15.00	0.00	70.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	7.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 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					
Fugitive Dust					0.7592	0.0000	0.7592	0.1150	0.0000	0.1150			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.7592**	**1.2427**	**2.0018**	**0.1150**	**1.1553**	**1.2702**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0165	0.5811	0.1274	2.2200e-003	0.0612	5.4000e-003	0.0666	0.0168	5.1700e-003	0.0220		241.8087	241.8087	7.9800e-003	0.0383	253.4210
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
Worker	0.0436	0.0263	0.3878	1.1000e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		112.2095	112.2095	3.0600e-003	2.8000e-003	113.1197
Total	**0.0601**	**0.6074**	**0.5151**	**3.3200e-003**	**0.1844**	**6.0400e-003**	**0.1905**	**0.0495**	**5.7600e-003**	**0.0552**		**354.0182**	**354.0182**	**0.0110**	**0.0411**	**366.5407**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 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					
Fugitive Dust					0.7592	0.0000	0.7592	0.1150	0.0000	0.1150			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.7592**	**1.2427**	**2.0018**	**0.1150**	**1.1553**	**1.2702**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0165	0.5811	0.1274	2.2200e-003	0.0612	5.4000e-003	0.0666	0.0168	5.1700e-003	0.0220		241.8087	241.8087	7.9800e-003	0.0383	253.4210
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
Worker	0.0436	0.0263	0.3878	1.1000e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		112.2095	112.2095	3.0600e-003	2.8000e-003	113.1197
Total	**0.0601**	**0.6074**	**0.5151**	**3.3200e-003**	**0.1844**	**6.0400e-003**	**0.1905**	**0.0495**	**5.7600e-003**	**0.0552**		**354.0182**	**354.0182**	**0.0110**	**0.0411**	**366.5407**

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 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					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

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	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
Worker	0.0524	0.0316	0.4653	1.3200e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		134.6513	134.6513	3.6700e-003	3.3600e-003	135.7437
Total	**0.0524**	**0.0316**	**0.4653**	**1.3200e-003**	**0.1479**	**7.7000e-004**	**0.1486**	**0.0392**	**7.1000e-004**	**0.0399**		**134.6513**	**134.6513**	**3.6700e-003**	**3.3600e-003**	**135.7437**

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 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					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

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	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
Worker	0.0524	0.0316	0.4653	1.3200e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		134.6513	134.6513	3.6700e-003	3.3600e-003	135.7437
Total	**0.0524**	**0.0316**	**0.4653**	**1.3200e-003**	**0.1479**	**7.7000e-004**	**0.1486**	**0.0392**	**7.1000e-004**	**0.0399**		**134.6513**	**134.6513**	**3.6700e-003**	**3.3600e-003**	**135.7437**

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 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					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.0826**	**0.9409**	**8.0234**	**3.4247**	**0.8656**	**4.2903**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

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	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
Worker	0.0436	0.0263	0.3878	1.1000e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		112.2095	112.2095	3.0600e-003	2.8000e-003	113.1197
Total	**0.0436**	**0.0263**	**0.3878**	**1.1000e-003**	**0.1232**	**6.4000e-004**	**0.1239**	**0.0327**	**5.9000e-004**	**0.0333**		**112.2095**	**112.2095**	**3.0600e-003**	**2.8000e-003**	**113.1197**

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 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					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.0826**	**0.9409**	**8.0234**	**3.4247**	**0.8656**	**4.2903**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

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	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
Worker	0.0436	0.0263	0.3878	1.1000e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		112.2095	112.2095	3.0600e-003	2.8000e-003	113.1197
Total	**0.0436**	**0.0263**	**0.3878**	**1.1000e-003**	**0.1232**	**6.4000e-004**	**0.1239**	**0.0327**	**5.9000e-004**	**0.0333**		**112.2095**	**112.2095**	**3.0600e-003**	**2.8000e-003**	**113.1197**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	4.3100e-003	0.1079	0.0321	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.3972	45.3972	9.9000e-004	6.7300e-003	47.4264
Worker	0.0204	0.0123	0.1810	5.1000e-004	0.0575	3.0000e-004	0.0578	0.0153	2.8000e-004	0.0155		52.3644	52.3644	1.4300e-003	1.3100e-003	52.7892
Total	**0.0247**	**0.1202**	**0.2130**	**9.3000e-004**	**0.0710**	**1.4500e-003**	**0.0725**	**0.0192**	**1.3800e-003**	**0.0205**		**97.7616**	**97.7616**	**2.4200e-003**	**8.0400e-003**	**100.2156**

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	4.3100e-003	0.1079	0.0321	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.3972	45.3972	9.9000e-004	6.7300e-003	47.4264
Worker	0.0204	0.0123	0.1810	5.1000e-004	0.0575	3.0000e-004	0.0578	0.0153	2.8000e-004	0.0155		52.3644	52.3644	1.4300e-003	1.3100e-003	52.7892
Total	**0.0247**	**0.1202**	**0.2130**	**9.3000e-004**	**0.0710**	**1.4500e-003**	**0.0725**	**0.0192**	**1.3800e-003**	**0.0205**		**97.7616**	**97.7616**	**2.4200e-003**	**8.0400e-003**	**100.2156**

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	2.1800e-003	0.0858	0.0274	4.1000e-004	0.0136	5.2000e-004	0.0141	3.9000e-003	5.0000e-004	4.4000e-003		43.4922	43.4922	8.9000e-004	6.4300e-003	45.4305
Worker	0.0189	0.0109	0.1673	5.0000e-004	0.0575	2.9000e-004	0.0578	0.0153	2.6000e-004	0.0155		51.0192	51.0192	1.2900e-003	1.2100e-003	51.4120
Total	**0.0211**	**0.0967**	**0.1947**	**9.1000e-004**	**0.0711**	**8.1000e-004**	**0.0719**	**0.0192**	**7.6000e-004**	**0.0199**		**94.5114**	**94.5114**	**2.1800e-003**	**7.6400e-003**	**96.8425**

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	2.1800e-003	0.0858	0.0274	4.1000e-004	0.0136	5.2000e-004	0.0141	3.9000e-003	5.0000e-004	4.4000e-003		43.4922	43.4922	8.9000e-004	6.4300e-003	45.4305
Worker	0.0189	0.0109	0.1673	5.0000e-004	0.0575	2.9000e-004	0.0578	0.0153	2.6000e-004	0.0155		51.0192	51.0192	1.2900e-003	1.2100e-003	51.4120
Total	**0.0211**	**0.0967**	**0.1947**	**9.1000e-004**	**0.0711**	**8.1000e-004**	**0.0719**	**0.0192**	**7.6000e-004**	**0.0199**		**94.5114**	**94.5114**	**2.1800e-003**	**7.6400e-003**	**96.8425**

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 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	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9925**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**		**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

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	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
Worker	0.0582	0.0351	0.5170	1.4700e-003	0.1643	8.6000e-004	0.1652	0.0436	7.9000e-004	0.0444		149.6126	149.6126	4.0800e-003	3.7300e-003	150.8263
Total	**0.0582**	**0.0351**	**0.5170**	**1.4700e-003**	**0.1643**	**8.6000e-004**	**0.1652**	**0.0436**	**7.9000e-004**	**0.0444**		**149.6126**	**149.6126**	**4.0800e-003**	**3.7300e-003**	**150.8263**

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 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	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504	0.0000	1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9925**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**	**0.0000**	**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

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	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
Worker	0.0582	0.0351	0.5170	1.4700e-003	0.1643	8.6000e-004	0.1652	0.0436	7.9000e-004	0.0444		149.6126	149.6126	4.0800e-003	3.7300e-003	150.8263
Total	**0.0582**	**0.0351**	**0.5170**	**1.4700e-003**	**0.1643**	**8.6000e-004**	**0.1652**	**0.0436**	**7.9000e-004**	**0.0444**		**149.6126**	**149.6126**	**4.0800e-003**	**3.7300e-003**	**150.8263**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 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	1.3977					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	**1.6022**	**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	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
Worker	2.9100e-003	1.7500e-003	0.0259	7.0000e-005	8.2100e-003	4.0000e-005	8.2600e-003	2.1800e-003	4.0000e-005	2.2200e-003		7.4806	7.4806	2.0000e-004	1.9000e-004	7.5413
Total	**2.9100e-003**	**1.7500e-003**	**0.0259**	**7.0000e-005**	**8.2100e-003**	**4.0000e-005**	**8.2600e-003**	**2.1800e-003**	**4.0000e-005**	**2.2200e-003**		**7.4806**	**7.4806**	**2.0000e-004**	**1.9000e-004**	**7.5413**

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 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	1.3977					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	**1.6022**	**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	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
Worker	2.9100e-003	1.7500e-003	0.0259	7.0000e-005	8.2100e-003	4.0000e-005	8.2600e-003	2.1800e-003	4.0000e-005	2.2200e-003		7.4806	7.4806	2.0000e-004	1.9000e-004	7.5413
Total	**2.9100e-003**	**1.7500e-003**	**0.0259**	**7.0000e-005**	**8.2100e-003**	**4.0000e-005**	**8.2600e-003**	**2.1800e-003**	**4.0000e-005**	**2.2200e-003**		**7.4806**	**7.4806**	**2.0000e-004**	**1.9000e-004**	**7.5413**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 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	1.3977					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	**1.5893**	**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	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
Worker	2.7000e-003	1.5500e-003	0.0239	7.0000e-005	8.2100e-003	4.0000e-005	8.2600e-003	2.1800e-003	4.0000e-005	2.2200e-003		7.2885	7.2885	1.8000e-004	1.7000e-004	7.3446
Total	**2.7000e-003**	**1.5500e-003**	**0.0239**	**7.0000e-005**	**8.2100e-003**	**4.0000e-005**	**8.2600e-003**	**2.1800e-003**	**4.0000e-005**	**2.2200e-003**		**7.2885**	**7.2885**	**1.8000e-004**	**1.7000e-004**	**7.3446**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 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	1.3977					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	**1.5893**	**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	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
Worker	2.7000e-003	1.5500e-003	0.0239	7.0000e-005	8.2100e-003	4.0000e-005	8.2600e-003	2.1800e-003	4.0000e-005	2.2200e-003		7.2885	7.2885	1.8000e-004	1.7000e-004	7.3446
Total	**2.7000e-003**	**1.5500e-003**	**0.0239**	**7.0000e-005**	**8.2100e-003**	**4.0000e-005**	**8.2600e-003**	**2.1800e-003**	**4.0000e-005**	**2.2200e-003**		**7.2885**	**7.2885**	**1.8000e-004**	**1.7000e-004**	**7.3446**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	0.3058	0.2861	2.5371	5.4300e-003	0.5565	3.8700e-003	0.5603	0.1482	3.6000e-003	0.1518		557.8649	557.8649	0.0335	0.0247	566.0561
Unmitigated	0.3058	0.2861	2.5371	5.4300e-003	0.5565	3.8700e-003	0.5603	0.1482	3.6000e-003	0.1518		557.8649	557.8649	0.0335	0.0247	566.0561

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	113.28	114.48	102.60	258,504	258,504
Total	113.28	114.48	102.60	258,504	258,504

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking Structure	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Parking Lot	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Single Family Housing	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	0.0137	0.1169	0.0498	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003		149.2647	149.2647	2.8600e-003	2.7400e-003	150.1517
NaturalGas Unmitigated	0.0137	0.1169	0.0498	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003		149.2647	149.2647	2.8600e-003	2.7400e-003	150.1517

20860 McClellan Road Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Enclosed Parking Structure	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
Parking Lot	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
Single Family Housing	1268.75	0.0137	0.1169	0.0498	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003		149.2647	149.2647	2.8600e-003	2.7400e-003	150.1517
Total		**0.0137**	**0.1169**	**0.0498**	**7.5000e-004**		**9.4500e-003**	**9.4500e-003**		**9.4500e-003**	**9.4500e-003**		**149.2647**	**149.2647**	**2.8600e-003**	**2.7400e-003**	**150.1517**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Enclosed Parking Structure	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
Parking Lot	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
Single Family Housing	1.26875	0.0137	0.1169	0.0498	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003		149.2647	149.2647	2.8600e-003	2.7400e-003	150.1517
Total		**0.0137**	**0.1169**	**0.0498**	**7.5000e-004**		**9.4500e-003**	**9.4500e-003**		**9.4500e-003**	**9.4500e-003**		**149.2647**	**149.2647**	**2.8600e-003**	**2.7400e-003**	**150.1517**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	13.0405	0.2509	17.0762	0.0303		2.2798	2.2798		2.2798	2.2798	244.5401	75.9055	320.4456	0.3041	0.0173	333.1901
Unmitigated	13.0405	0.2509	17.0762	0.0303		2.2798	2.2798		2.2798	2.2798	244.5401	75.9055	320.4456	0.3041	0.0173	333.1901

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	0.0881					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4866					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	12.4358	0.2395	16.0835	0.0303		2.2743	2.2743		2.2743	2.2743	244.5401	74.1177	318.6577	0.3024	0.0173	331.3590
Landscaping	0.0301	0.0114	0.9927	5.0000e-005		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003		1.7879	1.7879	1.7300e-003		1.8311
Total	**13.0405**	**0.2509**	**17.0762**	**0.0303**		**2.2798**	**2.2798**		**2.2798**	**2.2798**	**244.5401**	**75.9055**	**320.4456**	**0.3041**	**0.0173**	**333.1901**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0881					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4866					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	12.4358	0.2395	16.0835	0.0303		2.2743	2.2743		2.2743	2.2743	244.5401	74.1177	318.6577	0.3024	0.0173	331.3590
Landscaping	0.0301	0.0114	0.9927	5.0000e-005		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003		1.7879	1.7879	1.7300e-003		1.8311
Total	**13.0405**	**0.2509**	**17.0762**	**0.0303**		**2.2798**	**2.2798**		**2.2798**	**2.2798**	**244.5401**	**75.9055**	**320.4456**	**0.3041**	**0.0173**	**333.1901**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

20860 McClellan Road Project

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Enclosed Parking Structure	12.00	Space	0.11	2,497.00	0
Parking Lot	12.00	Space	0.11	4,800.00	0
Single Family Housing	12.00	Dwelling Unit	3.90	22,617.00	34

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	5			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - ADUs were included in the single-family residential unit count as a conservative approach. Square footage was based on the site plan prepared for the proposed project.

Construction Phase - Architectural coating phase assumed to begin two weeks after the initiation of building construction, and last for the same duration.

Water Mitigation - Compliant with MWELO.

