MITIGATED NEGATIVE DECLARATION

1. Project Name:	676 Moss Street Project
2. Project Location:	676 Moss Street, Chula Vista, California
3. Assessor's Parcel No.:	618-010-2601, 618-010-2602, 618-010-3100, and 618-010-3200
4. Project Applicant:	Shopoff Land Fund-Moss Street, LLC 2 Park Plaza, Suite 700, Irvine, California 92614 Contact: James O'Malley 949.417.1396
5. Date of Draft Document:	April 27, 2020
6. Case No:	IS18-0004
7. Date of Final Document:	TBD

A. PROJECT SETTING

The 676 Moss Street Project (proposed project) is located on approximately 6.9 acres located on the northeast corner of Industrial Boulevard and Moss Street, east of Interstate 5 (I-5) (Exhibit 1). The project site includes four parcels designated as San Diego County Assessor's Parcel Numbers (APNs): 618-010-2601, 618-010-2602, 618-010-3100, and 618-010-3200 (Exhibit 2). The project site currently has three buildings on-site used for a variety of light industrial uses, all of which would be demolished.

The property has a City of Chula Vista Vision 2020 General Plan Land Use Designation of Limited Industrial and is zoned Limited Industrial Zone (I-L). Refer to Exhibit 3 and Exhibit 4, respectively.

The project site is bounded by light industrial uses to the north; light industrial uses and residential dwellings to the east; Moss Street and residential dwellings to the south; and light industrial uses, an at-grade rail crossing, and Industrial Boulevard to the west.

B. PROJECT DESCRIPTION

The proposed project consists of the approvals necessary to remove three existing buildings on the 6.9-acre project site to develop a residential neighborhood with a variety of housing types. Approximately, one third of the site (2.5 acres) would be developed as open space as part of the proposed project. The components of the project are described in more detail below.

Residential

The proposed project would consist of a gated-residential development comprised of 141 dwelling units, including 97 3-story court townhomes and 44 3-story row townhomes. The proposed dwelling units would be 3-story, 45-foot-tall buildings and would vary from 1,175

square feet to 1,947 square feet. Each unit would have 2- to 4-bedrooms, and all units would have 2.5 bathrooms (Exhibit 5). The average household size in the City of Chula Vista is 3.37 persons per dwelling unit. The proposed project is estimated to increase the population by approximately 475 people.[1] The estimated start of construction is approximately October 2020.

Frontage

The proposed project would require a variance for a front-yard setback requirement on Moss Street due to the two 10-foot by 12-foot concrete box culverts that currently bisect the site. The proposed front-yard setback is 10 feet instead of 15 feet due to all buildings being shifted away from the culvert on both sides, thus imposing a burden that is not created by the owner. The existing right-of-way is 5 feet wider than the City of Chula Vista standard. Therefore, the resulting setback between the improved street and the proposed buildings would be consistent with the intended setback.

Parking

The proposed rezoning to R-3 requires two parking spaces per dwelling unit, for a total of 282 parking spaces. The proposed project would provide 282 garage spaces with an additional 66 non-garage spaces. Therefore, the proposed project would provide 2.47 parking spaces per home equaling 348 parking spaces; 66 more parking spaces than required by the R-3 zoning (Exhibit 5).

Site Access

Vehicular access to the proposed project would be provided via one full-access, un-signalized driveway on Moss Street, which is the existing site access point (Exhibit 5).

Open Space

The R-3 District requires a total of 71,120 square feet of open space (approximately 504 square feet per dwelling unit or 1.6 acres). The proposed project would exceed this requirement by creating private open space areas of 75,111 square feet (approximately 533 square feet per dwelling unit or 1.72 acres) (Exhibit 6). The proposed open space includes approximately 19,636 square feet of rooftop decks for recreation,[2] and approximately 36,864 square feet of common open space that would include a community recreational area with barbeque counter, tot lot, and overhead structures with Americans with Disabilities Act (ADA) compliant seating for social gatherings and special events (Exhibit 7). A Homeowner's Association (HOA) would maintain the common area landscape and open space.

Utilities

The proposed project would be served by all required public services and utilities, including electricity, natural gas, telecommunications, sewage, water, and solid waste removal, etc. There

[1] Project population (475) calculated by multiplying number of proposed dwelling units (141) by average household size (3.37 persons per dwelling unit).

[2] Chula Vista Municipal Code, Section 19.28.090, Open Space Requirements, allows for roof areas designed and equipped to accommodate recreational and leisure activities to be included as part of the open space requirement.

are existing underground utilities on the project site. The proposed project would construct an on-site private sewer main in the internal private streets and that would connect the sewer main to the existing public sewer main. Water would be served by the existing water main and a new public water main would be constructed. Stormwater runoff would flow into a proposed storm drain system and discharge into an existing double-box culvert. Table 1 lists the Utility Providers for the proposed project site.

Table 1: Utility Providers

Utility	Provider
Electricity	San Diego Gas & Electric
Natural Gas	San Diego Gas & Electric
Sewage	City of Chula Vista
Potable Water	Sweetwater Authority
Storm Drain	Sweetwater Authority
Solid Waste Removal	Republic Services
Telephone	AT&T
Cable TV	Time Warner Cable
Source: Michael Baker International. Tentative Map 2018.	

C. COMPLIANCE WITH ZONING AND PLANS

The proposed project would require a General Plan Amendment from Limited Industrial (I-L) to High Residential (RH: 18-27 dwelling units per acre), and a Zone Change from Limited Industrial (I-L) to Apartment Residential Zone (R-3). The High Residential designation is intended for multi-family units, such as apartment and condominium-type dwellings in multiple-story buildings, with densities ranging from 18.1 to 27 dwelling units per gross acre. According to the United States Census Bureau's 2013-2017 American Community Survey 5-year Estimates, Tables DP05 and S2504, the population of the City of Chula Vista is 264,101 and the number of occupied housing units is 78,476, for an average household size of 3.37 persons per dwelling unit.[3] Therefore, population density would range from 60.6 to 90.5 persons per acre.

The purpose of the R-3 zone is to provide appropriate locations where apartment house neighborhoods of varying degrees of density may be established, maintained, and protected. The regulations of this district are designed to promote and encourage an intensively developed residential environment, with appropriate environmental amenities such as open areas, landscaping, and off-street parking. To this end, the regulations permit, in accordance with the respective density districts, multiple dwellings ranging from garden apartments to multi-story apartment houses, and necessary public services and activities subject to proper controls. Also permitted, subject to special control, are certain retail and service activities intended for the

[3] United States Census Bureau. 2013-2017 American Community Survey 5-year Estimates. Accessed December 23, 2018.

convenience and service of the residents of the district (Chula Vista Municipal Code, Chapter 19.28.010)

D. PUBLIC COMMENTS

On April 27, 2020, a Notice of Intent was circulated to property owners within a 500-foot radius of the proposed project site, as well as to other interested parties. The public review period shall end on May 27, 2020.

E. IDENTIFICATION OF ENVIRONMENTAL EFFECTS

An Initial Study conducted by the City of Chula Vista determined that the proposed project may have potential significant environmental impacts; however, mitigation measures have been incorporated into the project to reduce these impacts to a less than significant level. This MND has been prepared in accordance with Section 15070 of the CEQA Guidelines.

F. MITIGATION NECESSARY TO AVOID SIGNIFICANT IMPACTS

MM AIR-1 Prior to the issuance of any demolition or grading permit, the Project Applicant shall demonstrate to the satisfaction of the City Development Services Department that all off-road construction equipment that will be used on the project site in excess of 50 horsepower will be equipped with engines meeting the United States Environmental Protection Agency (EPA) Tier IV Final off-road engine emission standards. This mitigation measure shall be included on the grading plan.

MM BIO-1 Construction activities that occur during the nesting season (generally March 1 to August 31) could disturb nesting sites for birds protected by the Migratory Bird Treaty Act (MBTA) and Fish and Game Code. No action is necessary if no active nests are found or if construction occurs during the non-breeding season (generally September 1 through February 14).

Implementation of the following avoidance and minimization measures would reduce impacts to nesting birds to a less than significant level.

- To prevent impacts to MBTA-protected birds, nesting raptors, and their nests, removal of trees will be limited to only those necessary to construct the proposed project.
- If any tree removal is necessary, then it will occur outside the nesting season, between September 1 and February 14. If trees cannot be removed outside the nesting season, pre-construction surveys will be conducted 3 days prior to tree removal to verify the absence of active nests.
- If an active nest is located during pre-construction surveys, the United States Fish and Wildlife Service (USFWS) and/or the California Department of Fish and Wildlife (CDFW) (as appropriate) shall be notified regarding the status of the nest. Construction activities shall be restricted as

necessary to avoid disturbance of the nest until it is abandoned or the agencies deem disturbance potential to be minimal. Restrictions may include the establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100 feet around an active raptor nest and a 50-foot radius around an active migratory bird nest) or alteration of the construction schedule.

- A Qualified Biologist will delineate the buffer using Environmentally Sensitive Area (ESA) fencing, pin flags, and or yellow caution tape. The buffer zone will be maintained around the active nest site(s) until the young have fledged and are foraging independently.

MM CUL-1 Prior to the issuance of any demolition or grading permit, the Project Applicant shall demonstrate to the satisfaction of the City Development Services Department that a program related to potential archaeological resources uncovered during construction activities on-site has been established, the program shall include that:

1. The Project Applicant shall retain a qualified professional Archaeologist approved by the City to be present and monitor all ground-disturbing activities;
2. The Archaeologist shall halt work in the immediate area in the event that archaeological resources are identified until the Archaeologist has evaluated the find and determined if the find is a “unique cultural resource” as defined in Section 21083.2 (g) of the CEQA statutes;
3. The Project Applicant shall inform the City Development Services Department of the find;
4. If this determination is positive, the scientifically consequential information shall be fully recovered by the Archaeologist;
5. The Project Applicant shall stop work in the immediate location of the find until information recovery has been completed and a report has been filed with the City; the SCIC at San Diego State University; and, appropriate Native American representatives;
6. The Project Applicant may continue outside the area of the find; and,
7. The City Development Services Department shall ensure compliance.

MM CUL-2 Prior to the issuance of any demolition or grading permit, the Project Applicant shall demonstrate to the satisfaction of the City Development Services Department that a program related to any human remains that might be encountered during ground-disturbing activities on-site has been established, the program shall include:

1. The Project Applicant shall halt work in the immediate area of the find;
2. The Project Applicant shall contact the San Diego County Coroner, City Development Services Department, and Sherriff’s Department;

3. The Project Applicant shall be responsible for ensuring that the Native American Heritage Commission (NAHC) and the appropriate Native American representatives are contacted and that the NAHC contacts the most appropriate most likely descendant (MLD) as maybe directed by either the San Diego County Coroner, City Development Services Department, or Sherriff's Department;
4. The City Development Services Department shall direct the treatment of the remains pursuant to Coroner and MLD recommendations.

