McClure Machine Shop

Prepared for:

City of Beaumont
Carole Kendrick, Planning Manager
550 East 6th Street Beaumont, California 92223

Prepared by:

Lilburn Corporation
1905 Business Center Drive
San Bernardino, CA 92408
(909) 890-1818

June 2021

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SECTION 1.0 INTRODUCTION

Independently reviewed, analyzed and exercised judgment in making the determination, by the Development Review Committee on March 18, 2021, pursuant to Section 21082 of the California Environmental Quality Act (CEQA).

CEQA requires the preparation of an Initial Study when a Project must obtain discretionary approval from a governmental agency and is not exempt from CEQA. The purpose of the Initial Study is to determine whether or not a Project, not except from CEQA, qualifies for a Negative Declaration (ND) or whether or not an Environmental Impact Report (EIR) must be prepared.

Section 1.0 of this Initial Study (IS) describes the purpose, environmental authorization, the intended uses of the IS, documents incorporated by reference, and the processes and procedures governing the preparation of the environmental document. Pursuant to Section 15367 of the State of California *Guidelines for Implementation of the California Environmental Quality Act* (CEQA Guidelines), the City of Beaumont (City) is the Lead Agency under the California Environmental Quality Act (CEQA). The City has primary responsibility for compliance with CEQA and consideration of the proposed project.

1. Project Title: McClure Machine Shop

2. Lead Agency Name: City of Beaumont
Planning Division 550 E. 6th Street Beaumont, CA 92223

3. Contact Person: Carole Kendrick, Planning Manager
Phone Number: 951-769-8518

4. Project Location: North side of First Street between Veile Avenue and Grace Avenue

5. Geographic Coordinates of Project Site: 33°55'50.49" N, 116°56'51.13" W

6: USGS Topographic Map: Beaumont 7.5-minute USGS Topographic Quadrangle

7: Public Land Survey System: Township 3 South, Range 1 West, Section 11

8. Thomas Guide Location: Page 721, Grid H4, San Bernardino & Riverside Counties (2013)

9. Assessor Parcel Number: 417-150-015

10. General Plan Designation: Industrial

11. Zoning: Manufacturing

12. Description of Project: John and Larissa McClure ("Applicant") have submitted an application for a Plot Plan Review to the City of Beaumont to construct and operate a light industrial building. The Proposed Project is an approximately 16,823 square-foot, 28-foot high building with three suites to be constructed on a 1.02-acre vacant property on the north side of

First Street between Veile Avenue and Grace Avenue, City of Beaumont, Riverside County. The building would be a constructed as concrete tilt-up, slab on grade and referred to as the McClure Industrial Center ("Proposed Project").

Hi-Tech Machining, Inc. owned by the Applicant will occupy an approximate 9,515 square-foot suite in the building. The business has been in operation for 16 years and currently operates from a rented facility in the City of Calimesa. The company machines new parts from metal and plastic on Computer Numerical Control machines. The proposed hours of operations are 5 am – 8 pm, Monday through Friday. There would be seven employees working two shifts. Another suite of approximately 3,093 square-feet would be occupied by two Hi-Tech Machining sales staff. It is anticipated that the remaining suite of approximately 3,015 square-feet will be occupied by an electrical shop with two employees.

The site is designated as Industrial in the Elevate Beaumont General Plan Update, December, 2020 and the Zoning is Manufacturing. The Proposed Project is an allowable use within these designations and will require City review and approval of a Plot Plan.

13. Surrounding Land Uses and Setting: The Project Site is surrounded primarily by vacant and residential uses. In the vicinity are rural residential, agricultural, commercial, and light industrial uses.

Location	Existing Use	Land Use Designation	Zoning
Site	Vacant	Industrial	Manufacturing
North	Vacant	Industrial	Manufacturing
South	Single-family residence	Traditional Neighborhood	Resident Traditional Neighborhood
East	Vacant	Industrial	Manufacturing
West	Vacant	Industrial	Manufacturing

14. Other agencies whose approval is required (e.g., permits, finance approval, or participation agreement):

None.

15. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun?

The City of Beaumont initiated the AB 52 consultation process on March 26, 2021.

1.1 EVALUATION FORMAT

This Initial Study is prepared in compliance with the California Environmental Quality Act (CEQA) Guidelines. This format of the study is presented as follows. The project is evaluated based upon its effect on twenty (20) major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the project on each element of the overall factor. The Initial Study Checklist provides a formatted analysis that provides a determination of the effect of the project on the factor and its elements. The effect of the project is categorized into one of the following four categories of possible determinations:

Potentially Significant Impact	Less than Significant with Mitigation	Less than Significant	No Impact

Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

1. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.
2. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.
3. Possible significant adverse impacts have been identified or anticipated and the following mitigation measures are required as a condition of project approval to reduce these impacts to a level below significant. The required mitigation measures are: (List mitigation measures)
4. Significant adverse impacts have been identified or anticipated. An Environmental Impact Report (EIR) is required to evaluate these impacts, which are: (List the impacts requiring analysis withinthe EIR).

At the end of the analysis the required mitigation measures are restated and categorized as being either self- monitoring or as requiring a Mitigation Monitoring and Reporting Program.

1.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would potentially be affected by this project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklists on the following pages. For each of the potentially affected factors, mitigation measures are recommended that would reduce the impacts to less than significant levels.

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

1.3 ENVIRONMENTAL DETERMINATION

On the basis of this Initial Study, the City of Beaumont Environmental Review Committee finds:

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

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

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

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

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

Carole Kendrick
Signature

Carole Kendrick
Name

6/10/2021
Date

Planning Manager
Title

1.4 EVALUATION OF ENVIRONMENTAL IMPACTS

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

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

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

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

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

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

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

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

8. The explanation of each issue should identify:

    a. the significance criteria or threshold, if any, used to evaluate each question; and themitigation measure identified, if any, to reduce the impact to less than significant.
    *Note: Instructions may be omitted from final document.

SECTION 2.0 – PROJECT DESCRIPTION

2.1 PURPOSE OF THIS DOCUMENT

The City formally initiated the environmental process for the project with the preparation of this Initial Study (IS). The IS screens out those impacts that would be less than significant and do not warrant mitigation, while identifying those issues that require further mitigation to reduce impacts to a less than significant level. As identified in the following analyses, project impacts related to various environmental issues either do not occur, are less than significant (when measured against established significance thresholds) or have been rendered less than significant through implementation of mitigation measures. Based on these analytical conclusions, this IS supports adoption of a Mitigated Negative Declaration (MND) for the proposed project. This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA) and the State CEQA Guidelines.

CEQA permits the incorporation by reference of all or portions of other documents that are generally available to the public. The IS has been prepared utilizing information from City planning and environmental documents, technical studies specifically prepared for the project, and other publicly available data. The documents utilized in the IS are identified in Section 3.0 and are hereby incorporated by reference. These documents are available for review at the City of Beaumont, Community Development Department.

Pursuant to Section 15367 of the State CEQA Guidelines, the City of Beaumont is the Lead Agency in the preparation of this Initial Study. The City has primary responsibility for approval or denial of this project. The intended use of this Initial Study is to provide adequate environmental analysis related to project construction and operation activities of the Proposed Project.

2.2 PROJECT LOCATION

The Project Site is located in the City of Beaumont, County of Riverside (see Figure 1 – Regional Location). The Project Site is described as APN 417-150-015 and has a current General Plan land use designation of Industrial and zoning of Manufacturing. The allowable uses are described as a range of industrial uses including “stand alone” industrial activities, general and light industrial, research parks, private trade schools, colleges, and business parks. The proposed developmentis therefore an allowable use within the current designations.

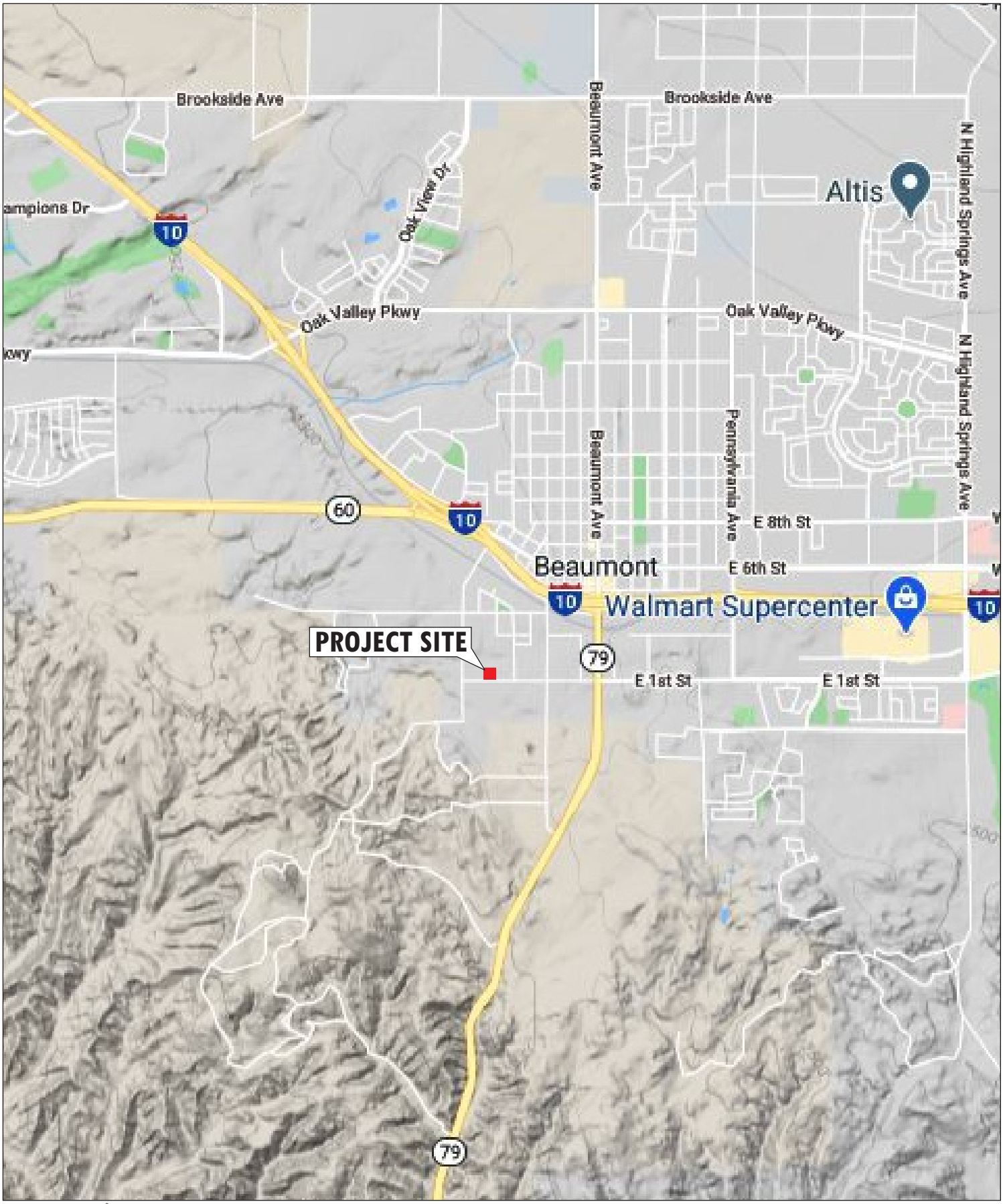
2.3 PROJECT DESCRIPTION

John and Larissa McClure (“Applicant”) have submitted an application for a Plot Plan Review to the City of Beaumont to construct and operate a light industrial building. The Proposed Project is an approximately 16,823 square-foot, 28-foot high building with three suites to be constructed on a 1.02-acre vacant property on the north side of First Street between Veile Avenue and Grace Avenue in the City (see Figure 2 – Vicinity Map and Figure 3 – Site Plan). The building would be a constructed as concrete tilt-up, slab on grade and referred to as the McClure Industrial Center (“Proposed Project”).

Hi-Tech Machining, Inc. owned by the Applicant will occupy an approximate 9,515 square-foot suite in the building. The business has been in operation for 16 years and currently operates from a rented facility in the City of Calimesa. The company machines new parts from metal and plastic on Computer Numerical Control machines. The proposed hours of operations are 5 am – 8 pm, Monday through Friday. There would be seven employees working two shifts. Another suite of

approximately 3,093 square-feet would be occupied by two Hi-Tech Machining sales staff. It is anticipated that the remaining suite of approximately 3,015 square-feet will be occupied by an electrical shop with two employees.

The site is designated as Industrial in the Elevate Beaumont General Plan Update, December, 2020 and the Zoning is Manufacturing. The Proposed Project is an allowable use within these designations and will require City review and approval of a Plot Plan.



N

0 0.6

Miles

Source: Lilburn Corp., March, 2021.

LILBURN CORPORATION

REGIONAL LOCATION

McClure Machine Shop

Beaumont, California

FIGURE 1

N

0 180

Feet

Source: Lilburn Corp., March, 2021.

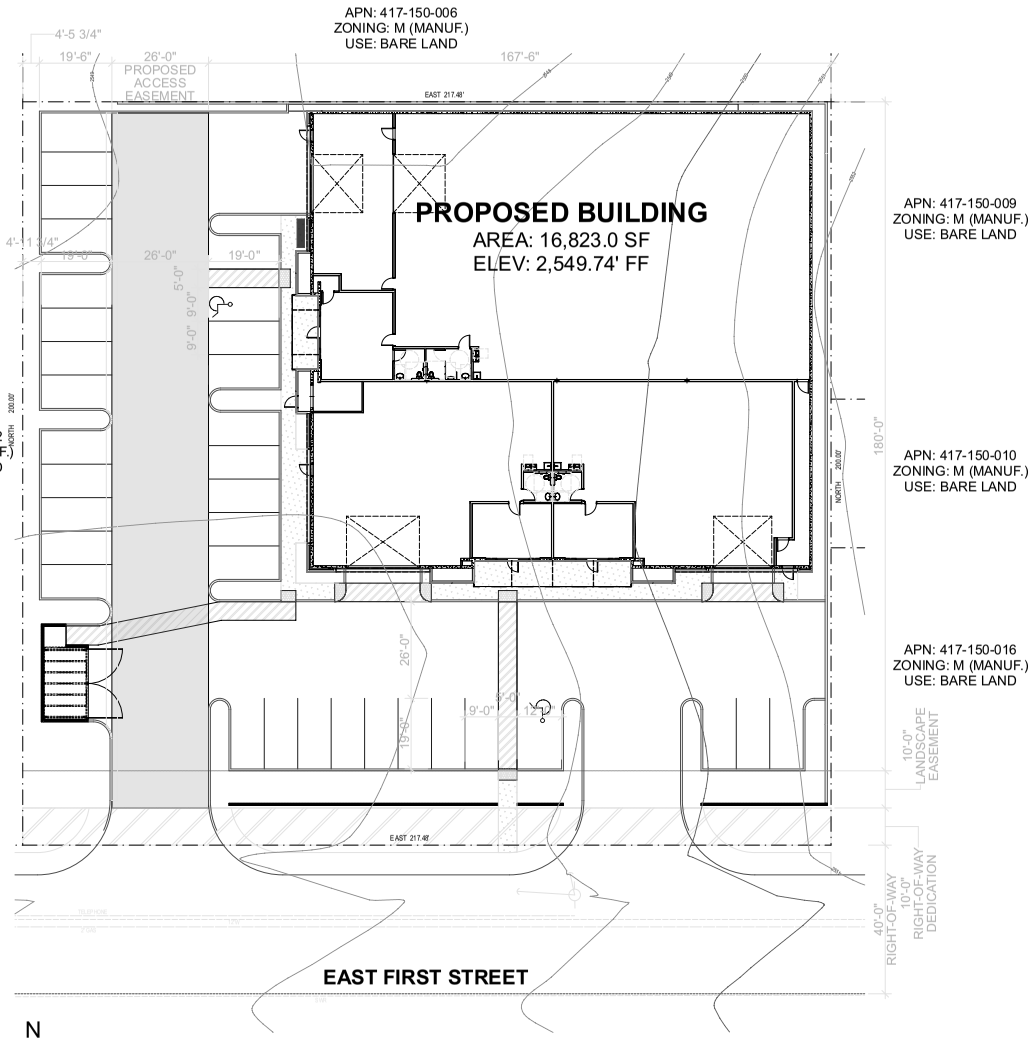
LILBURN CORPORATION

PROJECT VICINITY

McClure Machine Shop

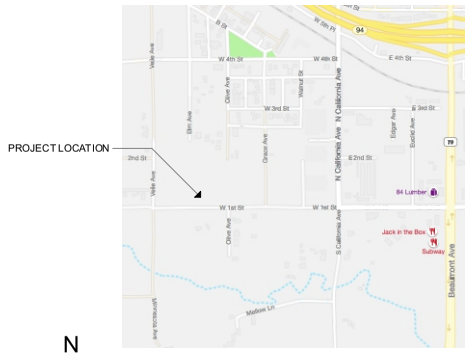
Beaumont, California

FIGURE 2



PROJECT DATA:

DESCRIPTION:	CONSTRUCTION OF SINGLE STORY CONCRETE TILT-UP INDUSTRIAL BUILDING WITH ONE OWNER SUITE AND TWO TENANT SUITES.
APPLICANT/ PREPARER:	JOHN DYKES, ARCHITECT FDC COMMERCIAL 27420 JEFFERSON AVE., STE 201 TEMECULA, CA 92590 (951) 587-8010 JOHN@FDC.BZ
OWNER:	JOHN C. AND LARISSA J. MCCLURE 102 MESA CT. CALIMESA, CA 92320 (951) 743-8334 JOHN@HI-TECHMACHININGINC.COM
CIVIL ENGINEER:	BLAINE WOMER, CIVIL ENGINEER 41555 E. FLORIDA AVE., SUITE G HEMET, CA 92544 (951) 658-1727 BLAINE@BAWCE.COM
SOILS ENGINEER:	JOHN FREY, ENGINEER SOUTH SHORE TESTING 23811 WASHINGTON AVE., STE C110 MURRIETA, CA 92562 (951) 239-3008 SS.TESTING@AOL.COM
LANDSCAPE ARCHITECT:	DAVID NEAULT ASSOCIATES, INC. 41877 ENTERPRISE CIRCLE NORTH, STE 140 TEMECULA, CA 92590 (951) 296-3430 DAVID@DNASSOCIATES.COM
APN/LEGAL DESCRIPTION:	417-150-015 (1.02 ACRES) - LOTS 20, 21, 22, 23, & 24 OF MCCLAIN TRACT, BOOK 10, PAGE 57, BEAUMONT, RIVERSIDE COUNTY, CALIFORNIA
LOT SIZE:	1.02 ACRES (44,431.2 SF)
ZONING:	M (MANUFACTURING)
FLOODPLAIN DESIGNATION:	ZONE X
PANEL NUMBER:	06065C0811G
EFFECTIVE DATE:	08/28/2008
SCHOOL DISTRICT:	BEAUMONT UNIFIED SCHOOL DISTRICT
UTILITIES:	
POWER	SOUTHERN CALIFORNIA EDISON - (800) 655-4555
GAS	SOCAL GAS - (800) 427-2200
WATER	BEAUMONT-CHERRY VALLEY WATER DISTRICT - (951) 845-9581
SEWER	CITY OF BEAUMONT - (951) 922-3310
TRASH	WASTE MANAGEMENT - (800) 423-9986



FDC COMMERCIAL CONSTRUCTION
461 E. MENLO AVENUE
HEMET, 92543

CONSULTANTS

JOHN C. DYKES — LICENSED ARCHITECT — STATE OF CALIFORNIA

PRELIMINARY
Not for Construction or Recording

MCCLURE INDUSTRIAL BUILDING

BEAUMONT,

MARK	DATE	DESCRIPTION

PROJECT NO: #Project Code
MODEL FILE: site plan rev 1.pln
DRAWN BY: J.C.D.
COPYRIGHT:

SHEET TITLE
SITE PLAN

A-101
SHEET 2 OF 6

SITE PLAN

McClure Machine Shop

Beaumont, California

FIGURE 3

LILBURN CORPORATION

SECTION 3.0 – CHECKLIST OF ENVIRONMENTAL ISSUES

3.1 AESTHETICS

1.	**AESTHETICS.** **Would the project:**	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
(a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
(b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
(c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
(d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

3.1.1 Environmental Setting

The City of Beaumont is located in north-central Riverside County, at the summit of the San Gorgonio Pass. Beaumont is bounded on the west by the City of Calimesa, on the north by the unincorporated community of Cherry Valley; on the south by the I-10 Freeway; and on the east by the City of Banning. Beaumont is located approximately 70 miles east of downtown Los Angeles, 21 miles northeast of the City of Riverside; and 21 miles southeast of the City of San Bernardino. The Project Site is surrounded primarily by vacant and residential uses. In the vicinity are rural residential, agricultural, commercial, and light industrial uses.

3.1.2 Impact Analysis

a) Would the project have a substantial adverse effect on a scenic vista?

Less than Significant Impact. The Project Site is located in the southern portion of the City. It is currently vacant. The surrounding properties include vacant land and residential uses. Beaumont Municipal Code Section 17.02.070 requires a Plot Plan to establish a new land use, or to assume an existing use, consistent with the zoning of the proposed location of the use, prior to the use and occupancy for such land use.

The Project Site has a land use designation of Industrial and zoning of Manufacturing (M Zone). The allowable uses within the M Zone are described as a range of industrial uses including “stand alone” industrial activities, general and light industrial, research parks, private trade schools, colleges, and business parks. The maximum height of any building shall not exceed 50 feet within the M Zone. The maximum height of the proposed structure is 28 feet. The Proposed Project would be anticipated to change the general aesthetics of the area as the Project Site is currently surrounded by vacant and residential uses. However, the Proposed Project would not obstruct natural scenic views or vistas. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

b) *Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

No Impact. The Project Site is not adjacent to or near any State-eligible or Officially designated State Scenic Highway.[1] The nearest designated State Scenic Highway is State Route 243 (*Banning-Idyllwild Panoramic Highway*), which is approximately 5.75 miles east of the Project Site. The Proposed Project would be required to comply with development standards applicable to the M Zone, such as providing a minimum front yard setback of 25-50 feet and maximum building height of 50 feet, to reduce aesthetic/visual resource impacts to a less-than-significant level. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

c) *Would the project in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

Less than Significant Impact. Development of the Proposed Project would be consistent with the City General Plan designation for the Project Site. The surrounding properties are either vacant or developed with residential uses. As shown in the Project Landscape Plan, Proposed Project shall adhere to the City's Municipal Code Section 17.06.040, which requires the Project Applicant to plant single trunk, low branching trees in windy areas and design, where possible, north/south oriented parking areas to provide maximum shade. [2] Compliance to this code will improve and maximize the landscaping within the off-street open parking areas to provide 30% or more shade coverage in ten years, adding aesthetics to the area. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

Less than Significant Impact. The Project Site is currently vacant. Development of the Proposed Project would generate additional lighting and glare when compared to existing use. The design and placement of light fixtures would be shown on site plans, which would be reviewed for consistency with City standards and subject to City approval. Additionally, the Proposed Project would be required to conform to Chapter 8.5 of the City Municipal Code, which establishes height limit, lamp power limit, lighting curfew and maximum lumen and shielding for commercial/industrial zones. Therefore, the Proposed Project would not generate a significant amount of light and glare when compared to the surrounding area. No significantimpacts are identified or anticipated, and no mitigation measures are required.

[1] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Figure 5.1-4-Scenic Highways and Roadways. https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/

[2] City of Beaumont. Zoning Code Amendment Final. http://www.beaumontca.gov/DocumentCenter/View/36838/Zoning-Code-Amendment-Final

3.2 AGRICULTURE & FORESTRY RESOURCES

2.	**AGRICULTURE & FOREST RESOURCES. (In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland.) In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.) Would the project:**	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
(a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☐	☒
(b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
(c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
(d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
(e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or the conversion of forest land to non-forest use?	☐	☐	☐	☒

3.2.1 Environmental Setting

The Project Site is in the southern portion of the City of Beaumont. The Project Site has a General Plan land use designation of Industrial Use and Zoning of Manufacturing. It is neither considered useful for agriculture nor is it within an existing zone for forest land or farmland. The Project Site consists of a mix of ruderal vegetation and bare ground.

3.2.2 Impact Analysis

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

No impact. The Project Site is identified as "Urban and Built-Up Land" by the Department of Conservation, Division of Land Resource Protection Farmland Mapping and Monitoring Program. Urban and Built-Up Land is occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Examples of this category are residential, industrial commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures. No prime farmland, unique farmland, or farmland of statewide importance occur on the Project Site. The Proposed Project would not convert farmland to a non-agricultural use. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project Site is not under a Williamson Act Contract.[3] There are no lands with active Williamson Act contracts within the City. Additionally, the Project Site is currently zoned Manufacturing. The Proposed Project would not conflict with existing zoning for agricultural use. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

No Impact. The City does not have a zoning designation for, nor does it contain forestry-related timberland or timberland production sites within city limits.[4] Furthermore, the Project Site has a current zoning of Manufacturing. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project Site is currently vacant and consist of mix of ruderal vegetation and bare ground. No trees or forest land occur on Project Site. Implementation of the Proposed Project would not result in loss of forest land or conversion of forest land to non-forest use. The City General Plan does not include any lands designated as forest land within the General Plan area. Therefore, no loss of forest land or conversion of forest land to non-forest use will result from the implementation of the Proposed Project. No impacts are identified or anticipated, and no mitigation measures are required.

[3] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Figure 5.2-3-Williamson Act Contracts. https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/
[4] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Page 5.2-19.https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or the conversion of forest land to non-forest use?

No Impact. The Project Site does not support agricultural or forest land use. Implementation of the Proposed Project would not result in the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use no-site and off-site. Therefore, no impacts are identified or are anticipated, and no mitigation measures are required.

3.3 AIR QUALITY

3.	**AIR QUALITY. (Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.) Would the project:**	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
(a)	Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
(b)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
(c)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
(d)	Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

3.3.1 Environmental Setting

The City of Beaumont is located in the eastern portion of the South Coast Air Basin (SCAB). The SCAB is bounded by the San Jacinto, San Gabriel and San Bernardino Mountain Ranges. The primary source of air pollution affecting the City are pollutants transported by wind from urbanized areas located west towards Los Angeles. The South Coast Air Quality Management District (SCAQMD) has jurisdiction over air quality issues and regulations within the SCAB.

3.3.2 Impact Analysis

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. The Project Site is located in the SCAB. The SCAQMD has jurisdiction over air quality issues and regulations within the SCAB. The Air Quality Management Plan (AQMP) for the basin establishes a program of rules and regulations administered by SCAQMD to obtain attainment of the state and federal air quality standards. The most recent AQMP (AQMP 2016) was adopted by the SCAQMD in March 2017. The 2016 AQMP incorporates the latest scientific and technological information and planning assumptions, including transportation control measures developed by the Southern California Association of Governments (SCAG) using the 2016 Regional Transportation Plan/Sustainable Communities Strategy.

The City of Beaumont adopted the 2040 General Plan and certified the Final Programmatic EIR. Implementation of the updated 2040 General Plan would result in significant and

unavoidable impacts to Air Quality, Greenhouse Gas, Noise, and Transportation and therefore, the City adopted a Statement of Overriding Considerations concurrent with certification of the Final EIR. In addition, even though the anticipated growth from the 2040 General Plan may exceed the growth projections in the AQMP, the control measures contained within the 2016 AQMP will apply to new development. Therefore, development associated with buildout of the 2040 General Plan will not obstruct implementation of the 2016 AQMP. The Project Site has a General Plan land use designation of Industrial and current zoning of Manufacturing. The Proposed Project is an allowable use under the 2040 General Plan designation and Zoning Code. Therefore, approval of the Proposed Project would not conflict with the AQMP and the Proposed Project is consistent with the 2040 General Plan. Less than significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

b) *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient airquality standard?*

Less than Significant Impact. In February 2021, Lilburn Corporation screened the Proposed Project's construction and operational emissions using California Emissions Estimator Model (CalEEMod) version 2016.3.2 prepared by the SCAQMD (see Appendix A for model output). CalEEMod was utilized to estimate the on-site and off-site construction emissions. The emissions incorporate Rule 402 and 403 by default as required during construction. The criteria pollutants screened for include reactive organic gases (ROG), nitrous oxides (NOx), carbon monoxide (CO), sulfur dioxide (SO2), and particulates (PM10 and PM2.5). Two of the analyzed pollutants, ROG and NOx, are ozone precursors. Both summer and winter season emission levels were estimated.

Construction Emissions

Construction emissions are considered short-term, temporary emissions and were modeled with the following construction parameters: site preparation, site grading (fine and mass grading), building construction, paving, and architectural coating. Construction is anticipated to begin in late 2021 and be completed in early 2022. The resulting emissions generated by construction of the Proposed Project are shown in Table 1 and Table 2, which represent summer and winter construction emissions, respectively.

Table 1
Summer Construction Emissions Summary
(Pounds per Day)

Source/Phase	**ROG**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Site Preparation	1.5	17.4	8.1	0.0	6.6	3.6
Grading	1.3	14.3	6.6	0.0	2.5	3.1
Building Construction	0.0	14.3	13.7	0.0	0.9	0.7
Paving	0.8	6.8	9.2	0.0	0.4	0.3
Architectural Coating	17.1	1.4	1.9	0.0	0.1	0.0
Highest Value (lbs./day)	**17.1**	**17.4**	**13.7**	**0.0**	**6.6**	**3.6**
SCAQMD Threshold	75	100	550	150	150	55
Significant	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod.2016.3.2 Summer Emissions
Phases do not overlap and represent the highest concentration.

Table 2
Winter Construction Emissions Summary
(Pounds per Day)

Source/Phase	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Site Preparation	1.5	17.4	7.8	0.0	6.6	3.6
Grading	1.3	14.3	6.6	0.0	5.6	3.1
Building Construction	1.9	14.3	13.7	0.0	0.9	0.7
Paving	0.8	6.8	9.2	0.0	0.4	0.3
Architectural Coating	17.1	1.4	1.9	0.0	0.1	0.0
Highest Value (lbs./day)	**17.1**	**17.4**	**13.7**	**0.0**	**6.6**	**3.6**
SCAQMD Threshold	75	100	550	150	150	55
Significant	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod.2016.3.2 Winter Emissions.
Phases do not overlap and represent the highest concentration.

As shown in Table 1 and Table 2, construction emissions during either summer or winter seasonal conditions would not exceed SCAQMD thresholds.

Compliance with SCAQMD Rules 402 and 403

Although the Proposed Project does not exceed SCAQMD thresholds for construction emissions, the Project Proponent would be required to comply with all applicable SCAQMD rules and regulations as the SCAB is in non-attainment status for ozone and suspended particulates (PM_{10} and $PM_{2.5}$).

The Project Proponent would be required to comply with Rules 402 nuisance, and 403 fugitive dust, which require the implementation of Best Available Control Measures (BACMs) for each fugitive dust source, and the AQMP, which identifies Best Available Control Technologies (BACTs) for area sources and point sources. The BACMs and BACTs would include, but not be limited to the following:

1. The Project Proponent shall ensure that any portion of the site to be graded shall be pre-watered prior to the onset of grading activities.
   (a) The Project Proponent shall ensure that watering of the site or other soil stabilization method shall be employed on an on-going basis after the initiation of any grading activity on the site. Portions of the site that are actively being graded shall be watered regularly (2x daily) to ensure that a crust is formed on the ground surface and shall be watered at the end of each workday.
   (b) The Project Proponent shall ensure that all disturbed areas are treated to prevent erosion until the site is constructed upon.
   (c) The Project Proponent shall ensure that landscaped areas are installed as soon as possible to reduce the potential for wind erosion.
   (d) The Project Proponent shall ensure that all grading activities are suspended during first and second stage ozone episodes or when winds exceed 25 miles per hour.

During construction, exhaust emissions from construction vehicles and equipment and fugitive dust generated by equipment traveling over exposed surfaces, would increase NO_X and PM_{10} levels in the area. Although the Proposed Project does not exceed SCAQMD thresholds

during construction, the Applicant/Contractor would be required to implement the following BMPs as required by SCAQMD:

2. To reduce emissions, all equipment used in grading and construction must be tuned and maintained to the manufacturer's specification to maximize efficient burning of vehicle fuel. Site development will be limited to one acre disturbed per day.
3. The contractor shall utilize (as much as possible) pre-coated building materials and coating transfer or spray equipment with high transfer efficiency, such as high volume, low pressure (HVLP) spray method, or manual coatings application such as paint brush, hand roller, trowel, dauber, rag, or sponge.
4. The contractor shall utilize water-based or low VOC coating per SCAQMD Rule 1113. The following measures shall also be implemented:
    - Use Super-Compliant VOC paints whenever possible.
    - If feasible, avoid painting during peak smog season: July, August, and September.
    - Recycle leftover paint. Take any left-over paint to a household hazardous waste center; do not mix leftover water-based and oil-based paints.
    - Keep lids closed on all paint containers when not in use to prevent VOC emissions and excessive odors.
    - For water-based paints, clean up with water only. Whenever possible, do not rinse the clean-up water down the drain or pour it directly into the ground or the storm drain. Set aside the can of clean-up water and take it to a hazardous waste center (www.cleanup.org).
    - Recycle the empty paint can.
    - Look for non-solvent containing stripping products.
    - Use Compliant Low-VOC cleaning solvents to clean paint application equipment.
    - Keep all paint and solvent laden rags in sealed containers to prevent VOC emissions.
5. The Project Proponent shall ensure that existing power sources are utilized where feasible via temporary power poles to avoid on-site diesel power generation.6. The operator shall maintain and effectively utilize and schedule on-site equipment in order to minimize exhaust emissions from truck idling.
6. The Project Proponent shall ensure that construction personnel are informed of ride sharing and transit opportunities.
7. All buildings on the Project Site shall conform to energy use guidelines in Title 24 of the California Administrative Code as updated to reduce energy consumption and reduce GHG emissions.
8. The operator shall maintain and effectively utilize and schedule on site equipment and delivery trucks in order to minimize exhaust emissions from truck idling.

<u>Operational Emissions</u>

Operational emissions are categorized as energy (generation and distribution of energy to the end use), area (operational use of the project), mobile (vehicle trips), water (generation and distribution of water to the land use), and waste (collecting and hauling waste to the landfill). The Proposed Project is anticipated to generate low vehicle trips per day. As such, the

operational mobile source emissions were calculated in accordance with CalEEMod Version 2016.3.2 model defaults settings.

The resulting emissions generated by operations of the Proposed Project are shown in Table 3 and Table 4, which represent summer and winter construction emissions, respectively.

Table 3
Summer Operational Emissions Summary
(Pounds per Day)

Source	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	0.4	0.0	0.0	0.0	0.0	0.0
Energy	0.0	0.1	0.1	0.0	0.0	0.0
Mobile	0.2	1.2	3.8	0.0	1.1	0.3
Total Value (lbs./day)	**0.6**	**1.3**	**3.9**	**0.0**	**1.1**	**0.3**
SCAQMD Threshold	55	55	550	150	150	55
Significance	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod 2016.3.2, Summer Emissions

Table 4
Winter Operational Emissions Summary
(Pounds per Day)

Source	ROG	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Area	0.4	0.0	0.0	0.0	0.0	0.0
Energy	0.0	0.1	0.1	0.0	0.0	0.0
Mobile	0.2	1.3	3.5	0.0	1.1	0.3
Total Value (lbs./day)	**0.6**	**1.4**	**3.6**	**0.0**	**1.1**	**0.3**
SCAQMD Threshold	55	55	550	150	150	55
Significance	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod 2016.3.2, Winter Emissions

As shown in Table 3 and Table 4, both summer and winter season operational emissions are below SCAQMD thresholds. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact. SCAQMD has developed a methodology to assess the localized impacts of emissions from a proposed project as outlined within the Final Localized Significance Threshold (LST) Methodology report; completed in June 2003 and revised in July 2008. The use of LSTs is voluntary, to be implemented at the discretion of local public agencies acting as a lead agency pursuant to CEQA. LSTs apply to projects that must undergo CEQA or the National Environmental Policy Act (NEPA) and are five acres or less. LST methodology is incorporated to represent worst-case scenario emissions thresholds. CalEEMod was used to estimate the on-site and off-site construction emissions. The LSTs were developed to analyze the significance of potential air quality impacts of proposed projects to sensitive receptors (i.e. schools, single family residences, etc.) and provide screening tables for small projects (one, two, or five acres). Projects are evaluated based on geographic location and distance from the sensitive receptor (25, 50, 100, 200, or 500 meters from the site).

For the purposes of a CEQA analysis, the SCAQMD considers a sensitive receptor to be a receptor such as a residence, hospital, convalescent facility or anywhere that it is possible for an individual to remain for 24 hours. Additionally, schools, playgrounds, childcare centers, and athletic facilities can also be considered as sensitive receptors. Commercial and industrial facilities are not included in the definition of sensitive receptor because employees do not typically remain on-site for a full 24 hours, but are usually present for shorter periods of time, such as eight hours.

The Project Site is approximately 1.02 acres, therefore the "1-acre scenario" was used to represent a worst-case scenario as larger sites are typically granted a larger emission allowance. CalEEMod version 2016.3.2 was used to estimate the on-site and off-site construction emissions. The nearest sensitive receptor land use is the residential development apparently 75-meters south to the Project Site and therefore LSTs are based on 50-meter distance. The resulting Proposed Project's construction and operational emissions with the appropriate LST are presented in Table 5.

Table 5
Localized Significance Thresholds
(Pounds Per Day)

	NO_x	CO	PM_{10}		$PM_{2.5}$	
Construction Emissions (Max. from Table 1 and Table 2)	17.4	13.7	6.6		3.6	
Operational Emissions (Max. Total from Table 3 and Table 4)[1]	1.4	3.9	1.1		0.3	
Highest Value (lbs./day)	**17.4**	**13.7**	**6.6**	**1.1**	**3.6**	**0.3**
LST Thresholds	131	1420	19*	5†	6*	2†
Greater Than Threshold	**No**	**No**	**No**	**No**	**No**	**No**

Sources: CalEEMod.2016.3.2 Summer and Winter Emissions; SCAQMD Final Localized Significance Threshold Methodology; SCAQMD Mass Rate Look-up Tables for 2-acre site in SRA No. 29, distance of 25 meters.
Note: PM10 and PM2.5 emissions are separated into construction and operational thresholds in accordance with the SCAQMD Mass Rate LST Look-up Tables.
* Construction emissions LST
† Operational emissions LST
1 Per LST Methodology, mobile source emissions do not need to be included except for land use emissions and on- site vehicle emissions. It is estimated that approximately 10 percent of mobile emissions will occur on the Project Site- AEP Annual Air Quality Workshop at SCAQMD.

Source:https://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/appendix-c- mass-rate-lst-look-up-tables.pdf?sfvrsn=2

As shown in Table 5, the Proposed Project's emissions are not anticipated to exceed the LST thresholds. Therefore, the Proposed Project is not anticipated to expose sensitive receptors to substantial pollutant concentrations. No significant impacts are identified or anticipated, and no mitigation measures are required.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant Impact. The Proposed Project does not contain land uses typically associated with the emission of objectionable odors. Potential odor sources associated with the Proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities; and the temporary storage of

domestic solid waste (refuse) associated with the Proposed Project's long-term operational uses. Standard construction requirements would minimize odor impacts resulting from construction activity. It should be noted that any construction odor emissions generated would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction activity. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City of Beaumont solid waste regulations. The Project would be also required to comply with SCAQMD Rule 402 to prevent occurrences of public nuisances. Therefore, no significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

3.4 BIOLOGICAL RESOURCES

4.	BIOLOGICAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
(b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☒
(c)	Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☒
(d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐
(e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
(f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒	☐	☐

3.4.1 Environmental Setting

A Biological Resources Assessment, Jurisdictional Delineation, and Multiple Species Habitat Conservation Plan Consistency Analysis (BRA) was prepared for the Proposed Project by Jennings Environmental, LLC in January 2021 (see Appendix B for report). The BRA was designed to address potential effects of the Proposed Project to designated critical habitats and/or

any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW) or the California Native Plant Society (CNPS). The report includes findings related to a site survey of potentially jurisdictionally drainages, and compliance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP).

3.4.2 Impact Analysis

a) Would the project have a substantial adverse effect, either directly or through habitat modification, on any species identified as candidate, sensitive or special status species in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation Incorporated. Existing documentation relevant to the Project Site was reviewed. The most recent records of the California Natural Diversity Database (CNDDB) managed by CDFW, the United States Fish and Wildlife Service (USFWS) Critical Habitat Mapper, and the California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California were reviewed for the following quadrangle containing and surrounding the Project site: *Beaumont*, USGS 7.5 minute quadrangle. These databases contain records of reported occurrences of federal- or state-listed endangered or threatened species, California Species of Concern (SSC), or otherwise special status species or habitats that may occur within or in the immediate vicinity of the Project Site.

In addition, a general reconnaissance survey was conducted within the Project site to identify the potential for the occurrence of special status species, vegetation communities, or habitats that could support special status wildlife species. All plant species observed within the Project Site were recorded. Vegetation communities within the Project Site were identified, qualitatively described, and mapped onto a high-resolution imagery aerial photograph. Plant communities were determined in accordance with the *Manual of California Vegetation*, *Second Edition*. All wildlife and wildlife signs observed and detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, were recorded. Additional survey time was spent in those habitats most likely to be utilized by wildlife (native vegetation, wildlife trails, etc.) or in habitats with the potential to support state- and/or federally listed or otherwise special status species.

Federal and State Listed Species

According to the CNDDB, CNPSEI, and other relevant literature and databases, 53 sensitive species including 9 listed species and 2 sensitive habitat, have been documented in the *Beaumont and El Casco* quads. This list of sensitive species and habitats includes any State and/or federally listed threatened or endangered species, CDFW designated Species of Special Concern (SSC), and otherwise Special Animals. "Special Animals" is a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. The CDFW considers the taxa on this list to be those of greatest conservation need.

Field Survey Results

Species observed or otherwise detected on or in the vicinity of the project site during the surveys included; common raven (*Corvus corax*), red-tailed hawk (*Buteo jamaicensis*), and

house sparrow (*Passer domesticus*). The Project Site is located within a developed area of Beaumont. Although the site is undeveloped, very little evidence of any wildlife existed on-site and only the bird species were observed flying above the site during the survey. An analysis of the likelihood for the occurrence of all CNDDB sensitive species documented in the *Beaumont* quad is provided in the BRA. This analysis takes into the potential for each species to occur on the site, based on required habitat elements and range relative to the current site conditions. Suitable habitat for none of the sensitive species identified occurs on the Project Site and therefore all species are considered absent from the Project Site. No State and/or federally listed threatened or endangered species or other sensitive species were observed on-site during surveys. There is some habitat within the Project Site and adjacent area suitable for nesting birds in general. Mitigation Measure BIO-1 should be implemented to avoid any potential project-related impacts to nesting birds.

MITIGATION MEASURE BIO-1:

Applicant shall designate an avian biologist (qualified biologist) experienced in: identifying local and migratory bird species; conducting bird surveys using appropriate survey protocol, nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, identifying nesting stages and success; establishing avoidance and minimization measures; and monitoring the efficacy of implemented avoidance and minimization measures.

A qualified biologist shall conduct a breeding bird surveys at the appropriate time of day/night during the appropriate weather conditions, no more than three days prior to the start of construction to determine if nesting is occurring. This survey can be conducted as part of the burrowing owl surveys. Preconstruction surveys shall focus on direct and indirect evidence of nesting, including nest locations, nesting stages, and nest behavior. Surveys shall evaluate all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures. The duration of the survey shall be dependent upon the size of the project site, density, and complexity of the habitat; and shall be sufficient to ensure complete and accurate data is collected.

If active nests are found, they shall not be disturbed unless the qualified biologist verifies through non-invasive methods that the juveniles from the occupied nests are capable of independent survival and will not be impacted by the removal of the nest. If the biologist is not able to verify the above conditions, then no disturbance shall occur within a distance specified by the qualified biologist for each nest or nesting site. The qualified biologist will determine the appropriate distance in consultation with the U.S. Fish and Wildlife Service. The size and location of buffer zones shall be based on nesting bird species, species behavior, nesting stage, species sensitivity to disturbance, and the intensity and duration of the disturbance activity.

With implementation of Mitigation Measure BIO-1, impacts can be reduced to a less than significant level.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

No Impact. According to the databases, no USFWS designated critical habitat occurs within or adjacent to the Project Site. The habitat on-site consists of disturbed bare ground and

extremely sparse ruderal vegetation. The site shows signs of recent vegetation managementin the form of discing as well as pedestrian traffic.

The Project Site is located within the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP is intended to balance the demands of the growth of western Riverside County with the need to preserve open space and protect species of plants and animals that are threatened with extinction. The MSHCP describes the protection of Riparian/Riverine Areas and Vernal Pools within the MSHCP Plan Area as important to the conservation of certain amphibian, avian, fish, invertebrate and plant species. The MSHCP describes guidelines to ensure that the biological functions and values for species inside the MSHCP Conservation Area are maintained.

Riparian/Riverine areas are lands which contain habitat dominated by trees, shrubs, persistent emergent vegetation, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from nearby freshwater sources, or areas with freshwater flow during all or a portion of the year. Riverine habitat includes all wetlands and deepwater habitats contained in natural or artificial channels periodically or continuously containing flowing water or which forms a connecting link between the two bodies of standing water. The term riparian is used to define the type of wildlife habitat found along the banks of a river, stream, lake, or other body of water. Riparian habitats are ecologically diverse and can be found in many types of environments including grasslands, wetlands, and forests. The Project site does not contain any areas that meet the definition of Riparian/Riverine. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

c) *Would the project have a substantial adverse effect on state or federally protected wetlands (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No Impact. A general assessment of jurisdictional waters regulated by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW was conducted for the Project Site. Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The State of California (State) regulates the discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter- Cologne Water Quality Control Act. CDFW regulates all substantial diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. The initial assessment was conducted by a desktop survey through the USGS National Hydrography Dataset for hydrological connectivity. Aerial imagery of the site was examined and compared with the surrounding USGS 7.5-minute topographic quadrangle maps to identify drainage features within the survey area as indicated from topographic changes, blue-line features, or visible drainage patterns. The U.S. Fish and Wildlife Service National Wetland Inventory and Environmental Protection Agency (EPA) Water Program “My Waters” data layers were reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site. Similarly, the Soil maps from the U.S. Department of Agriculture (USDA) - Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2020) were reviewed to identify the soil series on-site and to check if they have been identified regionally as hydric soils. Upstream and downstream connectivity of waterways (if present) was reviewed in the field, on aerial imagery, and topographic maps to determine jurisdictional status. No obvious signs of jurisdictional features were observed during the literature review.

The Project Site was surveyed with 100 percent visual coverage and no drainage features were present on site. As such, the Project Site does not contain any wetlands, waters of the U.S., or Waters of the State. No definable bed or bank features exist on the Project Site. As such, the Project Site does not contain any areas under CDFW jurisdiction. Additionally, none of the requirements for wetland designation (hydric vegetation, hydric soils, and/or wetland hydrology) were present on site. As such, there are no wetlands currently present on site.

Vernal Pools are seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics should consider (1) the length of time the area exhibits upland and wetland characteristics, and (2) the manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records. The Project Site does not contain the appropriate soils, vegetation, or hydrology to allow for vernal pools. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

d) *Would the project Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Less than Significant with Mitigation Incorporated. The Project Site is not within or adjacent to any area the meets the definition of an urban/wildland interface. The Project Site is currently surrounded primarily by vacant land with a residential use across the street. Regionally, it is surrounded by public facilities, commercial and residential development, and highways. It would not be suitable for facilitating the movement of any native resident or migratory fish or wildlife species. The Urban/Wildland Interface guidelines of the MSHCP address indirect effects associated with locating development in the MSHCP Conservation Area. The MSHCP presents guidelines to minimize the indirect effects of projects in proximity to the MSCHP Conservation areas. Implementation of Mitigation Measures BIO-2 through BIO-7 would minimize impacts associated with Drainage, Toxics, Lighting, Noise, Invasive, Barriers, and Grading/Land Development.

Mitigation Measure BIO-2:

The Proposed Project shall not create additional flow offsite. Measures should be taken to assure that project stormwater discharge is no greater in volume and velocity than the current undeveloped conditions and that the water leaving the site complies with all applicable water quality standards.

Mitigation Measure BIO-3:

In concert with drainage requirements, the Proposed Project is subject to Riverside Water Quality Management Plan (WQMP) for Urban Runoff, Santa Ana Region, adopted September 17, 2004, and the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharge Associated with Construction Activity (General

Permit). Implementation of both the WQMP and the general permit would reduce potential impacts of toxics to the MSHCP conservation area to a level of less than significant.

Mitigation Measure BIO-4:

Night lighting shall be directed in such a way as to protect wildlife species from direct night lighting.

Mitigation Measure BIO-5:

The project area is already subject to relatively high ambient noise levels due to street traffic and noise from adjacent residential developments. The completed project would not impact any MSHCP Conservation Areas with noise levels above the existing ambient noise level. The construction site is far enough away from any MSHCP Conservation Areas that temporary construction-related noise impacts would not negatively impact biological resources within a Conservation Area.

Mitigation Measure BIO-6:

No invasive species listed in the MSHCP shall be included in any landscaping for the Proposed Project.

Mitigation Measure BIO-7:

If needed, the Proposed Project would include the incorporation of rocks/boulders fencing, walls, signage and/or other appropriate measures to minimize unauthorized public access, domestic animal predation and illegal trespass and dumping into the MSHCP Conservation Area. Any barriers shall be outside of the MSHCP Conservation Area.

Project-related grading shall occur outside of any MSHCP Conservation Areas

With implementation of Mitigation Measures BIO-2 through BIO-7, the Proposed Project would not substantially interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

e) *Would the project conflict with any local policies or ordinances protecting biological resources,such as a tree preservation policy or ordinance?*

Less than Significant Impact. According to Section 12.12.130 of the City Municipal Code, "No person, firm, corporation, public district, public agency or political subdivision shall remove or severely trim any tree planted in the right of- way (ROW) of any City street without first obtaining a permit from the City Engineer to do so." The trees on the Project Site are not within a public ROW. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservancy Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less than Significant with Mitigation Incorporated. The MSHCP addresses incidental take of "covered" species. Of the 146 species addressed in the Western Riverside County MSHCP, 118 are adequately conserved simply by implementing the conservation program. Incidental take of these 118 species is permitted by the Western Riverside County MSHCP. The remaining 28 species are partially conserved. They would be adequately conserved when certain additional conservation requirements are implemented. The additional requirements are identified in the species-specific conservation objectives for those 28 species. The Riverside Conservation Authority (RCA) is the governing body that administers the MSHCP. Their database was researched prior to conducting the filed survey.

The RCA's website and databases includes the MSHCP plan itself and any relevant protocol survey requirements. The database also includes a mapping program that contains site-specific information related to criteria cell location, special survey areas for plants and animals, and vegetation mapping. A summary of the MSHCP Conservation Goals and Policies as they relate to this Project is provided below in Table 6.

Table 6
MSHCP Conservation Goals for Project Area

Conservation Goals	Within /Adjacent	Not Within /Adjacent
Proposed Constrained Linkages: **None**		X
Core Areas: **None**		X
Linkages: **None**		X
Constrained Linkage:		X
Habitat Block:		X
Core: **None**		X
Criteria Cell**:**		X
Pre-existing conservation Area		X
Riparian/Riverine or Vernal Pool Habitat		X
Narrow Endemic Plant Survey Area		X
Urban/Wildlife Interface		X
Mammal Survey Area		X
Amphibian Survey Area		X
Burrowing Owl Survey Area		X

The Project is located within The Pass Area Plan of the MSHCP. The target conservation acreage range for The Pass Area Plan is 22,510 – 27,895 acres; it is composed of approximately 13,970 acres of existing Public/Quasi-Public Lands and 8,540 – 13,925 acres of Additional Reserve Lands.

The MSHCP Conservation Area comprises a variety of existing and proposed Cores, Linkages, Constrained Linkages, and Noncontiguous Habitat Blocks (referred to herein generally as "Cores and Linkages"). The Cores and Linkages within the Lake Matthews/Woodcrest Area Plan include a small portion of Proposed Core 1; a portion of Proposed Extension of Existing Core 2; and a portion of Proposed Linkage 3. Subunits are areas within an area plan that contain target conservation acreages along with a description of the planning species, biological issues, and considerations. The Project Site is not located within a subunit area or cell criteria. In addition, it is not located within a Narrow Endemic Plant Species Survey Area. The Project Site is not located in an area where additional surveys are needed for certain species in conjunction with MSHCP implementation in order to achieve coverage for these species.

Implementation of Mitigation Measures BIO-2 through BIO 7 will ensure that the Proposed Project remains incompliance with the MSHCP.

3.5 CULTURAL RESOURCES

5.	CULTURAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☒	☐	☐
(b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
(c)	Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☒	☐	☐

3.5.1 Environmental Setting

The cultural remains of the Native American Cahuilla peoples and the early Euro-American peoples have been found in multiple locations throughout the City of Beaumont. As such, the Project Site is considered sensitive for buried cultural resources. A Phase I Cultural Resources Investigation, dated January 14, 2021 was prepared by McKenna et al. (see Appendix C). The purpose of the assessment was to identify and document any cultural resources that may occur within the Project Site and to evaluate resources pursuant to §15064.5. This study was completed in accordance with the requirements of CEQA.

3.5.2 Impact Analysis

a,b)Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less than Significant with Mitigation Incorporated. McKenna et al. relied on preliminary research completed for an adjacent property in November, 2019, and supplemented that research for the Project Site. The field survey for the Project Site was completed on September 10, 2020.

The standard archaeological records search confirmed the Project Site was not previously surveyed for cultural resources but identified a minimum of 29 studies within one mile of the

Project Site. Only six cultural resources, both prehistoric and historic, have been recorded from those 29 studies. None of these resources is within the Project.

The archaeological records search identified resources documented in the Office of Historic Preservation Historic Property Data File, including 130 properties within the core area of Beaumont. Of these 130, only 13 were determined "potentially eligible for National Register listing. A total of 109 of the 130 were specifically identified as not eligible for National register listing but may be of local interest. The remaining resources have not been evaluated.

The Project Site yielded no evidence of any recorded prehistoric archaeological resources, historic archaeological resources, or built environments[5] (historic structures). Numerous historic structures have been recorded in the core area of Beaumont (west of Pennsylvania Avenue), and research identified earlier improvements within the Project Site, but these improvements have since been removed (no physical evidence). Nonetheless, since the San Gorgonio Pass is known to have been a major trade route during both prehistoric and historic times, there is a low to moderate potential for the presence of buried prehistoric and/or historic archaeological resources.

The Native American Heritage Commission (NAHC) responded to the McKenna et al. request for data pertaining to the project area. The findings were negative. McKenna was informed the Commission's files have no records of any sacred or religious sites in the general area (negative findings). No burials were reported.

To date, McKenna et al. has received no responses to the letters sent to local Native American representatives.

The Project Site is relatively close to the Morongo Band of Mission Indians reservation and the Morongo. As a rule, the Morongo request copies of technical reports for review and to ensure no Native American resources will be adversely impacted by any proposed projects.

Based on the relative sensitivity for the Project Site to be associated with prehistoric archaeological resources and historic archaeological resources, McKenna et al. is recommending the following:

Mitigation Measure CR-1:

Pending consultation with the Native American Tribal representatives which may lead to the development of additional Tribal Resources Mitigation Measures, McKenna et al. recommends at a minimum that a qualified archaeologist be on call to address any archaeological resources that are uncovered and, subsequently, conduct archaeological monitoring until the archaeological consultant concludes the program is no longer warranted. To assure protection of archaeological resources, McKenna et al. recommends the archaeological monitor (with an accompanying Native American representative) oversee excavations into the younger alluvial deposits (Holocene) during the first two days of ground disturbance. If the archaeologist determines it necessary, a full-time archaeological monitoring program will be recommended and implemented. The monitoring program shall be conducted in accordance with current professional guidelines and protocols. The program should be designed to be flexible and account for changes

[5] Standing structures or other features considered to be structural, but not archaeological (e.g. buildings, bridges, above ground utilities)

in findings through the management of the resources in a professional manner and via evaluation in accordance with the current CEQA criteria. A Native American Tribal representative should be included in any monitoring program.

With implementation of Mitigation Measure CR-1, the Proposed Project would not substantially change the significance of historical and archaeological resources.

c) *Would the project disturb any human remains, including those interred outside of dedicated cemeteries?*

Less than Significant with Mitigation Incorporated. The NAHC files have no records of any burials in the general area. The discovery of human remains is always a possibility during ground disturbing activities. To ensure potential impacts are reduced to less than significant, the following mitigation measure shall be implemented:

Mitigation Measure CR-2:

If, at any time, human remains or suspected human remains are identified within the Project Site, the Contractor will halt work in the immediate vicinity of the find and establish a buffer zone around the find. If the archaeological consultant is on-site, the archaeological consultant will oversee the level of protection. The City will be immediately notified and the City will contact the County Coroner (within 24 hours). The Coroner has the authority to examine the find in situ and make a determination as to the nature of the find:

a) If the remains are determined to be human, the Coroner will determine whether or not they are likely of Native American origin. If so, the Coroner will contact the Native American Heritage Commission and the Commission will name the Most Likely Descendent (MLD). In consultation between the City, Property Owner, MLD, and consulting archaeologist, the disposition of the remains will be defined. If there is a conflict, the Native American Heritage Commission with act as a mediator.

b) If the remains are determined to be archaeological, but not of Native American origin, the City, Property Owner and archaeological consultant will determine the management of the find and the removal from the site. The Property Owner would beresponsible for any costs related to the removal, analysis, and reburial.

c) If the remains are determined to be of forensic value, the Coroner will arrange for theremoval of the remains and oversee the analysis and disposition.

With implementation of Mitigation Measure CR-2, the Proposed Project would not disturb any human remains, including those interred outside of dedicated cemeteries.

3.6 ENERGY

6.	ENERGY Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?	☐	☐	☒	☐
(b)	Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

3.6.1 Environmental Setting

Energy efficiency can reduce the demand for electricity generation. California has implemented energy efficiency standards and programs, resulting in annual increases of conservation savings for electricity. In 2017, the cumulative annual efficiency and conservation savings for electricity surpassed 70,000 gigawatt hours in California (California Energy Commission, 2018). Energy conservation state laws, like Title 24 of the California Administrative Code and Uniform Building Code, will be enforced by the City of Beaumont.

3.6.2 Impact Analysis

a) *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?*

Less than Significant Impact.

Electricity

The Proposed Project consists of the development of industrial building, parking lot and landscape. Southern California Edison (SCE) provides electricity to the City of Beaumont. According to the California Energy Commission, the industry sector of the Southern California Edison planning area consumed 17,806,763,595 GWh of electricity in 2019.[6] The Project Site is currently vacant and does not use electricity. Therefore, implementation of the Proposed Project would result in an increase in electricity demand. The increased electricity demand from the Proposed Project is estimated at approximately 0.17 GWh per year based on the CalEEMod output from running the air quality emissions for the Proposed Project.[7] Total electricity demand in SCE's service area is estimated to increase by approximately 12,000 GWh between the years 2015 and 2026. The increase in electricity demand from the Proposed Project is insignificant compared to the projected electricity demand for SCE's entire service area and SCE's 2019 industry sector's demand.

The Proposed Project shall comply with the 2019 Building Energy Efficiency Standards. During the design phase, the architect, mechanical engineer, and lighting designer must determine whether the building or system design complies with the Energy Standards. The Proposed Project would also be required to adhere to CALGreen, which outlines planning and

[6] California Energy Commission. Electricity Consumption by Planning Area. https://ecdms.energy.ca.gov/elecbyplan.aspx
[7] Per CalEEMod outputs. Estimated electric generation is for proposed additional Industrial uses on-site.

design standards for sustainable developments and energy efficiency. Therefore, the Proposed Project would not result in significant environmental impact due to wasteful, inefficient or unnecessary consumption of energy, or wasteful use of energy resources.

Natural Gas

The Project Site would be serviced by Southern California Gas Company (SoCalGas). The Project Site is currently vacant and have no demand for natural gas. Consequently, development of the Proposed Project would create a permanent increase in demand for natural gas. According to the California Energy Commission, the natural gas consumption of the SoCalGas planning area industry sector was 1,724,870,500 therms in 2019.[8] Despite the ever-growing demand for electric power, the overall gas demand for electric generation is expected to decline at 1.4 percent per year for the next 17 years due to more efficient power plants, statewide efforts to reduce GHG emissions, and use of power generation resources that produce little to no carbon emissions. The estimated natural gas demand for the proposed structure is approximately 5,685.75 therms per year;[9] it would represent an insignificant percentage (0.0003296%) to the overall demand in SoCalGas's service area. The Proposed Project would not result in a significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Fuel

During construction of the Proposed Project, transportation energy consumption is dependent on the type of vehicles used, number of vehicle trips, vehicle miles traveled, fuel efficiency of vehicles, and travel mode. Temporary transportation fuel use such as gasoline and diesel during construction would result from the use of delivery vehicles and trucks, construction equipment, and construction employee vehicles. Additionally, most construction equipment during grading would be powered by gas or diesel. Based on output from CalEEMod version 2016.3 for (see Appendix D for fuel calculations), the Proposed Project construction activities would consume an estimated 20,953.3 gallons of diesel fuel for operation of heavy-duty equipment. Assuming all construction worker trips are from light duty autos, it is estimated 2,461.0 gallons of fuel will be consumed and fuel consumption from construction vendor (material deliver) trips is 2,781.0 gallons. Construction worker and vendor fuel consumption are based on CalEEMod's default data for vehicles miles traveled (VMT). Construction would represent a "single-event" diesel and gasoline fuel demand and would not require continuous or permanent commitment of these fuel resources. Impacts related to transportation energy use during construction would be temporary and would not require the use of additional use of energy supplies or the construction of new infrastructure.

During operations of the Proposed Project, fuel consumption would result from customer visits, trips by maintenance staffs, employee vehicle trips and delivery trucks. The Proposed Project would result in an estimated 37,638.7 gallons[10] of fuel consumption per year based on 407,955 miles driven. As a worst case analysis, half the miles were modeled with an automobile fuel efficiency of 24 miles per gallon and half were modeled at 7 miles per gallon.[11] Trip generation and VMT generated by the Proposed Project were consider insignificant. The Proposed Project does not include uses or operations that would inherently

[8] California Energy Commission. California Energy Consumption Database.
[9] Per CalEEMod outputs. Estimated natural gas demand is for proposed additional Industrial uses on-site.
[10] CalEEMod output based on trips generated; represents modeled estimation, not actual consumption.
[11] United States Department of Transportation, Bureau of Transportation Statistics. 2018. National Transportation Statistics 2018. Available at: https://www.bts.gov/sites/bts.dot.gov/files/docs/browse-statistical-products-and- data/national-transportation-statistics/223001/ntentire2018q4.pdf.

result in excessive and wasteful vehicle trips and VMT or associated wasteful vehicle energy consumption. It is not expected to result in a substantial demand for energy that would require expanded supplies or the construction of other infrastructure or expansion of existing facilities. Therefore, the Proposed Project would not result in wasteful, inefficient, or unnecessary consumption of fuel resources used for transportation. No significant adverse impacts are identified or anticipated, and no mitigation measures are required.

b) *Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Less than Significant Impact. The City of Beaumont has adopted a Climate Action Plan known as the Sustainable Beaumont Plan with the goal of reducing greenhouse gas emissions from the building energy sector. The City has partnered with Southern California Edison (SCE) and Southern California Gas Company (SCG) to form the Energy Leader Partnership (ELP). ELP's goal is to reduce the City's municipal and community-wide energy footprint. The Sustainable Beaumont Plan also involves implementing a variety of retrofits in municipal lighting and heating, ventilation, and air-conditioning (HVAC) systems and conducting various forms of outreach in the community to encourage adoption of energy efficiency and renewable energy programs offered by SCE and SCG. Under CAP, commercial buildings will be held to net-zero energy performance standards by 2030.

The City shall continue to enforce the energy conservation standards in Title 24 of the California Administrative Code, the Uniform Building Code (UBC) and other state laws on energy conservation design, insulation and appliances.[12] Project design and operation would comply with Beaumont's CAP, UBC and 2019 Building Energy Efficiency Standards (Title 24). Project development is not anticipated to cause inefficient, wasteful, and unnecessary energy consumption. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

3.7 GEOLOGY AND SOILS

7.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
	ii)Strong seismic ground shaking?	☐	☐	☒	☐
	iii)Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐

[12] City General Plan. Page 76.

7.	GEOLOGY AND SOILS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
	iv)Landslides?	☐	☐	☒	☐
(b)	Result in substantial soil erosion or the loss oftopsoil?	☐	☐	☒	☐
(c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
(d)	Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
(e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☒	☐
(f)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

3.7.1 Environmental Setting

The City is within the San Gorgonio Pass region of Southern California, south of the San Bernardino Mountains, within the San Jacinto Mountains of the Peninsular Ranges geomorphic province of California. The region surrounding the City is a geologically complex area, in part due to movement along faults such as the San Andreas Fault, Banning Fault, and San Gorgonio Fault. The Peninsular Ranges extend from the Los Angeles Basin to the tip of Baja California and are bounded by the Elsinore Fault Zone and the Colorado Desert on the east and the Pacific Coast on the west. The geology in the northern reaches of the range, including the San Jacinto Mountains, consists of Paleozoic gneiss, schist, and other older metamorphic rocks; Mesozoic granitic rocks of the Southern California batholith; and Cenozoic marine and terrestrial deposits. The highest point in the range is San Jacinto Peak at approximately 10,805 feet above mean sea level.

A Preliminary Geotechnical Investigation dated September 10, 2020 was completed for the Proposed Project by South Shore Testing & Environmental. This report is included as Appendix E and summarized herein.

3.7.2 Impact Analysis

a)i) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.

Less than Significant Impact. The San Jacinto Fault is a northwesterly to southeasterly trending fault zone located south of the City and sphere of influence.[13] The San Andreas Fault is approximately six miles northeast of the City. The Banning Fault extends east from the Beaumont area for at least 25 miles and passes near the communities of Calimesa, Cherry Valley, Banning, Cabazon and Whitewater. According to Preliminary Geotechnical Investigation, the Project Site is not within a state designated Alquist Priolo Earthquake Fault Zone. The Project Site is located approximately 5.8 miles northeast from the San Jacinto fault. It is located in a region of generally high seismicity, as is the case for all of Southern California. The Proposed Project would be required to comply with the building design standards of the CBC Chapter 33 for construction of new buildings and/or structures related to seismicity and specific engineering design and construction measures would be implemented to anticipate and avoid potential impacts from seismic activity. Therefore, no significant impacts are identified or anticipated, and no mitigation measures arerequired.

a)ii)Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Less than Significant Impact. The Project Site is located in a region of generally high seismicity, as is the case for all of Southern California. The County of Riverside adopted the Uniform Building Code (UBC), which requires that the construction of structures be in compliance with the California Building Code (CBC) to reduce the hazard risks posed by earthquakes. Adhering to these codes can reduce potential ground-shaking impacts to less than significant levels. Therefore, no significant adverse impacts are identified or anticipated,and no mitigation measures are required.

a)iii)Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Less than Significant Impact. Strong ground shaking can result in liquefaction. Areas overlying groundwater within 30 to 50 feet of the surface are considered susceptible to liquefaction hazards. According to the Preliminary Geotechnical Investigation, groundwater was not encountered within exploratory trenches which were approximately 10 feet below ground surface. No mottling or indications of previous high groundwater levels were observed during excavation of exploratory trenches. Based on historic groundwater records the depth to groundwater underlying the Project Site is in excess of 100 feet. The Project Site is not within either a State of California or County of Riverside designated or mapped liquefaction hazard zone. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

a) iv)Would the project directly or indirectly cause potential substantial adverse effects, includingthe risk of loss, injury, or death involving landslides?

Less than Significant Impact. Landslides and slope failure can result from ground motion generated by earthquakes. The slopes within the San Timoteo Badlands are the most susceptible to landslides in the City. These slopes are approximately 7.5 miles northwest of the Project Site. According to the Preliminary Geotechnical Investigation, the Project Site is in an area low rolling relatively flat elevated terrain and no landslides have been mapped in the

[13] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Page 5.6-17.
https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/

area. The risk of seismically induced land sliding to affect the proposed development is negligible. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

b) *Would the project result in substantial soil erosion or the loss of topsoil?*

Less than Significant Impact. Development of the approximately 1.02-acre vacant parcel would disturb more than one acre of soil and therefore, the Proposed Project is subject to the requirements of the State Water Resources Control Board General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). The Construction General Permits requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). A SWPPP is required for construction of the Proposed Project and will include a list of Best Management Practices (BMPs) to avoid and minimize soil erosion. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

c) *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?*

Less than Significant Impact. According to the Preliminary Geotechnical Investigation, the formation of earth materials underlying the Project Site are Pleistocene-age Older surficial sediments which consist of re brown silty sand and sandy silt. The Project Site is not within either a State of California or County of Riverside designated or mapped liquefaction hazard zone. As stated above, the potential for liquefaction at the Project Site is very low. Because of the site's relatively flat topography and low liquefaction potential, it would not be susceptible to lateral spreading. Although the Project Site is located in an area susceptible to subsidence, it is not located in an area with active subsidence.[14] According to the Preliminary Geotechnical Investigation, the Project Site is in an area low rolling relatively flat elevated terrain and no landslides have been mapped in the area. The risk of seismically induced land sliding to affect the proposed development is negligible. State and City Building Codes establish engineering and construction criteria designed to mitigate potential impacts associated with unstable soils, landslides, lateral spreading, subsidence, liquefaction, soils collapse and expansive soils. Compliance with building codes would ensure that effects of these hazards are reduced to the extent feasible. Therefore, no significant adverse impacts are identified or anticipated, and nomitigation measures are required.

d) *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

Less than Significant Impact. According to Preliminary Geotechnical Study, the Project Site consists of red brown silty sand and sandy silts. Expansive soils are fine grained clay soils that swell in volume when they absorb water and shrink when they dry. This change in volume causes stress on buildings and other loads placed on expansive soils. Although the soil identified within the Project site are not fined grained clay, the Proposed Project is required to be compliant with the CBC Code in Title 24, as related to the construction of structures and facilities on expansive soils. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

[14] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Figure 5.6-7 Subsidence Potential. https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/

e) *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?*

Less than Significant Impact. The Proposed Project does not include the installation of a new septic tank or any other alternative wastewater disposal system. The Proposed Project will connect to an existing sewer line in Frist Street that provides sewer service to the area. Therefore, no significant adverse impact is identified or anticipated, and no mitigation measures are required.

f) *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

Less than Significant with Mitigation Incorporated. A paleontological overview was prepared by the Natural History Museum of Los Angeles County for the general area as part of the Phase I Cultural Resources Investigation. McKenna et al. used the data compiled by the Museum and supplemental data from the Riverside County GIS system to assess the potential for the Project Site to yield evidence of fossil specimens. The paleontological overview identified the Project Site as consisting entirely of "… Quaternary Alluvium, derived as alluvial fan deposits from the San Jacinto Mountains." Despite these deposits of Quaternary Alluvium (Upper Pleistocene and Holocene deposits), the shallow deposits are not considered sensitive for paleontological specimens. However, deeper deposits of older Quaternary Alluvium (Late Pleistocene), likely present in pockets, have been associated with paleontological specimens. Shallow excavations are not likely to impact fossil bearing deposits, but deeper excavations may impact Older Quaternary Alluvium (fossil bearing deposits) and, therefore, Mitigation Measures GEO-1 should be implemented.

Mitigation Measure GEO-1:

Should older Quaternary Alluvial deposits be encountered during site preparation activities, a qualified paleontologist shall oversee the excavations to ensure that any paleontological specimens are identified, recovered, analyzed, reported, and curated in accordance with CEQA and the County of Riverside policies and guidelines. This program should be conducted while these older deposits are impacted and while the paleontological consultant deems the program necessary.

Implementation of Mitigation Measure GEO-1 would ensure no significant impacts to paleontological resources occur as a result of the Proposed Project.

3.8 GREENHOUSE GAS EMISSIONS

8.	GREENHOUSE GAS EMISSIONS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
(b)	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

3.8.1 Environmental Setting

The environmental efforts in California emphasized the need to reduce greenhouse gas (GHG) emissions. According to the City's Climate Action Plan, Beaumont is committed to planning sustainably to reduce GHG emissions among other things. Executive Order S-3-05, which was passed in 2005, established GHG emissions targets for California for the subsequent decades: 1990 levels by 2020 and 80% below 1990 levels by 2050. According to the California Air Resources Board, as of 2017, California has emitted 7 MMTCO2e below the 2020 GHG Limit.

3.8.2 Impact Analysis

a) *Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?*

Less than Significant Impact. According to CEQA Guidelines Section 15064.4, when making a determination of the significance of greenhouse gas emissions, the "lead agency shall have discretion to determine, in the context of a particular project, whether to (1) use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use." In addition, CEQA Guidelines section 15064.7(c) provides that "a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts" on the condition that "the decision of the lead agency to adopt such thresholds is supported by substantial evidence."

The Global Warming Solutions Act of 2006 requires that by the year 2020, the Greenhouse Gas (GHG) emissions generated in California be reduced to the levels of 1990. The City of Beaumont has not adopted its own thresholds of significance for greenhouse gas emissions. However, the City finds persuasive and reasonable the approach to determining significance of greenhouse gas emissions established by SCAQMD.

Emissions were estimated using the CalEEMod version 2016.3.2 (see Appendix A for model output). Construction is anticipated to begin in late 2021 and completed in early 2022. Other parameters which are used to estimate construction emissions such as those associated with worker and vendor trips, and trip lengths and operational mobile source emissions were based on the CalEEMod defaults.

Many gases make up the group of pollutants that are believed to contribute to global climate change. However, three gases are currently evaluated and represent the highest concertation

of GHG: Carbon dioxide (CO2), Methane (CH4), and Nitrous oxide (N2O). The Proposed Project would not generate Fluorinated gases as defined by AB 32, only the GHGs (CO_2, CH_4, and N_2O) that are emitted by construction equipment. SCAQMD provides guidance methods and/or Emission Factors that are used for evaluating a project's emissions in relation to the thresholds. A threshold of 10,000 MTCO2E per year has been adopted by SCAQMD for industrial type projects.