Demolition - Based on information provided in the Phase I ESA prepared for the proposed project.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	18.00	230.00
tblLandUse	LandUseSquareFeet	4,800.00	2,497.00
tblLandUse	LandUseSquareFeet	21,600.00	22,617.00

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.0 Emissions Summary

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					
2022	3.3365	33.1225	21.0933	0.0421	19.8049	1.6134	21.4182	10.1417	1.4843	11.6260	0.0000	4,092.9043	4,092.9043	1.1963	0.0415	4,131.8782
2023	3.1864	15.7940	18.2666	0.0309	0.0793	0.7714	0.8507	0.0213	0.7300	0.7514	0.0000	2,934.3870	2,934.3870	0.6272	8.0400e-003	2,952.4634
Maximum	**3.3365**	**33.1225**	**21.0933**	**0.0421**	**19.8049**	**1.6134**	**21.4182**	**10.1417**	**1.4843**	**11.6260**	**0.0000**	**4,092.9043**	**4,092.9043**	**1.1963**	**0.0415**	**4,131.8782**

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					
2022	3.3365	33.1225	21.0933	0.0421	19.8049	1.6134	21.4182	10.1417	1.4843	11.6260	0.0000	4,092.9043	4,092.9043	1.1963	0.0415	4,131.8782
2023	3.1864	15.7940	18.2666	0.0309	0.0793	0.7714	0.8507	0.0213	0.7300	0.7514	0.0000	2,934.3870	2,934.3870	0.6272	8.0400e-003	2,952.4634
Maximum	**3.3365**	**33.1225**	**21.0933**	**0.0421**	**19.8049**	**1.6134**	**21.4182**	**10.1417**	**1.4843**	**11.6260**	**0.0000**	**4,092.9043**	**4,092.9043**	**1.1963**	**0.0415**	**4,131.8782**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	N20	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

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	13.0405	0.2509	17.0762	0.0303		2.2798	2.2798		2.2798	2.2798	244.5401	75.9055	320.4456	0.3041	0.0173	333.1901
Energy	0.0137	0.1169	0.0498	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003		149.2647	149.2647	2.8600e-003	2.7400e-003	150.1517
Mobile	0.2759	0.3300	2.7121	5.1300e-003	0.5565	3.8700e-003	0.5603	0.1482	3.6000e-003	0.1518		526.6503	526.6503	0.0382	0.0271	535.6838
Total	**13.3301**	**0.6978**	**19.8380**	**0.0362**	**0.5565**	**2.2931**	**2.8496**	**0.1482**	**2.2928**	**2.4410**	**244.5401**	**751.8205**	**996.3605**	**0.3451**	**0.0471**	**1,019.0256**

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	13.0405	0.2509	17.0762	0.0303		2.2798	2.2798		2.2798	2.2798	244.5401	75.9055	320.4456	0.3041	0.0173	333.1901
Energy	0.0137	0.1169	0.0498	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003		149.2647	149.2647	2.8600e-003	2.7400e-003	150.1517
Mobile	0.2759	0.3300	2.7121	5.1300e-003	0.5565	3.8700e-003	0.5603	0.1482	3.6000e-003	0.1518		526.6503	526.6503	0.0382	0.0271	535.6838
Total	**13.3301**	**0.6978**	**19.8380**	**0.0362**	**0.5565**	**2.2931**	**2.8496**	**0.1482**	**2.2928**	**2.4410**	**244.5401**	**751.8205**	**996.3605**	**0.3451**	**0.0471**	**1,019.0256**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	N20	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	Demolition	Demolition	5/1/2022	5/27/2022	5	20	
2	Site Preparation	Site Preparation	5/28/2022	6/3/2022	5	5	
3	Grading	Grading	6/4/2022	6/15/2022	5	8	
4	Building Construction	Building Construction	7/12/2022	5/29/2023	5	230	
5	Paving	Paving	6/16/2022	7/11/2022	5	18	
6	Architectural Coating	Architectural Coating	7/26/2022	6/12/2023	5	230	

Acres of Grading (Site Preparation Phase): 7.5

Acres of Grading (Grading Phase): 8

Acres of Paving: 0.22

Residential Indoor: 45,799; Residential Outdoor: 15,266; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 438 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Excavators	1	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	3	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	Cement and Mortar Mixers	2	6.00	9	0.56
Paving	Pavers	1	8.00	130	0.42
Paving	Paving Equipment	2	6.00	132	0.36
Paving	Rollers	2	6.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
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
Demolition	6	15.00	0.00	70.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	7	18.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	6	15.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	7.00	2.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	20.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	1.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 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					
Fugitive Dust					0.7592	0.0000	0.7592	0.1150	0.0000	0.1150			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553		3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.7592**	**1.2427**	**2.0018**	**0.1150**	**1.1553**	**1.2702**		**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0161	0.6131	0.1294	2.2200e-003	0.0612	5.4100e-003	0.0666	0.0168	5.1800e-003	0.0220		241.8873	241.8873	7.9600e-003	0.0383	253.5035
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
Worker	0.0446	0.0325	0.3699	1.0200e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		104.2358	104.2358	3.4600e-003	3.2200e-003	105.2827
Total	**0.0607**	**0.6456**	**0.4993**	**3.2400e-003**	**0.1844**	**6.0500e-003**	**0.1905**	**0.0495**	**5.7700e-003**	**0.0552**		**346.1231**	**346.1231**	**0.0114**	**0.0415**	**358.7861**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 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					
Fugitive Dust					0.7592	0.0000	0.7592	0.1150	0.0000	0.1150			0.0000			0.0000
Off-Road	2.6392	25.7194	20.5941	0.0388		1.2427	1.2427		1.1553	1.1553	0.0000	3,746.7812	3,746.7812	1.0524		3,773.0920
Total	**2.6392**	**25.7194**	**20.5941**	**0.0388**	**0.7592**	**1.2427**	**2.0018**	**0.1150**	**1.1553**	**1.2702**	**0.0000**	**3,746.7812**	**3,746.7812**	**1.0524**		**3,773.0920**

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	0.0161	0.6131	0.1294	2.2200e-003	0.0612	5.4100e-003	0.0666	0.0168	5.1800e-003	0.0220		241.8873	241.8873	7.9600e-003	0.0383	253.5035
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
Worker	0.0446	0.0325	0.3699	1.0200e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		104.2358	104.2358	3.4600e-003	3.2200e-003	105.2827
Total	**0.0607**	**0.6456**	**0.4993**	**3.2400e-003**	**0.1844**	**6.0500e-003**	**0.1905**	**0.0495**	**5.7700e-003**	**0.0552**		**346.1231**	**346.1231**	**0.0114**	**0.0415**	**358.7861**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 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					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836		3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**		**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

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	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
Worker	0.0535	0.0390	0.4438	1.2300e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		125.0830	125.0830	4.1600e-003	3.8700e-003	126.3392
Total	**0.0535**	**0.0390**	**0.4438**	**1.2300e-003**	**0.1479**	**7.7000e-004**	**0.1486**	**0.0392**	**7.1000e-004**	**0.0399**		**125.0830**	**125.0830**	**4.1600e-003**	**3.8700e-003**	**126.3392**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 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					
Fugitive Dust					19.6570	0.0000	19.6570	10.1025	0.0000	10.1025			0.0000			0.0000
Off-Road	3.1701	33.0835	19.6978	0.0380		1.6126	1.6126		1.4836	1.4836	0.0000	3,686.0619	3,686.0619	1.1922		3,715.8655
Total	**3.1701**	**33.0835**	**19.6978**	**0.0380**	**19.6570**	**1.6126**	**21.2696**	**10.1025**	**1.4836**	**11.5860**	**0.0000**	**3,686.0619**	**3,686.0619**	**1.1922**		**3,715.8655**

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	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
Worker	0.0535	0.0390	0.4438	1.2300e-003	0.1479	7.7000e-004	0.1486	0.0392	7.1000e-004	0.0399		125.0830	125.0830	4.1600e-003	3.8700e-003	126.3392
Total	**0.0535**	**0.0390**	**0.4438**	**1.2300e-003**	**0.1479**	**7.7000e-004**	**0.1486**	**0.0392**	**7.1000e-004**	**0.0399**		**125.0830**	**125.0830**	**4.1600e-003**	**3.8700e-003**	**126.3392**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 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					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656		2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.0826**	**0.9409**	**8.0234**	**3.4247**	**0.8656**	**4.2903**		**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

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	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
Worker	0.0446	0.0325	0.3699	1.0200e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		104.2358	104.2358	3.4600e-003	3.2200e-003	105.2827
Total	**0.0446**	**0.0325**	**0.3699**	**1.0200e-003**	**0.1232**	**6.4000e-004**	**0.1239**	**0.0327**	**5.9000e-004**	**0.0333**		**104.2358**	**104.2358**	**3.4600e-003**	**3.2200e-003**	**105.2827**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 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					
Fugitive Dust					7.0826	0.0000	7.0826	3.4247	0.0000	3.4247			0.0000			0.0000
Off-Road	1.9486	20.8551	15.2727	0.0297		0.9409	0.9409		0.8656	0.8656	0.0000	2,872.0464	2,872.0464	0.9289		2,895.2684
Total	**1.9486**	**20.8551**	**15.2727**	**0.0297**	**7.0826**	**0.9409**	**8.0234**	**3.4247**	**0.8656**	**4.2903**	**0.0000**	**2,872.0464**	**2,872.0464**	**0.9289**		**2,895.2684**

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	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
Worker	0.0446	0.0325	0.3699	1.0200e-003	0.1232	6.4000e-004	0.1239	0.0327	5.9000e-004	0.0333		104.2358	104.2358	3.4600e-003	3.2200e-003	105.2827
Total	**0.0446**	**0.0325**	**0.3699**	**1.0200e-003**	**0.1232**	**6.4000e-004**	**0.1239**	**0.0327**	**5.9000e-004**	**0.0333**		**104.2358**	**104.2358**	**3.4600e-003**	**3.2200e-003**	**105.2827**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	4.2700e-003	0.1138	0.0332	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.4156	45.4156	9.8000e-004	6.7400e-003	47.4478
Worker	0.0208	0.0152	0.1726	4.8000e-004	0.0575	3.0000e-004	0.0578	0.0153	2.8000e-004	0.0155		48.6434	48.6434	1.6200e-003	1.5000e-003	49.1319
Total	**0.0251**	**0.1289**	**0.2058**	**9.0000e-004**	**0.0710**	**1.4500e-003**	**0.0725**	**0.0192**	**1.3800e-003**	**0.0205**		**94.0589**	**94.0589**	**2.6000e-003**	**8.2400e-003**	**96.5797**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	4.2700e-003	0.1138	0.0332	4.2000e-004	0.0135	1.1500e-003	0.0147	3.9000e-003	1.1000e-003	5.0000e-003		45.4156	45.4156	9.8000e-004	6.7400e-003	47.4478
Worker	0.0208	0.0152	0.1726	4.8000e-004	0.0575	3.0000e-004	0.0578	0.0153	2.8000e-004	0.0155		48.6434	48.6434	1.6200e-003	1.5000e-003	49.1319
Total	**0.0251**	**0.1289**	**0.2058**	**9.0000e-004**	**0.0710**	**1.4500e-003**	**0.0725**	**0.0192**	**1.3800e-003**	**0.0205**		**94.0589**	**94.0589**	**2.6000e-003**	**8.2400e-003**	**96.5797**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	2.1000e-003	0.0908	0.0283	4.1000e-004	0.0136	5.2000e-004	0.0141	3.9000e-003	5.0000e-004	4.4000e-003		43.5544	43.5544	8.8000e-004	6.4500e-003	45.4974
Worker	0.0194	0.0134	0.1603	4.6000e-004	0.0575	2.9000e-004	0.0578	0.0153	2.6000e-004	0.0155		47.4028	47.4028	1.4600e-003	1.3900e-003	47.8546
Total	**0.0215**	**0.1042**	**0.1886**	**8.7000e-004**	**0.0711**	**8.1000e-004**	**0.0719**	**0.0192**	**7.6000e-004**	**0.0199**		**90.9572**	**90.9572**	**2.3400e-003**	**7.8400e-003**	**93.3520**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0000
Vendor	2.1000e-003	0.0908	0.0283	4.1000e-004	0.0136	5.2000e-004	0.0141	3.9000e-003	5.0000e-004	4.4000e-003		43.5544	43.5544	8.8000e-004	6.4500e-003	45.4974
Worker	0.0194	0.0134	0.1603	4.6000e-004	0.0575	2.9000e-004	0.0578	0.0153	2.6000e-004	0.0155		47.4028	47.4028	1.4600e-003	1.3900e-003	47.8546
Total	**0.0215**	**0.1042**	**0.1886**	**8.7000e-004**	**0.0711**	**8.1000e-004**	**0.0719**	**0.0192**	**7.6000e-004**	**0.0199**		**90.9572**	**90.9572**	**2.3400e-003**	**7.8400e-003**	**93.3520**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 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	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504		1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9925**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**		**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

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	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
Worker	0.0594	0.0433	0.4932	1.3700e-003	0.1643	8.6000e-004	0.1652	0.0436	7.9000e-004	0.0444		138.9811	138.9811	4.6200e-003	4.3000e-003	140.3769
Total	**0.0594**	**0.0433**	**0.4932**	**1.3700e-003**	**0.1643**	**8.6000e-004**	**0.1652**	**0.0436**	**7.9000e-004**	**0.0444**		**138.9811**	**138.9811**	**4.6200e-003**	**4.3000e-003**	**140.3769**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 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	0.9765	9.5221	12.1940	0.0189		0.4877	0.4877		0.4504	0.4504	0.0000	1,805.1297	1,805.1297	0.5672		1,819.3091
Paving	0.0160					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.9925**	**9.5221**	**12.1940**	**0.0189**		**0.4877**	**0.4877**		**0.4504**	**0.4504**	**0.0000**	**1,805.1297**	**1,805.1297**	**0.5672**		**1,819.3091**

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	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
Worker	0.0594	0.0433	0.4932	1.3700e-003	0.1643	8.6000e-004	0.1652	0.0436	7.9000e-004	0.0444		138.9811	138.9811	4.6200e-003	4.3000e-003	140.3769
Total	**0.0594**	**0.0433**	**0.4932**	**1.3700e-003**	**0.1643**	**8.6000e-004**	**0.1652**	**0.0436**	**7.9000e-004**	**0.0444**		**138.9811**	**138.9811**	**4.6200e-003**	**4.3000e-003**	**140.3769**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 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	1.3977					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	**1.6022**	**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	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
Worker	2.9700e-003	2.1700e-003	0.0247	7.0000e-005	8.2100e-003	4.0000e-005	8.2600e-003	2.1800e-003	4.0000e-005	2.2200e-003		6.9491	6.9491	2.3000e-004	2.1000e-004	7.0188
Total	**2.9700e-003**	**2.1700e-003**	**0.0247**	**7.0000e-005**	**8.2100e-003**	**4.0000e-005**	**8.2600e-003**	**2.1800e-003**	**4.0000e-005**	**2.2200e-003**		**6.9491**	**6.9491**	**2.3000e-004**	**2.1000e-004**	**7.0188**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 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	1.3977					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	**1.6022**	**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	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
Worker	2.9700e-003	2.1700e-003	0.0247	7.0000e-005	8.2100e-003	4.0000e-005	8.2600e-003	2.1800e-003	4.0000e-005	2.2200e-003		6.9491	6.9491	2.3000e-004	2.1000e-004	7.0188
Total	**2.9700e-003**	**2.1700e-003**	**0.0247**	**7.0000e-005**	**8.2100e-003**	**4.0000e-005**	**8.2600e-003**	**2.1800e-003**	**4.0000e-005**	**2.2200e-003**		**6.9491**	**6.9491**	**2.3000e-004**	**2.1000e-004**	**7.0188**

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 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	1.3977					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	**1.5893**	**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	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
Worker	2.7700e-003	1.9200e-003	0.0229	7.0000e-005	8.2100e-003	4.0000e-005	8.2600e-003	2.1800e-003	4.0000e-005	2.2200e-003		6.7718	6.7718	2.1000e-004	2.0000e-004	6.8364
Total	**2.7700e-003**	**1.9200e-003**	**0.0229**	**7.0000e-005**	**8.2100e-003**	**4.0000e-005**	**8.2600e-003**	**2.1800e-003**	**4.0000e-005**	**2.2200e-003**		**6.7718**	**6.7718**	**2.1000e-004**	**2.0000e-004**	**6.8364**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 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	1.3977					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	**1.5893**	**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	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
Worker	2.7700e-003	1.9200e-003	0.0229	7.0000e-005	8.2100e-003	4.0000e-005	8.2600e-003	2.1800e-003	4.0000e-005	2.2200e-003		6.7718	6.7718	2.1000e-004	2.0000e-004	6.8364
Total	**2.7700e-003**	**1.9200e-003**	**0.0229**	**7.0000e-005**	**8.2100e-003**	**4.0000e-005**	**8.2600e-003**	**2.1800e-003**	**4.0000e-005**	**2.2200e-003**		**6.7718**	**6.7718**	**2.1000e-004**	**2.0000e-004**	**6.8364**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

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	0.2759	0.3300	2.7121	5.1300e-003	0.5565	3.8700e-003	0.5603	0.1482	3.6000e-003	0.1518		526.6503	526.6503	0.0382	0.0271	535.6838
Unmitigated	0.2759	0.3300	2.7121	5.1300e-003	0.5565	3.8700e-003	0.5603	0.1482	3.6000e-003	0.1518		526.6503	526.6503	0.0382	0.0271	535.6838

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Enclosed Parking Structure	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Single Family Housing	113.28	114.48	102.60	258,504	258,504
Total	113.28	114.48	102.60	258,504	258,504

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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
Enclosed Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Parking Lot	9.50	7.30	7.30	0.00	0.00	0.00	0	0	0
Single Family Housing	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Enclosed Parking Structure	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Parking Lot	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928
Single Family Housing	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	0.0137	0.1169	0.0498	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003		149.2647	149.2647	2.8600e-003	2.7400e-003	150.1517
NaturalGas Unmitigated	0.0137	0.1169	0.0498	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003		149.2647	149.2647	2.8600e-003	2.7400e-003	150.1517