MM GEO-1 All recommendations included in the Preliminary Geotechnical Report, included as Appendix D of this Draft IS/MND, shall be implemented during construction activities.

MM GEO-2 The City of Chula Vista assesses and mitigates the potential impacts of private development and public facilities and infrastructure to paleontological resources pursuant to the provisions of CEQA. Pursuant to Section 15065 of the CEQA Guidelines, a lead agency must find that a project may have a significant effect on the environment where the project has the potential to eliminate important examples of the major periods of California prehistory, which includes the destruction of significant paleontological resources.

With the implementation of Mitigation Measure (MM) GEO-2, impacts to any previously undiscovered paleontological resources would be less than significant.

Because excavations may extend into undisturbed high sensitivity geological units, and may be greater than 10 feet below the ground surface in certain areas of the project, a Paleontological Monitor will be required.

Prior to the issuance of any demolition or grading permit, the Project Applicant shall demonstrate to the satisfaction of the City Development Services Department that a program related to paleontological resources potentially uncovered during ground-disturbing activities on-site has been established, the program shall include:

1. The Project Applicant shall halt work in the immediate area of the find;
2. The Project Applicant shall notify the City Development Services Department;
3. The Project Applicant shall retain a qualified professional Paleontologist approved by the City:
   - The Paleontologist shall assess the discovered material(s).
   - The Paleontologist shall prepare a survey, study or report evaluating the find.

- The Paleontologist's survey, study, or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the find.
- The Report shall be reviewed and approved by the City Development Services Department.
- The Project Applicant shall comply with the recommendations of the report as approved by the City.
- Project development activities in the immediate area of the find will resume when copies of the report are submitted in a manner acceptable to the City Development Services Department.
- A find(s) recovered should be deposited in a manner approved by the City Development Services Department.

Prior to the issuance of any building permit, the Project Applicant shall submit a letter to the City Development Services Department indicating what, if any, paleontological reports have been prepared for the project site, or a statement indicating that no material was discovered.

MM GHG-1 Prior to the occupancy of the proposed project, the Project Applicant shall provide for the purchase of voluntary carbon credits in a manner approved by the City Development Services Department pursuant to the following performance standards and requirements: the carbon offsets shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions as set forth in Cal. Health & Saf. Code Section 38562(d)(1); and ii. one carbon offset credit shall mean the past reduction or sequestration of one metric ton of carbon dioxide equivalent that is "not otherwise required" (CEQA Guidelines Section 15126.4(c)(3)). The purchase shall be from a verified greenhouse gas (GHG) emissions credit broker in an amount sufficient to offset operational GHG emissions of approximately 0 metric ton (MT) carbon dioxide equivalent (CO_2e) per year until 2030 and 450 MT CO_2e per year beginning in 2030 (or a total amount estimated over the lifetime of the proposed project, which is estimated to be 9,450 MT CO_2e). The purchase shall be verified as occurring prior to approval of occupancy permits. Copies of emission estimates and offset purchase contract(s) shall be provided to the City Development Services Department for review and approval.

MM HAZ-1 Prior to the issuance of any demolition or grading permit, the Project Applicant shall demonstrate to the satisfaction of the City Development Services Department that the five groundwater monitoring wells on the project site will remain in place should additional groundwater testing be necessary. The Project Applicant will abandon the wells when they are longer needed in a manner approved by the City Development Services Department and San Diego County Department of Environmental Health Monitoring Well Program.

MM HAZ-2a Prior to the issuance of any grading permit and subsequent to the demolition of on-site structures, the Project Applicant shall conduct soil testing on the soils the structures were on. If volatile organic compounds (VOCs) are present, soil containing elevated concentrations of VOCs shall be excavated and removed from the project site. The excavation and removal of soil to be outlined in the Soil Management Plan (SMP) approved by the San Diego County Department of Environmental Health.

MM HAZ-2b Prior to issuance of any demolition permit, the Project Applicant shall obtain a permit from the San Diego County Hazardous Materials Division. The permits shall provide that hydrocarbons or "other products," including asbestos and lead based paints, that might be encountered during building demolition, grading, or construction activities, are disposed of in a manner approved by the City Development Services Department.

MM HAZ 3 Prior to the issuance of any site development permits (demolition, grading, building, construction), the Project Applicant shall enter into the County of San Diego Department of Environmental Health Voluntary Assistance Program (VAP). Written Confirmation of VAP participation and compliance shall be received from San Diego County Department of Environmental Health prior to any site development activities.

MM NOI-1 To meet the interior noise level standard of 45 A-weighted decibel (dBA) Community Noise Equivalent Level (CNEL), each of the proposed multi-family residential units shall be supplied with **an alternative form of ventilation, such as air conditioning or noise-attenuated passive ventilation systems,** that would allow an occupant the option of controlling noise by keeping the windows shut (as the interior noise standard would not be met with open windows)**.**

MM NOI-2 To reduce potential construction noise impacts, the Project Applicant shall demonstrate to the satisfaction of the City Development Services Department that:

- The Construction Contractor shall ensure that all equipment driven by internal combustion engines shall be equipped with mufflers that are in good condition and appropriate for the equipment.
- The Construction Contractor shall ensure that unnecessary idling of internal combustion engines (i.e., idling in excess of 5 minutes) is prohibited.
- The Construction Contractor shall utilize "quiet" models of air compressors and other stationary noise sources where such market available technology exists.
- The Construction Contractor shall ensure that stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and

placed so that emitted noise is directed away from the nearest residential land uses at all times during project grading and construction.

- The Construction Contractor shall designate a Noise Disturbance Coordinator who would be responsible for responding to any local complaints about construction noise. The Noise Disturbance Coordinator would determine the cause of the noise complaints (starting too early, bad muffler, etc.) and establishment reasonable actions necessary to correct the problem. The Construction Contractor shall visibly post a telephone number for the Noise Disturbance Coordinator at the construction site.
- The Construction Contractor shall limit noise producing construction activities to the hours between 7:00 a.m. and 10:00 p.m., Monday through Friday, and between 8:00 a.m. and 10:00 p.m. on Saturday and Sunday.

Prior to the issuance of each certificate of occupancy, the Construction Contractor shall demonstrate, to the satisfaction of the City Development Services Department, compliance with Mitigation Measure (MM) NOI-2.

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G. AGREEMENT TO IMPLEMENT MITIGATION MEASURES

By signing the line(s) provided below, the Project Applicant and Operator stipulate that they have each read, understood, and have their respective company's authority to and do agree to the mitigation measures contained herein, and will implement same to the satisfaction of the Environmental Review Coordinator. Failure to sign the line(s) provided below prior to posting of this Mitigated Negative Declaration with the County Clerk shall indicate the Project Applicant's and Operator's desire that the proposed project be held in abeyance without approval and that the Project Applicant and Operator shall apply for an Environmental Impact Report (EIR).

James O'Malley, Vice President – Development	April 27, 2020
Printed Name and Title of Project Applicant	Date:
	April 27, 2020
Signature of Project Applicant	Date:

H. CONSULTATION

1. Individuals and Organizations

City of Chula Vista

Others:
Jonathan Brothers, Eilar Associates, Inc.
Cody Schaaf, Dudek
Adam Poll, Dudek
Angela Pham, Dudek
Sarah Siren, Dudek

2. Initial Study

This environmental determination is based on the City's Initial Study. The report reflects the independent judgment of the City of Chula Vista. Further information regarding the environmental review of this proposed project is available from the Development Services Department, 276 Fourth Avenue, Chula Vista, California 91910.

Steve Power, Principal Planner Development Services	Date: April 27, 2020

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Source: Census 2000 Data, The CaSIL

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Exhibit 1
Regional Location Map

34260024 • 03/2019 | 1_regional.mxd

CITY OF CHULA VISTA • 676 MOSS STREET
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

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Source: ESRI Aerial Imagery. San Diego County GIS Data.

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200 100 0 200 Feet

Exhibit 2
Assessor Parcel Numbers Map

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CITY OF CHULA VISTA • 676 MOSS STREET
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

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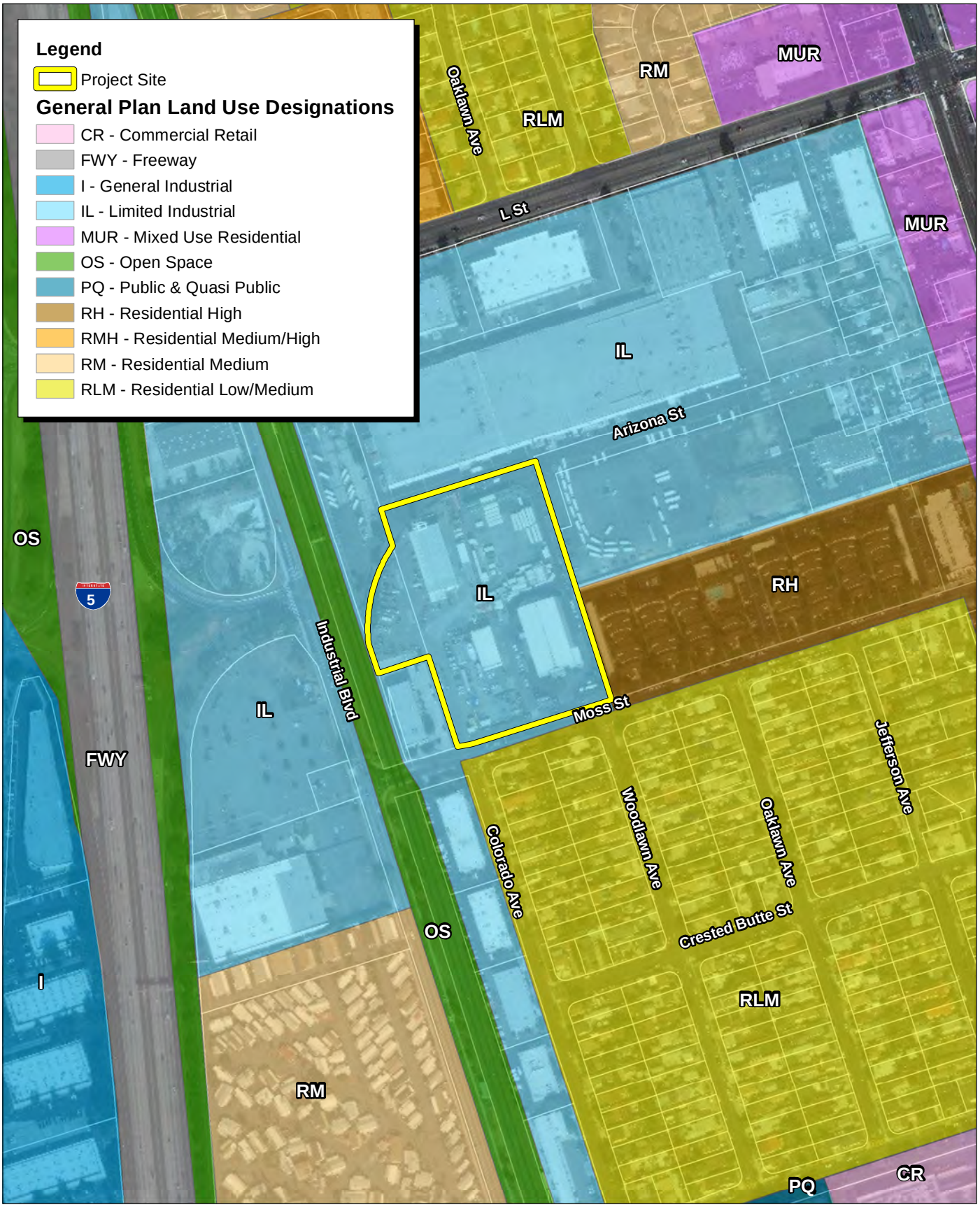

Source: ESRI Aerial Imagery. City of Chula Vista and San Diego County GIS Data.