As shown in Table 7 and Table 8, the Proposed Project's emissions would not exceed the SCAQMD's 10,000 $MTCO_2e$ threshold of significance. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

Table 7
Greenhouse Gas Construction Emissions
(Metric Tons per Year)

Source/Phase	**CO_2**	**CH_4**	**N_20**
Site Preparation	1.5	0.0	0.0
Grading	2.6	0.0	0.0
Building Construction	65.0	0.0	0.0
Paving	6.4	0.0	0.0
Architectural Coating	1.4	0.0	0.0
Total MTCO2e	**159.7**		
SCAQMD Threshold	10,000		
Significant	**No**		
Amortized over 30 years	**5.3**		

Source: CalEEMod.2016.3.2 Annual Emissions.

Table 8
Greenhouse Gas Operational Emissions
(Metric Tons per Year)

Source/Phase	**CO_2**	**CH_4**	**N_20**
Area	0.0	0.0	0.0
Energy	86.9	0.0	0.0
Mobile	170.9	0.0	0.0
Waste	4.4	0.2	0.0
Water	18.0	0.1	0.0
Construction Amortized over 30 years	9.7		
Total MTCO2e	**291.7**		
SCAQMD Threshold	10,000		
Significant	**No**		

Source: CalEEMod.2016.3.2 Annual Emissions.

b) Would the project conflict with an applicable plan, policy, or regulation adopted for the purposeof reducing the emissions of greenhouse gases?

Less than Significant Impact. In October 2015, the City adopted a climate action plan known as the Sustainable Beaumont Plan, which commits the City to a more energy efficient pathway. The Sustainable Beaumont Plan provided measures to meet the goal of reducing community GHG emissions 15 percent decrease from 2005 levels, as recommended in the AB 32 Scoping Plan. The goal for 2030 is to reduce GHG emissions 41.7 percent below 2012

levels, which would put the City on a path toward the State's long-term goal to reduce emissions 80 percent below 1990 levels by 2050. The reduction measures listed in the Sustainable Beaumont Plan are estimated to reduce 162,174 MTCO2e by 2030, which meets the 2030 target (SB 2015, p. 64). The Sustainable Beaumont Plan will serve as a foundation that can be built upon in updated versions of the General Plan or similar document to meet the 2030 goals and beyond.

The Project Site is zoned Manufacturing under the General Plan. The future emissions estimate of the Sustainable Beaumont Plan therefore account for the implementation of the Proposed Project as it is consistent with the General Plan. The project design incorporates standards such as Title 24 to lower GHG emissions. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

3.9 HAZARDS AND HAZARDOUS MATERIALS

9.	HAZARDS AND HAZARDOUS MATERIALS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
(b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
(c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☒	☐
(d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
(e)	For a project located within an airport land use plan or, where such a plan had not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
(f)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
(g)	Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	☐	☐	☒	☐

3.9.1 Environmental Setting

The transportation of hazardous substances through the City poses a threat to public health and safety. Many of Beaumont's businesses produce, use and store hazardous materials. The

transport, storage, use and disposal of hazardous materials and wastes is extensively regulated at all levels.

3.9.2 Impact Analysis

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant with Mitigation Incorporated. Construction and operation of the Proposed Project would require the routine transport, use, storage, and disposal of limited quantities of common hazardous materials such as gasoline, diesel fuel, oils, solvents, paint, fertilizers, pesticides, and other similar materials. All materials required during construction would be kept in compliance with State and local regulations. Operations would include standard maintenance (i.e., landscape upkeep, exterior painting and similar activities) involving the use of commercially available products (e.g., pesticides, herbicides, gas, oil, paint, etc.) the use of which would not create a significant hazard to the public.

Development of the vacant Project Site would disturb approximately 1.02 acres and would therefore be subject to the National Pollutant Discharge Elimination System (NPDES) permit requirements. Requirements of the permit include development and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

The purpose of the SWPPP is to: 1) identify pollutant sources that may affect the quality of discharges of storm water associated with construction activities and 2) identify, construct, and implement storm water pollution control measures to reduce pollutants in storm water discharges from the construction site during and after construction. The SWPPP must include Best Management Practices (BMPs) to control and abate pollutants. Implementation of BMPs would ensure that potential impacts associated with the release of hazardous materials to the public or to the environment are reduced to a less than significant level. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

b) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact. Hazardous or toxic materials transported in association with construction of the Proposed Project may include items such as oils, paints, and fuels. All materials required during construction would be kept in compliance with State and local regulations. With the implementation of BMPs and compliance with all applicable regulations, potential impacts from the use of construction-related hazardous materials is considered less than significant.

The City of Beaumont will work with County, State and Federal agencies involved in the regulation of hazardous materials' storage, use and disposal. The City will work with the Riverside County Fire Department in requiring hazardous materials users and generators to identify safety procedures for responding to accidental spills and emergencies. Additionally, the Proposed Project is subject to NPDES permit requirements and would therefore include a SWPPP. Site design and operating procedures are to adhere to California Stormwater Quality Association standard BG-22, which requires implementation of operational BMPs to avoid above ground storm water pollution and discharge into storm drain system. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

c) *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

Less than Significant Impact. The Project Site is located approximately 0.46 miles east of the Mojave River Academy. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

d) *Would the project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

Less than Significant Impact. There is no existing toxic or hazardous material being recognized by the State environmental agency as an environmental concern at the Project Site.[15] Therefore, the Proposed Project would not create a significant hazard to the public or environment. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

e) *For a project located within an airport land use plan or, where such a plan had not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

No Impact. The Project Site is not located within an airport land use plan.[16] There are no airports within the City.[17] The nearest airport to the Project Site is the Banning Municipal Airport, located approximately five miles southeast of the Project Site. The Project Site is not located within two miles of a public airport or public use airport. The Proposed Project would not result in a substantial safety hazard related to airports. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

f) *Would the project impair implementation of or physically interfere with an adopted emergencyresponse plan or emergency evacuation plan?*

Less than Significant Impact. The Project Site is located on the north side of First Street between Veile Avenue and Grace Avenue. The General Plan Circulation Element provides for appropriate evacuation routes and circulation throughout the General Plan Area to facilitate rapid response to emergency situations. The Project Site is not considered an evacuation route.[18] However, the City has an adopted Emergency Operations Plan (EOP) and Standardized Emergency Management System (SEMS)/National Incident Management System (NIMS). This plan establishes the emergency organization, assigns tasks, specifies policies and general procedures, and provides for coordination of planning efforts of the various emergency staff and service elements. It is an extension of the State Emergency Plan.[19] New development plans are subject to review and approval by the RCFD, thereby ensuring that the Proposed Project does not interfere with evacuation. The City and Riverside County Fire Department established certain design standards to ensure that site planning and building design consider public safety and fire prevention; these standards include requirements governing emergency access. During construction, the contractor would be

[15] Department of Toxic Substances Control. EnviroStor database. Accessed February 22, 2021
[16] Riverside County. Map my County. https://gis.countyofriverside.us/Html5Viewer/?viewer=MMC_Public
[17] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Page 5.8-26. https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/
[18] City General Plan. Figure 9.2 Evacuation Routes.
[19] City General Plan. Page 224.

required to maintain adequate emergency access for emergency vehicles as required by the City and County. Site access for operations would be subject to approval of the Site Plan by the City. Therefore, no significant impacts are anticipated, and no mitigation measures are required.

g) Would the project expose people or structures, either directly or indirectly, to a significant riskof loss, injury or death involving wildland fires?

Less than Significant Impact. Proposed development under the General Plan is subject to environmental and building permit review procedures to ensure adequate and appropriate site design and construction methods are implemented to reduce the risk of wildland fires. For new development, the creation of defensible areas around building structures, and use of fire-resistant building materials will provide protection from wildland fires. Furthermore, the Project Site does not lie within a Very High Fire Hazard Severity Zone (VHFHSZ) and is not in area considered a wildland fire risk (see Wildfire Section for further discussion).[20] Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

3.10 HYDROLOGY AND WATER QUALITY

10.	HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality?	☐	☒	☐	☐
(b)	Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
(c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
	i) Result in a substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
	ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flood on- or off-site;	☐	☐	☒	☐
	iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
	iv) Impede or redirect flood flows?	☐	☐	☒	☐

[20] City General Plan. Figure 9-3 Fire Hazard Severity Zone Map.

10.	HYDROLOGY AND WATER QUALITY. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(d)	In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
(e)	Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☒	☐	☐

3.10.1 Environmental Setting

The Beaumont-Cherry Valley Water District (BCVWD) provides potable water service to the City of Beaumont and currently serves over 50,000 residents. Water supplies available to support development within the City consist primarily of groundwater extracted from the Beaumont Basin (also referred to as the Beaumont Storage Unit (BSU) or Beaumont Management Zone (BMZ) and Edgar Canyon/Little San Gorgonio Creek. The City has adopted the Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) regulations to reduce pollutants in urban runoff and in storm water. The City of Beaumont falls under the Santa Ana Watershed and is a co-permittee in the Santa Ana Watershed's National Pollutant Discharge Elimination System (NPDES) permit. The permit lead is the Riverside County Flood Control and Water Conservation District. As part of the NPDES regulations, the City of Beaumont was issued a Municipal Separate Storm Sewer System (MS4) Permit. This State Permit places pollution prevention requirements on planned developments, construction sites, commercial and industrial businesses, municipal facilities and activities, and residential communities.

3.10.2 Impact Analysis

a,e) Would the project violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality? Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant with Mitigation Incorporated. The Proposed Project would disturb approximately 1.02 acres of vacant land and is therefore subject to the NPDES permit requirements. The State of California is authorized to administer various aspects of the NPDES. Construction activities covered under the State's General Construction permit (CGP) include removal of vegetation, grading excavating, or any other activity that causes the disturbance of at least one acre. The CGP requires recipients to reduce or eliminate non-storm water discharges into stormwater systems, and to develop and implement a SWPPP.

A preliminary Water Quality Management Plan (WQMP) dated October 5, 2020 was prepared for the Proposed Project by Blaine A. Womer Civil Engineering (see Appendix F). The WQMP is intended to comply with the requirements of the County of Riverside for Ordinance No. 457, which includes the requirement for the preparation and implementation of a Project-Specific WQMP. The Project Applicant shall be responsible for the implementation and funding of the WQMP and will ensure that it is amended as appropriate to reflect up-to-date conditions on the Project Site. See part b below for project compliance to sustainable groundwater management plan.

The implementation of the WQMP is enforceable under the County of Riverside Water Quality Ordinance. Review and approval of the WQMP would ensure that all potential pollutants of concern are minimized or otherwise appropriately treated prior to being discharged from the Project Site. To ensure potential impacts are reduced to less than significant, the following mitigation measure shall be implemented:

Mitigation Measure WQ-1:

The Project Proponent shall implement all permanent, structural BMPs and Operations BMPs as listed in the final WQMP to be approved by theCity.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact. Water supplies available to support development within the City consist primarily of groundwater extracted from the Beaumont Basin and Edgar Canyon.[21] The Proposed Project's water demands would be met by the Beaumont-Cherry Valley Water District (BCVWD). The Beaumont Basin has a large storage capacity for banked water.[22]

BCVWD water supplies are projected to increase from 9,792 AFY supplied in 2015 to 28,960 AFY by 2040.[23] This projection will meet BCVWD's projected customer water demand of 25,381 AFY by 2040. BCVWD plans to purchase additional imported water from the State Water Project (SWP) through the San Gorgonio Pass Water Agency when possible to add to the storage account balance to prepare for future shortfalls that may occur during dry years. BCVWD expects the imported water that is requested for purchase in the future (either for storage or distribution) to be supplied, and if in any year the request is not met, the shortfall will be delivered once imported water is available. BCVWD anticipates banking 35,000 AF of water over the next 20 years, thus bringing the storage account to 60,560 AF. When the groundwater storage account reaches this amount, BCVWD will be able to meet year 2040 water demands with no SWP for over three years.

At the time the Urban Water Management Plan (UWMP) was prepared, the population served by BCVWD is expected to nearly double by 2040-50. The Proposed Project is the development of an industrial building. The Proposed Project would be developed on a vacant parcel. The Proposed Project includes approximately 3,896.1 square-feet of irrigated landscaping area. Subject to approval of Plot Plan, the Proposed Project is consistent with the 2040 General Plan and would therefore be included in BCVWD's projections for water demands.

The Proposed Project would be required to conform to the City of Beaumont and County of Riverside Landscaping Ordinances that pertain to water efficient landscape for the purpose of reducing water demands. No significant impacts are identified or anticipated, and no mitigation measures are required.

[21] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Page 5.18-3.
https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/
[22] BCVWD. 2015 Urban Water Management Plan. Prepared January 2017.
[23] BCVWD. 2015 Urban Water Management Plan. Prepared January 2017. Page 6-62.

c) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:*

i) result in substantial erosion or siltation on- or off-site

Less than Significant Impact. Erosion is the process by which soils are removed from the Project Site most commonly by wind or water. Erosion is more likely to occur if soils are left unprotected. The Proposed Project would include the construction of an industrial building on a currently vacant lot. The hazard of soil erosion would be reduced after construction of the Proposed Project by protecting soil via landscaping and directing stormwater runoff to the three infiltration trenches located along the southern frontage of the Project Site. NPDES permit requirements address the control of erosion and siltation. This includes the CGP which requires the effective implementation of erosion control measures. The Santa Ana RWQCB conducts inspections and enforces the CGP at construction sites. A SWPPP is required for construction of the Proposed Project and will include a list of Best Management Practices (BMPs) to avoid and minimize soil erosion. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

ii, iii, iv) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources or polluted runoff; or impede or redirect flood flows

Less than Significant Impact. A preliminary Drainage Study, dated February 11, 2021, was prepared for the Proposed Project by Blaine A. Womer Civil Engineering (see Appendix G). The purpose of this study is to develop the incremental volume increase in runoff for the proposed development to preliminarily design the proposed detention facilities. Under existing conditions on the vacant parcel, the site naturally drains to the southwest towards First Street. Under proposed conditions, the infiltration trenches would detain the incremental increase in storm runoff. In the event, of storm events larger than the critical storm, and runoff would overflow to Frist Street.

The pre-development to post-development incremental increase of runoff volume is 2,382 CF for the 100 year, 24-hour event. The total inflation trenches would provide 2,400 CF of storage.

The Project Site is within the Riverside County Flood Control and Water Conservation District (RCFC and WCD). The Federal Emergency Management Agency (FEMA) map shows that the Project Site is within Flood Zone X, which is an area of 1% annual chance flood with average depths of less than one foot or with drainage areas less than one square mile.[24] This zone corresponds to areas with moderate to low risk of flooding.[25] Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

d) *Would the project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?*

Less than Significant Impact. Due to the inland distance from the Pacific Ocean and any other significant body of water, tsunamis and seiches are not potential hazards in the vicinity

[24] FEMA. National Flood Hazard Layer.
[25] Definitions of FEMA Flood Zone Designations. https://efotg.sc.egov.usda.gov/references/public/NM/FEMA_FLD_HAZ_guide.pdf

of the Project Site. The eastern boundary of the Project Site is within Flood Zone X, which is an area with 0.2% annual chance flood, area of 1% annual chance flood with average depths of less than one foot or with drainage areas less than one square mile.[26] This zone corresponds to areas with moderate to low risk of flooding.[27] Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

3.11 LAND USE AND PLANNING

11.	LAND USE/PLANNING Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Physically divide an established community?	☐	☐	☒	☐
(b)	Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☒	☐

3.11.1 Environmental Setting

The strategy for the remainder of land in the City is to focus development within the City limits on undeveloped lots in order to foster compact development patterns, create walkable communities, and preserve the natural environment and critical environmental areas. The Project Site occurs within "Historic Barrio Railroad District" or Barrio for short. The general boundaries are First Street, California Avenue, rail tracks and Veile Avenue. The neighborhood was established early in the City's history for worker housing during the construction of the railroads.[28] Neighborhoods, districts, and corridors are the fundamental building blocks of all cities; mapping these can help better understanding how people live, shop, work, play, and get around in Beaumont. The larger Beaumont planning area has been subdivided into twelve smaller subareas. Each subarea has unique identifying features and demonstrate what makes Beaumont special.

3.11.2 Impact Analysis

a) Would the project physically divide an established community?

Less than Significant Impact. The Project Site is within the "Historic Barrio Railroad District" or Barrio for short. The general boundaries are First Street, California Avenue, rail tracks and Veile Avenue. The neighborhood was established early in the City's history for worker housing during the construction of the railroads. The Barrio is home to a largely Hispanic population. Informational signs in the area include the neighborhood's history and black-and white photos of the area, such as that of an old train depot [29] Development of the Proposed Project would not impact Historic Barrio Railroad District, as the Project Site is designated for Industrial land use. The Industrial designation is characterized by a wide range of industrial uses, including "stand-alone" industrial activities as well as business parks. Other types of permitted development within this land use category includes research parks, private trade schools, colleges, and business complexes containing a mix of light industrial, distribution, office, and

[26] FEMA. National Flood Hazard Layer.
[27] Definitions of FEMA Flood Zone Designations. https://efotg.sc.egov.usda.gov/references/public/NM/FEMA_FLD_HAZ_guide.pdf
[28] City of Beaumont General Plan. Page 58 https://www.beaumontca.gov/DocumentCenter/View/36923/Beaumont-GPU_Final-rev-22521
[29] City of Beaumont. General Plan. Page 58.

commercial or supportive retail activities. Most of the parcels included in the Industrial land use designation are found in the Interstate Employment Subarea located south of the SR60 Freeway.[30] Additionally, the Project Site is within the Manufacturing (M) zone. The M zone is intended to maintain the existing industrial and manufacturing uses and to promote the development of new business parks, light industrial use, manufacturing uses, and warehousing activities in the City.[31]

The Proposed Project is the development of an industrial building on a currently vacant parcel. The Proposed Project would be consistent with the General Plan zoning and land use designation. The physical division of an established community is typically associated with construction of a linear feature, such as a major highway or railroad tracks, or removal of a means of access, such as a local road or bridge, which would impair mobility in an existing community or between a community and an outlying area. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

Less than Significant Impact. The Proposed Project is the development of an industrial building on a currently vacant parcel. The Proposed Project would be consistent with the General Plan's M zoning and Industrial land use designation. As such, the Proposed Project would not conflict with any land use plan, policy or regulation with the purpose of avoiding or mitigating an environmental effect. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

3.12 MINERAL RESOURCES

12.	MINERAL RESOURCES Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☒	☐
(b)	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

3.12.1 Environmental Setting

The upper portion of the City is located in MRZ-3 where the significance of mineral deposits are undetermined; the lower portion of the Planning Area is located either in MRZ-3 or in an unstudied area (no MRZ designation issued). Approximately 11,00 acres within the City limits is and approximately 5,730 acres within the City's SOI are within MRZ-3; approximately 7,930 acres within the City limits and approximately 1,420 acres within the City's SOI are within an unstudied area.

[30] City of Beaumont. General Plan. Page 74.
[31] City of Beaumont. Municipal Code.

3.12.2 Impact Analysis

a) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Less than Significant Impact. The Project Site is located within MRZ-3, where the significance of mineral deposits is undetermined.[32] The Proposed Project's demand for mineral resources will be considered less than significant due to the abundance of available aggregate resources in the Southern California region. Mineral resource mining would not be compatible with the surrounding land uses and the General Plan designation for the Project Site. There have been no significant amounts of mineral deposits found in the City. However, since much of the City is flat and characterized by alluvial materials, which eroded and washed down from the mountains, extracting aggregate resources from open spaces adjacent to the flood channel in the western portion of the City and its Sphere of Influence may be possible. The Project Site is located in the southwestern portion of the City and therefore, the Proposed Project would have potential interfere with resources extraction. However, the Project Site is not designated for mineral extraction. There are no delineated sites or locations of mineral resources within the City or Sphere boundaries. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

b) Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact. The City does not contain any locally important mineral resource recovery sites.[33] Although the current Zoning Ordinance has a Mineral Resources Overlay Zone (Section 17.03.160) neither the City's 2006 General Plan, existing Zoning Map, or any specific plan within the Planning Area identifies a locally-important mineral resource recovery site.[34] The Project Site has a current zoning of Manufacturing and is within an area intended for industrial use within the city. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

3.13 NOISE

13.	NOISE Would the project result in:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☒	☐
(b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐

[32] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Figure 5.11.-1 Mineral Resource Zones. https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/
[33] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Figure 5.11.-1 Mineral Resource Zones. https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/
[34] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Page 5.11-7. https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/

13.	NOISE Would the project result in:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(c)	For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☒	☐

3.13.1 Environmental Setting

The ambient noise environment in the City is dominated by transportation-related noise. Freeway noise will continue to impact planning areas located along the I-10 and SR-60 Freeway corridors. The Project Site is located approximately .45 miles south of the I-10 and SR-60.

3.13.2 Impact Analysis

a) Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less than Significant with Impact. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). The predominant rating scales for noise in the State of California are the Equivalent-Continuous Sound Level (Leq) and the Community Noise Equivalent Level (CNEL). Both are based on the A-weighted decibel (dBA) which approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. The Leq is defined as the total sound energy of time-varying noise over a sample period. The CNEL is defined as time-varying noise over a 24-hour period with a weighted factor of 5 dBA applied to the hourly Leq for noise occurring form 7:00 p.m. to 10:00 p.m. (defined as relaxation hours) and 10 dBA applied to events occurring between (10:00 p.m. and 7:00 a.m. defined as sleeping hours). The State of California's Office of Noise Control has established standards and guidelines for acceptable community noise levels based on the CNEL and day-night average sound level (Ldn) rating scales. The purpose of these standards and guidelines is to provide a framework for setting local standards for human exposure to noise.

Construction noise sources are regulated within Section 9.02.110(F) of the City of Beaumont Municipal Code which prohibits construction activities within one-quarter mile of an occupied residence or residences other than between the hours of 6:00 AM and 6:00 PM during the months of June through September and between the hours of 7:00 AM and 6:00 PM during the months of October through May. Furthermore, Section 9.02.110(F) prohibits sound levels at any time to exceed fifty-five dB(A) for intervals of more than fifteen minutes per hour as measured in the interior of the nearest occupied residence or school.

Construction activities would generate noise associated with the transport of workers and movement of construction materials to and from the area, from ground clearing/excavation, grading, and building activities. Construction activities would be short-term and would occur within the daytime hours permitted by the Section 9.02.110(F) of the City of Beaumont Municipal Code.

Post-construction noise associated with the Proposed Project would be project-generated traffic. As depicted in the City's General Plan Figure 10.1, Existing Noise Contours from Transportation, noise contours at the Project Site boundary are 60 CNEL. As depicted in Figure 10.2, Future Noise Contours (2040), future noise contours at the Project Site boundary are 60 CNEL, therefore, minor to no change in the noise contour at the Project Site has been anticipated by the General Plan. The Proposed Project is an acceptable use within the Industrial land use category and Manufacturing Zoning therefore would result in a production of operational noise levels that would not exceed those anticipated by the General Plan. As such, with adherence to the City of Beaumont Municipal Code, no significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

b) *Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Less than Significant Impact. Vibration amplitudes are usually expressed as either peak particle velocity (PPV) or the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous peak of the vibration signal in inches per second. The RMS of a signal is the average of the squared amplitude of the signal in vibration decibels (VdB), ref one micro-inch per second. The Federal Railroad Administration uses the abbreviation "VdB" for vibration decibels to reduce the potential for confusion with sound decibel.

A peak particle velocity (PPV) of 0.20 is the threshold at which there is a risk to "architectural" damage to normal dwellings. It is also the level at which groundborne vibration can become annoying. Impacts would be significant if construction activities result in groundborne vibration of 0.20 PPV or higher at a sensitive receptor.

Construction of the Proposed Project is not anticipated to require the use of equipment that would generate excessive ground borne vibration of ground-borne noise levels. It is likely that minor vibration would result from construction and grading activities. Construction equipment may result in vibration levels that are considered annoying at nearby sensitive receptors when vibration causing equipment is within 100 feet of a receptor. However, since the nearest sensitive receptor is residential development which is located approximately 250 feet south of the Project Site, no significant impacts are anticipated to occur. Additionally, as stated in Section XIII(a), above, construction hours are limited per the City's Municipal Code. As such, with adherence to the City Municipal Code, no significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

c) *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

No Impact. The Project Site is not located within an airport land use plan.[35] The nearest airport to the Project Site is the Banning Municipal Airport, located approximately 5 miles southeast of the Project Site. The Project Site is not located within two miles of a public airport or public use airport. The Proposed Project would not result in a substantial safety hazard related to airports. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

[35] Riverside County. Map my County. https://gis.countyofriverside.us/Html5Viewer/?viewer=MMC_Public

3.14 POPULATION AND HOUSING

14.	POPULATION AND HOUSING. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
(b)	Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

3.14.1 Environmental Setting

According to the United States Census Bureau, the City of Beaumont had a population of 36,877. For 2018, the City was estimated to have a population of 49,241. The City is one of the fastest growing cities in Riverside County and in California. The City has grown rapidly in the last two decades, with a population growth rate four times higher today than in the year 2000.[36] Much of the suburban growth has been in the form of low-density single-family subdivisions and strip commercial development located away from the City's original grid-pattern town center.

3.14.2 Impact Analysis

a) *Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*

Less than Significant Impact. Demographic trends show that Beaumont will continue to experience a significant amount of population growth. The proposed industrial building would be consistent with the General Plan zoning of Manufacturing. If there is a minor increase in population growth as a result of the implementation of the Proposed Project, this population growth would be accounted for in the General Plan and considered insignificant. The proposed industrial building would have an estimate of nine employees. It is anticipated that this need for employment will be met by the existing local population. Short-term construction activities at the Project Site would not attract new employees to the area since a pool of construction labor exists in the region. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

b) *Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

No Impact. The Proposed Project is the development of an industrial building on a currently vacant parcel. The Project Site does not contain housing that could potentially be displaced. The Proposed Project would be consistent with the General Plan's Manufacturing zoning and Industrial land use designation. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

[36] City of Beaumont. 2040 General Plan. Page 12.

3.15 PUBLIC SERVICES

15.	**PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**	**Potentially Significant Impact**	**Less than Significant With Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
(a)	Fire Protection?	☐	☐	☒	☐
(b)	Police Protection?	☐	☐	☒	☐
(c)	Schools?	☐	☐	☒	☐
(d)	Parks?	☐	☐	☒	☐
(e)	Other public facilities?	☐	☐	☒	☐

3.15.1 Environmental Setting

The Safety, Community Facilities and Infrastructure Element of the General Plan establishes a framework for managing and enhancing existing utility networks, services, and facilities.

3.15.2 Impact Analysis

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?*

Less than Significant Impact. The City of Beaumont contracts with the Riverside County Fire Department (RCFD) for Citywide services, including fire protection, public service and emergency medical aid response. Fire protection services are supplemented by the California Department of Forestry station in the City. Six County fire stations serve the City, with three stations based outside but near Beaumont's boundaries. A five-minute response time is the goal of the City and current fire response times approximately 8 to 12 minutes. Fire Station No. 20, located at 1550 E. 6th Street, is approximately one mile northeast of the Project Site. This station is equipped with one paramedic engine. The engine company operating out of Station 20 is technically a resource that is part of the City of Banning contract with the RCFD. However, operational funding for this Station and the associated apparatus, which is owned by CAL FIRE, is shared equally between Beaumont, Banning and the County.[37]

In order to minimize the need for additional fire station facilities, new development plans are subject to review and approval by the RCFD. Proposed projects are required to comply with applicable fire protection and prevention requirements, such as building setbacks, emergency access and interior sprinklers. In addition, the Proposed Project is subject to all conditions of approval required by the RCFD. The Project Applicant will be required to pay a one-time mitigation fee to support the development of new fire station facilities under Beaumont City Ordinance 795 and a separate fee for emergency preparedness under City Ordinance 814.

[37] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Page 5.14-1. https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/

Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

b) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?*

Less than Significant Impact. The Beaumont Police Department provides police protection services in the area of the Project Site. The target service ratio is 1.0 to 1.2 officers per 1,000 residents. [38] The closest police station, located at 660 Orange Avenue, is approximately one mile northeast of the Project Site. In order to fund police protection services, the City is annexing new residential developments into existing Community Facilities Districts (CFDs) or forming a new CFD. These CFDs will fund public safety and municipal services, which aligns with Beaumont 2040 Plan Policies 5.8.3 (requires new development to pay its fair share of required improvements, maintenance, and services). The Project Applicant would be required to pay a one-time basic service facility fee. An increase in demand for police protection resulting from the Proposed Project would be accounted for in the General Plan and would be considered insignificant. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

c) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools?*

Less than Significant Impact. The Project Site is located within the Beaumont Unified School District (BUSD). The increase in employment from the Proposed Project is anticipated to be fulfilled by the local population. The Proposed Project is not anticipated to result in an increase in population growth within the area, thereby not increasing the number of students. The Project Applicant will be required to pay applicable development fees in support of public-school facilities. This fee will be sufficient in mitigating potential impacts of the Proposed Project on schools. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

d) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?*

Less than Significant Impact. The City shall improve the requirement of establishing five acres of parkland for every one thousand persons in conjunction with residential development.[39] The City of Beaumont and Cherry Valley Recreation and Park District own and operate park facilities. Population growth resulting from the implementation of the General Plan will lead to an increased demand for public parks. The City currently exceeds required

[38] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Page 5.14-5. https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/
[39] City of Beaumont. General Plan. Page 181.

park ratios. In addition, access to parks in Beaumont is generally high. The City's Local Park Code and the State of California Quimby Act require new development to provide parkland dedications or appropriate fees in case the Proposed Project might have direct or indirect impacts on parks. The increase in employment from the Proposed Project is anticipated to be fulfilled by the local population. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

e) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for other public facilities?*

Less than Significant Impact. The Proposed Project is not anticipated to have a significant impact on public facilities/services because an increase in the City's population is not anticipated with the Proposed Project. In addition, the Project Applicant's payment of development impact fees will mitigate any potential impacts on public services. Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

3.16 RECREATION

16.	RECREATION. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
(b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

3.16.1 Environmental Setting

The City prizes the views of the mountains and proximity to open space, both of which add value to Beaumont's unique location in the Pass area. Beaumont's open spaces will include both active and passive recreational opportunities including small neighborhood parks and plazas, sports fields, and natural areas. The community will benefit from access to open spaces that provide ample opportunities to be active, enjoy the outdoors, and reduce the risk of chronic disease, mental health issues and juvenile delinquency. Another important element will be connectivity between open space resources and residential neighborhoods via open space trails, pedestrian paths and bike connections.

3.16.2 Impact Analysis

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The implementation of the Proposed Project is not expected to lead to substantial population growth. As a result, the Proposed Project would not lead to substantial physical deterioration of neighborhood and regional parks or other recreational facilities. It would not require the construction or expansion of park or other recreational facilities to meet demands. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The Proposed Project is a industrial development and its demand for employment is anticipated to be filled by the local population. It would not require the construction or expansion of recreational facilities to meet demands of residential development. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

3.17 TRANSPORTATION

17.	TRANSPORTATION. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities?	☐	☐	☒	☐
(b)	Conflict or be inconsistent with CEQA Guidelines s § 15064.3, subdivision (b)?	☐	☐	☒	☐
(c)	Substantially increase hazards due to a geometric design feature (e. g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
(d)	Result in inadequate emergency access?	☐	☐	☒	☐

3.17.1 Environmental Setting

The Proposed Project is anticipated to be constructed and fully operational by 2022. The Proposed Project would provide two full access driveway at First Street.

3.17.2 Impact Analysis

a) Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities?

Less than Significant Impact. The Proposed Project is an approximately 16,823 square-foot, 28-foot high building with three suites to be constructed on a 1.02-acre Project Site. According to CalEEmod output tables, the Proposed Project is anticipated to generate approximately 122 weekday trips, 23 trips on Saturdays and 12 trips on Sundays. As such,

the City does not require a Traffic Impact Analysis for the Proposed Project. However, the Proposed Project shall comply with the following conditions as part of the City of Beaumont standard development review process:

- A construction work site traffic control plan shall comply with State standards set forth in the California Manual of Uniform Traffic Control Devices and shall be submitted to the City for review and approval prior to the issuance of a grading permit or start of construction. The plan shall identify any roadway, sidewalk, bike route, or bus stop closures and detours as well as haul routes and hours of operation. All construction related trips shall be restricted to off-peak hours to the extent possible.
- All on-site and off-site roadway design, traffic signing and striping, and traffic control improvements relating to the proposed project shall be constructed in accordance with applicable State/Federal engineering standards and to the satisfaction of the City of Beaumont.
- Site-adjacent roadways shall be constructed or repaired at their ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as otherwise required by the City of Beaumont.
- Adequate off-street parking shall be provided to the satisfaction of City of Beaumont.
- Adequate emergency vehicle access shall be provided to the satisfaction of the Riverside County Fire Authority.
- The final grading, landscaping, and site improvement plans shall demonstrate that sight distance requirements are met in accordance with applicable City of Beaumont Department of Public Works sight distance standards.

Facilities

Sidewalks are proposed along the Project Site frontage (see Figure 3, Site Plan). According to the City, the study area is currently served by Pass Transit bus service. However, no Pass Transit bus route runs adjacent to or near the Project Site. There are currently existing bicycle lanes along First Street in front the Project Site. To ensure less than significant impacts occur, the design of the Proposed Project would be reviewed for consistency with City standards and subject to City-approval. As such, with City-approval the Proposed Project would not alter existing transit, roadways, bicycle lanes and pedestrian facilities. Therefore, the Proposed Project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities.

b) Conflict or be inconsistent with CEQA Guidelines s § 15064.3, subdivision (b)?

Less than Significant Impact. The amended CEQA Guidelines, specifically Section 15064.3, require the use of Vehicle Miles Travelled (VMT) as the primary metric for the evaluation of transportation impacts associated with land use and transportation projects. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region.

The City of Beaumont adopted its VMT guidelines on June 16, 2020 via the Recommended Traffic Impact Analysis Guidelines for Vehicle Miles Traveled and Level of Service Assessment (January 2020) developed for Western Riverside Council of Governments (WRCOG) agencies (WRCOG TIA Guidelines); therefore, the project-related VMT impact has been assessed based on guidance from this document.

The WRCOG TIA Guidelines, as adopted by the City of Beaumont, include guidance for certain types of projects/activities that generally will not require a VMT analysis. A presumption of less than significant VMT impact for the following activities is based on substantial evidence provided in the OPR Technical Advisory, or is related to projects that are local serving, thus reducing the number of trips/trip lengths and VMT:

- Projects located in a Transit Priority Areas (TPA)
- Projects located in a low-VMT generating area
- Local-serving K-12 schools
- Local parks
- Day care centers
- Local-serving gas stations
- Local-serving banks
- Local-serving hotels (e.g. non-destination hotels)
- Student housing projects
- Local serving community colleges that are consistent with the assumptions noted in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)
- Projects generating less than 110 daily vehicle trips:
  - 11 single family housing units
  - 16 multi-family, condominiums, or townhouse housing units
  - 10,000 square feet of office
  - 15,000 square feet of light industrial
  - 63,000 square feet of warehousing
  - 79,000 square feet of high-cube transload and short-term storage warehouse

The WRCOG TIA Guidelines include screening criteria for certain types of projects that are local serving in nature or generate a low number of vehicle trips and may be presumed to have a less than significant impact. The Project Site was analyzed with the WRCOG VMT Screening Tool;

WRCOG VMT Screening Tool	
Within a Transit Priority Area (TPA)?	No
Within a low VMT generating traffic analysis zone (TAZ) based on Total VMT?	No. Jurisdictional average 2012 daily totalVMT per service population = 27.87 Project TAZ 2012 daily total VMT perservice population = 41.08
Within a low VMT generating TAZ based on Residential Home-Based VMT?	Yes. Jurisdictional average 2012 daily residential home-based VMT per capita = 14.79 Project TAZ 2012 daily residential home- based VMT per capita = 11.58
Within a low VMT generating TAZbased on Home-Based Work VMT?	No. Jurisdictional average 2012 daily home-based work VMT per worker = 11.22 Project TAZ 2012 daily home-based work VMT per worker = 16.56

The Project Site is within a low VMT generating TAZ based on Residential Home-Based VMT. The Annual CalEEMod output for the Proposed Project anticipates an annual VMT of 407,955 and average of 92.1 daily trips. Therefore, the project VMT impact may be presumed less than significant based on the WRCOG TIA Guidelines, as adopted by the City of Beaumont, and criteria for Categorical Exemption under CEQA.

Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

c) *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?*

Less than Significant Impact. The Proposed Project is the development of an industrial building with two full access driveways along the southern frontage. The Proposed Project does not include geometric design features or incompatible uses that would substantially increase hazards. The Project Site has a rectangular shape and is not adjacent to windy roads. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

d) *Would the project result in inadequate emergency access?*

Less than Significant Impact. The Beaumont Code of Ordinances requires that minimum driveway width shall be 12 feet per lane for a one-way driveway and 25 feet for a two-way driveway.[40] The Proposed Project would provide two full access 26-foot wide driveway along the southern frontage. The driveways would be wide enough to allow evacuation and emergency vehicles simultaneous access. The County Fire Department shall have the authority to inspect the Project Site as often as necessary to ensure that there are no hazards violating fire safety, such as inadequate emergency access. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

3.18 TRIBAL CULTURAL RESOURCES

18.	TRIBAL CULTURAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section §21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:	☐	☐	☒	☐
	i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☐	☒	☐

[40] City of Beaumont. Code of Ordinances. https://library.municode.com/ca/beaumont/codes/code_of_ordinances?nodeId=TIT17ZO_CH17.05OREPALOST_17.05.050ACRE

18.	TRIBAL CULTURAL RESOURCES. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
	ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐	☒	☐

3.18.1 Environmental Setting

The City lies within the traditional territory of the Pass (or Wanakik) Cahuilla and a small portion of Serrano ancestral territory. Additionally, recorded and unrecorded tribal cultural resources exist within the City of Beaumont and its Sphere of Influence, including along Highways 60 and 79.[41]

3.18.2 Impact Analysis

i) Would the project cause a substantial adverse change in a listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k)?

ii) Would the project cause a substantial adverse change in a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?

Less than Significant Impact. California Assembly Bill 52 (AB52) was approved by Governor Brown on September 25, 2014. AB52 specifies that CEQA projects with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource may have a significant effect on the environment. As such, the bill requires lead agency consultation with California Native American tribes traditionally and culturally affiliated with the geographic area of a Proposed Project, if the tribe requested to the lead agency, in writing, to be informed of proposed projects in that geographic area. The legislation further requires that the tribe-requested consultation be completed prior to determining whether a negative declaration, mitigated negative declaration, or environmental impact report is required for a project.

The general area of the Project Site is geographically associated with both the Serrano and Cahuilla of Southern California. Though near the territorial boundary separating these two populations, the area is more generally considered part of the “Pass Cahuilla” territory, a reference to the San Gorgonio Pass. The “Pass Cahuilla” are one of the three main Cahuilla populations associated with western Riverside County (with the Desert Cahuilla and Mountain Cahuilla).

McKenna et al.’s archaeological records search identified resources documented in the Office of Historic Preservation Historic Property Data File, including 130 properties within the core area of Beaumont. Of these 130, only 13 were determined “potentially eligible for National Register listing. A total of 109 of the 130 structures were specifically identified as not eligible

[41] City of Beaumont. 2040 General Plan. Page 209.

for National register listing but may be of local interest. The remaining resources have not been evaluated. None of the resources are within one mile of the Project Site.

The Project Site yielded no evidence of any recorded prehistoric archaeological resources. Since the San Gorgonio Pass is known to have been a major trade route during both prehistoric and historic times, there is a low to moderate potential for the presence of buried prehistoric archaeological resources. The Native American Heritage Commission responded to the McKenna et al. request for data pertaining to the project area indicating the Commission's files have no records of any sacred or religious sites in the general area (negative findings).

As required by CEQA, AB 52 consultation is performed between the lead government agency and California Native American tribes who have requested notification of projects in their traditional area. The City of Beaumont received an email requesting consultation from Agua Caliente Band of Cahuilla Indians. Any mitigation measures required by the tribe(s) and agreed to by the City may become project Conditions of Approval (COAs). Therefore, as of the date of this Initial Study, no significant impacts are identified or anticipated, and no mitigation measures are required.

3.19 UTILITIES AND SERVICE SYSTEMS

19.	UTILITIES/SERVICE SYSTEMS. Would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
(b)	Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	☐	☐	☒	☐
(c)	Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☒	☐
(d)	Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
(e)	Comply with federal, state, and local management and reduction statutes and regulations related to solid wastes?	☐	☐	☒	☐

3.19.1 Environmental Setting

The City is serviced by the Beaumont/Cherry Valley Water District (BCVWD) for water treatment and delivery system. The City of Beaumont Wastewater Treatment Plant recycles wastewater made available to the community. Electrical service is provided by Southern California Edison. The Southern California Gas Company (SoCal Gas Company) provides basic residential and

business gas services with no constraints to substantial future development. Landfill and recycling services are provided by Waste Management.

3.19.2 Impact Analysis

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or expansion of which could cause significant environmental effects?

Less than Significant Impact. New development in the City is required to connect to the City's sanitary sewer system. All sewage generated within the City are treated at the City-owned Beaumont Wastewater Treatment Plant No. 1 (WWTP). The Proposed Project will construct sewer laterals from the proposed structures to an existing 8" sewer line in First Street. The Beaumont-Cherry Valley Water District will provide water service to the Proposed Project upon annexation of the property to the District; the Project Site is currently within the BCVWD Sphere of Influence for water service. An Application for Annexation has been filed by the Applicant and upon approval of the annexation, there is an existing 6-inch water line in First Street that the Proposed Project would connect to. Implementation of the Proposed Project would not require the construction of new water or wastewater treatment facilities or existing facilities. The Proposed Project would be conditioned to receive confirmation of water and sewer service prior to issuance of grading permits.

The Riverside County Flood Control and Water Conservation District (RCFCWCD) Master Drainage Plan (MDP) for the Beaumont Area, address the drainage problems of the City and City's SOI and provides an economical plan that considers flood protection for both existing and future development. The Beaumont MDP encompasses approximately 34 square miles of incorporated and unincorporated land in and around the City. Generally, the MDP boundary limits are the community of Oak Glen to the north, Highland Springs Avenue to the east, Beaumont City limits to the south, and Interstate 10 and Wildwood Canyon to the southwest and northwest, respectively.

Southern California Edison will provide basic electrical services to the Project Site. According to the California Energy Commission, the industry sector of the Southern California Edison planning area consumed 17,806,763,595 GWh of electricity in 2019. The Project Site is currently vacant and do not use electricity. Therefore, implementation of the Proposed Project would result in an increase in electricity demand. The increased electricity demand from the Proposed Project estimated for is approximately 0.17 GWh per year. The existing SCE electrical facilities will meet this increased demand. Total electricity demand in SCE's service area is estimated to increase by approximately 12,000 GWh between the years 2015 and 2026. The increase in electricity demand from the Proposed Project is insignificant compared to the projected electricity demand for SCE's entire service area and SCE's 2019 industry sector's demand. Therefore, projected electrical demand would not significantly impact SCE's level of service.

The Project Site would be serviced by Southern California Gas Company (SoCalGas). The Project Site is currently vacant and have no demand for natural gas. Consequently, development of the Proposed Project would create a permanent increase in demand for natural gas. According to the California Energy Commission, the natural gas consumption of

the SoCalGas planning area industry sector was 1,724,870,500 therms in 2019.[42] Despite the ever-growing demand for electric power, the overall gas demand for electric generation is expected to decline at 1.4 percent per year for the next 17 years due to more efficient power plants, statewide efforts to reduce GHG emissions, and use of power generation resources that produce little to no carbon emissions. The estimated natural gas demand for the proposed structure is approximately 5,685.75 therms per year;[43] it would represent an insignificant percentage (0.0003296%) to the overall demand in SoCalGas's service area.

The Proposed Project would be served by either Verizon or Spectrum for telecommunication services. Neither providers are anticipated to fall short of services for potential customers. The Proposed Project's demand for telecommunication services is not significant enough to require relocation or construction of facilities.

Upon confirmation of water and sewer service availability, no significant impacts are identified or anticipated, and no mitigation measures are required.

b) *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal dry and multiple dry years?*

Less than Significant Impact. The Project Site will be serviced by the Beaumont-Cherry Valley Water District (BCVWD). The BCVWD's 2015 Urban Water Management Plan (UWMP) estimated the City's water demand to the multi-family, commercial, industrial, institutional/governmental and other categories from the actual 2015 values through 2040 on the basis that the changes in demand would be proportional to the changes in single family demand. At the time the UWMP was prepared, the population served by BCVWD was expected to nearly double by 2040-50, based on the City's 2007 General Plan projected build-out population. The build-out population estimate will set the ultimate water demand.

BCVWD calculated the City's build-out population in 2015 at approximately 90,600 persons and 17,856 cumulative new Equivalent Dwelling Units. The City currently estimates an existing population of 49,241 persons. The Beaumont 2040 Plan proposes a maximum of 40,849 residential dwelling units and, based on development at a typical non-residential intensity, is anticipating approximately 33,075,597 square feet of non-residential uses (i.e. retail/service, office, industrial) in the 2040 General Plan area at 100 percent build-out. The 2015 UWMP concluded that future water demands within their service area will be met during any dry period of up to six consecutive dry years assuming future supply projects are implemented by the BCVWD. This analysis will be redone by BCVWD as part of the 2020 UWMP update which will incorporate the updated 2040 General Plan.[44] Nonetheless, future projects to increase water supplies will be required to meet future demands.

The Project Site has a current Zoning of Manufacturing and the Proposed Project would be consistent with this General Plan designation. Any increase in water demand resulting from the development and operation of the proposed uses and renovations would be accounted for in BCVWD's forthcoming 2020 UWMP update.

Compliance with BCVWD's development conditions, if any, will ensure that the Proposed Project does not substantially decrease groundwater supplies or interfere substantially with

[42] California Energy Commission. California Energy Consumption Database.
[43] Per CalEEMod outputs. Estimated electric generation is for proposed additional Industrial uses on-site.
[44] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Page 5.18-35.
https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/

groundwater recharge. The Proposed Project is required to conform to the City of Beaumont and County of Riverside Landscaping Standards that pertain to water efficient landscape requirements. No significant impacts are identified or anticipated, and no mitigation measures are required.

c) *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

Less than Significant Impact. The Proposed Project is consistent with the Project Site's General Plan land designation of Industrial. Development of the Proposed Project is therefore included in the City's expected future growth and demands for water system and wastewater treatment capacities.

The WWTP's current capacity of 4.0 million gallons per day (mgd) could be reached around 2022. The WWTP is in the process of a treatment capacity expansion from 4.0 mgd to 6.0 mgd in order to serve the projected City population for the next 20 years. The future capacity of 6.0 mgd could be reached around 2038 assuming the current City growth rate, which would be a conservative assumption since development would typically slow as the City approaches buildout. Maximum flow to the WWTP, beyond the 20-year planning period, is 8.0 mgd. To this end, the WWTP has been developed in a "modular" fashion by which capacity can be economically and efficiently increased with additional trains of process equipment.[45]

It is the City's responsibility to provide sufficient wastewater conveyance and treatment services to customers within its service area. With the City's current WWTP expansion, the City is anticipated to have adequate treatment capacity for current and future residents until approximately 2038. The WWTP discharge permit with the Santa Ana RWQCB stipulates that a capacity expansion will be needed when the influent flow reaches a certain proportion of the maximum design capacity (typically 75 percent). Because additional treatment capacity may be needed in the future, the proposed General Plan policies for Community Facilities and Infrastructure Goal 7.5 will ensure the City continues monitoring influent rates at the wastewater treatment plant as new development projects are proposed, and coordinate treatment capacity expansion as needed. Furthermore, the proposed General Plan policies for Land Use and Design Goal 3.2 will ensure that there will be adequate water and wastewater system capacity to meet projected demand, and the City will continue to implement comprehensive water and wastewater management programs and ensure that future developments pay their fair share for any needed infrastructure improvements. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

d) *Would the project generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Less than Significant Impact. The City is within the service area of the Lamb Canyon Landfill, located just south of the City and operated by the Riverside County Department of Waste Resources (RCDWR). Waste generated within the City is also taken to other Riverside

[45] City of Beaumont. Beaumont General Plan 2040 Draft PEIR. Page 5.18-36. https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/

County landfills, as well as various landfills throughout the state. Disposal of the municipal waste generated within the General Plan Area, of which the Proposed Project is included, is ultimately the responsibility of the County of Riverside. As such, the County will direct municipal wastes to any of the available disposal sites. This could be accomplished through direct transport to an alternative landfill, or through the construction and operation of a transfer facility. Wastes generated under buildout conditions will be directed to landfills with available capacity, as determine by the County. As part of its long-range planning and management activities, the RCDWR ensures that Riverside County has a minimum of 15 years of capacity, at any time, for future landfill disposal. The 15-year projection of disposal capacity is prepared each year by as part of the annual reporting requirements for the Countywide Integrated Waste Management Plan (CIWMP).

The Project Site has a current zoning of Manufacturing, and the Proposed Project would be developed in accordance with the requirements of this zoning. Solid waste generation from the Proposed Project was accounted for in the 2040 General Plan and the City's expected increase in waste generation. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

e) *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Less than Significant Impact. The CIWMP was prepared in accordance with the California Integrated Waste Management Act of 1989 (AB 939). The SRRE is included in the CIWMP and analyzes the local wastestream to determine where to focus diversion efforts, including programs and funding. The City of Beaumont requires all development to adhere to all source reduction programs set forth in the SRRE for all the disposal of solid waste including yard waste. The Proposed Project would adhere to the SRRE and comply with all other applicable local, State, and federal solid waste disposal standards. Therefore, no significant adverse impacts are identified or anticipated, and no mitigation measures are required.

3.20 WILDFIRE

20.	WILDFIRE. If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
(b)	Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
(c)	Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
(d)	Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

3.20.1 Environmental Setting

Beaumont has also been identified by CAL FIRE as being located within a "wildland-urban interface". The "wildland-urban interface" includes areas where homes or structures are intermixed with wildlands, which creates high wildfire risk. Historically, several fires have occurred in the wildland-urban interface in Riverside County and the threat intensifies under the Santa Ana winds and other extreme fire weather conditions.[46]

3.20.2 Impact Analysis

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact. The Project Site is not located within an emergency response plan area. The Proposed Project will not include features that would conflict or interfere with adopted emergency response or evacuation plans. Furthermore, new development plans are subject to review and approval by the RCFD, thereby ensuring that the Proposed Project does not interfere with evacuation. The City and Riverside County Fire Department established certain design standards to ensure that site planning and building design consider public safety and fire prevention; these standards include requirements governing emergency access. During construction, the contractor would be required to maintain adequate emergency access for emergency vehicles as required by the City and County. Site access for operations would be subject to approval of the Site Plan by the City. Therefore, no significant impacts are anticipated, and no mitigation measures are required.

b, c) Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire? Would the Project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less than Significant Impact. Proposed development under the General Plan is subject to environmental and building permit review procedures to ensure adequate and appropriate site design and construction methods are implemented to reduce the risk of wildland fires. For new development, the creation of defensible areas around building structures, and use of fire-resistant building materials will provide protection from wildland fires. Moreover, the Project Site does not lie within a Very High Fire Hazard Severity Zone (VHFHSZ) and is not in area considered a wildland fire risk.[47] The Project Site is relatively flat. The implementation of the Proposed Project would reduce the risk of wildfires by eliminating the vacant parcels' existing ruderal vegetation and providing a paved foundation. Moreover, the Project Site is surrounded by vacant land and a single family residence to the south. Riverside County Fire Department (RCFD) will review the final design to ensure the mitigation of fire hazards and minimal impacts to the environment. Therefore, less than significant impacts are identified or anticipated, and no mitigation measures are required.

[46] City of Beaumont. General Plan. Page 228.
[47] City General Plan. Figure 9-3 Fire Hazard Severity Zone Map.

d) Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability or drainage changes?

Less than Significant Impact. The Project Site and its immediate vicinity are relatively flat and are not subject to post-fire slope instability. The implementation of associated storm water BMPs will ensure that the Proposed Project appropriately conveys storm water runoff without affecting upstream or downstream drainage characteristics. The Proposed Project would retain the incremental increase in site-generated runoff. As a result, the Proposed Project will not expose people or structure to significant risks, such as downslope flooding or landslides. Therefore, no significant impacts are identified or anticipated, and no mitigation measures are required.

3.21 MANDATORY FINDINGS OF SIGNIFICANCE

21.	MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
(a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
(b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)	☐	☐	☒	☐
(c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

3.21.1 Impact Analysis

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less than Significant with Mitigation Incorporated. A Biological Resources Assessment, Jurisdictional Delineation, and Multiple Species Habitat Conservation Plan Consistency Analysis (BRA) was prepared for the Proposed Project by Jennings Environmental, LLC in January 2021. The BRA was designed to address potential effects of the Proposed Project to

designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW) or the California Native Plant Society (CNPS). According to the **l**iterature reviewed, 33 sensitive species, including 5 listed species and 1 sensitive habitat, have been documented in the *Beaumont* quad. The field survey yielded very little evidence of any wildlife existing on-site; only two bird species were observed during the site survey. No State and/or federally listed threatened or endangered species or other sensitive species were observed on-site. Because the Project Site and immediate surrounding area contain habitat suitable for nesting birds, Mitigation Measure BIO-1 should be implemented to ensure there are no potential significant impacts. To ensure that the Proposed Project is consistent with the MSHCP, Mitigation Measures BIO-2 through BIO-7 are recommended.

A Phase I Cultural Resources Investigation, dated January 14, 2021, was conducted for the Proposed Project by McKenna et al. McKenna et al. found no physical evidence of archaeological or paleontological resources within the Project Site. This finding is based primarily on a visual examination of the exposed native soils per a surface survey. Likewise, no ethnic or historic landscapes were identified. Standing structures were limited to the southern parcel and confirmed to be modern and of no historical significance. While no surficial evidence of prehistoric or historic archaeological resources was identified, the local Native American community considers the area of the San Gorgonio Pass to be highly sensitive for potentially significant Native American resources. The general area has been associated with early Beaumont (and Banning) development. With limited documentary resources available, archaeological evidence may be the only source of property-specific resource identification. There is still a potential for late-period historic archaeological evidence to be present in a shallow context. Therefore, Mitigation Measure CR-1 and CR-2 should be implemented to ensure no significant impacts to archaeological resources occur.

b) *Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects?)*

Less than Significant Impact. Cumulative impacts are defined as two or more individual affects that, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period. The CEQA Guidelines, Section 15130 (a) and (b), states:

> *(a) Cumulative impacts shall be discussed when the project's incremental effect is cumulatively considerable.*
>
> *(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project. The discussion should be guided by the standardsof practicality and reasonableness.*

Development of the Proposed Project will be conditioned to comply with current SCAQMD rules and regulations to minimize impacts to air quality. Industrial building is not anticipated to generate significant impacts or generate significant operational mobile emissions. The Proposed Project would be consistent with SCAQMD's 10,000 MTCO2e threshold and therefore, it would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of GHGs. Given this consistency, it is concluded that the project's incremental contribution to GHG emissions and their effects on climate change would not be cumulatively considerable. Approval of the Proposed Project does not require a zone change nor a general plan amendment and is consistent with the 2040 General Plan.

As demonstrated in this Initial Study, construction emissions during both summer and winter seasonal conditions would not exceed SCAQMD thresholds. Although the Proposed Project does not exceed SCAQMD thresholds for construction emissions, the Project Proponent would be required to comply with all applicable SCAQMD rules and regulations as the SCAB is in non-attainment status for ozone and suspended particulates (PM_{10} and $PM_{2.5}$).

The Project would result in cumulative impacts to water quality. Review and approval of the WQMP by the City of Rialto and implementation of Best Management Practices as required in Mitigation Measure WQ-1, would ensure that all potential pollutants of concern are minimized or otherwise appropriately treated prior to being discharged from the Project Site.

The Proposed Project is consistent with the General Plan land use patterns and would not result in development that would be substantially greater in intensity than what was planned for in the General Plan. The Proposed Project will permanently increase the ambient noise levels in the project vicinity above levels existing without the project. However, the Proposed Project meets all applicable Noise element policies and is anticipated to have a less than significant noise impact.

Since the Proposed Project is consistent with the General Plan land use designation for the area and would not result in development that would be substantially greater in intensity than what was planned for in the General Plan, and cumulative traffic impacts would be reduced to a less than significant level, no additional mitigation measures are warranted.

c) *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Less than Significant Impact. The incorporation City of Beaumont policies, standards, guidelines, and proposed mitigation measures as provided in this Initial Study would ensure that the Proposed Project would have no substantial adverse effects on human beings, either directly or indirectly on an individual or cumulative basis. Therefore, no significant adverse impacts are identified or anticipated and no mitigation measures are required.

REFERENCES

Riverside County International Technology. Map My County. Accessed periodically.

Federal Emergency Management Agency. National Flood hazard Layer. Accessed 1/20/2021.

City of Beaumont. 2040 General Plan Update. https://www.beaumontca.gov/DocumentCenter/View/36620/Beaumont-GPU-Public-Draft. Accessed periodically.

California Department of Conservation. "Riverside County Important Farmland 2016 Sheet 1 of 3." ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/riv16_w.pdf. Accessed on 12/13/2020.

California Department of Conservation. Fault Activity Map of California (2010). http://maps.conservation.ca.gov/cgs/fam/. Accessed on 12/13/2020.

Department of Toxic Substances Control. Hazardous Waste and Substances site list. Accessed 2/22/2020.

City of Beaumont. Beaumont General Plan 2040 Draft PEIR. https://www.beaumontca.gov/DocumentCenter/View/36627/DEIR-090720/. Accessed periodically.

California Energy Commission. Tracking Progress. https://www.energy.ca.gov/sites/default/files/2019-05/energy_efficiency.pdf. Accessed 1/20/2021.

California Energy Commission. *2019 Building Energy Efficiency Standards.* https://ww2.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf. Accessed 1/20/2021.

Beaumont-Cherry Valley Water District. *2015 Urban Water Management Plan.* https://bcvwd.org/wp-content/uploads/2017/09/January-2017-Urban-Water-Management-Plan-Final.pdf. Accessed 2/25/2021.

Sustainable Beaumont: The City's Roadmap to Greenhouse Gas Reductions. https://www.beaumontca.gov/DocumentCenter/View/27815/Beaumont-Climate-Action-Plan?bidId=. Accessed 2/25/2021.

Riverside County Department of Waste Resources. Countywide Integrated Waste Management Plan. Accessed 2/25/2020.

PROJECT-SPECIFIC REFERENCES

Lilburn Corporation. CalEEMod Output for McClure Machine Shop. February 2021.

Blaine A Womer Civil Engineering. Preliminary Drainage Study. February 2021.

Blaine A Womer Civil Engineering. Project Specific Water Quality Management Plan. December 5, 2020.

Jennings Environmental, Inc. Biological Resource Assessment, Habitat Assessment and MSHCP Consistency Analysis. January 2021.

McKenna et AL. A Phase I Cultural Resource Investigation. January 14, 2021.

South Shore Testing & Environmental. Preliminary Geotechnical Investigation. September 2020.

APPENDIX A
CALEEMOD OUTPUT TABLES

McClure Machine Shop

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	17.50	1000sqft	0.40	17,500.00	0
Other Asphalt Surfaces	23.00	1000sqft	0.53	23,000.00	0
Other Non-Asphalt Surfaces	4.00	1000sqft	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Site Plan.

Construction Phase - Project Site is vacant, demolition is not required.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value

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					
2021	0.0616	0.4774	0.4331	8.2000e-004	0.0235	0.0227	0.0461	0.0101	0.0218	0.0319	0.0000	69.2343	69.2343	0.0115	0.0000	69.5217
2022	0.2123	0.9653	1.0010	1.8900e-003	0.0186	0.0436	0.0622	5.0100e-003	0.0420	0.0470	0.0000	159.1095	159.1095	0.0252	0.0000	159.7384
Maximum	**0.2123**	**0.9653**	**1.0010**	**1.8900e-003**	**0.0235**	**0.0436**	**0.0622**	**0.0101**	**0.0420**	**0.0470**	**0.0000**	**159.1095**	**159.1095**	**0.0252**	**0.0000**	**159.7384**

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					
2021	0.0616	0.4774	0.4331	8.2000e-004	0.0235	0.0227	0.0461	0.0101	0.0218	0.0319	0.0000	69.2342	69.2342	0.0115	0.0000	69.5216
2022	0.2123	0.9653	1.0010	1.8900e-003	0.0186	0.0436	0.0622	5.0100e-003	0.0420	0.0470	0.0000	159.1093	159.1093	0.0252	0.0000	159.7382
Maximum	**0.2123**	**0.9653**	**1.0010**	**1.8900e-003**	**0.0235**	**0.0436**	**0.0622**	**0.0101**	**0.0420**	**0.0470**	**0.0000**	**159.1093**	**159.1093**	**0.0252**	**0.0000**	**159.7382**

	ROG	NOx	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	10-1-2021	12-31-2021	0.5381	0.5381
2	1-1-2022	3-31-2022	0.4802	0.4802
3	4-1-2022	6-30-2022	0.4852	0.4852
4	7-1-2022	9-30-2022	0.2115	0.2115
		Highest	0.5381	0.5381

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	0.0735	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1800e-003
Energy	3.0700e-003	0.0279	0.0234	1.7000e-004		2.1200e-003	2.1200e-003		2.1200e-003	2.1200e-003	0.0000	86.9365	86.9365	2.9200e-003	1.0400e-003	87.3192
Mobile	0.0329	0.1856	0.4987	1.8500e-003	0.1549	1.5000e-003	0.1564	0.0415	1.4000e-003	0.0429	0.0000	170.9945	170.9945	8.1400e-003	0.0000	171.1980
Waste						0.0000	0.0000		0.0000	0.0000	4.4049	0.0000	4.4049	0.2603	0.0000	10.9130
Water						0.0000	0.0000		0.0000	0.0000	1.2839	16.7896	18.0734	0.1326	3.2600e-003	22.3581
Total	**0.1095**	**0.2135**	**0.5226**	**2.0200e-003**	**0.1549**	**3.6200e-003**	**0.1586**	**0.0415**	**3.5200e-003**	**0.0450**	**5.6888**	**274.7216**	**280.4104**	**0.4039**	**4.3000e-003**	**291.7894**

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	0.0735	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1800e-003
Energy	3.0700e-003	0.0279	0.0234	1.7000e-004		2.1200e-003	2.1200e-003		2.1200e-003	2.1200e-003	0.0000	86.9365	86.9365	2.9200e-003	1.0400e-003	87.3192
Mobile	0.0329	0.1856	0.4987	1.8500e-003	0.1549	1.5000e-003	0.1564	0.0415	1.4000e-003	0.0429	0.0000	170.9945	170.9945	8.1400e-003	0.0000	171.1980
Waste						0.0000	0.0000		0.0000	0.0000	4.4049	0.0000	4.4049	0.2603	0.0000	10.9130
Water						0.0000	0.0000		0.0000	0.0000	1.2839	16.7896	18.0734	0.1326	3.2600e-003	22.3581
Total	**0.1095**	**0.2135**	**0.5226**	**2.0200e-003**	**0.1549**	**3.6200e-003**	**0.1586**	**0.0415**	**3.5200e-003**	**0.0450**	**5.6888**	**274.7216**	**280.4104**	**0.4039**	**4.3000e-003**	**291.7894**

	ROG	NOx	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	Site Preparation	Site Preparation	10/1/2021	10/4/2021	5	2	
2	Grading	Grading	10/5/2021	10/8/2021	5	4	
3	Building Construction	Building Construction	10/9/2021	7/15/2022	5	200	
4	Paving	Paving	7/16/2022	7/29/2022	5	10	
5	Architectural Coating	Architectural Coating	7/30/2022	8/12/2022	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.62

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 26,250; Non-Residential Outdoor: 8,750; Striped Parking Area: 1,620 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	19.00	7.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5600e-003	0.0174	7.5600e-003	2.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241
Total	**1.5600e-003**	**0.0174**	**7.5600e-003**	**2.0000e-005**	**5.8000e-003**	**7.7000e-004**	**6.5700e-003**	**2.9500e-003**	**7.0000e-004**	**3.6500e-003**	**0.0000**	**1.5118**	**1.5118**	**4.9000e-004**	**0.0000**	**1.5241**

3.2 Site Preparation - 2021

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	3.0000e-005	2.0000e-005	2.8000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0765	0.0765	0.0000	0.0000	0.0766
Total	**3.0000e-005**	**2.0000e-005**	**2.8000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0765**	**0.0765**	**0.0000**	**0.0000**	**0.0766**

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					5.8000e-003	0.0000	5.8000e-003	2.9500e-003	0.0000	2.9500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.5600e-003	0.0174	7.5600e-003	2.0000e-005		7.7000e-004	7.7000e-004		7.0000e-004	7.0000e-004	0.0000	1.5118	1.5118	4.9000e-004	0.0000	1.5241
Total	**1.5600e-003**	**0.0174**	**7.5600e-003**	**2.0000e-005**	**5.8000e-003**	**7.7000e-004**	**6.5700e-003**	**2.9500e-003**	**7.0000e-004**	**3.6500e-003**	**0.0000**	**1.5118**	**1.5118**	**4.9000e-004**	**0.0000**	**1.5241**

3.2 Site Preparation - 2021

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	3.0000e-005	2.0000e-005	2.8000e-004	0.0000	9.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0765	0.0765	0.0000	0.0000	0.0766
Total	**3.0000e-005**	**2.0000e-005**	**2.8000e-004**	**0.0000**	**9.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0765**	**0.0765**	**0.0000**	**0.0000**	**0.0766**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0287	0.0127	3.0000e-005		1.2800e-003	1.2800e-003		1.1700e-003	1.1700e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968
Total	**2.5800e-003**	**0.0287**	**0.0127**	**3.0000e-005**	**9.8300e-003**	**1.2800e-003**	**0.0111**	**5.0500e-003**	**1.1700e-003**	**6.2200e-003**	**0.0000**	**2.4767**	**2.4767**	**8.0000e-004**	**0.0000**	**2.4968**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.6000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1531	0.1531	0.0000	0.0000	0.1532
Total	**7.0000e-005**	**5.0000e-005**	**5.6000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1531**	**0.1531**	**0.0000**	**0.0000**	**0.1532**

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					9.8300e-003	0.0000	9.8300e-003	5.0500e-003	0.0000	5.0500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.5800e-003	0.0287	0.0127	3.0000e-005		1.2800e-003	1.2800e-003		1.1700e-003	1.1700e-003	0.0000	2.4767	2.4767	8.0000e-004	0.0000	2.4968
Total	**2.5800e-003**	**0.0287**	**0.0127**	**3.0000e-005**	**9.8300e-003**	**1.2800e-003**	**0.0111**	**5.0500e-003**	**1.1700e-003**	**6.2200e-003**	**0.0000**	**2.4767**	**2.4767**	**8.0000e-004**	**0.0000**	**2.4968**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0000e-005	5.0000e-005	5.6000e-004	0.0000	1.8000e-004	0.0000	1.8000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1531	0.1531	0.0000	0.0000	0.1532
Total	**7.0000e-005**	**5.0000e-005**	**5.6000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.8000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1531**	**0.1531**	**0.0000**	**0.0000**	**0.1532**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0544	0.4091	0.3870	6.6000e-004		0.0205	0.0205		0.0198	0.0198	0.0000	54.4643	54.4643	9.7200e-003	0.0000	54.7074
Total	**0.0544**	**0.4091**	**0.3870**	**6.6000e-004**		**0.0205**	**0.0205**		**0.0198**	**0.0198**	**0.0000**	**54.4643**	**54.4643**	**9.7200e-003**	**0.0000**	**54.7074**

3.4 Building Construction - 2021

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	6.0000e-004	0.0204	5.1600e-003	5.0000e-005	1.3200e-003	4.0000e-005	1.3700e-003	3.8000e-004	4.0000e-005	4.2000e-004	0.0000	5.0989	5.0989	3.3000e-004	0.0000	5.1072
Worker	2.3700e-003	1.7600e-003	0.0199	6.0000e-005	6.2500e-003	5.0000e-005	6.3000e-003	1.6600e-003	4.0000e-005	1.7000e-003	0.0000	5.4529	5.4529	1.5000e-004	0.0000	5.4566
Total	**2.9700e-003**	**0.0222**	**0.0251**	**1.1000e-004**	**7.5700e-003**	**9.0000e-005**	**7.6700e-003**	**2.0400e-003**	**8.0000e-005**	**2.1200e-003**	**0.0000**	**10.5519**	**10.5519**	**4.8000e-004**	**0.0000**	**10.5638**

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	0.0544	0.4091	0.3870	6.6000e-004		0.0205	0.0205		0.0198	0.0198	0.0000	54.4642	54.4642	9.7200e-003	0.0000	54.7073
Total	**0.0544**	**0.4091**	**0.3870**	**6.6000e-004**		**0.0205**	**0.0205**		**0.0198**	**0.0198**	**0.0000**	**54.4642**	**54.4642**	**9.7200e-003**	**0.0000**	**54.7073**

3.4 Building Construction - 2021

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	6.0000e-004	0.0204	5.1600e-003	5.0000e-005	1.3200e-003	4.0000e-005	1.3700e-003	3.8000e-004	4.0000e-005	4.2000e-004	0.0000	5.0989	5.0989	3.3000e-004	0.0000	5.1072
Worker	2.3700e-003	1.7600e-003	0.0199	6.0000e-005	6.2500e-003	5.0000e-005	6.3000e-003	1.6600e-003	4.0000e-005	1.7000e-003	0.0000	5.4529	5.4529	1.5000e-004	0.0000	5.4566
Total	**2.9700e-003**	**0.0222**	**0.0251**	**1.1000e-004**	**7.5700e-003**	**9.0000e-005**	**7.6700e-003**	**2.0400e-003**	**8.0000e-005**	**2.1200e-003**	**0.0000**	**10.5519**	**10.5519**	**4.8000e-004**	**0.0000**	**10.5638**

3.4 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	0.1154	0.8752	0.8909	1.5400e-003		0.0412	0.0412		0.0398	0.0398	0.0000	127.1038	127.1038	0.0221	0.0000	127.6573
Total	**0.1154**	**0.8752**	**0.8909**	**1.5400e-003**		**0.0412**	**0.0412**		**0.0398**	**0.0398**	**0.0000**	**127.1038**	**127.1038**	**0.0221**	**0.0000**	**127.6573**

3.4 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	1.3200e-003	0.0452	0.0114	1.2000e-004	3.0900e-003	8.0000e-005	3.1700e-003	8.9000e-004	8.0000e-005	9.7000e-004	0.0000	11.7924	11.7924	7.4000e-004	0.0000	11.8109
Worker	5.1900e-003	3.7100e-003	0.0429	1.4000e-004	0.0146	1.1000e-004	0.0147	3.8800e-003	1.0000e-004	3.9700e-003	0.0000	12.2677	12.2677	3.1000e-004	0.0000	12.2755
Total	**6.5100e-003**	**0.0489**	**0.0543**	**2.6000e-004**	**0.0177**	**1.9000e-004**	**0.0179**	**4.7700e-003**	**1.8000e-004**	**4.9400e-003**	**0.0000**	**24.0602**	**24.0602**	**1.0500e-003**	**0.0000**	**24.0864**

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	0.1154	0.8752	0.8909	1.5400e-003		0.0412	0.0412		0.0398	0.0398	0.0000	127.1037	127.1037	0.0221	0.0000	127.6571
Total	**0.1154**	**0.8752**	**0.8909**	**1.5400e-003**		**0.0412**	**0.0412**		**0.0398**	**0.0398**	**0.0000**	**127.1037**	**127.1037**	**0.0221**	**0.0000**	**127.6571**

3.4 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	1.3200e-003	0.0452	0.0114	1.2000e-004	3.0900e-003	8.0000e-005	3.1700e-003	8.9000e-004	8.0000e-005	9.7000e-004	0.0000	11.7924	11.7924	7.4000e-004	0.0000	11.8109
Worker	5.1900e-003	3.7100e-003	0.0429	1.4000e-004	0.0146	1.1000e-004	0.0147	3.8800e-003	1.0000e-004	3.9700e-003	0.0000	12.2677	12.2677	3.1000e-004	0.0000	12.2755
Total	**6.5100e-003**	**0.0489**	**0.0543**	**2.6000e-004**	**0.0177**	**1.9000e-004**	**0.0179**	**4.7700e-003**	**1.8000e-004**	**4.9400e-003**	**0.0000**	**24.0602**	**24.0602**	**1.0500e-003**	**0.0000**	**24.0864**

3.5 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	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9315
Paving	6.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1300e-003**	**0.0339**	**0.0440**	**7.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9315**

3.5 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	2.5000e-004	1.8000e-004	2.0900e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5996	0.5996	2.0000e-005	0.0000	0.5999
Total	**2.5000e-004**	**1.8000e-004**	**2.0900e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5996**	**0.5996**	**2.0000e-005**	**0.0000**	**0.5999**

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	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9314
Paving	6.9000e-004					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1300e-003**	**0.0339**	**0.0440**	**7.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9314**

3.5 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	2.5000e-004	1.8000e-004	2.0900e-003	1.0000e-005	7.1000e-004	1.0000e-005	7.2000e-004	1.9000e-004	0.0000	1.9000e-004	0.0000	0.5996	0.5996	2.0000e-005	0.0000	0.5999
Total	**2.5000e-004**	**1.8000e-004**	**2.0900e-003**	**1.0000e-005**	**7.1000e-004**	**1.0000e-005**	**7.2000e-004**	**1.9000e-004**	**0.0000**	**1.9000e-004**	**0.0000**	**0.5996**	**0.5996**	**2.0000e-005**	**0.0000**	**0.5999**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0849					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.0859**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

3.6 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	8.0000e-005	6.0000e-005	6.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1845	0.1845	0.0000	0.0000	0.1846
Total	**8.0000e-005**	**6.0000e-005**	**6.4000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1845**	**0.1845**	**0.0000**	**0.0000**	**0.1846**

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	0.0849					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.0200e-003	7.0400e-003	9.0700e-003	1.0000e-005		4.1000e-004	4.1000e-004		4.1000e-004	4.1000e-004	0.0000	1.2766	1.2766	8.0000e-005	0.0000	1.2787
Total	**0.0859**	**7.0400e-003**	**9.0700e-003**	**1.0000e-005**		**4.1000e-004**	**4.1000e-004**		**4.1000e-004**	**4.1000e-004**	**0.0000**	**1.2766**	**1.2766**	**8.0000e-005**	**0.0000**	**1.2787**

3.6 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	8.0000e-005	6.0000e-005	6.4000e-004	0.0000	2.2000e-004	0.0000	2.2000e-004	6.0000e-005	0.0000	6.0000e-005	0.0000	0.1845	0.1845	0.0000	0.0000	0.1846
Total	**8.0000e-005**	**6.0000e-005**	**6.4000e-004**	**0.0000**	**2.2000e-004**	**0.0000**	**2.2000e-004**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**0.0000**	**0.1845**	**0.1845**	**0.0000**	**0.0000**	**0.1846**

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	tons/yr										MT/yr					
Mitigated	0.0329	0.1856	0.4987	1.8500e-003	0.1549	1.5000e-003	0.1564	0.0415	1.4000e-003	0.0429	0.0000	170.9945	170.9945	8.1400e-003	0.0000	171.1980
Unmitigated	0.0329	0.1856	0.4987	1.8500e-003	0.1549	1.5000e-003	0.1564	0.0415	1.4000e-003	0.0429	0.0000	170.9945	170.9945	8.1400e-003	0.0000	171.1980

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	121.98	23.10	11.90	407,955	407,955
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	121.98	23.10	11.90	407,955	407,955

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
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924
Other Asphalt Surfaces	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924
Other Non-Asphalt Surfaces	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924

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	56.5951	56.5951	2.3400e-003	4.8000e-004	56.7976
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	56.5951	56.5951	2.3400e-003	4.8000e-004	56.7976
NaturalGas Mitigated	3.0700e-003	0.0279	0.0234	1.7000e-004		2.1200e-003	2.1200e-003		2.1200e-003	2.1200e-003	0.0000	30.3413	30.3413	5.8000e-004	5.6000e-004	30.5216
NaturalGas Unmitigated	3.0700e-003	0.0279	0.0234	1.7000e-004		2.1200e-003	2.1200e-003		2.1200e-003	2.1200e-003	0.0000	30.3413	30.3413	5.8000e-004	5.6000e-004	30.5216

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					
General Light Industry	568575	3.0700e-003	0.0279	0.0234	1.7000e-004		2.1200e-003	2.1200e-003		2.1200e-003	2.1200e-003	0.0000	30.3413	30.3413	5.8000e-004	5.6000e-004	30.5216
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
Total		**3.0700e-003**	**0.0279**	**0.0234**	**1.7000e-004**		**2.1200e-003**	**2.1200e-003**		**2.1200e-003**	**2.1200e-003**	**0.0000**	**30.3413**	**30.3413**	**5.8000e-004**	**5.6000e-004**	**30.5216**

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					
General Light Industry	568575	3.0700e-003	0.0279	0.0234	1.7000e-004		2.1200e-003	2.1200e-003		2.1200e-003	2.1200e-003	0.0000	30.3413	30.3413	5.8000e-004	5.6000e-004	30.5216
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
Total		**3.0700e-003**	**0.0279**	**0.0234**	**1.7000e-004**		**2.1200e-003**	**2.1200e-003**		**2.1200e-003**	**2.1200e-003**	**0.0000**	**30.3413**	**30.3413**	**5.8000e-004**	**5.6000e-004**	**30.5216**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	177625	56.5951	2.3400e-003	4.8000e-004	56.7976
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**56.5951**	**2.3400e-003**	**4.8000e-004**	**56.7976**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Light Industry	177625	56.5951	2.3400e-003	4.8000e-004	56.7976
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**56.5951**	**2.3400e-003**	**4.8000e-004**	**56.7976**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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	0.0735	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1800e-003
Unmitigated	0.0735	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1800e-003

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	8.4900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0650					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1800e-003
Total	**0.0735**	**1.0000e-005**	**5.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-003**	**1.1000e-003**	**0.0000**	**0.0000**	**1.1800e-003**

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	8.4900e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0650					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	5.0000e-005	1.0000e-005	5.7000e-004	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	1.1000e-003	1.1000e-003	0.0000	0.0000	1.1800e-003
Total	**0.0735**	**1.0000e-005**	**5.7000e-004**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**1.1000e-003**	**1.1000e-003**	**0.0000**	**0.0000**	**1.1800e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	18.0734	0.1326	3.2600e-003	22.3581
Unmitigated	18.0734	0.1326	3.2600e-003	22.3581

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.04688 / 0	18.0734	0.1326	3.2600e-003	22.3581
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**18.0734**	**0.1326**	**3.2600e-003**	**22.3581**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Light Industry	4.04688 / 0	18.0734	0.1326	3.2600e-003	22.3581
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**18.0734**	**0.1326**	**3.2600e-003**	**22.3581**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	4.4049	0.2603	0.0000	10.9130
Unmitigated	4.4049	0.2603	0.0000	10.9130

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	21.7	4.4049	0.2603	0.0000	10.9130
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**4.4049**	**0.2603**	**0.0000**	**10.9130**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Light Industry	21.7	4.4049	0.2603	0.0000	10.9130
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Other Non-Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Total		**4.4049**	**0.2603**	**0.0000**	**10.9130**

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

McClure Machine Shop

South Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	17.50	1000sqft	0.40	17,500.00	0
Other Asphalt Surfaces	23.00	1000sqft	0.53	23,000.00	0
Other Non-Asphalt Surfaces	4.00	1000sqft	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Site Plan.