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Enclosed Parking Structure	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
Parking Lot	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
Single Family Housing	1268.75	0.0137	0.1169	0.0498	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003		149.2647	149.2647	2.8600e-003	2.7400e-003	150.1517
Total		**0.0137**	**0.1169**	**0.0498**	**7.5000e-004**		**9.4500e-003**	**9.4500e-003**		**9.4500e-003**	**9.4500e-003**		**149.2647**	**149.2647**	**2.8600e-003**	**2.7400e-003**	**150.1517**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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					
Enclosed Parking Structure	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
Parking Lot	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
Single Family Housing	1.26875	0.0137	0.1169	0.0498	7.5000e-004		9.4500e-003	9.4500e-003		9.4500e-003	9.4500e-003		149.2647	149.2647	2.8600e-003	2.7400e-003	150.1517
Total		**0.0137**	**0.1169**	**0.0498**	**7.5000e-004**		**9.4500e-003**	**9.4500e-003**		**9.4500e-003**	**9.4500e-003**		**149.2647**	**149.2647**	**2.8600e-003**	**2.7400e-003**	**150.1517**

6.0 Area Detail

6.1 Mitigation Measures Area

20860 McClellan Road Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	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	13.0405	0.2509	17.0762	0.0303		2.2798	2.2798		2.2798	2.2798	244.5401	75.9055	320.4456	0.3041	0.0173	333.1901
Unmitigated	13.0405	0.2509	17.0762	0.0303		2.2798	2.2798		2.2798	2.2798	244.5401	75.9055	320.4456	0.3041	0.0173	333.1901

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	0.0881					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4866					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	12.4358	0.2395	16.0835	0.0303		2.2743	2.2743		2.2743	2.2743	244.5401	74.1177	318.6577	0.3024	0.0173	331.3590
Landscaping	0.0301	0.0114	0.9927	5.0000e-005		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003		1.7879	1.7879	1.7300e-003		1.8311
Total	**13.0405**	**0.2509**	**17.0762**	**0.0303**		**2.2798**	**2.2798**		**2.2798**	**2.2798**	**244.5401**	**75.9055**	**320.4456**	**0.3041**	**0.0173**	**333.1901**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	0.0881					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.4866					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	12.4358	0.2395	16.0835	0.0303		2.2743	2.2743		2.2743	2.2743	244.5401	74.1177	318.6577	0.3024	0.0173	331.3590
Landscaping	0.0301	0.0114	0.9927	5.0000e-005		5.4900e-003	5.4900e-003		5.4900e-003	5.4900e-003		1.7879	1.7879	1.7300e-003		1.8311
Total	**13.0405**	**0.2509**	**17.0762**	**0.0303**		**2.2798**	**2.2798**		**2.2798**	**2.2798**	**244.5401**	**75.9055**	**320.4456**	**0.3041**	**0.0173**	**333.1901**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

20860 McClellan Road Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Bay Area 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
Demolition	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

20860 McClellan Road Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Cement and Mortar Mixers	Diesel	No Change	0	2	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Excavators	Diesel	No Change	0	4	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	1	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	6	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	11	No Change	0.00
Welders	Diesel	No Change	0	1	No Change	0.00

20860 McClellan Road Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	2.27700E-002	1.55860E-001	2.08420E-001	3.40000E-004	8.77000E-003	8.77000E-003	0.00000E+000	2.93624E+001	2.93624E+001	1.83000E-003	0.00000E+000	2.94083E+001
Cement and Mortar Mixers	7.90000E-004	4.97000E-003	4.16000E-003	1.00000E-005	1.90000E-004	1.90000E-004	0.00000E+000	6.18670E-001	6.18670E-001	6.00000E-005	0.00000E+000	6.20280E-001
Concrete/Industrial Saws	3.58000E-003	2.80100E-002	3.66500E-002	6.00000E-005	1.50000E-003	1.50000E-003	0.00000E+000	5.37656E+000	5.37656E+000	2.90000E-004	0.00000E+000	5.38390E+000
Cranes	3.65300E-002	4.03940E-001	1.87730E-001	5.80000E-004	1.68100E-002	1.54700E-002	0.00000E+000	5.10126E+001	5.10126E+001	1.65000E-002	0.00000E+000	5.14251E+001
Excavators	6.88000E-003	6.04200E-002	1.10670E-001	1.80000E-004	2.92000E-003	2.69000E-003	0.00000E+000	1.54226E+001	1.54226E+001	4.99000E-003	0.00000E+000	1.55473E+001
Forklifts	3.74300E-002	3.48800E-001	3.96620E-001	5.30000E-004	2.24300E-002	2.06300E-002	0.00000E+000	4.63305E+001	4.63305E+001	1.49800E-002	0.00000E+000	4.67051E+001
Generator Sets	3.66700E-002	3.25480E-001	4.22380E-001	7.60000E-004	1.59100E-002	1.59100E-002	0.00000E+000	6.49989E+001	6.49989E+001	2.98000E-003	0.00000E+000	6.50734E+001
Graders	1.66000E-003	2.10300E-002	6.89000E-003	3.00000E-005	6.70000E-004	6.20000E-004	0.00000E+000	2.32703E+000	2.32703E+000	7.50000E-004	0.00000E+000	2.34585E+000
Pavers	1.86000E-003	1.88900E-002	2.59600E-002	4.00000E-005	9.00000E-004	8.30000E-004	0.00000E+000	3.71703E+000	3.71703E+000	1.20000E-003	0.00000E+000	3.74708E+000
Paving Equipment	2.41000E-003	2.34600E-002	3.43700E-002	6.00000E-005	1.14000E-003	1.05000E-003	0.00000E+000	4.83105E+000	4.83105E+000	1.56000E-003	0.00000E+000	4.87011E+000
Rollers	2.24000E-003	2.33000E-002	2.51100E-002	4.00000E-005	1.34000E-003	1.24000E-003	0.00000E+000	3.11201E+000	3.11201E+000	1.01000E-003	0.00000E+000	3.13717E+000
Rubber Tired Dozers	2.63700E-002	2.77000E-001	1.12830E-001	2.70000E-004	1.31500E-002	1.21000E-002	0.00000E+000	2.36336E+001	2.36336E+001	7.64000E-003	0.00000E+000	2.38247E+001
Tractors/Loaders/Backhoes	5.29700E-002	5.38310E-001	7.44030E-001	1.04000E-003	2.80100E-002	2.57700E-002	0.00000E+000	9.10105E+001	9.10105E+001	2.94300E-002	0.00000E+000	9.17463E+001
Welders	3.06400E-002	1.65990E-001	1.94070E-001	2.90000E-004	6.88000E-003	6.88000E-003	0.00000E+000	2.16454E+001	2.16454E+001	2.48000E-003	0.00000E+000	2.17075E+001

20860 McClellan Road Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	2.27700E-002	1.55860E-001	2.08420E-001	3.40000E-004	8.77000E-003	8.77000E-003	0.00000E+000	2.93624E+001	2.93624E+001	1.83000E-003	0.00000E+000	2.94082E+001
Cement and Mortar Mixers	7.90000E-004	4.97000E-003	4.16000E-003	1.00000E-005	1.90000E-004	1.90000E-004	0.00000E+000	6.18670E-001	6.18670E-001	6.00000E-005	0.00000E+000	6.20280E-001
Concrete/Industrial Saws	3.58000E-003	2.80100E-002	3.66500E-002	6.00000E-005	1.50000E-003	1.50000E-003	0.00000E+000	5.37656E+000	5.37656E+000	2.90000E-004	0.00000E+000	5.38389E+000
Cranes	3.65300E-002	4.03940E-001	1.87730E-001	5.80000E-004	1.68100E-002	1.54700E-002	0.00000E+000	5.10126E+001	5.10126E+001	1.65000E-002	0.00000E+000	5.14250E+001
Excavators	6.88000E-003	6.04200E-002	1.10670E-001	1.80000E-004	2.92000E-003	2.69000E-003	0.00000E+000	1.54226E+001	1.54226E+001	4.99000E-003	0.00000E+000	1.55473E+001
Forklifts	3.74300E-002	3.48800E-001	3.96620E-001	5.30000E-004	2.24300E-002	2.06300E-002	0.00000E+000	4.63305E+001	4.63305E+001	1.49800E-002	0.00000E+000	4.67051E+001
Generator Sets	3.66700E-002	3.25480E-001	4.22380E-001	7.60000E-004	1.59100E-002	1.59100E-002	0.00000E+000	6.49988E+001	6.49988E+001	2.98000E-003	0.00000E+000	6.50734E+001
Graders	1.66000E-003	2.10300E-002	6.89000E-003	3.00000E-005	6.70000E-004	6.20000E-004	0.00000E+000	2.32703E+000	2.32703E+000	7.50000E-004	0.00000E+000	2.34585E+000
Pavers	1.86000E-003	1.88900E-002	2.59600E-002	4.00000E-005	9.00000E-004	8.30000E-004	0.00000E+000	3.71702E+000	3.71702E+000	1.20000E-003	0.00000E+000	3.74708E+000
Paving Equipment	2.41000E-003	2.34600E-002	3.43700E-002	6.00000E-005	1.14000E-003	1.05000E-003	0.00000E+000	4.83105E+000	4.83105E+000	1.56000E-003	0.00000E+000	4.87011E+000
Rollers	2.24000E-003	2.33000E-002	2.51100E-002	4.00000E-005	1.34000E-003	1.24000E-003	0.00000E+000	3.11200E+000	3.11200E+000	1.01000E-003	0.00000E+000	3.13717E+000
Rubber Tired Dozers	2.63700E-002	2.77000E-001	1.12830E-001	2.70000E-004	1.31500E-002	1.21000E-002	0.00000E+000	2.36336E+001	2.36336E+001	7.64000E-003	0.00000E+000	2.38247E+001
Tractors/Loaders/Backhoes	5.29700E-002	5.38310E-001	7.44030E-001	1.04000E-003	2.80100E-002	2.57700E-002	0.00000E+000	9.10104E+001	9.10104E+001	2.94300E-002	0.00000E+000	9.17462E+001
Welders	3.06400E-002	1.65990E-001	1.94070E-001	2.90000E-004	6.88000E-003	6.88000E-003	0.00000E+000	2.16454E+001	2.16454E+001	2.48000E-003	0.00000E+000	2.17075E+001

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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	1.36229E-006	1.36229E-006	0.00000E+000	0.00000E+000	1.36016E-006
Cement and Mortar Mixers	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
Concrete/Industrial Saws	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	1.85739E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17618E-006	1.17618E-006	0.00000E+000	0.00000E+000	1.16675E-006
Excavators	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.29680E-006	1.29680E-006	0.00000E+000	0.00000E+000	1.28640E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.07920E-006	1.07920E-006	0.00000E+000	0.00000E+000	1.28466E-006
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23079E-006	1.23079E-006	0.00000E+000	0.00000E+000	1.07571E-006
Graders	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
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.69032E-006	2.69032E-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	0.00000E+000
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	3.21336E-006	3.21336E-006	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	1.26938E-006	1.26938E-006	0.00000E+000	0.00000E+000	1.25920E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.09877E-006	1.09877E-006	0.00000E+000	0.00000E+000	1.19896E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.23985E-007	9.23985E-007	0.00000E+000	0.00000E+000	1.38201E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input	Mitigation Input	Mitigation Input

20860 McClellan Road Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	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	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Demolition	Fugitive Dust	0.01	0.00	0.01	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.03	0.01	0.03	0.01	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	0.05	0.03	0.05	0.03	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

20860 McClellan Road Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
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	5.79	3.99	0.04	0.00	1.99
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:

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	0.06	0.25		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
No	Land Use	Increase Transit Accessibility	0.25			

20860 McClellan Road Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.00			
No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	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"				
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			

20860 McClellan Road Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	
No	Commute	Provide Ride Sharing Program				
	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
No	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)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

20860 McClellan Road Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

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
Yes	Apply Water Conservation on Strategy	0.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
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	0.00	
No	Use Water Efficient Irrigation Systems	6.10	

20860 McClellan Road Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Appendix C

Preliminary Stormwater Analysis

MH engineering Co.

16075 Vineyard Blvd.
Morgan Hill, CA 95037
(408) 779-7381
(408) 226-5712 Fax

Preliminary Stormwater Analysis
20860 McClellan Road
6 lot Single Family Residential Development
(APN 359-20-030)
Cherryland Drive
MHE 221047
August 05, 2021

Attachments:

- C.3 Impervious Surface Data Form
- Alternate Bio-retention basin sizing calculation
- Infiltration Feasibility Screening Worksheets
- Preliminary Grading , Drainage & Storm Water Management Plans (24x36)

Project Description:

This 1.25 acre parcel with two homes and a 215'x47' barn is located at the southwest corner of McClellan Road and Cherryland Drive. Site currently lays in the southeasterly direction with average slopes under 1.5%. Project has proposed to develop 6 single family detached homes with driveway access off Cherryland Drive. This street will be widened to the ultimate 40 feet curb to curb width to include parking along the existing and proposed frontages.

Property drains to Calabazas Creek, waters of San Francisco Bay, lies within Regional Water Quality Control Board, Region2.

Low Impact Site Design Measures, Source Control Measures & Stormwater Treatment Measures:

Project shall comply with City of Cupertino's Municipal Code Section 9.18 (stormwater pollution prevention and watershed protection) and applicable subsections of Provisions C.3 of the San Francisco Bay Regional Water Quality Control Board's Municipal Regional Permit (NPDES Permit) for Low Impact development.

- *The total amount of impervious surface area replaced by the project exceeds 50% of the existing hardscape, therefore C.3 requirements are applicable to all new and replaced impervious surfaces.*

- *Project will create less than 1 acre of total impervious area as such hydromodification measures are not required.*

Site Design Measures

Following design measures are incorporated into the site layout:
- impervious areas have been limited under the approved zoning
- hardscape is minimized within the scope of project
- grading has been optimized

Source Control Measures:

- roof runoff is dispersed onto vegetated areas using splash blocks
- permeable pavement shall be used for all onsite driveways
- New widening of fronting Cherryland Drive shall also be C3 compliant permeable pavement to match existing street
- runoff from private hardscape will be generally directed onto vegetated areas

Stormwater Treatment Measures (SCMs):

Porous pavement has been proposed for the driveways and private street widening. Proposed 5' sidewalk will drain onto the porous pavement.

Each individual lot will have its own independent bio-retention basin. Roof and yard drainage will filter through landscaped areas to provide storm water pre-treatment before conveyance of that runoff is directed into the basins. Bio-retention basins have been sized per criteria listed in the C.3 Stormwater Handbook, Section 6.1 Bio-Retention Area design and sizing guidelines. Sizing is based on the 4% sizing factor derived from the flow based treatment standard of 'runoff from 0.20 in/hr intensity rainfall. Typical basin shall have a maximum ponding depth of 9 inches with 24" soil media backfill placed over 18" drain rock bed.

Project Soils study, dated Jan 19, 2021 (updated June 2021), relevant pages 1 and 8 are copied and pasted below indicate 'Ksat' for native soils at 3.0 in/hr across the site. This rate will allow the C.3 volume to infiltrate into native soil under 48 hours.

An alternate calculation has also been provided to demonstrate that C.3 volume within the basins shall fully dissipate though percolation. This calculation sample is taken from the Cherryland development using 10 year rainfall intensity of 0.70 in for one hour duration. Cherryland calculations have incorrectly used a pervious area runoff coeff of 0.30 to size the basin. However, we have computed the composite 'C' value around 0.60.

Based on the 4% rule basin sizing is as follows:

Lot 1	*10'x18'x0.75' (ponding depth)*
Lot 2-4	*10'x16.5'x0.75'*
Lot 5	*10'x17.5'x0.75'*
Lot 6	*8'x24'x0.75'*

Hydro-modification/Peak Management:
Project will create less than 1 acre of impervious surface, therefore peak management per City criteria is not required.

SCM Layout Details and System Functionality:

All SCMs are to be installed on private properties, which shall be owned and maintained by the individual homeowners.

Infiltration Rates per Geotechnical Study:

GeoEngineering Consultants (GEC)
4125 Blackford Avenue, Suite 145
San Jose, CA 95117
800-GEC-3752

Proposal No. P21.0151
January 19, 2021

Alok Ventures LLC
7756 Country Ln,
Pleasanton CA 94566

Subject: Proposed Residential Development
20860 McClellan Rd,
Cupertino, CA
GEOTECHNICAL INVESTIGATION

Dear Alok:

In accordance with your authorization, GeoEngineering Consultants (GEC), has performed a geotechnical study at the subject site located in Cupertino, California.

Project Description

The proposed project is understood to consist of demolishing the existing building and constructing seven (7) single family houses in at the subject site.

Site Conditions

The entire site is one parcel. The site is bounded McClellan Road to the north and other existing residential lots to the other directions. Currently, the site is occupied by a building

Topographically, the site is located on relatively flat ground portion of City of Cupertino. Surface drainages appears to follow the ground surface topography from north to south.