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Exhibit 3
City of Chula Vista
General Plan Land Use Map

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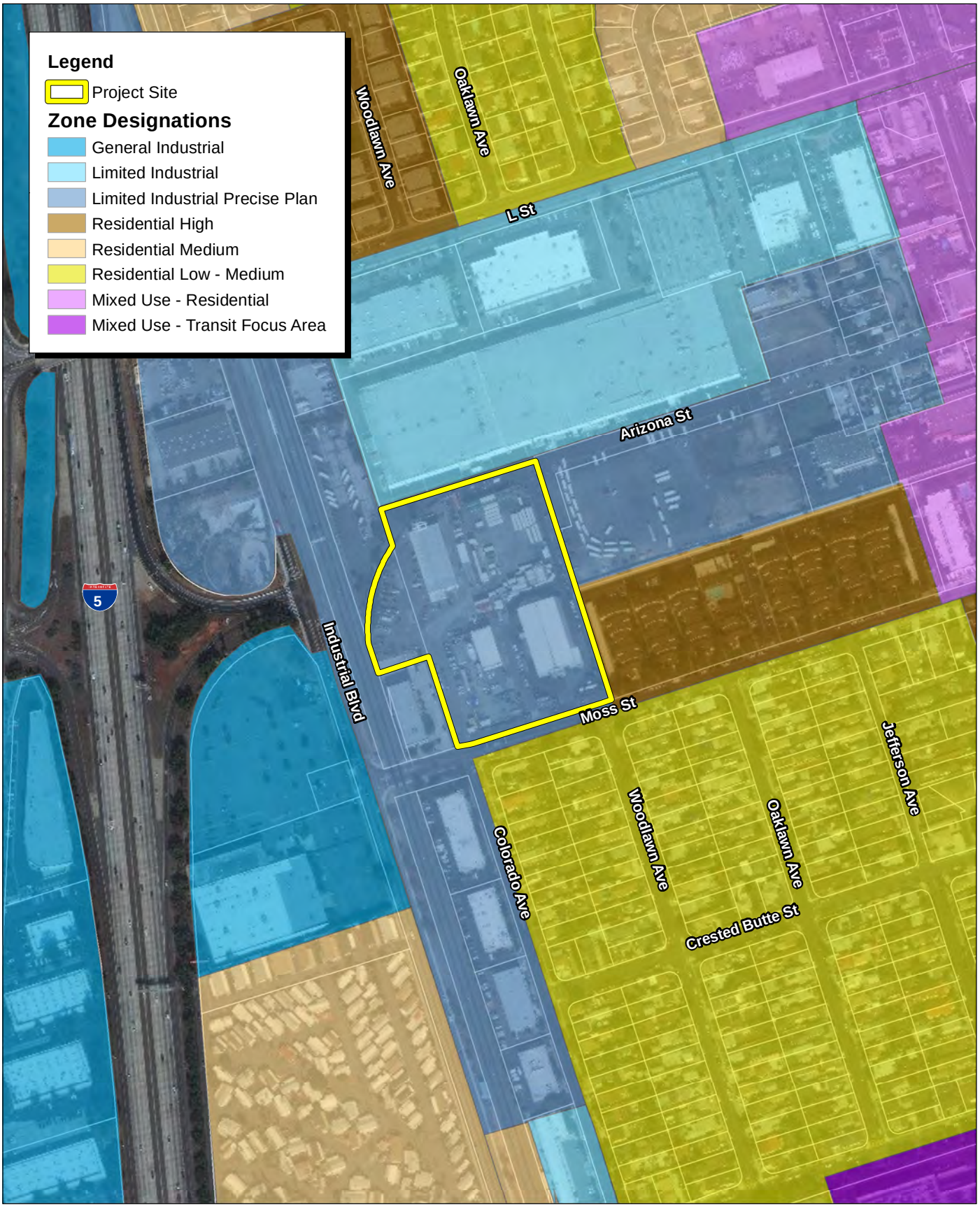

Source: ESRI Aerial Imagery. City of Chula Vista and San Diego County GIS Data.

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Exhibit 4
City of Chula Vista Zoning Map

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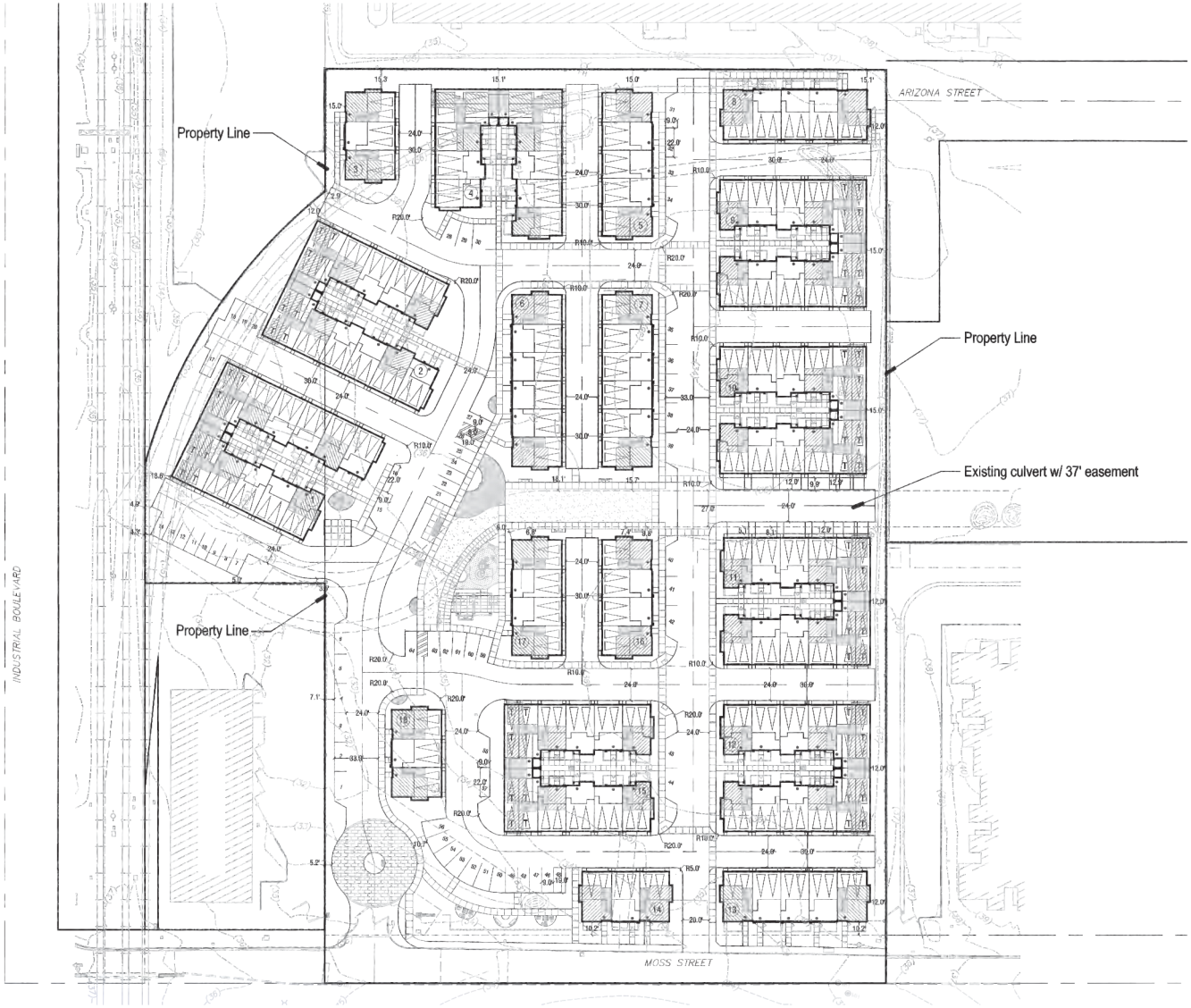

Project Summary

Total Site Area: ± 6.94 Acres (± 302,254 SF)

Total Units: 141 Homes
- (97) 3-Story Court Towns
  - (16) Plan 1: ± 1,196 SF, 2 Bed, 2.5 Bath (Tandem)
  - (16) Plan 2: ± 1,235 SF, 2 Bed, 2.5 Bath (Tandem)
  - (34) Plan 3: ± 1,652 SF, 3 Bed, 2.5 Bath, Den
  - (31) Plan 4: ± 1,758 SF, 4 Bed, 3.5 Bath, Opt. Den
- (44) 3-Story Row Towns
  - (24) Plan 5: ± 1,838 SF, 3 Bed, 2.5 Bath, Den, Opt. Bed 4
  - (20) Plan 6: ± 2,002 SF, 4 Bed, 3.5 Bath, Opt. Den

Density: 20.4 Homes per Acre

Parking:

Required: 282 Spaces (2.0 spaces per home)
- (141) Homes x 2.0 Spaces = 282 Spaces
- (141) Guest x 0.0 Spaces = 0 Spaces

Provided: 346 Spaces (2.45 spaces per home)
- Garage: 282 Spaces (64 Tandem spaces identified with 'T')
- Head In: 40 Spaces (9' x 19')
- Parallel: 24 Spaces (9' x 22')

Open Space:

Required: 71,120 SF Total (± 504 SF per home, 6' min. dimension)

Provided: 75,111 SF Total (± 533 SF per home)

Lot Coverage: 35% of site (± 104,416 SF)

Zoning Summary

Existing General Plan: Limited Industrial
Proposed General Plan: High Density

Existing Zoning: Limited Industrial Precise Plan
Proposed Zoning: R-3

Lot Area per Unit: ± 2,143 SF per home (min. 1,590 for 4-bed units)

Building Setbacks: Front Yard: 15'
Interior Side Yard: 7'
Rear Yard: 17'

Proposed Setbacks: Front Yard: 10'*
Interior Side Yard: 12'
Rear Yard: 15'*
* Variance will be requested from Planning Commission

Building Separation: 10' minimum

Max. Building Height: 45' and 3 Stories

Max. Lot Coverage: 50%

Notes:

1. Site plan is for conceptual purposes only.
2. Site plan must be reviewed by planning, building, and fire departments for code compliance.
3. Base information per civil engineer.
4. Civil engineer to verify all setbacks and grading information
5. Building Footprints might change due to the final design elevation style.
6. Open space area is subject to change due to the balcony design of the elevation.
7. Building setbacks are measured from property lines to building foundation lines.