Construction Phase - Project Site is vacant, demolition is not required.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value

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					
2021	1.9117	17.4421	13.7756	0.0259	5.8890	0.7660	6.6550	2.9774	0.7048	3.6822	0.0000	2,401.0513	2,401.0513	0.5414	0.0000	2,410.4177
2022	17.1936	13.1867	13.5403	0.0258	0.2572	0.5916	0.8488	0.0692	0.5714	0.6406	0.0000	2,392.1820	2,392.1820	0.4148	0.0000	2,401.3082
Maximum	**17.1936**	**17.4421**	**13.7756**	**0.0259**	**5.8890**	**0.7660**	**6.6550**	**2.9774**	**0.7048**	**3.6822**	**0.0000**	**2,401.0513**	**2,401.0513**	**0.5414**	**0.0000**	**2,410.4177**

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					
2021	1.9117	17.4421	13.7756	0.0259	5.8890	0.7660	6.6550	2.9774	0.7048	3.6822	0.0000	2,401.0513	2,401.0513	0.5414	0.0000	2,410.4177
2022	17.1936	13.1867	13.5403	0.0258	0.2572	0.5916	0.8488	0.0692	0.5714	0.6406	0.0000	2,392.1820	2,392.1820	0.4148	0.0000	2,401.3082
Maximum	**17.1936**	**17.4421**	**13.7756**	**0.0259**	**5.8890**	**0.7660**	**6.6550**	**2.9774**	**0.7048**	**3.6822**	**0.0000**	**2,401.0513**	**2,401.0513**	**0.5414**	**0.0000**	**2,410.4177**

	ROG	NOx	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**

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	0.4030	4.0000e-005	4.5600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7400e-003	9.7400e-003	3.0000e-005		0.0104
Energy	0.0168	0.1527	0.1283	9.2000e-004		0.0116	0.0116		0.0116	0.0116		183.2635	183.2635	3.5100e-003	3.3600e-003	184.3525
Mobile	0.2536	1.2885	3.8294	0.0140	1.1480	0.0109	1.1589	0.3071	0.0102	0.3173		1,425.9512	1,425.9512	0.0660		1,427.6023
Total	**0.6734**	**1.4413**	**3.9622**	**0.0150**	**1.1480**	**0.0225**	**1.1705**	**0.3071**	**0.0218**	**0.3289**		**1,609.2244**	**1,609.2244**	**0.0696**	**3.3600e-003**	**1,611.9652**

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	0.4030	4.0000e-005	4.5600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7400e-003	9.7400e-003	3.0000e-005		0.0104
Energy	0.0168	0.1527	0.1283	9.2000e-004		0.0116	0.0116		0.0116	0.0116		183.2635	183.2635	3.5100e-003	3.3600e-003	184.3525
Mobile	0.2536	1.2885	3.8294	0.0140	1.1480	0.0109	1.1589	0.3071	0.0102	0.3173		1,425.9512	1,425.9512	0.0660		1,427.6023
Total	**0.6734**	**1.4413**	**3.9622**	**0.0150**	**1.1480**	**0.0225**	**1.1705**	**0.3071**	**0.0218**	**0.3289**		**1,609.2244**	**1,609.2244**	**0.0696**	**3.3600e-003**	**1,611.9652**

	ROG	NOx	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	Site Preparation	Site Preparation	10/1/2021	10/4/2021	5	2	
2	Grading	Grading	10/5/2021	10/8/2021	5	4	
3	Building Construction	Building Construction	10/9/2021	7/15/2022	5	200	
4	Paving	Paving	7/16/2022	7/29/2022	5	10	
5	Architectural Coating	Architectural Coating	7/30/2022	8/12/2022	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.62

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 26,250; Non-Residential Outdoor: 8,750; Striped Parking Area: 1,620 (Architectural Coating – sqft)

OffRoad Equipment

McClure Machine Shop - South Coast Air Basin, Summer

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	19.00	7.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.5174	1,666.5174	0.5390		1,679.9920
Total	**1.5558**	**17.4203**	**7.5605**	**0.0172**	**5.7996**	**0.7654**	**6.5650**	**2.9537**	**0.7041**	**3.6578**		**1,666.5174**	**1,666.5174**	**0.5390**		**1,679.9920**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0335	0.0218	0.3004	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5519	88.5519	2.3900e-003		88.6115
Total	**0.0335**	**0.0218**	**0.3004**	**8.9000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**88.5519**	**88.5519**	**2.3900e-003**		**88.6115**

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					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920
Total	**1.5558**	**17.4203**	**7.5605**	**0.0172**	**5.7996**	**0.7654**	**6.5650**	**2.9537**	**0.7041**	**3.6578**	**0.0000**	**1,666.5174**	**1,666.5174**	**0.5390**		**1,679.9920**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0335	0.0218	0.3004	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5519	88.5519	2.3900e-003		88.6115
Total	**0.0335**	**0.0218**	**0.3004**	**8.9000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**88.5519**	**88.5519**	**2.3900e-003**		**88.6115**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	**1.2884**	**14.3307**	**6.3314**	**0.0141**	**4.9143**	**0.6379**	**5.5522**	**2.5256**	**0.5869**	**3.1125**		**1,365.0648**	**1,365.0648**	**0.4415**		**1,376.1020**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0335	0.0218	0.3004	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5519	88.5519	2.3900e-003		88.6115
Total	**0.0335**	**0.0218**	**0.3004**	**8.9000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**88.5519**	**88.5519**	**2.3900e-003**		**88.6115**

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					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020
Total	**1.2884**	**14.3307**	**6.3314**	**0.0141**	**4.9143**	**0.6379**	**5.5522**	**2.5256**	**0.5869**	**3.1125**	**0.0000**	**1,365.0648**	**1,365.0648**	**0.4415**		**1,376.1020**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0335	0.0218	0.3004	8.9000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		88.5519	88.5519	2.3900e-003		88.6115
Total	**0.0335**	**0.0218**	**0.3004**	**8.9000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**88.5519**	**88.5519**	**2.3900e-003**		**88.6115**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0197	0.6704	0.1628	1.7700e-003	0.0448	1.3700e-003	0.0462	0.0129	1.3100e-003	0.0142		189.5206	189.5206	0.0117		189.8136
Worker	0.0795	0.0519	0.7134	2.1100e-003	0.2124	1.5700e-003	0.2140	0.0563	1.4500e-003	0.0578		210.3107	210.3107	5.6700e-003		210.4524
Total	**0.0992**	**0.7222**	**0.8762**	**3.8800e-003**	**0.2572**	**2.9400e-003**	**0.2601**	**0.0692**	**2.7600e-003**	**0.0720**		**399.8313**	**399.8313**	**0.0174**		**400.2660**

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0197	0.6704	0.1628	1.7700e-003	0.0448	1.3700e-003	0.0462	0.0129	1.3100e-003	0.0142		189.5206	189.5206	0.0117		189.8136
Worker	0.0795	0.0519	0.7134	2.1100e-003	0.2124	1.5700e-003	0.2140	0.0563	1.4500e-003	0.0578		210.3107	210.3107	5.6700e-003		210.4524
Total	**0.0992**	**0.7222**	**0.8762**	**3.8800e-003**	**0.2572**	**2.9400e-003**	**0.2601**	**0.0692**	**2.7600e-003**	**0.0720**		**399.8313**	**399.8313**	**0.0174**		**400.2660**

3.4 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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

3.4 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0185	0.6367	0.1541	1.7500e-003	0.0448	1.1900e-003	0.0460	0.0129	1.1400e-003	0.0140		187.8592	187.8592	0.0113		188.1421
Worker	0.0746	0.0469	0.6597	2.0300e-003	0.2124	1.5300e-003	0.2139	0.0563	1.4100e-003	0.0577		202.7800	202.7800	5.1200e-003		202.9081
Total	**0.0931**	**0.6836**	**0.8138**	**3.7800e-003**	**0.2572**	**2.7200e-003**	**0.2599**	**0.0692**	**2.5500e-003**	**0.0718**		**390.6392**	**390.6392**	**0.0164**		**391.0502**

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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

3.4 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0185	0.6367	0.1541	1.7500e-003	0.0448	1.1900e-003	0.0460	0.0129	1.1400e-003	0.0140		187.8592	187.8592	0.0113		188.1421
Worker	0.0746	0.0469	0.6597	2.0300e-003	0.2124	1.5300e-003	0.2139	0.0563	1.4100e-003	0.0577		202.7800	202.7800	5.1200e-003		202.9081
Total	**0.0931**	**0.6836**	**0.8138**	**3.7800e-003**	**0.2572**	**2.7200e-003**	**0.2599**	**0.0692**	**2.5500e-003**	**0.0718**		**390.6392**	**390.6392**	**0.0164**		**391.0502**

3.5 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	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.1389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8265**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

3.5 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0510	0.0321	0.4514	1.3900e-003	0.1453	1.0400e-003	0.1464	0.0385	9.6000e-004	0.0395		138.7442	138.7442	3.5100e-003		138.8319
Total	**0.0510**	**0.0321**	**0.4514**	**1.3900e-003**	**0.1453**	**1.0400e-003**	**0.1464**	**0.0385**	**9.6000e-004**	**0.0395**		**138.7442**	**138.7442**	**3.5100e-003**		**138.8319**

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	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.1389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8265**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**	**0.0000**	**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

3.5 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0510	0.0321	0.4514	1.3900e-003	0.1453	1.0400e-003	0.1464	0.0385	9.6000e-004	0.0395		138.7442	138.7442	3.5100e-003		138.8319
Total	**0.0510**	**0.0321**	**0.4514**	**1.3900e-003**	**0.1453**	**1.0400e-003**	**0.1464**	**0.0385**	**9.6000e-004**	**0.0395**		**138.7442**	**138.7442**	**3.5100e-003**		**138.8319**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.9734					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	**17.1779**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0157	9.8600e-003	0.1389	4.3000e-004	0.0447	3.2000e-004	0.0450	0.0119	3.0000e-004	0.0122		42.6905	42.6905	1.0800e-003		42.7175
Total	**0.0157**	**9.8600e-003**	**0.1389**	**4.3000e-004**	**0.0447**	**3.2000e-004**	**0.0450**	**0.0119**	**3.0000e-004**	**0.0122**		**42.6905**	**42.6905**	**1.0800e-003**		**42.7175**

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	16.9734					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	**17.1779**	**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**

3.6 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0157	9.8600e-003	0.1389	4.3000e-004	0.0447	3.2000e-004	0.0450	0.0119	3.0000e-004	0.0122		42.6905	42.6905	1.0800e-003		42.7175
Total	**0.0157**	**9.8600e-003**	**0.1389**	**4.3000e-004**	**0.0447**	**3.2000e-004**	**0.0450**	**0.0119**	**3.0000e-004**	**0.0122**		**42.6905**	**42.6905**	**1.0800e-003**		**42.7175**

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	0.2536	1.2885	3.8294	0.0140	1.1480	0.0109	1.1589	0.3071	0.0102	0.3173		1,425.9512	1,425.9512	0.0660		1,427.6023
Unmitigated	0.2536	1.2885	3.8294	0.0140	1.1480	0.0109	1.1589	0.3071	0.0102	0.3173		1,425.9512	1,425.9512	0.0660		1,427.6023

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	121.98	23.10	11.90	407,955	407,955
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	121.98	23.10	11.90	407,955	407,955

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
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924
Other Asphalt Surfaces	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924
Other Non-Asphalt Surfaces	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924

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	0.0168	0.1527	0.1283	9.2000e-004		0.0116	0.0116		0.0116	0.0116		183.2635	183.2635	3.5100e-003	3.3600e-003	184.3525
NaturalGas Unmitigated	0.0168	0.1527	0.1283	9.2000e-004		0.0116	0.0116		0.0116	0.0116		183.2635	183.2635	3.5100e-003	3.3600e-003	184.3525

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					
General Light Industry	1557.74	0.0168	0.1527	0.1283	9.2000e-004		0.0116	0.0116		0.0116	0.0116		183.2635	183.2635	3.5100e-003	3.3600e-003	184.3525
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
Total		**0.0168**	**0.1527**	**0.1283**	**9.2000e-004**		**0.0116**	**0.0116**		**0.0116**	**0.0116**		**183.2635**	**183.2635**	**3.5100e-003**	**3.3600e-003**	**184.3525**

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					
General Light Industry	1.55774	0.0168	0.1527	0.1283	9.2000e-004		0.0116	0.0116		0.0116	0.0116		183.2635	183.2635	3.5100e-003	3.3600e-003	184.3525
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
Total		**0.0168**	**0.1527**	**0.1283**	**9.2000e-004**		**0.0116**	**0.0116**		**0.0116**	**0.0116**		**183.2635**	**183.2635**	**3.5100e-003**	**3.3600e-003**	**184.3525**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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	0.4030	4.0000e-005	4.5600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7400e-003	9.7400e-003	3.0000e-005		0.0104
Unmitigated	0.4030	4.0000e-005	4.5600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7400e-003	9.7400e-003	3.0000e-005		0.0104

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	0.0465					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3561					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7400e-003	9.7400e-003	3.0000e-005		0.0104
Total	**0.4030**	**4.0000e-005**	**4.5600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.7400e-003**	**9.7400e-003**	**3.0000e-005**		**0.0104**

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	0.0465					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3561					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7400e-003	9.7400e-003	3.0000e-005		0.0104
Total	**0.4030**	**4.0000e-005**	**4.5600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.7400e-003**	**9.7400e-003**	**3.0000e-005**		**0.0104**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

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

McClure Machine Shop

South Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Light Industry	17.50	1000sqft	0.40	17,500.00	0
Other Asphalt Surfaces	23.00	1000sqft	0.53	23,000.00	0
Other Non-Asphalt Surfaces	4.00	1000sqft	0.09	4,000.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	10			**Operational Year**	2021
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Per Site Plan.

Construction Phase - Project Site is vacant, demolition is not required.

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value

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					
2021	1.9208	17.4442	13.7261	0.0258	5.8890	0.7660	6.6550	2.9774	0.7048	3.6822	0.0000	2,382.8304	2,382.8304	0.5412	0.0000	2,392.2078
2022	17.1953	13.1893	13.4939	0.0257	0.2572	0.5916	0.8488	0.0692	0.5714	0.6407	0.0000	2,374.4443	2,374.4443	0.4146	0.0000	2,383.5814
Maximum	**17.1953**	**17.4442**	**13.7261**	**0.0258**	**5.8890**	**0.7660**	**6.6550**	**2.9774**	**0.7048**	**3.6822**	**0.0000**	**2,382.8304**	**2,382.8304**	**0.5412**	**0.0000**	**2,392.2078**

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					
2021	1.9208	17.4442	13.7261	0.0258	5.8890	0.7660	6.6550	2.9774	0.7048	3.6822	0.0000	2,382.8304	2,382.8304	0.5412	0.0000	2,392.2078
2022	17.1953	13.1893	13.4939	0.0257	0.2572	0.5916	0.8488	0.0692	0.5714	0.6407	0.0000	2,374.4443	2,374.4443	0.4146	0.0000	2,383.5814
Maximum	**17.1953**	**17.4442**	**13.7261**	**0.0258**	**5.8890**	**0.7660**	**6.6550**	**2.9774**	**0.7048**	**3.6822**	**0.0000**	**2,382.8304**	**2,382.8304**	**0.5412**	**0.0000**	**2,392.2078**

	ROG	NOx	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**

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	0.4030	4.0000e-005	4.5600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7400e-003	9.7400e-003	3.0000e-005		0.0104
Energy	0.0168	0.1527	0.1283	9.2000e-004		0.0116	0.0116		0.0116	0.0116		183.2635	183.2635	3.5100e-003	3.3600e-003	184.3525
Mobile	0.2441	1.3253	3.5656	0.0133	1.1480	0.0110	1.1589	0.3071	0.0102	0.3174		1,353.9024	1,353.9024	0.0655		1,355.5392
Total	**0.6638**	**1.4781**	**3.6984**	**0.0142**	**1.1480**	**0.0226**	**1.1706**	**0.3071**	**0.0219**	**0.3290**		**1,537.1756**	**1,537.1756**	**0.0690**	**3.3600e-003**	**1,539.9021**

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	0.4030	4.0000e-005	4.5600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7400e-003	9.7400e-003	3.0000e-005		0.0104
Energy	0.0168	0.1527	0.1283	9.2000e-004		0.0116	0.0116		0.0116	0.0116		183.2635	183.2635	3.5100e-003	3.3600e-003	184.3525
Mobile	0.2441	1.3253	3.5656	0.0133	1.1480	0.0110	1.1589	0.3071	0.0102	0.3174		1,353.9024	1,353.9024	0.0655		1,355.5392
Total	**0.6638**	**1.4781**	**3.6984**	**0.0142**	**1.1480**	**0.0226**	**1.1706**	**0.3071**	**0.0219**	**0.3290**		**1,537.1756**	**1,537.1756**	**0.0690**	**3.3600e-003**	**1,539.9021**

	ROG	NOx	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	Site Preparation	Site Preparation	10/1/2021	10/4/2021	5	2	
2	Grading	Grading	10/5/2021	10/8/2021	5	4	
3	Building Construction	Building Construction	10/9/2021	7/15/2022	5	200	
4	Paving	Paving	7/16/2022	7/29/2022	5	10	
5	Architectural Coating	Architectural Coating	7/30/2022	8/12/2022	5	10	

Acres of Grading (Site Preparation Phase): 1

Acres of Grading (Grading Phase): 1.5

Acres of Paving: 0.62

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 26,250; Non-Residential Outdoor: 8,750; Striped Parking Area: 1,620 (Architectural Coating – sqft)

OffRoad Equipment

McClure Machine Shop - South Coast Air Basin, Winter

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Architectural Coating	Air Compressors	1	6.00	78	0.48
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Site Preparation	Graders	1	8.00	187	0.41
Paving	Pavers	1	6.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Grading	Rubber Tired Dozers	1	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	6.00	187	0.41
Paving	Paving Equipment	1	8.00	132	0.36
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Building Construction	Welders	3	8.00	46	0.45

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Grading	3	8.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	19.00	7.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	4.00	0.00	0.00	14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041		1,666.5174	1,666.5174	0.5390		1,679.9920
Total	**1.5558**	**17.4203**	**7.5605**	**0.0172**	**5.7996**	**0.7654**	**6.5650**	**2.9537**	**0.7041**	**3.6578**		**1,666.5174**	**1,666.5174**	**0.5390**		**1,679.9920**

3.2 Site Preparation - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0369	0.0240	0.2719	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		83.0521	83.0521	2.2300e-003		83.1079
Total	**0.0369**	**0.0240**	**0.2719**	**8.3000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**83.0521**	**83.0521**	**2.2300e-003**		**83.1079**

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					5.7996	0.0000	5.7996	2.9537	0.0000	2.9537			0.0000			0.0000
Off-Road	1.5558	17.4203	7.5605	0.0172		0.7654	0.7654		0.7041	0.7041	0.0000	1,666.5174	1,666.5174	0.5390		1,679.9920
Total	**1.5558**	**17.4203**	**7.5605**	**0.0172**	**5.7996**	**0.7654**	**6.5650**	**2.9537**	**0.7041**	**3.6578**	**0.0000**	**1,666.5174**	**1,666.5174**	**0.5390**		**1,679.9920**

3.2 Site Preparation - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0369	0.0240	0.2719	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		83.0521	83.0521	2.2300e-003		83.1079
Total	**0.0369**	**0.0240**	**0.2719**	**8.3000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**83.0521**	**83.0521**	**2.2300e-003**		**83.1079**

3.3 Grading - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869		1,365.0648	1,365.0648	0.4415		1,376.1020
Total	**1.2884**	**14.3307**	**6.3314**	**0.0141**	**4.9143**	**0.6379**	**5.5522**	**2.5256**	**0.5869**	**3.1125**		**1,365.0648**	**1,365.0648**	**0.4415**		**1,376.1020**

3.3 Grading - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0369	0.0240	0.2719	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		83.0521	83.0521	2.2300e-003		83.1079
Total	**0.0369**	**0.0240**	**0.2719**	**8.3000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**83.0521**	**83.0521**	**2.2300e-003**		**83.1079**

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					4.9143	0.0000	4.9143	2.5256	0.0000	2.5256			0.0000			0.0000
Off-Road	1.2884	14.3307	6.3314	0.0141		0.6379	0.6379		0.5869	0.5869	0.0000	1,365.0648	1,365.0648	0.4415		1,376.1020
Total	**1.2884**	**14.3307**	**6.3314**	**0.0141**	**4.9143**	**0.6379**	**5.5522**	**2.5256**	**0.5869**	**3.1125**	**0.0000**	**1,365.0648**	**1,365.0648**	**0.4415**		**1,376.1020**

3.3 Grading - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0369	0.0240	0.2719	8.3000e-004	0.0894	6.6000e-004	0.0901	0.0237	6.1000e-004	0.0243		83.0521	83.0521	2.2300e-003		83.1079
Total	**0.0369**	**0.0240**	**0.2719**	**8.3000e-004**	**0.0894**	**6.6000e-004**	**0.0901**	**0.0237**	**6.1000e-004**	**0.0243**		**83.0521**	**83.0521**	**2.2300e-003**		**83.1079**

3.4 Building Construction - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608		2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**		**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.4 Building Construction - 2021

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0207	0.6688	0.1809	1.7200e-003	0.0448	1.4100e-003	0.0462	0.0129	1.3500e-003	0.0142		184.3617	184.3617	0.0125		184.6748
Worker	0.0876	0.0570	0.6458	1.9800e-003	0.2124	1.5700e-003	0.2140	0.0563	1.4500e-003	0.0578		197.2487	197.2487	5.3100e-003		197.3814
Total	**0.1083**	**0.7258**	**0.8267**	**3.7000e-003**	**0.2572**	**2.9800e-003**	**0.2602**	**0.0692**	**2.8000e-003**	**0.0720**		**381.6104**	**381.6104**	**0.0178**		**382.0561**

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	1.8125	13.6361	12.8994	0.0221		0.6843	0.6843		0.6608	0.6608	0.0000	2,001.2200	2,001.2200	0.3573		2,010.1517
Total	**1.8125**	**13.6361**	**12.8994**	**0.0221**		**0.6843**	**0.6843**		**0.6608**	**0.6608**	**0.0000**	**2,001.2200**	**2,001.2200**	**0.3573**		**2,010.1517**

3.4 Building Construction - 2021

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0207	0.6688	0.1809	1.7200e-003	0.0448	1.4100e-003	0.0462	0.0129	1.3500e-003	0.0142		184.3617	184.3617	0.0125		184.6748
Worker	0.0876	0.0570	0.6458	1.9800e-003	0.2124	1.5700e-003	0.2140	0.0563	1.4500e-003	0.0578		197.2487	197.2487	5.3100e-003		197.3814
Total	**0.1083**	**0.7258**	**0.8267**	**3.7000e-003**	**0.2572**	**2.9800e-003**	**0.2602**	**0.0692**	**2.8000e-003**	**0.0720**		**381.6104**	**381.6104**	**0.0178**		**382.0561**

3.4 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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

3.4 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0194	0.6348	0.1714	1.7100e-003	0.0448	1.2300e-003	0.0460	0.0129	1.1800e-003	0.0141		182.7155	182.7155	0.0121		183.0176
Worker	0.0824	0.0514	0.5961	1.9100e-003	0.2124	1.5300e-003	0.2139	0.0563	1.4100e-003	0.0577		190.1860	190.1860	4.7900e-003		190.3058
Total	**0.1018**	**0.6862**	**0.7675**	**3.6200e-003**	**0.2572**	**2.7600e-003**	**0.2599**	**0.0692**	**2.5900e-003**	**0.0718**		**372.9015**	**372.9015**	**0.0169**		**373.3234**

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	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

3.4 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0194	0.6348	0.1714	1.7100e-003	0.0448	1.2300e-003	0.0460	0.0129	1.1800e-003	0.0141		182.7155	182.7155	0.0121		183.0176
Worker	0.0824	0.0514	0.5961	1.9100e-003	0.2124	1.5300e-003	0.2139	0.0563	1.4100e-003	0.0577		190.1860	190.1860	4.7900e-003		190.3058
Total	**0.1018**	**0.6862**	**0.7675**	**3.6200e-003**	**0.2572**	**2.7600e-003**	**0.2599**	**0.0692**	**2.5900e-003**	**0.0718**		**372.9015**	**372.9015**	**0.0169**		**373.3234**

3.5 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	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.1389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8265**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

3.5 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0564	0.0352	0.4079	1.3100e-003	0.1453	1.0400e-003	0.1464	0.0385	9.6000e-004	0.0395		130.1273	130.1273	3.2800e-003		130.2092
Total	**0.0564**	**0.0352**	**0.4079**	**1.3100e-003**	**0.1453**	**1.0400e-003**	**0.1464**	**0.0385**	**9.6000e-004**	**0.0395**		**130.1273**	**130.1273**	**3.2800e-003**		**130.2092**

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	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.1389					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8265**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**	**0.0000**	**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

3.5 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0564	0.0352	0.4079	1.3100e-003	0.1453	1.0400e-003	0.1464	0.0385	9.6000e-004	0.0395		130.1273	130.1273	3.2800e-003		130.2092
Total	**0.0564**	**0.0352**	**0.4079**	**1.3100e-003**	**0.1453**	**1.0400e-003**	**0.1464**	**0.0385**	**9.6000e-004**	**0.0395**		**130.1273**	**130.1273**	**3.2800e-003**		**130.2092**

3.6 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	16.9734					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	**17.1779**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

3.6 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0174	0.0108	0.1255	4.0000e-004	0.0447	3.2000e-004	0.0450	0.0119	3.0000e-004	0.0122		40.0392	40.0392	1.0100e-003		40.0644
Total	**0.0174**	**0.0108**	**0.1255**	**4.0000e-004**	**0.0447**	**3.2000e-004**	**0.0450**	**0.0119**	**3.0000e-004**	**0.0122**		**40.0392**	**40.0392**	**1.0100e-003**		**40.0644**

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	16.9734					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	**17.1779**	**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**

3.6 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	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0174	0.0108	0.1255	4.0000e-004	0.0447	3.2000e-004	0.0450	0.0119	3.0000e-004	0.0122		40.0392	40.0392	1.0100e-003		40.0644
Total	**0.0174**	**0.0108**	**0.1255**	**4.0000e-004**	**0.0447**	**3.2000e-004**	**0.0450**	**0.0119**	**3.0000e-004**	**0.0122**		**40.0392**	**40.0392**	**1.0100e-003**		**40.0644**

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	0.2441	1.3253	3.5656	0.0133	1.1480	0.0110	1.1589	0.3071	0.0102	0.3174		1,353.9024	1,353.9024	0.0655		1,355.5392
Unmitigated	0.2441	1.3253	3.5656	0.0133	1.1480	0.0110	1.1589	0.3071	0.0102	0.3174		1,353.9024	1,353.9024	0.0655		1,355.5392

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Light Industry	121.98	23.10	11.90	407,955	407,955
Other Asphalt Surfaces	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	121.98	23.10	11.90	407,955	407,955

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
General Light Industry	16.60	8.40	6.90	59.00	28.00	13.00	92	5	3
Other Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0
Other Non-Asphalt Surfaces	16.60	8.40	6.90	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Light Industry	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924
Other Asphalt Surfaces	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924
Other Non-Asphalt Surfaces	0.551391	0.043400	0.201050	0.120272	0.016162	0.005864	0.021029	0.030512	0.002059	0.001866	0.004766	0.000706	0.000924

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	0.0168	0.1527	0.1283	9.2000e-004		0.0116	0.0116		0.0116	0.0116		183.2635	183.2635	3.5100e-003	3.3600e-003	184.3525
NaturalGas Unmitigated	0.0168	0.1527	0.1283	9.2000e-004		0.0116	0.0116		0.0116	0.0116		183.2635	183.2635	3.5100e-003	3.3600e-003	184.3525

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					
General Light Industry	1557.74	0.0168	0.1527	0.1283	9.2000e-004		0.0116	0.0116		0.0116	0.0116		183.2635	183.2635	3.5100e-003	3.3600e-003	184.3525
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
Total		**0.0168**	**0.1527**	**0.1283**	**9.2000e-004**		**0.0116**	**0.0116**		**0.0116**	**0.0116**		**183.2635**	**183.2635**	**3.5100e-003**	**3.3600e-003**	**184.3525**

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					
General Light Industry	1.55774	0.0168	0.1527	0.1283	9.2000e-004		0.0116	0.0116		0.0116	0.0116		183.2635	183.2635	3.5100e-003	3.3600e-003	184.3525
Other Asphalt Surfaces	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
Other Non-Asphalt Surfaces	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
Total		**0.0168**	**0.1527**	**0.1283**	**9.2000e-004**		**0.0116**	**0.0116**		**0.0116**	**0.0116**		**183.2635**	**183.2635**	**3.5100e-003**	**3.3600e-003**	**184.3525**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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	0.4030	4.0000e-005	4.5600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7400e-003	9.7400e-003	3.0000e-005		0.0104
Unmitigated	0.4030	4.0000e-005	4.5600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7400e-003	9.7400e-003	3.0000e-005		0.0104

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	0.0465					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3561					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7400e-003	9.7400e-003	3.0000e-005		0.0104
Total	**0.4030**	**4.0000e-005**	**4.5600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.7400e-003**	**9.7400e-003**	**3.0000e-005**		**0.0104**

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	0.0465					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3561					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	4.3000e-004	4.0000e-005	4.5600e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005		9.7400e-003	9.7400e-003	3.0000e-005		0.0104
Total	**0.4030**	**4.0000e-005**	**4.5600e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**		**9.7400e-003**	**9.7400e-003**	**3.0000e-005**		**0.0104**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

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

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

APPENDIX B
BIOLOGICAL RESOURCE ASSESSMENT & MULTIPLE SPECIES HABITAT CONSERVATION PLAN CONSISTENCY ANALYSIS

BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND MSHCP CONSISTENCY ANALYSIS FOR THE MCCLURE INDUSTRIAL DEVELOPMENT PROJECT BEAUMONT, RIVERSIDE COUNTY, CALIFORNIA

Prepared for:

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January 2021

Contents

SECTION 1.0 - INTRODUCTION

Jennings Environmental, LLC (Jennings) was retained by Lilburn Corporation (Lilburn) to conduct a literature review and reconnaissance-level survey for the proposed McClure Industrial Development Project (Project). The survey identified vegetation communities, the potential for the occurrence of special status species, or habitats that could support special status wildlife species, and recorded all plants and animals observed or detected within the Project boundary. This biological resources assessment is designed to address potential effects of the proposed project on designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW) or the California Native Plant Society (CNPS).

Information contained in this document is in accordance with accepted scientific and technical standards that are consistent with the requirements of the United States Fish and Wildlife Service (USFWS) and (CDFW). Additionally, the site was surveyed for any drainage features that would meet the definition of the Waters of the US (WOUS), Waters of the State (WOS), or CDFW jurisdiction. Additionally, the project is located within the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). As such, this report also contains the results of the consistency analysis performed for the project.

1.1 PROJECT LOCATION

The project is generally located in the northeast portion of Section 9, Township 3 South, Range 1 West, and is depicted on the *Beaumont* U.S. Geological Survey's (USGS) 7.5-minute topographic map. More specifically the project is located within APN 417-150-015, within the City of Beaumont, Riverside County, California. The Project site is located 415 feet east of the intersection of W 1st Street and Veile Ave. The site is surrounded by vacant parcels on all sides. There are some residential developments to the north and south, and some commercial developments to the east and west (Figures 1 and 2 in Appendix A).

1.2 PROJECT DESCRIPTION

John and Larissa McClure ("Applicant") have submitted an application for a Plot Plan Review to the City of Beaumont to construct and operate a light industrial building. The Proposed Project is an approximately 16,823 square-foot, 28-foot-high building with three suites to be constructed on a 1.02-acre vacant property on the north side of First Street between Veile Avenue and Grace Avenue, City of Beaumont, Riverside County. The building would be constructed as concrete tilt-up, slab on grade, and referred to as the McClure Industrial Center ("Proposed Project").

Hi-Tech Machining, Inc. owned by the Applicant will occupy an approximate 9,515 square-foot suite in the building. The business has been in operation for 16 years and currently operates from a rented facility in the City of Calimesa. The company machines new parts from metal and plastic on Computer Numerical Control machines. The proposed hours of operations are 5 am – 8 pm, Monday through Friday. There would be seven employees working two shifts. Another suite of approximately 3,093 square feet would be occupied by two Hi-Tech Machining sales staff. It is anticipated that the remaining suite of approximately 3,015 square feet will be occupied by an electrical shop with two employees.

The site is designated as Industrial in the *Elevate Beaumont General Plan Update, December 2020,* and

the Zoning is Manufacturing. The Proposed Project is an allowable use within these designations and will require City review and approval of a Plot Plan.

The allowable uses are described as a range of industrial uses including "stand-alone" industrial activities, general and light industrial, research parks, private trade schools, colleges, and business parks. The proposed development is, therefore, an allowable use within the current designations.

2.0 – METHODOLOGY

2.1 LITERATURE REVIEW

Prior to performing the field survey, existing documentation relevant to the Project site was reviewed. The most recent records of the California Natural Diversity Database (CNDDB) managed by CDFW (CDFW 2021), the USFWS Critical Habitat Mapper (USFWS 2021), and the California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2021) were reviewed for the following quadrangle containing and surrounding the Project site: *Beaumont and El Casco*, USGS 7.5-minute quadrangle. The *El Casco* quad was included in this search due to the site's proximity to this quad. These databases contain records of reported occurrences of federal- or state-listed endangered or threatened species, California Species of Concern (SSC), or otherwise special status species or habitats that may occur within or in the immediate vicinity of the Project site.

2.2 SOILS

Before conducting the surveys, soil maps for Riverside County were referenced online to determine the types of soil found within the Project site. Soils were determined in accordance with categories set forth by the United States Department of Agriculture (USDA) Soil Conservation Service and by referencing the USDA Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2021).

2.3 BIOLOGICAL RECONNAISSANCE-LEVEL SURVEY

Jennings biologist, Gene Jennings, conducted the general reconnaissance survey within the Project site to identify the potential for the occurrence of special status species, vegetation communities, or habitats that could support special status wildlife species. The surveys were conducted on foot, throughout the Project site between 0830 and 0930 hours on December 19, 2020. Weather conditions during the survey included temperatures ranging from 65 to 68 degrees Fahrenheit, with no cloud cover, no precipitation, 0 to 2 mile per hour winds. Photographs of the Project site were taken to document existing conditions (Appendix B).

2.4 JURISDICTIONAL FEATURES

A general assessment of jurisdictional waters regulated by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW was conducted for the proposed Project area. Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The State of California (State) regulates the discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter- Cologne Water Quality Control Act (California Water Code, Division 7, §13000 et seq.). Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, CDFW regulates all

substantial diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. The initial assessment was conducted by a desktop survey through the USGS National Hydrography Dataset for hydrological connectivity. Additional assessment findings are discussed in Sections 3.1.2 and 3.2.4. A discussion of the regulatory framework is provided in Appendix C.

2.5 WESTERN RIVERSIDE MULTIPLE SPECIES HABITAT CONSERVATION PLAN

The MSHCP is intended to balance the demands of the growth of western Riverside County with the need to preserve open space and protect species of plants and animals that are threatened with extinction. The MSHCP addresses incidental take of "covered" species. Of the 146 species addressed in the Western Riverside County MSHCP, 118 are adequately conserved simply by implementing the conservation program. Incidental take of these 118 species is permitted by the Western Riverside County MSHCP. The remaining 28 species are partially conserved. They would be adequately conserved when certain additional conservation requirements are implemented. The additional requirements are identified in the species-specific conservation objectives for those 28 species. The Riverside Conservation Authority (RCA) is the governing body that administers the MSHCP. Their database was researched prior to conducting the field visit.

2.6 VEGETATION

All plant species observed within the Project site were recorded. Vegetation communities within the Project site were identified, qualitatively described, and mapped onto a high-resolution imagery aerial photograph. Plant communities were determined in accordance with the *Manual of California Vegetation*, *Second Edition* (Sawyer et al. 2009). Plant nomenclature follows that of *The Jepson Manual, Second Edition* (Baldwin et al. 2012). A comprehensive list of the plant species observed during the survey is provided in Appendix D.

2.7 WILDLIFE

All wildlife and wildlife signs observed and detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, were recorded. Additional survey time was spent in those habitats most likely to be utilized by wildlife (native vegetation, wildlife trails, etc.) or in habitats with the potential to support state- and/or federally listed or otherwise special status species. Notes were made on the general habitat types, species observed, and the conditions of the Project site. A comprehensive list of the wildlife species observed during the survey is provided in Appendix D.

SECTION 3.0 – RESULTS

3.1 LITERATURE REVIEW RESULTS

According to the CNDDB, CNPSEI, and other relevant literature and databases, 53 sensitive species including 9 listed species and 2 sensitive habitats, have been documented in the *Beaumont and El Casco* quads. This list of sensitive species and habitats includes any State and/or federally listed threatened or endangered species, CDFW designated Species of Special Concern (SSC) and otherwise Special Animals. "Special Animals" is a general term that refers to all of the taxa the CNDDB is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of "species at risk" or

"special status species." The CDFW considers the taxa on this list to be those of greatest conservation need.

An analysis of the likelihood for the occurrence of all CNDDB sensitive species documented in the *Beaumont and El Casco* quads is provided in Table 2, in Appendix D. This analysis takes into account species range as well as documentation within the vicinity of the project area and includes the habitat requirements for each species and the potential for their occurrence on the site, based on required habitat elements and range relative to the current site conditions. According to the databases, no USFWS designated critical habitat occurs within or adjacent to the project site.

3.1.1 SOILS

After review of USDA Soil Conservation Service and by referencing the USDA NRCS Web Soil Survey (USDA 2021), it was determined that the Project site is located within the Western Riverside Area, California area CA679. Based on the results of the database search none of the soils present on site are classified as hydric soils. The Project site contains two (2) soil types (Figure 3 in Appendix A):

Ramona sandy loam (RaB2). 2 to 5 percent slope. This soil is well-drained with a moderately high capacity to transmit water. This soil consists of alluvium derived from granite, typically ranges in elevation from 250 to 3,500 feet amsl, and is considered prime farmland if irrigated.

Ramona sandy loam (RaC2). 5 to 8 percent slope. This soil is well-drained with a moderately high capacity to transmit water. This soil consists of alluvium derived from granite, typically ranges in elevation from 250 to 3,500 feet amsl, and is considered prime farmland if irrigated.

3.1.2 JURISDICTIONAL WATERS

Aerial imagery of the site was examined and compared with the surrounding USGS 7.5-minute topographic quadrangle maps to identify drainage features within the survey area as indicated from topographic changes, blue-line features, or visible drainage patterns. The U.S. Fish and Wildlife Service National Wetland Inventory and Environmental Protection Agency (EPA) Water Program "My Waters" data layers were also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site. Similarly, the Soil maps from the U.S. Department of Agriculture (USDA) - Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2021) were reviewed to identify the soil series on-site and to check if they have been identified regionally as hydric soils. Upstream and downstream connectivity of waterways (if present) was reviewed in the field, on aerial imagery, and topographic maps to determine jurisdictional status. No obvious signs of jurisdictional features were observed during the literature review.

3.1.3 HYDROLOGY AND HYDROLOGIC CONNECTIVITY

Hydrologically, the project site is located within Beaumont Hydrologic Sub-Area (HSA 801.62) which comprises a 29,339-acre drainage area within the larger San Timoteo Hydrologic Area (Hydrologic Unit Code [HUC10] 1807020304) (CalTrans, 2021) (Figure 4 in Appendix A). The San Timoteo watershed in Beaumont is bordered to the north by the Upper Santa Ana River watershed, to the east by the San Gorgonio River watershed, to the south by the Middle San Jacinto River and Lower San Jacinto River watersheds, and to the west by the Middle Santa Ana River watershed. (Figure 4 in Appendix A).

3.1.4 MSHCP

Prior to the field visit the Riverside Conservation Authority's website and databases were searched. This includes the MSHCP plan itself and any relevant protocol survey requirements. The database also includes a mapping program that contains site-specific information related to criteria cell location, special survey areas for plants and animals, and vegetation mapping.

A summary of the MSHCP Conservation Goals and Policies as they relate to this Project is provided below in Table 1.

Table 1: MSHCP Conservation Goals for Project Area

Conservation Goals	**Within /Adjacent**	**Not Within /Adjacent**
Proposed Constrained Linkages: **None**		X
Core Areas: **None**		X
Linkages: **None**		X
Constrained Linkage:		X
Habitat Block:		X
Core: **None**		X
Criteria Cell**:**		X
Pre-existing Conservation Area		X
Riparian/Riverine or Vernal Pool Habitat		X
Narrow Endemic Plant Survey Area		X
Urban/Wildlife Interface		X
Mammal Survey Area		X
Amphibian Survey Area		X
Burrowing Owl Survey Area		X

3.2 FIELD STUDY RESULTS

3.2.1 HABITAT

The habitat on-site consists of disturbed bare ground and extremely sparse ruderal vegetation. The site shows signs of recent vegetation management in the form of discing as well as pedestrian traffic. Table 1

in Appendix D contains a list of all plants found on-site. Surrounding land uses include undeveloped parcels, residential developments, and commercial developments.

3.2.2 WILDLIFE

Species observed or otherwise detected on or in the vicinity of the project site during the surveys included; common raven (*Corvus corax*), red-tailed hawk (*Buteo jamaicensis*), and house sparrow (*Passer domesticus*).

The project site is located within a developed area of Beaumont. Although the site is undeveloped, very little evidence of any wildlife existed on-site and only the bird species were observed flying above the site during the survey.

3.2.3 SPECIAL STATUS SPECIES

No State and/or federally listed threatened or endangered species or other sensitive species were observed on-site during surveys.

Designated Critical Habitat

The site is not located within or adjacent to any USFWS designated Critical Habitat. No further action is required.

Nesting Birds

The Project site and immediate surrounding area does contain habitat suitable for nesting birds. Nesting bird surveys should be conducted prior to any construction activities taking place during the nesting season to avoid potentially taking any birds or active nests. In general, impacts to all bird species (common and special status) can be avoided by conducting work outside of the nesting season (generally March 15th to September 15th), and conducting a worker awareness training. However, if all work cannot be conducted outside of the nesting season, a project-specific Nesting Bird Management Plan can be prepared to determine suitable buffers.

3.2.4 JURISDICTIONAL WATERS

<u>Waters of the United States and Waters of the State</u>

The USACE has the authority to permit the discharge of dredged or fill material in Waters of the U.S. under Section 404 CWA. While the Regional Water Quality Board has authority over the discharge of dredged or fill material in Waters of the State under Section 401 CWA as well as the Porter-Cologne Water Quality Control Act. The Project area was surveyed with 100 percent visual coverage and no drainage features were present on site. As such, the subject parcel does not contain any wetlands, waters of the U.S., or Waters of the State.

<u>Fish and Game Code Section 1602 - State Lake and/or Streambed</u>

The CDFW asserts jurisdiction over any drainage feature that contains a definable bed and bank or associated riparian vegetation. The Project area was surveyed with 100 percent visual coverage and no definable bed or bank features exist on the project site. As such, the subject parcel does not contain any areas under CDFW jurisdiction.

3.2.5 WETLANDS

NWI maps did not identify portions within the Project site as a Riverine/Riparian system. Additionally, none of the requirements for wetland designation (hydric vegetation, hydric soils, and/or wetland hydrology) were present on site. As such, there are no wetlands currently present on site.

3.3 MSHCP Consistency Analysis

The Project is located within The Pass Area Plan of the MSHCP. The target conservation acreage range for The Pass Area Plan is 22,510 – 27,895 acres; it is composed of approximately 13,970 acres of existing Public/Quasi-Public Lands and 8,540 – 13,925 acres of Additional Reserve Lands.

The MSHCP Conservation Area comprises a variety of existing and proposed Cores, Linkages, Constrained Linkages, and Noncontiguous Habitat Blocks (referred to herein generally as "Cores and Linkages"). The Cores and Linkages within the Pass Area Plan include:

- Contains the Proposed Constrained Linkage 22
- Contains the Proposed Constrained Linkage 23
- Contains a portion of Proposed Core 3
- Contains a portion of Proposed Linkage 6
- Contains Proposed Linkage 12
- Contains a portion of Existing Core I
- Contains a portion of Existing Core K
- Contains a portion of Existing Noncontiguous Habitat Block B

3.3.1 Public Quasi-Public Lands (PQP) and Covered Roads

Pursuant to Sections 3.2.1 PQP Lands are a Subset of MSHCP Conservation Area lands totaling approximately 347,000 acres of lands known to be in public/private ownership and expected to be managed for open space value and/or in a manner that contributes to the Conservation of Covered Species (including lands contained in existing reserves), as generally depicted in Figure 3-1 of the MSHCP, Volume I. Section 7.2.1 Existing Roads within Existing PQP Lands are existing roadways within existing Public/Quasi-Public Lands, including interstates, freeways, State highways, city and county maintained roadways, as well as local roads, which are not city, or county maintained that provide property access. This latter category of other maintained roadways are generally maintained by the adjacent property owners, either individually or collectively. Table 7-1 provides an estimate summarizing the extent of these various types of existing roadways which are permitted to remain within Public/Quasi-Public Lands.

The Project site is not located within or adjacent to any PQP Lands and will not impact a covered road.

- *No further discussion on this subject is made in this analysis*

3.3.2 Subunit Area/Cell Criteria

Pursuant to Section 3.3.12, Subunits are areas within an area plan that contain target conservation acreages along with a description of the planning species, biological issues, and considerations. The Project site is not located within a subunit area or cell criteria.

- *No further discussion on this subject is made in this analysis*

3.3.3 Narrow Endemic Plant Species

Pursuant to Section 6.1.3 of the MSHCP, focused surveys for narrow endemic plant species are required for properties within the mapped areas if the appropriate habitat is present. The survey area maps have been reviewed and assessed, and the proposed project is not located within a Narrow Endemic Plant Species Survey Area based on Figure 6-1 of the MSHCP.

- *No further discussion on this subject is made in this analysis*

3.3.4 Additional Survey Needs and Procedures

Based on Figures 6-2 (Criteria Area Species Survey Areas), 6-3 (Amphibian Species Survey Areas), 6-4 (BUOW Survey Areas), and 6-5 (Mammal Species Survey Areas) of the MSHCP and the MSHCP Mapping Program, the site is not located in an area where additional surveys are needed for certain species in conjunction with MSHCP implementation in order to achieve coverage for these species.

- *No further discussion on Criteria Area or Special Status Species is made in* this analysis

3.3.5 Riparian/Riverine Areas and Vernal Pools

The MSHCP describes the protection of Riparian/Riverine Areas and Vernal Pools within the MSHCP Plan Area as important to the conservation of certain amphibian, avian, fish, invertebrate and plant species. The MSHCP describes guidelines to ensure that the biological functions and values for species inside the MSHCP Conservation Area are maintained, as outlined in Volume 1, Section 6.1.2.

Riparian/ Riverine

Pursuant to Section 6.1.2 of the MSHCP, Riparian/Riverine areas are lands which contain habitat dominated by trees, shrubs, persistent emergent vegetation, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from nearby freshwater sources, or areas with freshwater flow during all or a portion of the year. Riverine habitat includes all wetlands and deepwater habitats contained in natural or artificial channels periodically or continuously containing flowing water or which forms a connecting link between the two bodies of standing water. Riverine habitat is bounded on the landward side by upland, by the channel bank (including natural and man-made levees), or by wetlands dominated by trees, shrubs, persistent emergents, mosses, or lichens. In braided streams, the system is bounded by the banks forming the outer limits of the depression within which the braiding occurs. Springs discharging into a channel are considered part of the riverine habitat. The term riparian is used to define the type of wildlife habitat found along the banks of a river, stream, lake, or other body of water. Riparian habitats are ecologically diverse and can be found in many types of environments including grasslands, wetlands, and forests.

The Project site does not contain any areas that meet the definition of Riparian/Riverine.

- *No further discussion on this subject is made in this analysis*

Vernal Pools

Pursuant to Section 6.1.2 of the MSHCP, Vernal Pools are seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season. Obligate hydrophytes and facultative wetlands plant species are normally dominant during the wetter portion of the growing season, while upland species (annuals) may be dominant during the drier portion of the growing season. The determination that an area exhibits vernal pool characteristics should consider (1) the length of time the area exhibits upland and wetland characteristics, and (2) the manner in which the area fits into the overall ecological system as a wetland. Evidence concerning the persistence of an area's wetness can be obtained from its history, vegetation, soils, and drainage characteristics, uses to which it has been subjected, and weather and hydrologic records.

The Project site does not contain the appropriate soils, vegetation, or hydrology to allow for vernal pools.

- *No further discussion on this subject is made in this analysis*

Fairy Shrimp

The MSHCP contains coverage for three species of fairy shrimp (Riverside, vernal pool, and Santa Rosa fairy shrimps). As mentioned in the Vernal Pool discussion, the site does not contain vernal pools. Vernal pools are a required constituent element for all three fairy shrimp species in the MSHCP. As such, they are considered absent from the Project site.

- *No further discussion on this subject is made in this analysis*

Riparian Birds

The MSCHP includes coverage for many riparian birds, including least Bell's vireo, southwestern willow flycatcher, and yellow-billed cuckoo. As mentioned above in the Riparian/Riverine section, the site does not contain any riparian or riverine habitats which are a required constituent element for the riparian bird species. As such, these species are considered absent from the Project site.

- *No further discussion on this subject is made in this analysis*

Delhi sands flower-loving fly

The Delhi Sands flower-loving fly is found at low numbers and is narrowly distributed within the Plan Area. This species is restricted by the distribution and availability of open Habitats within the fine, sandy Delhi series soils. USFWS has identified three main population areas are known to currently or to have at one time existed in the Plan Area. One is located in the northwestern corner of the Plan Area, a second is located in the Jurupa Hills, and the third is located in the Agua Mansa Industrial Center area. Because the Delhi Sands flower-loving fly requires a specific Habitat type, this species will require site-specific considerations, protection and enhancement of this limited Habitat type, and species-specific management to maintain the Habitat and populations.

The Project site does not contain the appropriate soils for this species and is not within or near known areas for this species.

- *No further discussion on this subject is made in this analysis*

3.3.6 Urban/ Wildlands Interface

Section 6.1.4 of the MSHCP presents guidelines to minimize the indirect effects of projects in proximity to the MSCHP Conservation areas. This section provides mitigation measures for impacts associated with Drainage, Toxics, Lighting, Noise, Invasives, Barriers, and Grading/Land Development.

The Project site is not within or adjacent to any area the meets the definition of an urban/wildland interface. The site is fenced off and mostly surrounded by other fenced off developed parcels.

- *No further discussion on this subject is made in this analysis*

3.3.7 Best Management Practices (Volume I, Appendix C)

Appendix C of the MSHCP details Best Management Practices (BMPs) that should be implemented. However, the project does not impact any of the covered species or habitats described in the MSHCP or any federally or state-listed species. As such, there are only two BMPs that could qualify as required for this project:

> 13. To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food-related trash items shall be enclosed in sealed containers and regularly removed from the site(s).
>
> 14. Construction employees shall strictly limit their activities, vehicles, equipment, and construction materials to the proposed project footprint and designated staging areas and routes of travel. The construction area(s) shall be the minimal area necessary to complete the project and shall be specified in the construction plans. Construction limits will be fenced with an orange snow screen. Exclusion fencing should be maintained until the completion of all construction activities. Employees shall be instructed that their activities are restricted to the construction areas.

SECTION 4.0 - CONCLUSIONS AND RECOMMENDATIONS

Based on the literature review and personal observations made in the immediate vicinity, no State and/or federally listed threatened or endangered species are documented/or expected to occur within the Project site. Additionally, no plant species with the California Rare Plant Rank (CRPR) of 1 or 2 were observed on-site or documented to occur on-site in the relevant databases. No other sensitive species were observed within the project area or buffer area.

There are no streams, channels, washes, or swales that meet the definitions of Section 1600 of the State of California Fish and Game Code (FGC) under the jurisdiction of the CDFW, Section 401 (“Waters of the State”) of the Clean Water Act (CWA) under the jurisdiction of the Regional Water Quality Control Board (RWQCB), or “Waters of the United States” (WoUS) as defined by Section 404 of the CWA under the jurisdiction of the U.S. Army Corps of Engineers (Corps) within the subject parcel. Therefore, no permit from any regulatory agency will be required.

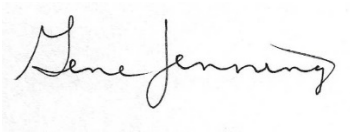
The site is not mapped within a criteria cell or subunit. The Project is also consistent with the MSHCP policies found in Section 6 which include Riparian/Riverine Areas/ Vernal Pools; Narrow Endemic Plant Species; Urban/Wildlands Interface; and Surveys for Special Status Species. The site is not located within an area mapped for Narrow Endemic or Criteria Area Plant Species, Special Status Species, Riparian/Riverine/Vernal Pools, and Urban/Wildlife Interface. Therefore, the Project is consistent with MSCHP policies and conditions.

Since there is some habitat within the project site and adjacent area that is suitable for nesting birds in general, a preconstruction nesting bird survey is recommended before the commencement of any project-related work activities, within nesting bird season, to avoid any potential project-related impacts to nesting birds.

I hereby certify that the statements furnished herein, and in the attached exhibits present data and information required for this analysis to the best of my ability, and the facts, statements, and information presented are true and correct to the best of my knowledge and belief. This report was prepared in accordance with professional requirements and standards. Fieldwork conducted for this assessment was performed by me. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project proponent and that I have no financial interest in the project.

Please do not hesitate to contact me at 909-534-4547 should you have any questions or require further information.

Sincerely,



Gene Jennings
Principal/Regulatory Specialist

Appendices:

- Appendix A – Figures
- Appendix B – Site Photos
- Appendix C – Regulatory Framework
- Appendix D – Tables

Section 5 – REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, and T.J. Rosatti, and D.H. Wilken (editors)
2012 *The Jepson Manual: Vascular Plants of California, Second Edition.* University of California Press, Berkeley, CA.

Barbour, M.G., J.H. Burk, W.D. Pitts, F.S. Gilliam, and M.W. Schwartz.
1999 *Terrestrial Plant Ecology, Third Edition.* Addison Wesley Longman, Inc. Menlo Park, CA.

California Department of Fish and Wildlife (CDFW)
2020 California Natural Diversity Database (CNDDB). RareFind Version 3.1.0. Database Query for the *Baldy Mesa and Hesperia*, California USGS 7.5 minute quadrangles. Wildlife and Habitat Data Analysis Branch. [Accessed January 2021]

California Department of Fish and Game. 1995. Staff report on burrowing owl mitigation. Memo from C.F. Raysbrook, Interim Director to Biologist, Environmental Services Division, Department of Fish and Game. Sacramento, CA.

California Department of Fish and Game (CDFG). 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resources Agency. March 7, 2012.

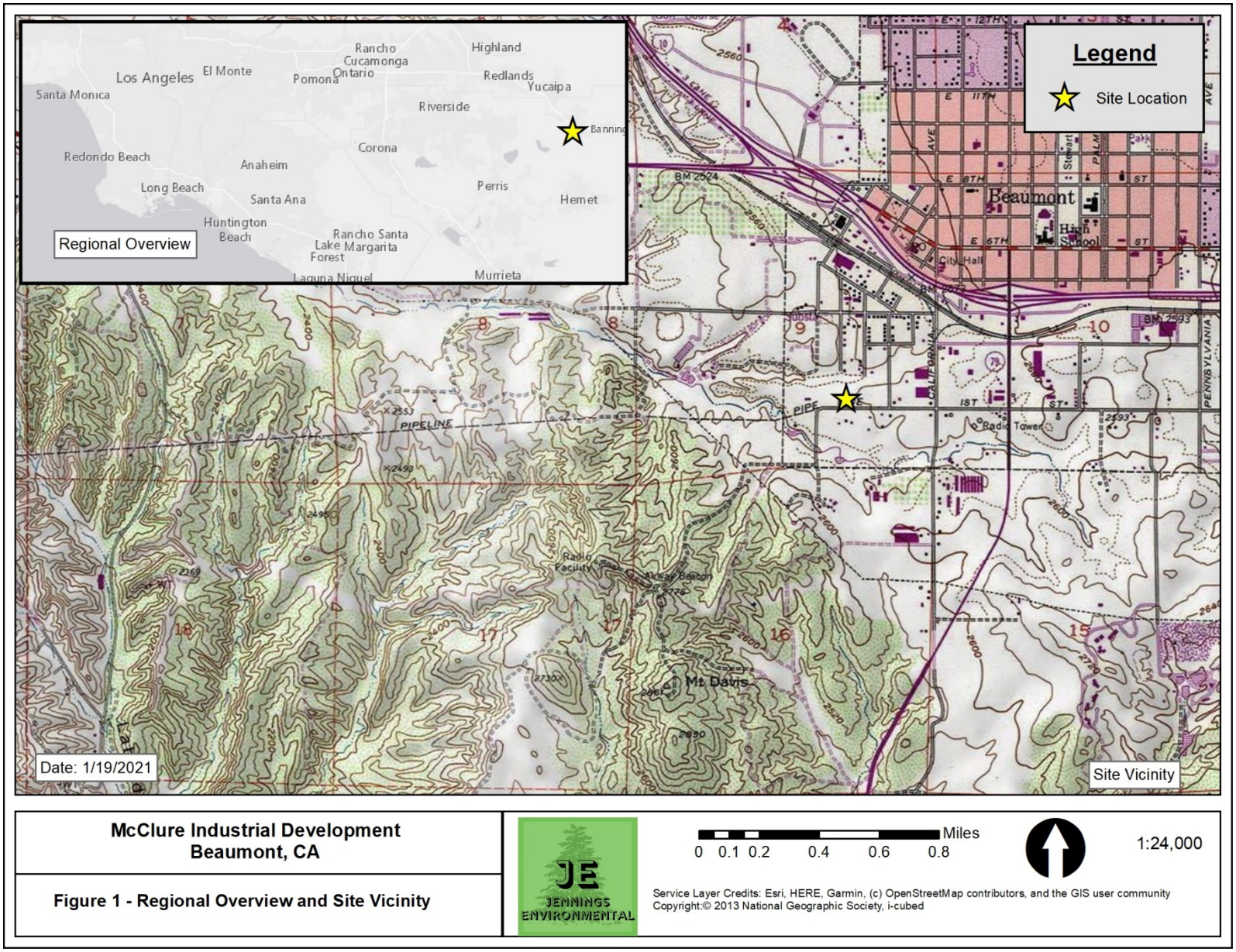
California Department of Transportation. Water Quality Planning Tool.
http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx (Accessed September 2020)

California Native Plant Society (CNPS)
2020 Inventory of Rare and Endangered Plants (online edition, v8-03 0.39). Rare Plant Scientific Advisory Committee, California Native Plant Society, Sacramento, California. Website http://www.rareplants.cnps.org for the *Baldy Mesa and Hesperia*, California USGS 7.5 minute quadrangles; [Accessed January 2021].

Sawyer, J.O., Jr., T. Keeler-Wolf, J. Evens
2009 *A Manual of* California *Vegetation, Second Edition*. California Native Plant Society, Sacramento, CA.

U.S. Department of Agriculture (USDA)
2020 Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Official Soil Series Descriptions [Online Edition]. Website https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx [Accessed January 2021].

Appendix A - Figures


Legend
Site Location
Regional Overview
Los Angeles
El Monte
Santa Monica
Pomona
Rancho Cucamonga
Ontario
Highland
Redlands
Yucaipa
Riverside
Banning
Corona
Redondo Beach
Anaheim
Long Beach
Santa Ana
Perris
Hemet
Huntington Beach
Rancho Santa Margarita
Lake Forest
Laguna Niguel
Murrieta
Beaumont
High School
City Hall
Radio Tower
PIPELINE
Radio Facility
Mt Davis
Date: 1/19/2021
Site Vicinity
McClure Industrial Development
Beaumont, CA
Figure 1 - Regional Overview and Site Vicinity
JE
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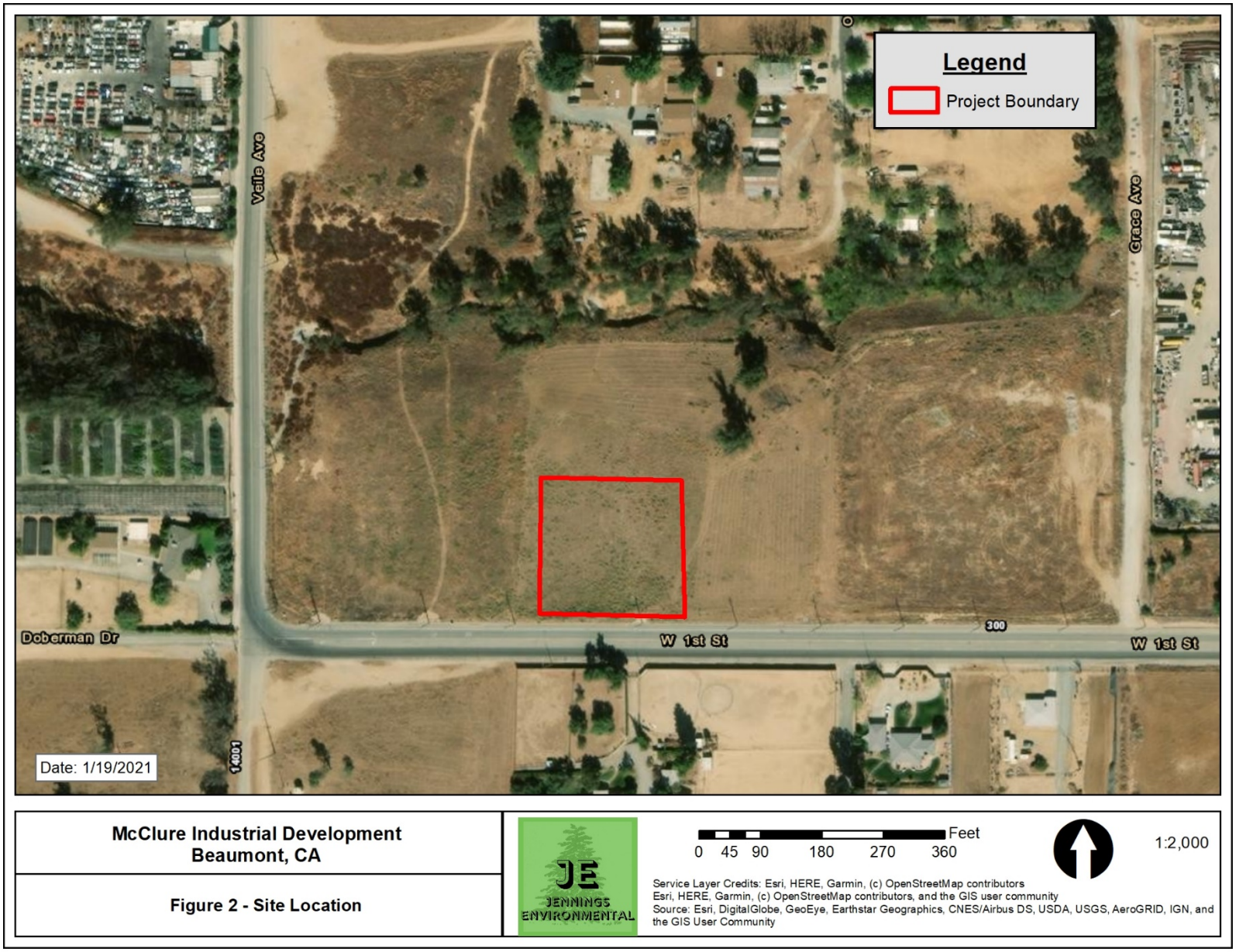
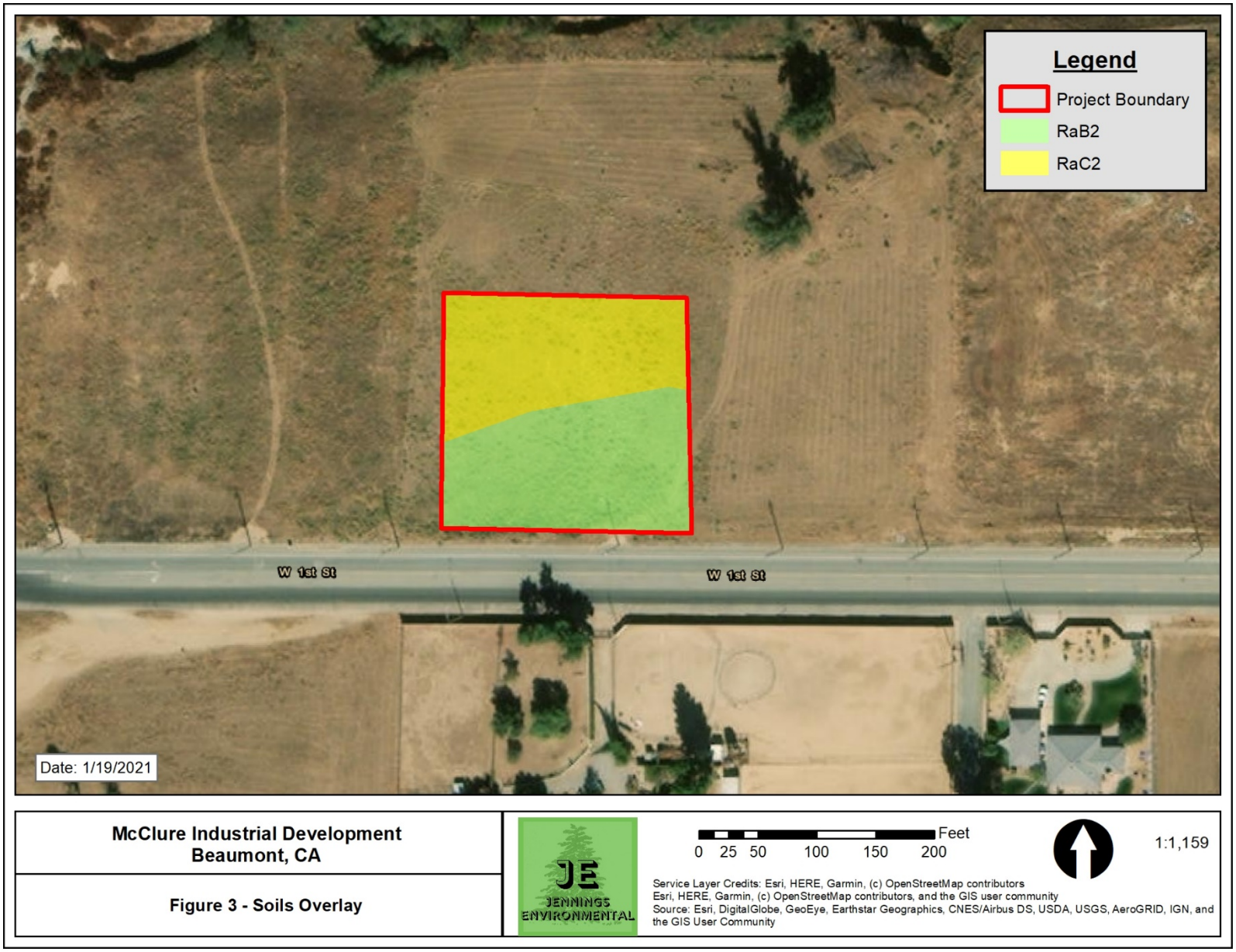
0 0.1 0.2 0.4 0.6 0.8 Miles
1:24,000
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Copyright:© 2013 National Geographic Society, i-cubed


Legend
Project Boundary
Veile Ave
Grace Ave
Doberman Dr
W 1st St
W 1st St
300
14001
Date: 1/19/2021
McClure Industrial Development
Beaumont, CA
Figure 2 - Site Location
JE
JENNINGS ENVIRONMENTAL
Feet
0 45 90 180 270 360
1:2,000
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


Legend
Project Boundary
RaB2
RaC2
W 1st St
W 1st St
Date: 1/19/2021
McClure Industrial Development
Beaumont, CA
Figure 3 - Soils Overlay
JE
JENNINGS ENVIRONMENTAL
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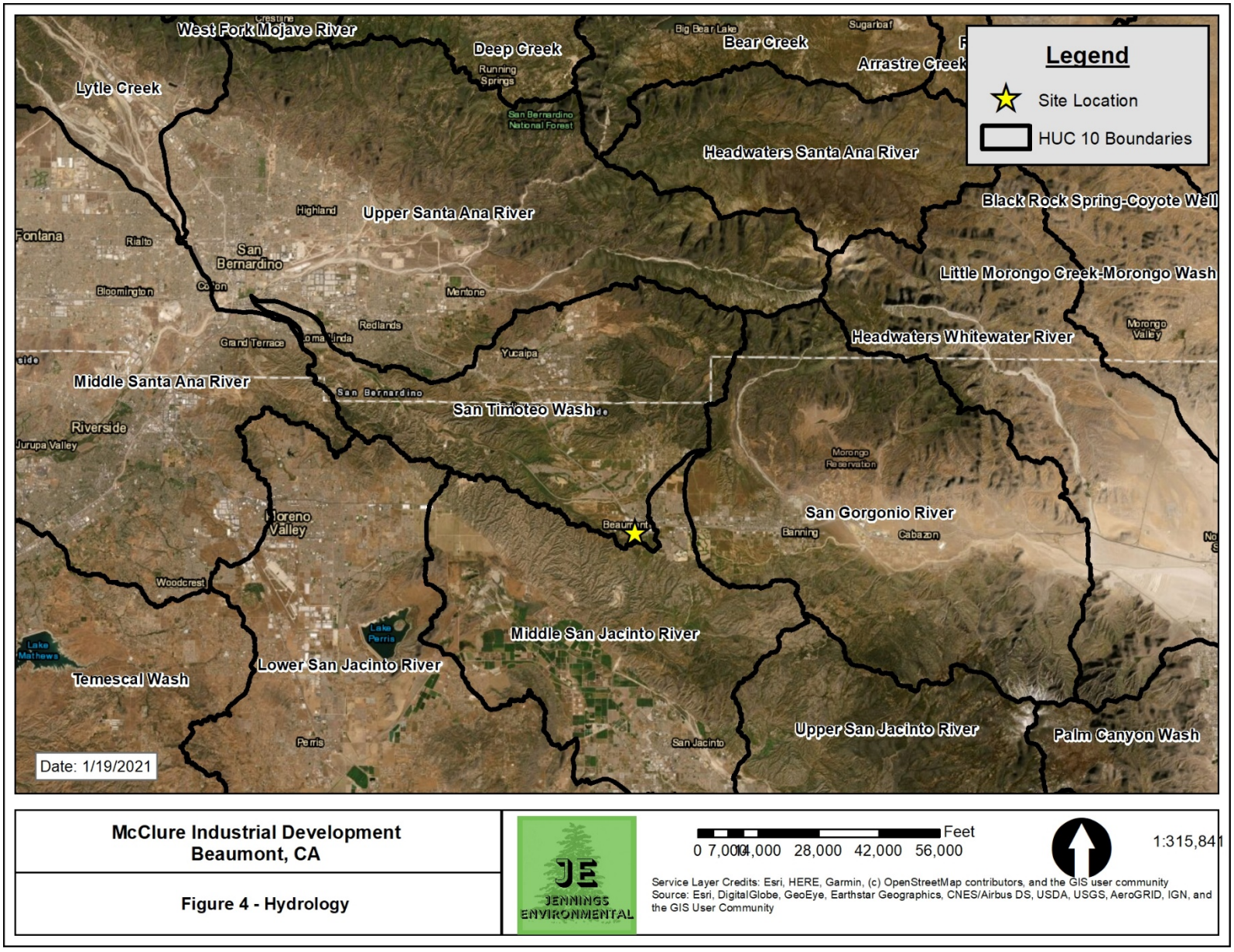
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community


West Fork Mojave River
Deep Creek
Bear Creek
Arrastre Creek
Lytle Creek
Running Springs
San Bernardino National Forest
Headwaters Santa Ana River
Black Rock Spring-Coyote Well
Highland
Upper Santa Ana River
Fontana
Rialto
San Bernardino
Bloomington
Mentone
Little Morongo Creek-Morongo Wash
Redlands
Grand Terrace
Yucaipa
Headwaters Whitewater River
Morongo Valley
Middle Santa Ana River
San Bernardino
San Timoteo Wash
Riverside
Jurupa Valley
Morongo Reservation
San Gorgonio River
Moreno Valley
Beaumont
Banning
Cabazon
Woodcrest
Lake Perris
Middle San Jacinto River
Lake Mathews
Lower San Jacinto River
Temescal Wash
Perris
San Jacinto
Upper San Jacinto River
Palm Canyon Wash
Date: 1/19/2021
Legend
Site Location
HUC 10 Boundaries
McClure Industrial Development
Beaumont, CA
Figure 4 - Hydrology
JE JENNINGS ENVIRONMENTAL
0 7,000 14,000 28,000 42,000 56,000 Feet
1:315,841
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Appendix B - Photo

	Photo 1 – Southeast corner of Project Boundary, facing northwest. Showing ruderal/disturbed habitat.
	Photo 2 – Northern border of Project boundary, facing south. Showing ruderal/disturbed habitat.