Geology Settings

The subject property is located in the eastern foothills of the central Santa Cruz Mountains, a northwest-trending range within the California Coast Ranges geomorphic province. According to Knudsen and others (2000), the site is in an area underlain by Pleistocene Alluvium deposits (Qpa). These undifferentiated latest Pleistocene alluvial deposits probably are intercalated sand, silt, and gravel that are poorly to moderately sorted

The three major faults that pass through the Bay Area include the San Andreas, Hayward, and Calaveras fault zones. The main trace of the active San Andreas Fault is located approximately

membrane shall be lapped a minimum of 12-inches to provide a continuous vapor proof retarder under the entire slab. Care must be taken to assure that the membrane does not become torn and entangled with the reinforcing.

f. A minimum of two inches of moistened sand should be placed over the vapor retarder to facilitate curing of the concrete and to act as a cushion to protect the membrane. The perimeter of the mat should be thickened a minimum of 2-inches to bear on the prepared building pad and to confine the sand. During winter construction, sand may become saturated due to rainy weather prior to pouring. Saturated sand is not desirable because there exists a high probability of creating sand pockets within the slab section during the concrete pour. As an alternate, a sand-fine gravel mixture that is stable under saturated conditions may be used. However, the material must be approved by the Soil Engineer prior to use.

g. Slabs may be constructed at pad grade. The perimeter of the slab should be thickened to bear on the prepared building pad and to confine the sand.

Utility Trenches

Applicable safety standards require that trenches in excess of 5 feet must be properly shored or that the walls of the trench slope back to provide safety for installation of lines. If trench wall sloping is performed, the inclination should vary with the soil type. The underground contractor should request an opinion from the Soil Engineer as to the type of soil and the resulting inclination.

With respect to state-of-the-art construction or local requirements, utility lines are generally bedded with granular materials. These materials can convey surface or subsurface water beneath the structures. It is, therefore, recommended that all utility trenches which possess the potential to transport water be sealed with a compacted impervious cohesive soil material or lean concrete where the trench enters/exits the building perimeter. This impervious seal should extend a minimum of 2 feet away from the building perimeter.

Utility trenches extending underneath all traffic areas must be backfilled with native or approved import material and compacted to relative compaction of 90% to within 6 inches of the subgrade. The upper 6 inches should be compacted to 95% relative compaction in accordance with Laboratory Test Procedure ASTM D1557-12. Backfilling and compaction of these trenches must meet the requirements set forth by the City of Cupertino, Department of Public Works. Utility trenches within landscape areas may be compacted to a relative compaction of 85%.

Percolation Test Results

We performed three percolation tests. The tests were performed on Lots 1, 3 and 6. We performed a field percolation test at the location of the proposed drain field at the subject site. The test consisted of drilling a 12-inch diameter hole. During drilling, we encountered clayey sand/sandy silt with gravel. Bottom of the hole was dry. We presoak the hole until the surrounding hole was saturated and performed percolation test.

Based on our field test results, we estimate percolation rate for the clayey sand materials to be 0.1 inch per minute. Ksat for the site is estimated to be 0.05 in/min.
No safety factor was included in this estimate.

Date Form Completed:

Completed by:

Permit #:

CUPERTINO

City of Cupertino

Permit Provision C.3 Impervious Surface Data Form

Which Projects Must Comply with Stormwater Requirements?

All projects that create and/or replace **10,000 sq. ft.** or more of impervious surface on the project site must fill out this worksheet and submit it with the development project application.

All restaurants, auto service facilities, retail gasoline outlets, and uncovered parking lot projects (stand-alone or part of another development project, including the top uncovered portion of parking structures) that create and/or replace **5,000 sq. ft.** or more of impervious surface on the project site must also fill out this worksheet.

Interior remodeling projects, routine maintenance or repair projects such as re-roofing and re-paving, and single family homes that are not part of a larger plan of development are **NOT** required to complete this worksheet.

What is an Impervious Surface?

An impervious surface is a surface covering or pavement that prevents the land's natural ability to absorb and infiltrate rainfall/stormwater. Impervious surfaces include, but are not limited to rooftops, walkways, paved patios, driveways, parking lots, storage areas, impervious concrete and asphalt, and any other continuous watertight pavement or covering. Pervious pavement, underlain with pervious soil or pervious storage material (e.g., drain rock), that infiltrates rainfall at a rate equal to or greater than surrounding unpaved areas OR that stores and infiltrates the water quality design volume specified in Provision C.3.d of the Municipal Regional Stormwater Permit (MRP), is not considered an impervious surface.

For More Information

For more information regarding selection of Best Management Practices for stormwater pollution prevention or stormwater treatment contact:_____

1. Project Information

Project Name: _____ **APN #** 359-20-030

Project Address: 10860 McClellan Road

Cross Streets: Cherryland Drive

Applicant/Developer Name: Alok Ventures, LLC

Project Phase(s): 1 of 1 **Engineer:** Harry Singla (408) 779-7381 x242

Project Type (Check all that apply): ☐ New Development ☑ Redevelopment

☑ Private ☐ Public

☑ Residential ☐ Commercial ☐ Industrial ☐ Mixed Use ☐ Institutional

☐ Restaurant ☐ Uncovered Parking ☐ Retail Gas Outlet ☐ Auto Service (SIC code)_____
(5013-5014, 5541, 7532-7534, 7536-7539)

☐ Other _____

Project Description: 6 lot R1-7.5 residential subdivision

Project Watershed/Receiving Water (creek, river or bay): Choose from list
Calabazas Creek
SF Bay

2. Project Size

a. Total Site Area: 1.25 acres		b. Total Site Area Disturbed: 1.25 acres (including clearing, grading, or excavating)			
Site Totals	**Total Existing (Pre-project) Area (ft²)**	**Existing Area Retained[1] (ft²)**	**Existing Area Replaced[2] (ft²)**	**New Area Created[2] (ft²)**	**Total Post-Project Area (ft²)**
c. Total Impervious Area **(IA)**	28,090	0	27,539		27,539
d. Total new and replaced impervious area		27,539			
e. Total Pervious Area **(PA)**[3]	26,360				26,911
f. Total Area **(IA+PA)**	54,450				54,450
g. Percent Replacement of IA in Redevelopment Projects: (Existing IA Replaced ÷ Existing Total IA) x 100% 98.04%					

3. State Construction General Permit Applicability:

a. Is #2.b. equal to 1 acre or more?

☑ Yes, applicant must obtain coverage under the State Construction General Permit (see https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html)

☐ No, applicant does not need coverage under the State Construction General Permit.

4. MRP Provision C.3 Applicability:

a. Is #2.d. equal to **10,000** sq. ft. or more, or **5,000** sq. ft. or more for restaurants, auto service facilities, retail gas outlets, and stand-alone uncovered parking?

☑ Yes, C.3. source control, site design and treatment requirements apply

☐ No, C.3. source control and site design requirements may apply – check with local agency

b. For redevelopment projects, is #2.g. equal to 50% or more?

☑ Yes, C.3. requirements (site design and source control, as appropriate, and stormwater treatment) apply to the entire site

☐ No, C.3. requirements only apply to the impervious area created and/or replaced

c. Does the project create and/or replace 5,000 sf or more of impervious surface parking?

☐ Yes, C.3. requirements may apply to the entire site – check with local agency

☑ No

5. Hydromodification Management (HM) Applicability:

a. Does the project create and/or replace one acre or more of impervious surface AND is the total post-project impervious area greater than the pre-project (existing) impervious area?

☐ Yes (continue) ☑ No – exempt from HM, go to page 3

b. Is the project located in an area of HM applicability (green area) on the HM Applicability Map? (www.scvurppp.org/hmp-map)

☐ Yes, the project must implement HM requirements

☐ No, the project is exempt from HM requirements

---

[1] "Retained" means to leave existing IA in place. An IA that goes through maintenance (e.g., pavement resurfacing/slurry seal/grind), but no change in grade is considered "retained".

[2] The "new" and "replaced" IA are based on the total area of the site and not specific locations on site. For example, impervious parking created over a pervious area is not "new" IA, if an equal amount of pervious area replaces IA somewhere else on the site. Constructed IA on a site that does not exceed the total pre-project IA will be considered "replaced" IA. A site will have "new" IA only if the total post-project IA exceeds the total pre-project IA (total post-project IA – total pre-project IA = New IA).

[3] Include bioretention areas, infiltration areas, green roofs, and pervious pavement in PA calculations.

6. Selection of Specific Stormwater Control Measures:

Site Design Measures

- [x] Minimize land disturbed (e.g., protect trees and soil)
- [x] Minimize impervious surfaces (e.g., reduction in post-project impervious surface)
- [x] Minimum-impact street or parking lot design (e.g., parking on top of or under buildings)
- [x] Cluster structures/ pavement
- [x] Disconnected downspouts (direct runoff from roofs, sidewalks, patios to landscaped areas)
- [x] Pervious pavement
- [ ] Green roof
- [ ] Other self-treating[4] area (e.g., landscaped areas)
- [x] Self-retaining[4] area
- [ ] Interceptor trees[3]
- [ ] Rainwater harvesting and use (e.g., rain barrel, cistern for designated use)[5]
- [ ] Preserved open space: _____ ac. or sq. ft. (circle one)
- [ ] Protected riparian and wetland areas/buffers (Setback from top of bank: _____ft.)
- [ ] Other _____

Source Control Measures

- [ ] Wash area/racks, drain to sanitary sewer[5]
- [ ] Covered dumpster area, drain to sanitary sewer[6]
- [ ] Sanitary sewer connection or accessible cleanout for swimming pool/spa/fountain[6]
- [x] Beneficial landscaping (minimize irrigation, runoff, pesticides and fertilizers; promotes treatment)
- [ ] Outdoor material storage protection
- [ ] Covers, drains for loading docks, maintenance bays, fueling areas
- [x] Maintenance (pavement sweeping, catch basin cleaning, good housekeeping)
- [x] Storm drain labeling
- [ ] Other _____

Treatment Measures

- [ ] None (all impervious surface drains to self-retaining areas)

LID Treatment

- [x] Bioretention area
- [ ] Flow-through planter
- [ ] Tree Well Filter or Trench with bioretention soils
- [ ] Rainwater harvest/use (e.g., cistern or rain barrel for designated use, sized for C.3.d treatment)
- [ ] Infiltration trench
- [ ] Infiltration well/dry well
- [ ] Subsurface Infiltration System (e.g. vault or large diameter conduit over drain rock)
- [ ] Other _____

Non-LID Treatment Methods

- [ ] Proprietary high flow rate tree box filter[7]
- [ ] Proprietary high flow media filter (sand, compost, or proprietary media)[7]
- [ ] Vegetated filter strip[8]
- [ ] Extended detention basin[8]
- [ ] Vegetated swale[8]
- [ ] Other _____

Flow Duration Controls for Hydromodification Management (HM)

- [ ] Extended Detention basin
- [ ] Underground tank or vault
- [ ] Bioretention with outlet control
- [ ] Other _____

[4] See SCVURPPP C3 Handbook for definitions. https://scvurppp.org/2016/06/20/c-3-stormwater-handbook-june-2016/
[5] Optional site design measure; does not have to be sized to comply with Provision C.3.d treatment requirements.
[6] Subject to sanitary sewer authority requirements.
[7] These treatment measures are only allowed if the project qualifies as a "Special Project".
[8] These treatment measures are only allowed as part of a multi-step treatment process (i.e., for pretreatment).

7. Stormwater Treatment Measure (STM) Sizing for Projects with Treatment Requirements

Stormwater Treatment Measure (STM)	Hydraulic Sizing Criteria Used*
Individual lot	Choose from list
Big retention Basin	Choose from list
With Zero release	Choose from list
	Choose from list

2(c) flow based

Note: project will also meet the "Simplified Sizing Approach" of 4%

*Key: 1a: Volume – WEF Method
1b: Volume – CASQA BMP Handbook Method
2a: Flow – Factored Flood Flow Method
2b: Flow – CASQA BMP Handbook Method
2c: Flow – Uniform Intensity Method
3: Combination Flow and Volume Design Basis

8. Alternative Certification: Was the treatment system sizing and design reviewed by a qualified third-party professional that is not a member of the project team or agency staff?

☒ Yes ☐ No Name of Third-party Reviewer Schaaf & Wheeler

9. Operation & Maintenance Information

A. Property Owner's Name Alok Ventures, LLC

B. Responsible Party for Stormwater Treatment/Hydromodification Control O&M:

a. Name: Alok Ventures LLC

b. Address: 7756 Country Lane, Pleasanton 94566

c. Phone/E-mail: (925) 698-1727 / alok@soleez.com

This section to be completed by Municipal staff.

O&M Responsibility Mechanism

Indicate how responsibility for O&M is assured. Check all that apply:

☐ O&M Agreement

☐ Other mechanism that assigns responsibility (describe below):

_____

STAFF ONLY
Reviewed By:

Community Development Department

Planning Division: _____

Building Division: _____

Public Works Department

Engineering: _____

Other (Specify): _____

Return form to: Public Works Department

Data entry performed by: _____

"McClellan Site" Treatment Control Measure Sizing

DMA	DMA Area Trib. to Bio-Retention (sf)	DMA Impervious Area 'IA'	Onsite Driveway Paved with Pervious Pavers (sf)	Yard Landscape & Bio-Retention (sf)	Bio-Retention Mitigation		Above Surface Ponding depth (in)	Total Vol Proposed (cf)	Native Soil Ksat (in/hr)	total ponding depth (in)	Infiltration duration (hours)
		Roof & private Hardscape (sf)			Surface Area Required (4% of **'IA'** Rule)	Surface Area Proposed					
1	7,769	4,440	530	3,611	178	180	9	378	3.00	51	17.0
2	6,735	4,105	560	2,870	164	165	9	347	3.00	51	17.0
3	6,720	4,105	560	2,867	164	165	9	347	3.00	51	17.0
4	6,739	4,105	647	2,774	164	165	9	347	3.00	51	17.0
5	7,467	4,376	718	3,197	175	175	9	368	3.00	51	17.0
6	8,730	4,770	985	4,038	191	192	9	403	3.00	51	17.0

Above Ground Vol = Surface Area*Ponding Depth (9"); Below ground Vol=Surface Area*[Soil Media Depth*0.25+Drain Rock Depth*0.40];
Subgrade Vol= Surface Area*Ksat*1/12

Alternate Sizing Calculation — Bio Retention Basins

lot 1-5

Average impervious area (roof & private hardscape)

3,817 (roof) + 500 = 4,317

Avg. lot size	± 8,210sf
Avg. Porous driveway area to go into Bio-basin	650sf
	7,560sf

Avg. Landscape Area = 7,560 − 4,317 = 3,243sf

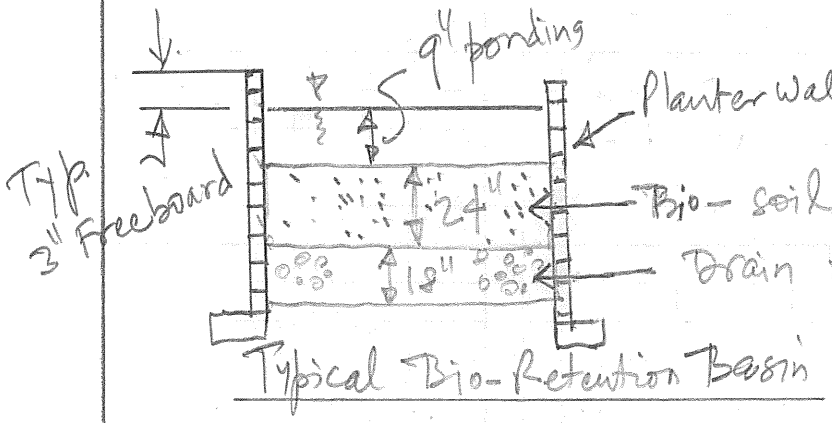
Avg. composite $C = \frac{4,317(0.90) + 3,243(0.30)}{7,560} = 0.64$

10yr. $I = 0.7$ in/hr (0.154 ac.)

$Q = 0.64(7,560 \div 43,560)0.7 = 0.078$ cfs

60 minute volume $= (0.078)60\times60 = 280 ft^3$

4% area $= 4,317(0.04) = 173 ft^2$



Typical Bio-Retention Basin

Proposed Minimum Basin volume.