Source: WHA Architects, Planners, Designers, February 18, 2020.

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Exhibit 5
Conceptual Site Plan

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Project Summary

Total Site Area: ± 6.94 Acres (± 302,254 SF)

Total Units: 141 Homes
- (97) 3-Story Court Towns
  - (16) Plan 1: ± 1,196 SF, 2 Bed, 2.5 Bath (Tandem)
  - (16) Plan 2: ± 1,235 SF, 2 Bed, 2.5 Bath (Tandem)
  - (34) Plan 3: ± 1,652 SF, 3 Bed, 2.5 Bath, Den
  - (31) Plan 4: ± 1,758 SF, 4 Bed, 3.5 Bath, Opt. Den
- (44) 3-Story Row Towns
  - (24) Plan 5: ± 1,838 SF, 3 Bed, 2.5 Bath, Den, Opt. Bed 4
  - (20) Plan 6: ± 2,002 SF, 4 Bed, 3.5 Bath, Opt. Den

Density: 20.4 Homes per Acre

Open Space:

Required: 71,120 SF Total (± 504 SF per home, 6' min. dimension)
- (32) 2 Bedroom x 400 SF = 12,800 SF
- (34) 3 Bedroom x 480 SF = 16,320 SF
- (75) 4 Bedroom x 560 SF = 42,000 SF

Provided: 76,434 SF Total* (+ 542 SF per home)
- Common: ± 36,864 SF
- Private Ground: ± 8,041 SF (6' Min. Dimension)
- Decks: ± 10,283 SF (6' Min. Dimension)
- Roof Decks: ± 21,246 SF (6' Min. Dimension)

Additional open space areas not counted towards total:
- Landscape Area: ± 45,381 SF
- Private Ground: ± 1,166 SF (less than 6' Min. Dimension)

* All open spaces counted towards the total provided open space meet the General Plan's exterior land use/noise compatibility threshold of 65 dB CNEL for new residential development.

Decks/Roof Decks eliminated from provided o.s. due to noise disqualification. Decks/Roof Decks locations are shown, but not included in above total.
- Roof Decks within 90' of the railroad centerline are excluded from the Open Space calculation due to noise disqualification.
- Decks within 180' and direct line of site to the railroad centerline are excluded from the Open Space calculation due to noise disqualification.

0 20 40 80

Source: WHA Architects, Planners, Designers, March 26, 2020.

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Exhibit 6
Conceptual Open Space Plan

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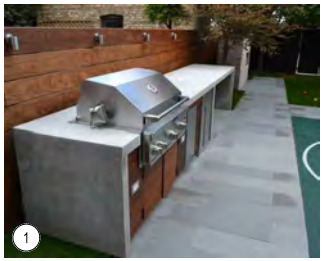


*Conceptual imagery only

LANDSCAPE CONCEPT STATEMENT:

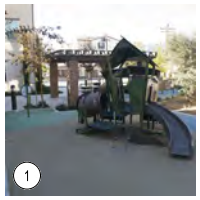
The overall landscape concept for the Chula Vista project is to provide this new residential community and adjacent existing communities with an attractive walking experience while adding visual interest, social functionality and minimal strain on local resources.

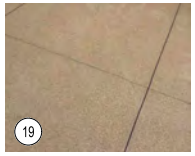
The Design Objective:
A five foot wide, pedestrian walkway system will meander through the community connecting it to Moss street - as well as the proposed attractive amenities like the central shade structure, tot lot, active lawn & smaller seating nodes. These amenity areas will allow for local residents to walk their dogs, stroll, hold small social gatherings as well as larger group events.

The use of low maintenance and water wise plants will be incorporated and designed to be attractive, using dramatic and unique succulents and grasses in mass groupings with a mix of contrasting groundcovers. The overall landscape will be compliant with the City of Chula Vista's Chapter 20.12 Chula Vista Landscape Water Conservation Ordinance.

LEGEND

1. Community recreational area with bbq counter, Tot lot, overhead structure with ADA compliant seating for social gatherings and special events.
2. Proposed wall, fence and gate, per Wall & Fence Plan.
3. Enhanced vehicular entry, with precast pavers.
4. Proposed tree, per Planting Plan.
5. Public concrete sidewalk, per Civil and City Standards.
6. 5' wide community sidewalk, natural color concrete with light broom finish & narrow trowel joints.
7. 4' wide residential unit entry walkways, natural color concrete with light broom finish & narrow tooled joints.
8. Private patio/yard, homeowner maintained & installed.
9. Common area landscape, HOA maintained.
10. Natural color concrete driveway with light broom finish.
11. Guest parking and accessible parking stall per City Standards
12. Public utilities, water, sewer and gas line per Civil Plans.
13. Property line.
14. Mailbox CBU boxes (per USPS approval).
15. City R.O.W.
16. Short term bike parking (6 bike racks to accommodate 12 bike stalls).
17. Existing box Culvert per Civil Plans.
18. Community dog bag station (black in color), for pet owners.
19. Enhanced color paving at open space/with .05 top cast finish & sawcut joints
20. Proposed illuminated site plan/directory on painted precision cmu wall.
21. Proposed bulk trash pickup area.
    *Entry monuments, per separate permit / submittal.





*Conceptual imagery only

Community recreational area. Fire pit with seating

0 20' 40' 80'
Scale: 1" = 40'-0"

Source: WHA Architects, Planners, Designers, February 18, 2020.

FIRSTCARBON SOLUTIONS™

Exhibit 7
Conceptual Landscape Plan

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676 MOSS STREET PROJECT INITIAL STUDY

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ENVIRONMENTAL CHECKLIST FORM

1. Proponent Name, Address, and Contact:	Shopoff Land Fund-Moss Street, LLC 2 Park Plaza, Suite 700 Irvine, California 92614 Contact: James O'Malley, Vice President 949.417.1396
2. Lead Agency Name, Address, and Contact:	City of Chula Vista Development Services Department 276 Fourth Avenue Chula Vista, California 91910 Stan Donn, AICP 619.409.5953
3. Name of Proposal:	676 Moss Street Project
4. Date of Checklist:	April 27, 2020
5. Case No.	IS18-0004
6. General Plan Designation:	Limited Industrial (I-L) to be rezoned to High Residential (RH).
7. Zoning Designation:	Limited Industrial (I-L) to be rezoned to High Residential (RH).

PROJECT LOCATION AND SETTING

The proposed 676 Moss Street Project (proposed project) is located in the City of Chula Vista, in San Diego County, California. The City of Chula Vista is surrounded by National City, the City of San Diego, and unincorporated San Diego County to the north, unincorporated San Diego County to the east, the City of San Diego to the south, and the San Diego Bay to the west (Exhibit 1).

The project site is located at 676 Moss Street on the northeast corner of Industrial Boulevard and Moss Street. The project site is comprised of four parcels, including Assessor's Parcel Numbers (APNs): 618-010-2601, 618-010-2602, 618-010-3100, and 618-010-3200 (Exhibit 2).

Surrounding Land Uses

The site area is bounded by light industrial uses to the north; light industrial uses and residential dwellings to the east; Moss Street and residential dwellings to the south; and light industrial uses, an at-grade rail crossing, and Industrial Boulevard to the west.

Land Use and Zoning

The proposed project would require a General Plan Amendment from Limited Industrial (I-L) to High Residential (RH: 18-27 dwelling units per acre), and a Zone Change from I-L to Apartment Residential Zone (R-3). The RH designation is intended for multi-family units, such as apartment and condominium-type dwellings in multiple-story buildings, with densities ranging from 18.1 to 27 dwelling units per gross acre. According to the United States Census Bureau's 2013-2017 American Community Survey 5-year Estimates, Tables DP05 and S2504, the population of the City of Chula Vista is 264,101 and the number of occupied housing units is 78,476, for an average household size of 3.37 persons per dwelling unit.[1] Therefore, population density would range from 60.6 to 90.5 persons per acre.

> The purpose of the R-3 zone is to provide appropriate locations where apartment house neighborhoods of varying degrees of density may be established, maintained, and protected. The regulations of this district are designed to promote and encourage an intensively developed residential environment, with appropriate environmental amenities such as open areas, landscaping and off-street parking. To this end, the regulations permit, in accordance with the respective density districts, multiple dwellings ranging from garden apartments to multi-story apartment houses, and necessary public services and activities subject to proper controls. Also permitted, subject to special control, are certain retail and service activities intended for the convenience and service of the residents of the district. (Ordinance 3153 § 2 [Exh. A] 2010; Ord. 1212 § 1, 1969; prior code § 33.505(A)).[2]

ENVIRONMENTAL ANALYSIS QUESTIONS

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
I. Aesthetics				
Except as provided in Public Resources Code Section 21099, would the project:				
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 building within a State Scenic Highway?	☐	☐	☐	☒
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public	☐	☐	☒	☐

[1] United States Census Bureau. 2013-2017 American Community Survey 5-year Estimates. Accessed December 23, 2018.
[2] City of Chula Vista. Chula Vista Municipal Code. 2019. Chapter 19.28: R-3 Apartment Residential Zone. Section 19.28.010: Purpose. Website: https://chulavista.municipal.codes/CVMC/19.28. Accessed February 25, 2020.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?				
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Comments:

(a) No impact. According to the City of Chula Vista Vision 2020 General Plan:

> Chula Vista has valued scenic vistas and open space that include the Otay River and Sweetwater River Valleys; Upper and Lower Otay Lakes; Sweetwater Reservoir; San Miguel/Mother Miguel Mountains; and the San Diego Bay. These open space areas make up the majority of the Chula Vista Greenbelt, the backbone of the City's open space and park system, which consists of a 28-mile open space system encircling the City.[3]

The project site is located approximately 1.21 miles from the nearest section of the Chula Vista Greenbelt. Due to the relatively flat nature of the project site and intervening buildings and topography, the Chula Vista Greenbelt is not visible from the project site. As such, the proposed project would not have an impact on scenic views of the open space areas outlined in the City of Chula Vista Vision 2020 General Plan.