Appendix C – Regulatory Framework

1.1 FEDERAL JURISDICTION

1.1.1 United States Army Corps of Engineers

Pursuant to Section 404 of the CWA, the United States Army Corps of Engineers (USACE) regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined by 33 Code of Federal Regulations (CFR) Part 328 and currently includes: (1) all navigable waters (including all waters subject to the ebb and flow of the tide), (2) all interstate waters and wetlands, (3) all other waters (e.g., lakes, rivers, intermittent streams) that could affect interstate or foreign commerce, (4) all impoundments of waters mentioned above, (5) all tributaries to waters mentioned above, (6) the territorial seas, and (7) all wetlands adjacent to waters mentioned above. Waters of the United States do not include (1) waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act (CWA), and (2) prior converted cropland. Waters of the United States typically are separated into two types: (1) wetlands and (2) "other waters" (non-wetlands) of the United States.

Wetlands are defined by 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support … a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987, USACE published a manual (1987 Wetland Manual) to guide its field personnel in determining jurisdictional wetland boundaries. This manual was amended in 2008 to the USACE 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (2008 Arid West Supplement). Currently, the 1987 Wetland Manual and the 2008 Arid West Supplement provide the legally accepted methodology for identification and delineation of USACE-jurisdictional wetlands in southern California.

In the absence of wetlands, the limits of USACE jurisdiction in nontidal waters, including intermittent Relatively Permanent Water (RPW) streams, extend to the Ordinary High Water Mark (OHWM), which is defined by 33 CFR 328.3(e) as:

> … that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

On January 9, 2001, the U.S. Supreme Court ruled (in Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers) (SWANCC) that USACE jurisdiction does not extend to previously regulated isolated waters, including but not limited to isolated ponds, reservoirs, and wetlands. Examples of isolated waters that are affected by this ruling include vernal pools, stock ponds, lakes (without outlets), playa lakes, and desert washes that are not tributary to navigable or interstate waters or to other jurisdictional waters. A joint legal memorandum by EPA and USACE was signed on January 15, 2003.

In May 2007, USACE and EPA jointly published and authorized the use of the Jurisdictional Determination Form Instructional Guidebook (USACE 2007). The form and guidebook define how to determine if an area is USACE jurisdictional and if a significant nexus exists per the Rapanos decision. A nexus must have more than insubstantial and speculative effects on the downstream TNW to be considered a significant nexus. This guidebook is updated by the 2008 Arid West Supplement, the 2010 Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, and the 2011 Ordinary High Flows and the Stage-Discharge Relationship in the Arid West Region.

A joint guidance by EPA and USACE was issued on June 5, 2007, and revised on December 2, 2008, is consistent with the Supreme Court's decision in the consolidated cases Rapanos v. United States and Carabell v. United States (126 S. Ct. 2208 [2006]) (Rapanos), which addresses the jurisdiction over waters of the United States under the CWA (33 U.S.C. §1251 et seq.). A draft guidance was circulated in April 2011 to supercede both the 2003 SWANCC guidance and 2008 Rapanos decision; however, this guidance is not finalized and lacks the force of law.

USACE will continue to assert jurisdiction over Traditionally Navigable Waters (TNWs), wetlands adjacent to TNW, non-navigable tributaries of TNW that are Relatively Permanent Waters (RPW) where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months), and wetlands that directly abut such tributaries.

USACE generally will not assert jurisdiction over swales or erosional features (e.g., gullies or small washes characterized by low volume, infrequent, or short duration flow) or nontidal drainage ditches (including roadside ditches) that are (1) excavated wholly in and draining only uplands and (2) that do not carry a relatively permanent flow of water. USACE defines a drainage ditch as:

> A linear excavation or depression constructed for the purpose of conveying surface runoff or groundwater from one area to another. An "upland drainage ditch" is a drainage ditch constructed entirely in uplands (i.e., not in waters of the United States) and is not a water of the United States, unless it becomes tidal or otherwise extends the ordinary high water line of existing waters of the United States.

Furthermore, USACE generally does not consider "[a]rtificially irrigated areas which would revert to upland if the irrigation ceased" to be subject to their jurisdiction. Such irrigation ditches are linear excavations constructed for the purpose of conveying agricultural water from the adjacent fields. Therefore, such agricultural ditches are not considered to be subject to USACE jurisdiction.

USACE will use fact-specific analysis to determine whether waters have a significant nexus with (1) TNW for nonnavigable tributaries that are not relatively permanent (non-RPW); (2) wetlands adjacent to nonnavigable tributaries that are not relatively permanent; and (3) wetlands adjacent to, but that do not directly abut, a relatively permanent nonnavigable tributary. According to USACE, "a significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to

determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters," including consideration of hydrologic and ecologic factors. A primary component of this determination lies in establishing the connectivity or lack of connectivity of the subject drainages to a TNW.

1.2 STATE JURISDICTION

The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the CWA as well as the California Porter-Cologne Water Quality Control Act (Porter-Cologne; California Water Code, Division 7, §13000 et seq.). Waters of the State are defined by Porter-Cologne as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code Section 13050(e)). Waters of the State broadly includes all waters within the State's boundaries (public or private), including waters in both natural and artificial channels.

1.2.1 Regional Water Quality Control Board

Under Porter-Cologne, the State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Boards (RWQCB) regulate the discharge of waste into waters of the State. Discharges of waste include "fill, any material resulting from human activity, or any other 'discharge' that may directly or indirectly impact 'waters of the state.'" Porter-Cologne reserves the right for the State to regulate activities that could affect the quantity and/or quality of surface and/or groundwaters, including isolated wetlands, within the State. Wetlands were defined as waters of the State if they demonstrated both wetland hydrology and hydric soils. Waters of the State determined to be jurisdictional for these purposes require, if impacted, waste discharge requirements (WDRs).

When an activity results in fill or discharge directly below the OHWM of jurisdictional waters of the United States (federal jurisdiction), including wetlands, a CWA Section 401 Water Quality Certification is required. If a proposed project is not subject to CWA Section 401 certification but involves activities that may result in a discharge to waters of the State, the project may still be regulated under Porter-Cologne and may be subject to waste discharge requirements. In cases where waters apply to both CWA and Porter-Cologne, RWQCB may consolidate permitting requirements to one permit.

1.2.2 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, the California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other

aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation" (California Code of Regulations, Title 14, Section 1.72). The jurisdiction of CDFW may include areas in or near intermittent streams, ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams that are indicated on USGS maps, watercourses that may contain subsurface flows, or within the flood plain of a water body. CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW limits of jurisdiction typically include the maximum extents of the uppermost bank-to-bank distance and/or the outermost extent of riparian vegetation dripline, whichever measurement is greater.

In a CDFW guidance of stream processes and forms in dryland watersheds (Vyverberg 2010), streams are identified as having one or more channels that may all be active or receive water only during some high flow event. Subordinate features, such as low flow channels, active channels, banks associated with secondary channels, floodplains, and stream-associated vegetation, may occur within the bounds of a single, larger channel. The water course is defined by the topography or elevations of land that confine a stream to a definite course when its waters rise to their highest level. A watercourse is defined as a stream with boundaries defined by the maximal extent or expression on the landscape even though flow may otherwise be intermittent or ephemeral.

Artificial waterways such as ditches (including roadside ditches), canals, aqueducts, irrigation ditches, and other artificially created water conveyance systems also may be under the jurisdiction of CDFW. CDFW may claim jurisdiction over these features based on the presence of habitat characteristics suitable to support aquatic life, riparian vegetation, and/or stream-dependent terrestrial wildlife. As with natural waterways, the limit of CDFW jurisdiction of artificial waterways includes the uppermost bank-to-bank distance and/or the outermost extent of riparian vegetation dripline, whichever measurement is greater.

CDFW does not have jurisdiction over wetlands but has jurisdiction to protect against a net loss of wetlands. CDFW supports the wetland criteria recognized by USFWS; one or more indicators of wetland conditions must exist for wetlands conditions to be considered present. The following is the USFWS accepted definition of a wetland:

> Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the lands supports hydrophytes, (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated withwater or covered by shallow water at some time during the growing season of each year (Cowardin et al. 1979).

In A Clarification of the U.S. Fish and Wildlife Service's Wetland Definition (Tiner 1989), the USFWS definition was further clarified "that in order for any area to be classified as wetland by the Service, the area must be periodically saturated or covered by shallow water, whether wetland vegetation and/or hydric soils are present or not; this hydrologic requirement is

addressed in the first sentence of the definition." When considering whether an action would result in a net loss of wetlands, CDFW will extend jurisdiction to USFWS-defined wetland conditions where such conditions exist within the riparian vegetation that is associated with a stream or lake and does not depend on whether those features meet the three-parameter USACE methodology of wetland determination. If impacts to wetlands under the jurisdiction of CDFW are unavoidable, a mitigation plan will be implemented in coordination with CDFW to support the CDFW policy of "no net loss" of wetland habitat.

Appendix D – Tables

Table 1. Species Observed On-Site

Common Name	Scientific Name
Plants	
Tumbleweed	*Salsola tragus*
Russian knapweed	*Rhaponticum repens*
Birds	
common raven	*Corvus corax*
house sparrow	*Passer domesticus*
red-tailed hawk	*Buteo jamaicensis*

Table 2 – CNDDB Potential to Occur

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Abronia villosa var. aurita	chaparral sand-verbena	None, None	G5T2?, S2, 1B.1	Chaparral, coastal scrub, desert dunes. Sandy areas. -60-1570 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Accipiter cooperii	Cooper's hawk	None, None	G5, S4, CDFW-WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Agelaius tricolor	tricolored blackbird	None, Threatened	G2G3, S1S2, CDFW-SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	None, None	G5T3, S3, CDFW-WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Allium marvinii	Yucaipa onion	None, None	G1, S1, 1B.2	Chaparral. In openings on clay soils. 850-1070 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Anniella stebbinsi	Southern California legless lizard	None, None	G3, S3, CDFW-SSC	Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. Variety of habitats; generally in moist, loose soil. They prefer soils with a high moisture content.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Antrozous pallidus	pallid bat	None, None	G5, S3, CDFW-SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Aquila chrysaetos	golden eagle	None, None	G5, S3, CDFW-FP	Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Aspidoscelis hyperythra	orange-throated whiptail	None, None	G5, S2S3, CDFW-WL	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food: termites.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Aspidoscelis tigris stejnegeri	coastal whiptail	None, None	G5T5, S3	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas. Ground may be firm soil, sandy, or rocky.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Astragalus hornii var. hornii	Horn's milk-vetch	None, None	GUT1, S1, 1B.1	Meadows and seeps, playas. Lake margins, alkaline sites. 75-350 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Astragalus lentiginosus var. coachellae	Coachella Valley milk-vetch	Endangered, None	G5T1, S1, 1B.2	Sonoran desert scrub, desert dunes. Sandy flats, washes, outwash fans, sometimes on dunes. 35-695 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Astragalus pachypus var. jaegeri	Jaeger's milk-vetch	None, None	G4T1, S1, 1B.1	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland. Dry ridges and valleys and open sandy slopes; often in grassland and oak-chaparral. 365-1040 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Athene cunicularia	burrowing owl	None, None	G4, S3, CDFW-SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Atriplex coronata var. notatior	San Jacinto Valley crownscale	Endangered, None	G4T1, S1, 1B.1	Playas, valley and foothill grassland, vernal pools. Alkaline areas in the San Jacinto River Valley. 35-460 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Atriplex serenana var. davidsonii	Davidson's saltscale	None, None	G5T1, S1, 1B.2	Coastal bluff scrub, coastal scrub. Alkaline soil. 0-480 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Bombus crotchii	Crotch bumble bee	None, Candidate Endangered	G3G4, S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Calochortus palmeri var. palmeri	Palmer's mariposa-lily	None, None	G3T2, S2, 1B.2	Meadows and seeps, chaparral, lower montane coniferous forest. Vernally moist places in yellow-pine forest, chaparral. 195-2530 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Calochortus plummerae	Plummer's mariposa-lily	None, None	G4, S4, 4.2	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60-2500 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Caulanthus simulans	Payson's jewelflower	None, None	G4, S4, 4.2	Chaparral, coastal scrub. Frequently in burned areas, or in disturbed sites such as streambeds; also on rocky, steep slopes. Sandy, granitic soils. 90-2200 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Centromadia pungens ssp. laevis	smooth tarplant	None, None	G3G4T2, S2, 1B.1	Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland. Alkali meadow, alkali scrub; also in disturbed places. 5-1170 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Chaetodipus californicus femoralis	Dulzura pocket mouse	None, None	G5T3, S3, CDFW-SSC	Variety of habitats including coastal scrub, chaparral & grassland in San Diego County. Attracted to grass-chaparral edges.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None, None	G5T3T4, S3S4, CDFW-SSC	Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Chorizanthe parryi var. parryi	Parry's spineflower	None, None	G3T2, S2, 1B.1	Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Dry slopes and flats; sometimes at interface of 2 vegetation types, such as chaparral and oak woodland. Dry, sandy soils. 90-1220 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Deinandra mohavensis	Mojave tarplant	None, Endangered	G2, S2, 1B.3	Riparian scrub, coastal scrub, chaparral. Low sand bars in river bed; mostly in riparian areas or in ephemeral grassy areas. 640-1645 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Dipodomys merriami parvus	San Bernardino kangaroo rat	Endangered, Candidate Endangered	G5T1, S1, CDFW-SSC	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains. Needs early to intermediate seral stages.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Dipodomys stephensi	Stephens' kangaroo rat	Endangered, Threatened	G2, S2	Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Elanus leucurus	white-tailed kite	None, None	G5, S3S4, CDFW-FP	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Empidonax traillii extimus	southwestern willow flycatcher	Endangered, Endangered	G5T2, S1	Riparian woodlands in Southern California.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Eremophila alpestris actia	California horned lark	None, None	G5T4Q, S4, CDFW-WL	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Horkelia cuneata var. puberula	mesa horkelia	None, None	G4T1, S1, 1B.1	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 15-1645 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Icteria virens	yellow-breasted chat	None, None	G5, S3, CDFW-SSC	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Lanius ludovicianus	loggerhead shrike	None, None	G4, S4, CDFW-SSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Lasiurus xanthinus	western yellow bat	None, None	G5, S3, CDFW-SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	None, None	G4T2, S2, 1B.1	Coastal salt marshes, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. 1-1375 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	None, None	G5T3, S3, 4.3	Chaparral, coastal scrub. Dry soils, shrubland. 4-1435 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None, None	G5T3T4, S3S4, CDFW-SSC	Intermediate canopy stages of shrub habitats & open shrub / herbaceous & tree / herbaceous edges. Coastal sage scrub habitats in Southern California.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Mentzelia tricuspis	spiny-hair blazing star	None, None	G4, S2, 2B.1	Mojavean desert scrub. Sandy or gravelly slopes and washes.150-1280 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Nama stenocarpa	mud nama	None, None	G4G5, S1S2, 2B.2	Marshes and swamps. Lake shores, river banks, intermittently wet areas. 15-815 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Neotoma lepida intermedia	San Diego desert woodrat	None, None	G5T3T4, S3S4, CDFW-SSC	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Onychomys torridus ramona	southern grasshopper mouse	None, None	G5T3, S3, CDFW-SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Perognathus longimembris brevinasus	Los Angeles pocket mouse	None, None	G5T1T2, S1S2, CDFW-SSC	Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Petalonyx linearis	narrow-leaf sandpaper-plant	None, None	G4, S3?, 2B.3	Mojavean desert scrub, Sonoran desert scrub. Sandy or rocky canyons. -30-1090 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Phrynosoma blainvillii	coast horned lizard	None, None	G3G4, S3S4, CDFW-SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Plegadis chihi	white-faced ibis	None, None	G5, S3S4, CDFW-WL	Shallow freshwater marsh. Dense tule thickets for nesting, interspersed with areas of shallow water for foraging.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Progne subis	purple martin	None, None	G5, S3, CDFW-SSC	Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Nests in old woodpecker cavities mostly; also in human-made structures. Nest often located in tall, isolated tree/snag.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Setophaga petechia	yellow warbler	None, None	G5, S3S4, CDFW-SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	None, None	G4, S4	Riparian forest	This habitat **does not** occur within the Project Boundary.
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	None, None	G3, S3.2	Riparian forest	This habitat **does not** occur within the Project Boundary.
Spea hammondii	western spadefoot	None, None	G3, S3, CDFW-SSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Scientific Name	Common Name	Federal/State Status	Other Status	Habitat	Occurrence Potential
Symphyotrichum defoliatum	San Bernardino aster	None, None	G2, S2, 1B.2	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 3-2045 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Taxidea taxus	American badger	None, None	G5, S3, CDFW-SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Trichocoronis wrightii var. wrightii	Wright's trichocoronis	None, None	G4T3, S1, 2B.1	Marshes and swamps, riparian forest, meadows and seeps, vernal pools. Mud flats of vernal lakes, drying river beds, alkali meadows. 5-435 m.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.
Vireo bellii pusillus	least Bell's vireo	Endangered, Endangered	G5T2, S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Suitable habitat for this species does not occur on site. As such, this species is considered **absent** from the Project site.

Coding and Terms

E = Endangered T = Threatened C = Candidate FP = Fully Protected SSC = Species of Special Concern R = Rare

State Species of Special Concern: An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: "It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird."

State Fully Protected: The classification of Fully Protected was the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

Global Rankings (Species or Natural Community Level):

G1 = Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2 = Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
G3 = Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
G4 = Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5 = Secure – Common; widespread and abundant.
? = Uncertainty in the exact status of an element (could move up or down one direction from current rank)

Subspecies Level: Taxa which are subspecies or varieties receive a taxon rank (T-rank**)** attached to their G-rank. Where the G-rank reflects the condition of the entire species, the T-rank reflects the global situation of just the subspecies. For example: the Point Reyes mountain beaver, *Aplodontia rufa* ssp. *phaea* is ranked G5T2. The G-rank refers to the whole species range i.e., *Aplodontia rufa.* The T-rank refers only to the global condition of ssp. *phaea*.

State Ranking:

S1 = Critically Imperiled – Critically imperiled in the State because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the State.
S2 = Imperiled – Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the State.
S3 = Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the State.
S4 = Apparently Secure – Uncommon but not rare in the State; some cause for long-term concern due to declines or other factors.
S5 = Secure – Common, widespread, and abundant in the State.

California Rare Plant Rankings (CNPS List):

1A = Plants presumed extirpated in California and either rare or extinct elsewhere.
1B = Plants rare, threatened, or endangered in California and elsewhere.
2A = Plants presumed extirpated in California, but common elsewhere.
2B = Plants rare, threatened, or endangered in California, but more common elsewhere.
3 = Plants about which more information is needed; a review list.
4 = Plants of limited distribution; a watch list.

Threat Ranks:

.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

APPENDIX C
PHASE 1 CULTURAL RESOURCES INVESTIGATION

CULTURAL RESOURCE INVESTIGATION:
A PHASE I CULTURAL RESOURCES INVESTIGATION FOR THE PROPOSED DEVELOPMENT OF APN 417-150-015, A ONE-ACRE PARCEL ON FIRST STREET, BEAUMONT, RIVERSIDE COUNTY, CALIFORNIA

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January 14, 2021

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by,

Jeanette A. McKenna
McKenna et al., Whittier CA

INTRODUCTION

McKenna et al. (Appendix A) initiated this Phase I cultural resources survey for the project area (APN 417-150-015) in Beaumont, Riverside County, California, at the request of Lilburn Corporation, San Bernardino, representing owner and developer. The McClure Industrial Building is proposed for the vacant lot currently identified as 580 W. First Street. This investigation was prepared for the City of Beaumont for compliance with the California Environmental Quality Act (CEQA), as amended, and City policies and guidelines. This project/undertaking has been required by the City, the Lead Agency responsible for reviewing and approving the project. As such, any identified cultural resources have been subjected to an evaluation in accordance with applicable policies, guidelines, and defined criteria for the assessment of cultural resources.

PROJECT LOCATION AND DESCRIPTION

The proposed project area is located on the north side of First Street, between Grace Avenue (east) and Viele Avenue (west), as illustrated in Figure 1. This location is depicted on the current 2018 U.S.G.S. Beaumont Quadrangle (Figure 2) and within Township 3 South, Range 1 West; SW ¼ of SE ¼ of Section 9. Cross-referenced as APN 417-150-015, this property consists of approximately one acre of land measuring 200 feet north/south and 217.48 feet east/west (Figure 3). This property is in the southwestern portion of the City of Beaumont; south of Interstate 10 and west of California Avenue. Much of this area remains undeveloped and existing developments are both residential and industrial (Figure 4).

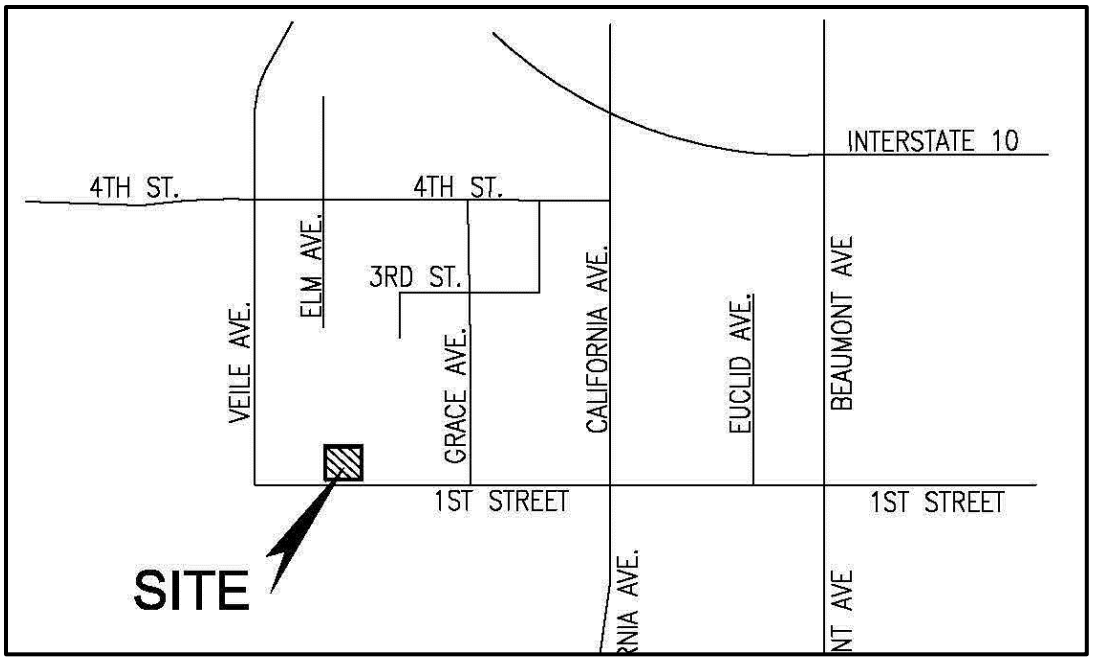

Figure 1. General Location of the Proposed Project Area.

The UTM coordinates for the project area are presented in Table 1. The property rests at an average of 2,555 feet Above Mean Sea Level (AMSL).

Table 1. UTM Coordinates of the Current Project Area.

Location	NAD 83 Coordinates		NAD 27 Coordinates	
NW	501196	3753544	501275	3753347
SW	501196	3753480	501275	3753283
NE	501260	3753544	501339	3753347
SE	501260	3753480	501339	3755283

The proposed plan for development did not affect the approach or findings of this cultural resource investigation. However, depending on the final site development plans (and grading requirements) the Lead Agency may consider additional studies not necessarily limited to these cultural resource investigations.

ENVIRONMENTAL SETTING

The proposed project is within the City of Beaumont, south of Interstate 10 and west of California Avenue. This area is in the southwestern quarter of the City and an area subjected to modest improvements – residential and light industrial.

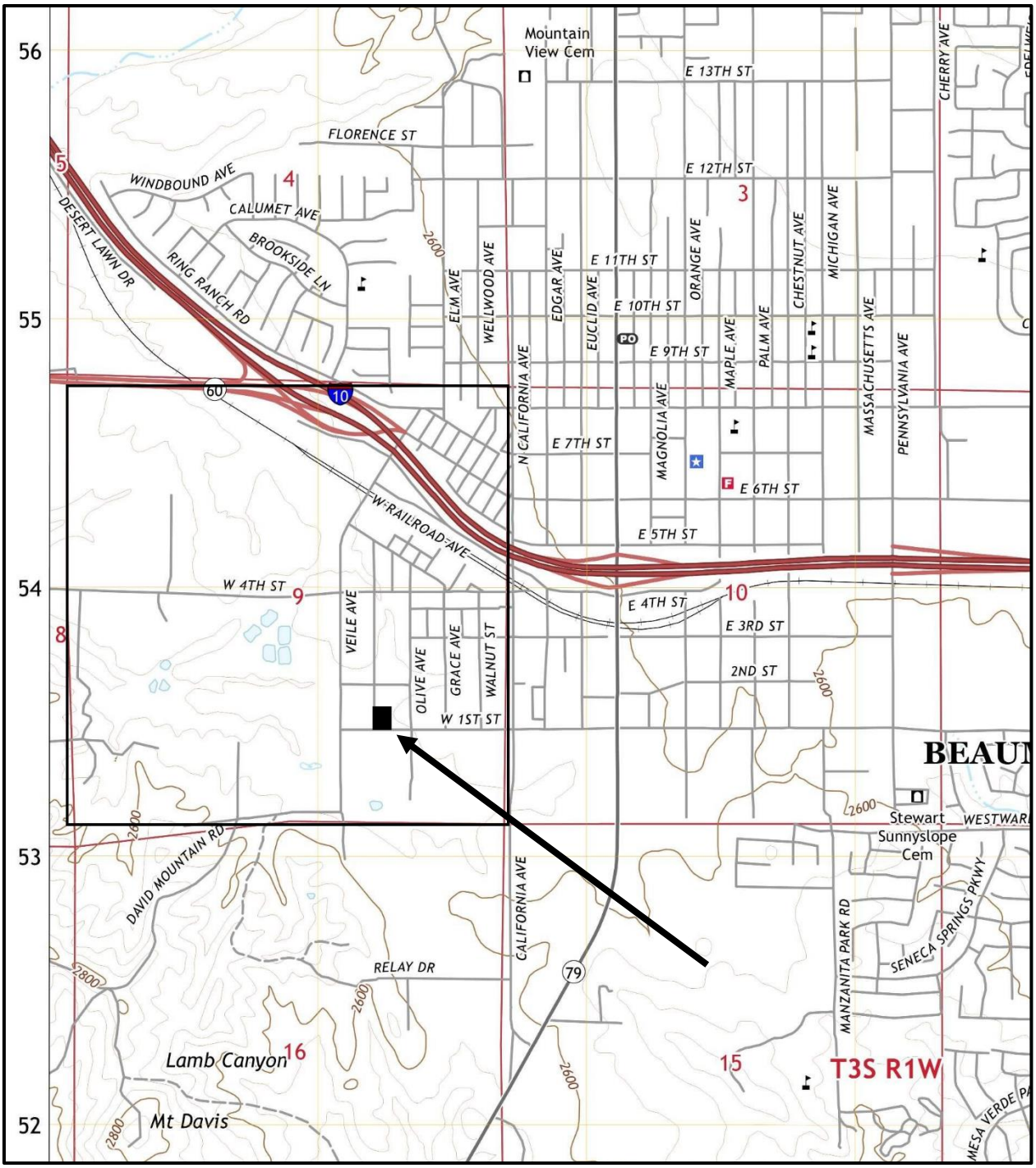

Figure 2. Specific Location of the Project Area (USGS Beaumont Quadrangle (rev. 2018).

This general area is associated with the San Gorgonio Pass, a relatively narrow valley located between the San Bernardino Mountains (north) and the San Jacinto Mountains (south). As a portion of the southern extent of the Mojave Desert and western extent of

the Colorado Desert, this area is characterized by the presence of decomposing granite derived from the nearby hillsides and wind-borne or water-borne alluvial deposits. Native vegetation in the area is generally limited to desert sage scrub, but riparian zones can be found along washes and intermittent streams (Figure 5).

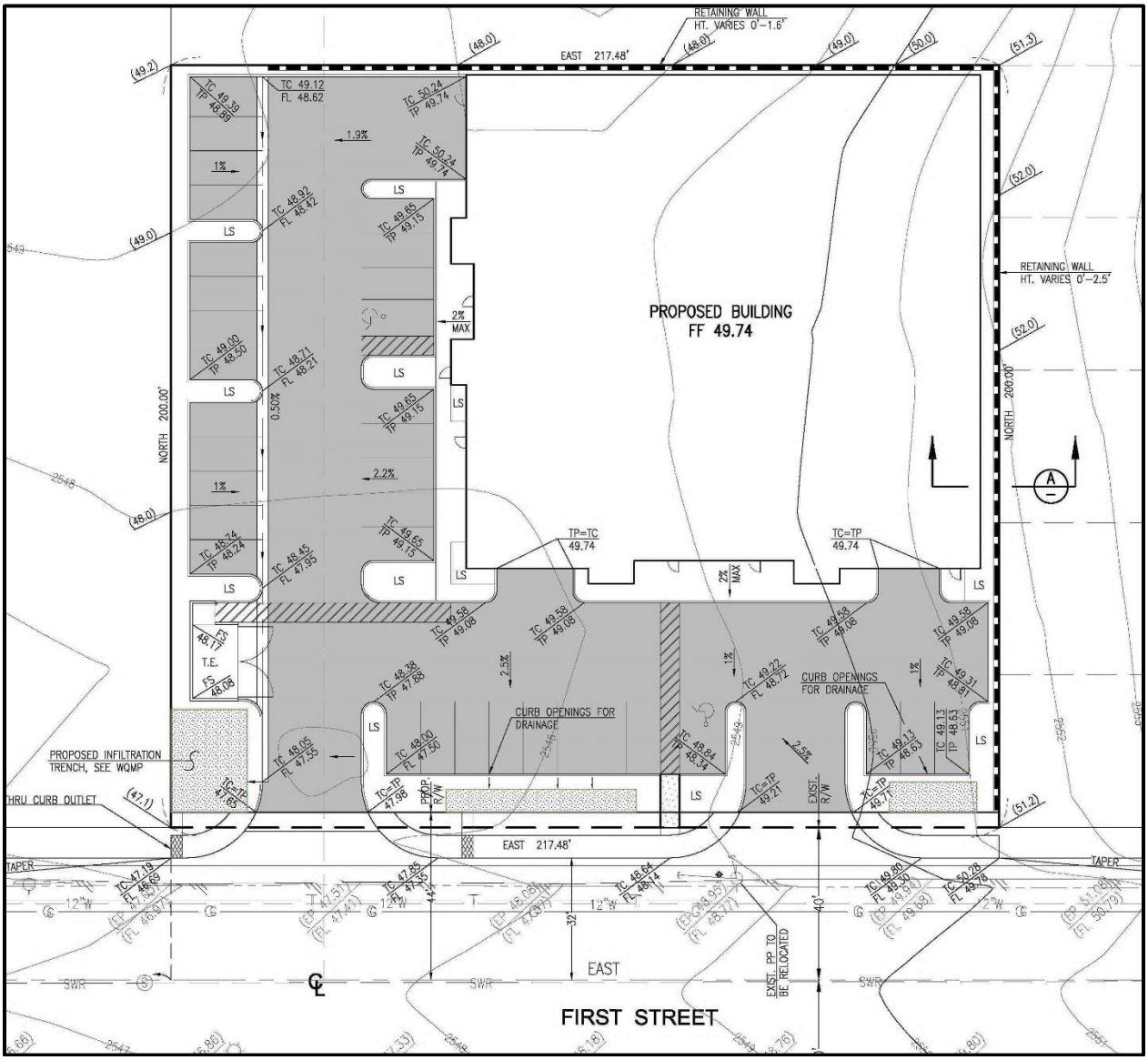

Figure 3. Proposed Site Development Plan.

Citing McLeod (2003), the general area of the San Gorgonio Pass is characterized as having "… exposures of some Mesozoic age granitics and metasedimentary rocks that, of course, will not contain recognizable vertebrate fossils ... Quaternary Alluvium that are unlikely to contain significant vertebrate fossils, at least in the uppermost layers." More recently, however, McLeod (2018), with respect to the current project area, stated:

Figure 4. Aerial Photograph Illustrating the Project Area and Adjacent Residential Improvements.

Figure 5. Street View of the Project Area Prior to Recent Disking and Weed Abatement.

> "Surficial deposits in the entire proposed project area consists of older Quaternary Alluvium, derived as alluvial fan deposits from the San Jacinto Mountains to the south. These deposits usually do not contain significant fossil vertebrates in the uppermost layers in the vicinity, but at relatively shallow depth there may be older Quaternary deposits with finer-grained pockets. Our closest vertebrate fossil locality from older Quaternary deposits is LACM 4540, situated west-southwest of the proposed project area along Jackrabbit Trail near the east side of the San Jacinto Valley, that produced a specimen of fossil horse, *Equus ...*. Shallow excavations in the older Quaternary alluvial fan deposits exposed throughout the proposed project area are unlikely to uncover significant fossil vertebrate remains. Deeper excavations in those Quaternary deposits, however, may well encounter significant vertebrate fossils similar to those found at the Rancho La Brea asphalt deposits in Los Angeles."

A geotechnical report was completed for the general area of Beaumont (Salem Engineering Group, Inc. 2020:3) stated the general area is dominated by northwest-trending faults and anticlinal uplifts with "… intervening deep synclinal troughs filled with poorly consolidated Upper Pleistocene and unconsolidated Holocene sediments." The Upper Pleistocene and Holocene deposits are subsets of the larger Quaternary period and represent the most recent depositional episodes. In Southern California, the Upper Pleistocene is associated with a pre-human presence, although research is now showing humans were present in the later years of the Upper Pleistocene.

Fossil specimens are also associated with the Pleistocene, particularly in area where deposits are referred to as “older Alluvium” (McLeod 2020; Lowe and Walker 1997). The Holocene is considered the most recent geologic period and one that is directly associated with human activity. The Holocene is also generally associated with “younger Alluvium” and not fossil bearing, except in instances where fossils have been redeposited. Currently, non-native grasses and some mature trees dominate the area and there is no evidence of the native Desert Sage Scrub biotic community.

CULTURE HISTORY BACKGROUND

The project area is geographically associated with both the Serrano and Cahuilla of Southern California (Kroeber 1925:615-619 and 692-708). Though near the territorial boundary separating these two populations, the area is more generally considered part of the “Pass Cahuilla” territory, a reference to the San Gorgonio Pass (Strong 1929:88-143). Cahuilla culture has been described by a number of scholars, but more thoroughly by Bean (1972 and 1978). The name “Cahuilla” translates as “master” or “powerful one.”

The “Pass Cahuilla” are one of the three main Cahuilla populations associated with western Riverside County (with the Desert Cahuilla and Mountain Cahuilla) and the San Gorgonio Pass. Wilke’s studies have shown that the local population exploited almost every available food resource in the area.

The Cahuilla were hunter-gatherers of Shoshonean heritage who lived in small villages of 100 to 200 persons and who were organized into clans and lineages owning village areas and associate gathering tracts (James 1969; Kroeber 1976; Bean 1978; and Emanuels 1991). The Cahuilla produced skillfully manufactured pottery (believed to have been introduced by Colorado River tribes) and basketry. They constructed brush dwellings and ritual structures; conducted trade between the eastern desert and coastal populations, enjoyed games, music, and a rich ceremonial life.

The Cahuilla had relatively extensive exchanges and interactions with neighboring populations and maintained a wide range of cultural traditions represented in the material remains recovered in archaeological sites throughout the area.

In the mid-1800s (ca. 1849-50), the United States took possession of the State of California and immediately initiated the completion of surveys and property identifications. Government surveyors documented the presence of twenty-two Cahuilla villages in the San Gorgonio Pass and larger Coachella Valley (to the east), with most of the populations in these villages exceeded 100 individuals (Wilke 1978:120; Wilke and Lawton 1975).

Many of these villages were located in areas of fresh water – as springs, streams, or well sites. Smaller, limited use areas have been identified in areas where “walk-in wells” were excavated and maintained (Strong 1929:38), hence the references to “Indians Wells” in the Coachella Valley.

Population estimates for the prehistoric Cahuilla range from 2600 to 10,000 individuals. These individuals maintained extensive networks for trade, including contacts along the Colorado River and the Pacific Coast. Trails, small camp sites, and other limited use areas have been recorded throughout the area and attest to the wide-spread use of the Valley and Pass. Additional evidence of long-term occupation has been identified along the various shorelines of prehistoric Lake Cahuilla. Trade routes (i.e. the Coco-Maricopa Trail) and encampments between known freshwater sites have been identified through archaeological evidence and some have been recorded in historic records or on historic period maps.

Wilke (1986:9) also emphasized that the Cahuilla did not rely heavily on stone tools but manufactured numerous tools and utility items of wood (even projectile points, at times) and ceramic goods. Nets and traps were also used in hunting and fishing. Ceramics, mainly Tizon Brown and Salton Buff wares, have been found throughout the area, represented by a wide variety of vessel types. Basketry was used, but few examples have survived. Likewise, few examples of wooden implements have survived. Recent archaeological investigations have suggested some Cahuilla practiced limited agriculture (von Worloff n.d.; see Wilke 1986:9).

The Cahuilla are also associated with a relatively complex social organization based on lineages and clans. Individual clans occupied village sites and exploited specific clan-related territories. Interactions between clans provided exchange in the form of trade, marriages, and ceremonial contacts (i.e. funerary practices). The Cahuilla practiced cremation and often burned the residences of the deceased. Extensive grave goods have also been identified and associated with the cremation practices. New residences were built some distance from the burned residence and the families reestablished themselves at the new locale. Analysis of ethnographic and archaeological data has resulted in the development of various chronologies for the Cahuilla (Wallace 1962; Warren and Orr 1978; Weide and Barker 1975; Hall and Barker 1976; and Gallegos et al. 1979). Jertberg (1982:5-7) synthesized this data and proposed the following chronology for comparative purposes:

10,000 - 6,000 B.C.: The Lake Mojave/San Dieguito Complex and/or Western Lithic Co-Tradition). Characterized by the presence of projectile points, large knives, scrapers, chopping tools, and scraper planes (Bettinger and Taylor 1974; Campbell and Campbell 1937; Rogers 1939; Davis et al. 1969). Items associated with vegetal food processing and hunting and the presence of a coniferous woodland and pluvial lakes. (This tradition is not known to be represented in the Indio area).

6,000 B.C. - A.D. 500: Archaic or Pinto Armagosa periods (Wallace 1962: Bettinger and Taylor 1974; Weide and Barker 1974). Characterized by diagnostic projectile points, leaf shaped blades, choppers, and scraper planes. Some sites exhibit a small

assemblage of milling stones. A shift in climate and vegetation les to a shift in exploitation with an emphasis on vegetal resources. (Likewise, these periods are not represented in the immediate area, but associated with other desert populations to the north).

A.D. 500 to Contact: (unnamed). Characterized by the presence of the bow and arrow (as opposed to darts), ceramics, and cremations. Milling tools increase, including mortars and pestles. There is evidence of limited agriculture and the appearance of Shoshonean-speakers displacing local Hokan-speaking populations (Wallace 1962:176). Sites are associated with the presence of Lake Cahuilla and the exploitation of resources directly associated with fresh water sources. This unnamed period is more directly associated with the presence of Native Americans in the Indio/La Quinta area and surrounding Cahuilla territories.

Initial contact with the Cahuilla occurred in the early 1800s (ca. 1823) with the Jose Romero Expedition through the Colorado Desert (Bean and Mason 1962). This expedition noted some agricultural activities conducted by the Cahuilla and including corn, beans, and squash. Wilke and Lawton (1975) suggest the presence of agriculture was a trait derived from contact with populations in Mexico (or the Greater Southwest).

U.S. Government surveys were completed in the 1850s and led to the identification of occupied Cahuilla villages. Shortly thereafter, Blake completed surveys for railroad development in 1856, which also resulted in the identification of village sites. By 1862, the Homestead Act opened government-owned lands for settlement through purchase, land trades, or homesteading. With respect to the San Gorgonio Pass, Gunther (1984:457-458) states:

> **"SAN GORGONIO PASS.** Named for San Gorgonio Rancho (see), which occupied the entire pass areas. The pass as known to the Spaniards and Mexicans at least as early as 1815. When the first *jornada para sal*, of "journey for salt," set out from Los Angeles to secure a salt supply from what is now Salton Sea, but no name was recorded for it at the time (Guinn 1907-08, p. 169). Although existence of the pass and its name were undoubtedly known to American at an early date, the first mention of the pass by name in print has yet been found was in Lieut. E.O.C. Ord's November 6, 1849, report in which he called it "San Gorgona [sic] Pass … Long before the Spanish name was applied to the pass, the Indians had their name for it. According to legend, when the Indian tribes first came into this desert area from the west, so many people were trying to get through the pass, some of the smaller tribes decided to settle where they were. The Indians called

> this great gap (which measures 21 miles between two high peaks of San Gorgonio and San Jacinto) *Ha much cha visba*, meaning "the place where there were so many people trying to get through" (Patencio 1943, p. 100)."

The San Gorgonio Rancho is described by Gunter (1984:458) as "… one of the 24 principal cattle ranchos or rancherias, as well as the most distant, belonging to San Gabriel Mission …".

Following secularization of the Missions by the Mexican Government, the Rancho San Gorgonio was granted by Governor Manuel Micheltorena to James (Santiago) Johnson (1843; 4,440 acres). Summarizing Holtsclaw (2006) and Holtzclaw and Christian (2007),

> "…James (Santiago) Johnson (1798-1847) was an Englishman who established the trading firm of Johnson and Aguirre, in Gauymas, Mexico. He came to California in 1933 with his nephew Josh Forster. Johnson married Maria del Carmen Guirado. Johnson received the one square league Rancho San Jacinto y San Gorgonio grant in 1843. In 1845 Johnson sold this property to Louis Robidoux … As required by the Land Act of 1851, a claim for Rancho San Jacinto y San Gorgonio was filed with the Public Land Commission in 1852, and the grant was patented to Louis Ribidoux [Robidoux] … in 1868, Rubidoux widow, Guadalupe Garcia de Rubidooux, sold the entire rancho to English immigrant James Singleton … James Singleton, his wife, Ann, and their two children, William and Ann, moved onto the Rancho."

After several disputes over the ownership of the rancho, sales were recorded in the early 1850s and into the 1860s. Subdivision and continued sales were recorded into the early 1900s. Lamb Canyon was named for Elijah Weston Lamb, who settled in the area in 1866. He and an associate, Mr. Snyder, are credited with establishing the road through the canyon, permitted access between "San Gorgonia" (as the area was called) and San Jacinto. The Lamb family was in the Beaumont area until the 1840s.

Nearby Laborda Canyon (and creek), also referred to as Necochea – for Jose Maria de Necochea, an 1890 homesteader, was named for Jacques LaBorde, a Frenchman who arrived in the United States in 1874 and eventually married Necochea's daughter (ca. 1883). The road through Laborda Canyon reportedly follows an old Indian trail through the hills. Eyer (1974) prepared a brief history of the Beaumont area and states:

> "Beaumont, originally called Summit, later named San Gorgonio, and finally renamed Beaumont, was in the earliest date, 1800 and prior to that date solely occupied by three tribes of Indians, known as the Cahuillas, Kawais and Shoshone … They roamed the country from San Bernardino territory, Mt. San Gorgonio, Mt. San Jacinto, Palm Springs, Coachella Valley, Ban-

> ning and San Timoteo Canyon … In deciding who came thru the Pass first, it is noted that the Mexican Army traveled [sic] thru in 1820 … 1843 marks the data wherein [sic] Governor Pio Pico granted Rancho San Gorgonio to a Santiago Johnson. He failed to develop it.
>
> "July 2, 1845 Paulino Weaver, a Mexican citizen, acquired Rancho San Gorgonio and settled down to live with the Indians … In 1846 a Dr. Isaac Smith came from San Bernardino and lived with Paulino Weaver. Later he bought the ranch from Weaver.
>
> "Smith raised cattle, sheep, vegetables and planted a fruit orchard and a small vineyard … In 1862 Smith's Ranch was named Smith's Station and was made the stage coach stop on the way to Yuma, Arizona …The route followed San Timoteo Canyon past Brookside, Siding and Edgar's ranch to Smith's Station (Highland Home) thence one half mile north of Banning, north of Cabazon and to White Water which was the last stop before entering the desert … Beaumont was not to see a railroad until 1876 when the first passenger train come chugging up to Summit (Beaumont) stopping at Cabazon and continued as far as Indian Wells (Indio) …".

The origin of the City of Beaumont has been reported by Gunther (1984), who relates that it began modestly in 1866 as a mail stop called "Summit Station", the highest point on the passenger stage route through San Gorgonio Pass. The Summit Station mail stop became a railroad telegraph office for the Southern Pacific Company in 1876 and the name was changed to "San Gorgonio" in 1884 to coincide with the newly named town site (established by George C. Egan in 1884). The Southern California Investment Company purchased Egan's town site in 1886 and, headed by H.C. Sigler from Beaumont, Texas, renamed the station "Beaumont" (beautiful mountain" in French).

The Beaumont town site was officially surveyed in 1886 by John Goldworthy and filed in San Bernardino County on March 15, 1887. When the county of Riverside was established in 1893, Beaumont was included within the Riverside County boundaries and, therefore, records prior to 1893 remained with San Bernardino County and records following 1893 with Riverside County. The City of Beaumont was incorporated in 1912.

The Bureau of Land Management, General Land Office records confirmed the majority of Township 3 North, Range 1 West, Section 9 was granted to the Southern Pacific Railroad in 1883. This grant, however, did not include the southeast quarter and/or the current project area and the railroad was actually established further north (Figure 6). Much of the area south of the railroad was sold as agricultural land (i.e. Stewart Ranch).

A map of the "Town of Beaumont" (pre-1912) identifies the extent of the proposed-future City of Beaumont (Figure 7). The current project area is within Block 165 and in the southwestern portion of the townsite. When mapped, Block 165 consisted of 5.59 acres and was bounded by proposed streets (First and Second Streets; Iowa and Olive Aves.).

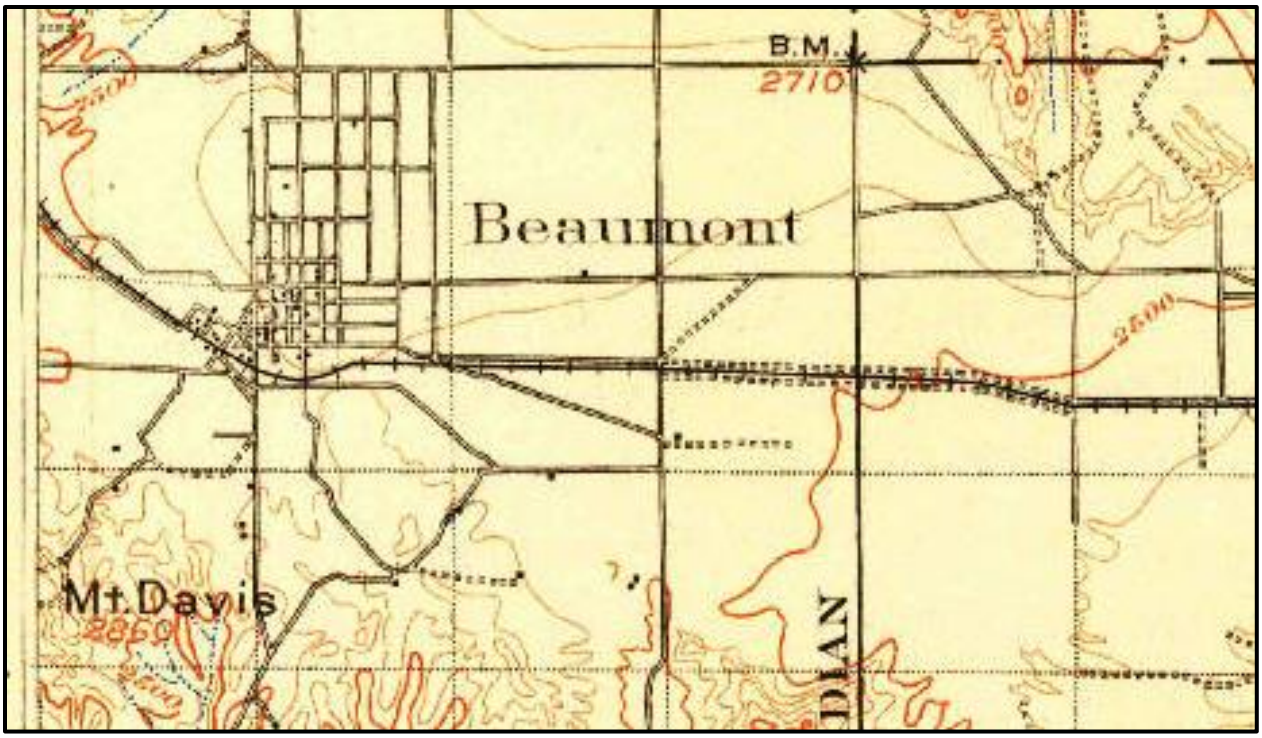

Figure 6. U.S.G.S. San Jacinto Quadrangle of 1901 (1:25,500).

While the core area of Beaumont was to the northeast (north half of Section 10), the area to the southwest was left much unimproved well into the 20th century. The earliest available aerial photograph (ca. 1938) shows First Street and the residential complex at 585 First Street, but only agricultural uses surrounding this complex (Figure 8).

Prior to 1938, County Assessor data identified this Block as an unimproved property owned by the Southern California Investment Company (1892-1896). The Southern California Investment Company also owned a significant amount of the adjacent properties. In 1897, Block 165 was sold to the German Savings & Loan Company – a company that purchased all of the Southern California Investment Company holdings. With respect to Block 165, the land was assessed, but no improvements were listed (Figure 9).

The first reported private ownership of Block 165 is listed for 1909, when the owner was identified as William L. Holmes. Holmes owned the entire Block, but had it legally subdivided into north (Lot 1) and south (Lot 2) halves. The current project area is within Lot 2. Research identified William L. Holmes (1856-1928), a native of Illinois, as a retired carpenter/painter who resided in Los Angeles until 1910 (+/-) and living in Orange, Orange County, by 1920. Between 1910 and 1920 he was living in Beaumont at 44 Beaumont Avenue and/or 1978 California Avenue. He died in Orange County and is buried at Fairhaven Memorial Park in Santa Ana. Based on this scant information, Holmes divested of his holdings in Beaumont, was unmarried (possibly widowed), and left no assets in the Beaumont area after ca. 1920. No family is mentioned in any of the records associated with William L. Holmes.

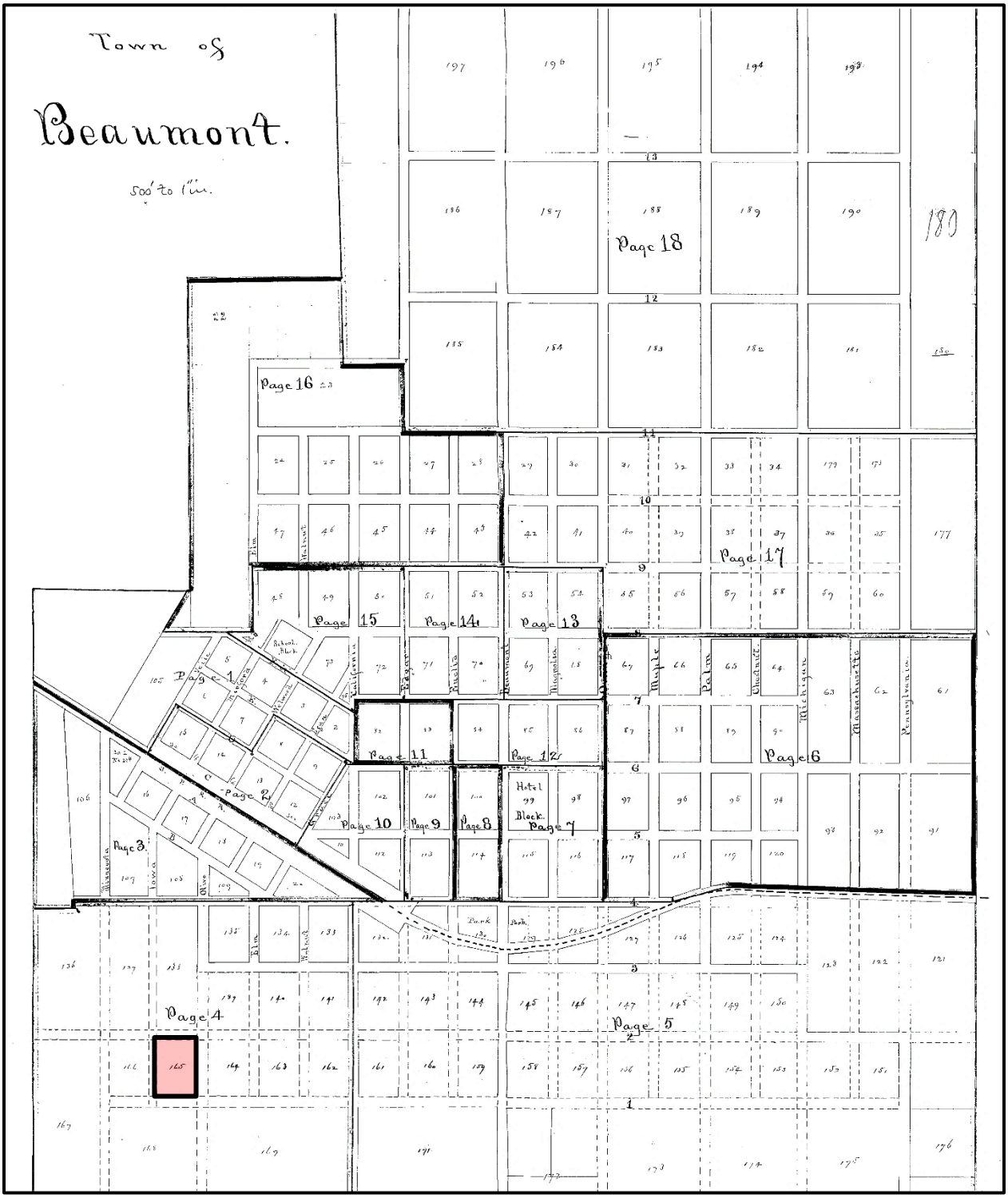

Figure 7. Map of the Pre-1912 “Town of Beaumont.”

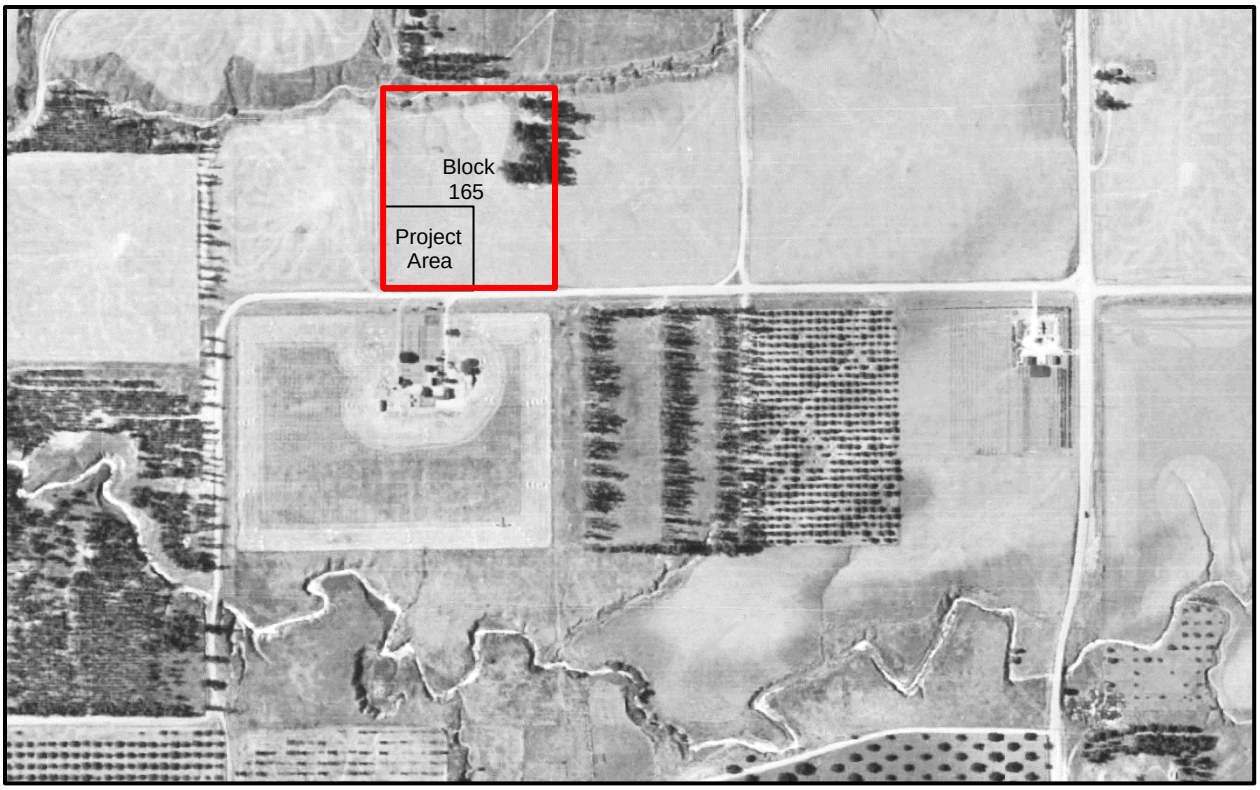

Figure 8. Aerial Photograph of 1938 Illustrating Limits of Development along W. First Street, Beaumont.

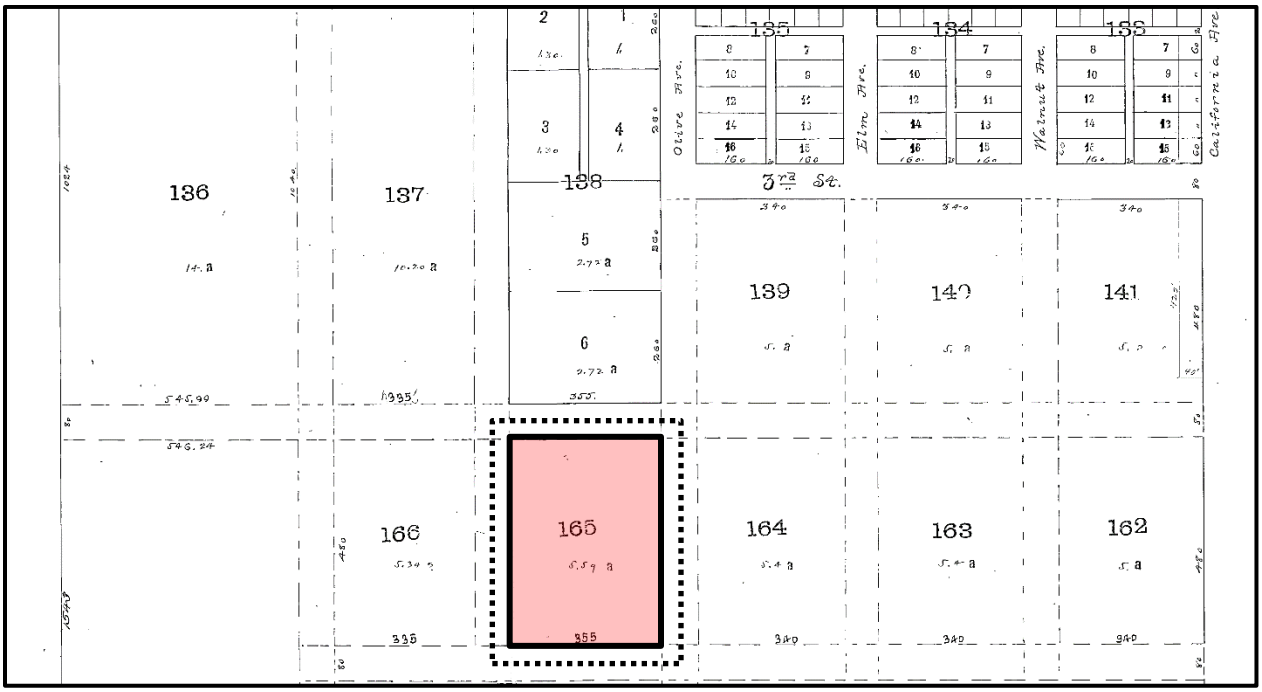

Figure 9. Map of 1896-1899, Illustrating Block 165.

Assessor data after 1911 was not available for review. Therefore, it is unknown who purchased the Holmes property on W. First Street. At some time, however, it was apparently acquired by "McClain" and associated with the "McClain Tract."

In an attempt to identify "McClain" in Beaumont, McKenna et al. found references to Helen B. McClain (1904-1957) in Beaumont, a native of Wyoming, married to Ola Elbert McClain (1901-1982), a native of Oklahoma. In 1940, the McClains were living at 469 N. 4th Street, Banning, and the household included Ola (38), Helen (36), Joyce (10), Larry (5), and Carole (4 mos.). Joyce attended Beaumont High School and married Robert E. Deal in Riverside (1949). Between 1948 and 1950, the McClains were living on E. 6th Street, Beaumont. Ola E. McClain was a carpenter and worked for a construction company out of Palm Springs. After 1950, there is no record of these McClains in Beaumont, suggesting they subdivided the property in Block 165 prior to 1950 and while the land was still vacant. Other "McClains" are in Beaumont today, but have not been confirmed as relatives of the Ola and Helen McClain family.

Ola McClain remarried in 1963 (Edith M. Nissen; aka Edith Thompson), Riverside, and subsequently lived in Nevada, where he died in 1982. Based on the records available to date, it appears the McClains purchased the property in Beaumont sometime around 1940 and sold all or part of the property before 1976.

A review of all available aerial photographs from 1938 to 2016 confirmed there were no improvements within the current project area – nor the properties immediately adjacent to the project area. Mature trees are present to the north and northeast. A review of the various topographical maps for the area confirmed the presence of a pipeline along W. First Street – labeled as early as 1953. First Street, west of California Avenue is illustrated as a dirt road in 1943, with the complex at 585 W. First Street depicted and the road ending at this complex. A shorter roadway as illustrated in 1901 (see Figure 6). A review of historic Sanborn Fire Insurance Maps confirmed this particular project area was outside the core area of Beaumont, east of the community of Beaumont and west of the community of Banning and not mapped.

Historic directories do not list 580 W. First Street, as no structural improvements were ever present. With respect to 585 First Street, the directories identified the following occupants, although none of these individuals has been connected to the current project area:

2000-2014	Joseph and/or Betty J. Warren
1980-1992	Floyd C. Voss and Joseph Warren
1971-1973	Jean Coppenger

There is no information to suggest the owners of 585 W. First Street ever owned property on the north side of W. First Street. County records show the current project area (APN 417-150-015) to be a 1.02 acre property that was sold in 1976, 1993, 2006, 2017, and 2020. Land values were listed but no improvements were listed, as expected. The current legal description reads:

"1.02 acres m/l in Lots 20, 21, 22, & 23 MB 010/057 Map of McClain Tr Sub of Blk 165 … see Assessors Maps … Map Book Map Plat B 010 Map Plat P 057 …"

METHODOLOGY

To adequately investigate and address this project area for compliance with the California Environmental Quality Act, as amended, McKenna et al. relied on preliminary research compiled in 2017 and 2019 and supplemented that research for the current property-related data, as applicable. By doing such, McKenna et al. was able to work around research restrictions and delays resulting from limited access to data repositories as a result of COVID-19.

1. Archaeological Records Search: McKenna et al. completed a standard archaeological search through the University of California, Riverside, Eastern Information Center, Riverside, California (Appendix B). This research was conducted for a nearby projects (McKenna 2917, 2019, and 2020) and adapted for this investigation. By applying the earlier research, McKenna et al. avoided the significant delays currently being realized by the research restrictions. This research included a review of earlier reports; a review of the previously recorded cultural resources; a review of listings for the National Register of Historic Places, the California Register of Historical Resources, California Landmarks, and California Points of Historical Interest. Historic maps were also reviewed.

2. Native American Consultation: McKenna et al. consulted with the Native American Heritage Commission as to the presence/absence of sacred or religious sites in Beaumont (2017, 2019, and 2020; Appendix C). McKenna et al. relied on the letters sent for the previous studies to those Native American representatives identified by the Commission, requesting information on any issues, concerns, or resources they may be aware of and requested written responses. McKenna et al. acknowledges the City of Beaumont as the Lead Agency and, despite earlier contact and consultation, the City is responsible for the formal government-to-government consultation. Given the proximity of the Morongo Reservation, McKenna et al. recommends direct contact with the Morongo (Cahuilla/Serrano) with respect to this project.

3. Paleontological Overview: A paleontological overview was prepared by the Natural History Museum of Los Angeles County for the general area (Appendix D). Data compiled by the Museum and supplemental data from the Riverside County GIS system were used to assess the potential for the project area to yield evidence of fossil specimens.

4. Historic Background Research: Historic background research was completed through a review of the Bureau of Land Management, General Land

Office Records; limited San Bernardino County Archives data; Riverside County Archives, Riverside County Assessor data; local research; and research through the McKenna et al. in-house library. Additional research was completed through the University of California, Riverside, Historic Map Library, and aerials photographs available on-line. McKenna et al. reviewed histories for the City of Beaumont and the San Gorgonio Pass. Some resources were found on-line, while others were found in published references. Supplemental data is presented in Appendix F of this report. (NOTE: McKenna et al. also included data compiled by EDR specifically for this project. No City records were available for review and the County Archives was contacted, but as of this writing, no response has been received.

5. Field Survey: The field survey for this undertaking was completed on January 5, 2021. This fieldwork was completed by Jeanette A McKenna, Principal Investigator for McKenna et al. Prior to the completion of the field survey, McKenna et al. reviewed the Archaeological Records Search data and visited the Beaumont City Hall, Department of Community Planning to request supplemental data on the project area (data not available).

   To provide accurate and adequate coverage, the project area was subjected to an intensive level of survey with paralleling swaths ranging at 10-15 meters swaths (north/south from east to west). The surveyor carried a Garmin GPS unit to record any identified resources and the survey was supplemented by field notes (on file, McKenna et al.) and a detailed photographic record (Appendix E).

6. Analysis: The analysis was dependent upon the nature of the resources, if any, were identified within the project area and accordance with state guidelines and criteria (CEQA) for assessing the significance of the resources.

7. Report Preparation: This report was prepared in a format and with the data requirements consistent with the Office of Historic Preservation Archaeological Resource Management Report guidelines and the data requested by the University of California, Riverside, Eastern Information Center.

EVALUATION CRITERIA

The approach to the current research was designed to address the potential eligibility of any identified cultural resource for eligibility for the California Register of Historic Resources (CEQA, as amended). The state (CEQA, Section 15064.5) criteria for evaluation mirror the federal guidelines and read as follows:

a) For purposes of this section, the term “historical resources” shall include the following:

1) A resource listed in or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code §5024.1, Title 14 CCR, Section 4850 et seq.).

2) A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code§5024.1, Title 14 CCR, Section 4852) including the following:

   A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

   B) Is associated with the lives of persons important in our past;

   C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

   D) Has yielded, or may be likely to yield, information important in prehistory or history.

PREVIOUS RESEARCH

McKenna et al. completed an archaeological records search through the University of California, Riverside, Eastern Information Center, Riverside (EIC; Appendix B). This research was originally completed for a property to the east of the current project area, but due to significant delays in obtaining more recent research from the Eastern Information

Center (estimated by the EIC as a minimal delay of three months). McKenna et al. was able to use this data to confirm the project APE was not previously surveyed for cultural resources but identified a minimum of 29 studies within the area addressed by the research (Table 2). Since 2017, McKenna et al. has completed three additional studies in Beaumont and these have been added to the table.

Table 2. Cultural Resources Investigations Completed within One Mile of the Current Project Area.

Report	Citation	Description	Resources
RI-01432	SRS 1986	Stewart Ranch Monitoring	
RI-01433	SRS 1985	Stewart Ranch Project	
RI-01434	SRS 1981	900 Acres Stewart Ranch	Yes
RI-01830	Sutton 1984	Parcel 18132	
RI-02210	Underwood et al. 1986	US Telecom Fiber Optic Cable	Yes
RI-02917	McMillan 1989	Sewer System, Beaumont	Yes
RI-03421	Brown & Shinn 1989	1162 Deutsch Specific Plan	
RI-03852	Whitney-Desautels 1993	Water Importation Project	
RI-04840	Demcak 2002	23 Acres	
RI-04841	Demcak 2002	23 Acres Addendum	
RI-06722	Brunzell 2006	Deutsch Prop. Specific Plan	Yes
RI-07055	Tang & Hogan 2007	APN 419-170-031	
RI-03997	Shepard & McKenna 1996	3 Acres and Pipeline	Yes
RI-04421	LSA Associates 1990	Measure A Program	Yes
RI-04815	York & Wooley 1987	Oak Valley Evaluation	Yes
RI-07364	Crews & Sander 2007	29.7 Acres	
RI-08027	Allred 2009	Cell Tower Site	
RI-08409	Eckhardt et al. 2004	Transmission Alignment	Yes
RI-08449	Tang et al. 2004	Beaumont General Plan	
RI-08980	Justus et al. 2010	DPV2 Construction Yards	Yes
RI-09167	McLean et al. 2013	Devers Project	Yes
RI-09230	Puckett 2014	Transmission Alignment	Yes
RI-09460	Tang & Hogan 2015	Beaumont Project	
RI-10157	Williams and Belcourt 2014	Transmission Alignment	Yes
RI-10219	Puckett 2015	Cell Tower Site	
RI-10461	Eckhardt et al. 2015	Transmission Alignment	Yes
RI-10478	McKenna 2018	6th and Maple Septic Project	Yes
RI-10754	Garrison and Smith 2018	Atwell Project	Yes
RI-10766	Garrison and Smith 2018	Atwell Project Phase II	Yes
TBA	McKenna 2017 and 2018	6th/Maple Sewer Conversion	
TBA	McKenna 2019	8th at Highland Springs Ave.	
TBA	McKenna 2020	655-695 Highland Sprgs. Ave.	