Bio-soil volume

$(16.5'\times10')\times2'(0.25) = 82.5 ft^3$

(Min. Basin size; depth; porosity)

Drain rock volume $= 16.5\times10\times1.5(0.40) = 99 ft^3$

Ponding volume $= 16.5\times10\times0.75' = 124 ft^3$ (0.75' = 9")

Sub-grade volume $= 16.5\times10\times(\frac{3.0 \text{ in/hr}}{12}) = 41 ft^3$

Total volume = 346 ft³

Minimum 10'×16.5' basin size is more than adequate mitigation

Infiltration/Harvesting and Use Feasibility Screening Worksheet

*Apply these screening criteria for **C.3 Regulated Projects*** required to implement Provision C.3 stormwater treatment requirements. See the Glossary (Attachment 1) for definitions of terms marked with an asterisk (*). Contact municipal staff to determine whether the project meets **Special Project*** criteria. If the project meets Special Project criteria, it may receive LID treatment reduction credits.*

1. Applicant Info

Site Address: 2080 McClellan Rd. , CA APN: 359-20-030

Applicant Name: Alok Ventures, LLC Phone No.: (925) 698-1727

Mailing Address: _____

2. Feasibility Screening for Infiltration

Do site soils either (a) have a **saturated hydraulic conductivity*** (Ksat) that will NOT allow infiltration of 80% of the annual runoff (that is, the Ksat is LESS than 1.6 inches/hour), or, if the Ksat rate is not available, (b) consist of Type C or D soils?[1]

☒ Yes (continue) ☐ No – complete the Infiltration Feasibility Worksheet. If infiltration of the C.3.d amount of runoff is found to be feasible, there is no need to complete the rest of this screening worksheet.

3. Recycled Water Use Project will not use this alternate compliance

N/A

Check the box if the project is installing and using a recycled water plumbing system for non-potable water use.

☐ The project is installing a recycled water plumbing system, and installation of a second non-potable water system for harvested rainwater is impractical, and considered infeasible due to cost considerations. Skip to Section 6.

4. Calculate the Potential Rainwater Capture Area* for Screening of Harvesting and Use

Complete this section for the entire project area. If rainwater harvesting and use is infeasible for the entire site, and the project includes one or more buildings that each have an individual roof area of 10,000 sq. ft. or more, then complete Sections 4 and 5 of this form for each of these buildings.

4.1 Table 1 for (check one): ☐ The whole project ☐ Area of 1 building roof (10,000 sq.ft. min.)

Table 1: Calculation of the Potential Rainwater Capture Area*

The Potential Rainwater Capture Area may consist of either the entire project area or one building with a roof area of 10,000 sq. ft. or more.

	1	2	3	4
	Pre-Project Impervious surface[2] (sq.ft.), if applicable	Proposed Impervious Surface[2] (IS), in sq. ft.		Post-project landscaping (sq.ft.), if applicable
		Replaced[3] IS	Created[4] IS	
a. Enter the totals for the area to be evaluated:				
b. Sum of replaced and created impervious surface:	N/A			N/A
c. Area of existing impervious surface that will NOT be replaced by the project.		N/A		N/A

[1] Base this response on the site-specific soil report, if available. If this is not available, consult soil hydraulic conductivity maps in Attachment 3.

[2], Enter the total of all impervious surfaces, including the building footprint, driveway(s), patio(s), impervious deck(s), unroofed porch(es), uncovered parking lot (including top deck of parking structure), impervious trails, miscellaneous paving or structures, and off-lot impervious surface (new, contiguous impervious surface created from road projects, including sidewalks and/or bike lanes built as part of new street). Impervious surfaces do NOT include vegetated roofs or pervious pavement that stores and infiltrates rainfall at a rate equal to immediately surrounding, unpaved landscaped areas, or that stores and infiltrates the **C.3.d amount of runoff***.

[3] "Replaced" means that the project will install impervious surface where existing impervious surface is removed.

[4] "Created" means the project will install new impervious surface where there is currently no impervious surface.

* For definitions, see Glossary (Attachment 1).

4.2 Answer this question ONLY if you are completing this section for the entire project area. If existing impervious surface will be replaced by the project, does the area to be replaced equal 50% or more of the existing area of impervious surface? *(Refer to Table 1, Row "a". Is the area in Column 2 > 50% of Column 1?)*

☐ Yes, C.3. stormwater treatment requirements apply to areas of impervious surface that will remain in place as well as the area created and/or replaced. This is known as the 50% rule.

☐ No, C.3. requirements apply only to the impervious area created and/or replaced.

4.3 Enter the square footage of the **Potential Rainwater Capture Area***. If you are evaluating only the roof area of a building, or you answered "no" to Question 4.2, this amount is from Row "b" in Table 1. If you answered "yes" to Question 4.2, this amount is the sum of Rows "b" and "c" in Table 1.:

_____ square feet.

4.4 Convert the measurement of the **Potential Rainwater Capture Area*** from square feet to acres (divide the amount in Item 4.3 by 43,560):

_____ acres.

5. Feasibility Screening for Rainwater Harvesting and Use

5.1 Use of harvested rainwater for landscape irrigation:

Is the onsite landscaping LESS than 2.5 times the size of the **Potential Rainwater Capture Area*** (Item 4.3)? (Note that the landscape area(s) would have to be contiguous and within the same Drainage Management Area to use harvested rainwater for irrigation via gravity flow.)

☐ Yes (continue) ☐ No – Direct runoff from impervious areas to **self-retaining areas*** OR refer to Table 11 and the curves in Appendix F of the LID Feasibility Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for irrigation.

5.2 Use of harvested rainwater for toilet flushing or non-potable industrial use:

a. Residential Projects: Proposed number of dwelling units:_____
Calculate the dwelling units per impervious acre by dividing the number of dwelling units by the acres of the **Potential Rainwater Capture Area*** in Item 4.4. Enter the result here:

_____)

Is the number of dwelling units per impervious acre LESS than 100 (assuming 2.7 occupants/unit)?

☐ Yes (continue) ☐ No – complete the Harvest/Use Feasibility Worksheet.

b. Commercial/Industrial Projects: Proposed interior floor area:_____ (sq. ft.)

Calculate the proposed interior floor area (sq.ft.) per acre of impervious surface by *dividing the interior floor area (sq.ft.) by the acres of the **Potential Rainwater Capture Area*** in Item 4.4. Enter the result here:*

_____

Is the square footage of the interior floor space per impervious acre LESS than 70,000 sq. ft.?

☐ Yes (continue) ☐ No – complete the Harvest/Use Feasibility Worksheet

c. School Projects: Proposed interior floor area:_____ (sq. ft.)

Calculate the proposed interior floor area per acre of impervious surface by *dividing the interior floor area (sq.ft.) by the acres of the **Potential Rainwater Capture Area*** in Item 4.4 . Enter the result here:*

_____.

Is the square footage of the interior floor space per impervious acre LESS than 21,000 sq. ft.?

☐ Yes (continue) ☐ No – complete the Harvest/Use Feasibility Worksheet

* For definitions, see Glossary (Attachment 1).

d. Mixed Commercial and Residential Use Projects

- Evaluate the residential toilet flushing demand based on the dwelling units per impervious acre for the residential portion of the project, following the instructions in Item 5.2.a, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to residential use.
- Evaluate the commercial toilet flushing demand per impervious acre for the commercial portion of the project, following the instructions in Item 5.2.a, except you will use a prorated acreage of impervious surface, based on the percentage of the project dedicated to commercial use.

e. Industrial Projects: Estimated non-potable water demand (gal/day): _____

Is the non-potable demand LESS than 2,400 gal/day per acre of the Potential Rainwater Capture Area?

☐ Yes (continue) ☐ No – refer to the curves in Appendix F of the LID Feasibility Report to evaluate feasibility of harvesting and using the C.3.d amount of runoff for industrial use.

6. Use of Biotreatment

If only the "Yes" boxes were checked for all questions in Sections 2 and 5, or the project will have a recycled water system for non-potable use (Section 3), then the applicant may use appropriately designed bioretention facilities for compliance with C.3 treatment requirements. The applicant is encouraged to maximize infiltration of stormwater if site conditions allow.

7. Results of Screening Analysis

Based on this screening analysis, the following steps will be taken for the project (check all that apply):

☐ Implement biotreatment measures (such as an appropriately designed bioretention area).

☐ Conduct further analysis of infiltration feasibility by completing the Infiltration Feasibility Worksheet.

☐ Conduct further analysis of rainwater harvesting and use (check one):

☐ Complete the Rainwater Harvesting and Use Feasibility Worksheet for:

☐ The entire project

☐ Individual building(s), if applicable, describe:_____

☐ Evaluate the feasibility of harvesting and using the C.3.d amount of runoff for irrigation, based on Table 11 and the curves in Appendix F of the LID Feasibility Report

☐ Evaluate the feasibility of harvesting and using the C.3.d amount of runoff for non-potable industrial use, based on the curves in Appendix F of the LID Feasibility Report.

* For definitions, see Glossary (Attachment 1).

Infiltration Feasibility Worksheet

Municipal Regional Stormwater Permit (MRP)
Stormwater Controls for Development Projects

N/A

Complete this worksheet for **C.3 Regulated Projects*** *for which the soil hydraulic conductivity (Ksat) exceeds 1.6. Use this checklist to determine the feasibility of treating the* **C.3.d *amount of runoff**** *with infiltration. Where it is infeasible to treat the C.3.d amount of runoff* with infiltration or rainwater harvesting and use, stormwater may be treated with* **biotreatment*** *measures. See Glossary (Attachment 1) for definitions of terms marked with an asterisk (*).*

1. Enter Project Data.

1.1 Project Name: _____

1.2 Project Address: _____

1.3 Applicant/Agent Name: _____

1.4 Applicant/Agent Address: _____

1.5 Applicant/Agent Email: _____ Applicant / Agent Phone: _____

2. Evaluate infiltration feasibility.

Check "Yes" or "No" to indicate whether the following conditions apply to the project. If "Yes" is checked for any question, then infiltration is infeasible, and you can continue to Item 3.1 without answering any further questions in Section 2. If all of the answers in Section 2 are "No," then infiltration is feasible, and you may design ***infiltration facilities**** *for the area from which runoff must be treated. Items 2.1 through 2.3 address the feasibility of using* ***infiltration facilities****, as well as the potential need to line bioretention areas.*

		Yes	No
2.1	Would infiltration facilities at this site conflict with the location of existing or proposed underground utilities or easements, or would the siting of infiltration facilities at this site result in their placement on top of underground utilities, or otherwise oriented to underground utilities, such that they would discharge to the utility trench, restrict access, or cause stability concerns? (If yes, attach evidence documenting this condition.)	☐	☐
2.2	Is there a documented concern that there is a potential on the site for soil or groundwater pollutants to be mobilized? (If yes, attach documentation of mobilization concerns.)	☐	☐
2.3	Are geotechnical hazards present, such as steep slopes, areas with landslide potential, soils subject to liquefaction, or would an infiltration facility need to be built less than 10 feet from a building foundation or other improvements subject to undermining by saturated soils? (If yes, attach documentation of geotechnical hazard.)	☐	☐

Respond to Questions 2.4 through 2.8 only if the project proposes to use an **infiltration device*.**

2.4	Do local water district or other agency's policies or guidelines regarding the locations where infiltration may occur, the separation from seasonal high groundwater, or setbacks from potential sources of pollution prevent infiltration devices from being implemented at this site? (If yes, attach evidence documenting this condition.)	☐	☐
2.5	Would construction of an infiltration device require that it be located less than 100 feet away from a septic tank, underground storage tank with hazardous materials, or other potential underground source of pollution? (If yes, attach evidence documenting this claim.)	☐	☐

Infiltration Feasibility Worksheet

		Yes	No
2.6	Is there a seasonal high groundwater table or mounded groundwater that would be within 10 feet of the base of an infiltration device* constructed on the site? (If yes, attach documentation of high groundwater.)	☐	☐
2.7	Are there land uses that pose a high threat to water quality – including but not limited to industrial and light industrial activities, high vehicular traffic (i.e., 25,000 or greater average daily traffic on a main roadway or 15,000 or more average daily traffic on any intersecting roadway), automotive repair shops, car washes, fleet storage areas, or nurseries? (If yes, attach evidence documenting this claim.)	☐	☐
2.8	Is there a groundwater production well within 100 feet of the location where an infiltration device would be constructed? (If yes, attach map showing the well.)	☐	☐

3. Results of Feasibility Determination

		Infeasible	Feasible
3.1	Based on the results of the Section 2 feasibility analysis, infiltration is (check one):	☐	☐

→ If "FEASIBLE" is indicated for Item 3.1, then the amount of stormwater requiring treatment must be treated with infiltration (or rainwater harvest and use, if feasible). ***Infiltration facilities**** *may be designed for the area from which runoff must be treated.*

→ If "INFEASIBLE" is checked for item 3.1, then the applicant may use appropriately designed ***biotreatment facilities**** *for compliance with C.3 treatment requirements. The applicant is encouraged to maximize infiltration of stormwater if site conditions allow.*

Name of Applicant (Print)

Name of Applicant (Sign) Date

* See Glossary (Attachment 1) for definitions.

Rainwater Harvesting and Use Feasibility Worksheet

Municipal Regional Stormwater Permit (MRP)

Stormwater Controls for Development Projects

Complete this worksheet for all **C.3 Regulated Projects*** for which the project density exceeds the **screening density*** provided by municipal staff. Use this worksheet to determine the feasibility of treating the **C.3.d amount of runoff*** with rainwater harvesting and use for indoor, non-potable water uses. Where it is infeasible to treat the C.3d amount of runoff with either harvesting and use or infiltration, stormwater may be treated with **biotreatment*** measures. See Glossary (Attachment 1) for definitions of terms marked with an asterisk (*).

Complete this worksheet for the entire project area. If the project includes one or more buildings that each individually has a roof area of 10,000 square feet or more, complete a separate copy of this form for each of these buildings.

1. Enter Project Data.

1.1 Project Name: _____

1.2 Project Address: _____

1.3 Applicant/Agent Name: _____

1.4 Applicant/Agent Address: _____

(For projects with a potential non-potable water use other than toilet flushing, skip to Question 5.1)

1.5 Project Type: _____ If residential or mixed use, enter # of dwelling units: _____

1.6 Enter square footage of non-residential interior floor area.: _____

1.7 **Potential rainwater capture area*:** _____ sq.ft.

1.8 If it is a **Special Project***, indicate the percentage of **LID treatment*** reduction: _____ percent

(Item 1.8 applies only to entire project evaluations, not individual roof area evaluations.)

1.9 Total potential rainwater capture area that will require LID treatment: 0 sq.ft.

(This is the total rain capture area remaining after any Special Project LID treatment reduction is applied.)