Additionally, the City of Chula Vista has designated roadway segments within the City as scenic. According to the City of Chula Vista Vision 2020 General Plan:[4]

> Chula Vista has several designated Scenic Roadways, where views of unique natural features and roadway characteristics, including enhanced landscaping, adjoining natural slopes, or special design features make traveling a pleasant visual experience. The designated Scenic Roadways are listed below and are shown on Figure 5-4, Designated Scenic Roadways.

[3] City of Chula Vista. City of Chula Vista Vision 2020 General Plan. Website: https://www.chulavistaca.gov/departments/development-services/planning/general-plan. Accessed December 18, 2018.

[4] Ibid

- Marina Parkway from the intersection of E Street and Interstate 5 on the north to its intersection with Bay Boulevard South of J Street
- Bonita Road from Interstate 805 to Sweetwater Road
- Sweetwater Road from the National City boundary east to State Route 54
- East H Street from Interstate 805 to Mount Miguel Road
- Proctor Valley Road from Mount Miguel Road east to Jamul
- Telegraph Canyon Road/Otay Lakes Road from Interstate 805 to Lower Otay Lake
- Olympic Parkway
- Otay Lakes Road from Bonita Road to Telegraph Canyon Road

The nearest City designated Scenic Roadway to the proposed project is Marina Parkway at J Street, located approximately 0.75 mile northwest. The distance, geographic, and physical barriers make the project site not visible from this roadway. Therefore, the proposed project would have no impact to scenic vistas.

(b) No impact. The nearest State Scenic Highway to the project site is State Route 75 (SR-75), which is approximately 2.18 miles west of the project site, across the San Diego Bay. The distance, geographic, and physical barriers make the project site not visible from SR-75.

The site is currently developed and contains several species of ornamental trees; however, none of the ornamental trees are protected resources and there are no rock outcroppings.

Therefore, the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway. As such, there would be no impact.

(c) Less than significant impact. The approximately 6.9-acre site is flat and located in an urban area. The proposed project would be required to comply with applicable zoning and the City of Chula Vista Design Guidelines. As previously discussed, implementation of the proposed project would require a zone change from I-L Zone to R-3. Furthermore, a General Plan Amendment to amend the land use designation from I-L to High Residential would be required. Thus, rectifying any potential conflicts with applicable zoning regulations regarding scenic quality. The proposed project would be designed to match similar multi-family housing developments in the surrounding area. Furthermore, the proposed project would be located approximately 1,000 feet east of the Chula Vista Bayfront Master Plan area. Although the project is not located within the Chula Vista Bayfront Master Plan area, the project would not conflict or impede in the City's ability to implement the Chula Vista Bayfront Master Plan. Because the proposed project would conform to the City of Chula Vista Design Guidelines, and would not conflict with any applicable General Plan policies or zoning regulations regarding scenic quality, impacts would be less than significant.

(d) Less than significant impact. The proposed project would introduce new lighting fixtures from the construction of 141 dwelling units, which would increase new sources of light. However, all new light fixtures for the proposed project would require City Staff approval, as outlined in the City of Chula Vista Municipal Code, Chapter 17: Zoning, 17.28.040 Lighting Plans—Approval Required When:

> All lighting plans in multiple-family, commercial and industrial zones shall be submitted to the Director of Planning for approval prior to installation thereof. Should the City disapprove of the plans, appeal may be taken to the Planning Commission. The determination of the Commission shall be final. (Ordinance 1324 § 1, 1971; prior code § 20.35.4(C)).[5]

The proposed project would require City Staff to review and approve the proposed plan and associated lighting to ensure light and associated glare impacts are minimized. According to the proposed lighting plan, the project would include street light posts with lamp shields to minimize light spillage into adjacent properties. Furthermore, the lighting plan proposes the usage of high efficiency LED lights in order to maximize light and minimize electrical usage on the property. The proposed lighting plan is included as Exhibit 8. As such, impacts would be less than significant.

Mitigation Measures: None.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
II. Agriculture and Forestry 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 Dept. 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:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

[5] City of Chula Vista. Chula Vista Municipal Code. 2019. Chapter 17.28: Unnecessary Lights. Section 17.28.040: Lighting Plans. Website: https://chulavista.municipal.codes/CVMC/17.28. Accessed November 5, 2019.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Comments:

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 (CAL FIRE) 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 (ARB).

(a) No impact. According to the California Department of Conservation, California Important Farmland Finder, San Diego, 2016 map, the project site and the surrounding area is classified as Urban and Built-Up Land.[6] According to the California Department of Conservation, Urban and Built-Up Land constitutes being 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. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures" and not farmland.

As such, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use, and there would be no impact.

[6] California Department of Conservation. 2019. Farmland Mapping and Monitoring Program: San Diego County. Website: ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2016/sdg16_w.pdf. Accessed November 5, 2019

(b) No impact. According to the City of Chula Vista CVMapper ChulaVista GIS online tool, the four parcels where a zoning designation I-L is proposed are not zoned for agricultural use.[7] Therefore, the proposed project would not conflict with existing zoning for agricultural use, as the project site is not zoned as such.

According to the California Department of Conservation's San Diego County Williamson Act 2013/2014 Sheet 1 of 2 map, the project site and the surrounding area is classified as Urban and Built-Up Land and not as Williamson Act Agricultural Land.[8] Therefore, the proposed project would not conflict with a Williamson Act contract.

As such, the proposed project would not conflict with existing zoning for agricultural use, or a Williamson Act contract, and there would be no impact.

(c) No impact. As outlined above in Impact 2.2(b), the four parcels where a zoning designation I-L is proposed are not zoned for forestland, timberland, nor timberland production.

As such, the proposed project would not conflict with existing zoning for, or cause rezoning of, forestland, timberland, or timberland production, and there would be no impact.

(d) No impact. As outlined above in Impact 2.2(c), the four parcels where a zoning designation I-L is proposed are not zoned for forest land, timberland, nor timberland production. Additionally, the project site is currently urbanized and built-up with light industrial uses and is zoned for industrial uses.

As such, the proposed project would not result in the loss of forest land or conversation of forest land to non-forest use and there would be no impact.

(e) No impact. As outlined above in Impacts 2.2(a)–2.2(d), neither the project site nor its surroundings are zoned for or currently agricultural or forest land. As such, the proposed project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use, or conversion of forest land to non-forest use, thus there would be no impact.

Mitigation Measures: None.

[7] City of Chula Vista. CV Web Mapper: ChulaVista GIS. Website: https://gisweb.chulavistaca.gov/cvmapper/. Accessed February 27, 2020.

[8] California Department of Conservation. 2014. San Diego County Williamson Act 2013/2014 Sheet 1 of 2 map. Website: ftp://ftp.consrv.ca.gov/pub/dlrp/wa/San_Diego_w_13_14_WA.pdf. Accessed December 7, 2018.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
III. Air Quality Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
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?	☐	☐	☒	☐

Comments:

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. Information included in this section is based, in part, on project-specific air quality modeling; complete modeling output is provided in Appendix A.

(a) Less than significant impact. The project site is located in the City of Chula Vista, in San Diego County, which is part of the San Diego Air Basin. San Diego County is designated nonattainment for State standards for PM_{10}, 8-hour ozone, 1-hour ozone, and $PM_{2.5}$. The area is also designated nonattainment of the federal standard for 8-hour ozone.[9]

The San Diego County Air Pollution Control District (San Diego County APCD) prepares air quality plans that include projected emissions inventories and account for emission reductions strategies in order to demonstrate how the region will achieve the ambient air quality standards by the given deadlines. The applicable air quality plans for San Diego County are the Regional Air Quality Strategy (RAQS) and the 8-hour Ozone Attainment Plan (Attainment Plan).[10]

If a project proposes development that is greater than that anticipated in the local plan's growth projection, the project might be in conflict with the applicable air quality plans

[9] San Diego County Air Pollution Control District (San Diego County APCD). 2020. Attainment Status. Website: https://www.sdapcd.org/content/sdc/apcd/en/air-quality-planning/attainment-status.html. Accessed February 11, 2020.
[10] Ibid.

and may contribute to a potentially significant cumulative impact on air quality. The project site is currently zoned I-L, while the project proposes development of residential uses. Therefore, the proposed project would not be consistent with the General Plan Land Use designation for the site and would require a General Plan Amendment to change the land use designation from I-L to R-3. Chapter 5, Land Use and Transportation Element, of the City of Chula Vista Vision 2020 General Plan, states that the floor area ratio (FAR) for the I-L Zone ranges from 0.25 to 0.5.[11] The existing site size is 6.9 acres, thus the maximum building square footage under the current General Plan Land Use designation would be approximately 150,282 square feet. The San Diego Association of Governments (SANDAG) Series 13 Regional Growth Forecast estimates approximately 17.1 civilian jobs per developed employment acre.[12] Therefore, the estimated number of employees for existing land use type would be 59 people.[13] The proposed project would construct 141 residential units, and thus, is estimated to house approximately 475 people.

Based on the allowable square footage under the existing zoning designation, the daily trips generated under the current land use designation buildout is estimated to be between 300 and 1,491 weekday trips. The proposed project, using a conservative analysis, would generate 1,128 trips per day.[14,15] Furthermore, the annual regional vehicle miles traveled (VMT) of the buildout under the current General Plan Land Use designation is estimated to be between 877,488 and 1,293,042 miles,[16] while the annual VMT of the proposed project is estimated to be 3,059,605 miles. Because the planned land use and the proposed land use differ and the land use intensity and associated vehicle trips differ, further analysis is required to determine if the proposed project would conflict with or obstruct implementation of the applicable air quality plan. Further analysis is provided below.

Regional Air Quality Strategy

The RAQS outlines how the San Diego County APCD will make progress toward attainment of the ozone California Ambient Air Quality Standards (CAAQS) in the San Diego Air Basin by addressing emissions of the two ozone precursors: volatile organic compounds (VOCs) and oxides of nitrogen (NO_X). Control measures identified in the RAQS regulate stationary emission sources and some area-wide emission sources (e.g.,

[11] City of Chula Vista. City of Chula Vista Vision 2020 General Plan. Table 5-4 General Plan Land Use Designations and Zoning. Website: https://www.chulavistaca.gov/home/showdocument?id=9327. Accessed February 25, 2020.

[12] San Diego Association of Governments (SANDAG). 2013. Series 13: 2050 Regional Growth Forecast. October. Website: https://www.sandag.org/index.asp?classid=12&subclassid=84&projectid=503&fuseaction=projects.detail. Accessed October 25, 2019.

[13] The number of employees for the existing land use type was calculated by multiplying employment density (17.1 jobs per developed employment area) by the maximum building area (3.45 acres); the maximum building area was calculated by multiplying the existing site size (6.9 acres) by the upper end of the floor area ratio range (0.5).