It is noted one linear survey was completed along First Street and extending from Highland Springs Avenue to Viele Avenue and then north along Viele Avenue. This survey was part of the "West of Devers Project" (McLean et al. 2013; RI-09167) that resulted in the identification of numerous resources along the route. In this case, the transmission alignment, itself, was recorded as a resource (33-023484), but not declared significant or important, as defined in CEQA.

A second survey (RI-02917) was completed by Davis (1989) for a sewer alignment within First Street, west of California Avenue. No resources were reported as a result of this survey. The greater majority of resources were identified to the north of Interstate 10 and within the core area of Beaumont. Resources south of the Interstate and west of Pennsylvania Avenue including historic refuse site (33-003445; 33-003467; 33-004715; 33-012550; 33-010642).

With the City core, the Office of Historic Preservation Historic Property Data File includes 130 properties (P-33-006093 through P-33-006233). Of these, only thirteen (13) were determined "potentially eligible for National Register listing. A total of 109 of the 130 structures were specifically identified as **NOT** eligible for National Register listing but may be of local interest. The remaining resources were not evaluated. None of these resources are within the one mile radius of the current project area.

The paleontological overview identified the general project area as consisting entirely of "… Quaternary Alluvium, derived as alluvial fan deposits from the San Jacinto Mountains." Despite these deposits of Quaternary Alluvium (Upper Pleistocene and Holocene deposits), the shallow deposits are not considered sensitive for paleontological specimens. However, deeper deposits of older Quaternary Alluvium (Late Pleistocene), likely present in pockets, have been associated with paleontological specimens.

McLeod (2018 and 2020) concluded shallow excavations are not likely to impact fossil bearing deposits, but deeper excavations may impact Older Quaternary Alluvium (fossil bearing deposits) and, therefore, should be subjected to paleontological monitoring – specifically in areas of undisturbed substrate.

Summary

As noted above, the project area has not been associated with any recorded prehistoric archaeological resources, historic archaeological resources, built environments, or paleontological resources. Numerous historic structures have been recorded in the core area of Beaumont (north of Interstate 10), but not in or near the current project area.

Nonetheless, since the San Gorgonio Pass is known to have been a major trade route during both prehistoric and historic times there is still a potential to identify prehistoric and/or historic archaeological resource. The area should be considered moderately sensitive for both archaeological resources and paleontological resources.

RESULTS OF THE INVESTIGATION

At the time of the recent field investigations, the weather was clear and moderately warm. McKenna et al. confirmed APN -015 was vacant with no standing trees or other evidence of agricultural uses. The area was recently disked for weed abatement and ground visibility was excellent (Figure 10). There was no fencing and the entire property was accessible for intensive surveying. The transmission line on First Street is presented in Figure 11.

Native American Consultation

The Native American Heritage Commission responded to the McKenna et al. request for data pertaining to the project area at 8th Street and Highland Springs Avenue, but were designed to cover an area larger than the project-specific area. As such, the findings also included the current project area and McKenna et al. was informed the Commission's files have no records of any sacred or religious sites in the general area (negative findings). No burials were reported. Previous responses from local Native American representatives are presented in Appendix C of this report.

Figure 10. Current Conditions Illustrating Recent Disking and Weed Abatement (W).

Figure 11. Transmission Line along First Street, towards California Avenue, Beaumont (ESE).

The project area is relatively close to the Morongo Band of Mission Indians. As a rule, the Morongo request copies of technical reports for review and to insure no known or suspected Native American resources will be adverse impacted by any proposed project. McKenna et al. recommends the City initiate contact with the Morongo representatives to assure compliance with consultation requirements.

Paleontological Resources

The paleontological overview for this undertaking identified the project area as consisting entirely of "… Quaternary Alluvium, derived as alluvial fan deposits from the San Jacinto Mountains." Shallow deposits are not considered sensitive for paleontological specimens, but deeper deposits of older Quaternary Alluvium (Late Pleistocene) may yield paleontological specimens. McLeod (2018 and 2020) concluded very shallow excavations are not likely to impact fossil bearing deposits, but deeper excavation may and, therefore, should be subjected to paleontological monitoring – specifically in areas of undisturbed substrate. A monitoring program consistent with the policies and guidelines of the County Geologist should be considered, should the City conclude the grading plan for the project will or may older Quaternary deposits. The County generally requires any excavations exceeding eight feet below present-day surfaces and/or excavations impacting older alluvium be subjected to paleontological monitoring. Such deposits may be present less than eight feet below surface and, therefore, a paleontological consultant should be on call to address any issues that may arise.

Archaeological Resources

No evidence of prehistoric or historic archaeological resources were identified within the project area. The project area was dominated by non-native grasses and these was no evidence of native Desert vegetation. Visual inspection yielded no evidence of the previous improvements, save the suggested use for grasses/grain. The native soils have been disturbed by disking, weed abatement, and the peripheral road development and transmission line development. There have also been nearby impacts resulting from the installation of the sewer pipes within First Street.

Built Environment

There are no standing structures on the property and research confirmed no structures were ever present. There are no historic structures on the adjacent properties, but a historic ranch complex is located due south, south of First Street and opposite the project area. Overall, there will be no impacts to any historic structures.

Ethnic Resources or Historic Landscapes

No physical or documentary evidence was found to suggest the project area is associated with a specific ethnic group or indicative of a cultural landscape, as each is defined in the guidelines and policies. Therefore, these are not issues requiring addressing in this overall investigation.

Summary

In summary, McKenna et al. found no physical evidence of archaeological or paleontological resources within the project area. This finding is based primarily on a visual examination of the exposed native soils during the intensive survey. No standing structures are present. Likewise, no ethnic or historic landscapes were identified. While no surficial evidence of prehistoric or historic archaeological resources was identified, the local Native American community considers the area of the San Gorgonio Pass to be highly sensitive for the presence of potentially significant Native American resources.

With limited documentary resources available, the identification of prehistoric resources would only be identified in an archaeological context (buried). In consultation with the local Native American representatives, the Lead Agency (City) should consider an archaeological monitoring program during site grading activities.

McLeod, in assessing the potential for paleontological resources, recommended paleontological monitoring if excavations impact older alluvium, in which fossil bearing deposits are likely to be impacted by the undertaking. Overall, the subsurface within the project area is still considered modestly sensitive for paleontological resources. McKenna et al.

concurs with McLeod and the project area should be deemed sensitive for buried resources and monitored if older alluvium is identified and/or impacted and all excavations exceeding eight feet below the present surface should be monitored.

FINDING OF FACT

No surficial evidence of cultural/archaeological or paleontological resources was found during the recent investigations. The project area is considered clear of any surface resources, but McKenna et al. acknowledges there is still a relative level of sensitivity for buried resources – prehistoric and paleontological. To avoid any adverse impacts to previously unidentified resources, McKenna et al. has developed recommendations consistent with CEQA to lessen any impacts to a level of insignificance.

RECOMMENDATIONS

Based on the relative sensitivity for the project area to be associated with prehistoric archaeological resources, historic archaeological resources, and/or paleontological resources, McKenna et al. is recommending the following:

Mitigation Measure CR-1: Should older Quaternary Alluvial deposits be encountered during site preparation activities, a qualified paleontologist shall monitor the excavations to insure any paleontological specimens are identified, recovered, analyzed, reported, and curated in accordance wit CEQA and the County of Riverside policies and guidelines. All excavations exceeding eight feet in depth should be monitoring in accordance with County policies and guidelines. The program should be conducted until the paleontological consultant deems it is no longer necessary.

Mitigation Measure CR-2: Pending consultation with the Morongo, McKenna et al. recommends a qualified archaeologist be on call to address any archaeological resources that are uncovered and, subsequently, conduct archaeological monitoring until the archaeological consultant concludes the program is no longer warranted. To assure protection of archaeological resources, McKenna et al. recommends the archaeological monitor (with an accompanying Native American representative) oversee excavations into the younger alluvial deposits (Holocene) during the first two days of ground disturbance. If the archaeologist determines it necessary, a full-time archaeological monitoring program will be recommended and

implemented. The monitoring program shall be conducted in accordance with current professional guidelines and protocols. The program should be designed to be flexible and account for changes in findings through the management of the resources in a professional manner and via evaluation in accordance with the current CEQA criteria. A Native American (Morongo) representative should be included in any monitoring program.

Mitigation Measure CR-3: If, at any time, human remains or suspected human remains are identified within the project area, the Contractor will halt work in the immediate vicinity of the find and establish a buffer zone around the find. If the archaeological consultant is on-site, the archaeological consultant will oversee this level of protection. The City will be immediately notified and the City will contact the County Coroner (within 24 hours). The Coroner has the authority to examine the find in situ and make a determination as to the nature of the find:

a) If the remains are determined to be human, the Coroner will determine whether the remains are likely to be of Native American origin. If so, the Coroner will contact the Native American Heritage Commission and the Commission will name the Most Likely Descendent (MLD). In consultation between the City, Property Owner, MLD, and consulting archaeologist, the disposition of the remains will be defined. If there is a conflict, the Native American Heritage Commission with act as an mediator.

b) If the remains are determined to be archaeological, but not of Native American origin, the City, Property Owner and archaeological consultant will determine the management of the find and the removal from the site. The Property Owner would be responsible for any costs related to the removal, analysis, and reburial.

c) If the remains are determined to be of forensic value, the Coroner will arrange for the removal of the remains and oversee the analysis and disposition.

CERTIFICATION

CERTIFICATION. I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this archaeological/cultural

resources report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Jeanette A. McKenna _____ Jan. 14, 2021

Jeanette A. McKenna, Principal Investigator, McKenna et al. Date
Certified Riverside County Cultural Resources Consultant #62

REFERENCES

Ahmet, Koral and Evelyn Chandler

2006 Cultural Resources Survey of a 29-Acre Parcel Located West of Manzanita Road near the City of Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Allred, Carla

2009 Letter Report: Proposed Cellular Tower Project(s) in Riverside County, California. Site Number(s)/Name(s): IE-04965A/Beaumont Health Center TCNS # 47154. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Archer, Gavin H. and Marian L. Kearn

2003 Cultural Resource Inventory and Paleontologic Assessment: Hovchild Property, City of Beaumont, County of Riverside, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Barrows, David P.

1900 The Ethno-botany of the Cahuilla Indians of Southern California. Chicago Press. (Reprinted by the Malki Museum Press, Banning, California, 1976).

Bean, Lowell J.

1972 Mukat's People: The Cahuilla Indians of Southern California. University of California Press, Berkeley, California.

1978 "Cahuilla." In: Handbook of North American Indians, Vol. 8: California. Robert F. Heizer, ed., pp. 575-587. Smithsonian Institution, Washington, D.C.

Bean, Lowell, J. and W.M. Mason

1962 Diaries and Account of the Romero Expeditions in Arizona and California, 1823-1826. The Desert Museum, Palm Springs, California.

Bean, Lowell J. and Katherine Siva Saubel

1972 Temelpah: Cahuilla Indians Knowledge and Usage of Plants. Malki Museum Press, Banning, California.

Beaumont (City of)

2014 "Beaumont's Arc of History. "http://www:ci.beaumont.ca.us.

Becker, Kenneth
1991 A Cultural Resources Reconnaissance of the City of Beaumont Phase I Water Facilities, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Bettinger, Robert L. and R.E. Taylor
1974 "Suggested Revisions in Archaeological Sequence of the Great Basin in Interior Southern California." *Nevada Archaeological Survey Research Paper* 5:1-26.

Bissell, Ronald M.
1990 Cultural Resources Literature Review for the General Plan Update, City of Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Blake, W.P.
1956 "Geological Report." In: Reports of Exploration in California for Railroad Routes to Connect with Routes Near the 35th and 32d Parallels of North Latitude, by Lt. R.S. Williamson. Corps of Topographic Engineers, Reports of Explorations and Surveys to Ascertain the Most Practicable and Economical Route for a Railroad from the Mississippi River to the Pacific Ocean, Made Under the Direction of the Secretary of War in 1853-1854, Volume 5. Beverly Tucker, Printer, Washington, D.C.

Brown, Joan and Juanita Shinn
1989 Cultural Resources Literature Review for the 1,162 Acre Deutsch Specific Plan Project, Located in the City of Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Brunzell, David
2006 Primary Record: 33-15033. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2006 Primary Record: 33-15034 Update. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2006 Cultural Resources Assessment and Historic Evaluations: Deutsch Property Specific Plan, City of banning, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2014 Cultural Resources Assessment of the Hertz Project, Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Crews, Rachel G. and Jay K. Sander
2007 Archaeological and Paleontologic Monitoring of a 29.7-Acre Project Area at the Northwest Corner of First Street and Commerce Way, Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Curtis, E.S.
1926 The North American Indian, Volume 15. The University Press, Cambridge, Massachusetts.

Dahdul, Mariam, Daniel Ballester and Laura H. Shaker
2007 Identification and Evaluation of Historic Properties - Recycled Water System in and near the Cities of Beaumont and Calimesa, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Daly, Ken
1983 Archaeological Assessment of Waste Water Treatment Facilities, Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Davis, Emma Lou, C.W. Brott, and D.L. Weide
1969 "The Western Lithic Co-Tradition." S*an Diego Museum Paper* No. 6, San Diego, California.

Davis, McMillian
1989 Cultural Resources Survey of the Proposed Sewer System for the City of Beaumont, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

1989 Cultural Resources Literature Review for the General Plan Update, City of Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

DeCarlo, Matthew M. and William T. Eckhardt
2011 Cultural Resources Inventory of Three Construction Yards and the Desert Center DC-2 Yard Distribution Alignment of the Southern California Edison (SCE) Devers-Palo Verde 2 (DPD2) Project, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

DeCarlo, Matthew M. and Doug Mengers
2018 Continuation Sheet: 33-015033 Update. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

DeCarlo, Matthew M. and Diane L. Winslow
2015 Engineering Refinement Survey and Recommendation of Eligibility for Cultural Resources with Southern California Edison Company's West of Devers Upgrade Project, Riverside and San Bernardino Counties, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Demcak, Carol R.
2002 Report of Phase I Archaeological Assessment of a 23-Acre Parcel in Beaumont, Riverside County. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2002 Addendum: Report of Phase I Archaeological Assessment of a 23-Acre Parcel in Beaumont, Riverside County. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Drover, Christopher E. and D.M. Smith
1990 Archaeological Site Record: CA-RIV-4038. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Eckhardt, William T., Matthew M. DeCarlo, Doug Mengers, Sherri Andrews, Don Laylander, and Tony Quach
2015 Archaeological Investigation and Monitoring for the Construction of the Devers-Palo Verde No. 2 Transmission Line Project, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Eckhardt, William T., Kristen E. Walker, and Richard L. Carrico
2004 Draft Cultural Resources Inventory of the Proposed Vista to Devers Transmission Line, Riverside and San Bernardino Counties, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Environmental Data Resources, Inc. (EDR)
2019 McClure Industrial Buildings, Beaumont, California. On file, McKenna et al., Whittier, California.

Emanuels, George
1991 California Indians: An Illustrated Guide. Diablo Books, Walnut Creek, California.

Eyer, William K.
1974 Condensed History of Beaumont & Cherry Valley from 1812. L&M Graphics, Beaumont, California.

Gallegos, Dennis, John Cash, E.L. Davis, Gary Lowe, Frank Norris, and Jay Thesken
1979 Cultural Resources Inventory of the Central Mojave and Colorado Desert Regions, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Garrison, Andrew J. and Brian F. Smith
2018 A Class III Historic Resource Study for Phase 2 of the Atwell Project for Section 106 Compliance, SPL-Banning, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2019 A Class III Historic Resource Study for Phase 3 of the Atwell Project for Section 106 Compliance, SPL-Banning, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Greenwood, Roberta S.
1975 Paleontological, Archaeological, Historical, and Cultural Resources – West Coast-Midwest Pipeline Project, Long Beach to Colorado River. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

1980 Cultural Resources Overview for the Dever Substation to Serrano Substation Transmission Route Alternative Corridor Right-of-Way. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Gunther, Jane Davies
1984 Riverside County, California, Place Names: Their Origins and Their Stories. Rubidoux Printing Company, Riverside, California.

Hall, Matthew C. and James B. Barker
1975 Background to the Prehistory of the El Paso/Red Mountain Desert Regions. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Harris, N.
2004 Primary Record: 33-013827. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2004 Primary Record: 33-013828. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2004 Primary Record: 33-013829. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Hooper, Lucille
1920 “The Cahuilla Indians.” In: Studies in Cahuilla Culture, pp. 41-106. Malki Museum Press, Banning, California.

James, Harry C.
1969 The Cahuilla Indians. Malki Museum Press, Banning, California.

Jertberg, Patricia R.
1982 Archaeological Salvage Investigation of CA-RIV-1180, Locus II on Dune La Quinta Parcel. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Justus, Scott C., Matthew M. DeCarlo, and William T. Eckhardt
2010 Final: Cultural Resources Inventory of the Proposed DPV2 Construction Yards, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Justus, Scott C., B. Wilson, and A. Giacinto
2010 Primary Record: 33-15033 Update. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Kroeber, Alfred L.
1925 Handbook of the Indians of California. *Bureau of American Ethnology Bulletin* 78, Smithsonian Institution, Washington, D.C.

LSA Associates, Inc.
1990 "Appendix B: Cultural Resources." In: Measure A Program Project Alternatives Analysis-Environmental Component. Technical Appendix Volume I. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Mason, Roger D. and Wayne H. Bonner
1998 Cultural Resources Records Search and Literature Review for a Pacific Bell Mobile Services Telecommunications Facility: CM 451-11, City of Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

McKenna, Jeanette A.
2002 Phase II Cultural Resources Investigation at CA-RIV-3867 (The Shadow Hills Property) in the City of Indio, Riverside County, California. On file, McKenna et al., Whittier, California.

2003 A Phase I Cultural Resources investigation for the Proposed Willow Springs Development Project Area in Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2006 A Cultural Resources Investigation of the Proposed San Gorgonio Village Project Area, Approximately 23 Acres of Land in the City of Beaumont, Riv-

erside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2017 Cultural Resources Investigations: A Phase I CEQA/Class III NEPA (NHPA Section 106) Investigation for the 6th/Maple Septic Conversion Project in the City of Beaumont, Riverside County, California. On file, McKenna et al., Whittier, California. (DRAFT)

2018 A Phase I/CEQA/Class III NEPA (NHPA Section 106) Investigation for the 6th/Maple Septic Conversion Project in the City of Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California. (FINAL)

2019 Cultural Resources Investigations: A Phase I Cultural Resources Investigation for a Commercial Development at 8th Street and Highland Springs Avenue in Beaumont, Riverside County, California (APN 419-18-034). On file, McKenna et al., Whittier, California.

2020 Cultural Resources investigation: A Phase I Cultural Resources Investigation for the Proposed Redevelopment of APNs 419-150-026, -027, and -046, at 655, 675, and 695 Highland Springs Avenue, Beaumont, Riverside County, California. On file, McKenna et al., Whittier, California.

McKenna, Jeanette A. and Richard S. Shepard

1998 A Phase I Cultural Resources Investigation of the Proposed Willow Springs Road Right-of-Way, Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

McLean, Roderic, Natalie Brodie, Jacqueline Hall, Shannon Carmack, Phil Fulton, Ingri Quon, Erin Martinelli, Richard Erickson, and Jay Michalski

2013 Cultural Resources Assessment and Class III Inventory: Volume I, West of Devers Project, San Bernardino and Riverside Counties, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

McLean, Roderic, Shannon Camack, Jay Michalsky, and Judith Marvin

2008 Final Cultural Resources Assessment, Study of the Past in San Timoteo Canyon and San Gorgonio Pass: Oak Valley Substation Project, Riverside County. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

McLeod, Samuel A.

2018 Paleontological Resources for the Proposed 6th and Maple Septic Tank Conversion Project, McKenna et al. Project #1905, in the City of Beaumont, Riverside County, California. On file, McKenna et al., Whittier, California.

2020 Personal Communication.

Miller, J. C. Morgan, R. Goodwin, and J. Hall
2013 Continuation Sheet: 33-15033 Update. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Puckett, Heather R.
2014 Cultural Resources Summary for the Proposed Verizon Wireless, Inc., Property, 4978 West Ramsey Street, Banning, Riverside County, California 92220. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2015 Letter Report: Cultural Resources Summary for the Proposed Verizon Wireless, Inc. Property at the Potrero Site, 81 Highland Springs Avenue, Beaumont, Riverside County, California 92223. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Riverside County Archives
2020 Response to Data Request: APN 0417-150-015. On file, McKenna et al., Whittier, California.

Salem Engineering Group, Inc.
2020 Geological Engineering Investigation – Proposed Multi-Tenant Development, 8th Street and Highland Springs Avenue, Beaumont, California. On file, McKenna et al., Whittier, California.

2020 Phase I Environmental Site Assessment - Proposed Fuel Station, QSR, & C-Store, SWC 8th Street and Highland Springs Avenue, Beaumont, California. On file, McKenna et al., Whittier, California.

Scientific Resource Surveys, Inc.
1981 Cultural Resources Report on a 900 Acre Parcel (Portion of the Old Stewart Ranch), Located in the Banning/Beaumont Area, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

1985 An Historical Study of Stewart Ranch in Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

1986 Archaeological Report on Grading Monitoring Activities at Stewart Ranch, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Shepard, Richard S. and Jeanette A. McKenna
1996 A Phase I Cultural Resources Investigation of a 3-Acre Parcel and Associated

Pipeline, Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Strong, William Duncan
1929 "Aboriginal Society in Southern California." *University of California Publications in American Archaeology and Ethnology*, Volume 26. Berkeley, California.

Sutton, Mark Q.
1984 An Archaeological Assessment of Parcel 18132, Beaumont Area of Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Tang, Bai "Tom" and Michael Hogan
2007 Historical./Archaeological Resources Survey Report: Assessor's Parcel Number 419-170-031, in the City of Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2012 Historical/Archaeological Resources Survey Report: Beaumont Distribution Center Project, City of Beaumont, Riverside County. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2015 Phase I Historical/Archaeological Resource Survey: Seasons at Beaumont Project, City of Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Tang, Bai "Tom", Michael Hogan, Josh Smallwood, and Terri Jacguemain
2004 Cultural Resources Technical Report, City of Banning General Plan. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Underwood, J., J, Cleland, C.M. Wood, and R. Apple
1986 Preliminary Cultural Resources Survey Report for the US Telecom Fiber Optic Cable Project, from San Timoteo Canyon to Socorro, Texas. The California Segment. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

von Warloff, Kurt and Richard A. Cowan
1977 Final Report: Cultural Resource Survey of the Proposed Southern California Edison Palos Verdes-Devers 500kV Power Transmission Line. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Wallace, William J. (and Edith S. Taylor)
1962 "Prehistoric Cultural Development in the Southern California Desert." *American Antiquity* 28:172-180.

Warren, Claude N. and H.T. Orr
1978 "Approach and Process for Dating Lake Mojave Artifacts." *Journal of California Anthropology* 512:179-187.

Weide, Margaret L. and James B. Barker
1975 Background to the Prehistoric of the Yuma Desert Region. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Whitney-Desautels, Nancy A.
1993 Cultural Resource Assessment of the San Gorgonio Pass Water Agency Water Importation Project, Riverside and San Bernardino Counties, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Wilke, Philip J.
1976 Late Prehistoric Human Ecology at Lake Cahuilla, Coachella Valley, California. Unpublished Ph.D. Dissertation, University of California, Riverside.

1978 "Late Prehistoric Human Ecology at Lake Cahuilla, Coachella Valley, California." *University of California Archaeological Research Facility Contributions* No. 38, Berkeley, California.

1986 Archaeological Investigations at La Quinta, Salton Basin, Southeastern California: Chapter I. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Williams, Audry
2014 Primary Record: 33-15033 Update. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Williams, Audry and Andrew Belcourt
2014 Archival Research Evaluation Results of 33 Cultural Resources for Southern California Edison Company's West of Devers Upgrade Project, Riverside and San Bernardino Counties, California. Volume 1. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

Wills, Carrie D., Sarah A. Williams, and Kathleen A. Crawford
2014 Cultural Resources Records Search and Site Visit Results for T-Mobile West, LLC Candidate IE04451A (CM451 Beaumont Civic Center), 550 East 6th Street, Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

2015 Cultural Resource Records Search for Cellco Partnership and Their Controlled Affiliates as Verizon Wireless Candidate “Lotus”, 40 Pennsylvania Avenue, Beaumont, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

York, Andrew and Jane E. Wooley
1987 Cultural Resources Evaluation of Oak Valley, Riverside County, California. On file, University of California, Riverside, Eastern Information Center, Riverside, California.

APPENDIX D
FUEL CALCULATIONS

McClure Machine Shop

Compression-Ignition Engine Brake-Specific Fuel Consumption (BSFC) Factors **[1]**:

HP: 0 to 100	0.059	HP: Greater than 100	0.0529

Values above are expressed in gallons per horsepower-hour/BSFC.

CONSTRUCTION EQUIPMENT

Construction Equipment	#	Hours per Day	Horsepower	Load Factor	Construction Phas	Fuel Used (gallons)	Total Gallons
Graders	1	8	89	0.2	Site Prep	15.07	15.07
Other Material Handling Eqp.	0	0	168	0.4	Site Prep	0.00	0.00
Rubber Tired Dozer	1	7	247	0.4	Site Prep	73.17	73.17
Tractors/Loaders/Backhoes	1	8	97	0.37	Site Prep	33.77	33.77
Concrete/Industrial Saws	0	0	81	0.73	Grading	0.00	0.00
Graders	1	6	187	0.41	Grading	97.34	97.34
Excavators	0	0	158	0.38	Grading	0.00	0.00
Rubber Tired Dozer	1	6	247	0.4	Grading	125.44	125.44
Tractors/Loaders/Backhoes	1	7	97	0.37	Grading	59.09	59.09
Bore/Drill Rig	0	0	221	0.5	Building Con.	0.00	0.00
Cranes	1	6	231	0.29	Building Con.	4252.53	4252.53
Forklifts	1	6	89	0.2	Building Con.	1255.97	1255.97
Generator Sets	1	8	84	0.74	Building Con.	5848.01	5848.01
Other Construction Eqp.	0	0	172	0.42	Building Con.	0.00	0.00
Rubber Tired Dozer	0	0	247	0.4	Building Con.	0.00	0.00
Tractors/Loaders/Backhoes	1	6	97	0.37	Building Con.	2532.40	2532.40
Welders	3	8	46	0.45	Building Con.	1947.46	5842.37
Cement and Motor Mixers	1	6	9	0.56	Paving	17.78	17.78
Concrete/Industiral Saws	0	0	81	0.73	Paving	0.00	0.00
Dumpers/Tenders	0	0	16	0.38	Paving	0.00	0.00
Graders	0	0	187	0.41	Paving	0.00	0.00
Pavers	1	6	130	0.42	Paving	173.30	173.30
Paving Equipment	1	8	132	0.36	Paving	201.10	201.10
Rollers	1	7	80	0.38	Paving	125.13	125.13
Tractors/Loaders/Backhoes	1	8	97	0.37	Paving	168.83	168.83
Air Compressors	1	6	78	0.48	Architectual Coat.	132.09	132.09
					Total Fuel Used	17058.46	**20953.37 (Gallons)**

Construction Phase	Days of Operation
Site Preparation	2
Grading	4
Building Construction	200
Paving	10
Architectual Coating	10

APPENDIX E
PRELIMINARY GEOTECHNICAL INVESTIGATION

South Shore Testing & Environmental

23811 Washington Ave, Suite C110, #112, Murrieta, CA 92562
Phone: (951) 239-3008 FAX: (951) 239-3122
E-mail: ss.testing@aol.com

September 10, 2020

Mr. John Dykes
FDC Commercial Construction
461 E. Menlo Avenue
Hemet, California 92543

SUBJECT: **PRELIMINARY GEOTECHNICAL INVESTIGATION**
Proposed Industrial/Commercial Development
APN 417-150-015
First Street, East of Veile Avenue
City of Beaumont, Riverside County, California
Work Order No. 0862002.00

Dear Mr. Dykes:

Pursuant to your authorization, a preliminary geotechnical evaluation was conducted on the subject site in accordance with the 2019 California Building Code, Section 1803.5.11. Attached as **Plate 1**, the **Geotechnical Map** is a reduced image of a 1/16-scale "Site Plan" prepared by FDC indicating the approximate location of proposed structures, the exploration trenches, and pertinent geotechnical information.

Scope of Work

The scope of work performed for this study included the following:

1. Onsite observation and documentation of existing site geometry with respect to the location of the proposed development.

2. Advancement of four (4) exploratory trenches to the total depth explored of 10.0-ft (T-1) below the ground surface (bgs) for sample recovery for laboratory testing and observation of subsurface conditions.

3. Engineering analysis of test results to develop specifications for grading and preliminary foundation design.

4. Research of Geologic literature to develop design specifications for hazards such as seismic shaking and related effects.

5. Preparation of report of findings, including conclusions and recommendations for grading and minimum foundation design.

Introduction

This investigation has been conducted resulting from a 2019 California Building Code Chapter 18 requirement for preliminary geotechnical investigation being conducted for all projects in Seismic Category D. This investigation will address geotechnical conditions existing on the site as they may pertain to the proposed industrial structure. It is our understanding that the building will be typical tilt-up structure with slab-on-grade and continuous footings construction. Contained herein also are preliminary recommendations for foundation design for the proposed construction.

Site Description

The subject site is located on north side of W 1ST, east of Veile Avenue, in the city of Beaumont, Riverside County, California. The geographical relationships of the site and surrounding area are depicted on our Site Location Map, **Figure 1**.

The subject site is in a relatively natural undeveloped condition. At the time of our investigation, vegetation onsite consists of a moderate growth of tumbleweed and dried weeds and grasses. Topographically, the subject site consists of gently sloping terrain to the west at a less than 5 percent gradient. Drainage is accomplished by sheetflow to the west and north toward a moderately incised drainage swale. Overall relief on the subject site is approximately 5-ft, from above mean sea elevations 2547 to 2552.

Proposed Development

A "Site Plan" was available at the time of our investigation; it is our understanding that development includes the construction of a proposed 18,750-suare foot structure on the northeasterly portion of the subject site with the remainder used as parking and driveways.

Foundations are anticipated to consist of continuous spread and isolated column footings to carry structural loads, otherwise typical commercial/industrial construction.

DeLORME

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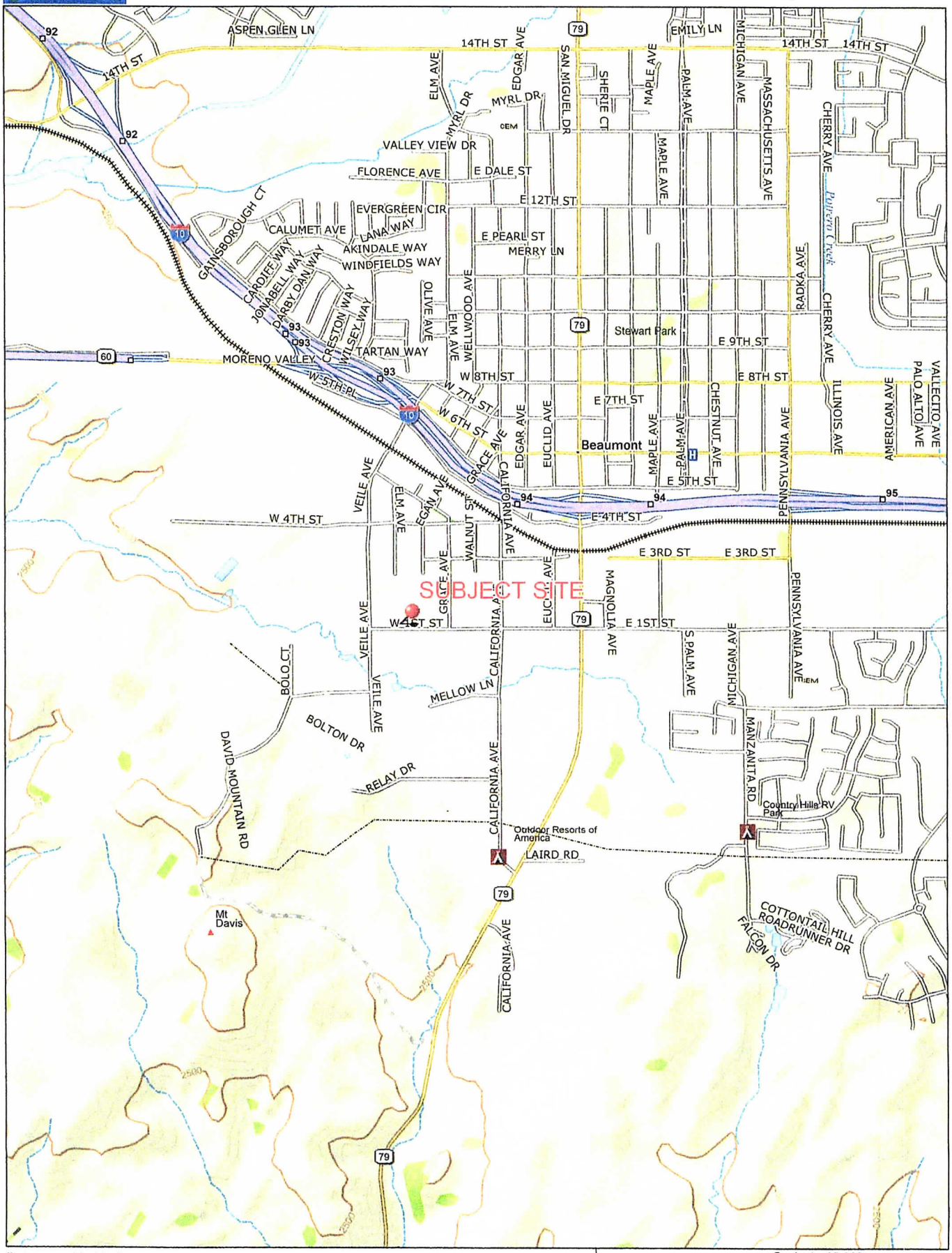

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TN

MN (11.4°E)

Scale 1 : 25,000

1" = 2,083.3 ft

FIGURE 1

Field Work

Field work on the site consisted of site mapping of the onsite earth units and observation and logging of four (4) exploratory trenches advanced with a CAT No. 303E mini-excavator equipped with a 12-inch bucket. A representative bulk sample of earth materials was obtained for laboratory testing and observing the conditions of the onsite soils. Subsurface exploration of the subject site was performed on September 8, 2020 and the exploratory trench logs are presented in **Appendix B**. The approximate location of our exploratory trenches is presented on our **Geotechnical Map, Plate 1**. Observation and sampling of the exploratory trenches were performed by our field personnel, who logged Pleistocene-age Older surficial sediments that extended from the ground surface to the total depth explored of 10-ft bgs (Dibblee, 2003).

Laboratory Testing

The results of laboratory testing are presented in **Appendix C**. It should be noted test results are preliminary and generally representative for the purposes of demonstrating feasibility of design for proposed construction. Additional testing recommended by this report may result in changes of minimum design requirements.

Subsurface Conditions

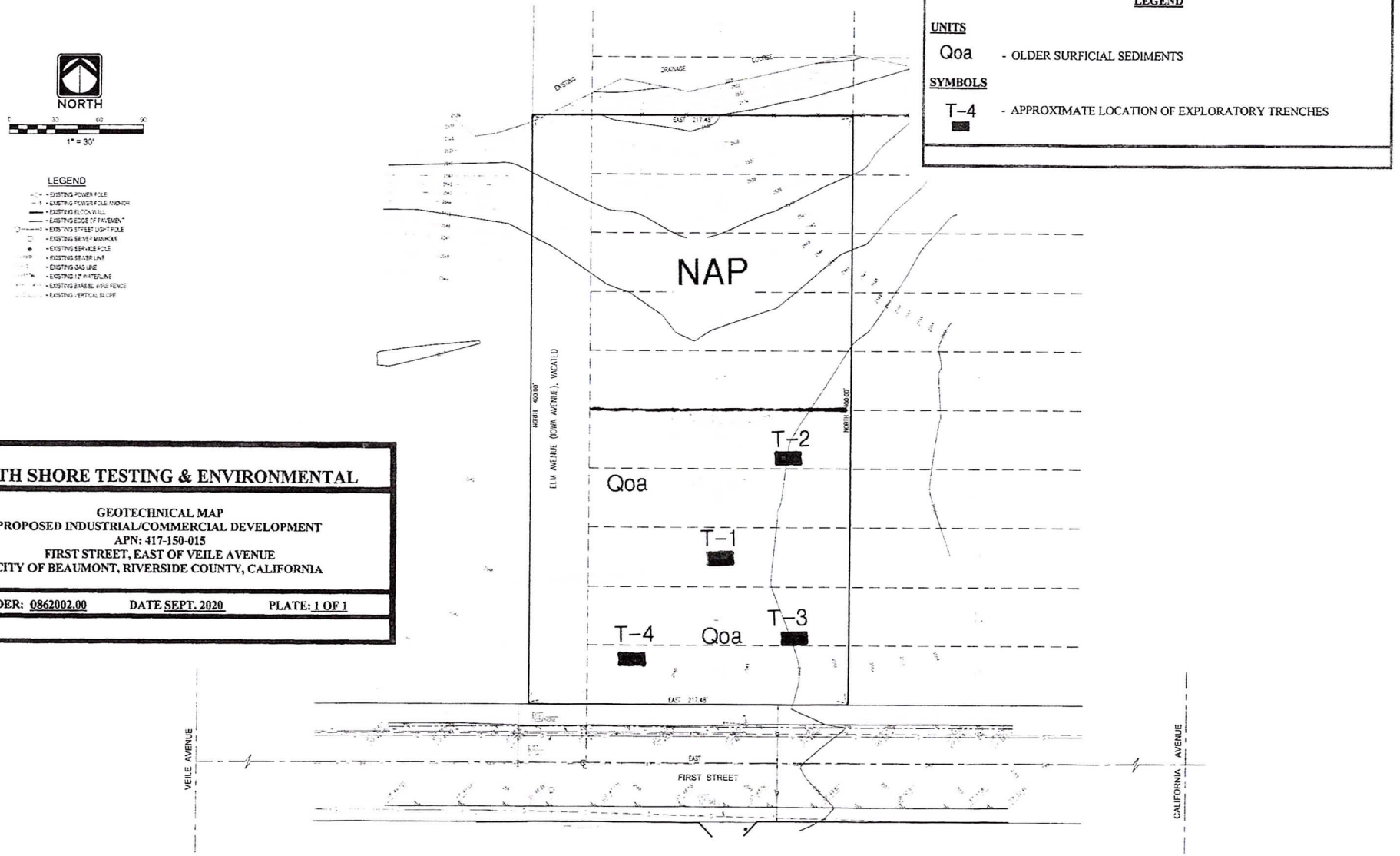
The Dibblee Center Geologic Map of the Beaumont Quadrangle (Dibblee, 2003) indicates the formational earth materials underlying the site to be Pleistocene-age Older surficial sediments (map symbol Qoa). A brief description of the geologic units underlying the site that are considered pertinent to proposed development follows:

Older Surficial Sediments (Map Symbol – Qoa)

Older surficial sediments were encountered at the ground surface and extended to the total depth explored of 10-ft bgs. This unit, for the most part, consists of a red brown silty Sand and sandy Silts (Unified Soil Classification – SM & ML) that can be described as fine to medium grained, moderately graded, dry (upper 1 to 1.5-ft) to slightly moist, loose to medium dense, with numerous pinpoint pores and fine roots. Detailed descriptions of the onsite units are presented on our exploratory trench logs included in **Appendix B**.

Groundwater

Groundwater was not encountered within our exploratory trenches, which were advanced to a maximum depth explored of 10.0-ft bgs. No mottling or other indications of previous high groundwater levels were observed within our exploratory trenches. Based on historic groundwater records the depth to groundwater underlying the subject site is in excess of 100-ft



SOUTH SHORE TESTING & ENVIRONMENTAL

GEOTECHNICAL MAP
PROPOSED INDUSTRIAL/COMMERCIAL DEVELOPMENT
APN: 417-150-015
FIRST STREET, EAST OF VEILE AVENUE
CITY OF BEAUMONT, RIVERSIDE COUNTY, CALIFORNIA

WORK ORDER: 0862002.00 **DATE** SEPT. 2020 **PLATE:** 1 OF 1

DIG ALERT
DIAL TOLL FREE
1-800-227-2600
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

DATE | BY | MARK | REVISIONS | APPR. | DATE
ENGINEER | CITY
DESIGNED BY: | DRAWN BY: | CHECKED BY:

SEAL

APPROVED BY: DATE
CITY ENGINEER
PREPARED BY: DATE
R.C.E. NO.

BLAINE A. WOMER
CIVIL ENGINEERING
•PLANNING •SURVEYING •ENGINEERING •PUBLIC WORKS

SCALE 1" = 30'
DATE JUNE, 2020
BENCHMARK:

CITY OF BEAUMONT
APN: 417-150-005 & 015
TOPOGRAPHIC MAP
FOR FDC W.O.

SHEET NO. 1 OF 1 SHEETS
FILE NO.

bgs (Bloyd, 1999). Minor fluctuations can and will likely occur in moisture or free water content of the soil owing to rainfall and irrigation over time. In addition, the depth to groundwater can fluctuate seasonally as a result of planned groundwater management.

Excavation Characteristics

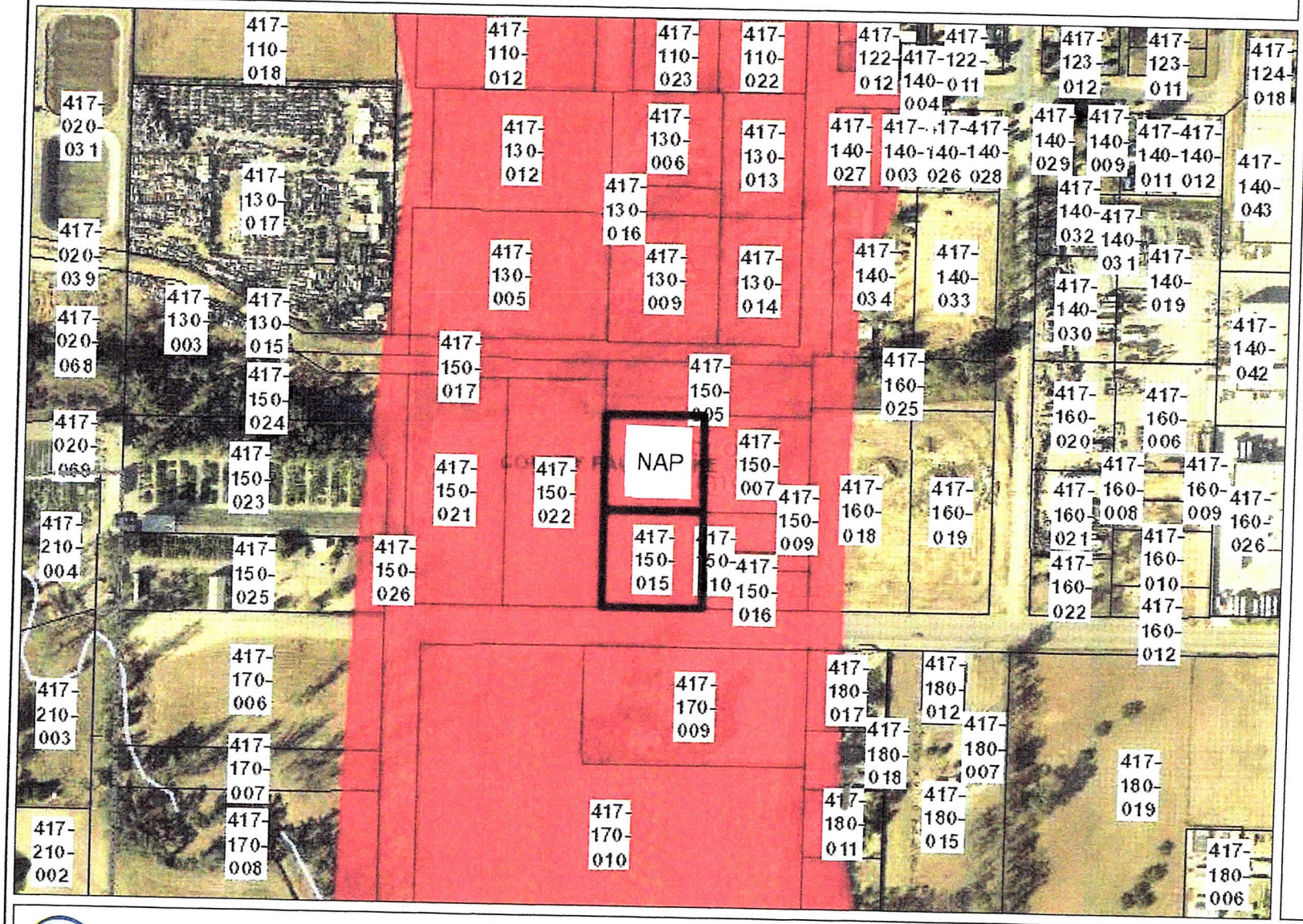
We anticipate that the onsite undocumented fill and alluvial soils can be excavated with slight to moderate difficulty to the proposed depths utilizing conventional grading equipment in proper working condition. We anticipate that the sedimentary bedrock units can be excavated with moderate difficulty to the proposed depths utilizing conventional grading equipment in proper working condition.

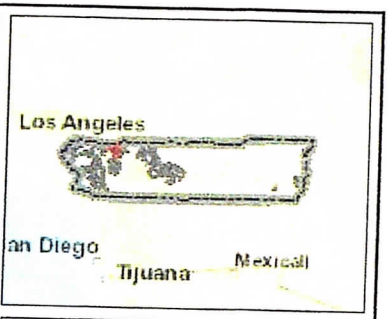
Seismicity

The subject site is not located within the presently defined boundaries of an Alquist-Priolo Earthquake Fault Zone (CGS, 2020). No fault feature has been mapped on or trending toward the subject site on the Geologic Map of the Beaumont Quadrangle (Dibblee, 2003). The County of Riverside has mapped a north-south trending fault hazard zone (see **Figure 2**) that includes the subject site (County of Riverside GIS, 2020). Active fault zones regional to the site include the San Jacinto fault (San Jacinto Valley segment), the San Andreas fault (Southern segment), the Pinto Mountain fault, the North Frontal fault (Western segment), and the Elsinore fault (Glen Ivy segment), which are located 9.8-km southwest, 13.5-km northeast, 24.5-km northeast, 41.5-km north, and 44.5-km southwest, respectively. The following table lists the known faults that would have the most significant impact on the site:

Map My County Map

FDC





Legend

- Parcel APNs
- Parcels
- Faults
  - OTHER AUTHORITY
  - ALQUIST-PRIOLO
  - RIVERSIDE COUNTY
- Fault Zones
  - OTHER FAULT ZONE
  - COUNTY FAULT ZONE
  - ELSINORE FAULT ZONE
  - SAN ANDREAS FAULT ZONE
  - SAN JACINTO FAULT ZONE
- Blueline Streams
- City Areas
- World Street Map

RCIT

0 376 752 Feet

IMPORTANT Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

REPORT PRINTED ON... 8/7/2020 7:34:11 AM

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Notes

APN #'s 417-150-006 & -015

FIGURE 2

FAULT	MAXIMUM PROBABLE EARTHQUAKE (MOMENT MAGNITUDE)	SLIP RATE	FAULT TYPE
San Jacinto (San Jacinto Valley segment) (9.8-km SW)	7.2	12 mm/year	A
San Andreas (Southern Segment) (13.5-km NE)	7.2	25 mm/year	A
Pinto Mountain (24.5-km NE)	7.2	2.5 mm/year	B
North Frontal (Western segment) (41.5-km N)	7.2	0.5 mm/year	B
Elsinore (Glen Ivy Segment) (44.6-km SW)	6.8	5 mm/year	A

Aerial Photograph Analysis

Stereographic pairs of aerial photographs were examined to evaluate the local and regional geologic and geomorphic features of the property and immediate vicinity. Seven sets of vertical black and white photos dated between February 15, 1960 and February 22, 1990 were examined. The photographs were obtained from Riverside County Flood Control District. Owing to the relatively large photographic scales involved, the analysis and subsequent interpretation of detail from aerial photographs sometimes requires a degree of subjective judgment. The degree of certainty on the interpretation of details depends upon such factors as the scale and the quality of the photograph. However, an analysis of aerial photographs will reveal the general geomorphic features, site development features, possible ground disturbance, etc. A summary of the observed geomorphic structures is provided below.

No lineaments were observed on or trending toward the subject site. In the earlier photographs north-south trending tonal variations were noted on or adjacent to the subject site, but were generally aligned with the property lines. The subject site appeared to have been part of a larger property which was subdivided over the years. A northwest trending weak lineament was observed approximately 0.2-km to the southwest of the subject site and is coincident to a moderately incised drainage course. In the context of this report, a weak lineament is obviously short, may not coincide with others, may be approaching sinuosity rather than linearity and may end abruptly. These features are typically apparent alignments of local hillocks, lineations in granitic rock, local schistosity in metamorphic rocks, and often man-made alignments.

2019 California Building Code (CBC) -Seismic Parameters:

Based on the geologic setting and soil conditions encountered, the soils underlying the site are classified as "Site Class C, "Very Dense Soil and Soft Rock", according to the CBC. The seismic parameters according to the CBC are summarized in the USGS Design Maps Summary Report presented in **Appendix E**. The corresponding value for peak ground acceleration from the design response spectrum based on the 2019 CBC seismic parameters is 0.808g.

SEISMIC EFFECTS

Ground Accelerations

The most significant earthquake to affect the property is a 7.2 Richter magnitude earthquake on the San Jacinto fault zone (San Jacinto Valley segment). Based on Section 1803.5.12 of the 2019 California Building Code, peak ground accelerations modified for site class effects (PGA_M) of approximately **0.808g** are possible for the design earthquake. The seismic parameters according to the CBC are summarized in the USGS Design Maps Summary Report presented in **Appendix E**.

Ground Cracks

The risk of surface rupture as a result of active faulting is considered **negligible** based on the absence of known active faulting on the site (Dibblee, 2003). Ground cracks can and do appear on sites for a variety of reasons including, but not limited to, strong seismic shaking, imperfections in subsurface strata (either man-made or natural), and the expansive nature of some soils near the ground surface. Therefore, the possibility of minor cracks at the ground surface for the life of the project cannot be fully eliminated.

Landslides

The subject property is in an area low rolling relatively flat elevated terrain and no landslides have been mapped in the area (Dibblee, 2003). The risk of seismically induced landsliding to affect the proposed development is **negligible**.

Liquefaction

The site is not within either a State of California or County of Riverside designated or mapped liquefaction hazard zone. Therefore, coupled with the absence of shallow (+100-ft) groundwater (Bloyd, 1999) and the underlying medium dense to dense sedimentary bedrock units; it is our opinion that liquefaction is not anticipated, and further analysis appears to be unwarranted.

Seismically Induced Soil Settlement

The proposed footings are anticipated to be founded in medium dense engineered fill overlying dense Old surficial sediments (Dibblee, 2003). The settlement potential, under seismic loading conditions for these onsite materials, in our opinion, is **low**.

Seiches and Tsunami

Considering the location of the site in relation to large bodies of water, seiches and tsunamis **are not** considered potential hazards of the site.

Rockfall Potential

The subject site is in an area of gently sloping terrain that is free of any boulder outcroppings. The potential for rockfall is anticipated to be **negligible**.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

General

The development of the site as proposed is both feasible and safe from a geotechnical standpoint provided that the recommendations contained herein are implemented during design and construction.

1. It is our understanding that the proposed 18,750-sq ft structure will be constructed on the northeasterly portion of the subject site with the remainder utilized for parking and driveways.

2. Observation of excavations indicates that suitable material for support of fill and/or structures is near the surface on the site. Earth materials on the site are also suitable for use as compacted structural fill.

3. Observation, classification, and testing indicate that the near surface soils have a very low expansion potential (EI = 0) consisting of low plastic sandy Silt (ML).

4. Based on our exploratory trenches, the subject site is underlain by approximately 10-ft of Older surficial sediments, which extended to the total depth explored of 10.0-ft bgs.

RECOMMENDATIONS

Site Grading

General

Both a "Topographic Map" and a "Site Plan" was available for our investigation, however we anticipate that the proposed industrial structure will require overexcavation and recompaction of the building pad. It is important to note that all imported soils must be observed and approved by the soil engineer prior to use as fill to verify compliance with project specifications and consistency with onsite soils with respect to expansion potential and structural contact pressure.

Site Specific Grading

A representative of this firm shall be present to observe the bottoms of all excavations. A representative of this firm shall be present during all fill placement operations to monitor and test as the earth materials are being placed. This observation and testing is intended to assure compliance with the recommendations of this report as well as project specifications as they relate to earthwork construction, County and State ordinances and Table 1705.6 of the 2019 California Building Code.

Where structural fill is to be placed, all loose soils and weathered bedrock at the ground surface shall be removed to competent earth, i.e., medium dense Older surficial sediments. It is anticipated that owing to the loose and dry upper 2 to 3-ft of onsite soils the proposed structure will require overexcavation and recompaction. Overexcavation should extend a minimum of 4-ft below the ground surface or 2-ft below the bottom of the deepest footings, whichever is deeper. The overexcavation should extend a minimum of 5-ft beyond the building footprint or to a distance equal to depth of removal, whichever is greater. No structural fill shall be placed within the building area on any ground without first being observed by a representative of the company providing this report and then providing written certification that the ground is competent and prepared to receive fill. Cut/fill transitions should be addressed during a grading plan review and final recommendations be made on that time.

Onsite soils derived from excavations will be suitable for use as structural fill provided, they are free of large rock (6-inches or larger) and organic debris or construction waste. Approved fill material should be placed in 6 to 8-inch loose lifts, brought to optimum moisture content, and compacted to a minimum of 90% of the maximum laboratory dry density, as determined by the ASTM D 1557-12 test method. No rocks larger than 6-inches in diameter should be used as fill material as they inhibit the compaction process. Rocks larger than 6-inches may be removed or crushed and used as fill material. Broken concrete slab shall also be reduced in size to be less than 6-inches in the major direction. Rocks larger than 6-inches that cannot be crushed, organic

materials, asphaltic concrete or oil-bearing surface aggregate should be removed from the graded area and in the case of oil-bearing materials, removed and taken to an appropriate dump site that is designed to handle such.

All earthwork should be done in accordance with the specifications contained in **Appendix D**. Additionally, it will be the responsibility of the owner and or the grading contractor to provide this firm with schedule information for grading activities that require observation and testing. It is preferred that we have a minimum of 48 hours of notice for such.

It will also be recommended that at the completion of rough grading, additional testing of engineering characteristics such as expansion potential and ancillary testing should take place to determine final design requirements for foundations, slabs and concrete used.

Slope Construction

Fill and cut slopes constructed at a 2:1 (h:v) slope ratio, to a maximum vertical height of approximately 30-ft, will be surficially and grossly stable if constructed in accordance with the recommendations presented in this report and in **Appendix D** of this report. Owing to the relatively flat, gently sloping terrain, cut and fill slopes are anticipated to be less than 5-ft in vertical height to achieve design grades. Any proposed fill slopes will be constructed of earth materials generated from the onsite Older surficial sediments. The fill is anticipated to consist of sandy Silts (ML) and silty Sands (SM).

A keyway should be established along the toe of any proposed fill slope. The outside edge of the keyway should be founded a minimum of 2-ft into observed and competent alluvial sediments sedimentary bedrock units and inclined into the hillside at a minimum 2% gradient for a minimum width of 12-ft. The keyway excavations should expose sedimentary bedrock units that are free of pinpoint pores and fine roots throughout the bottom area and up a minimum of 2-ft on all sides. Any loose soils or weathered bedrock should be completely removed by benching during rough grade operation.

The importance of proper fill compaction to the face of slope cannot be overemphasized. In order to achieve proper compaction to the slope face, one or more of the four following methods should be employed by the contractor following implementation of typical slope construction guidelines; 1) track walk the slopes at grade, 2) grid roll the slopes, 3) use a combination of sheep foot roller and track walking, and/or 4) overfill the slope 3 to 5-ft laterally and cut it back to grade.

Care should be taken to avoid spillage of loose materials down the face of any slope during grading. Loose fill on the face of the slope will require complete removal prior to shaping and or track walking. Proper seeding and planting of the slopes should follow as soon as practical to inhibit erosion and deterioration of the slope surfaces. Proper moisture control will enhance the long-term stability of the finish slope surface.

Bearing Value and Footing Geometry

A safe allowable bearing value of 1,950 psf for foundations embedded into observed competent engineered fill. Continuous footings, for single-story or equivalent structures, should have a minimum width of 12-inches and depth of 12-inches and conform to the minimum criteria of the 2019 CBC for very low expansive soils (EI = 0). Continuous footings, for two-story or equivalent structures, should have a minimum width of 15-inches and depth of 18-inches and conform to the minimum criteria of the 2019 CBC for very low expansive soils (EI = 0). The use of isolated column footings is not discouraged, however, where utilized, should have a minimum embedment of 18-inches below lowest soil grade. The minimum distance of the bottom outside edge of all footings and any slope face shall be 5-ft. All footings should be embedded a minimum of 12-inches into observed competent native materials, regardless of depth below the adjacent ground surface.

Settlement

The bearing value recommended above reflects a total settlement of 0.5-inches and a differential settlement of 0.5-inches within a horizontal distance of 20-ft (L/480). Most of this settlement is expected to occur during construction and as the loads are being applied.

Concrete Slabs

All concrete slabs on grade should be 4-inches thick, minimum. They should be underlain by 2-inches of sand or approved non-expansive onsite materials. Imported or approved onsite materials may be utilized for this purpose. Contractors should be advised that when pouring during hot or windy weather conditions, they should provide large slabs with sufficiently deep weakened plane joints to inhibit the development of irregular or unsightly cracks. Also, 4-inch thick slabs should be jointed in panels not exceeding 8-ft in both directions to augment proper crack direction and development.

Moisture Barrier

When the intrusion of moisture through concrete slabs is objectionable, particularly with interior slabs where flooring is moisture sensitive, a vapor barrier should be installed onto the subgrade prior to the pouring of concrete. It should consist of a minimum 10-mil visqueen, protected from puncture with 2-inches of sand above and 2-inches of sand below. This is considered a minimum recommendation as there are other devices that provide as good as or better moisture protection. The project architect and or structural engineer may recommend alternative devices for moisture protection.

Reinforcement

From a Geotechnical standpoint, continuous footings should be reinforced with a minimum of two number 4 steel bar placed at the top and bottom. In no case, should the content of steel in concrete footings be less than the recommended minimums of the appropriate sections of the A.C.I. standards. Slabs should be reinforced with a minimum of number 3 steel bars placed at the center of thickness at 24-inch centers both ways (CBC 2019). These are considered minimums and additional requirements may be imposed by other structural engineering design requirements. In addition, at the completion of grading, testing of the near surface soils may indicate that different or more stringent reinforcing schedule minimums may be appropriate. Careful consideration should be given to the recommendations that will be contained in the final report of compaction test results and foundation design requirements.

Concrete

Based on our corrosivity suite testing, Type II Portland cement concrete can be utilized for the subject site. Laboratory analysis results, which are included in **Appendix C**, indicated that the percentage by weight of soluble sulfates were reported as **Non Detect (ND)**, which equates to a **Negligible** sulfate exposure per American Concrete Institute (ACI), 318-14. Soluble sulfate content testing should be conducted within the building pad at the completion of rough grading to confirm concentration of sulfite ions within the onsite earth materials.

Corrosivity test results, which are summarized in **Appendix C,** indicated saturated resistivity of 4,700 ohms/cm for the onsite soils, which indicates the onsite soils are moderately corrosive (NACE International, 1984). Results for pH and Chlorides are included in **Appendix C**. South Shore Testing and Environmental does not practice corrosion engineering. If specific information or evaluation relating to the corrosivity of the onsite or any import soil is required, we recommend that a competent corrosion engineer be retained to interpret or provide additional corrosion analysis and mitigation.

Lateral Loads

The bearing value of the soil may be increased by one third for short duration loading (wind, seismic). Lateral loads may be resisted by passive forces developed along the sides of concrete footings or by friction along the bottom of concrete footings. The value of the passive resistance for level ground may be computed using an equivalent fluid density of 250 pcf for level ground. The total force should not exceed 2,500 psf. A coefficient of friction of .35 may be used for the horizontal soil/concrete interface for resistance of lateral forces. If friction and passive forces are combined, then the passive values should be reduced by one third.

Cut/Fill Transitions

At this time, no grading plan was available for our review, however, we anticipate the structure to be constructed as a cut/undocumented fill transition pad. This requires the cut portion of the pad be overexcavated a minimum 4-ft bgs or of 2-ft below bottom of the deepest footing, whichever is deeper.

Oversize Rock

No oversize rock was encountered within the Older surficial sediments during our subsurface investigation of the subject site. If any oversize material is to be generated during site development, it should be disposed of off-site, utilized in landscaping, or placed in an approved rock fill in accordance with **Appendix D** of this report.

Utility Trench Backfill

All trench excavations should be conducted in accordance with Cal-OSHA standards as a minimum. The soils encountered within our exploratory trenches are generally classified as Type "C" soil in accordance with current CAL/OSHA excavation standards. Based upon a soil classification of Type "C", the temporary excavations should not be inclined steeper than 1.5:1 (h: v) for a maximum depth of 20-ft. For temporary excavations, deeper than 20-ft or for conditions that differ from those described for Type "C" in the CAL/OSHA excavation standards, the project geotechnical engineer should be contacted.

Utility trench backfill should be compacted to a minimum of 90 percent of the maximum dry density determined in laboratory testing by the ASTM D 1557-12 test method. It is our opinion that utility trench backfills consisting of onsite or approved sandy soils can best be placed by mechanical compaction to a minimum of 90 percent of the maximum dry density. The upper 1-ft of utility trench excavations located within pavement areas should be compacted to a minimum of 95 percent of the maximum dry density.

Fine Grading and Site Drainage

Fine grading of areas outside of the residence should be accomplished such that positive drainage exists away from all footings in accordance with 2019 CBC and local governing agency requirements. Run-off should be conducted in a non-erosive manner toward approved drainage devices per approved plans. No run-off should be allowed to concentrate and flow over the tops of slopes.

Construction

South Shore Testing & Environmental, or a duly designated representative, should be present during all earthwork construction in accordance with the standard specifications contained at the back of this report, to test and or confirm the conditions encountered during this study. In addition, post earthwork construction monitoring should be conducted at the following stages:

- At the completion of final grading of building pads so that a finished surface compaction test may be obtained. Moisture content near optimum will necessarily need to be maintained, both to maintain proper compaction and to prevent wind erosion of the pad.

- At the completion of foundation excavations, but prior to the placement of steel and or other construction materials in them. As a requirement of this report, the undersigned must, in writing, certify that the foundations meet the minimum requirements of this report and the building plans for depth and width along with the earth materials being the appropriate moisture content and compaction. Backfilling of over deepened footings with earth materials will not be allowed and must be poured with concrete. Consequential changes and differences may exist throughout the earth materials on the site. It may be possible that certain excavations may have to be deepened slightly if earth materials are found to be loose or weak during these observations.

- Any other pertinent post construction activity where soils are excavated or manipulated or relied upon in any way for the performance of buildings or hardscape features.

Supplemental Recommendations

If at any time during grading or construction on this site, conditions are found to be different than those indicated in this report, it is essential that the soil engineer be notified. The soil engineer reserves the right to modify in any appropriate way the recommendations of this report if site conditions are found to be different than those indicated in this report.

- The earth units exposed at the surface is observed to be Older surficial sediments. They are moderately erosive. It is dense at shallow depths, on the order of 4 to 5-ft and water percolates slightly to moderately well into the onsite Older surficial sediments.

- Cuts to 5-ft, or slightly more will stand vertical for normal time periods associated with construction of backcuts for fill slopes or retaining walls. Time periods for unsupported cuts 5-ft or greater vertical should be limited to 30 days in the non-rainy season and 10 days in the rainy season.

Grading and Foundation Plan Reviews

Once grading and foundation plans are finalized, Grading and Foundation Plan Reviews should be performed to review plans and confirm that the plans are in general conformance with recommendations presented in this report.

Construction Monitoring

Observation and testing by South Shore Testing & Environmental is necessary to verify compliance with recommendations contained in this report and to confirm that the geotechnical conditions encountered are consistent with those encountered. South Shore Testing & Environmental should conduct construction monitoring during any fill placement and subgrade preparation prior to placement of fill or construction materials.

LIMITATIONS

Our investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable Geotechnical Engineers and Geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

The report is issued with the understanding that it is used only by the owner and it is the sole responsibility of the owner or their representative to ensure that the information and recommendations contained herein are brought to the attention of the architect, engineer, and appropriate jurisdictional agency for the project and incorporated into the plans; and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations contained herein during construction and in the field.

The samples taken and used for testing and the observations made are believed representative; however, soil and geologic conditions can vary significantly between test locations. The evaluation or identification of the potential presence of hazardous or corrosive materials was not part of the scope of services provided by **South Shore Testing & Environmental**, or its assigns.

The findings of this report are valid as of the present date. However, changes in the condition of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and revision as changed conditions are identified.

The firm that performed the geotechnical investigation for this project should be retained to provide testing observation services during construction to maintain continuity of geotechnical interpretation and to check that the recommendations presented herein are implemented during site grading, excavation of foundations and construction of improvements.

If another geotechnical firm is selected to perform the testing and observation services during construction operations, that firm should prepare a letter indicating their intent to assume the responsibilities of project geotechnical engineer of record. Selection of another firm to perform any of the recommended activities or failure to retain the undersigned to perform the recommended activities wholly absolves **South Shore Testing & Environmental**, the undersigned, and its assigns from all liability arising directly or indirectly from any aspects of this project.

We appreciate the opportunity to be of service. Limitations and conditions contained in reference documents are considered in full force and applicable. If you have any questions, please do not hesitate to call our office.

Respectfully submitted,

South Shore Testing & Environmental

John P. Frey
Project Geologist

William C. Hobbs, RCE 42265
Civil Engineer

Mark Slatten, CEG 1605
Certified Engineering Geologist

ATTACHMENTS

Figure 1 - Site Location Map (2,000-scale)
Figure 2 – County Fault Zone Map
Plate 1 - Geotechnical Map (not-to-scale)
Appendix A - References
Appendix B - Exploratory Trench Logs
Appendix C - Laboratory Test Results
Appendix D – Standards of Grading
Appendix E - USGS Design Maps Summary Report

APPENDIX A

References

REFERENCES

Blaine A. Womer, June 2020, "Topographic Map, APN: 417-150-006 & -015, City of Beaumont", Sheet 1 of 1, Scale: 1" = 30'.

Bloyd, R.M. Jr., 1999, "Underground Storage of Imported Water in the San Gorgonio Pass Area, Southern California", Geological Survey Water-Supply Paper 1999-D.

California Building Standards Commission (CBSC), 2019, "2019 California Building Code, California Code of Regulations, Title 24, Part 2, Volume 2 of 2".

California Division of Mines & Geology, 1997, "Guidelines for Evaluating and Mitigating Seismic Hazards in California", Special Publication 117.

California Division of Mines & Geology, 1996, "Probabilistic Seismic Hazard Assessment for the State of California", DMG Open File Report 96-08, USGS Open File Report 96-706.

California Geologic Survey, Revised 2018, "Earthquake Fault Zones, A Guide for Government Agencies, Property Owners/Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California", Special Publication 42.

California Geological Survey, 2006, "California Fault Parameters", California Geologic Survey website - Open-file Report 96-08.

Coduto, Don, P., 1994, "Foundation Design Principles and Practice", Prentice Hall, pages 637-655.

County of Riverside GIS Website, 2020.

Dibblee, Thomas W., Jr., December 2003, "Geologic Map of the Beaumont Quadrangle, Riverside County, California", Dibblee Geology Center Map #DF-114, Scale: 1" = 2,000'.

FDC Commercial Construction, Undated, "Site Plan, Beaumont Industrial Center, First Street, Beaumont, California", Sheet A-105, Scale: 1" = 16'.

Hart, E.W., 2000, "Fault-Rupture Hazard Zones in California", California Division of Mines and Geology Special Publication 42, CD-003 (CD-ROM Version).

Morton, D.M., 2004, "Preliminary Digital Geologic Map of the Santa Ana 30' x 60' Quadrangle, Southern California (Version 2.0)", U.S. Geological Survey in Cooperation with the California Geologic Survey, Open-File Report 99-172, Scale: 1"=100,000'.

AERIAL PHOTOGRAPHS UTILIZED

YEAR/SCALE	FLIGHT #/FRAME #	AGENCY
Feb 15, 1960/1" = 1,000'	Co. Flight/86 & 87	Riverside Co Flood Control
Jan 29, 1962/1" = 2,000'	24244/2-227 7 2-228	Riverside Co Flood Control
Aug. 24, 1963/1" = 1,000'	Co. Flight/77 & 78	Riverside Co Flood Control
May 24, 1974/1" = 2,000'	Co. Flight/177 - 179	Riverside Co Flood Control
Feb. 1, 1980/1" = 2,000'	Co. Flight/179 - 181	Riverside Co Flood Control
June 6, 1983/1" = 1,600'	Co. Flight/15 & 16	Riverside Co Flood Control
Feb. 22, 1990/1" = 1,600'	Co. Flight/5-43 & 5-44	Riverside Co Flood Control

APPENDIX B

Exploratory Trench Logs

LOGGED BY: KMC	METHOD OF EXCAVATION: CAT W/ NO303E MINI EXCAVATOR EQUIPPED WITH A 12" BUCKET ELEVATION: ± 2548	DATE OBSERVED: 9/8/2020 LOCATION: SEE PLATE 1

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT(%)	INPLACE DRY DENSITY (PCF)	TEST PIT NO._1____ DESCRIPTION	SOIL TEST
				V			**OLDER SURFICAL SEDIMENTS**	MAXIMUM DENSITY/OPTIMUM MOISTURE CONTENT, SIEVE ANALYSIS, EXPANSION INDEX, CORROSIVITY SUITE
				I			SANDY SILT (ML): DARK REDDISH BROWN, SANDY IN PART, DRY (TOP 1-1 1/2') TO SLIGHTLY MOIST, NUMEROUS PORES & PINPOINT PORES IN UPPER 2-3'	
5				I A			ELAYOY SANDY SILT (ML): DARK RED BROWN, STIFF, MOIST, INCREASING WITH DEPTH, TRACE SAND, CLAYEY IN PART	
10							**TOTAL DEPTH = 10.O'** **NO GROUNDWATER** **NO CAVING**	
15								
20								
25								
30								
35								
40								

JOB NO:0862002.00	LOG OF BORING	FIGURE: T-1

LOGGED BY: KMC	METHOD OF EXCAVATION: CAT W/ NO303E MINI EXCAVATOR EQUIPPED WITH A 12" BUCKET ELEVATION: ± 2548	DATE OBSERVED: 9/8/2020 LOCATION: SEE PLATE 1

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT(%)	INPLACE DRY DENSITY (PCF)	TEST PIT NO._2____ DESCRIPTION	SOIL TEST
				V			**OLDER SURFICAL SEDIMENTS**	
				I			CLAYEY SILT (ML): DARK RED BROWN, DRY (TOP 1-FT) TO SLIGHTLY MOIST, ABUNDUNT	
				I			FINE ROOTS & PINEPOINT PORES IN UPPER 2-3 FT'	
5				I			SANDY SILT (ML): RED BROWN, MOIST, MEDIUM DENSE, SANDY IN PART, NO PORES OR	
				Λ			FINE ROOTS, INCRESING IN DENSITY WITH DEPTH	
10							**TOTAL DEPTH = 9.0'**	
							NO GROUNDWATER	
							NO CAVING	
15								
20								
25								
30								
35								
40								

JOB NO:0862002.00	LOG OF BORING	FIGURE: T-2

LOGGED BY: KMC

METHOD OF EXCAVATION: CAT W/ NO303E MINI EXCAVATOR EQUIPPED WITH A 12" BUCKET
ELEVATION: ± 2548

DATE OBSERVED: 9/8/2020

LOCATION: SEE PLATE 1

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT(%)	INPLACE DRY DENSITY (PCF)	TEST PIT NO._3____ DESCRIPTION	SOIL TEST
				V			**OLDER SURFICAL SEDIMENTS**	
				I			CLAYEY SILT (ML): DARK RED BROWN, DRY (TOP 1-FT) TO SLIGHTLY MOIST, ABUNDUNT	
				I			FINE ROOTS & PINEPOINT PORES IN UPPER 2-3 FT'	
5				I			SANDY SILT (ML): RED BROWN, MOIST, MEDIUM DENSE, SANDY IN PART, NO PORES OR FINE ROOTS, INCRESING IN DENSITY WITH DEPTH	
10				A			**TOTAL DEPTH = 9.0'**	
							NO GROUNDWATER	
							NO CAVING	
15								
20								
25								
30								
35								
40								

JOB NO:0862002.00

LOG OF BORING

FIGURE: T-3

LOGGED BY: KMC

METHOD OF EXCAVATION: CAT W/ NO303E MINI EXCAVATOR EQUIPPED WITH A 12" BUCKET
ELEVATION: ± 2548

DATE OBSERVED: 9/8/2020

LOCATION: SEE PLATE 1

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT(%)	INPLACE DRY DENSITY (PCF)

TEST PIT NO._4____

DESCRIPTION

SOIL TEST

OLDER SURFICAL SEDIMENTS

SILTY SAND (SM): DARK RED BROWN, FINE TO MEDIUM GRAINED, MINOR COARSE, DRY IN UPPER 2-FT, ABUNDANT PINPOINT PORES AND FINE ROOTS

TOTAL DEPTH = 3.2'

NO CAVING

INFILTRATION TEST

JOB NO:0862002.00

LOG OF BORING

FIGURE: T-4

APPENDIX C

Laboratory Test Results

LABORATORY TESTING

A. Classification

Soils were visually classified according to the Unified Soil Classification System. Classification was supplemented by index tests such as maximum density and optimum moisture content.