2. Calculate Area of Self-Treating Areas, Self-Retaining Areas, and Areas Contributing to Self-Retaining Areas.

(For areas within the Potential Rain Capture Area only)

2.1 Enter square footage of any **self-treating areas*** in the area that is being evaluated: _____ sq.ft.

2.2 Enter square footage of any **self-retaining areas*** in the area that is being evaluated: _____ sq.ft.

2.3 Enter the square footage of areas contributing runoff to **self-retaining area***: _____ sq.ft.

2.4 TOTAL of Items 2.1, 2.2, and 2.3: - sq.ft.

3. Subtract credit for self-treating/self-retaining areas from area requiring treatment.

3.1 Subtract the TOTAL in Item 2.4 from the potential rainwater capture area in Item 1.9: - sq.ft.

3.2 Convert the remaining area required for treatment in Item 3.1 from square feet to acres: 0.00 acres

4. Determine feasibility of use for toilet flushing based on demand

4.1 Project's dwelling units per acre of adjusted potential rain capture area (Divide the number in 1.5 by the number in 3.2) _____ dwelling units/acre

4.2 Non-residential interior floor area per acre of adjusted potential rain capture area (Divide the number in 1.6 by the number in 3.2) _____ Int. non-res. floor area/acre

Note: formulas in Items 4.1 and 4.2 are set up, respectively, for a residential or a non-residential project. Do not use these pre-set formulas for mixed use projects. ***For mixed use projects****, evaluate the residential toilet flushing demand based on the dwelling units per acre for the residential portion of the project (use a prorated acreage, based on the percentage of the project dedicated to residential use). Then evaluate the commercial toilet flushing demand per acre for the commercial portion of the project (use a prorated acreage, based on the percentage of the project dedicated to commercial use).*

Rainwater Harvesting and Use Feasibility Worksheet

4.3 Refer to the applicable countywide table in Attachment 2. Identify the number of dwelling units per impervious acre needed in your Rain Gauge Area to provide the toilet flushing demand required for rainwater harvest feasibility. _____ dwelling units/acre

4.4 Refer to the applicable countywide table in Attachment 2. Identify the square feet of non-residential interior floor area per impervious acre needed in your Rain Gauge Area to provide the toilet flushing demand required for rainwater harvest feasibility. _____ int. non-res. floor area/acre

Check "Yes" or "No" to indicate whether the following conditions apply. If "Yes" is checked for any question, then rainwater harvesting and use is infeasible. As soon as you answer "Yes", you can skip to Item 6.1. If "No" is checked for all items, then rainwater harvesting and use is feasible and you must harvest and use the C.3.d amount of stormwater, unless you infiltrate the C.3.d amount of stormwater.*

4.5 Is the project's number of dwelling units per acre of adjusted area requiring treatment (listed in Item 4.1) LESS than the number identified in Item 4.3? ☐ Yes ☐ No

4.6 Is the project's square footage of non-residential interior floor area per acre of adjusted area requiring treatment (listed in Item 4.2) LESS than the number identified in Item 4.4? ☐ Yes ☐ No

5. Determine feasibility of rainwater harvesting and use based on factors other than demand.

5.1 Does the requirement for rainwater harvesting and use at the project conflict with local, state, or federal ordinances or building codes? ☐ Yes ☐ No

5.2 Would the technical requirements cause the harvesting system to exceed 2% of the Total Project Cost, or has the applicant documented economic hardship in relation to maintenance costs? (If so, attach an explanation.) ☐ Yes ☐ No

5.3 Do constraints, such as a slope above 10% or lack of available space at the site, make it infeasible to locate on the site a cistern of adequate size to harvest and use the C.3.d amount of water? (If so, attach an explanation.) ☐ Yes ☐ No

5.4 Are there geotechnical/stability concerns related to the surface (roof or ground) where a cistern would be located that make the use of rainwater harvesting infeasible? (If so, attach an explanation.) ☐ Yes ☐ No

5.5 Does the location of utilities, a septic system and/or **heritage trees*** limit the placement of a cistern on the site to the extent that rainwater harvesting is infeasible? (If so, attach an explanation.) ☐ Yes ☐ No

Note 1: It is assumed that projects with significant amounts of landscaping will either treat runoff with landscape dispersal (self-treating and self-retaining areas) or will evaluate the feasibility of havesting and using rainwater for irrigation using the curves in Appendix F of the LID Feasibility Report.

6. Results of Feasibility Determination

6.1 Based on the results of the feasibility analysis in Item 4.4 and Section 5, rainwater harvesting/use is (check one): Infeasible ☐ Feasible ☐

→ If "FEASIBLE" is indicated for Item 6.1 the amount of stormwater requiring treatment must be treated with harvesting/use, unless it is infiltrated into the soil.

→ If "INFEASIBLE" is checked for Item 6.1, then the applicant may use appropriately designed ***bioretention*** **,1 facilities for compliance with C.3 treatment requirements. If Ksat > 1.6 in./hr., and infiltration is unimpeded by subsurface conditions, then the bioretention facilities are predicted to infiltrate 80% or more average annual runoff. If Ksat < 1.6, maximize infiltration of stormwater by using bioretention if site conditions allow, and remaining runoff will be discharged to storm drains via facility underdrains. If site conditions preclude infiltration, a lined bioretention area or flow-through planter may be used.*

_____
Applicant (Print)

_____ _____
Applicant (Sign) Date

* See definitions in Glossary (Attachment 1)

Special Projects Worksheet

Project Name:

Project Address:

Applicant/Developer Name:

1. "Special Project" Determination:

Special Project Category "A"

Does the project have ALL of the following characteristics?

- ☐ Located in a municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian-oriented commercial district, or historic preservation site and/or district[1];
- ☐ Creates and/or replaces 0.5 acres or less of impervious surface;
- ☐ Includes no surface parking, except for incidental parking for emergency vehicle access, ADA access, and passenger or freight loading zones;
- ☐ Has at least 85% coverage of the entire site by permanent structures. The remaining 15% portion of the site may be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping and stormwater treatment.

☐ No (continue) ☐ Yes – complete Section 2 of the Special Project Worksheet

Special Project Category "B"

Does the project have ALL of the following characteristics?

- ☐ Located in a municipality's designated central business district, downtown core area or downtown core zoning district, neighborhood business district or comparable pedestrian-oriented commercial district, or historic preservation site and/or district[1];
- ☐ Creates and/or replaces an area of impervious surface that is greater than 0.5 acres, and no more than 2.0 acres;
- ☐ Includes no surface parking, except for incidental parking for emergency access, ADA access, and passenger or freight loading zones;
- ☐ Has at least 85% coverage of the entire site by permanent structures. The remaining 15% portion of the site may be used for safety access, parking structure entrances, trash and recycling service, utility access, pedestrian connections, public uses, landscaping and stormwater treatment;
- ☐ Minimum density of either 50 dwelling units per acre (for residential projects) or a Floor Area Ratio (FAR) of 2:1 (for commercial or mixed use projects)

☐ No (continue) ☐ Yes – complete Section 2 of the Special Project Worksheet

Special Project Category "C"

Does the project have ALL of the following characteristics?

- ☐ At least 50% of the project area is within 1/2 mile of an existing or planned transit hub[2] or 100% within a planned Priority Development Area[3];
- ☐ The project is characterized as a non-auto-related use[4]; and
- ☐ Minimum density of either 25 dwelling units per acre (for residential projects) or a Floor Area Ratio (FAR) of 2:1 (for commercial or mixed use projects)

☐ No ☐ Yes – complete Section 2 of the Special Project Worksheet

---

[1] And built as part of a municipality's stated objective to preserve/enhance a pedestrian-oriented type of urban design.

[2] "Transit hub" is defined as a rail, light rail, or commuter rail station, ferry terminal, or bus transfer station served by three or more bus routes. (A bus stop with no supporting services does not qualify.)

[3] A "planned Priority Development Area" is an infill development area formally designated by the Association of Bay Area Government's / Metropolitan Transportation Commission's FOCUS regional planning program.

[4] Category C specifically excludes stand-alone surface parking lots; car dealerships; auto and truck rental facilities with onsite surface storage; fast-food restaurants, banks or pharmacies with drive-through lanes; gas stations; car washes; auto repair and service facilities; or other auto-related project unrelated to the concept of transit oriented development.

2. LID Treatment Reduction Credit Calculation:

Category	Impervious Area Created/Replaced (acres)	Site Coverage (%)	Project Density or FAR	Density/Criteria	Allowable Credit (%)	Applied Credit (%)
A			N.A.	N.A.	100%	
B				Res ≥ 50 DU/ac or FAR ≥ 2:1	50%	
				Res ≥ 75 DU/ac or FAR ≥ 3:1	75%	
				Res ≥ 100 DU/ac or FAR ≥ 4:1	100%	
C				**Location credit (select one)[5]:**		
				Within ¼ mile of transit hub	50%	
				Within ½ mile of transit hub	25%	
				Within a planned PDA	25%	
				Density credit (select one):		
				Res ≥ 30 DU/ac or FAR ≥ 2:1	10%	
				Res ≥ 60 DU/ac or FAR ≥ 4:1	20%	
				Res ≥ 100 DU/ac or FAR ≥ 6:1	30%	
				Parking credit (select one):		
				≥ 10% at-grade surface parking[6]	10%	
				No surface parking	20%	
				TOTAL TOD CREDIT =		

[5] To qualify for the location credit, at least 50% of the project's site must be located within the ¼ mile or ½ mile radius of an existing or planned transit hub, as defined on page 1, footnote 2. A planned transit hub is a station on the MTC's Regional Transit Expansion Program list, per MTC's Resolution 3434 (revised April 2006), which is a regional priority funding plan for future transit stations in the San Francisco Bay Area. To qualify for the PDA location credit, 100% of the project site must be located within a PDA, as defined on page 1, footnote 3.

[6] The at-grade surface parking must be treated with LID treatment measures.

"McClellan Site" Treatment Control Measure Sizing

DMA	DMA Area Trib. to Bio-Retention (sf)	DMA Impervious Area 'IA'	Onsite Driveway Paved with Pervious Pavers (sf)	Yard Landscape & Bio-Retention (sf)	Bio-Retention Mitigation		Above Surface Ponding depth (in)	Total Vol Proposed (cf)	Native Soil Ksat (in/hr)	total ponding depth (in)	Infiltration duration (hours)
		Roof & private Hardscape (sf)			Surface Area Required (4% of **'IA'** Rule)	Surface Area Proposed					
1	7,769	4,440	530	3,611	178	180	9	378	3.00	51	17.0
2	6,735	4,105	560	2,870	164	165	9	347	3.00	51	17.0
3	6,720	4,105	560	2,867	164	165	9	347	3.00	51	17.0
4	6,739	4,105	647	2,774	164	165	9	347	3.00	51	17.0
5	7,467	4,376	718	3,197	175	175	9	368	3.00	51	17.0
6	8,730	4,770	985	4,038	191	192	9	403	3.00	51	17.0

Above Ground Vol = Surface Area*Ponding Depth (9"); Below ground Vol=Surface Area*[Soil Media Depth*0.25+Drain Rock Depth*0.40];
Subgrade Vol= Surface Area*Ksat*1/12

TENTATIVE MAP

Being a Portion of the 10.56 acre tract of land in the Northwest one-quarter of Section 24, Township 7 South, Range 2, Mount Diablo Base & Meridian City of Cupertino, California

Basis of Bearings:
Basis of bearings is along the centerline of McClellan Road as N89°56'35"E as shown on that certain Record of Survey Map filed for record in Book 173 of Maps at Page 54.

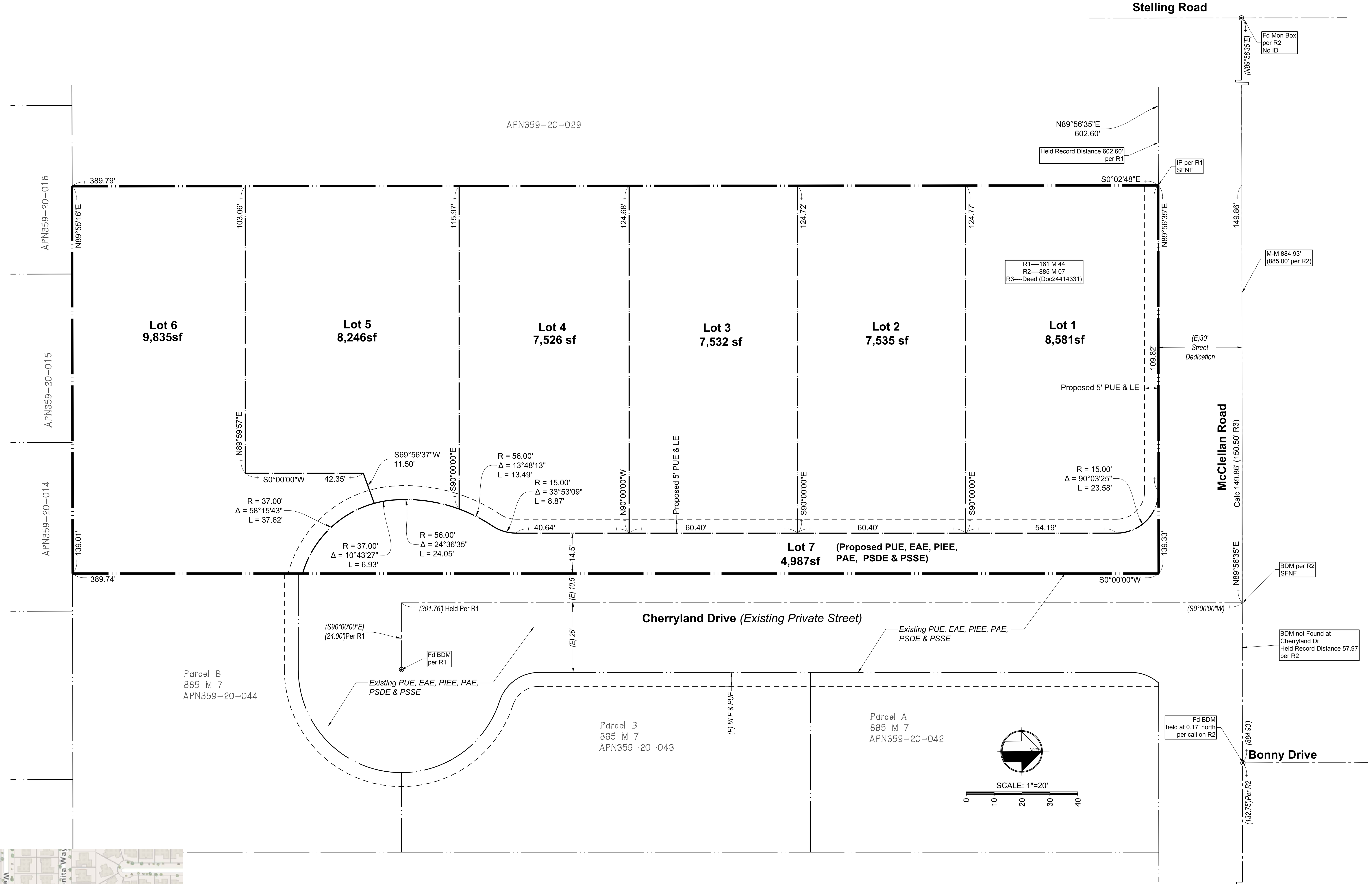
NOTES:

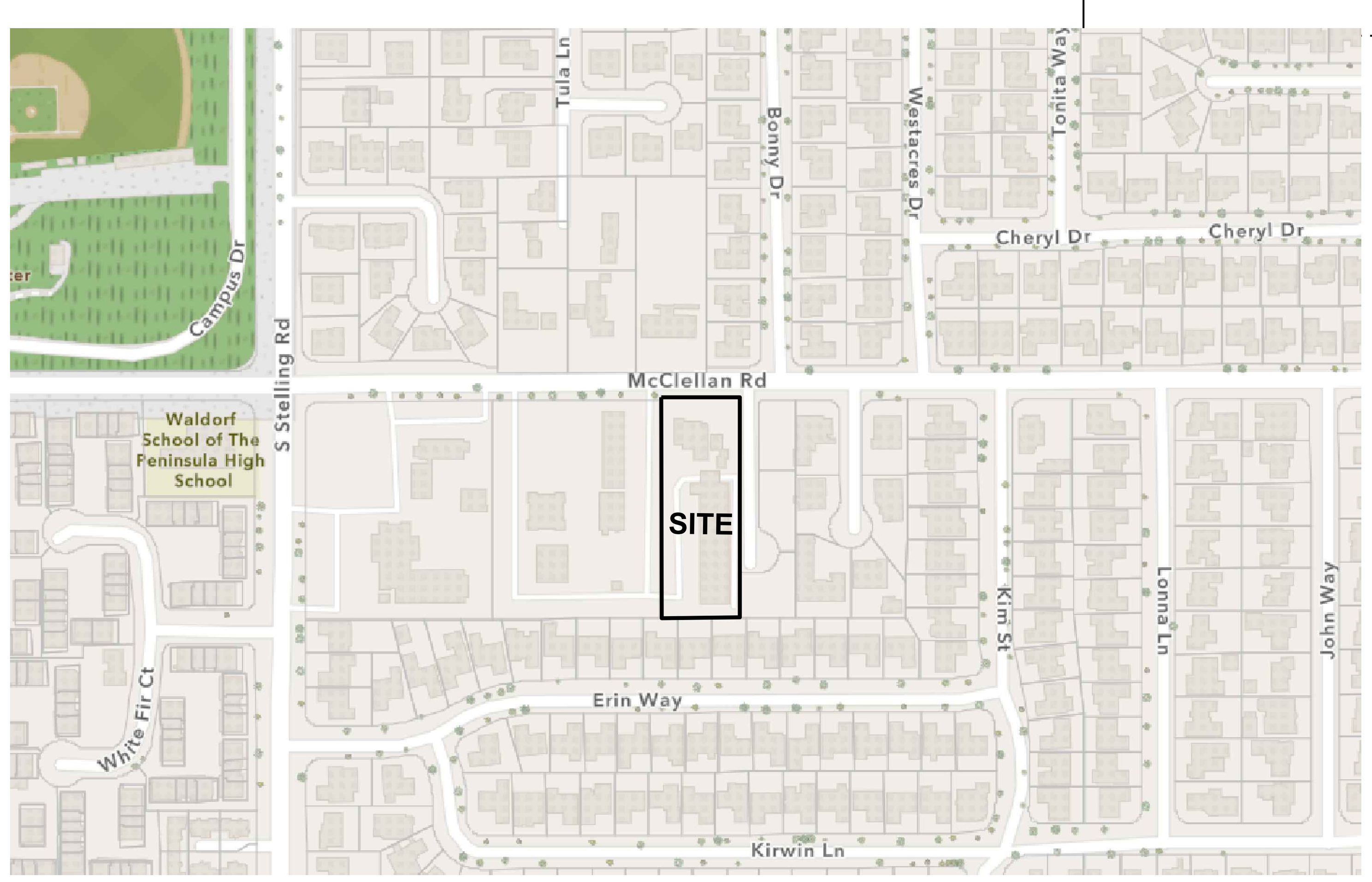
Street Address:	20860 McClellan Road Cupertino, CA 95014
Owner:	Robert M. Carlotto, Trustee
Subdivider:	Alok Ventures, LLC
Assessor's Parcel No:	725-01-018
Existing Use:	Single Family Residential
Proposed Use:	Single Family Residential
Present Zoning:	R1-10 Zoning District
Proposed Zoning:	R1-7.5 Zoining District
Sewage Disposal:	Cupertino Sanitary District
Storm Drainage:	City of Cupertino
Source of Water:	San Jose Water Co.
Existing Improvements:	As Shown
Gross Parcel Area:	54,244sf (1.245ac)
Public Street Dedication:	None
Private Street Area:	4,987sf
Net Area:	49,257sf