[14] The Draft Transportation Impact Analysis (December 2018) presents a daily trip volume of 1,128 prior to a 5 percent transit reduction and prior to netting out trips from existing uses.

[15] The revised Draft Transportation Impact Analysis, which was revised October 25, 2019, presents a daily trip volume of 846 (prior to a 5 percent transit reduction and prior to netting out trips from existing uses). However, as a more conservative approach, the Air Quality Analysis used the higher daily trip volume of 1,128 from the Draft Transportation Impact Analysis (December 2018).

[16] Source of existing land use VMT: CalEEMod output based on the industrial park and general light industrial land uses, maximum building area of 150,282 square feet, and trip generation rates from the ITE Trip Generation Manual, 10th Edition and the project-specific Transportation Impact Analysis. Source of proposed project VMT: CalEEMod output in Appendix A.

water heaters and architectural coatings). The RAQS emission inventories and projections include all sources of ROGs and NO_X. Projections in the RAQS incorporate all current control measures and projected population growth.[17] The proposed project would not conflict with control measures identified in the RAQS because no new stationary sources would be constructed and the proposed project would comply with all area-wide emission source standards.

8-hour Ozone Attainment Plan

The Attainment Plan serves as the State Implementation Plan (SIP) for San Diego County APCD to achieve the 8-hour ozone National Ambient Air Quality Standards (NAAQS) in the San Diego Air Basin by July 20, 2018.[18] San Diego County APCD has limited authority to regulate mobile sources of ozone pollutants; those sources are regulated by the ARB and United States Environmental Protection Agency (EPA). Since San Diego County was recently reclassified as a Moderate nonattainment area for the 2008 8-hour ozone NAAQS, additional planning and emission control demonstrations are necessary to comply with the Clean Air Act (CAA). These additional Moderate nonattainment area requirements include, as summarized in the Attainment Plan, a comprehensive set of stationary and mobile source control measures to achieve attainment of the 2008 8-hour ozone NAAQS as expeditiously as practicable.[19]

San Diego County APCD has also implemented Regulation IV Rule 55 that includes source-control measures that would reduce particulate matter emissions associated with residential wood combustion; various construction activities including earthmoving, demolition, and grading; bulk material storage and handling; carryout and track-out removal and cleanup methods; inactive disturbed land; disturbed open areas; unpaved parking lots/staging areas; unpaved roads; and windblown dust.

The following measures are recommended to meet San Diego County APCD Rule 55 requirements throughout all phases of construction (but are not required to reduce emissions below significance thresholds):

- All haul trucks transporting soil, sand, or other loose material off-site shall be covered;
- Track-out grates or gravel beds shall be placed at each exit point;
- Wheel washing stations shall be placed at each exit point during muddy conditions;

[17] San Diego County Air Pollution Control District (San Diego County APCD). 2016. 2016 Revision of the Regional Air Quality Strategy for San Diego County. December. Website: https://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/2016%20RAQS.pdf. Accessed February 11, 2020.

[17] San Diego County Air Pollution Control District (San Diego County APCD). 2016. 2008 8-hour Ozone Attainment Plan for San Diego County. December. Website: http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality%20Planning/8-Hr-O3%20Attain%20Plan-08%20Std.pdf. Accessed February 11, 2020.

[18] Ibid.

[19] Ibid.

- All visible mud or dirt track-out onto adjacent public roads shall be removed using PM_{10} efficient wet power vacuum street sweepers certified to meet current South Coast Air Quality Management District Rule 1186 requirements—the use of blowers for track-out is prohibited; and
- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day, covered with soil binders, chemical soil stabilizers, geotextiles, mulch, or seeded.

The following are ARB-recommended control measures that are not specifically identified in the San Diego County APCD Rule 55:

- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points;
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator; and
- Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The San Diego County APCD's phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project would comply with all required control measures and rules and regulations required by the San Diego County APCD during construction and operation. Furthermore, the proposed project would not include any special features that would disrupt or hinder implementation of the control measures.

Conclusion

The proposed project would comply with all applicable regulations and would not conflict or obstruct implementation of the San Diego RAQS or the SIP. Thus, the proposed project would not conflict or obstruct implementation of the applicable air quality plan. Furthermore, the proposed project incorporates applicable control measures identified in the San Diego County APCD and County of San Diego California Environmental Quality Act (CEQA) Guidelines and would not hinder the implementation of any control measures. The impact would be less than significant.

(b) Less than significant impact. In analyzing cumulative impacts from the proposed project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the San Diego Air Basin is designated as nonattainment for CAAQS and NAAQS. If an area is in non-attainment for a criteria pollutant, then the background concentration of that pollutant has historically exceeded

the ambient air quality standard. It follows that if a project exceeds the project-level thresholds for that non-attainment pollutant, it would result in a cumulatively considerable net increase of that pollutant and result in a significant cumulative impact.

Project-level Significance Thresholds

The City of Chula Vista evaluates project emissions based on the quantitative emission thresholds established by the South Coast Air Quality Management District (SCAQMD). The SCAQMD has established regional significance thresholds for VOCs, NO_X, sulfur oxides (SO_X), carbon monoxide (CO), and particulate matter (including dust 10 micrometers or less in diameter [PM_{10}], and dust 2.5 micrometers or less in diameter [$PM_{2.5}$]). Project-related air quality impacts would be significant if any of the applicable significance thresholds, as shown in Table 1, are exceeded.

Table 1: SCAQMD Regional Thresholds

Pollutant	Criteria Pollutant Mass Daily Thresholds (lbs/day)	
	Construction	Operation
VOC	75 lbs/day	55 lbs/day
NO_X	100 lbs/day	55 lbs/day
PM_{10}	150 lbs/day	150 lbs/day
$PM_{2.5}$	55 lbs/day	55 lbs/day
SO_X	150 lbs/day	150 lbs/day
CO	550 lbs/day	550 lbs/day

Notes:
NO_X = oxides of nitrogen
SO_X = sulfur oxide
VOCs = volatile organic compounds
CO = carbon monoxide
PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less;
$PM_{2.5}$ = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers
Source: South Coast Air Quality Management District (SCAQMD). 2019. SCAQMD Air Quality Significance Thresholds. April. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf. Accessed November 5, 2019.

The San Diego Air Basin has been designated as a federal nonattainment area for ozone and a State nonattainment area for ozone, PM_{10}, and $PM_{2.5}$. Ozone is not emitted directly into the air, but is a regional pollutant formed by photochemical reactions in the atmosphere. Ozone precursors, VOCs and NO_X, react in the atmosphere in the presence of sunlight to form ozone. Therefore, the SCAQMD does not have a recommended ozone threshold, but it does have thresholds of significance for VOCs and NO_X.

Project-specific Construction Emissions

Construction of the proposed project would result in the temporary generation of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ emissions from construction activities

including demolition, grading, building construction, architectural coating, and asphalt paving. Fugitive particulate matter (PM) dust emissions are primarily associated with earth disturbance and grading activities, and vary as a function of soil silt content, soil moisture, wind speed, acreage of disturbance area, and miles traveled by construction vehicles on- and off-site. Construction-related NO_X emissions are primarily generated by exhaust emissions from heavy-duty construction equipment, material and haul trucks, and construction worker vehicles. VOC emissions are mainly generated by exhaust emissions from construction vehicles, off-gas emissions associated with architectural coatings and asphalt paving.

Construction activities would consist of the demolition of existing buildings, mass grading, building construction, asphalt paving of new parking lots, and architectural coating of the inside and outside of the buildings. The proposed project would construct 141 residential units with 2-car garages and 66 additional surface parking spaces. Construction emissions were estimated using California Emissions Estimator Model (CalEEMod), Version 2016.3.2. Information provided by the Project Applicant at the time the Air Quality Analysis was conducted indicated that the anticipated construction start date would be in September 2019 and would last for 15 months, although the exact timing of each construction phase would be subject to change. The construction schedule used in the analysis represents a reasonable “worst-case” analysis scenario since emission factors for construction equipment decrease as the analysis year increases, due to improvements in technology and more stringent regulatory requirements. Therefore, construction emissions would likely decrease if the construction schedule moves to later years. The proposed project would demolish three existing buildings, totaling approximately 41,560 square feet. During the grading phase, the proposed project would import 10,000 cubic yards of material and would export 15,000 cubic yards of material.

The proposed project would be subject to San Diego County APCD Rule 55, Fugitive Dust Control. Compliance with Rule 55 would limit any fugitive dust (PM_{10} and $PM_{2.5}$) that would be generated during grading and construction activities. Rule 55 requires construction or demolition activity subject to this rule in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period. The proposed project would be subject to San Diego County APCD Rule 67.0.1, Architectural Coatings, which limits the VOC content of architectural coatings.

Table 2 presents the proposed project’s unmitigated maximum daily construction emissions for each construction activity.

Table 2: Project Construction Emissions—Unmitigated

Activity	Mass Daily Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Demolition	3.64	37.74	22.94	0.04	2.66	1.83
Grading	3.58	60.00	23.97	0.11	6.38	3.45
Building Construction-2019	3.29	26.55	23.41	0.05	2.96	1.69
Building Construction-2020	2.96	24.15	22.53	0.05	2.78	1.52
Paving	1.62	14.11	15.05	0.02	0.88	0.73
Architectural Coating	52.47	1.78	2.71	0.01	0.38	0.18
Maximum Daily Emissions (lbs/day)	52.47	60.00	23.97	0.11	6.38	3.45
SCAQMD Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

Notes:
NO_X = oxides of nitrogen SO_X = sulfur oxide VOC = volatile organic compounds CO = carbon monoxide
PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; $PM_{2.5}$ = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less
Emissions include adjustments in accordance with San Diego County APCD Rules 55 and 67.0.1.
Source of emissions: FirstCarbon Solutions (FCS) 2019, Appendix A.

As shown above, the proposed project's maximum daily construction emissions would not exceed the SCAQMD threshold of significance. Therefore, the short-term construction emissions would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard. The cumulative impact from construction of the proposed project would be less than significant.