B. Expansion Index

An expansion index test was performed on a representative sample of the onsite soils remolded and tested under a surcharge of 144 lb/ft^2, in accordance with ASTM D-4829-11. The test results are presented on **Figure C-1, Table I.**

C. Maximum Density/Optimum Moisture Content

A maximum density/optimum moisture content relationship was determined for typical sample of the onsite soils. The laboratory standards used were ASTM 1557-Method A. The test results are summarized on **Figure C-1, Table II** and laboratory results are presented on **Figure C-2.**

D. Particle Size Determination

A particle size determination, consisting of mechanical analyses (sieve) was performed on a representative sample of the onsite soils in accordance with ASTM D 422-63 and CAL TEST 202. The test results are shown on **Figure C-3.**

E. Corrosivity Suite

Corrosivity suite testing including resistivity, soluble sulfate content, pH and chloride content were performed on a representative sample of the onsite soils. The laboratory standards used were CTM 643, CTM 417 & CTM 422. The test results are presented on **Figure C-1, Table III**.

TABLE I EXPANSION INDEX		
TEST LOCATION	EXPANSION INDEX	EXPANSION POTENTIAL
T-1 @ 0-5 ft	0	Non-Expansive

TABLE II MAXIMUM DENSITY/OPTIMUM MOISTURE RELATIONSHIP ASTM D 1557		
TEST LOCATION	MAXIMUM DRY DENSITY (pcf)	OPTIMUM MOISTURE (%)
T-1 @ 0-5 ft	121.3	15.1

TABLE III CORROSIVITY SUITE				
TEST LOCATION	SATURATED RESISTIVITY	pH	CHLORIDE CONTENT	SULFATE CONTENT
T-1 @ 0-5 ft	4,700	7.8	32 ppm	ND % by wt.

Figure C-1

COMPACTION TEST REPORT

Curve No.: 2.60

Project No.: 0862002.00 **Date:** 09/09/2020
Project: FDC

Location: T–1
Elev./Depth: 0–5' **Sample No.**
Remarks:

MATERIAL DESCRIPTION

Description: RED BROWN SANDY SILT

Classifications - **USCS:** (ML) **AASHTO:**
Nat. Moist. = **Sp.G. =** 2.65
Liquid Limit = **Plasticity Index =**
% > No.4 = % **% < No.200 =**

TEST RESULTS	
Maximum dry density =	121.3 pcf
Optimum moisture =	14.5%

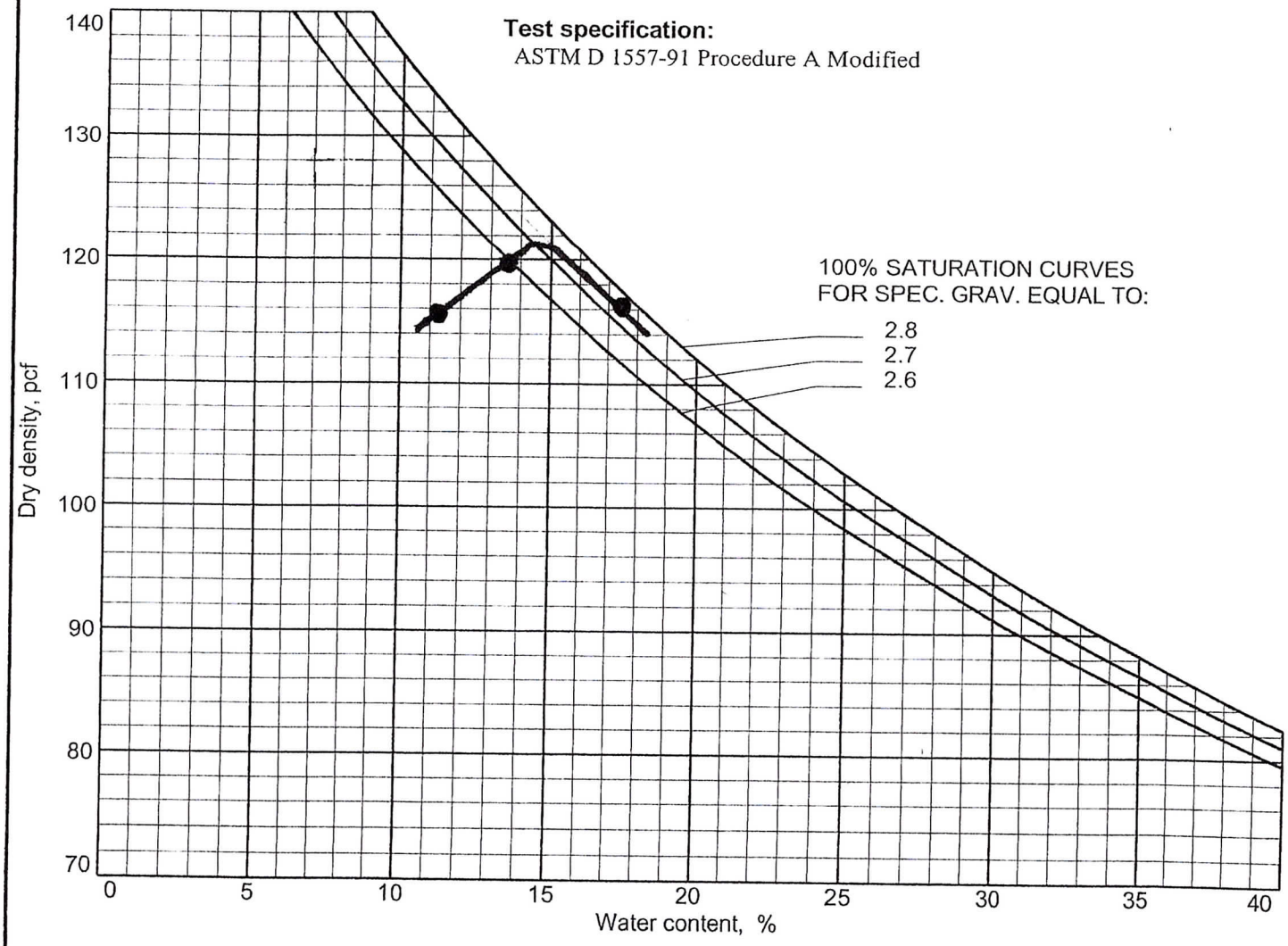


Figure C–2

Project Number: 0862002.01	ASTM C131/D1140	Depth: 0-5
Project Name: FDC		Date: 9/9/2020
Boring: T-1	Gradation & 200 Wash	Tested By:

Wash Data				Moisture Content		
Before Wash (g)	After Wash (g)	% Retained	% Passing	Tare:	Wet+Tare:	Dry+Tare:
0.0	1000.0	#DIV/0!	#DIV/0!			

Total Dry Weight:	1000.0	Moisture Content:	#DIV/0!

Sieve Data

Categories	Sieve No.	Accumulated Weight	% Retained	% Passing
Coarse Gravel	2 1/2"		0%	100.0%
	2"		0.0%	100.0%
	1 1/2"		0.0%	100.0%
	1"		0.0%	100.0%
Fine Gravel	3/4"	0.0	0.0%	100.0%
	1/2"	0.0	0.0%	100.0%
	3/8"	0.0	0.0%	100.0%
Coarse Sand	No. 4	5.0	0.5%	99.5%
Medium Sand	No. 10	17.0	0.5%	99.5%
	No. 30	103.0	10.3%	89.7%
Fine Sand	No. 50	170.0	17.0%	83.0%
	No. 100	201.0	20.1%	79.9%
Silt/Clay	No. 200	204.0	20.4%	79.6%
	Pan			

APPENDIX D

Standards of Grading

STANDARD GRADING AND EARTHWORK SPECIFICATIONS

These specifications present **South Shore Testing & Environmental,** standard recommendations for grading and earthwork.

No deviation from these specifications should be permitted unless specifically superseded in the geotechnical report of the project or by written communication signed by the Soils Consultant. Evaluations performed by the Soils Consultant during the course of grading may result in subsequent recommendations which could supersede these specifications or the recommendations of the geotechnical report.

1.0 GENERAL

1.1 The Soils Consultant is the Owner's or Developer's representative on the project. For the purpose of these specifications, observations by the Soils Consultant include observations by the Soils Engineer, Soils Engineer, Engineering Geologist, and others employed by and responsible to the Soils Consultant.

1.2 All clearing, site preparation, or earthwork performed on the project shall be conducted and directed by the Contractor under the allowance or the supervision of the Soils Consultant.

1.3 The Contractor should be responsible for the safety of the project and satisfactory completion of all grading. During grading, the Contractor shall remain accessible.

1.4 Prior to the commencement of grading, the Soils Consultant shall be employed for the purpose of providing field, laboratory, and office services for conformance with the recommendations of the geotechnical report and these specifications. It will be necessary that the Soils Consultant provide adequate testing and observations so that he may provide an opinion as to determine that the work was accomplished as specified. It shall be the responsibility of the Contractor to assist the Soils Consultant and keep him apprised of work schedules and changes so that he may schedule his personnel accordingly.

1.5 It shall be the sole responsibility of the Contractor to provide adequate equipment and methods to accomplish the work in accordance with applicable grading codes, agency ordinances, these specifications, and the approved grading plans. If, in the opinion of the Soils Consultant, unsatisfactory conditions, such as questionable soil, poor moisture condition, inadequate compaction, adverse weather, etc, are resulting in a quality of work less then required in these specifications, the Soils Consultant will be empowered to reject the work and recommend that construction be stopped until the conditions are rectified.

1.6 It is the Contractor's responsibility to provides safe access to the Soils Consultant for testing and/or grading observation purposes. This may require the excavation of the test pits and/or the relocation of grading equipment.

1.7 A final report shall be issued by the Soils Consultant attesting to the Contractor's conformance with these specifications.

2.0 SITE PREPARTION

2.1 All vegetation and deleterious material shall be disposed of off-site. This removal shall be observed by the Soils Consultant and concluded prior to fill placement.

2.2 Soil, Alluvium or bedrock materials determined by the Soils Consultant as being unsuitable for placement in compacted fills shall be removed from the site or used in open areas as determined by the Soils Consultant. Any material incorporated as a part of a compacted fill must be approved by the Soils Consultant prior to fill placement.

2.3 After the ground surface to receive fill has been cleared, it shall be scarified, disced and/or bladed by the Contractor until it is uniform and free from ruts, hollows, hummocks, or other uneven features which may prevent uniform compaction.

The scarified ground surface shall then be brought to optimum moisture, mixed as required, and compacted as specified. If the scarified zone is greater than twelve inches in depth, the excess shall be removed and placed in lifts not to exceed six inches or less.

Prior to placing fill, the ground surface to receive fill shall be observed, tested, and approved by the soils consultant.

2.4 Any underground structures or cavities such as cesspools, cisterns, mining shafts, tunnels, septic tanks, wells, pipe lines, or others are to be removed or treated in a manner prescribed by the Soils Consultant.

2.5 In cut-fill transitions lots and where cut lots are partially in soil, colluvium or unweathered bedrock materials, in order to provide uniform bearing conditions, the bedrock portion of the lot extending a minimum of 5 feet outside of building lines shall be over excavated a minimum of 3 feet and replaced with compacted fill. Greater over excavation could be required as determined by Soils Consultant. Typical details are attached.

3.0 COMPACTED FILLS

3.1 Material to be placed as fill shall be free of organic matter and other deleterious substances, and shall be approved by the Soils Consultant. Soils of poor gradation, expansion, or strength characteristics shall be placed in areas designated by Soils Consultant or shall be mixed with other soils to serve as satisfactory fill material, as directed by the Soils Consultant.

3.2 Rock fragments less than six inches in diameter may be utilized in the fill, provided

- They are not placed or nested in concentrated pockets
- There is sufficient amount of approved soil to surround the rocks
- The distribution of rocks is supervised by the Soils Consultant

3.3 Rocks greater than twelve inches in diameter shall be taken off-site, or placed in accordance with the recommendations of the Soils Consultant, areas designated as suitable for rock disposal (A typical detail for Rock Disposal is attached.)

3.4 Material that is spongy, subject to decay, or otherwise considered unsuitable shall not be used in the compacted fil.

3.5 Representative samples of materials to be utilized as compacted fill shall be analyzed by the laboratory of the Soils Consultant to determine the physical properties. If any material other than that previously tested is encountered during grading, the appropriate analysis of this material shall be conducted by the Soils Consultant before being approved as fill material.

3.6 Material used in the compacting process shall be evenly spread, watered, processed, and compacted in thin lifts not to exceed six inches in thickness to obtain a uniformly dense layer. The fill shall be placed and compacted on a horizontal plane, unless otherwise approved by the Soils Consultant.

3.7 If the moisture content or relative compaction varies from that required by the Soils Consultant, the Contractor shall rework the fill until it has been approved by the Soils Consultant.

3.8 Each layer shall be compacted to at least 90 percent of the maximum density in compliance with the testing method specified by the controlling government agency or ASTM 1557-70, whichever applies.

If compaction to a lesser percentage is authorized by the controlling governmental agency because of a specific land use or expansive soil conditions the area to receive fill compacted to less than 90 percent shall either be delineated on the grading plan and/or appropriate reference made to the area in the geotechnical report.

3.9 All fills shall be keyed and benched through all topsoil, colluvium, alluvium, or creep material, into sound bedrock, or firm material where the slope receiving fill exceeds a ratio of five horizontal to one vertical or in accordance with the recommendations of the Soils Consultant.

3.10 The key for side hill fills shall be a minimum width of 15 feet within bedrock or firm materials, unless otherwise specified in the geotechnical report, (see detail attached.)

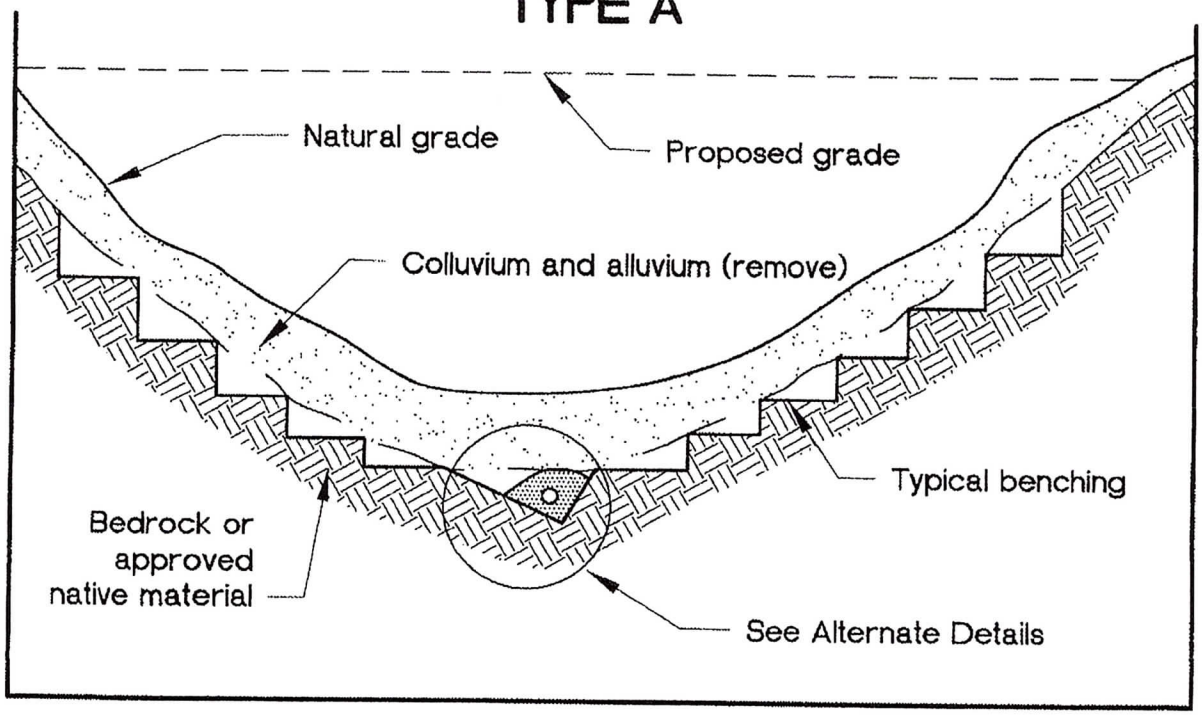
3.11 Sub drainage devices shall be constructed in compliance with the ordinances of the controlling governmental agency, or with the recommendations of the Soils Consultant. (Typical Canyon Subdrain details are attached.)

3.12 The contractor will be required to obtain a minimum relative compaction of at least 90 percent out to the finish slope face of fill slopes, buttresses, and stabilization fills. This may be achieved by either over building the slope and cutting back to the compacted core, or by direct compaction of the slope face with suitable equipment, or by any other procedure, which produces the required compaction approved by the Soils Consultant.

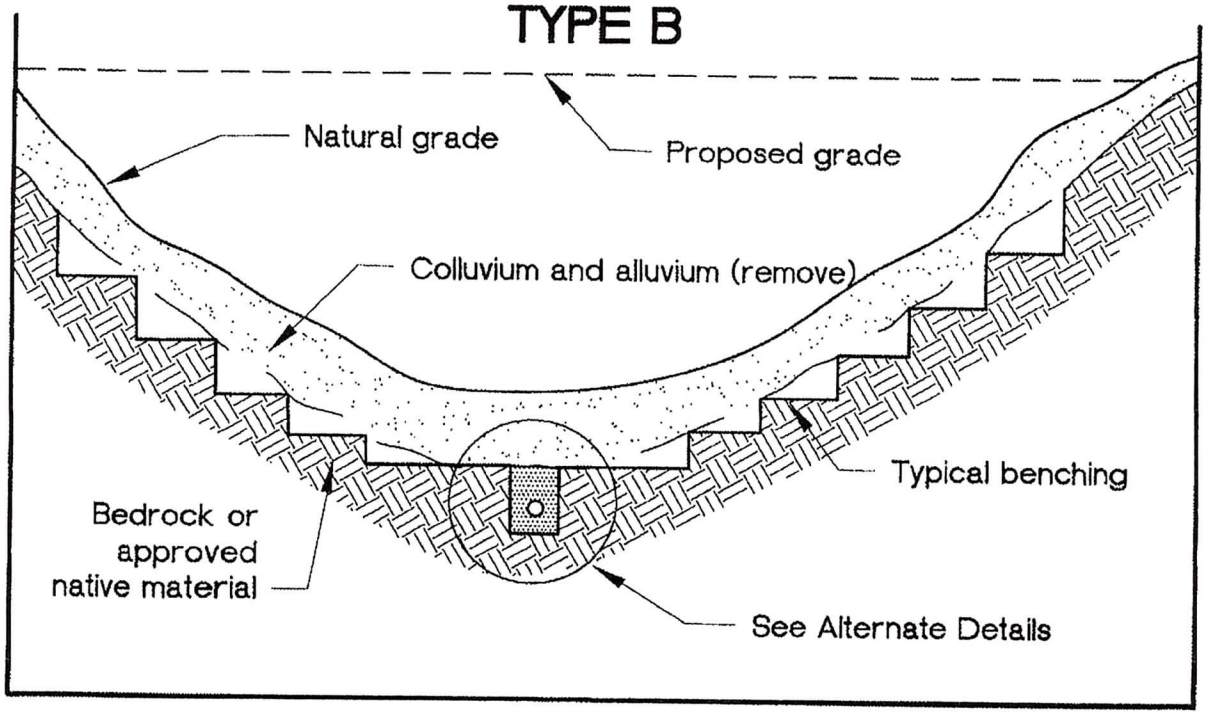
3.13 All fill slopes should be planted or protected from erosion by other methods specified in the Soils report.

3.14 Fill-over-cut slopes shall be properly keyed through topsoil, colluvium or creep material into rock or firm materials and the transition shall be stripped of all soils prior to placing fill (see attached detail.)

TYPE A

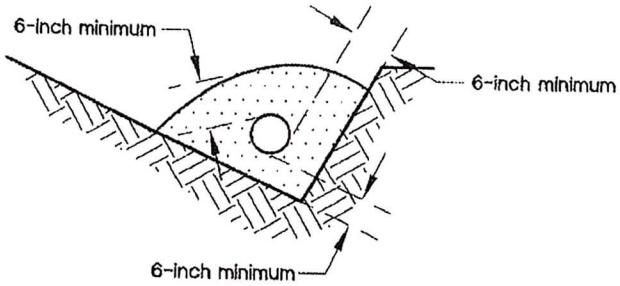


TYPE B

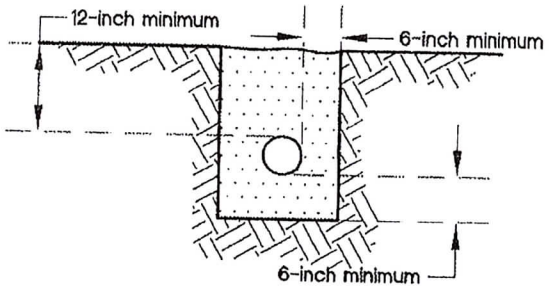


Selection of alternate subdrain details, location, and extent of subdrains should be evaluated by the geotechnical consultant during grading.

SOUTH SHORE TESTING	CANYON SUBDRAIN DETAIL	Plate 1



A-1



B-1

Filter material: Minimum volume of 9 cubic feet per lineal foot of pipe.

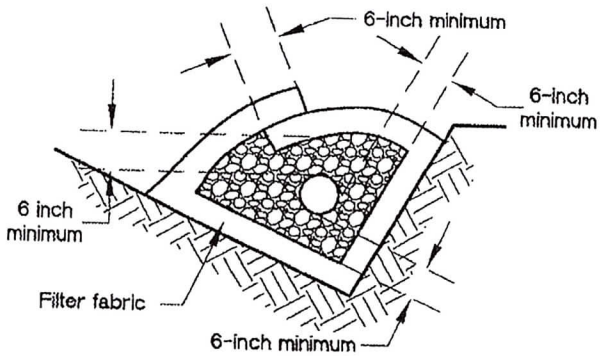
Perforated pipe: 6-inch-diameter ABS or PVC pipe or approved substitute with minimum 8 perforations (¼-inch diameter) per lineal foot in bottom half of pipe (ASTM D-2751, SDR-35, or ASTM D-1527, Schd. 40).

For continuous run in excess of 500 feet, use 8-inch-diameter pipe (ASTM D-3034, SDR-35, or ASTM D-1785, Schd. 40).

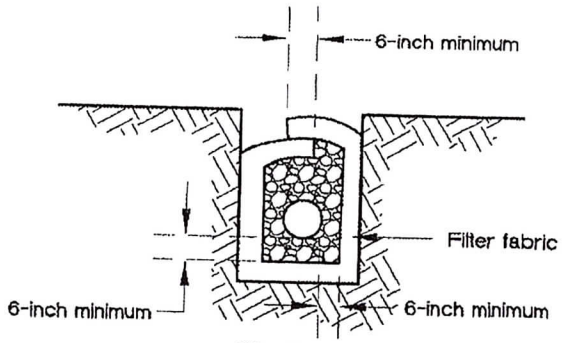
FILTER MATERIAL

Sieve Size	Percent Passing
1 inch	100
¾ inch	90-100
⅜ inch	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

ALTERNATE 1: PERFORATED PIPE AND FILTER MATERIAL



A-2

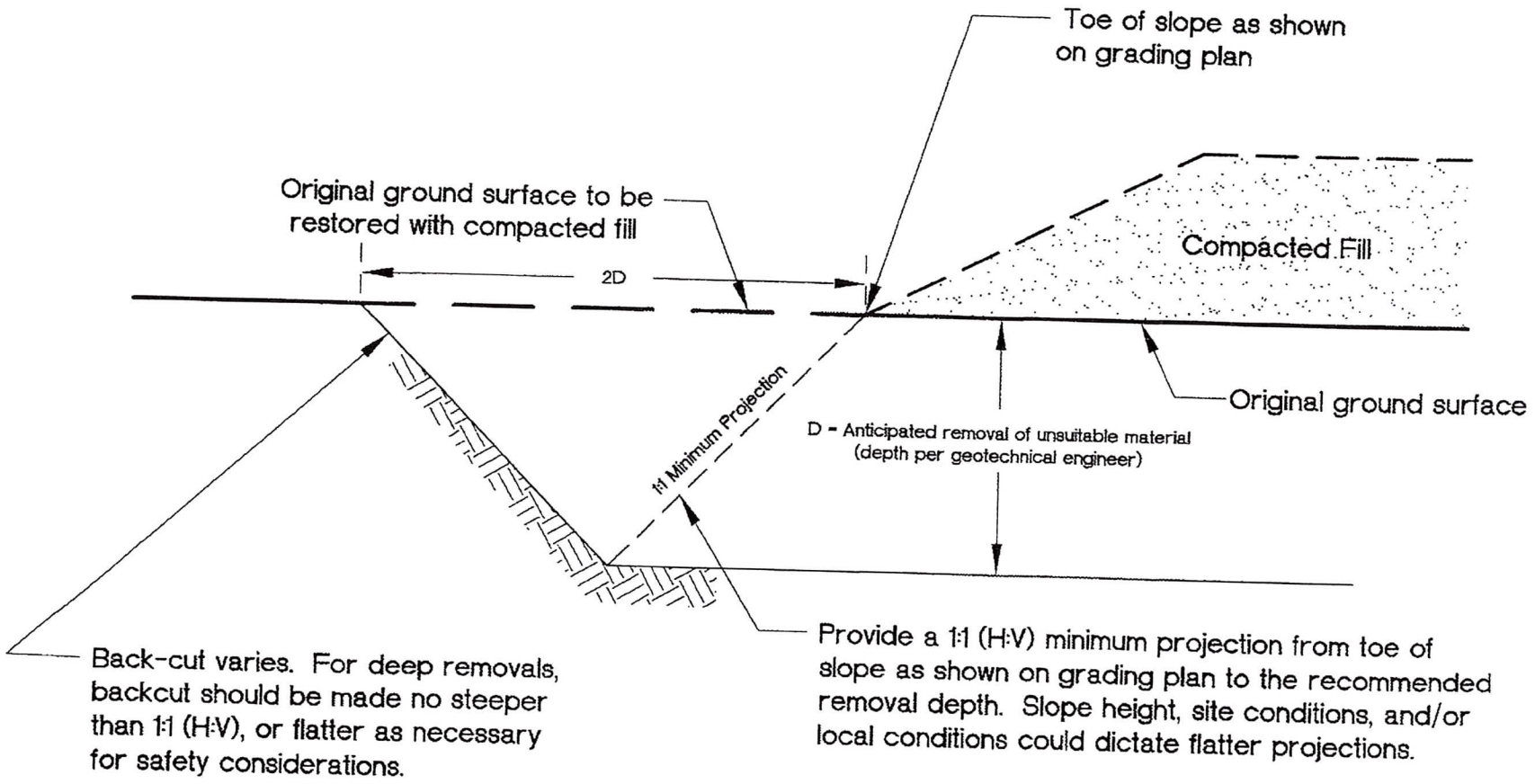


B-2

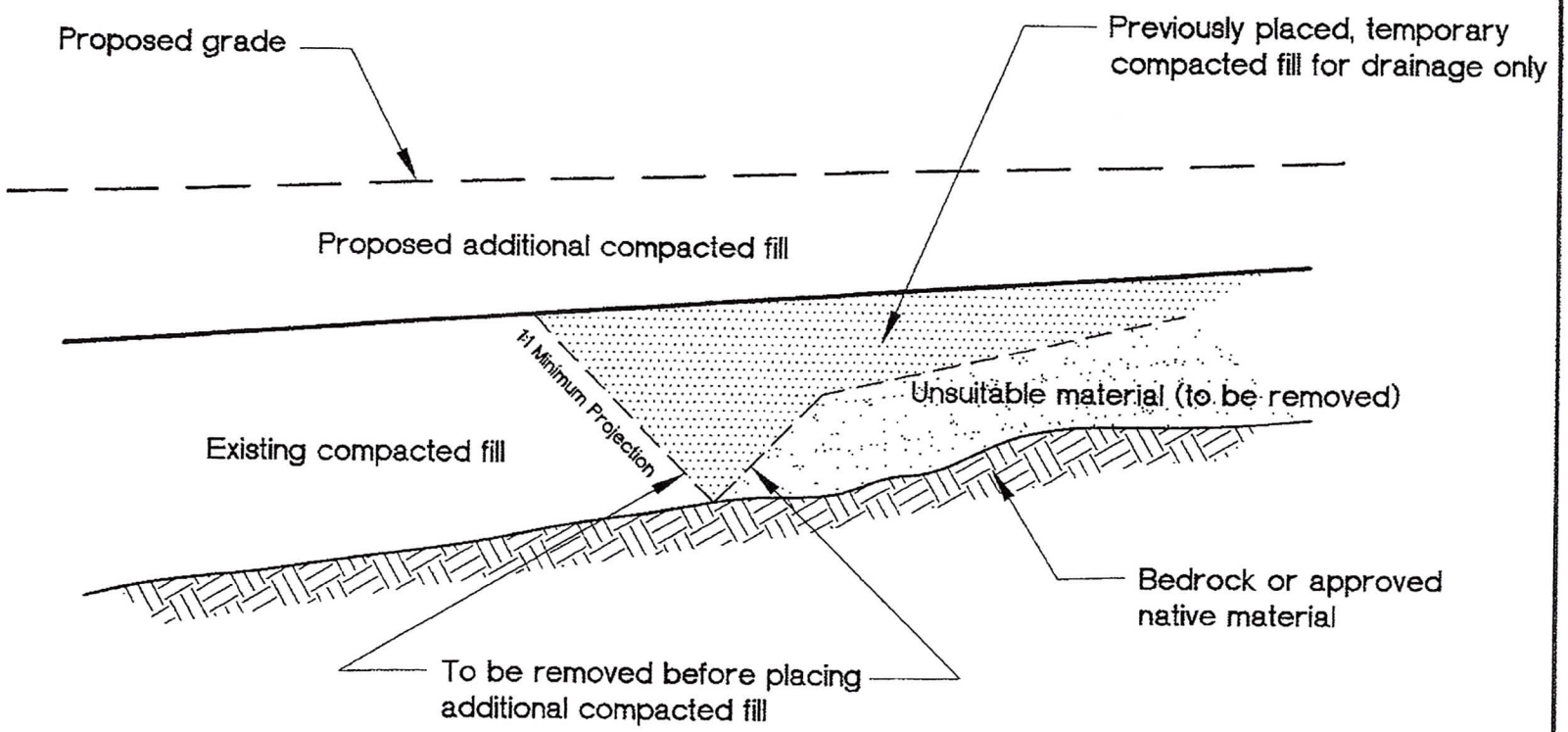
Gravel Material: 9 cubic feet per lineal foot.
Perforated Pipe: See Alternate 1
Gravel: Clean ¾-inch rock or approved substitute.
Filter Fabric: Mirafi 140 or approved substitute.

ALTERNATE 2: PERFORATED PIPE, GRAVEL, AND FILTER FABRIC

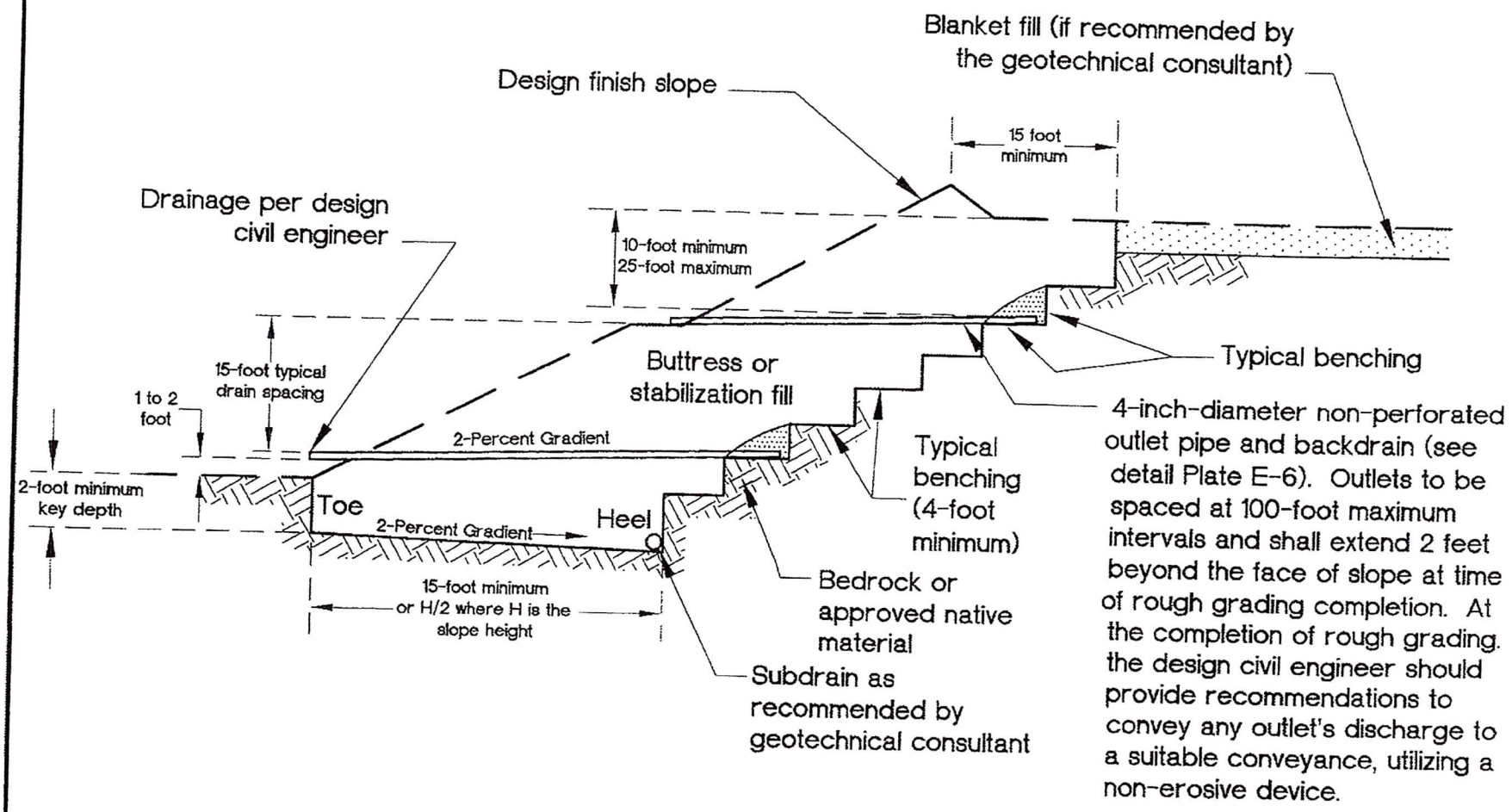
SOUTH SHORE TESTING	CANYON SUBDRAIN ALTERNATE DETAILS	Plate 2



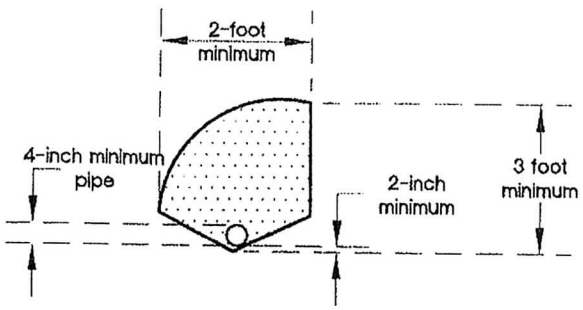
SOUTH SHORE TESTING	FILL SLOPE TOEING OUT ON FLAT ALLUVIATED CANYON DETAIL	PLATE 3

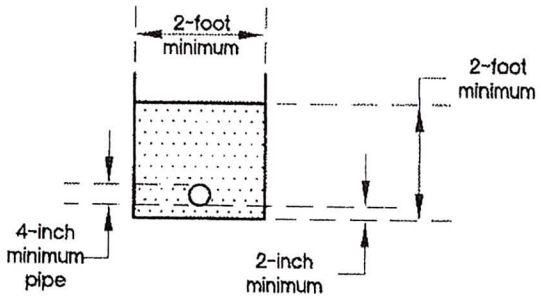


SOUTH SHORE TESTING	REMOVAL ADJACENT TO EXISTING FILL ADJOINING CANYON FILL DETAIL	Plate 4



SOUTH SHORE TESTING	TYPICAL STABILIZATION / BUTTRESS FILL DETAIL	Plate 5





Filter Material: Minimum of 5 cubic feet per lineal foot of pipe or 4 cubic feet per lineal feet of pipe when placed in square cut trench.

Alternative in Lieu of Filter Material: Gravel may be encased in approved filter fabric. Filter fabric shall be Mirafi 140 or equivalent. Filter fabric shall be lapped a minimum of 12 inches in all joints.

Minimum 4-Inch-Diameter Pipe: ABS-ASTM D-2751, SDR 35; or ASTM D-1527 Schedule 40, PVC-ASTM D-3034, SDR 35; or ASTM D-1785 Schedule 40 with a crushing strength of 1,000 pounds minimum, and a minimum of 8 uniformly-spaced perforations per foot of pipe. Must be installed with perforations down at bottom of pipe. Provide cap at upstream end of pipe. Slope at 2 percent to outlet pipe. Outlet pipe to be connected to subdrain pipe with tee or elbow.

Notes:
1. Trench for outlet pipes to be backfilled and compacted with onsite soil.
2. Backdrains and lateral drains shall be located at elevation of every bench drain. First drain located at elevation just above lower lot grade. Additional drains may be required at the discretion of the geotechnical consultant.

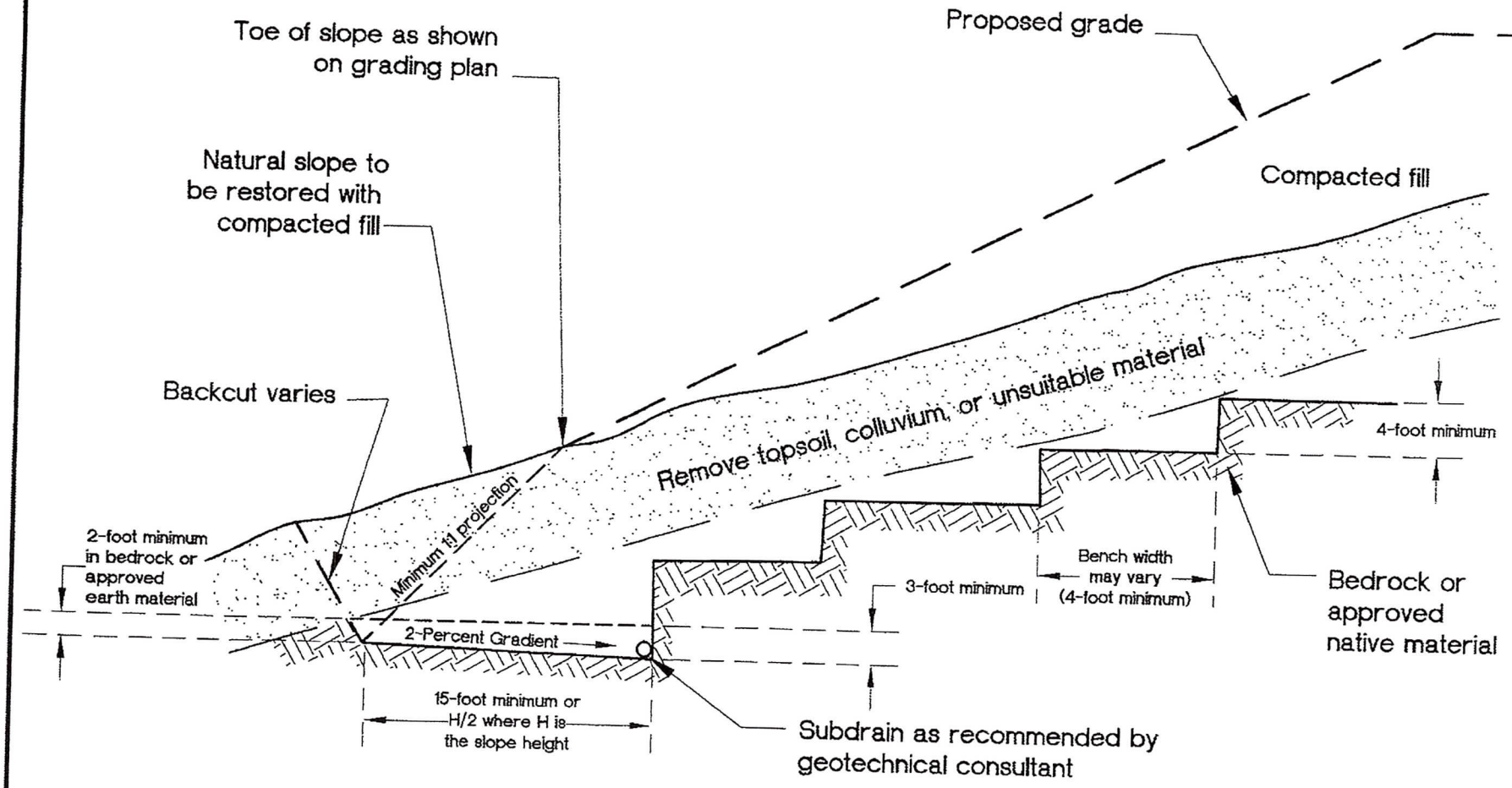
Filter Material shall be of the following specification or an approved equivalent.

Sieve Size	Percent Passing
1 inch	100
¾ inch	90-100
⅜ inch	40-100
No. 4	25-40
No. 8	18-33
No. 30	5-15
No. 50	0-7
No. 200	0-3

Gravel shall be of the following specification or an approved equivalent.

Sieve Size	Percent Passing
1½ inch	100
No. 4	50
No. 200	8

SOUTH SHORE TESTING	TYPICAL BUTTRESS SUBDRAIN DETAIL	Plate 6

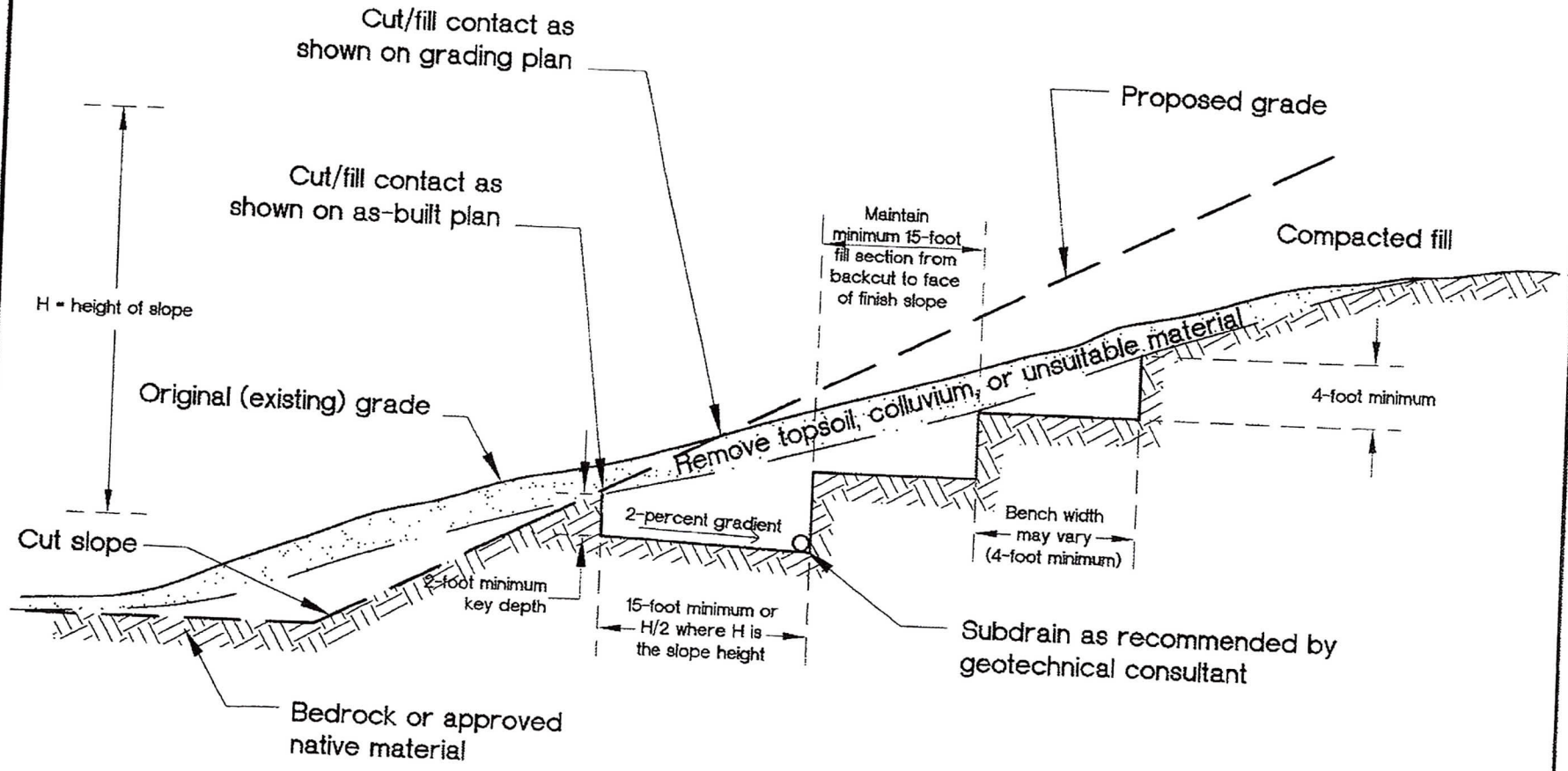


NOTES:

1. Where the natural slope approaches or exceeds the design slope ratio, special recommendations would be provided by the geotechnical consultant.

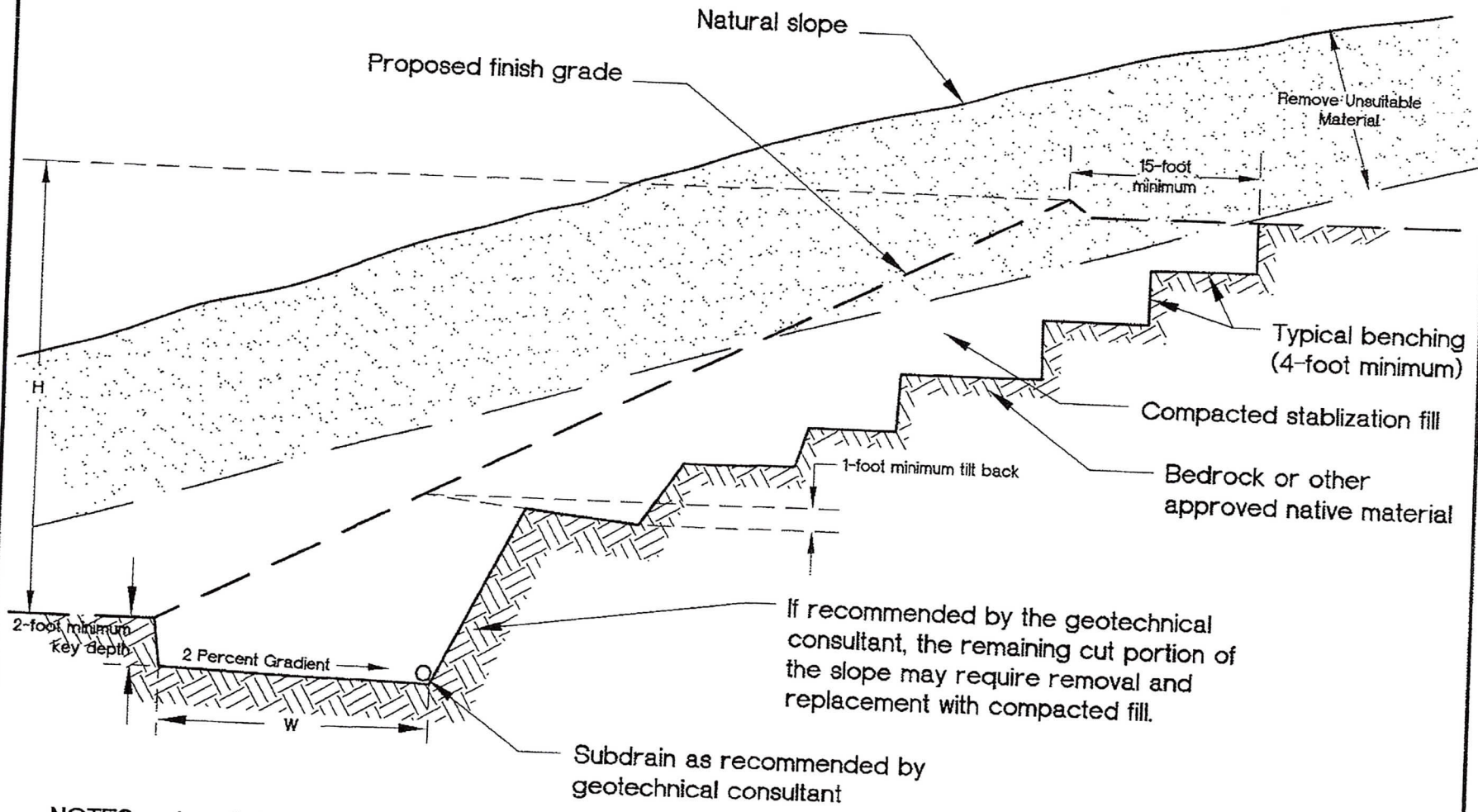
2. The need for and disposition of drains should be evaluated by the geotechnical consultant, based upon exposed conditions.

SOUTH SHORE TESTING	FILL OVER NATURAL (SIDEHILL FILL) DETAIL	Plate 7



NOTE: The cut portion of the slope should be excavated and evaluated by the geotechnical consultant prior to construction of the fill portion.

SOUTH SHORE TESTING	FILL OVER CUT DETAIL	Plate 8

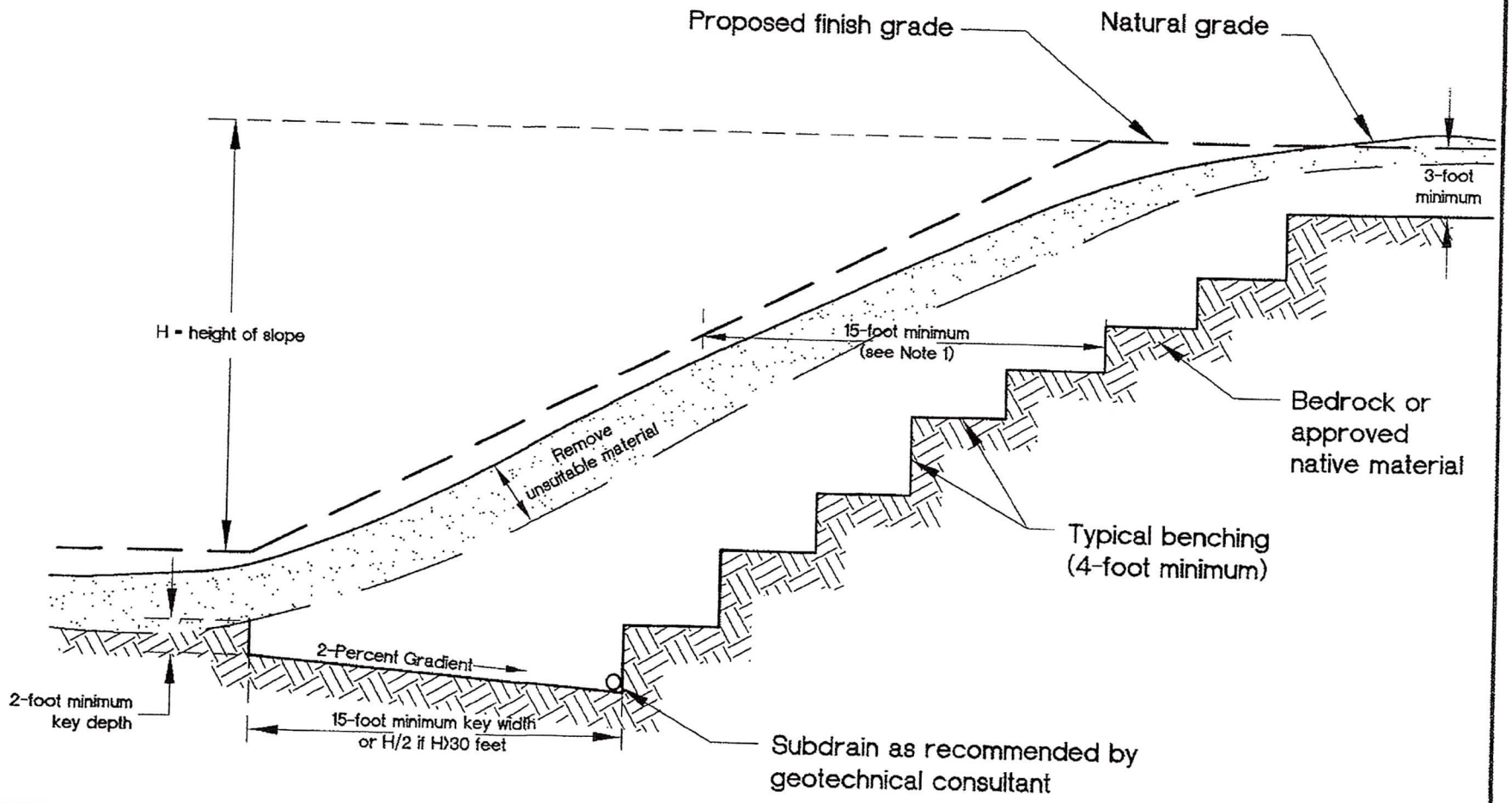


NOTES:

1. Subdrains may be required as specified by the geotechnical consultant.

2 W shall be equipment width (15 feet) for slope heights less than 25 feet. For slopes greater than 25 feet, W shall be evaluated by the geotechnical consultant. At no time, shall W be less than H/2, where H is the height of the slope.

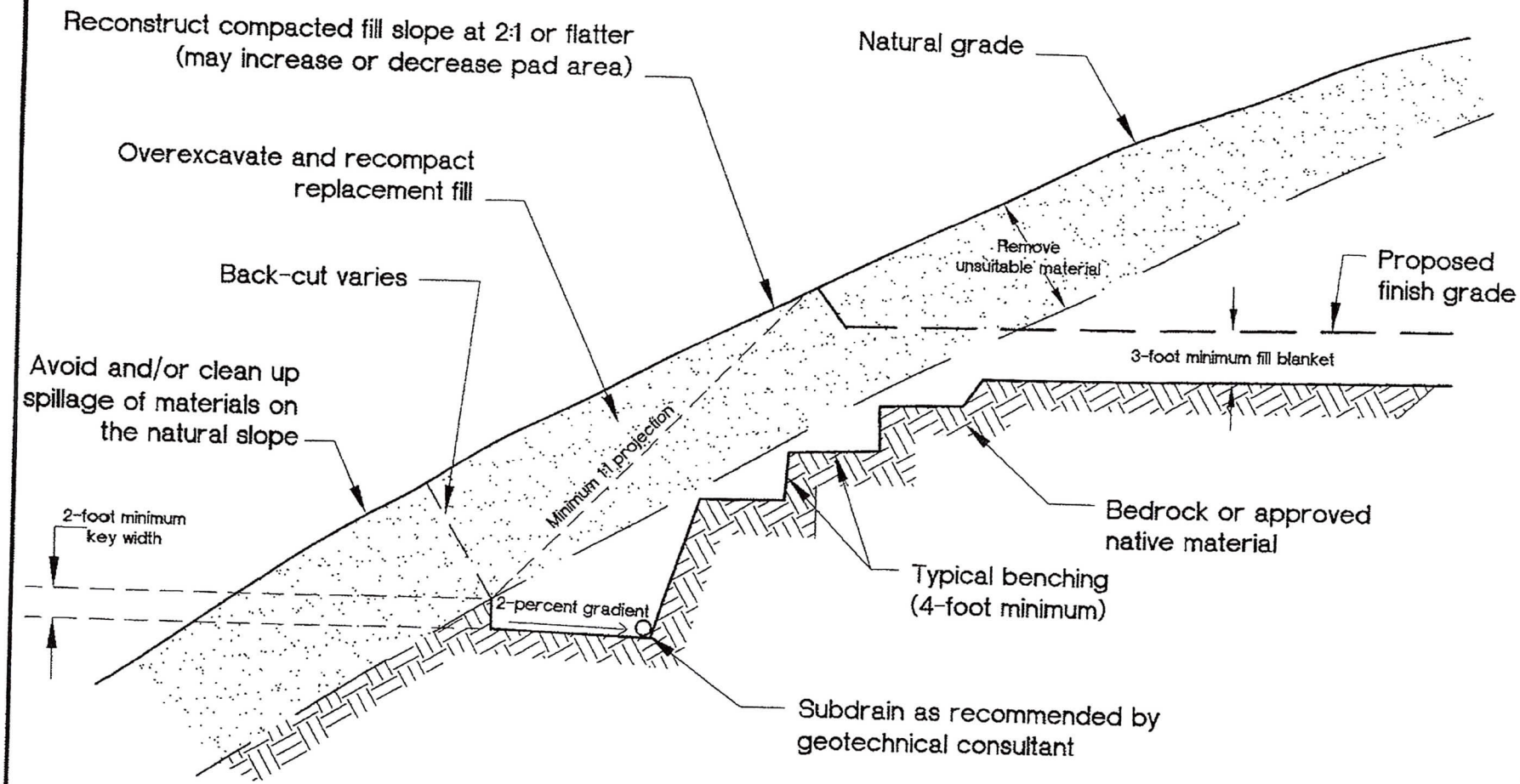
SOUTH SHORE TESTING	STABLIZATION FILL FOR UNSTABLE MATERIAL EXPOSED IN CUT SLOPE DETAIL	Plate 9



NOTES:

1. 15-foot minimum to be maintained from proposed finish slope face to backcut.
2. The need and disposition of drains will be evaluated by the geotechnical consultant based on field conditions.
3. Pad overexcavation and recompaction should be performed if evaluated to be necessary by the geotechnical consultant.

SOUTH SHORE TESTING	SKIN FILL OF NATURAL GROUND DETAIL	Plate 10

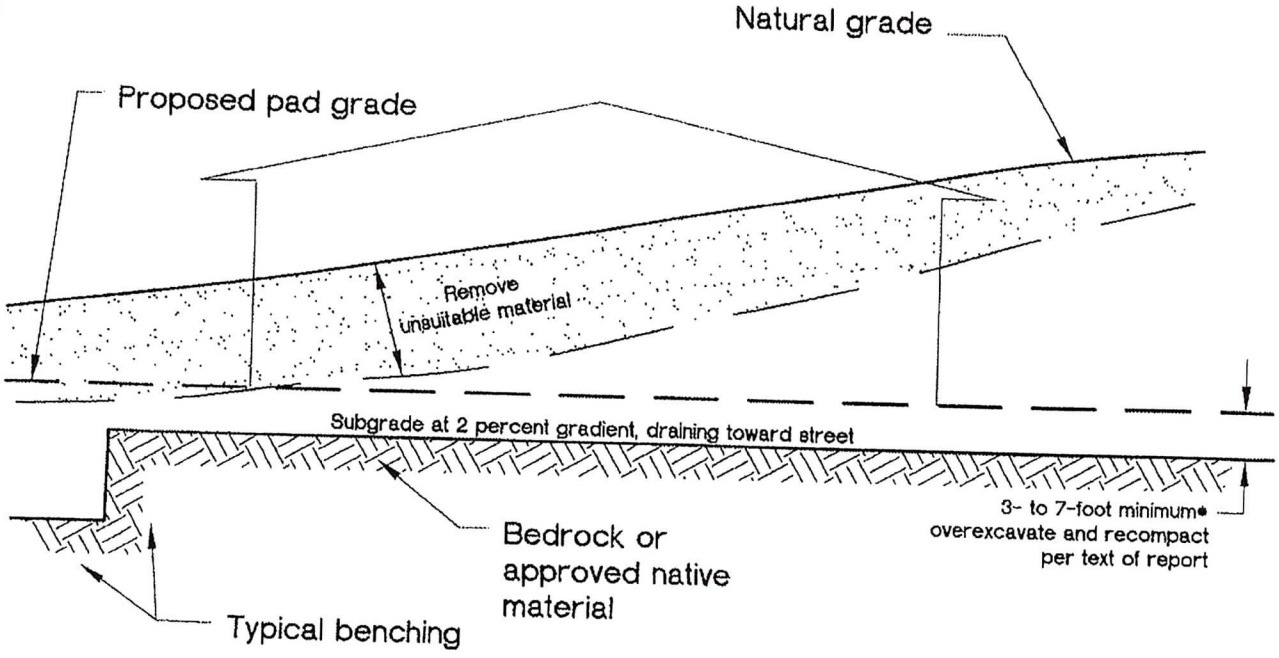


NOTES:

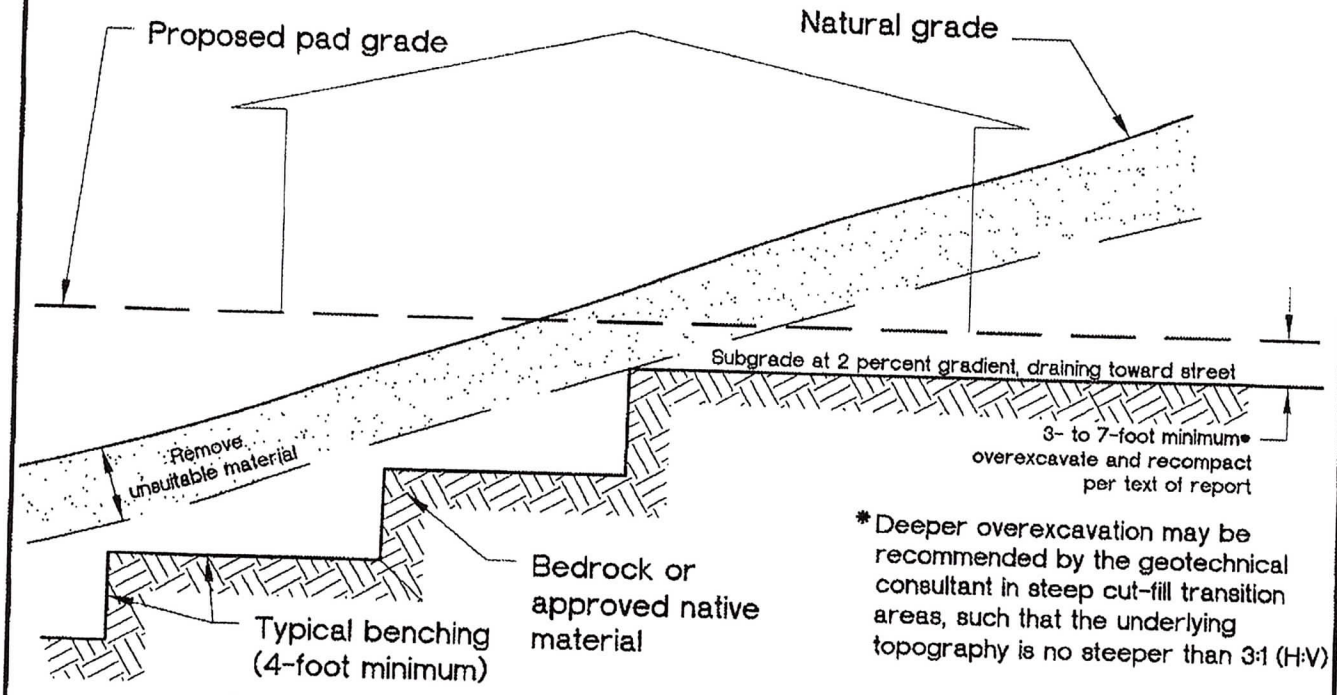
1. Subdrain and key width requirements will be evaluated based on exposed subsurface conditions and thickness of overburden.

2. Pad overexcavation and recompaction should be performed if evaluated necessary by the geotechnical consultant.

SOUTH SHORE TESTING	DAYLIGHT CUT LOT DETAIL	Plate 11



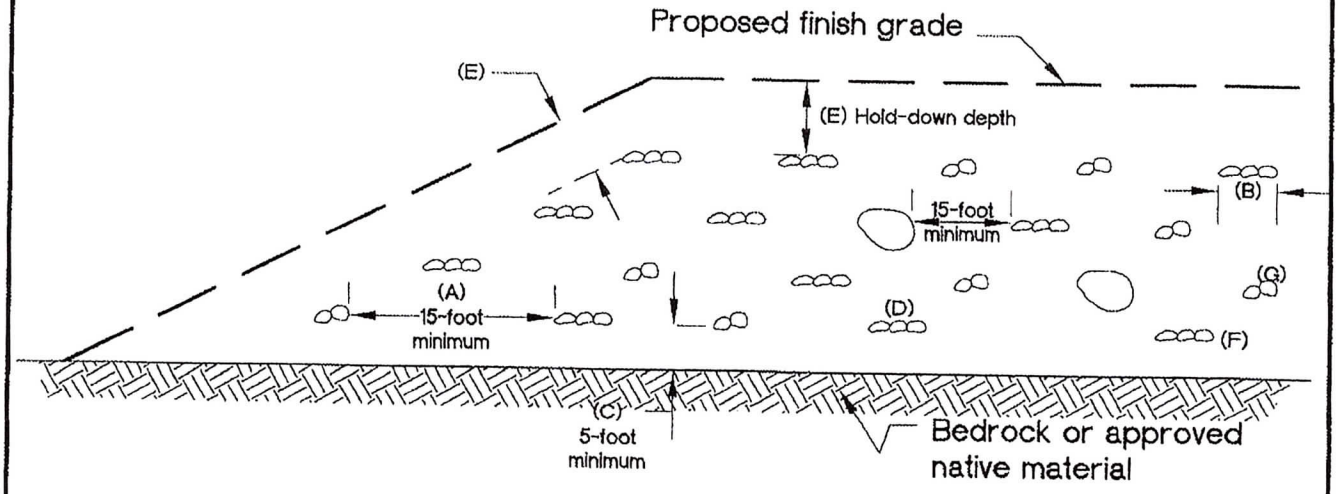
CUT LOT OR MATERIAL-TYPE TRANSITION



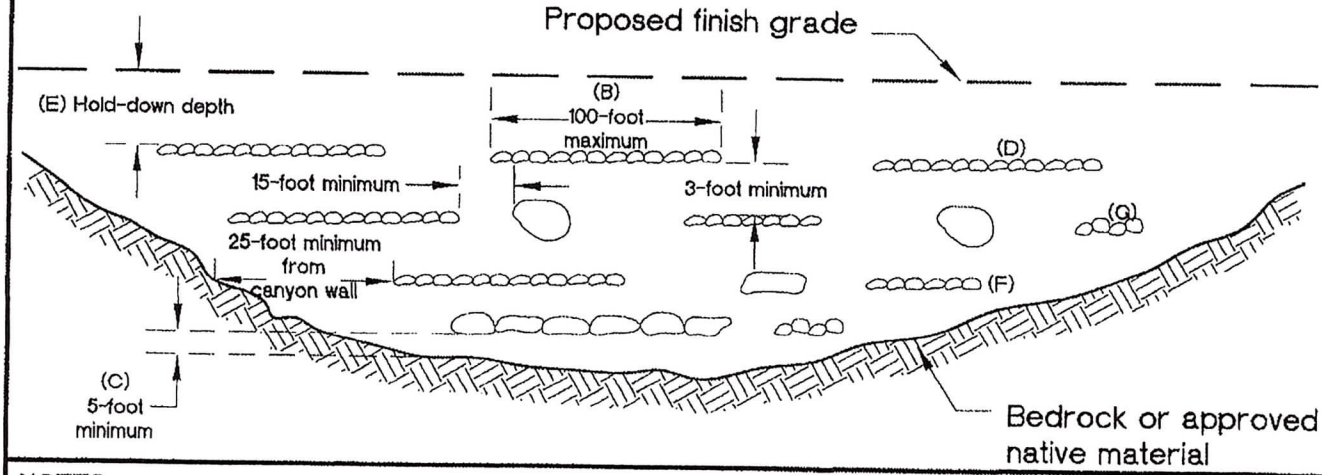
CUT-FILL LOT (DAYLIGHT TRANSITION)

SOUTH SHORE TESTING	TRANSITION LOT DETAILS	Plate 12

VIEW NORMAL TO SLOPE FACE



VIEW PARALLEL TO SLOPE FACE



NOTES:

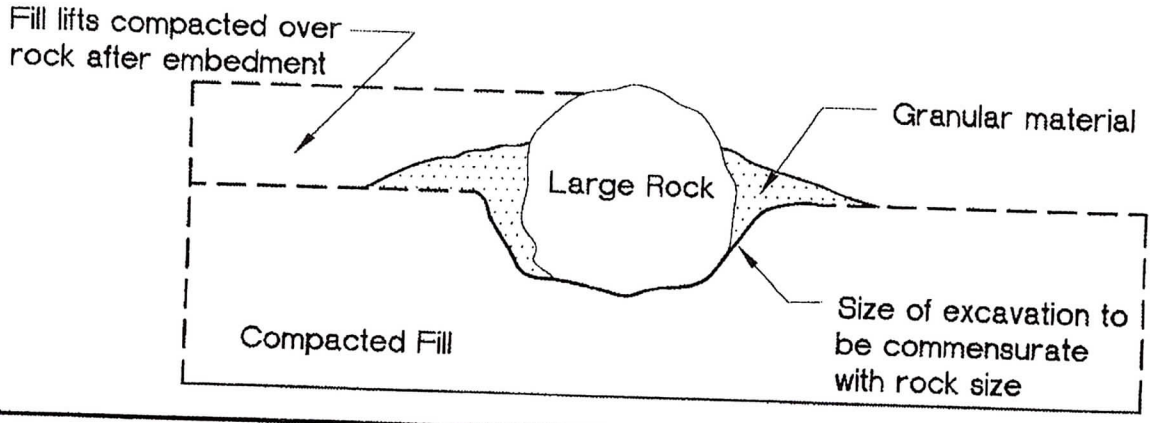
A. One equipment width or a minimum of 15 feet between rows (or windrows).
B. Height and width may vary depending on rock size and type of equipment. Length of windrow shall be no greater than 100 feet.
C. If approved by the geotechnical consultant, windrows may be placed directly on competent material or bedrock, provided adequate space is available for compaction.
D. Orientation of windrows may vary but should be as recommended by the geotechnical engineer and/or engineering geologist. Staggering of windrows is not necessary unless recommended.
E. Clear area for utility trenches, foundations, and swimming pools; Hold-down depth as specified in text of report, subject to governing agency approval.
F. All fill over and around rock windrow shall be compacted to at least 90 percent relative compaction or as recommended.
G. After fill between windrows is placed and compacted, with the lift of fill covering windrow, windrow should be proof rolled with a D-9 dozer or equivalent.