LEGEND

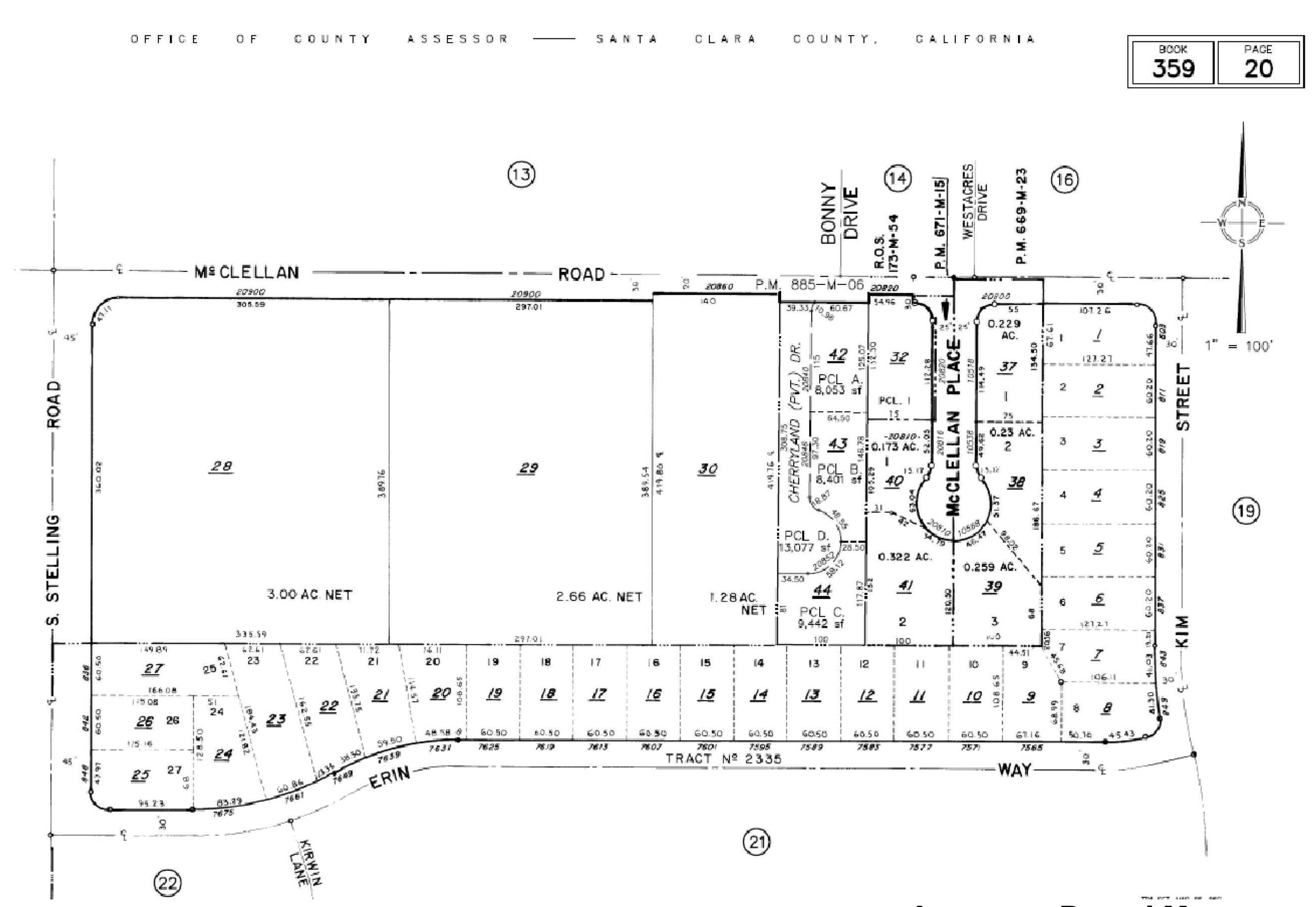
EAE	EMERGENCY ACCESS EASEMENT
PAE	PUBLIC ACCESS EASEMENT
PUE	PRIVATE UTILITY EASEMENT
PIEE	PRIVATE INGRESS & EGRESS EASEMENT
PSDE	PRIVATE STORM DRAINAGE EASEMENT
PSSE	PRIVATE SANITARY SEWER EASEMENT
PUE	PRIVATE UTILITY EASEMENT
PIEE	PRIVATE INGRESS & EGRESS EASEMENT
LE	LANDSCAPING EASEMENT

Exterior Parcel Boundary
New Lot Line
Street Centerline
Easement Line





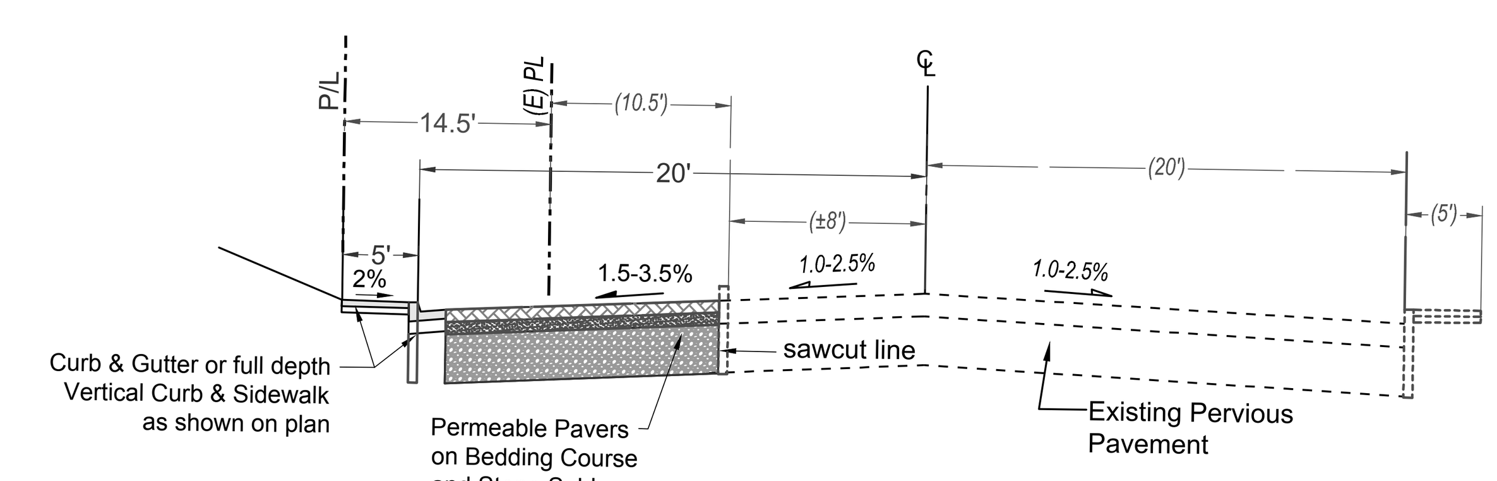
Vicinity Map



Assessor Parcel Map

Sheet Index:

1. Tentative Map
2. Site Topographic Map & Demo Plan
3. Preliminary Grading & Drainage Plan
4. Preliminary Storm Water Management Plan
5. Preliminary Utility Plan



Street Section-Cherryland Drive Widening
Looking North — Not to Scale

LICENSED LAND SURVEYOR HARINDER SINGLA No. 8347 STATE OF CALIFORNIA

MH engineering Co.
16075 Vineyard Boulevard
Morgan Hill, CA 95037

Tentative Map
20860 McClellan Road

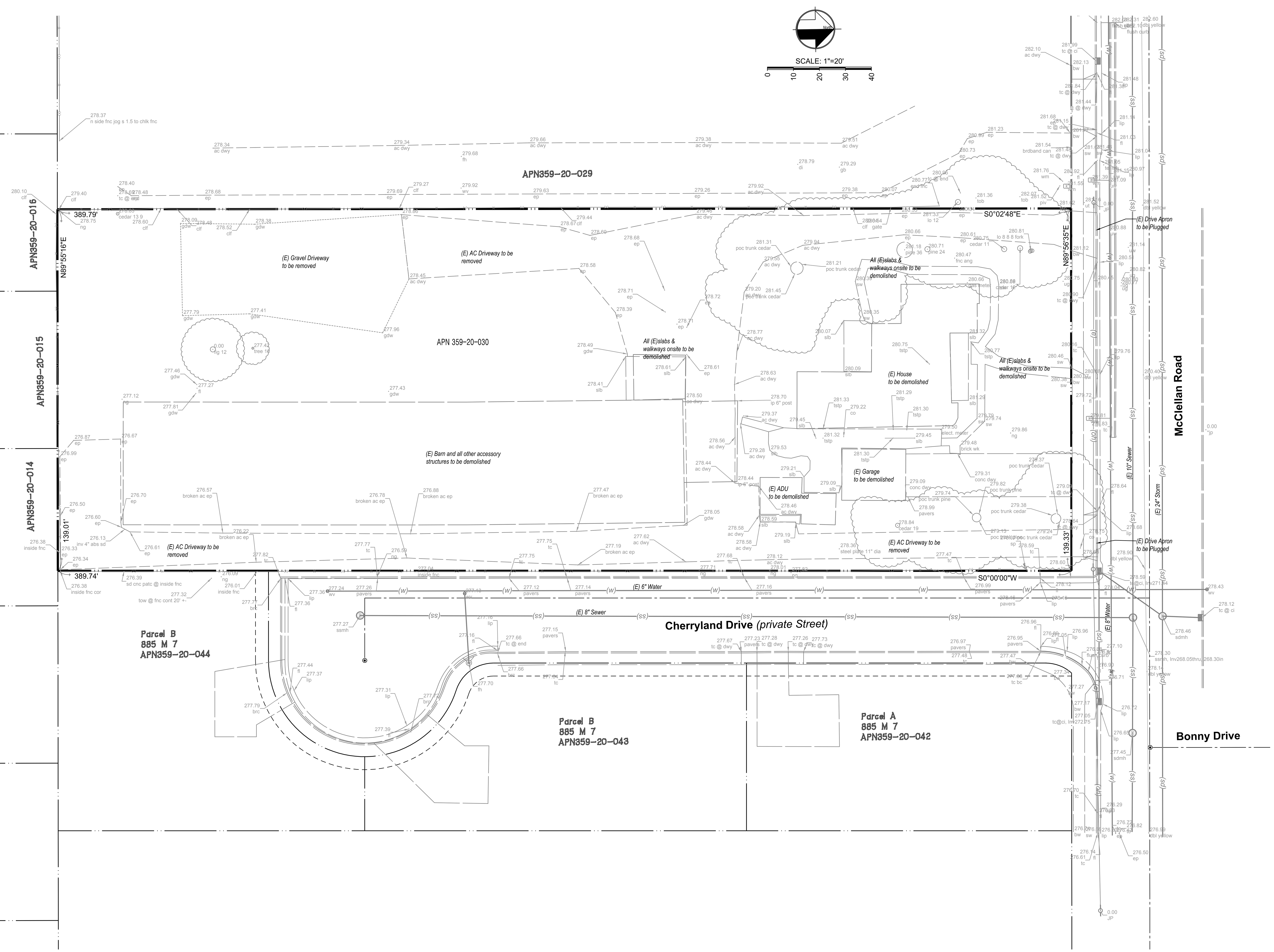
DATE: July 2021
SCALE: 1"=20'
DRAWN BY: MF
CHECKED BY: HS
JOB NO. 221047
SHEET C1 OF 5

ABBREVIATIONS:

AC	ASPHALT CONCRETE	GV	GATE VALVE
BC	BEGINNING OF CURVE	HP	HIGH POINT
BFE	BASE FLOOD ELEVATION	INV.	INVERT
BLDG	BUILDING	JP	JOINT POLE
BVC	BEG. VERTICAL CURVE	LP	LOW POINT
BW	BACK OF SIDEWALK	MAX.	MAXIMUM
CB	CATCH BASIN	MIN.	MINIMUM
CI	CURB INLET	NG	NATURAL GROUND
℄	CENTERLINE	PB	PULL BOX
CL D/W	CENTERLINE OF DRIVEWAY	⅊	PROPERTY LINE
CMP	CORRUGATED METAL PIPE	P.S.E.	PUBLIC SERVICE EASEMENT
CO	CLEAN OUT	P.S.D.E.	PRIVATE STORM DRAIN EASEMENT
DI	DROP INLET	PVI	POINT OF VERTICAL INTERSECTION
D.I.P.	DUCTILE IRON PIPE	RCP	REINFORCED CONCRETE PIPE
DWY	DRIVEWAY	R/W	RIGHT OF WAY
EC	END OF CURVE	SDMH	STORM DRAIN MANHOLE
EG	EXISTING GRADE	SSMH	SANITARY SEWER MANHOLE
ELCT	ELECTROLIER	STD.	STANDARD
EP	EDGE OF PAVEMENT	SW	SIDEWALK
ER	END OF RETURN	TBM	TEMPORARY BENCH MARK
EVC	END VERTICAL CURVE	TC	TOP OF CURB
(E) EX	EXISTING	TYP.	TYPICAL
FF	FINISH FLOOR	WM	WATER METER
FG	FINISH GRADE	WV	WATER VALVE
FH	FIRE HYDRANT		
FL	FLOW LINE		
GB	GRADE BREAK		

LEGEND

PROPOSED	EXISTING	DESCRIPTION (City Std Detail#)
		PROPERTY LINE
		CENTER LINE
		CURB AND GUTTER
		DRIVEWAY APPROACH (A-8 & 9)
		HANDICAP RAMP (A-1 & A-5)
SD	(SD)	STORM DRAIN
SS	(SS)	SANITARY SEWER
W	(W)	WATER MAIN
	(G)	GAS
E	(E)	ELECTRIC
	(T)	TELEPHONE
		FENCE, TYPE AS SHOWN
		STREET BARRICADE (A-32)
		BENCH MARK
		MONUMENT, TYPE AS SHOWN (A-31)
2		REVISION
D 15		SECTION - DETAIL SHEET NO.
		SWALE
2.2%	(2.1%)	SLOPE
		STORM DRAIN MANHOLE (SD-1)
		CURB INLET (SD-5)
		DROP INLET (SD-4)
		STORM JUNCTION BOX