Project-Specific Operational Emissions

Operational emissions for land use development projects are typically generated from mobile, area, and energy sources. Mobile-source emissions are those associated with automobiles that would travel to and from the project residences. Area-source emissions are those associated with landscape maintenance activities and periodic architectural coatings. Energy-source emissions are those associated with natural gas combustion for space and water heating and electricity consumption. The three existing buildings would be removed as part of the proposed project; therefore, the existing emissions were included in the analysis baseline to estimate the net increase in emissions. Assumptions used to estimate existing and proposed emissions were consistent with the trip generation estimates presented in Table 3 below. Table 4 presents the proposed project's maximum daily operational emissions. A conservative analysis has been provided for trip generation

of the proposed project, so the project's mobile-source emissions would likely be lower than those reported below.[20]

Table 3: Project Trip Generation

Land Use	Size	Daily Trip Ends (ADT) [a]		AM Peak-hour					PM Peak-hour				
		Rate	Volume	% of ADT	In:Out Split	Volume In	Volume Out	Volume Total	% of ADT	In:Out Split	Volume In	Volume Out	Volume Total
Apartment	141 DU	6/DU	846	8%	2:8	14	54	68	9%	7:3	53	23	76
Trip Reductions													
Existing Site Uses Reduction [b]			(84)	–	–	(3)	(2)	(5)	–	–	(4)	(4)	(8)
Transit Reduction (5%) [c]			(42)	–	–	(1)	(3)	(4)	–	–	(3)	(1)	(4)
Subtotal Reductions			(126)	–	–	(4)	(5)	(9)	–	–	(7)	(5)	(12)
Net Total Project Site Trips			720	–	–	10	49	59	–	–	46	18	64

Notes:
[a] Rate is based on SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002 ("Brief Guide"). "Apartment" is the appropriate trip generation rate from the Brief Guide based on the Project's density.
[b] Trips for the existing use calculated for a total 42 GFA rooftop area of existing buildings based on a "Storage Land Use" rates from SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002.
[c] Transit reduction of 5 percent recommended by City of Chula Vista consistent with SANDAG Guidelines.

General Note:
(x) = Numbers shown in parenthesis are negative values.

Table 4: Project Operational Emissions

Category	Mass Daily Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Area	5.97	1.42	12.22	0.01	0.17	0.17
Energy	0.03	0.26	0.11	0.00	0.02	0.02
Mobile	1.90	7.98	22.44	0.08	6.55	1.79
Estimated Maximum Daily Project Emissions	*7.90*	*9.67*	*34.77*	*0.09*	*6.74*	*1.98*
Estimated Maximum Daily Existing Emissions	(1.32)	(0.76)	(1.90)	(0.01)	(0.53)	(0.15)
Estimated Maximum Daily Net Emissions	6.58	8.90	32.87	0.08	6.21	1.83
SCAQMD Significance Thresholds (lbs/day)	55	55	550	150	150	55
Exceeding Thresholds?	No	No	No	No	No	No
Notes:						

[20] The Draft Transportation Impact Analysis (December 2018) presents a daily trip volume of 1,128 prior to a 5 percent transit reduction and prior to netting out trips from existing uses. The Transportation Impact Analysis was revised in October 2019, while the Air Quality Analysis was completed in April 2019. The revised Draft Transportation Impact Analysis (October 2019) presents a daily trip volume of 846 (prior to reductions), which is lower than the estimate provided in the Transportation Impact Analysis prepared in December 2018. A higher daily trip volume would lead to higher project emissions generated by the proposed project. Therefore, reliance on the Draft Transportation Impact Analysis (December 2018) provides a conservative analysis.

Category	Mass Daily Emissions (pounds per day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$

NO_X = oxides of nitrogen
VOC = volatile organic compounds
SO_X = sulfur oxide
CO = carbon monoxide
PM_{10} = particulate matter with an aerodynamic resistance diameter of 10 micrometers or less
$PM_{2.5}$ = particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less
Source of emissions: FCS 2019, Appendix A.

As shown above, the proposed project's daily operational emissions would not exceed any SCAQMD threshold of significance. Therefore, the long-term daily operational emissions would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard. The cumulative impact from long-term operation of the proposed project would be less than significant.

(c) Less than significant impact with mitigation incorporated. This impact evaluates the potential for the project's construction and operational emissions to expose sensitive receptors to substantial pollutant concentration. Sensitive receptors are defined as those individuals who are sensitive to air pollution including children, the elderly, and persons with preexisting respiratory or cardiovascular illness.

For the proposed project, the closet sensitive receptors are multi-family residences located directly adjacent to the project site to the east. This analysis evaluates the potential construction-related toxic air contaminant (TAC) emissions, and ozone precursor.

Toxic Air Pollutants—Construction

Health risk significance thresholds are represented as a cancer risk to the public and a non-hazard from exposures to TACs. Cancer risks represent the probability (in terms of risk per million individuals) that an individual would contract cancer resulting from exposure to TACs continuously over a lifetime period of several years. Construction-related activities would result in short-term, project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for grading, building construction, and other miscellaneous activities.

The analysis uses the following project-specific health risk significance thresholds. The acute hazard index was not evaluated because the San Diego County APCD or the SCAQMD does not provide an applicable acute Reference Exposure Level (REL) threshold.[21,22] As noted above under section Project-level Significance Thresholds,

[21] County of San Diego. 2007. Guidelines for Determining Significance and Report Format and Content Requirements—Air Quality. March 19.
[22] South Coast Air Quality Management District (SCAQMD). 2015. SCAQMD Air Quality Significance Thresholds. March. Website: http://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook. Accessed December 3, 2018.

project emissions were evaluated based on the quantitative emission thresholds established by the SCAQMD.

- Maximum Incremental Cancer Risk > = 10 in 1 million
- Hazard Index (project increment) > = 1.0

A significant impact would occur if a project's impacts exceeded any of these thresholds.

Estimation of Cancer Risks

The California Office of Environmental Health Hazard Assessment (OEHHA) has developed Risk Assessment Guidelines for estimating cancer risks that provide adjustment factors that emphasize the increased sensitivities and susceptibility of human to exposures to TACs.[23] The recommend method for the estimation of cancer risk is shown in the equations below for the duration of the construction time period:

$$\text{Cancer Risk} = C_{DPM} \times \text{Inhalation Exposure Factor} \quad \text{(EQ-1)}$$

Where:

Cancer Risk = Total individual excess cancer risk defined as the cancer risk a hypothetical individual faces if exposed to carcinogenic emissions from a particular source for specified exposure durations; this risk is defined as an excess risk because it is above and beyond the background cancer risk to the population; cancer risk is expressed in terms of risk per million exposed individuals.

C_{DPM} = Period average DPM air concentration calculated from the air dispersion model in $\mu g/m^3$

Inhalation is the most important exposure pathway to impact human health from DPM and the inhalation exposure factor is defined as follows:

$$\text{Inhalation Exposure Factor} = CPF \times EF \times ED \times DBR \times AAF/AT \quad \text{(EQ-2)}$$

Where:

CPF = Inhalation cancer potency factor for the TAC: 1.1 (mg/kg-day)-1 for DPM
EF = Exposure frequency: 350 (days/year)
ED = Exposure duration (2 years of construction)
AT = Averaging time period over which exposure is averaged (days)
AAF = set of age-specific adjustment factors that include age sensitivity factors (ASF), daily breathing rates (DBR), and time at home factors (TAH)

[23] California Office of Environmental Health Hazard Assessment (OEHHA). Air Toxics Hot Spots Program—Risk Assessment Guidelines. Guidance Manual for Preparation of Health Risk Assessments. February 2015.

The OEHHA recommended values for the various cancer risk parameters shown in Equation 2 are shown in Table 5.

Table 5: Exposure Assumptions for Cancer Risk

Receptor Type	Exposure Frequency		Exposure Duration (years)	Age Sensitivity Factors (ASF)	Time at Home Factor (TAH)[1] (percent)	Daily Breathing Rate[2] (DBR) (L/kg-day)
	Hours/day	Days/year				
Sensitive/Residential						
3rd Trimester	24	350	0.25	10	100	361
0–2 years	24	350	2	10	100	1,090
3–16 years	24	350	2	3	100	572
17-30 years	24	350	2	1	100	261

Notes:
(1) TAH factors recommended by the SCAQMD
(2) The DBR recommended by the SCAQMD are the 95th percentile rate for sensitive/residential receptors 0 to 2 years
(L/kg-day) = liters per kilogram body weight per day
Sources of Current OEHHA Guidance:
California Office of Environmental Health Hazard Assessment (OEHHA). 2015. Air Toxics Hot Spots Program-Risk Assessment Guidelines. February. Website: https://oehha.ca.gov/media/downloads/crnr/2015guidancemanual.pdf. Accessed November 6, 2019.
South Coast Air Quality Management District (SCAQMD). 2015. Fact Sheet for Applying CalEEMod to Localized Significance Thresholds. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/localized-significance-thresholds/caleemod-guidance.pdf?sfvrsn=2. Accessed November 6, 2019.
Source: Appendix A.

Estimation of Non-Cancer Hazards

An evaluation of the potential non-cancer effects of chronic chemical exposures was also conducted. Adverse health effects are evaluated by comparing the annual receptor concentration of each chemical compound with the appropriate REL. To calculate the hazard index, each chemical concentration or dose is divided by the appropriate toxicity REL. For compounds affecting the same toxicological endpoint, this ratio is summed. Where the total equals or exceeds 1, a health hazard is presumed to exist.

To quantify non-carcinogenic impacts, the hazard index approach was used.

$$HI = C_{ann}/REL \qquad \text{(EQ-3)}$$

Where:

HI = chronic hazard index
Cann = annual average concentration of TAC as derived from the air dispersion model (μg/m3)
REL = reference exposure level above which a significant impact is assumed to occur (μg/m3)

For purposes of this assessment, the TAC of concern is DPM for which the OEHHA has defined a chronic non-cancer REL for DPM of 5 micrograms per cubic meter

($\mu g/m^3$). The principal toxicological endpoint assumed in this assessment was through inhalation.

Air Dispersion Modeling—Construction

An air dispersion model is a mathematical formulation used to estimate the air quality impacts at specific locations (receptors) surrounding a source of emissions given the rate of emissions and prevailing meteorological conditions. The air dispersion model applied in this assessment was the American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD Version 18081) air dispersion model. Specifically, the AERMOD model was used to estimate levels of air emissions at sensitive receptor locations from the project's construction PM_{10} exhaust emissions. The use of the AERMOD model provides a refined methodology for estimating construction impacts by utilizing long-term measured, representative meteorological data for the project site, construction area, and a representative construction schedule.

The air dispersion model assessment used meteorological data from the Brown Field Municipal Airport monitoring station for the years 2009–2013. Sensitive receptors were placed at locations of existing residences. All the receptors were placed within the breathing zone at zero meters above ground level.[24]

The emissions from the on-site source were represented in the AERMOD model as an area source, and the emissions from the off-site source were represented as line volume source. Construction was assumed to take place on an 8-hour per day/5 days per week basis for the years 2019 and 2020.

Health Risk Assessment

The results of the health risk assessment prepared for the project construction, for cancer risks, and long-term chronic hazards are summarized below. Air dispersion modeling was utilized to assess the project's potential health risks. Exhaust emissions of DPM were estimated using CalEEMod, Version 2016.3.2. Table 6 summarizes the emission rates of unmitigated DPM (PM_{10} exhaust) and mitigated DPM emission rates with Tier IV Final off-road engines.