VIEWS ARE DIAGRAMMATIC ONLY AND MAY BE SUPERSEDED BY REPORT RECOMMENDATIONS OR CODE

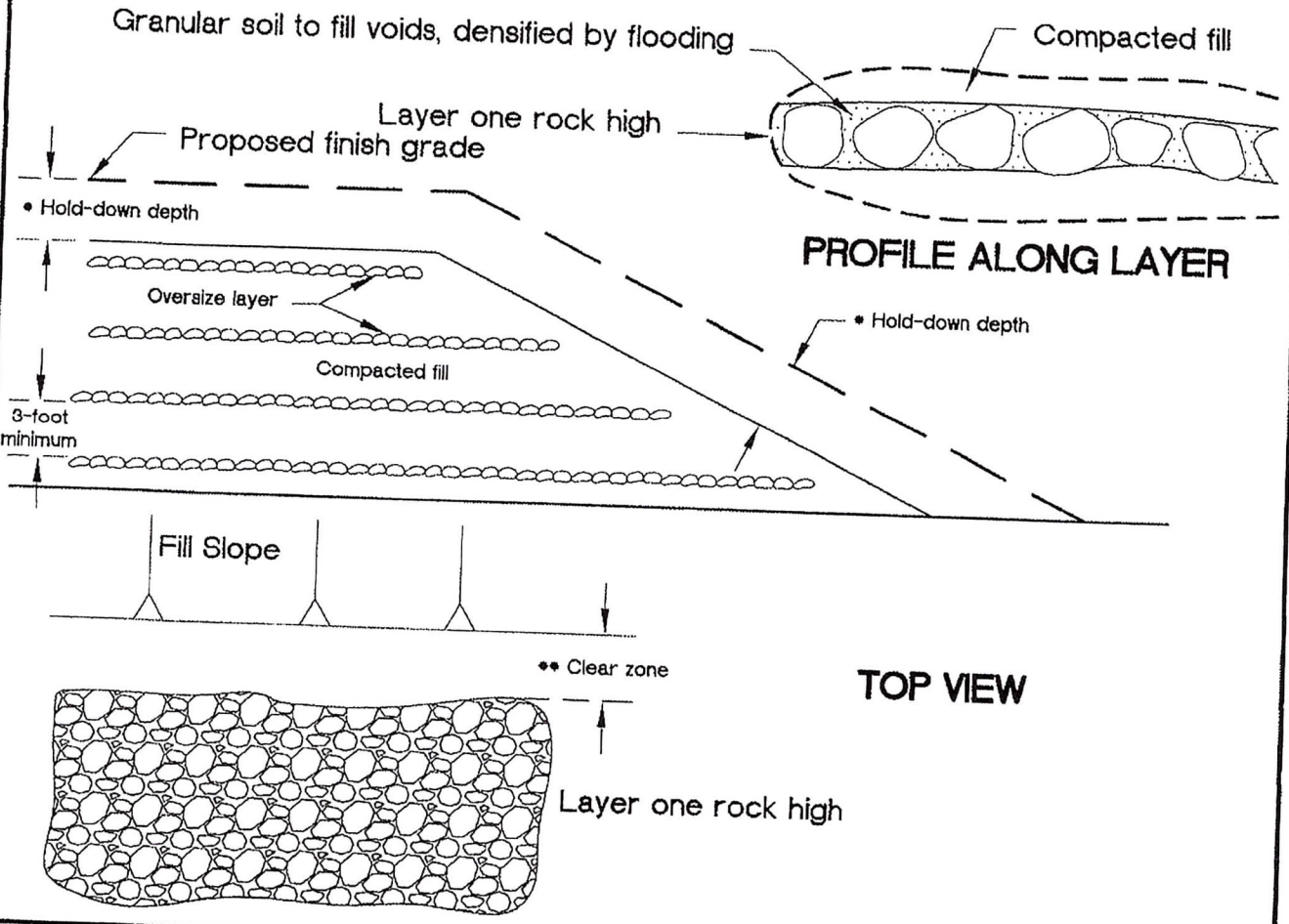
ROCK SHOULD NOT TOUCH AND VOIDS SHOULD BE COMPLETELY FILLED

SOUTH SHORE TESTING	OVERSIZE ROCK DISPOSAL DETAIL	Plate 13

ROCK DISPOSAL PITS



ROCK DISPOSAL LAYERS



* Hold-down depth or below lowest utility as specified in text of report, subject to governing agency approval.
** Clear zone for utility trenches, foundations, and swimming pools, as specified in text of report.
VIEWS ARE DIAGRAMMATIC ONLY AND MAY BE SUPERSEDED BY REPORT RECOMMENDATIONS OR CODE
ROCK SHOULD NOT TOUCH AND VOIDS SHOULD BE COMPLETELY FILLED IN

SOUTH SHORE TESTING	ROCK DISPOSAL DETAIL	Plate 14

APPENDIX E

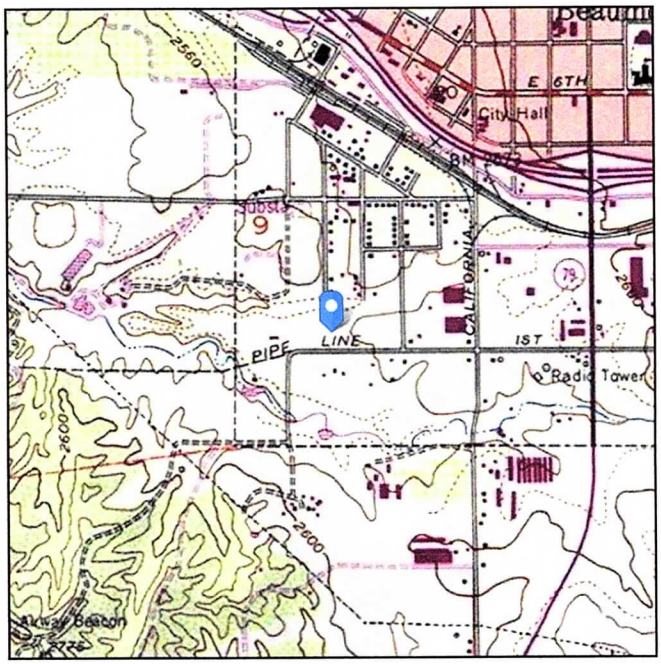
USGS Design Maps Summary Report

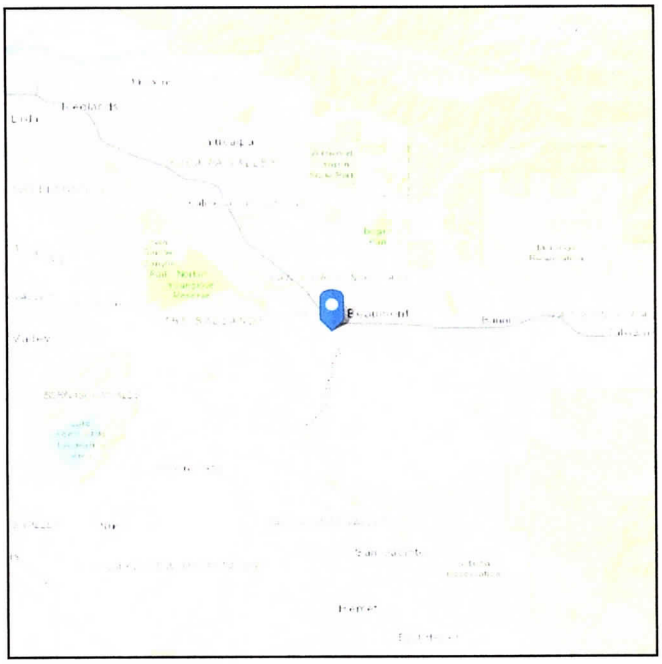
ASCE 7 Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: C - Very Dense Soil and Soft Rock

Elevation: 2556.42 ft (NAVD 88)
Latitude: 33.9221
Longitude: -116.9867





ASCE
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Seismic

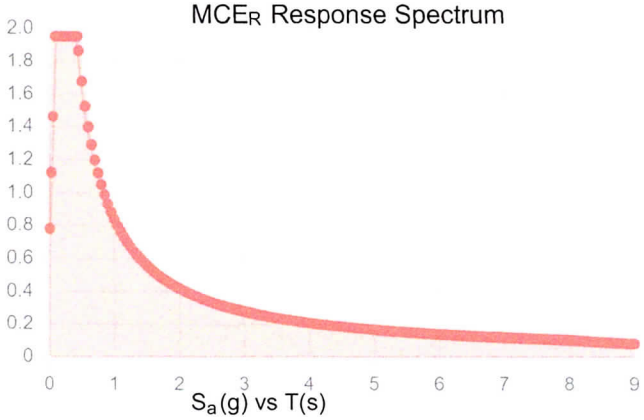
Site Soil Class: C - Very Dense Soil and Soft Rock

Results:

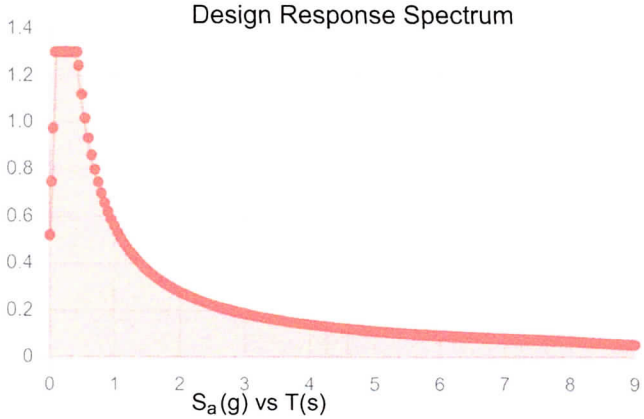
S_S :	1.629	S_{D1} :	0.56
S_1 :	0.6	T_L :	8
F_a :	1.2	PGA :	0.673
F_v :	1.4	PGA_M :	0.808
S_{MS} :	1.955	F_{PGA} :	1.2
S_{M1} :	0.84	I_e :	1
S_{DS} :	1.303	C_v :	1.226

Seismic Design Category D

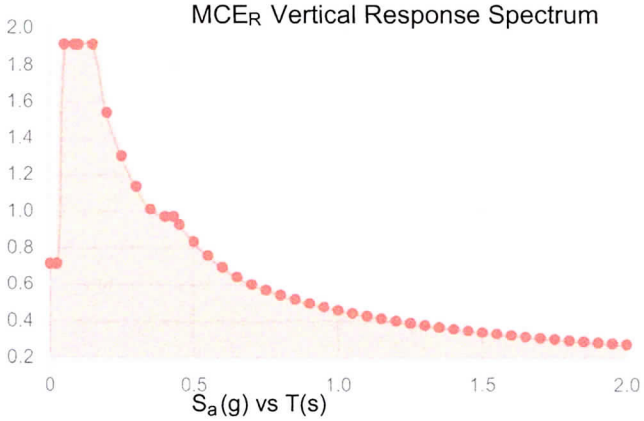
MCE$_R$ Response Spectrum



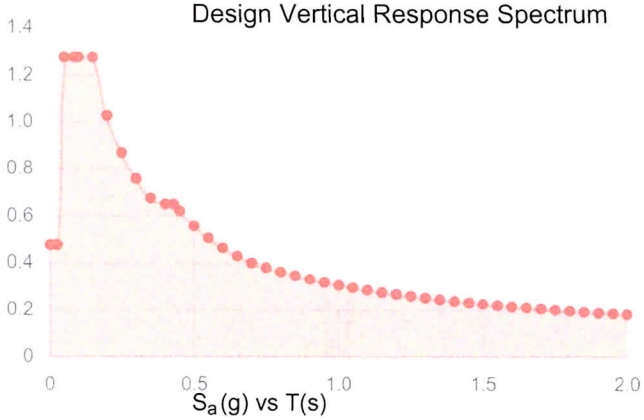
Design Response Spectrum



MCE$_R$ Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed: Tue Sep 15 2020

Date Source: USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.

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The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided "as is" and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

ASCE does not intend, nor should anyone interpret, the results provided by this Tool to replace the sound judgment of a competent professional, having knowledge and experience in the appropriate field(s) of practice, nor to substitute for the standard of care required of such professionals in interpreting and applying the contents of this Tool or the ASCE 7 standard.

In using this Tool, you expressly assume all risks associated with your use. Under no circumstances shall ASCE or its officers, directors, employees, members, affiliates, or agents be liable to you or any other person for any direct, indirect, special, incidental, or consequential damages arising from or related to your use of, or reliance on, the Tool or any information obtained therein. To the fullest extent permitted by law, you agree to release and hold harmless ASCE from any and all liability of any nature arising out of or resulting from any use of data provided by the ASCE 7 Hazard Tool.

APPENDIX F
PRELIMINARY WATER QUALITY MANAGEMENT PLAN

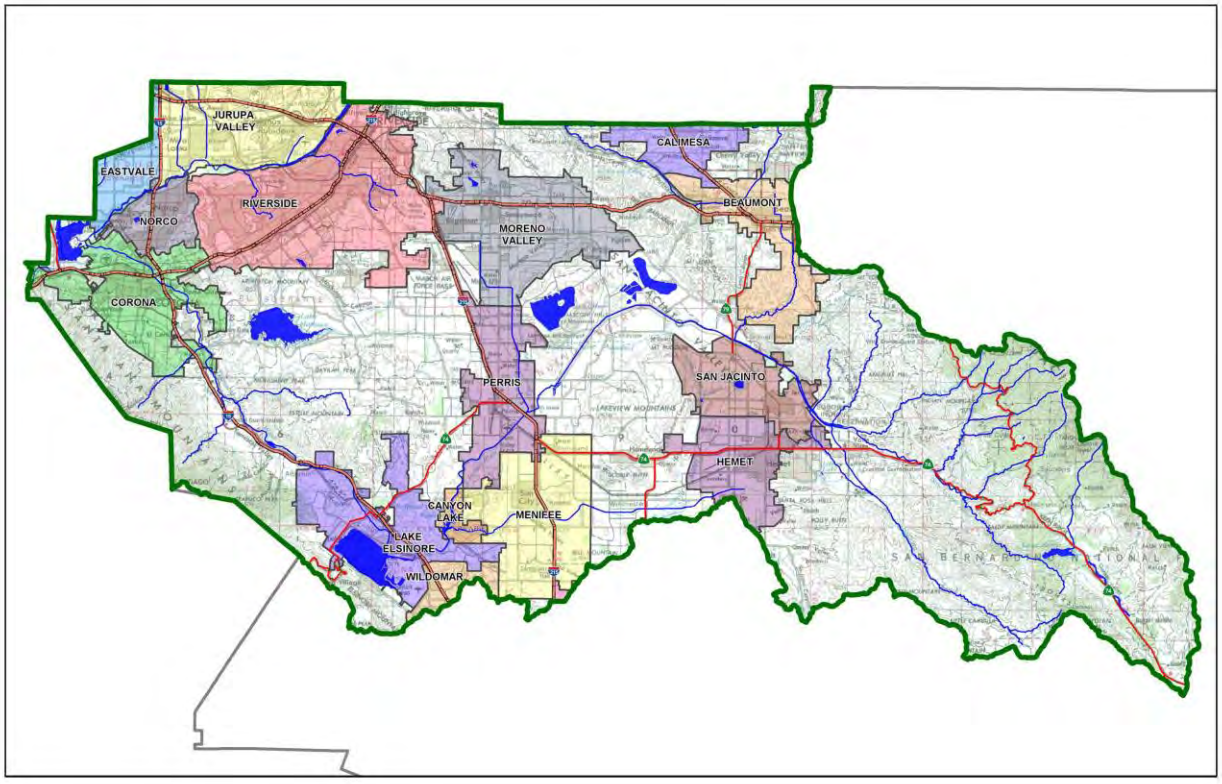
Project Specific Water Quality Management Plan

*A Template for Projects located within the **Santa Ana Watershed** Region of Riverside County*

Project Title: McClure Industrial Building

Development No.:

Design Review/Case No:



☒ **Preliminary**
☐ **Final**

Original Date Prepared: October 5, 2020

Revision Date(s):

Prepared for Compliance with
Regional Board Order No. **R8-2010-0033**
Template revised June 30, 2016

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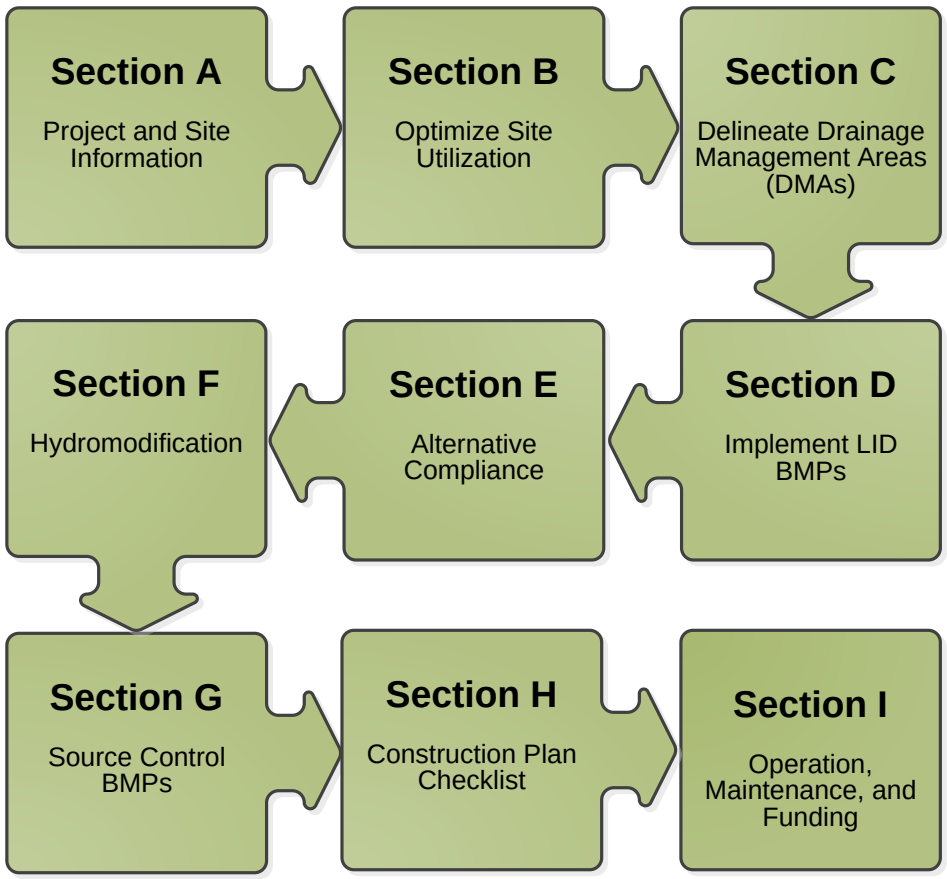
A Brief Introduction

This Project-Specific WQMP Template for the **Santa Ana Region** has been prepared to help guide you in documenting compliance for your project. Because this document has been designed to specifically document compliance, you will need to utilize the WQMP Guidance Document as your "how-to" manual to help guide you through this process. Both the Template and Guidance Document go hand-in-hand, and will help facilitate a well prepared Project-Specific WQMP. Below is a flowchart for the layout of this Template that will provide the steps required to document compliance.



OWNER'S CERTIFICATION

This Project-Specific Water Quality Management Plan (WQMP) has been prepared for John McClure by Blaine A. Womer Civil Engineering for the McClure Industrial Building project.

This WQMP is intended to comply with the requirements of City of Beaumont for Water Quality Ordinance 1903, which includes the requirement for the preparation and implementation of a Project-Specific WQMP.

The undersigned, while owning the property/project described in the preceding paragraph, shall be responsible for the implementation and funding of this WQMP and will ensure that this WQMP is amended as appropriate to reflect up-to-date conditions on the site. In addition, the property owner accepts responsibility for interim operation and maintenance of Stormwater BMPs until such time as this responsibility is formally transferred to a subsequent owner. This WQMP will be reviewed with the facility operator, facility supervisors, employees, tenants, maintenance and service contractors, or any other party (or parties) having responsibility for implementing portions of this WQMP. At least one copy of this WQMP will be maintained at the project site or project office in perpetuity. The undersigned is authorized to certify and to approve implementation of this WQMP. The undersigned is aware that implementation of this WQMP is enforceable under City of Beaumont Water Quality Ordinance (Municipal Code Chapter 13.24).

"I, the undersigned, certify under penalty of law that the provisions of this WQMP have been reviewed and accepted and that the WQMP will be transferred to future successors in interest."

PENDING APPROVAL
Owner's Signature

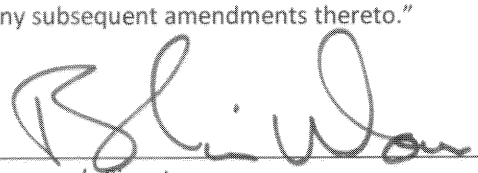
Date

John McClure
Owner's Printed Name

Owner's Title/Position

PREPARER'S CERTIFICATION

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan meet the requirements of Regional Water Quality Control Board Order No. **R8-2010-0033** and any subsequent amendments thereto."


Preparer's Signature

10/6/20
Date

Blaine Womer
Preparer's Printed Name

President
Preparer's Title/Position

Preparer's Licensure: RCE 46354

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Section A: Project and Site Information

PROJECT INFORMATION			
Type of Project:	Industrial		
Planning Area:	N/A		
Community Name:	Beaumont		
Development Name:	McClure Industrial Building		
PROJECT LOCATION			
Latitude & Longitude (DMS): 33°55'19"N; -116°59'12"W			
Project Watershed and Sub-Watershed: San Timoteo Canyon			
Sub-Watershed: Santa Ana River			
Gross Acres: 0.99 Ac			
APN(s): 417-150-015			
Map Book and Page No.: Lots 20 – 24; MB 10/57			
PROJECT CHARACTERISTICS			
Proposed or Potential Land Use(s)	Industrial		
Proposed or Potential SIC Code(s)	1541		
Area of Impervious Project Footprint (SF)	37,364		
Total Area of proposed Impervious Surfaces within the Project Footprint (SF)/or Replacement	37,364		
Does the project consist of offsite road improvements?	☒ Y	☐ N	
Does the project propose to construct unpaved roads?	☐ Y	☒ N	
Is the project part of a larger common plan of development (phased project)?	☐ Y	☒ N	
EXISTING SITE CHARACTERISTICS			
Total area of existing Impervious Surfaces within the Project limits Footprint (SF)	0		
Is the project located within any MSHCP Criteria Cell?	☐ Y	☒ N	
If so, identify the Cell number:	N/A		
Are there any natural hydrologic features on the project site?	☐ Y	☒ N	
Is a Geotechnical Report attached?	☒ Y	☐ N	
If no Geotech. Report, list the NRCS soils type(s) present on the site (A, B, C and/or D)	N/A		
What is the Water Quality Design Storm Depth for the project?	0.85		

Narrative:

The McClure Industrial project is a proposed 17,550 sf industrial use building with associated asphalt parking, drive aisles and landscape planters. The project is 0.99 acres in size and is located on the north side of First Street, approximately 415 feet east of Viele Avenue. The site naturally drains to the southwest, and the conceptual grading for the development has been shown to honor the existing drainage pattern. Water quality mitigation for the development will be provided through the implementation of infiltration trenches. The design is based on an average tested infiltration rate of 4.0 inches/hour. Source control BMPs include: landscape methods, trash enclosure maintenance and parking lot maintenance.

A.1 Maps and Site Plans

When completing your Project-Specific WQMP, include a map of the local vicinity and existing site. In addition, include all grading, drainage, landscape/plant palette and other pertinent construction plans in Appendix 2. At a **minimum**, your WQMP Site Plan should include the following:

- Drainage Management Areas
- Proposed Structural BMPs
- Drainage Path
- Drainage Infrastructure, Inlets, Overflows
- Source Control BMPs
- Buildings, Roof Lines, Downspouts
- Impervious Surfaces
- Standard Labeling
- BMP Locations (Lat/Long)

Use your discretion on whether or not you may need to create multiple sheets or can appropriately accommodate these features on one or two sheets. Keep in mind that the Co-Permittee plan reviewer must be able to easily analyze your project utilizing this template and its associated site plans and maps.

Appendix 1 includes the following exhibits:

- Vicinity Map
- Regional Waters Map
- WQMP Site Plan

A.2 Identify Receiving Waters

Using Table A.1 below, list in order of upstream to downstream, the receiving waters that the project site is tributary to. Continue to fill each row with the Receiving Water's 303(d) listed impairments (if any), designated beneficial uses, and proximity, if any, to a RARE beneficial use. Include a map of the receiving waters in Appendix 1.

Table A.1 Identification of Receiving Waters

Receiving Waters	EPA Approved 303(d) List Impairments	Designated Beneficial Uses	Proximity to RARE Beneficial Use
Noble Creek	N/A	N/A	2.1 Miles
San Timoteo Creek Reach 3, HU 801.61	Indicator Bacteria	GWR,-REC1-REC2-WARM-WILD	RARE
Santa Ana River, Reach 5 HU 801.52	N/A	AGR-GWR-REC1-REC2-WARM-WILD	RARE
Reach 4 HU 801.44	Pathogens	GWR-REC1-REC2-WARM-WILD-RARE SPWN	RARE
Reach 3, HU 801.21, 801.25	Copper, Lead, Pathogens	AGR-GWR-REC1-REC2-WARM-WILD-RARE SPWN	RARE
Prado Park Lake HU 801.21	Nutrients, Pathogens	REC1-REC2-COMM-WARM-WILD	RARE

A.3 Additional Permits/Approvals required for the Project:

Table A.2 Other Applicable Permits

Agency	Permit Required	
State Department of Fish and Game, 1602 Streambed Alteration Agreement	☐ Y	☒ N
State Water Resources Control Board, Clean Water Act (CWA) Section 401 Water Quality Cert.	☐ Y	☒ N
US Army Corps of Engineers, CWA Section 404 Permit	☐ Y	☒ N
US Fish and Wildlife, Endangered Species Act Section 7 Biological Opinion	☐ Y	☒ N
Statewide Construction General Permit Coverage	☒ Y	☐ N
Statewide Industrial General Permit Coverage	☒ Y	☐ N
Western Riverside MSHCP Consistency Approval (e.g., JPR, DBESP)	☐ Y	☒ N
Other *(please list in the space below as required)*	☐ Y	☐ N

If yes is answered to any of the questions above, the Co-Permittee may require proof of approval/coverage from those agencies as applicable including documentation of any associated requirements that may affect this Project-Specific WQMP.

Section B: Optimize Site Utilization (LID Principles)

Review of the information collected in Section 'A' will aid in identifying the principal constraints on site design and selection of LID BMPs as well as opportunities to reduce imperviousness and incorporate LID Principles into the site and landscape design. For example, constraints might include impermeable soils, high groundwater, groundwater pollution or contaminated soils, steep slopes, geotechnical instability, high-intensity land use, heavy pedestrian or vehicular traffic, utility locations or safety concerns. Opportunities might include existing natural areas, low areas, oddly configured or otherwise unbuildable parcels, easements and landscape amenities including open space and buffers (which can double as locations for bioretention BMPs), and differences in elevation (which can provide hydraulic head). Prepare a brief narrative for each of the site optimization strategies described below. This narrative will help you as you proceed with your LID design and explain your design decisions to others.

The 2010 Santa Ana MS4 Permit further requires that LID Retention BMPs (Infiltration Only or Harvest and Use) be used unless it can be shown that those BMPs are infeasible. Therefore, it is important that your narrative identify and justify if there are any constraints that would prevent the use of those categories of LID BMPs. Similarly, you should also note opportunities that exist which will be utilized during project design. Upon completion of identifying Constraints and Opportunities, include these on your WQMP Site plan in Appendix 1.

Consideration of "highest and best use" of the discharge should also be considered. For example, Lake Elsinore is evaporating faster than runoff from natural precipitation can recharge it. Requiring infiltration of 85% of runoff events for projects tributary to Lake Elsinore would only exacerbate current water quality problems associated with Pollutant concentration due to lake water evaporation. In cases where rainfall events have low potential to recharge Lake Elsinore (i.e. no hydraulic connection between groundwater to Lake Elsinore, or other factors), requiring infiltration of Urban Runoff from projects is counterproductive to the overall watershed goals. Project proponents, in these cases, would be allowed to discharge Urban Runoff, provided they used equally effective filtration-based BMPs.

Site Optimization

The following questions are based upon Section 3.2 of the WQMP Guidance Document. Review of the WQMP Guidance Document will help you determine how best to optimize your site and subsequently identify opportunities and/or constraints, and document compliance.

Did you identify and preserve existing drainage patterns? If so, how? If not, why?

Yes, natural site drainage is to the southwest. The project conceptual grading plan has been designed to honor the natural pattern.

Did you identify and protect existing vegetation? If so, how? If not, why?

The site is a regularly disked field. There is no existing vegetation to protect.

Did you identify and preserve natural infiltration capacity? If so, how? If not, why?

Yes, infiltration testing revealed that the southerly portion of the site has an acceptable infiltration rate. The south landscape areas will be preserved for the infiltration BMP.

Did you identify and minimize impervious area? If so, how? If not, why?

Impervious areas have been minimized to the greatest extent possible for the proposed use.

Did you identify and disperse runoff to adjacent pervious areas? If so, how? If not, why?

The project has been conceptually designed to drain towards the southwest and the infiltration BMP's.

Section C: Delineate Drainage Management Areas (DMAs)

Utilizing the procedure in Section 3.3 of the WQMP Guidance Document which discusses the methods of delineating and mapping your project site into individual DMAs, complete Table C.1 below to appropriately categorize the types of classification (e.g., Type A, Type B, etc.) per DMA for your project site. Upon completion of this table, this information will then be used to populate and tabulate the corresponding tables for their respective DMA classifications.

Table C.1 DMA Classifications

DMA Name or ID	Surface Type(s)[1][2]	Area (Sq. Ft.)	DMA Type
D/1	Roof	8,753	Drains to BMP
D/2	Roof	8,797	Drains to BMP
D/3	Asphalt	10,505	Drains to BMP
D/4	Asphalt	7,474	Drains to BMP
D/5	Concrete	811	Drains to BMP
D/6	Concrete	1,008	Drains to BMP
D/7	Landscape	1,635	Drains to BMP
D/8	Landscape	1,238	Drains to BMP

[1]Reference Table 2-1 in the WQMP Guidance Document to populate this column
[2]If multi-surface provide back-up

Table C.2 Type 'A', Self-Treating Areas

DMA Name or ID	Area (Sq. Ft.)	Stabilization Type	Irrigation Type (if any)
N/A			

Table C.3 Type 'B', Self-Retaining Areas

Self-Retaining Area				**Type 'C' DMAs that are draining to the Self-Retaining Area**		
DMA Name/ ID	Post-project surface type	Area (square feet) [A]	Storm Depth (inches) [B]	DMA Name / ID	[C] from Table C.4 = [C]	Required Retention Depth (inches) [D]
N/A						

$$[D] = [B] + \frac{[B] \cdot [C]}{[A]}$$

Table C.4 Type 'C', Areas that Drain to Self-Retaining Areas

DMA					Receiving Self-Retaining DMA		
DMA Name/ ID	Area (square feet)	Post-project surface type	Impervious fraction	Product		Area (square feet)	Ratio
	[A]		[B]	[C] = [A] x [B]	DMA name /ID	[D]	[C]/[D]
N/A							

Table C.5 Type 'D', Areas Draining to BMPs

DMA Name or ID	BMP Name or ID
D/1	Infiltration Trench No. 2
D/2	Infiltration Trench No. 1
D/3	Infiltration Trench No. 1
D/4	Infiltration Trench No. 2
D/5	Infiltration Trench No. 2
D/6	Infiltration Trench No. 1
D/7	Infiltration Trench No. 1
D/8	Infiltration Trench No. 2

Note: More than one drainage management area can drain to a single LID BMP, however, one drainage management area may not drain to more than one BMP.

Section D: Implement LID BMPs

D.1 Infiltration Applicability

Is there an approved downstream 'Highest and Best Use' for stormwater runoff (see discussion in Chapter 2.4.4 of the WQMP Guidance Document for further details)? ☐ Y ☒ N

If yes has been checked, Infiltration BMPs shall not be used for the site; proceed to section D.3

If no, continue working through this section to implement your LID BMPs. It is recommended that you contact your Co-Permittee to verify whether or not your project discharges to an approved downstream 'Highest and Best Use' feature.

Geotechnical Report

A Geotechnical Report or Phase I Environmental Site Assessment may be required by the Copermittee to confirm present and past site characteristics that may affect the use of Infiltration BMPs. In addition, the Co-Permittee, at their discretion, may not require a geotechnical report for small projects as described in Chapter 2 of the WQMP Guidance Document. If a geotechnical report has been prepared, include it in Appendix 3. In addition, if a Phase I Environmental Site Assessment has been prepared, include it in Appendix 4.

Is this project classified as a small project consistent with the requirements of Chapter 2 of the WQMP Guidance Document? ☒ Y ☐ N

Infiltration Feasibility

Table D.1 below is meant to provide a simple means of assessing which DMAs on your site support Infiltration BMPs and is discussed in the WQMP Guidance Document in Chapter 2.4.5. Check the appropriate box for each question and then list affected DMAs as applicable. If additional space is needed, add a row below the corresponding answer.

Table D.1 Infiltration Feasibility

Does the project site…	YES	NO
…have any DMAs with a seasonal high groundwater mark shallower than 10 feet?		X
If Yes, list affected DMAs:		
…have any DMAs located within 100 feet of a water supply well?		X
If Yes, list affected DMAs:		
…have any areas identified by the geotechnical report as posing a public safety risk where infiltration of stormwater could have a negative impact?		X
If Yes, list affected DMAs:		
…have measured in-situ infiltration rates of less than 1.6 inches / hour?		X
If Yes, list affected DMAs:		
…have significant cut and/or fill conditions that would preclude in-situ testing of infiltration rates at the final infiltration surface?		X
If Yes, list affected DMAs:		
…geotechnical report identify other site-specific factors that would preclude effective and safe infiltration?		X
Describe here:		

If you answered "Yes" to any of the questions above for any DMA, Infiltration BMPs should not be used for those DMAs and you should proceed to the assessment for Harvest and Use below.

D.2 Harvest and Use Assessment

Please check what applies*:*

☐ Reclaimed water will be used for the non-potable water demands for the project.

☐Downstream water rights may be impacted by Harvest and Use as approved by the Regional Board (verify with the Copermittee).

☐The Design Capture Volume will be addressed using Infiltration Only BMPs. In such a case, Harvest and Use BMPs are still encouraged, but it would not be required if the Design Capture Volume will be infiltrated or evapotranspired.

If any of the above boxes have been checked, Harvest and Use BMPs need not be assessed for the site. If none of the above criteria applies, follow the steps below to assess the feasibility of irrigation use, toilet use and other non-potable uses (e.g., industrial use).

Irrigation Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for Irrigation Use BMPs on your site:

Step 1: Identify the total area of irrigated landscape on the site, and the type of landscaping used.

Total Area of Irrigated Landscape: Insert Area (Acres)

Type of Landscaping (Conservation Design or Active Turf): List Landscaping Type

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for irrigation use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Cross reference the Design Storm depth for the project site (see Exhibit A of the WQMP Guidance Document) with the left column of Table 2-3 in Chapter 2 to determine the minimum area of Effective Irrigated Area per Tributary Impervious Area (EIATIA).

Enter your EIATIA factor: EIATIA Factor

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum irrigated area that would be required.

Minimum required irrigated area: Insert Area (Acres)

Step 5: Determine if harvesting stormwater runoff for irrigation use is feasible for the project by comparing the total area of irrigated landscape (Step 1) to the minimum required irrigated area (Step 4).

Minimum required irrigated area (Step 4)	**Available Irrigated Landscape (Step 1)**
Insert Area (Acres)	Insert Area (Acres)

Toilet Use Feasibility

Complete the following steps to determine the feasibility of harvesting stormwater runoff for toilet flushing uses on your site:

Step 1: Identify the projected total number of daily toilet users during the wet season, and account for any periodic shut downs or other lapses in occupancy:

Projected Number of Daily Toilet Users: Number of daily Toilet Users

Project Type: Enter 'Residential', 'Commercial', 'Industrial' or 'Schools'

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for toilet use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-2 in Chapter 2 to determine the minimum number or toilet users per tributary impervious acre (TUTIA).

Enter your TUTIA factor: TUTIA Factor

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of toilet users that would be required.

Minimum number of toilet users: Required number of toilet users

Step 5: Determine if harvesting stormwater runoff for toilet flushing use is feasible for the project by comparing the Number of Daily Toilet Users (Step 1) to the minimum required number of toilet users (Step 4).

Minimum required Toilet Users (Step 4)	**Projected number of toilet users (Step 1)**
Insert Area (Acres)	Insert Area (Acres)

Other Non-Potable Use Feasibility

Are there other non-potable uses for stormwater runoff on the site (e.g. industrial use)? See Chapter 2 of the Guidance for further information. If yes, describe below. If no, write N/A.

Insert narrative description here.

Step 1: Identify the projected average daily non-potable demand, in gallons per day, during the wet season and accounting for any periodic shut downs or other lapses in occupancy or operation.

Average Daily Demand: Projected Average Daily Use (gpd)

Step 2: Identify the planned total of all impervious areas on the proposed project from which runoff might be feasibly captured and stored for the identified non-potable use. Depending on the configuration of buildings and other impervious areas on the site, you may consider the site as a whole, or parts of the site, to evaluate reasonable scenarios for capturing and storing runoff and directing the stored runoff to the potential use(s) identified in Step 1 above.

Total Area of Impervious Surfaces: Insert Area (Acres)

Step 3: Enter the Design Storm depth for the project site (see Exhibit A) into the left column of Table 2-4 in Chapter 2 to determine the minimum demand for non-potable uses per tributary impervious acre.

Enter the factor from Table 2-4: Enter Value

Step 4: Multiply the unit value obtained from Step 3 by the total of impervious areas from Step 2 to develop the minimum number of gallons per day of non-potable use that would be required.

Minimum required use: Minimum use required (gpd)

Step 5: Determine if harvesting stormwater runoff for other non-potable use is feasible for the project by comparing the projected average daily use (Step 1) to the minimum required non-potable use (Step 4).

Minimum required non-potable use (Step 4)	**Projected average daily use (Step 1)**
Minimum use required (gpd)	Projected Average Daily Use (gpd)

If Irrigation, Toilet and Other Use feasibility anticipated demands are less than the applicable minimum values, Harvest and Use BMPs are not required and you should proceed to utilize LID Bioretention and Biotreatment per Section 3.4.2 of the WQMP Guidance Document.

D.3 Bioretention and Biotreatment Assessment

Other LID Bioretention and Biotreatment BMPs as described in Chapter 2.4.7 of the WQMP Guidance Document are feasible on nearly all development sites with sufficient advance planning.

Select one of the following:

☐ LID Bioretention/Biotreatment BMPs will be used for some or all DMAs of the project as noted below in Section D.4 (note the requirements of Section 3.4.2 in the WQMP Guidance Document).

☐ A site-specific analysis demonstrating the technical infeasibility of all LID BMPs has been performed and is included in Appendix 5. If you plan to submit an analysis demonstrating the technical infeasibility of LID BMPs, request a pre-submittal meeting with the Copermittee to discuss this option. Proceed to Section E to document your alternative compliance measures.

D.4 Feasibility Assessment Summaries

From the Infiltration, Harvest and Use, Bioretention and Biotreatment Sections above, complete Table D.2 below to summarize which LID BMPs are technically feasible, and which are not, based upon the established hierarchy.

Table D.2 LID Prioritization Summary Matrix

DMA Name/ID	LID BMP Hierarchy				No LID (Alternative Compliance)
	1. Infiltration	2. Harvest and use	3. Bioretention	4. Biotreatment	
D/1	☒	☐	☐	☐	☐
D/2	☒	☐	☐	☐	☐
D/3	☒	☐	☐	☐	☐
D/4	☒	☐	☐	☐	☐
D/5	☒	☐	☐	☐	☐
D/6	☒	☐	☐	☐	☐
D/7	☒	☐	☐	☐	☐
D/8	☒	☐	☐	☐	☐

For those DMAs where LID BMPs are not feasible, provide a brief narrative below summarizing why they are not feasible, include your technical infeasibility criteria in Appendix 5, and proceed to Section E below to document Alternative Compliance measures for those DMAs. Recall that each proposed DMA must pass through the LID BMP hierarchy before alternative compliance measures may be considered.

D.5 LID BMP Sizing

Each LID BMP must be designed to ensure that the Design Capture Volu0me will be addressed by the selected BMPs. First**,** calculate the Design Capture Volume for each LID BMP using the V_{BMP} worksheet in Appendix F of the LID BMP Design Handbook. Second**,** design the LID BMP to meet the required V_{BMP} using a method approved by the Copermittee. Utilize the worksheets found in the LID BMP Design Handbook or consult with your Copermittee to assist you in correctly sizing your LID BMPs. Complete Table D.3 below to document the Design Capture Volume and the Proposed Volume for each LID BMP. Provide the completed design procedure sheets for each LID BMP in Appendix 6. You may add additional rows to the table below as needed.

Table D.3 DCV Calculations for LID BMPs**DMA Type/ID**	**DMA Area (square feet)**	**Post-Project Surface Type**	**Effective Impervious Fraction, I_f**	**DMA Runoff Factor**	**DMA Areas x Runoff Factor**	***Infiltration Trench No. 1***		
	[A]		[B]	[C]	[A] x [C]			
D/2	*8,797*	*Roof*	*1.0*	*0.89*	*7,846.9*	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
D/3	*10,505*	*Asphalt*	*1.0*	*0.89*	*9,370.5*			
D/6	*1,008*	*Concrete*	*1.0*	*0.89*	*899.1*			
D/7	*1,635*	*Landscape*	*0.1*	*0.11*	*180.6*			
	21,945				18,297.1	0.85	1296	***1300***

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document

[E] is obtained from Exhibit A in the WQMP Guidance Document

[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Table D.4 DCV Calculations for LID BMPs

DMA Type/ID	**DMA Area (square feet)**	**Post-Project Surface Type**	**Effective Impervious Fraction, I_f**	**DMA Runoff Factor**	**DMA Areas x Runoff Factor**	***Enter BMP Name / Identifier Here***		
	[A]		[B]	[C]	[A] x [C]			
D/1	*8,753*	*Roof*	*1.0*	*0.89*	*7,807.7*	*Design Storm Depth (in)*	*Design Capture Volume, V_{BMP} (cubic feet)*	*Proposed Volume on Plans (cubic feet)*
D/4	*7,474*	*Asphalt*	*1.0*	*0.89*	*6,666.8*			
D/5	*811*	*Concrete*	*1.0*	*0.89*	*723.4*			
D/8	*1,238*	*Landscape*	*0.1*	*0.11*	*136.7*			
	18,276				15,334.6	0.85	1,086.2	**1100**

[B], [C] is obtained as described in Section 2.3.1 of the WQMP Guidance Document

[E] is obtained from Exhibit A in the WQMP Guidance Document

[G] is obtained from a design procedure sheet, such as in LID BMP Design Handbook and placed in Appendix 6

Section E: Alternative Compliance (LID Waiver Program)

LID BMPs are expected to be feasible on virtually all projects. Where LID BMPs have been demonstrated to be infeasible as documented in Section D, other Treatment Control BMPs must be used (subject to LID waiver approval by the Copermittee). Check one of the following Boxes:

☒ LID Principles and LID BMPs have been incorporated into the site design to fully address all Drainage Management Areas. No alternative compliance measures are required for this project and thus this Section is not required to be completed.

- *Or* -

☐ The following Drainage Management Areas are unable to be addressed using LID BMPs. A site-specific analysis demonstrating technical infeasibility of LID BMPs has been approved by the Co-Permittee and included in Appendix 5. Additionally, no downstream regional and/or sub-regional LID BMPs exist or are available for use by the project. The following alternative compliance measures on the following pages are being implemented to ensure that any pollutant loads expected to be discharged by not incorporating LID BMPs, are fully mitigated.

List DMAs here.

E.1 Identify Pollutants of Concern

Utilizing Table A.1 from Section A above which noted your project's receiving waters and their associated EPA approved 303(d) listed impairments, cross reference this information with that of your selected Priority Development Project Category in Table E.1 below. If the identified General Pollutant Categories are the same as those listed for your receiving waters, then these will be your Pollutants of Concern and the appropriate box or boxes will be checked on the last row. The purpose of this is to document compliance and to help you appropriately plan for mitigating your Pollutants of Concern in lieu of implementing LID BMPs.

Table E.1 Potential Pollutants by Land Use Type

Priority Development Project Categories and/or Project Features (check those that apply)	General Pollutant Categories							
	Bacterial Indicators	Metals	Nutrients	Pesticides	Toxic Organic Compounds	Sediments	Trash & Debris	Oil & Grease
☐ Detached Residential Development	P	N	P	P	N	P	P	P
☐ Attached Residential Development	P	N	P	P	N	P	P	P(2)
☒ Commercial/Industrial Development	P(3)	P	P(1)	P(1)	P(5)	P(1)	P	P
☐ Automotive Repair Shops	N	P	N	N	P(4, 5)	N	P	P
☐ Restaurants (>5,000 ft^2)	P	N	N	N	N	N	P	P
☐ Hillside Development (>5,000 ft^2)	P	N	P	P	N	P	P	P
☐ Parking Lots (>5,000 ft^2)	P(6)	P	P(1)	P(1)	P(4)	P(1)	P	P
☐ Retail Gasoline Outlets	N	P	N	N	P	N	P	P
Project Priority Pollutant(s) of Concern	☒	☒	☒	☐	☐	☐	☐	☐

P = Potential

N = Not Potential

(1) A potential Pollutant if non-native landscaping exists or is proposed onsite; otherwise not expected

(2) A potential Pollutant if the project includes uncovered parking areas; otherwise not expected

(3) A potential Pollutant is land use involving animal waste

(4) Specifically petroleum hydrocarbons

(5) Specifically solvents

(6) Bacterial indicators are routinely detected in pavement runoff

E.2 Stormwater Credits

Projects that cannot implement LID BMPs but nevertheless implement smart growth principles are potentially eligible for Stormwater Credits. Utilize Table 3-8 within the WQMP Guidance Document to identify your Project Category and its associated Water Quality Credit. If not applicable, write N/A.

Table E.2 Water Quality Credits

Qualifying Project Categories	Credit Percentage[2]
N/A	
Total Credit Percentage[1]	

[1]*Cannot Exceed 50%*
[2]*Obtain corresponding data from Table 3-8 in the WQMP Guidance Document*

E.3 Sizing Criteria

After you appropriately considered Stormwater Credits for your project, utilize Table E.3 below to appropriately size them to the DCV, or Design Flow Rate, as applicable. Please reference Chapter 3.5.2 of the WQMP Guidance Document for further information.

Table E.3 Treatment Control BMP Sizing

DMA Type/ID	**DMA Area (square feet)**	**Post-Project Surface Type**	**Effective Impervious Fraction, I_f**	**DMA Runoff Factor**	**DMA Area x Runoff Factor**		***Enter BMP Name / Identifier Here***		
	[A]		[B]	[C]	[A] x [C]				
N/A						*Design Storm Depth (in)*	*Minimum Design Capture Volume or Design Flow Rate (cubic feet or cfs)*	*Total Storm Water Credit % Reduction*	*Proposed Volume or Flow on Plans (cubic feet or cfs)*
	A_T = Σ[A]				Σ= [D]	[E]	$[F] = \frac{[D]x[E]}{[G]}$	[F] X (1-[H])	[I]

[B], [C] is obtained as described in Section 2.3.1 from the WQMP Guidance Document
[E] is for Flow-Based Treatment Control BMPs [E] = .2, for Volume-Based Control Treatment BMPs, [E] obtained from Exhibit A in the WQMP Guidance Document
[G] is for Flow-Based Treatment Control BMPs [G] = 43,560, for Volume-Based Control Treatment BMPs, [G] = 12
[H] is from the Total Credit Percentage as Calculated from Table E.2 above
[I] as obtained from a design procedure sheet from the BMP manufacturer and should be included in Appendix 6

E.4 Treatment Control BMP Selection

Treatment Control BMPs typically provide proprietary treatment mechanisms to treat potential pollutants in runoff, but do not sustain significant biological processes. Treatment Control BMPs must have a removal efficiency of a medium or high effectiveness as quantified below:

- **High**: equal to or greater than 80% removal efficiency
- **Medium**: between 40% and 80% removal efficiency

Such removal efficiency documentation (e.g., studies, reports, etc.) as further discussed in Chapter 3.5.2 of the WQMP Guidance Document, must be included in Appendix 6. In addition, ensure that proposed Treatment Control BMPs are properly identified on the WQMP Site Plan in Appendix 1.

Table E.4 Treatment Control BMP Selection

Selected Treatment Control BMP Name or ID[1]	Priority Pollutant(s) of Concern to Mitigate[2]	Removal Efficiency Percentage[3]
N/A		

[1] Treatment Control BMPs must not be constructed within Receiving Waters. In addition, a proposed Treatment Control BMP may be listed more than once if they possess more than one qualifying pollutant removal efficiency.
[2] Cross Reference Table E.1 above to populate this column.
[3] As documented in a Co-Permittee Approved Study and provided in Appendix 6.

Section F: Hydromodification

F.1 Hydrologic Conditions of Concern (HCOC) Analysis

Once you have determined that the LID design is adequate to address water quality requirements, you will need to assess if the proposed LID Design may still create a HCOC. Review Chapters 2 and 3 (including Figure 3-7) of the WQMP Guidance Document to determine if your project must mitigate for Hydromodification impacts. If your project meets one of the following criteria which will be indicated by the check boxes below, you do not need to address Hydromodification at this time. However, if the project does not qualify for Exemptions 1, 2 or 3, then additional measures must be added to the design to comply with HCOC criteria. This is discussed in further detail below in Section F.2.

HCOC EXEMPTION 1: The Priority Development Project disturbs less than one acre. The Copermittee has the discretion to require a Project-Specific WQMP to address HCOCs on projects less than one acre on a case by case basis. The disturbed area calculation should include all disturbances associated with larger common plans of development.

Does the project qualify for this HCOC Exemption? ☒ Y ☐ N

If Yes, HCOC criteria do not apply.

HCOC EXEMPTION 2: The volume and time of concentration[1] of storm water runoff for the post-development condition is not significantly different from the pre-development condition for a 2-year return frequency storm (a difference of 5% or less is considered insignificant) using one of the following methods to calculate:

- Riverside County Hydrology Manual
- Technical Release 55 (TR-55): Urban Hydrology for Small Watersheds (NRCS 1986), or derivatives thereof, such as the Santa Barbara Urban Hydrograph Method
- Other methods acceptable to the Co-Permittee

Does the project qualify for this HCOC Exemption? ☐ Y ☐ N

If Yes, report results in Table F.1 below and provide your substantiated hydrologic analysis in Appendix 7.

Table F.1 Hydrologic Conditions of Concern Summary

	2 year – 24 hour		
	Pre-condition	**Post-condition**	**% Difference**
Time of Concentration	INSERT VALUE	INSERT VALUE	INSERT VALUE
Volume (Cubic Feet)	INSERT VALUE	INSERT VALUE	INSERT VALUE

[1] Time of concentration is defined as the time after the beginning of the rainfall when all portions of the drainage basin are contributing to flow at the outlet.

HCOC EXEMPTION 3: All downstream conveyance channels to an adequate sump (for example, Prado Dam, Lake Elsinore, Canyon Lake, Santa Ana River, or other lake, reservoir or naturally erosion resistant feature) that will receive runoff from the project are engineered and regularly maintained to ensure design flow capacity; no sensitive stream habitat areas will be adversely affected; or are not identified on the Co-Permittees Hydromodification Susceptibility Maps.

Does the project qualify for this HCOC Exemption? ☐ Y ☐ N

If Yes, HCOC criteria do not apply and note below which adequate sump applies to this HCOC qualifier:

INSERT TEXT HERE

F.2 HCOC Mitigation

If none of the above HCOC Exemption Criteria are applicable, HCOC criteria is considered mitigated if they meet one of the following conditions:

a. Additional LID BMPS are implemented onsite or offsite to mitigate potential erosion or habitat impacts as a result of HCOCs. This can be conducted by an evaluation of site-specific conditions utilizing accepted professional methodologies published by entities such as the California Stormwater Quality Association (CASQA), the Southern California Coastal Water Research Project (SCCRWP), or other Co-Permittee approved methodologies for site-specific HCOC analysis.

b. The project is developed consistent with an approved Watershed Action Plan that addresses HCOC in Receiving Waters.

c. Mimicking the pre-development hydrograph with the post-development hydrograph, for a 2-year return frequency storm. Generally, the hydrologic conditions of concern are not significant, if the post-development hydrograph is no more than 10% greater than pre-development hydrograph. In cases where excess volume cannot be infiltrated or captured and reused, discharge from the site must be limited to a flow rate no greater than 110% of the pre-development 2-year peak flow.

Be sure to include all pertinent documentation used in your analysis of the items a, b or c in Appendix 7.

Section G: Source Control BMPs

Source control BMPs include permanent, structural features that may be required in your project plans — such as roofs over and berms around trash and recycling areas — and Operational BMPs, such as regular sweeping and "housekeeping", that must be implemented by the site's occupant or user. The MEP standard typically requires both types of BMPs. In general, Operational BMPs cannot be substituted for a feasible and effective permanent BMP. Using the Pollutant Sources/Source Control Checklist in Appendix 8, review the following procedure to specify Source Control BMPs for your site:

1. ***Identify Pollutant Sources*:** Review Column 1 in the Pollutant Sources/Source Control Checklist. Check off the potential sources of Pollutants that apply to your site.

2. ***Note Locations on Project-Specific WQMP Exhibit*:** Note the corresponding requirements listed in Column 2 of the Pollutant Sources/Source Control Checklist. Show the location of each Pollutant source and each permanent Source Control BMP in your Project-Specific WQMP Exhibit located in Appendix 1.

3. ***Prepare a Table and Narrative*:** Check off the corresponding requirements listed in Column 3 in the Pollutant Sources/Source Control Checklist. In the left column of Table G.1 below, list each potential source of runoff Pollutants on your site (from those that you checked in the Pollutant Sources/Source Control Checklist). In the middle column, list the corresponding permanent, Structural Source Control BMPs (from Columns 2 and 3 of the Pollutant Sources/Source Control Checklist) used to prevent Pollutants from entering runoff. **Add additional narrative** in this column that explains any special features, materials or methods of construction that will be used to implement these permanent, Structural Source Control BMPs.

4. ***Identify Operational Source Control BMPs:*** To complete your table, refer once again to the Pollutant Sources/Source Control Checklist. List in the right column of your table the Operational BMPs that should be implemented as long as the anticipated activities continue at the site. Copermittee stormwater ordinances require that applicable Source Control BMPs be implemented; the same BMPs may also be required as a condition of a use permit or other revocable Discretionary Approval for use of the site.

Table G.1 Permanent and Operational Source Control Measures

Potential Sources of Runoff pollutants	Permanent Structural Source Control BMPs	Operational Source Control BMPs
Landscape/Outdoor Pesticide Use	Final landscaping plans will: Minimize irrigation and runoff, to promote surface infiltration where appropriate and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. Use pest-resistant plants, especially adjacent to hardscape.	Maintain landscaping using minimum or no pesticides. See applicable operational BMPs in "What you should know for …Landscape and Gardening" Provide IPM information to new owners, lessees and operators.

	Select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency and plant interactions.	
Refuse Areas	Signs will be posted on or near dumpsters with the words "Do Not Dump Hazardous Materials Here" or similar.	Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaking receptacles. Keep receptacles covered. Prohibit dumping of liquid or hazardous wastes. Post "No Hazardous Materials" signs. Inspect and pick up litter daily and cleanup spills immediately. See Fact Sheet SC-34, "Waste Handling and Disposal" in CASQA Stormwater Quality Handbook at www.cabmphandbooks.com.
Condensate Drain Lines	Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system	N/A
Rooftop Equipment	Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment.	
Plazas, Sidewalks and Parking Lots	N/A	Sweep plazas, sidewalks and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect wash water containing any cleaning agent or degreaser and discharge to the sanitary sewer, not to a storm drain.

Section H: Construction Plan Checklist

Populate Table H.1 below to assist the plan checker in an expeditious review of your project. The first two columns will contain information that was prepared in previous steps, while the last column will be populated with the corresponding plan sheets. This table is to be completed with the submittal of your final Project-Specific WQMP.

Table H.1 Construction Plan Cross-reference

BMP No. or ID	BMP Identifier and Description	Corresponding Plan Sheet(s)	BMP Location (Lat/Long)
		TO BE INCLUDED IN THE FINAL WQMP	

Note that the updated table — or Construction Plan WQMP Checklist — is **only a reference tool** to facilitate an easy comparison of the construction plans to your Project-Specific WQMP. Co-Permittee staff can advise you regarding the process required to propose changes to the approved Project-Specific WQMP.

Section I: Operation, Maintenance and Funding

The Copermittee will periodically verify that Stormwater BMPs on your site are maintained and continue to operate as designed. To make this possible, your Copermittee will require that you include in Appendix 9 of this Project-Specific WQMP:

1. A means to finance and implement facility maintenance in perpetuity, including replacement cost.
2. Acceptance of responsibility for maintenance from the time the BMPs are constructed until responsibility for operation and maintenance is legally transferred. A warranty covering a period following construction may also be required.
3. An outline of general maintenance requirements for the Stormwater BMPs you have selected.
4. Figures delineating and designating pervious and impervious areas, location, and type of Stormwater BMP, and tables of pervious and impervious areas served by each facility. Geo-locating the BMPs using a coordinate system of latitude and longitude is recommended to help facilitate a future statewide database system.
5. A separate list and location of self-retaining areas or areas addressed by LID Principles that do not require specialized O&M or inspections but will require typical landscape maintenance as noted in Chapter 5, pages 85-86, in the WQMP Guidance. Include a brief description of typical landscape maintenance for these areas.

Your local Co-Permittee will also require that you prepare and submit a detailed Stormwater BMP Operation and Maintenance Plan that sets forth a maintenance schedule for each of the Stormwater BMPs built on your site. An agreement assigning responsibility for maintenance and providing for inspections and certification may also be required.

Details of these requirements and instructions for preparing a Stormwater BMP Operation and Maintenance Plan are in Chapter 5 of the WQMP Guidance Document.

Maintenance Mechanism: Owner

Will the proposed BMPs be maintained by a Home Owners' Association (HOA) or Property Owners Association (POA)?

☐ Y ☒ N

Include your Operation and Maintenance Plan and Maintenance Mechanism in Appendix 9. Additionally, include all pertinent forms of educational materials for those personnel that will be maintaining the proposed BMPs within this Project-Specific WQMP in Appendix 10.

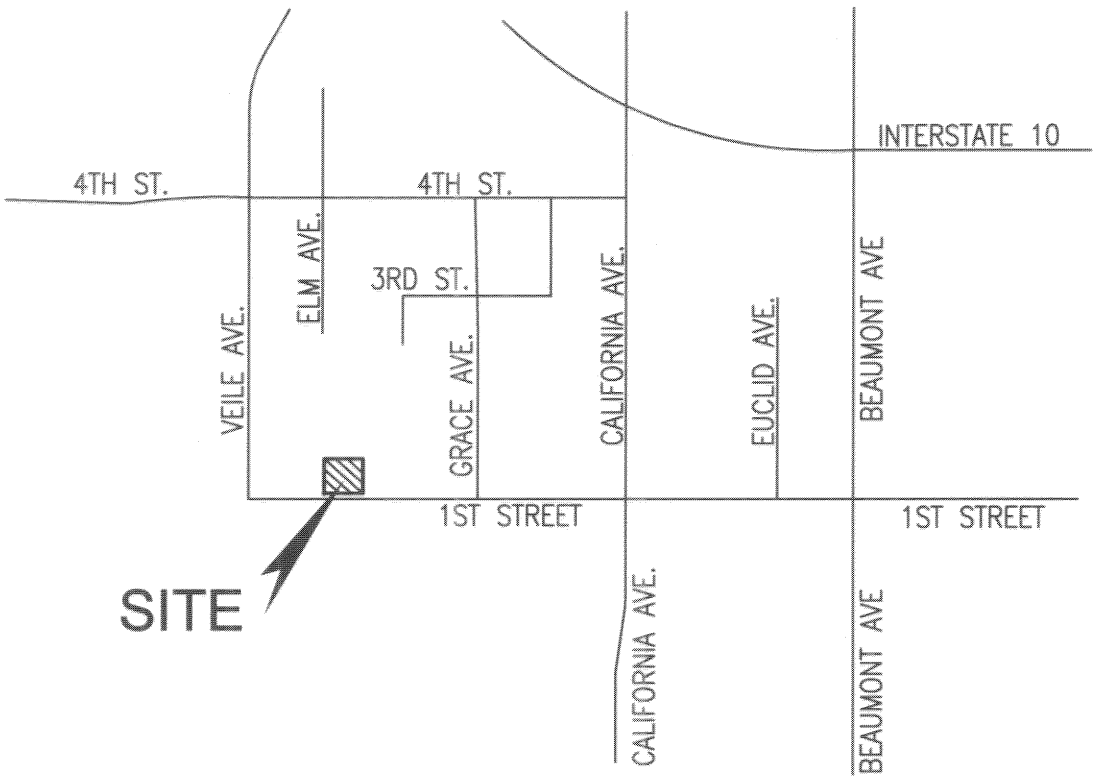
To be included in the Final WQMP.

Appendix 1: Maps and Site Plans

Vicinity Map, Regional Waters Map and WQMP Site Plan

McCLURE INDUSTRIAL BUILDING

EXHIBIT A-1



NORTH

VICINITY MAP

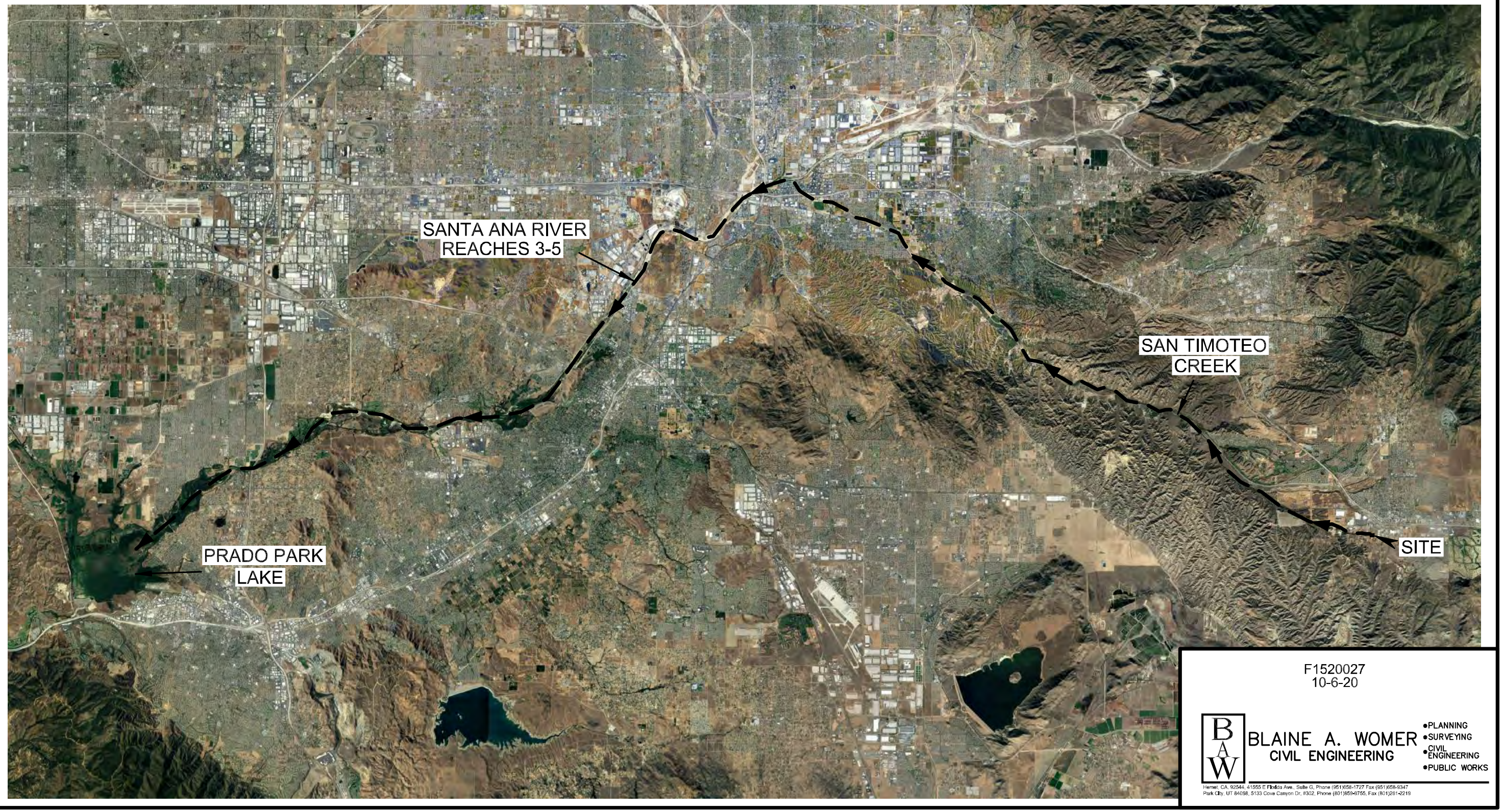
NTS

WQMP EXHIBIT A-2

REGIONAL WATERS MAP

McCLURE INDUSTRIAL BUILDING

NORTH



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10-6-20

BLAINE A. WOMER
CIVIL ENGINEERING
•PLANNING
•SURVEYING
•CIVIL ENGINEERING
•PUBLIC WORKS

Hemet, CA. 92544, 41555 E Florida Ave., Suite G, Phone (951)658-1727 Fax (951)658-9347
Park City, UT 84098, 5133 Cove Canyon Dr, #302, Phone (801)859-9755, Fax (801)281-2219

NORTH

0 20 40 60

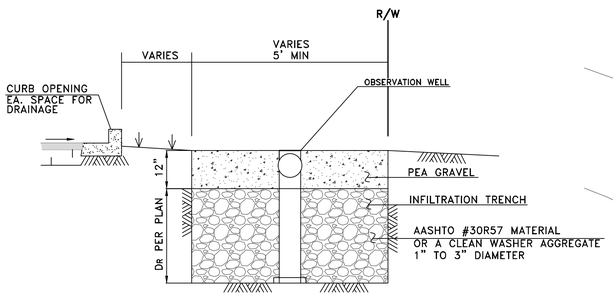
1" = 20'

LEGEND

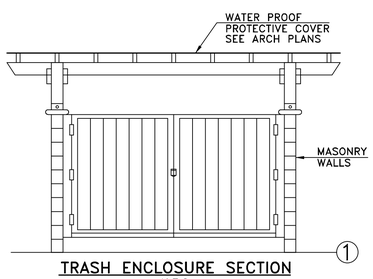
- ~ DRAINAGE BOUNDARY
- ~ PROPOSED ASPHALT SURFACE
- ~ PROPOSED CONCRETE SURFACE
- ~ PROPOSED INFILTRATION TRENCH
- ~ PROPOSED ROOF SURFACE
- ~ PROPOSED LANDSCAPE SURFACE
- ⟨1⟩ ~ CURB CUTS FOR DRAINAGE.
- FF ~ FINISHED FLOOR ELEV.
- TC ~ TOP OF CURB ELEV.
- TP ~ TOP OF PAVEMENT ELEV.
- FL ~ FLOW LINE ELEV.
- TE ~ TRASH ENCLOSURE.
- EP ~ EXISTING EDGE OF PAVEMENT ELEV.
- ① ~ SOURCE CONTROL, TRASH ENCLOSURE, BMP SD-32
- ② ~ SOURCE CONTROL, PARKING LOT/SIDEWALKS, BMP SC-71
- ③ ~ IRRIGATION, BMP SD-12, SC-73

DMA SUMMARY

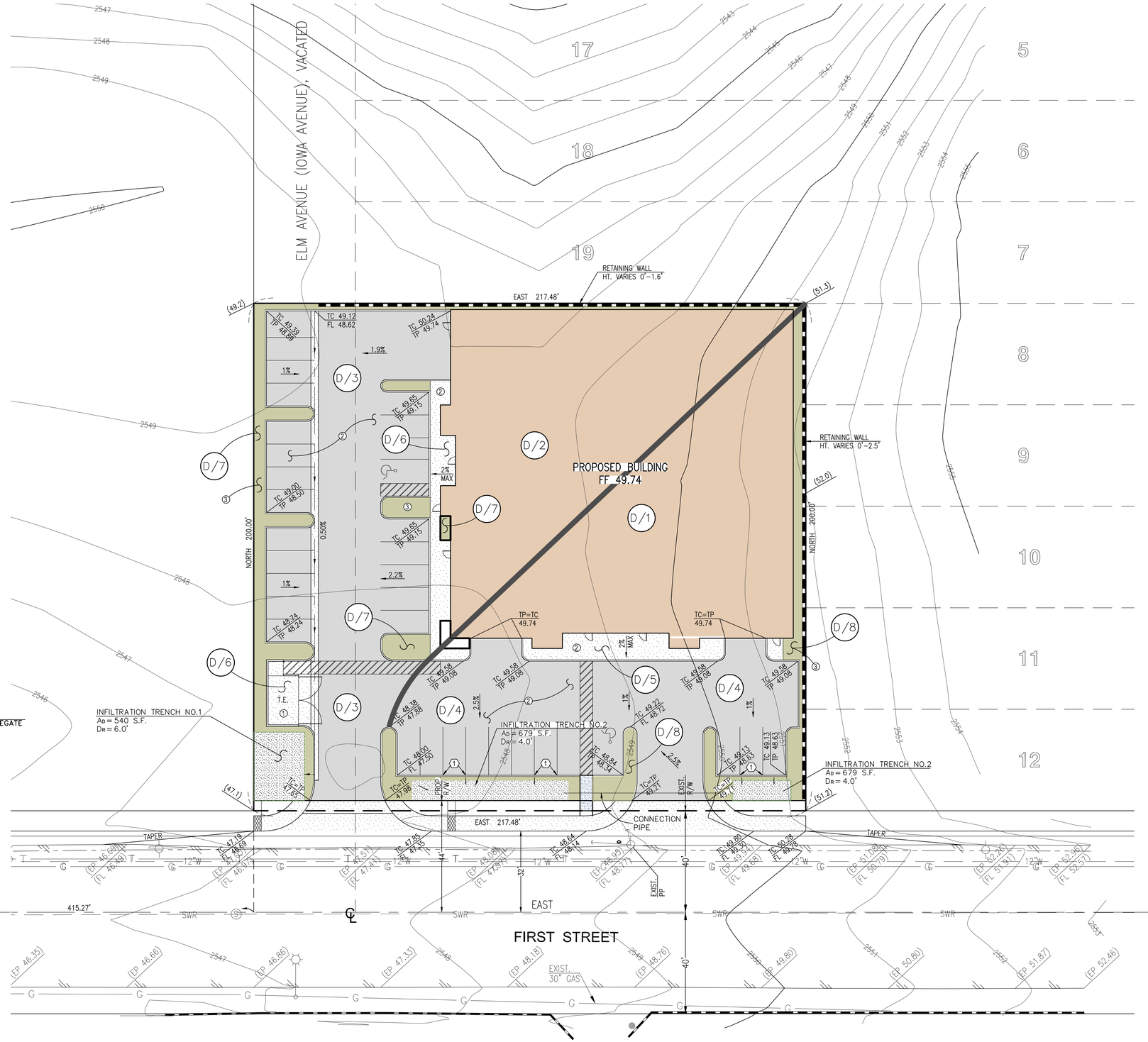
IDENTIFIER	AREA (SF)	PROPOSED SURFACE	TREATMENT
D/1	8,753	ROOF	DRAINS TO BMP
D/2	8,797	ROOF	DRAINS TO BMP
D/3	10,505	ASPHALT	DRAINS TO BMP
D/4	7,474	ASPHALT	DRAINS TO BMP
D/5	811	CONCRETE	DRAINS TO BMP
D/6	1,008	CONCRETE	DRAINS TO BMP
D/7	1,635	LANDSCAPE	DRAINS TO BMP
D/8	1,238	LANDSCAPE	DRAINS TO BMP



TYPICAL
INFILTRATION TRENCH SECTION
N.T.S.



TRASH ENCLOSURE SECTION
N.T.S.



DATE	BY	MARK	REVISIONS		APPR.	DATE
ENGINEER						CITY
DESIGNED BY:			DRAWN BY:		CHECKED BY:	

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AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

SEAL
REGISTERED PROFESSIONAL ENGINEER
BLAINE A. WOMER
No. 46354
CIVIL
STATE OF CALIFORNIA

APPROVED BY: DATE
CITY ENGINEER

PREPARED BY: DATE
R.C.E. NO.

BLAINE A. WOMER
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•PLANNING
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•CIVIL ENGINEERING
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Hemet, CA, 92544, 41555 E Florida Ave., Suite G. Phone (951)658-7377 Fax (951)658-0347
Park City, UT 84060, 5133 Cove Canyon Dr. #302. Phone/Fax (435)615-4169

SCALE 1" = 30'
DATE JUNE, 2020
BENCHMARK:

CITY OF BEAUMONT
McCLURE INDUSTRIAL BUILDING
WQMP SITE PLAN
FOR FDC
W.O.

SHEET NO. 1
OF 1 SHEETS
FILE NO.

Appendix 2: Construction Plans

Grading and Drainage Plans

To be included in the Final WQMP

Appendix 3: Soils Information

Geotechnical Study and Other Infiltration Testing Data

South Shore Testing & Environmental

23811 Washington Ave, Suite C110, #112, Murrieta, CA 92562 E-mail: ss.testing@aol.com
Phone: (951) 239-3008 FAX: (951) 239-3122

September 15, 2020

Mr. John Dykes
FDC Commercial Construction
461 E. Menlo Avenue
Hemet, California 92543

SUBJECT: **ONSITE STORMWATER INFILTRATION SYSTEM INVESTIGATION**
Proposed Industrial/Commercial Development
APN 417-150-015
First Street, East of Veile Avenue
City of Beaumont, Riverside County, California
Work Order No. 0862002.01

Dear Dykes:

In accordance with your authorization, we have conducted percolation testing for the infiltration system for the proposed industrial/commercial development. The purpose of our investigation was to provide infiltration rates for proposed infiltration systems. Attached as **Plate 1**, the Infiltration Test Location Map, is the 30-scale Topographic Survey, prepared by Blaine A. Wormer of Hemet, California, indicating the subject site, the approximate location of the exploration trenches and infiltration tests.

Site Description

The subject site is located on north side of W 1ST, east of Veile Avenue, in the city of Beaumont, Riverside County, California. The geographical relationships of the site and surrounding area are depicted on our Site Location Map, **Figure 1**.

The subject site is in a relatively natural undeveloped condition. At the time of our investigation, vegetation onsite consists of a moderate growth of tumbleweed and dried weeds and grasses. Topographically, the subject site consists of gently sloping terrain to the west at a less than 5 percent gradient. Drainage is accomplished by sheetflow to the west and north toward a moderately incised drainage swale. Overall relief on the subject site is approximately 5-ft, from above mean sea elevations 2547 to 2552.

Proposed Development

A "Site Plan" was available at the time of our investigation; it is our understanding that development includes the construction of a proposed 18,750-suare foot structure on the northeasterly portion of the subject site with the remainder used as parking and driveways.

Infiltration Investigation

Percolation testing was conducted on September 8, 2020 on the southerly portion of the subject site near First Street. Two (2) tests were performed within the onsite Pleistocene-age Older surficial sediments (Dibblee, 2003). Two (2) exploratory trenches were advanced to depths of 3 and 4-ft below the ground surface (bgs) with an infiltration test performed at the bottom of each trench. The surficial sediments within exploratory trench T-1 consisting of silty Sand (Unified Soil Classification – SM) and a sandy Silt (ML) within T-2. The infiltration test pits were excavated with a CAT No. 303E mini-excavator equipped with a 12-inch bucket. Our field personnel logged the exploratory trenches and a copies of our Exploratory Trench Logs are presented in **Appendix B**.