LICENSED LAND SURVEYOR
HARINDER SINGLA
No. 8347
STATE OF CALIFORNIA

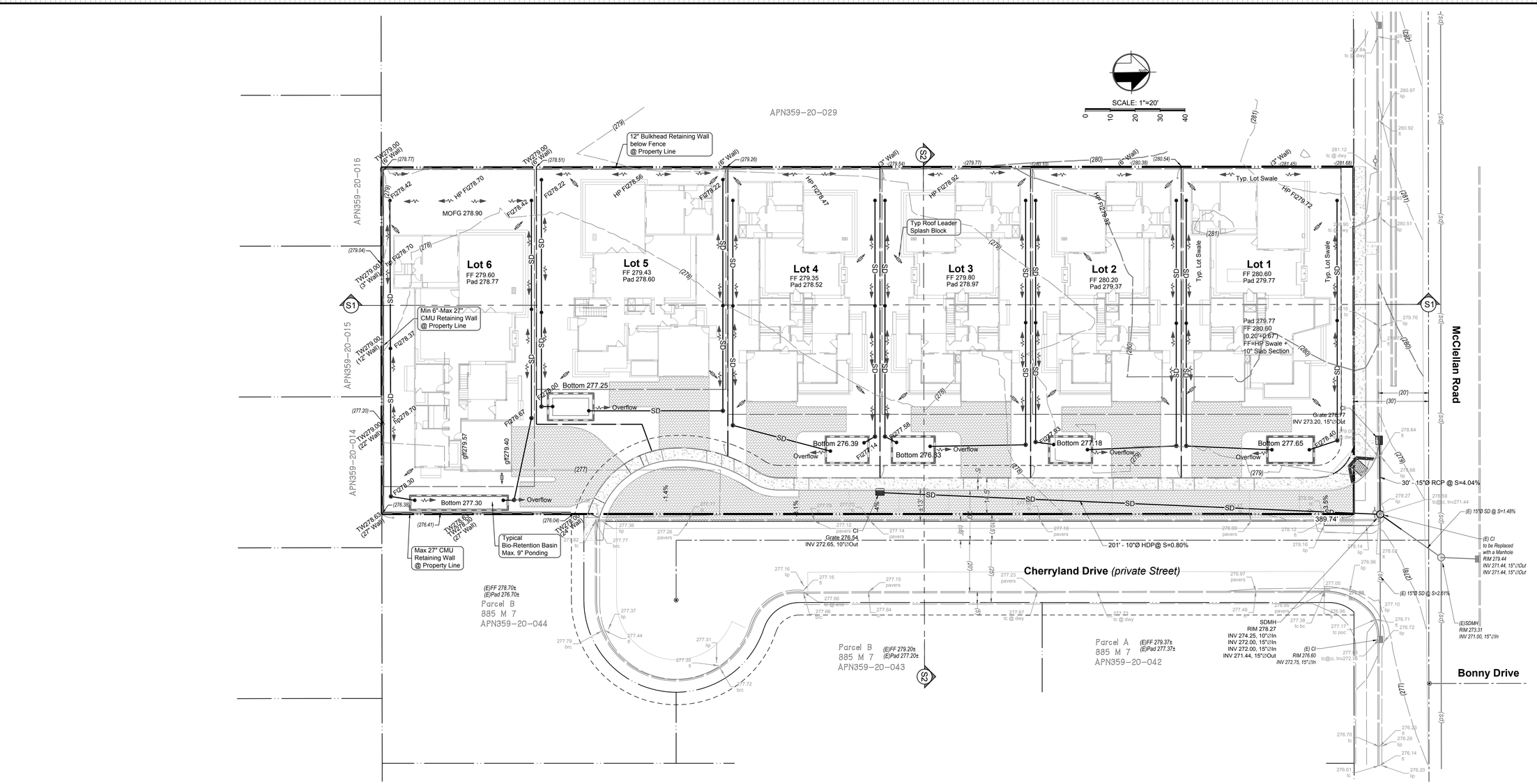
MH engineering Co.
16075 Vineyard Boulevard Morgan Hill, CA 95037

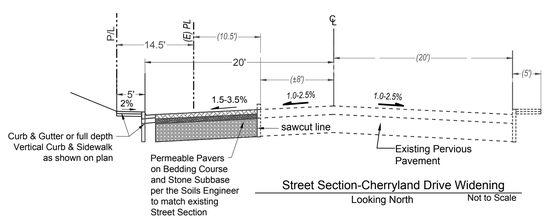
Site Topographic Map & Demo Plan
20860 McClellan Road

DATE:	May 2021
SCALE:	1"=20'
DRAWN BY:	MF
CHECKED BY:	HS

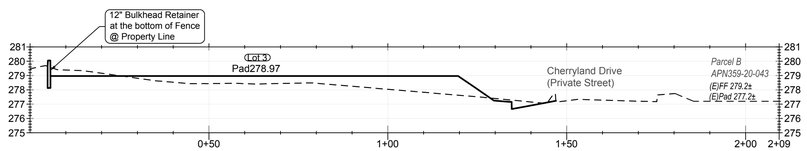
JOB NO. 221047

SHEET C2 OF 5

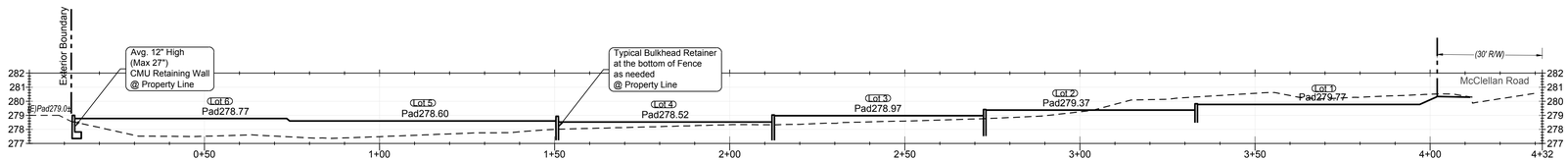




Street Section-Cherryland Drive Widening
Looking North — Not to Scale



PROFILE: Grading Section S2
SCALE H: 1"=20' SCALE V: 1"=5'



PROFILE: Grading Section S1
SCALE H: 1"=20' SCALE V: 1"=5'

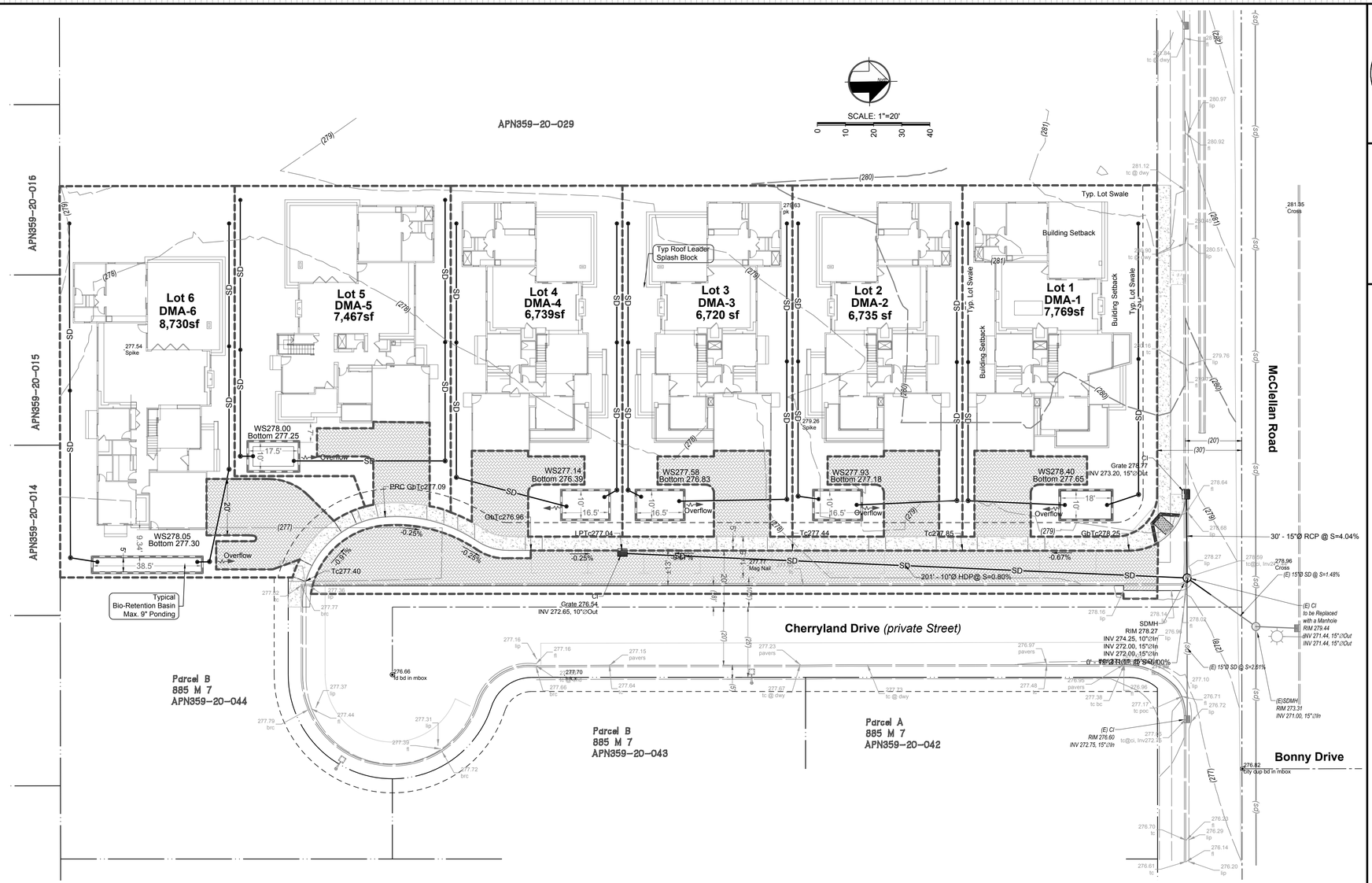
REGISTERED PROFESSIONAL ENGINEER
HARRINDER S. NOLL
C49717
STATE OF CALIFORNIA

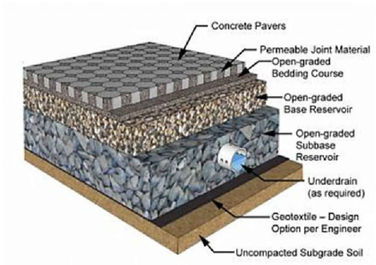
MH engineering Co.
16075 Vineyard Boulevard
Morgan Hill, CA 95037

Preliminary Grading & Drainage Plan

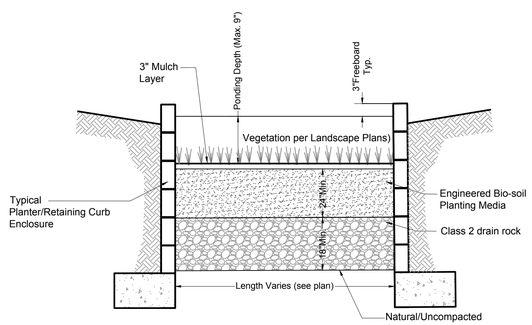
20860 McClellan Road

DATE:	Aug 2021
SCALE:	1"=20'
DRAWN BY:	MF
CHECKED BY:	HS
JOB NO.	221047
SHEET	C3
OF	5

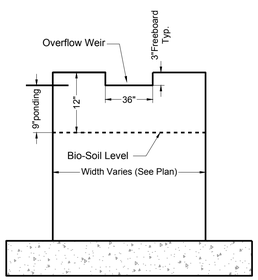




C.3 Compliant Permeable Pavement Section
Scale: None



Typical Bio-Retention Basin Detail
Scale: None



Typical Downstream Elevation
Scale: None

"McClellan Site" Treatment Control Measure Sizing

DMA	DMA Area Trib. to Bio-Retention (sf)	DMA Impervious Area "IA" Roof & private Hardscape (sf)	Onsite Driveway Paved with Pervious Pavers (sf)	Yard Landscape & Bio-Retention (sf)	Bio-Retention Mitigation: Surface Area Required (4% of "IA" Rule)	Bio-Retention Mitigation: Surface Area Proposed	Above Surface Ponding depth (in)	Total Vol Propose d (cf)	Native Soil Ksat (in/hr)	total ponding depth (in)	Infiltration duration (hours)
1	7,769	4,440	530	3,611	178	180	9	378	3.00	51	17.0
2	6,735	4,105	560	2,870	164	165	9	347	3.00	51	17.0
3	6,720	4,105	560	2,887	164	165	9	347	3.00	51	17.0
4	6,739	4,105	647	2,774	164	165	9	347	3.00	51	17.0
5	7,467	4,376	718	3,197	175	175	9	368	3.00	51	17.0
6	8,730	4,770	985	4,038	191	192	9	403	3.00	51	17.0

Above Ground Vol = Surface Area*Ponding Depth (9"); Below ground Vol=Surface Area*[Soil Media Depth*0.25+Drain Rock Depth*0.40]; Subgrade Vol= Surface Area*Ksat* t/12

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Prelim StormWater Management Plan

20860 McClellan Road

DATE: Aug 2021
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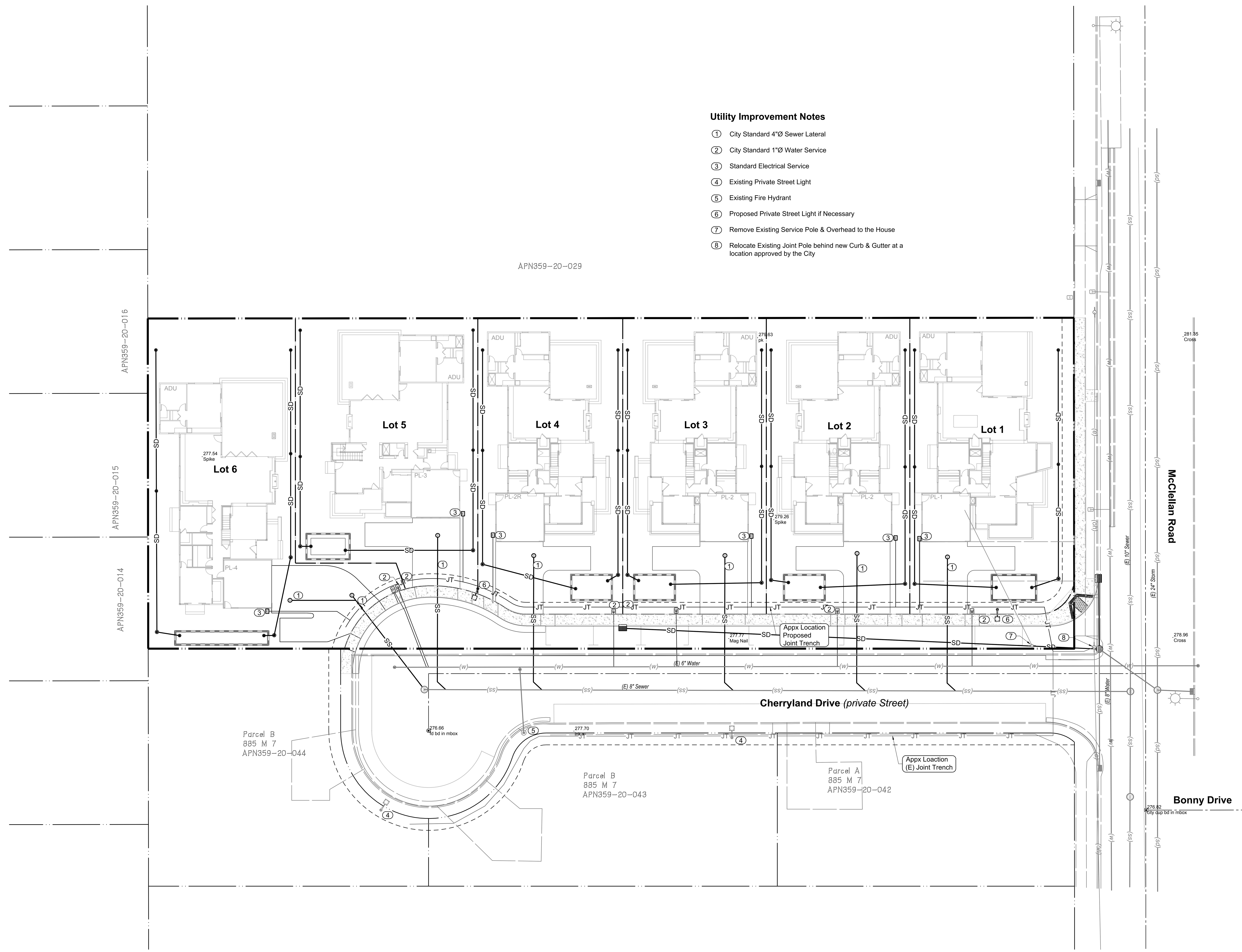
DRAWN BY: MF
CHECKED BY: HS

JOB NO. 221047

SHEET C4
OF 5

Utility Improvement Notes

1. City Standard 4"Ø Sewer Lateral
2. City Standard 1"Ø Water Service
3. Standard Electrical Service
4. Existing Private Street Light
5. Existing Fire Hydrant
6. Proposed Private Street Light if Necessary
7. Remove Existing Service Pole & Overhead to the House
8. Relocate Existing Joint Pole behind new Curb & Gutter at a location approved by the City



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SHEET C5 OF 5