GROUNDWATER

Groundwater was not encountered within our exploratory trenches, which were advanced to a maximum depth explored of 10.0-ft bgs. No mottling or other indications of previous high groundwater levels were observed within our exploratory trenches. Based on historic groundwater records the depth to groundwater underlying the subject site is in excess of 100-ft bgs (Bloyd, 1999). Minor fluctuations can and will likely occur in moisture or free water content of the soil owing to rainfall and irrigation over time. In addition, the depth to groundwater can fluctuate seasonally as a result of planned groundwater management.

SUMMARY OF TEST PROCEDURES

The testing procedure was performed in accordance with Riverside County Department of Environmental Health's "Local Management Program for Onsite Wastewater Treatment Systems", which became effective October 5, 2016 and the resulting perc rates were converted to infiltration rates utilizing the Porchet Method as outlined in the Riverside County Flood Control and Water Conservation District, "Design Handbook for Low Impact Development Best Management Practices" dated September 2011. The percolation tests were performed at depths of 3 and 4-ft bgs. Owing to the variable rates that ranged from very fast to moderate, both the procedures for Sandy and **Normal** soils were followed.

Conclusion

Testing indicated infiltration rates at 3 and 4-ft below existing grade within the native soils obtained rates of 1.9 and 24.0 minutes per-inch. The percolation rate was converted to infiltration rate utilizing the Porchet Method, depicted on conversion results, **Appendix C**. The slowest of the converted infiltration rates was Test No 2 at 0.75-inch/hr. The rate provided does not include a safety factor. The test locations are presented on our Infiltration Test Location Map, **Plate 1**.

PERCOLATION TEST NO.	DEPTH OF TEST BELOW GRADE (In Feet)	INFILTRATION RATE (In/Hr.)
1	3.0	8.0
2	4.0	0.75*

*Slowest rate

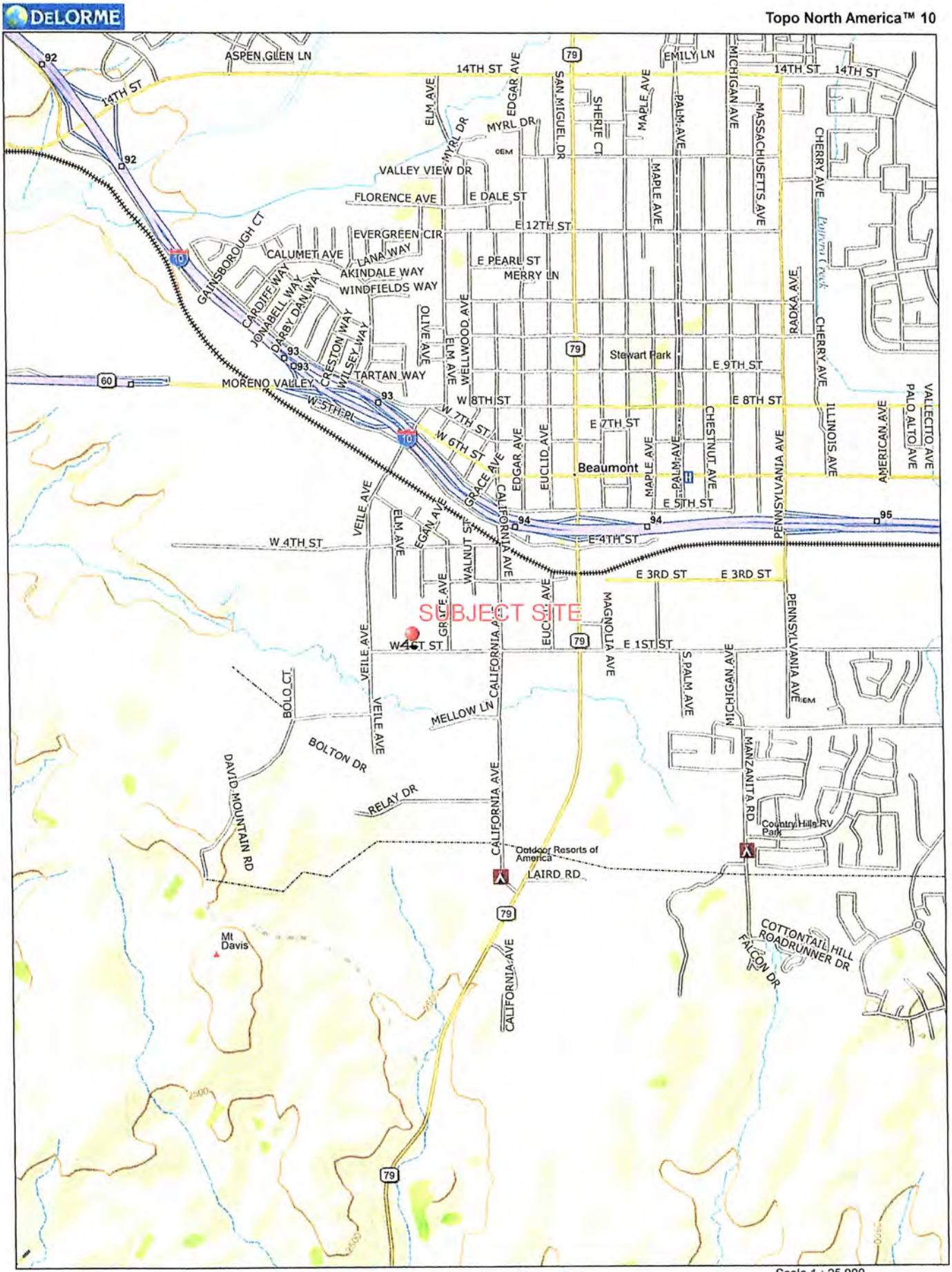
CLOSURE

It should be noted that infiltration rates determined by testing are ultimate rates based on short-duration field test results utilizing clear water. Infiltration rates can be affected by silt build-up, debris, degree of soil saturation, and other factors. An appropriate safety factor should be applied prior to use in design to account for subsoil inconsistencies, possible compaction related to site grading, and potential silting of the percolating soils. The safety factor should also be determined with consideration to other factors in the system design, particularly storm water volume estimates and the safety factors associated with those design components.

LIMITATIONS

The tested rates are representative for the areas and soil types tested. Should the systems be moved, or the exposed soil types are found to different within the proposed systems, the approved infiltration rates may not apply. Our investigation was performed using the degree of care and skill ordinarily exercised, under similar circumstances, by reputable Geotechnical Engineers and Geologists practicing in this or similar localities. No other warranty, expressed or implied, is made as to the conclusions and professional advice included in this report.

The report is issued with the understanding that it is used only by the owner and it is the sole responsibility of the owner or their representative to ensure that the information and recommendations contained herein are brought to the attention of the architect, engineer, and appropriate jurisdictional agency for the project and incorporated into the plans; and the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations contained herein during construction and in the field.


DeLORME
Topo North America™ 10
SUBJECT SITE
Beaumont
Stewart Park
Outdoor Resorts of America
Country Hills RV Park
Mt Davis
ASPEN GLEN LN
14TH ST
VALLEY VIEW DR
FLORENCE AVE
E DALE ST
E 12TH ST
EVERGREEN CIR
CALUMET AVE
LANA WAY
AKINDALE WAY
WINDFIELDS WAY
E PEARL ST
MERRY LN
GAINSBOROUGH CT
CARDIFF WAY
JONABELL WAY
DARBY DAN WAY
CRESTON WAY
WILSEY WAY
TARTAN WAY
MORENO VALLEY
W 5TH PL
W 8TH ST
W 7TH ST
W 6TH ST
E 9TH ST
E 8TH ST
E 7TH ST
E 5TH ST
E 4TH ST
W 4TH ST
E 3RD ST
E 1ST ST
W 1ST ST
MYRL DR
EDGAR AVE
SAN MIGUEL DR
SHERIE CT
MAPLE AVE
PALM AVE
MICHIGAN AVE
MASSACHUSETTS AVE
CHERRY AVE
RADKA AVE
ILLINOIS AVE
AMERICAN AVE
VALLECITO AVE
PALO ALTO AVE
ELM AVE
OLIVE AVE
WELLWOOD AVE
EUCLID AVE
CHESTNUT AVE
PENNSYLVANIA AVE
GRACE AVE
EGAN AVE
WALNUT ST
CALIFORNIA AVE
VEILE AVE
MAGNOLIA AVE
S PALM AVE
MANZANITA RD
MELLOW LN
BOLO CT
BOLTON DR
RELAY DR
DAVID MOUNTAIN RD
LAIRD RD
COTTONTAIL HILL
ROADRUNNER DR
FALCON DR
79
60
10
92
93
94
95
Data use subject to license.
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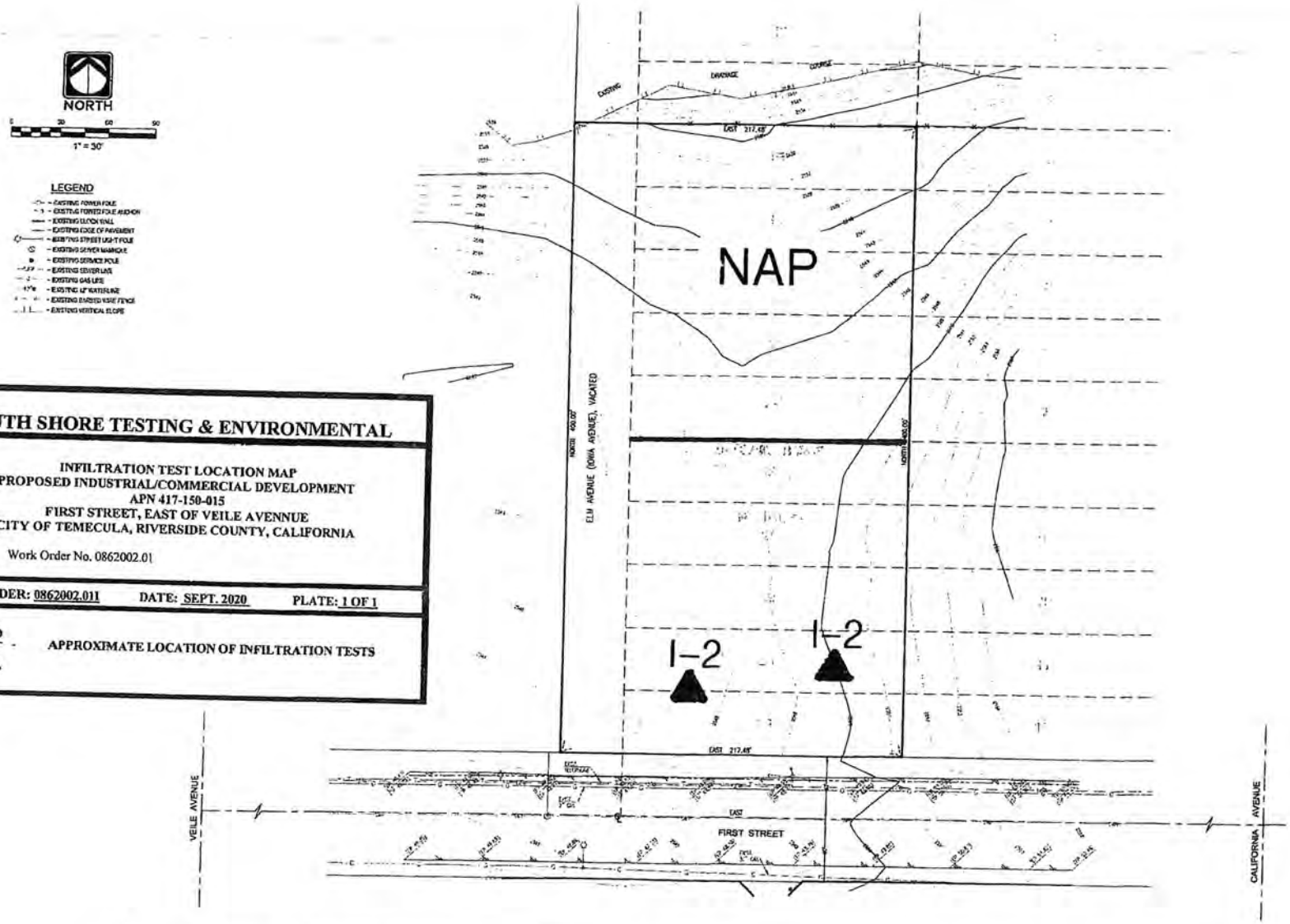
TN
MN (11.4°E)
Scale 1 : 25,000
1" = 2,083.3 ft

FIGURE 1



SOUTH SHORE TESTING & ENVIRONMENTAL

INFILTRATION TEST LOCATION MAP
PROPOSED INDUSTRIAL/COMMERCIAL DEVELOPMENT
APN 417-150-015
FIRST STREET, EAST OF VEILE AVENNUE
CITY OF TEMECULA, RIVERSIDE COUNTY, CALIFORNIA

Work Order No. 0862002.01

WORK ORDER: 0862002.011 **DATE:** SEPT. 2020 **PLATE:** 1 OF 1

I-2 **APPROXIMATE LOCATION OF INFILTRATION TESTS**

DIG ALERT
DIAL TOLL FREE
1-800-227-2600
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

DATE | BY | MARK | REVISIONS | APP'R. | DATE
ENGINEER | CITY
DESIGNED BY: | DRAWN BY: | CHECKED BY:

SEAL

APPROVED BY: DATE
CITY ENGINEER
PREPARED BY: DATE
R.C.E. NO.

BLAINE A. WOMER
CIVIL ENGINEERING

SCALE 1" = 30'
DATE JUNE, 2020
BENCHMARK:

CITY OF BEAUMONT
APN: 417-150-005 & 015
TOPOGRAPHIC MAP
FOR: FDC W.O.

SHEET NO. 1 OF 1 SHEETS
FILE NO.

The samples taken and used for testing and the observations made are believed representative; however, soil and geologic conditions can vary significantly between test locations. The evaluation or identification of the potential presence of hazardous or corrosive materials was not part of the scope of services provided by **South Shore Testing & Environmental**, or its assigns.

The findings of this report are valid as of the present date. However, changes in the condition of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and revision as changed conditions are identified. The firm that performed the geotechnical investigation for this project should be retained to provide testing observation services during construction to maintain continuity of geotechnical interpretation and to check that the recommendations presented herein are implemented during construction of improvements.

If another geotechnical firm is selected to perform the testing and observation services during construction operations, that firm should prepare a letter indicating their intent to assume the responsibilities of project geotechnical engineer of record. Selection of another firm to perform any of the recommended activities or failure to retain the undersigned to perform the recommended activities wholly absolves **South Shore Testing & Environmental**, the undersigned, and its assigns from any and all liability arising directly or indirectly from any aspects of this project.

We appreciate the opportunity to be of service. Limitations and conditions contained in reference documents are considered in full force and applicable. If you have any questions, please do not hesitate to call our office.

Respectfully Submitted,

South Shore Testing & Environmental

John P. Frey
Project Manager

William C. Hobbs, RCE 42265
Civil Engineer

ATTACHMENTS
Plate 1 – Infiltration Test Location Map
Figure 1 – Site Location Map
Appendix A –References
Appendix B – Exploratory Trench Logs
Appendix C- Porchet Conversion Results

APPENDIX A

References

REFERENCES

Blaine A. Womer, June 2020, "Topographic Map, APN: 417-150-006 & -015, City of Beaumont", Sheet 1 of 1, Scale: 1" = 30'.

Bloyd, R.M. Jr., 1999, "Underground Storage of Imported Water in the San Gorgonio Pass Area, Southern California", Geological Survey Water-Supply Paper 1999-D.

CDM Smith, Inc. 2013, "Technical Guidance Document for Water Quality Management Plans" dated June 7, 2013.

County of Riverside GIS Website, 2020.

Dibblee, Thomas W., Jr., December 2003, "Geologic Map of the Beaumont Quadrangle, Riverside County, California", Dibblee Geology Center Map #DF-114, Scale: 1" = 2,000'.

FDC Commercial Construction, Undated, "Site Plan, Beaumont Industrial Center, First Street, Beaumont, California", Sheet A-105, Scale: 1" = 16'.

Morton, D.M., 2004, "Preliminary Digital Geologic Map of the Santa Ana 30' x 60' Quadrangle, Southern California (Version 2.0)", U.S. Geological Survey in Cooperation with the California Geologic Survey, Open-File Report 99-172, Scale: 1" = 100,000'.

Riverside County Flood Control and Water Conservation District, 2011, "Design Handbook for Low Impact Development Best Management Practices" dated 9, 2011.

South Shore Testing & Environmental, September 10, 2020, "Preliminary Geotechnical Investigation, Proposed Industrial/Commercial Development, APN 417-150-015, First Street, East of Veile Avenue, City of Beaumont, Riverside County, California", Work Order No. 0862002.00

APPENDIX B

Exploratory Trench Logs

LOGGED BY: KMC	METHOD OF EXCAVATION: CAT NO 303E MINI EXCAVATOR EQUIPPED WITH A 12" BUCKET ELEVATION: ± 2550	DATE OBSERVED: 9/8/2020 LOCATION: SEE PLATE 1

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT(%)	INPLACE DRY DENSITY (PCF)	TEST PIT NO._1___ DESCRIPTION	SOIL TEST
							OLDER SURFICAL SEDIMENTS	
							SILTY SAND (SM): DARK RED BROWN, FINE TO MEDIUM GRAINED, MINOR COARSE,	INFILTRATION TEST
							DRY IN UPPER 2-FT, ABUNDANT PORES & FINE ROOTS	
							TOTAL DEPTH = 3.0'	
5							**NO GROUNDWATER**	
							NO CAVING	
10								
15								
20								
25								
30								
35								
40								

JOB NO:0862002.01	LOG OF BORING	FIGURE: T-1

LOGGED BY: KMC

METHOD OF EXCAVATION: CAT NO 303E MINI EXCAVATOR EQUIPPED WITH A 12" BUCKET
ELEVATION: ± 2548

DATE OBSERVED: 9/8/2020

LOCATION: SEE PLATE 1

DEPTH (FEET)	CLASSIFICATION	BLOWS/FOOT	UNDISTURBED SAMPLE	BULK SAMPLE	MOISTURE CONTENT(%)	INPLACE DRY DENSITY (PCF)	TEST PIT NO._2____ DESCRIPTION	SOIL TEST
							OLDER SURFICAL SEDIMENTS	
							SANDY SILT (ML): DARK RED BROWN, SANDY IN PART, LOOSE & DRY IN UPPER 2 FT WITH NUMEROUS PINPOINT PORES AND FINE ROOTS	INFILTRATION TEST
5							INCREASING IN DENSITY WITH DEPTH	
							TOTAL DEPTH = 4.0'	
							NO GROUNDWATER	
							NO CAVING	
10								
15								
20								
25								
30								
35								

JB NO:0862002.01

LOG OF BORING

FIGURE: T-2

APPENDIX C

Porchet Conversion Results

Porchet Method - Conversion of Percolation Rate to Infiltration Rate	Perc Test No I-1	Legend:	Required Entries / Calculated Cells

Company Name: South Shore Testing

Designed by: JPF

Date: 9-8-20

County/City Case No: FDC 0862002.01

Percolation Conversion to Infiltration Rate

The conversion equation is used:

$$I_t\,(\text{in/hr}) = \frac{\Delta H(\text{in}) \times 60\ (\text{min/hr}) \times r(\text{in})}{\Delta t(\text{min}) \times [r(\text{in}) + 2H_{avg}(\text{in})]}$$

If test hole is round - Enter radius here ⟶ r = 8 inches

~~If test hole is square - Enter average side width below~~

~~w = 9.00 inches~~

~~I_{eq} = inches~~

Time interval	Δt = 30	minutes
Initial height of water during selected time interval	H_o = 20	inches
Final height of water during selected time interval	H_f = 4	inches
Change in height of water during selected time interval	ΔH = 16	inches
Average head height over the selected time interval	H_{avg} = 12	inches
Converted infiltration rate per test data	I_t = 8	inches/hour

Comments

$$\frac{16 \times 60 \times 8}{30 \times [8 + 2(12)]} = \frac{7680}{960} = 8$$

Porchet Method - Conversion of Percolation Rate to Infiltration Rate	Perc Test No. I-2	Legend:	Required Entries
			Calculated Cells

Company Name: South Shore Testing

Designed by: JPF

Date: 9-8-20

County/City Case No: FDC WO 056 2002.01

Percolation Conversion to Infiltration Rate

The conversion equation is used:

$$I_t\,(in/hr) = \frac{\Delta H(in) \times 60\ (min/hr) \times r(in)}{\Delta t(min) \times [r(in) + 2H_{avg}(in)]}$$

If test hole is round - Enter radius here ⟶ r = 8 inches

~~If test hole is square - Enter average side width below~~

~~w = 9.00 inches~~

~~I_{eq} = inches~~

Time interval Δt = 30 minutes

Initial height of water during selected time interval H_o = 10 inches

Final height of water during selected time interval H_f = 8.75 inches

Change in height of water during selected time interval ΔH = 1.25 inches

Average head height over the selected time interval H_{avg} = 9.4 inches

Converted infiltration rate per test data I_t = 0.75 inches/hour

Comments

$$\frac{1.25 \times 60 \times 8}{30 \times [8 + 2(9.4)]} = \frac{600}{804} = 0.75$$

Appendix 4: Historical Site Conditions

Phase I Environmental Site Assessment or Other Information on Past Site Use

Not Available

Appendix 5: LID Infeasibility

LID Technical Infeasibility Analysis

Not Applicable

Appendix 6: BMP Design Details

BMP Sizing, Design Details and other Supporting Documentation

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

(Note this worksheet shall only be used in conjunction with BMP designs from the LID BMP Design Handbook)

Company Name: BLAINE A WOMER CIVIL ENGINEERING — Date: 10\3\20

Designed by: BAW — Case No:

Company Project Number/Name: MCCLURE INDUSTRIAL BUILDING

BMP Identification

BMP NAME / ID: INFILTRATION TRENCH NO 1

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85}= 0.85 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
D\2	8797	Roofs	1	0.89	7846.9			
D\3	10505	Concrete or Asphalt	1	0.89	9370.5			
D\6	1008	Concrete or Asphalt	1	0.89	899.1			
D\7	1635	Ornamental Landscaping	0.1	0.11	180.6			
	21945	Total			18297.1	0.85	1296	1300

Notes:

Infiltration Trench - Design Procedure	BMP ID IT NO. 1	Legend:	Required Entries Calculated Cells

Company Name:	WOMER ENGINEERING	Date:	10\3\20
Designed by:	BAW	County/City Case No.:	

Design Volume

Enter the area tributary to this feature, Max = 10 acres	A_t=	1	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP}=	1,296	ft^3

Calculate Maximium Depth of the Reservoir Layer

Enter Infiltration rate	I =	4.0	in/hr
Enter Factor of Safety, FS (unitless)	FS =	3	
Obtain from Table 1, Appendix A: "Infiltration Testing" of this BMP Handbook			
	n =	40	%
Calculate D_1. $D_1 = \frac{I\ (in/hr) \times 72\ hrs}{12\ (in/ft) \times (n/100) \times FS}$	D_1 =	20.00	ft
Enter depth to historic high groundwater mark (measured from finished grade)		200	ft
Enter depth to top of bedrock or impermeable layer (measured from finished grade)		300	ft
D_2 is the smaller of:			
Depth to groundwater - 11 ft; & Depth to impermeable layer - 6 ft	D_2 =	189.0	ft
D_{MAX} is the smaller value of D_1 and D_2, must be less than or equal to 8 feet.	D_{MAX}=	8.0	ft

Trench Sizing

Enter proposed reservoir layer depth D_R, must be ≤ D_{MAX}	D_R =	6.00	ft
Calculate the design depth of water, d_W			
Design $d_W = (D_R) \times (n/100)$	Design d_W=	2.40	ft
Minimum Surface Area, A_S $A_S = \frac{V_{BMP}}{d_W}$	A_S =	540	ft^2
Proposed Design Surface Area	A_D =	540	ft^2
Minimum Width = D_R + 1 foot pea gravel		7.00	ft
Sediment Control Provided? (Use pulldown)		Yes	
Geotechnical report attached? (Use pulldown)		Yes	

If the trench has been designed correctly, there should be no error messages on the spreadsheet.

Santa Ana Watershed - BMP Design Volume, V_{BMP}

(Rev. 10-2011)

Legend: Required Entries / Calculated Cells

(Note this worksheet shall only be used in conjunction with BMP designs from the LID BMP Design Handbook)

Company Name	BLAINE A WOMER CIVIL ENGINEERING	Date	10\3\20
Designed by	BAW	Case No	
Company Project Number/Name	MCCLURE INDUSTRIAL BUILDING		

BMP Identification

BMP NAME / ID: INFILTRATION TRENCH NO.2

Must match Name/ID used on BMP Design Calculation Sheet

Design Rainfall Depth

85th Percentile, 24-hour Rainfall Depth, from the Isohyetal Map in Handbook Appendix E

D_{85} = 0.85 inches

Drainage Management Area Tabulation

Insert additional rows if needed to accommodate all DMAs draining to the BMP

DMA Type/ID	DMA Area (square feet)	Post-Project Surface Type	Effective Imperivous Fraction, I_f	DMA Runoff Factor	DMA Areas x Runoff Factor	Design Storm Depth (in)	Design Capture Volume, V_{BMP} (cubic feet)	Proposed Volume on Plans (cubic feet)
D\1	8753	Roofs	1	0.89	7807.7			
D\4	7474	Concrete or Asphalt	1	0.89	6666.8			
D\5	811	Concrete or Asphalt	1	0.89	723.4			
D\8	1238	Ornamental Landscaping	0.1	0.11	136.7			
	18276	Total			15334.6	0.85	1086.2	1100

Notes:

Infiltration Trench - Design Procedure	BMP ID IT NO. 2	Legend:	Required Entries Calculated Cells

Company Name:	WOMER ENGINEERING	Date:	10\3\20
Designed by:	BAW	County/City Case No.:	

Design Volume

Enter the area tributary to this feature, Max = 10 acres	A_t =	1	acres
Enter V_{BMP} determined from Section 2.1 of this Handbook	V_{BMP} =	1,087	ft^3

Calculate Maximium Depth of the Reservoir Layer

Enter Infiltration rate	I =	4.0	in/hr
Enter Factor of Safety, FS (unitless)	FS =	3	

Obtain from Table 1, Appendix A: "Infiltration Testing" of this BMP Handbook

	n =	40	%
Calculate D_1. $D_1 = \frac{I\ (in/hr) \times 72\ hrs}{12\ (in/ft) \times (n/100) \times FS}$	D_1 =	20.00	ft
Enter depth to historic high groundwater mark (measured from finished grade)		200	ft
Enter depth to top of bedrock or impermeable layer (measured from finished grade)		300	ft

D_2 is the smaller of:

Depth to groundwater - 11 ft; & Depth to impermeable layer - 6 ft	D_2 =	189.0	ft
D_{MAX} is the smaller value of D_1 and D_2, must be less than or equal to 8 feet.	D_{MAX} =	8.0	ft

Trench Sizing

Enter proposed reservoir layer depth D_R, must be $\leq D_{MAX}$	D_R =	4.00	ft

Calculate the design depth of water, d_W

	Design $d_W = (D_R) \times (n/100)$	Design d_W =	1.60 ft
Minimum Surface Area, A_S	$A_S = \frac{V_{BMP}}{d_W}$	A_S =	679 ft^2
Proposed Design Surface Area		A_D =	810 ft^2
	Minimum Width = D_R + 1 foot pea gravel		5.00 ft

Sediment Control Provided? (Use pulldown)	Yes
Geotechnical report attached? (Use pulldown)	Yes

If the trench has been designed correctly, there should be no error messages on the spreadsheet.

Appendix 7: Hydromodification

Supporting Detail Relating to Hydrologic Conditions of Concern

Not Applicable

Appendix 8: Source Control

Pollutant Sources/Source Control Checklist

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

How to use this worksheet (also see instructions in Section G of the WQMP Template):

1. Review Column 1 and identify which of these potential sources of stormwater pollutants apply to your site. Check each box that applies.
2. Review Column 2 and incorporate all of the corresponding applicable BMPs in your WQMP Exhibit.
3. Review Columns 3 and 4 and incorporate all of the corresponding applicable permanent controls and operational BMPs in your WQMP. Use the format shown in Table G.1on page 23 of this WQMP Template. Describe your specific BMPs in an accompanying narrative, and explain any special conditions or situations that required omitting BMPs or substituting alternative BMPs for those shown here.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	**... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE**		
1 **Potential Sources of Runoff Pollutants**	**2** **Permanent Controls—Show on WQMP Drawings**	**3** **Permanent Controls—List in WQMP Table and Narrative**	**4** **Operational BMPs—Include in WQMP Table and Narrative**
☐ **A.** On-site storm drain inlets	☐ Locations of inlets.	☐ Mark all inlets with the words "Only Rain Down the Storm Drain" or similar. Catch Basin Markers may be available from the Riverside County Flood Control and Water Conservation District, call 951.955.1200 to verify.	☐ Maintain and periodically repaint or replace inlet markings. ☐ Provide stormwater pollution prevention information to new site owners, lessees, or operators. ☐ See applicable operational BMPs in Fact Sheet SC-44, "Drainage System Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com ☐ Include the following in lease agreements: "Tenant shall not allow anyone to discharge anything to storm drains or to store or deposit materials so as to create a potential discharge to storm drains."
☐ **B.** Interior floor drains and elevator shaft sump pumps		☐ State that interior floor drains and elevator shaft sump pumps will be plumbed to sanitary sewer.	☐ Inspect and maintain drains to prevent blockages and overflow.
☐ **C.** Interior parking garages		☐ State that parking garage floor drains will be plumbed to the sanitary sewer.	☐ Inspect and maintain drains to prevent blockages and overflow.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
☐ **D1.** Need for future indoor & structural pest control		☐ Note building design features that discourage entry of pests.	☐ Provide Integrated Pest Management information to owners, lessees, and operators.
☒ **D2.** Landscape/ Outdoor Pesticide Use	☐ Show locations of native trees or areas of shrubs and ground cover to be undisturbed and retained. ☐ Show self-retaining landscape areas, if any. ☒ Show stormwater treatment and hydrograph modification management BMPs. (See instructions in Chapter 3, Step 5 and guidance in Chapter 5.)	State that final landscape plans will accomplish all of the following. ☐ Preserve existing native trees, shrubs, and ground cover to the maximum extent possible. ☒ Design landscaping to minimize irrigation and runoff, to promote surface infiltration where appropriate, and to minimize the use of fertilizers and pesticides that can contribute to stormwater pollution. ☐ Where landscaped areas are used to retain or detain stormwater, specify plants that are tolerant of saturated soil conditions. ☒ Consider using pest-resistant plants, especially adjacent to hardscape. To insure successful establishment, select plants appropriate to site soils, slopes, climate, sun, wind, rain, land use, air movement, ecological consistency, and plant interactions.	☒ Maintain landscaping using minimum or no pesticides. ☐ See applicable operational BMPs in "What you should know for…..Landscape and Gardening" at http://rcflood.org/stormwater/Error! Hyperlink reference not valid. ☐ Provide IPM information to new owners, lessees and operators.

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
☐ **E.** Pools, spas, ponds, decorative fountains, and other water features.	☐ Show location of water feature and a sanitary sewer cleanout in an accessible area within 10 feet. (Exception: Public pools must be plumbed according to County Department of Environmental Health Guidelines.)	If the Co-Permittee requires pools to be plumbed to the sanitary sewer, place a note on the plans and state in the narrative that this connection will be made according to local requirements.	☐ See applicable operational BMPs in "Guidelines for Maintaining Your Swimming Pool, Jacuzzi and Garden Fountain" at http://rcflood.org/stormwater/
☐ **F.** Food service	☐ For restaurants, grocery stores, and other food service operations, show location (indoors or in a covered area outdoors) of a floor sink or other area for cleaning floor mats, containers, and equipment. ☐ On the drawing, show a note that this drain will be connected to a grease interceptor before discharging to the sanitary sewer.	☐ Describe the location and features of the designated cleaning area. ☐ Describe the items to be cleaned in this facility and how it has been sized to insure that the largest items can be accommodated.	☐ See the brochure, "The Food Service Industry Best Management Practices for: Restaurants, Grocery Stores, Delicatessens and Bakeries" at http://rcflood.org/stormwater/ Provide this brochure to new site owners, lessees, and operators.
☐ **G.** Refuse areas	☐ Show where site refuse and recycled materials will be handled and stored for pickup. See local municipal requirements for sizes and other details of refuse areas. ☐ If dumpsters or other receptacles are outdoors, show how the designated area will be covered, graded, and paved to prevent run-on and show locations of berms to prevent runoff from the area. ☐ Any drains from dumpsters, compactors, and tallow bin areas shall be connected to a grease removal device before discharge to sanitary sewer.	☐ State how site refuse will be handled and provide supporting detail to what is shown on plans. ☐ State that signs will be posted on or near dumpsters with the words "Do not dump hazardous materials here" or similar.	☐ State how the following will be implemented: Provide adequate number of receptacles. Inspect receptacles regularly; repair or replace leaky receptacles. Keep receptacles covered. Prohibit/prevent dumping of liquid or hazardous wastes. Post "no hazardous materials" signs. Inspect and pick up litter daily and clean up spills immediately. Keep spill control materials available on-site. See Fact Sheet SC-34, "Waste Handling and Disposal" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
❑ **H.** Industrial processes.	❑ Show process area.	❑ If industrial processes are to be located on site, state: "All process activities to be performed indoors. No processes to drain to exterior or to storm drain system."	❑ See Fact Sheet SC-10, "Non-Stormwater Discharges" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com See the brochure "Industrial & Commercial Facilities Best Management Practices for: Industrial, Commercial Facilities" at http://rcflood.org/stormwater/

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
❑ **I.** Outdoor storage of equipment or materials. (See rows J and K for source control measures for vehicle cleaning, repair, and maintenance.)	❑ Show any outdoor storage areas, including how materials will be covered. Show how areas will be graded and bermed to prevent run-on or run-off from area. ❑ Storage of non-hazardous liquids shall be covered by a roof and/or drain to the sanitary sewer system, and be contained by berms, dikes, liners, or vaults. ❑ Storage of hazardous materials and wastes must be in compliance with the local hazardous materials ordinance and a Hazardous Materials Management Plan for the site.	Include a detailed description of materials to be stored, storage areas, and structural features to prevent pollutants from entering storm drains. Where appropriate, reference documentation of compliance with the requirements of Hazardous Materials Programs for: ▪ Hazardous Waste Generation ▪ Hazardous Materials Release Response and Inventory ▪ California Accidental Release (CalARP) ▪ Aboveground Storage Tank ▪ Uniform Fire Code Article 80 Section 103(b) & (c) 1991 ▪ Underground Storage Tank www.cchealth.org/groups/hazmat/	❑ See the Fact Sheets SC-31, "Outdoor Liquid Container Storage" and SC-33, "Outdoor Storage of Raw Materials " in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
❑ **J.** Vehicle and Equipment Cleaning	❑ Show on drawings as appropriate: (1) Commercial/industrial facilities having vehicle/equipment cleaning needs shall either provide a covered, bermed area for washing activities or discourage vehicle/equipment washing by removing hose bibs and installing signs prohibiting such uses. (2) Multi-dwelling complexes shall have a paved, bermed, and covered car wash area (unless car washing is prohibited on-site and hoses are provided with an automatic shut-off to discourage such use). (3) Washing areas for cars, vehicles, and equipment shall be paved, designed to prevent run-on to or runoff from the area, and plumbed to drain to the sanitary sewer. (4) Commercial car wash facilities shall be designed such that no runoff from the facility is discharged to the storm drain system. Wastewater from the facility shall discharge to the sanitary sewer, or a wastewater reclamation system shall be installed.	❑ If a car wash area is not provided, describe any measures taken to discourage on-site car washing and explain how these will be enforced.	Describe operational measures to implement the following (if applicable): ❑ **Washwater from vehicle and equipment washing operations shall not be discharged to the storm drain system.** Refer to "Outdoor Cleaning Activities and Professional Mobile Service Providers" for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/ ❑**Car dealerships and similar may rinse cars with water only.**

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
❑ **K.** Vehicle/Equipment Repair and Maintenance	❑ Accommodate all vehicle equipment repair and maintenance indoors. Or designate an outdoor work area and design the area to prevent run-on and runoff of stormwater. ❑ Show secondary containment for exterior work areas where motor oil, brake fluid, gasoline, diesel fuel, radiator fluid, acid-containing batteries or other hazardous materials or hazardous wastes are used or stored. Drains shall not be installed within the secondary containment areas. ❑ Add a note on the plans that states either (1) there are no floor drains, or (2) floor drains are connected to wastewater pretreatment systems prior to discharge to the sanitary sewer and an industrial waste discharge permit will be obtained.	❑ State that no vehicle repair or maintenance will be done outdoors, or else describe the required features of the outdoor work area. ❑ State that there are no floor drains or if there are floor drains, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements. ❑ State that there are no tanks, containers or sinks to be used for parts cleaning or rinsing or, if there are, note the agency from which an industrial waste discharge permit will be obtained and that the design meets that agency's requirements.	In the Stormwater Control Plan, note that all of the following restrictions apply to use the site: ❑ No person shall dispose of, nor permit the disposal, directly or indirectly of vehicle fluids, hazardous materials, or rinsewater from parts cleaning into storm drains. ❑ No vehicle fluid removal shall be performed outside a building, nor on asphalt or ground surfaces, whether inside or outside a building, except in such a manner as to ensure that any spilled fluid will be in an area of secondary containment. Leaking vehicle fluids shall be contained or drained from the vehicle immediately. ❑ No person shall leave unattended drip parts or other open containers containing vehicle fluid, unless such containers are in use or in an area of secondary containment. Refer to "Automotive Maintenance & Car Care Best Management Practices for Auto Body Shops, Auto Repair Shops, Car Dealerships, Gas Stations and Fleet Service Operations". Brochure can be found at http://rcflood.org/stormwater/ Refer to Outdoor Cleaning Activities and Professional Mobile Service Providers for many of the Potential Sources of Runoff Pollutants categories below. Brochure can be found at http://rcflood.org/stormwater/

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
❑ **L.** Fuel Dispensing Areas	❑ Fueling areas[6] shall have impermeable floors (i.e., portland cement concrete or equivalent smooth impervious surface) that are: a) graded at the minimum slope necessary to prevent ponding; and b) separated from the rest of the site by a grade break that prevents run-on of stormwater to the maximum extent practicable. ❑ Fueling areas shall be covered by a canopy that extends a minimum of ten feet in each direction from each pump. [Alternative: The fueling area must be covered and the cover's minimum dimensions must be equal to or greater than the area within the grade break or fuel dispensing area[1].] The canopy [or cover] shall not drain onto the fueling area.		❑ The property owner shall dry sweep the fueling area routinely. ❑ See the Fact Sheet SD-30 , "Fueling Areas" in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

[6] The fueling area shall be defined as the area extending a minimum of 6.5 feet from the corner of each fuel dispenser or the length at which the hose and nozzle assembly may be operated plus a minimum of one foot, whichever is greater.

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
❑ **M.** Loading Docks	❑ Show a preliminary design for the loading dock area, including roofing and drainage. Loading docks shall be covered and/or graded to minimize run-on to and runoff from the loading area. Roof downspouts shall be positioned to direct stormwater away from the loading area. Water from loading dock areas shall be drained to the sanitary sewer, or diverted and collected for ultimate discharge to the sanitary sewer. ❑ Loading dock areas draining directly to the sanitary sewer shall be equipped with a spill control valve or equivalent device, which shall be kept closed during periods of operation. ❑ Provide a roof overhang over the loading area or install door skirts (cowling) at each bay that enclose the end of the trailer.		❑ Move loaded and unloaded items indoors as soon as possible. ❑ See Fact Sheet SC-30, "Outdoor Loading and Unloading," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
☐ **N.** Fire Sprinkler Test Water		☐ Provide a means to drain fire sprinkler test water to the sanitary sewer.	☐ See the note in Fact Sheet SC-41, "Building and Grounds Maintenance," in the CASQA Stormwater Quality Handbooks at www.cabmphandbooks.com
O. Miscellaneous Drain or Wash Water or Other Sources ☐ Boiler drain lines ☒ Condensate drain lines ☒ Rooftop equipment ☐ Drainage sumps ☐ Roofing, gutters, and trim. ☐ Other sources		☐ Boiler drain lines shall be directly or indirectly connected to the sanitary sewer system and may not discharge to the storm drain system. ☒ Condensate drain lines may discharge to landscaped areas if the flow is small enough that runoff will not occur. Condensate drain lines may not discharge to the storm drain system. ☐ Rooftop equipment with potential to produce pollutants shall be roofed and/or have secondary containment. ☐ Any drainage sumps on-site shall feature a sediment sump to reduce the quantity of sediment in pumped water. ☐ Avoid roofing, gutters, and trim made of copper or other unprotected metals that may leach into runoff. Include controls for other sources as specified by local reviewer.	

STORMWATER POLLUTANT SOURCES/SOURCE CONTROL CHECKLIST

IF THESE SOURCES WILL BE ON THE PROJECT SITE ...	... THEN YOUR WQMP SHOULD INCLUDE THESE SOURCE CONTROL BMPs, AS APPLICABLE		
1 **Potential Sources of Runoff Pollutants**	2 **Permanent Controls—Show on WQMP Drawings**	3 **Permanent Controls—List in WQMP Table and Narrative**	4 **Operational BMPs—Include in WQMP Table and Narrative**
 **P.** Plazas, sidewalks, and parking lots.			 Sweep plazas, sidewalks, and parking lots regularly to prevent accumulation of litter and debris. Collect debris from pressure washing to prevent entry into the storm drain system. Collect washwater containing any cleaning agent or degreaser and discharge to the sanitary sewer not to a storm drain.

Appendix 9: O&M

Operation and Maintenance Plan and Documentation of Finance, Maintenance and Recording Mechanisms

To be included in the Final WQMP

Appendix 10: Educational Materials

BMP Fact Sheets, Maintenance Guidelines and Other End-User BMP Information

To be included in the Final WQMP

APPENDIX G
PRELIMINARY DRAINAGE STUDY

PRELIMINARY
DRAINAGE STUDY

FOR

McCLURE INDUSTRIAL BUILDING

CITY OF BEAUMONT, CALIFORNIA

PREPARED BY:

BLAINE A. WOMER CIVIL ENGINEERING
41555 East Florida Avenue, Suite G
Hemet, CA 92544

February 11, 2021

Table of Contents

McClure Industrial Building
Preliminary Drainage Report Narrative

The McClure Industrial Building project is an industrial development on 1.0 acres located on the north side of First Street, approximately 415 feet east of Veile Avenue in Beaumont.

The subject property has a natural gradient to the southwest and is subject to an offsite drainage area to the east consisting of approximately 0.9 acres. The project design proposes to intercept the offsite easterly flows and discharge them, via a concrete lined v-ditch, to First Street at the southeast corner of the site.

Hydrology calculations in this report are based on the rational method as stipulated in the Riverside County Flood Control and Water Conservation District Hydrology Manual dated 1978, for both the 10-year and 100-year recurrence intervals. Calculations were performed using CIVILCADD/CIVILDESIGN Engineering Software. Onsite soils are categorized as Type 'B' per the manual. Peak storm water flows are summarized as follows:

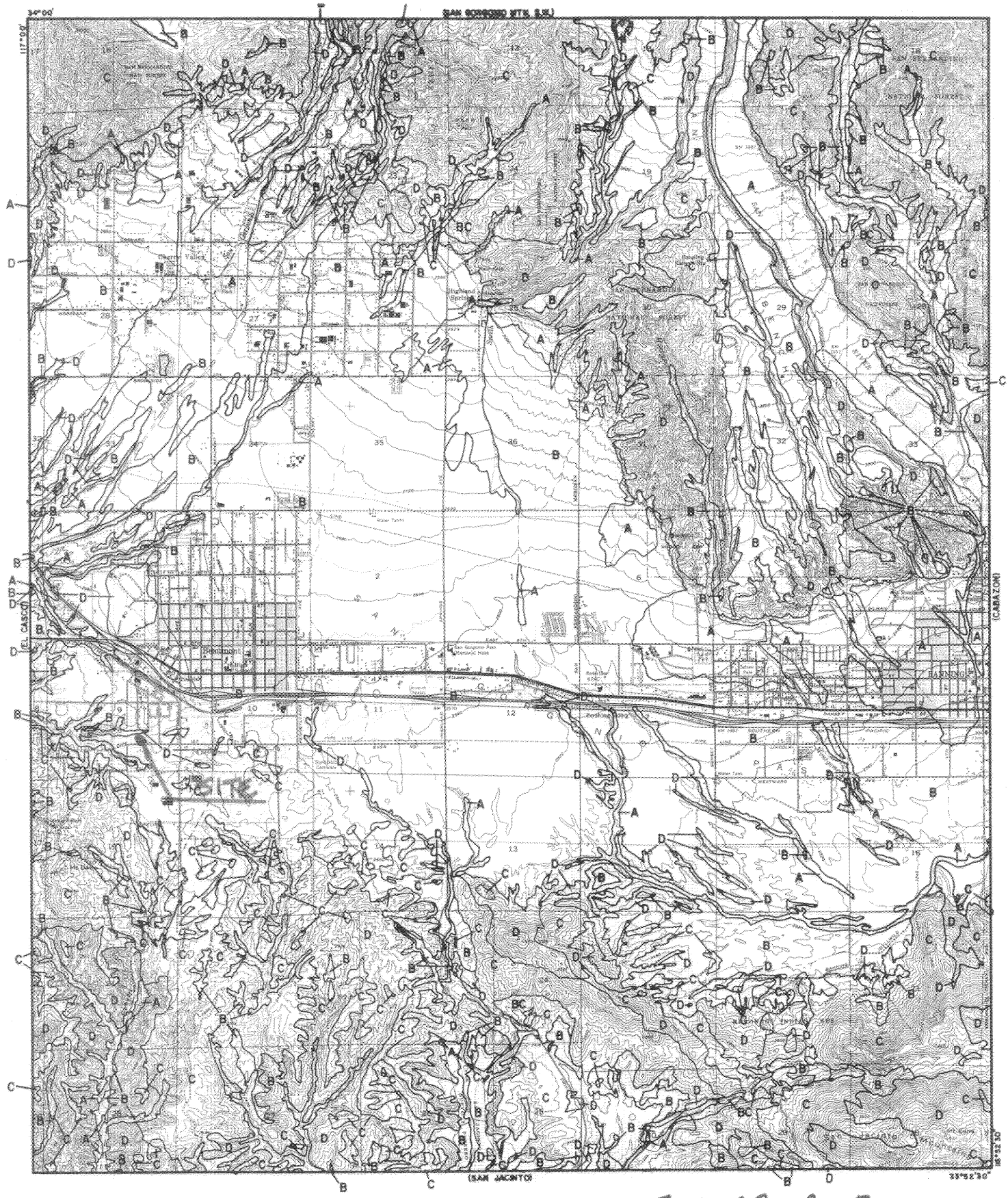
Runoff Summary

Drainage Area Designation	Area (Ac)	Q_{10}(cfs)	Q_{100}(cfs)
Onsite	1.0	2.4	3.6
Offsite	0.9	1.7	2.7

APPENDIX ‘A’

VICINITY MAP

NTS



LEGEND

—— SOILS GROUP BOUNDARY

A SOILS GROUP DESIGNATION

RCFC & WCD

HYDROLOGY MANUAL

N

0 FEET 5000

HYDROLOGIC SOILS GROUP MAP FOR BEAUMONT

PLATE C-1.19

RAINFALL INTENSITY–INCHES PER HOUR

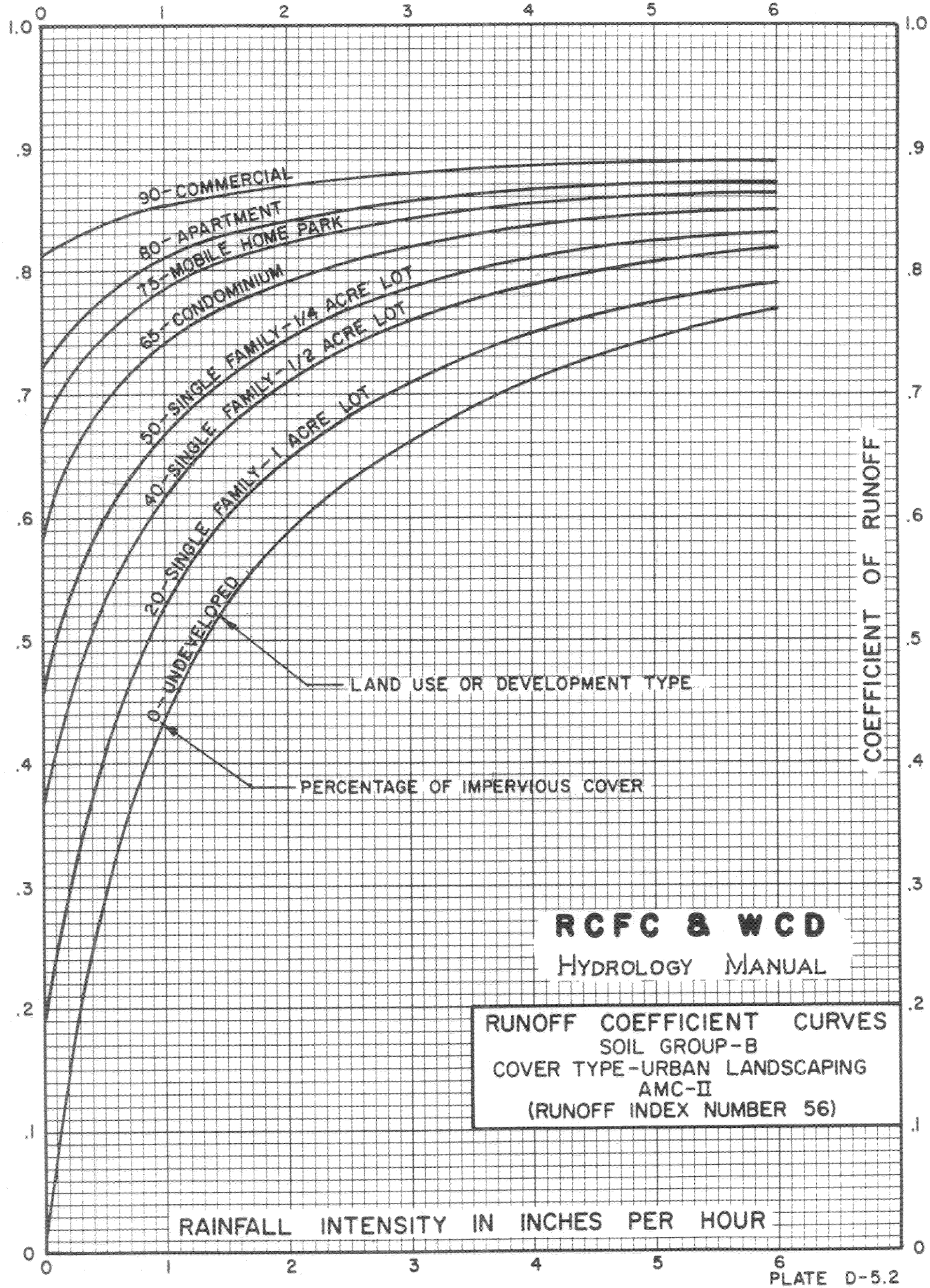
ANZA			BANNING			BEAUMONT			CALIMESA			CANYON LAKE		
DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR	DURATION MINUTES	FREQUENCY 10 YEAR	100 YEAR
5	4.23	6.85	5	3.32	4.93	5	3.32	4.93	5	3.57	5.30	5	3.07	4.61
6	3.80	6.16	6	3.02	4.47	6	3.02	4.47	6	3.23	4.79	6	2.81	4.23
7	3.48	5.63	7	2.78	4.12	7	2.78	4.12	7	2.97	4.40	7	2.61	3.93
8	3.22	5.21	8	2.59	3.84	8	2.59	3.84	8	2.76	4.09	8	2.45	3.68
9	3.01	4.87	9	2.43	3.61	9	2.43	3.61	9	2.58	3.83	9	2.31	3.48
10	2.83	4.58	10	2.30	3.41	10	2.30	3.41	10	2.44	3.62	10	2.20	3.31
11	2.67	4.33	11	2.19	3.24	11	2.19	3.24	11	2.31	3.43	11	2.10	3.16
12	2.54	4.12	12	2.09	3.10	12	2.09	3.10	12	2.21	3.27	12	2.01	3.03
13	2.43	3.93	13	2.00	2.97	13	2.00	2.97	13	2.11	3.13	13	1.94	2.92
14	2.33	3.77	14	1.92	2.85	14	1.92	2.85	14	2.03	3.01	14	1.87	2.82
15	2.23	3.62	15	1.86	2.75	15	1.86	2.75	15	1.95	2.89	15	1.81	2.72
16	2.15	3.49	16	1.79	2.66	16	1.79	2.66	16	1.88	2.79	16	1.75	2.64
17	2.08	3.37	17	1.74	2.58	17	1.74	2.58	17	1.82	2.70	17	1.70	2.56
18	2.01	3.26	18	1.68	2.50	18	1.68	2.50	18	1.76	2.62	18	1.66	2.50
19	1.95	3.16	19	1.64	2.43	19	1.64	2.43	19	1.71	2.54	19	1.62	2.43
20	1.89	3.06	20	1.59	2.36	20	1.59	2.36	20	1.67	2.47	20	1.58	2.37
22	1.79	2.90	22	1.51	2.25	22	1.51	2.25	22	1.58	2.34	22	1.51	2.27
24	1.70	2.76	24	1.45	2.15	24	1.45	2.15	24	1.51	2.23	24	1.44	2.17
26	1.62	2.63	26	1.39	2.06	26	1.39	2.06	26	1.44	2.14	26	1.39	2.09
28	1.56	2.52	28	1.33	1.98	28	1.33	1.98	28	1.38	2.05	28	1.34	2.02
30	1.49	2.42	30	1.29	1.91	30	1.29	1.91	30	1.33	1.98	30	1.30	1.95
32	1.44	2.33	32	1.24	1.84	32	1.24	1.84	32	1.29	1.91	32	1.26	1.89
34	1.39	2.25	34	1.20	1.78	34	1.20	1.78	34	1.24	1.85	34	1.22	1.84
36	1.34	2.18	36	1.17	1.73	36	1.17	1.73	36	1.21	1.79	36	1.19	1.79
38	1.30	2.11	38	1.13	1.68	38	1.13	1.68	38	1.17	1.74	38	1.16	1.74
40	1.27	2.05	40	1.10	1.64	40	1.10	1.64	40	1.14	1.69	40	1.13	1.70
45	1.18	1.91	45	1.04	1.54	45	1.04	1.54	45	1.07	1.58	45	1.07	1.61
50	1.11	1.80	50	.98	1.45	50	.98	1.45	50	1.01	1.49	50	1.02	1.53
55	1.05	1.70	55	.93	1.38	55	.93	1.38	55	.95	1.42	55	.97	1.46
60	1.00	1.62	60	.89	1.32	60	.89	1.32	60	.91	1.35	60	.93	1.40
65	.95	1.55	65	.85	1.27	65	.85	1.27	65	.87	1.29	65	.89	1.35
70	.91	1.48	70	.82	1.22	70	.82	1.22	70	.84	1.24	70	.86	1.30
75	.88	1.42	75	.79	1.17	75	.79	1.17	75	.80	1.19	75	.84	1.26
80	.85	1.37	80	.76	1.13	80	.76	1.13	80	.78	1.15	80	.81	1.22
85	.82	1.32	85	.74	1.10	85	.74	1.10	85	.75	1.11	85	.79	1.18
SLOPE = .580			SLOPE = .530			SLOPE = .530			SLOPE = .550			SLOPE = .480		

RCFC & WCD

HYDROLOGY MANUAL

STANDARD INTENSITY–DURATION CURVES DATA

PLATE D-4.1 (1 of 6)



RCFC & WCD

HYDROLOGY MANUAL

RUNOFF COEFFICIENT CURVES
SOIL GROUP-B
COVER TYPE-URBAN LANDSCAPING
AMC-II
(RUNOFF INDEX NUMBER 56)

PLATE D-5.2

APPENDIX 'B'

RATIONAL HYDROLOGY CALCULATIONS

OFFSITE

```
            Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
      Rational Hydrology Study        Date: 02/11/21  File:MCCLUREOFFSITE10YR.out
------------------------------------------------------------------------
MCCLURE INDUSTRIAL BUILDING
OFFSITE HYDROLOGY
10 YEAR STORM

------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

------------------------------------------------------------------------


Program License Serial Number 4061

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =   10.00 Antecedent Moisture Condition = 2

Standard intensity-duration curves data (Plate D-4.1)
For the [ Beaumont ] area used.
10 year storm 10 minute intensity =  2.300(In/Hr)
10 year storm 60 minute intensity =  0.890(In/Hr)
100 year storm 10 minute intensity =  3.410(In/Hr)
100 year storm 60 minute intensity =  1.320(In/Hr)

Storm event year =  10.0
Calculated rainfall intensity data:
1 hour intensity =  0.890(In/Hr)
Slope of intensity duration curve = 0.5300




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.000 to Point/Station        2.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   230.000(Ft.)
Top (of initial area) elevation =    64.000(Ft.)
Bottom (of initial area) elevation =    54.500(Ft.)
Difference in elevation =     9.500(Ft.)
Slope =    0.04130  s(percent)=       4.13
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    8.826 min.
Rainfall intensity =      2.458(In/Hr) for a    10.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.781
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
```

```
RI index for soil(AMC 2)  =  78.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      1.727(CFS)
Total initial stream area =        0.900(Ac.)
Pervious area fraction = 1.000
End of computations, total study area =            0.90 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 1.000
Area averaged RI index number =  78.0
```

```
            Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
      Rational Hydrology Study        Date: 02/11/21  File:MCCLUREOFFSITE100YR.out
------------------------------------------------------------------------
MCCLURE INDUSTRIAL BUILDING
OFFSITE HYDROLOGY
100 YEAR STORM

------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

------------------------------------------------------------------------


Program License Serial Number 4061

------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =  100.00 Antecedent Moisture Condition = 2

Standard intensity-duration curves data (Plate D-4.1)
For the [ Beaumont ] area used.
10 year storm 10 minute intensity =  2.300(In/Hr)
10 year storm 60 minute intensity =  0.890(In/Hr)
100 year storm 10 minute intensity =  3.410(In/Hr)
100 year storm 60 minute intensity =  1.320(In/Hr)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity =  1.320(In/Hr)
Slope of intensity duration curve = 0.5300




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.000 to Point/Station        2.000
**** INITIAL AREA EVALUATION ****
________________________________________________________________________
Initial area flow distance =   230.000(Ft.)
Top (of initial area) elevation =    64.000(Ft.)
Bottom (of initial area) elevation =    54.500(Ft.)
Difference in elevation =     9.500(Ft.)
Slope =    0.04130  s(percent)=       4.13
TC = k(0.530)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    8.826 min.
Rainfall intensity =      3.645(In/Hr) for a   100.0 year storm
UNDEVELOPED (poor cover) subarea
Runoff Coefficient = 0.816
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
```

```
RI index for soil(AMC 2)  =  78.00
Pervious area fraction =  1.000; Impervious fraction =  0.000
Initial subarea runoff =      2.677(CFS)
Total initial stream area =        0.900(Ac.)
Pervious area fraction = 1.000
End of computations, total study area =            0.90 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 1.000
Area averaged RI index number =  78.0
```

APPENDIX 'C'

RATIONAL HYDROLOGY CALCULATIONS

ONSITE

```
            Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
      Rational Hydrology Study        Date: 02/11/21  File:MCCLUREONSITE10YR.out
--------------------------------------------------------------------------
MCCLURE INDUSTRIAL BUILDING
ONSITE HYDROLOGY
10 YEAR STORM

--------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

--------------------------------------------------------------------------


Program License Serial Number 4061

--------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =   10.00 Antecedent Moisture Condition = 2

Standard intensity-duration curves data (Plate D-4.1)
For the [ Beaumont ] area used.
10 year storm 10 minute intensity =  2.300(In/Hr)
10 year storm 60 minute intensity =  0.890(In/Hr)
100 year storm 10 minute intensity =  3.410(In/Hr)
100 year storm 60 minute intensity =  1.320(In/Hr)

Storm event year =  10.0
Calculated rainfall intensity data:
1 hour intensity =  0.890(In/Hr)
Slope of intensity duration curve = 0.5300




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.000 to Point/Station        2.000
**** INITIAL AREA EVALUATION ****
__________________________________________________________________________
Initial area flow distance =   275.000(Ft.)
Top (of initial area) elevation =    49.600(Ft.)
Bottom (of initial area) elevation =    46.700(Ft.)
Difference in elevation =     2.900(Ft.)
Slope =    0.01055  s(percent)=       1.05
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.051 min.
Rainfall intensity =      2.768(In/Hr) for a    10.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.875
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
```

```
RI index for soil(AMC 2)   =  56.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      2.423(CFS)
Total initial stream area =        1.000(Ac.)
Pervious area fraction = 0.100
End of computations, total study area =            1.00 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  56.0
```

```
            Riverside County Rational Hydrology Program

CIVILCADD/CIVILDESIGN Engineering Software,(c) 1989 - 2005 Version 7.1
      Rational Hydrology Study        Date: 02/11/21  File:MCCLUREONSITE100YR.out
------------------------------------------------------------------------------
MCCLURE INDUSTRIAL BUILDING
ONSITE HYDROLOGY
100 YEAR STORM

------------------------------------------------------------------------------
 *********   Hydrology Study Control Information **********

 English (in-lb) Units used in input data file

------------------------------------------------------------------------------


Program License Serial Number 4061

------------------------------------------------------------------------------
Rational Method Hydrology Program based on
Riverside County Flood Control & Water Conservation District
1978 hydrology manual

Storm event (year) =  100.00 Antecedent Moisture Condition = 2

Standard intensity-duration curves data (Plate D-4.1)
For the [ Beaumont ] area used.
10 year storm 10 minute intensity =  2.300(In/Hr)
10 year storm 60 minute intensity =  0.890(In/Hr)
100 year storm 10 minute intensity =  3.410(In/Hr)
100 year storm 60 minute intensity =  1.320(In/Hr)

Storm event year = 100.0
Calculated rainfall intensity data:
1 hour intensity =  1.320(In/Hr)
Slope of intensity duration curve = 0.5300




++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
Process from Point/Station        1.000 to Point/Station        2.000
**** INITIAL AREA EVALUATION ****
______________________________________________________________________________
Initial area flow distance =   275.000(Ft.)
Top (of initial area) elevation =    49.600(Ft.)
Bottom (of initial area) elevation =    46.700(Ft.)
Difference in elevation =     2.900(Ft.)
Slope =    0.01055  s(percent)=       1.05
TC = k(0.300)*[(length^3)/(elevation change)]^0.2
Initial area time of concentration =    7.051 min.
Rainfall intensity =      4.106(In/Hr) for a   100.0 year storm
COMMERCIAL subarea type
Runoff Coefficient = 0.882
Decimal fraction soil group A = 0.000
Decimal fraction soil group B = 1.000
Decimal fraction soil group C = 0.000
Decimal fraction soil group D = 0.000
```

```
RI index for soil(AMC 2)  =  56.00
Pervious area fraction =  0.100; Impervious fraction =  0.900
Initial subarea runoff =      3.620(CFS)
Total initial stream area =        1.000(Ac.)
Pervious area fraction = 0.100
End of computations, total study area =            1.00 (Ac.)
The following figures may
be used for a unit hydrograph study of the same area.

Area averaged pervious area fraction(Ap) = 0.100
Area averaged RI index number =  56.0
```

APPENDIX 'D'

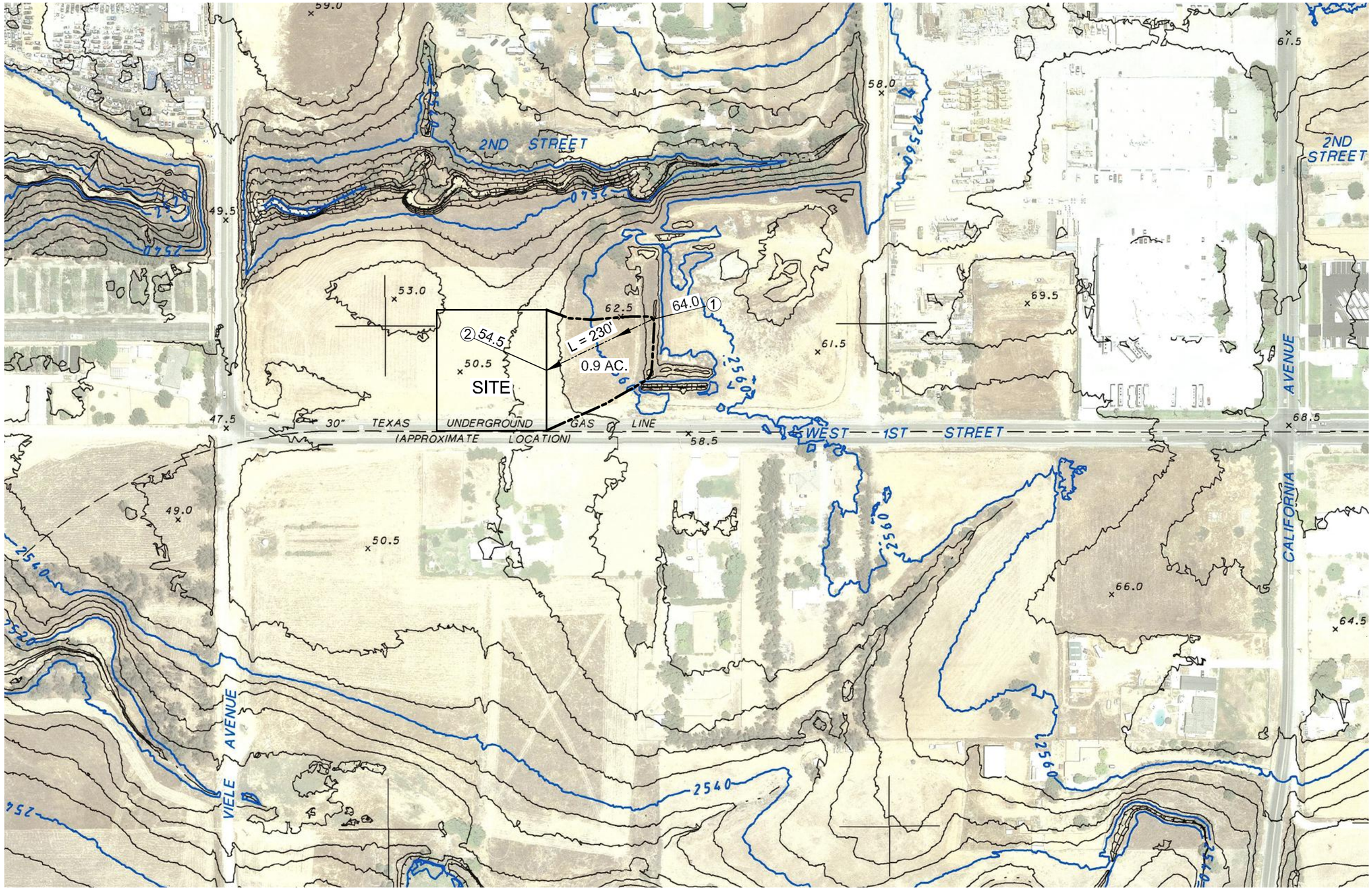
HYDROLOGY EXHIBITS

OFFSITE
ONSITE

OFFSITE HYDROLOGY EXHIBIT

NORTH

1" = 200'



NORTH

0 20 40 60

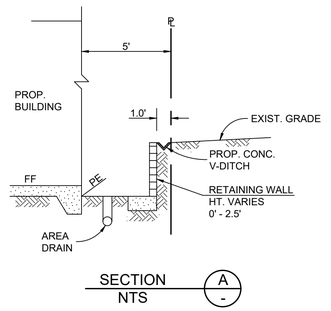
1" = 20'

VICINITY MAP
NTS

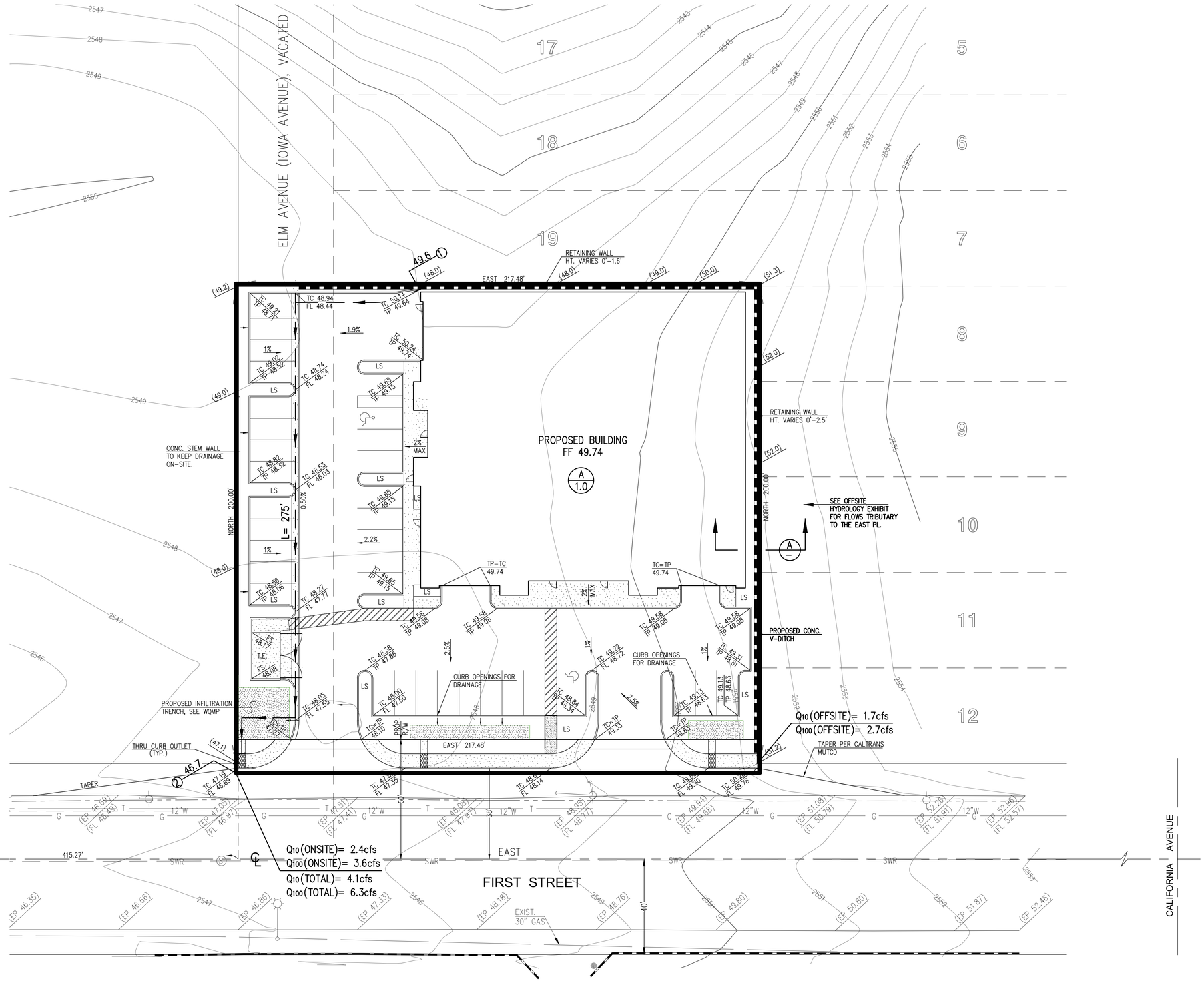
NORTH

LEGEND

- ~ EXISTING POWER POLE
- ~ EXISTING POWER POLE ANCHOR
- ~ EXISTING BLOCK WALL
- ~ EXISTING EDGE OF PAVEMENT
- ~ EXISTING STREET LIGHT POLE
- ~ EXISTING SEWER MANHOLE
- ~ EXISTING SERVICE POLE
- SWR ~ EXISTING SEWER LINE
- G ~ EXISTING GAS LINE
- 12"W ~ EXISTING 12" WATERLINE
- ~ EXISTING BARBED WIRE FENCE
- ~ EXISTING VERTICAL SLOPE
- FF ~ FINISHED FLOOR ELEV.
- PE ~ PAD ELEV.
- TC ~ TOP OF CURB ELEV.
- TP ~ TOP OF PAVEMENT ELEV.
- FL ~ FLOW LINE ELEV.
- TE ~ TRASH ENCLOSURE.
- EP ~ EXISTING EDGE OF PAVEMENT ELEV.
- LS ~ LANDSCAPE AREA
- (1) ~ DRAINAGE NODE
- A / 1.0 ~DRAINAGE AREA DESIGNATION ~ AREA IN ACRES



SECTION A / -
NTS



DIG ALERT
DIAL TOLL FREE
1-800-227-2600
AT LEAST TWO DAYS BEFORE YOU DIG
UNDERGROUND SERVICE ALERT OF SOUTHERN CALIFORNIA

DATE	BY	MARK	REVISIONS	APPR.	DATE

ENGINEER
DESIGNED BY:
DRAWN BY:
CHECKED BY:
CITY

SEAL
REGISTERED PROFESSIONAL ENGINEER
BLAINE A. WOMER
No. 46354
CIVIL
STATE OF CALIFORNIA

APPROVED BY: DATE
CITY ENGINEER

PREPARED BY: DATE
R.C.E. NO.

BLAINE A. WOMER
CIVIL ENGINEERING
•PLANNING •SURVEYING •CIVIL ENGINEERING •PUBLIC WORKS
Hemet, CA 92544, 41555 E Florida Ave., Suite G, Phone (951)658-7727 Fax (951)658-9347
Park City, UT 84098, 5133 Cove Canyon Dr. #302, Phone/Fax (435)615-1489

SCALE 1" = 30'
DATE JUNE, 2020
BENCHMARK:

CITY OF BEAUMONT
McCLURE INDUSTRIAL BUILDING
ON-SITE HYDROLOGY EXHIBIT
FOR FDC W.O.

SHEET NO. 1 OF 1 SHEETS
FILE NO.