Table 6: DPM Construction Emissions

Year	On-site DPM (grams/m2-sec)	Off-site DPM (grams/sec)
Annual Construction Emissions (Unmitigated)		
2019	8.29E-07	6.47E-06
2020	5.83E-07	1.13E-05

[24] South Coast Air Quality Management District (SCAQMD). Final Localized Significance Threshold Methodology. Revised July 2008. Page 15.

Year	On-site DPM (grams/m2-sec)	Off-site DPM (grams/sec)
Annual Construction Emissions (Tier IV Mitigation)		
2019	2.79E-08	6.47E-06
2020	2.18E-08	1.13E-05
Source: CalEEMod and FCS; see Appendix A.		

The sensitive receptor that has the highest cancer risks during project construction is located 75 feet from the east edge of project site, at the northwest corner of Villa Marina Apartment. As noted in Table 7, the proposed project's construction activities would result in cancer risk that exceed the significance thresholds prior to the implantation of mitigation measures. Therefore, mitigation would be required to reduce the health risk impacts during the construction phase of development. Specifically, Mitigation Measure (MM) AIR-1 is required to reduce impacts to the maximum extent feasible. MM AIR-1 requires Tier IV Final engines for all on-site equipment greater than 50 horsepower to be used during construction of the project. The mitigated health risks are shown in Table 8.

Table 7: Estimated Health Risks and Hazards during Construction—Unmitigated

Source	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index(2)
Risks and Hazards at the Maximum Impacted Sensitive Receptor (MIR): Infants(1)	93	0.1
Risks and Hazards at the MIR: Child(1)	13	0.1
Risks and Hazards at the MIR: Adult(1)	2	0.1
Significance Threshold	10	1
Exceeds Individual Source Threshold?	YES (Infants and children)	No

Notes:
(1) Maximum impacted sensitive receptor is a residence located approximately 75 feet from the east edge of the project site, at the northwest corner of Villa Marina Apartment Community.
(2) Chronic non-cancer hazard index was estimated by dividing the maximum annual DPM concentration (as PM_{10} exhaust) by the REL of 5 $\mu g/m^3$.
Source: AERMOD and FCS; refer to Appendix A.

Table 8: Estimated Health Risks and Hazards during Construction—Tier IV Mitigated

Source	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index(2)
Risks and Hazards at the MIR: Infants(1)	2.9	<0.01
Risks and Hazards at the MIR: Child (1)	0.4	<0.01
Risks and Hazards at the MIR: Adult (1)	0.1	<0.01
Significance Threshold	10	1

Source	Cancer Risk (risk per million)	Chronic Non-Cancer Hazard Index(2)
Exceeds Individual Source Threshold?	No	No

Notes:
(1) Maximum impacted sensitive receptor is a residence located approximately 75 feet from the east edge of the project site, at the northwest corner of Villa Marina Apartment Community.
(2) Chronic non-cancer hazard index was estimated by dividing the maximum annual DPM concentration (as PM_{10} exhaust) by the REL of 5 $\mu g/m^3$.
Source: AERMOD and FCS; refer to Appendix A.

As shown above, the proposed project's construction activities would not exceed the recommended thresholds of significance with implementation of mitigation. Therefore, impacts would be less than significant with mitigation.

Toxic Air Pollutants—Operation

Common sources of TACs include distribution centers, large gas dispensing stations, manufacturing warehouses and high-traffic freeways. The majority of project-related trips during operations would consist of residents and visitors traveling to and from the project site, predominately in passenger vehicles. Because most passenger vehicles are gasoline-combusted (approximately 99 percent of all passenger vehicles), the proposed project would not generate significant amounts of DPM emissions during operation. Thus, impacts would be less than significant.

Carbon Monoxide Hotspots

Localized high levels of CO (CO "hotspots") are associated with traffic congestion and idling or slow-moving vehicles. A screening analysis can determine if a project has the potential to contribute to a CO hotspot. The screening criteria identify when site-specific CO dispersion modeling is not necessary. Although Chula Vista does not have specific guidelines or criteria, the County of San Diego has developed the screening standards for CO concentrations, as shown below:[25]

> CO "hotspots," or pockets where the CO concentration exceeds the NAAQS and/or CAAQS, have been found to occur only at signalized intersections that operate at or below level of service (LOS) E with peak-hour trips for that intersection exceeding 3,000 trips. Therefore, any project that would place receptors within 500 feet of a signalized intersection operating at or below LOS E (peak-hour trips exceeding 3,000 trips) must conduct a "hotspot" analysis for CO. Likewise, projects that will cause road intersections to operate at or below a LOS E (with intersection peak-hour trips exceeding 3,000) will also have to conduct a CO "hotspot" analysis.

[25] County of San Diego. March 2007. Guidelines for Determining Significance and Report Format and Content Requirements—Air Quality. Website: https://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/docs/AQ-Guidelines.pdf. Accessed February 25, 2020.

None of the intersections (e.g., Industrial Boulevard/Interstate 5 [I-5] northbound ramps) operate with volumes that would exceed 3,000 peak-hour trips.

The maximum peak-hour traffic volume for the Existing Plus Project and 2025 Condition scenarios occur at Broadway/Moss Street, with 2,698 and 2,772 trips during PM peak-hour, respectively. None of the intersections has a peak-hour traffic volume that exceeds the 3,000 trips; thus, the impacts would be less than significant.

The maximum peak-hour traffic volume for 2045 also occurs at Broadway/Moss Street with a traffic volume of 3,276 trips during PM peak-hour. Although the peak-hour traffic volume exceeds the 3,000 trips limit, but the Broadway/Moss Street intersection is calculated would operate at a LOS D. Therefore, the screening criteria are met, and the proposed project would not result in the potential for a CO hotspot. Impacts would be less than significant.

(d) Less than significant impact. The impact of an odor is dependent on interacting factors such as frequency (how often), intensity (strength), duration (in time), offensiveness (unpleasantness), location, and sensory perception. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress and often generating citizen complaints to local governments and regulatory agencies.

Odors would be generated from vehicles and construction equipment exhaust emissions during construction of the proposed project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and architectural coatings. Such odors are temporary and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, the construction of the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant.

The proposed project would develop residential units that are not typical odor-generating land uses. Land uses typically considered associated with odors include wastewater treatment facilities, waste-disposal facilities, or agricultural operations. Minor sources of odors, such as exhaust from mobile sources, are not typically associated with numerous odor complaints, but are known to have temporary and less concentrated odors. Therefore, the proposed project's operational activities would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant.

Mitigation Measures:

MM AIR-1 Prior to the issuance of any demolition or grading permit, the Project Applicant shall demonstrate to the satisfaction of the City Development

Services Department that all off-road construction equipment that will be used on the project site in excess of 50 horsepower will be equipped with engines meeting the United States Environmental Protection Agency (EPA) Tier IV Final off-road engine emission standards. This mitigation measure shall be included on the grading plan.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
IV. Biological Resources Would the project:				
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, and 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 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?	☐	☐	☐	☒

Comments:

The following analysis is based on the Biological Resources Summary Memorandum for the 676 Moss Street Project, Chula Vista, California, prepared by FCS on January 17, 2020. A site visit was conducted on January 2, 2020, to confirm the findings and conclusions of the desktop-level analysis for the proposed project, which is discussed in detail in the Biological Resources Summary Memorandum. The memorandum is included as Appendix B of this Draft IS/MND.

(a) Less than significant with mitigation incorporated.

The project site has been developed with buildings and associated paved lots since the 1960s. The project site is located in an urbanized area of the City of Chula Vista and is zoned for industrial uses. For these reasons, the habitat type associated with the proposed project site is identified as Urban/Developed. When the environmental analysis for the project commenced in November 2018, activities on the project site included heavy machinery rental and sales yard, storage container rental, boat repair, steel surface preparation equipment rental, and sales of specialty abrasives and sandblast media.

The project site is surrounded by man-made improvements and development, including light industrial uses to the north; light industrial uses and residential dwellings to the east; Moss Street and residential dwellings to the south; and light industrial uses, an at-grade rail crossing, and Industrial Boulevard to the west. Landscaping on-site is almost non-existent, with two small clusters of trees, one within the northwest portion of the project site adjacent to the railroad right-of-way, and the other along the southeastern boundary of the project site (Exhibit 9).

Special-status plant and wildlife species with the potential to occur on-site or in the project vicinity were determined from a search of the California Natural Diversity Database (CNDDB);[26] the United States Fish and Wildlife Service (USFWS)[27] Information for Planning and Consultation System (IPaC) list of special-status species that are known to occur in the project vicinity; and professional expertise. A complete list of recorded occurrences of special-status species within 1 mile of the project site is appended to the Biological Resources Summary Memorandum (see Attachment D of Appendix B). In addition, Table 9 and Table 10 identify the special-status plant and wildlife species recorded within 1 mile of the project site, their preferred habitat, and the potential for these species to occur on the project site.

[26] California Department of Fish and Wildlife (CDFW). 2019. California Natural Diversity Database (CNDDB). Accessed September 4, 2019.
[27] United States Fish and Wildlife Service (USFWS). 2019. Information for Planning and Consultation. Website: https://ecos.fws.gov/ipac/. Accessed September 4, 2019.

Table 9: Special-status Plant Species Recorded within 1 Mile of the Proposed Project

Scientific Name Common Name	Status			Habitat Description[4]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]	CNPS[3]			
Ambrosia monogyra Singlewhorl burrobrush	—	—	2B.2	Perennial shrub found in chaparral or Sonoran desert scrub Blooming period: August–November 10–500 m.	Unlikely to Occur: no suitable habitat is present within the project site.	No
Acmispon prostratus Nuttall's acmispon	—	—	1B.1	Annual herb found in coastal dunes and coastal scrub (sandy). Blooming period: March–June 0–10 m.	Unlikely to Occur: no suitable habitat or suitable soils are present within the project site.	No
Isocoma menziesii var. *decumbens* Decumbent goldenbush	—	—	1B.2	Dicot shrub found in coastal scrub and chaparral on sandy soils; often found in disturbed sites. Blooming period: April–November 10–135m.	Unlikely to Occur: no suitable habitat or suitable soils are present within the project site.	No
Nemacaulis denudata var. *denudata* Coast woolly-heads	—	—	1B.2	Dicot annual herb found in coastal dunes. Blooming period: April–September 0–100m.	Unlikely to Occur: no suitable habitat is present within the project site.	No
Stemodia durantifolia Purple stemodia	—	—	2B.1	Perennial herb found in Sonoran desert scrub (often mesic, sandy) Blooming period: April–December 180–300 m.	Unlikely to Occur: no suitable habitat or suitable soils are present within the project site.	No
Suaeda esteroa Estuary seablite	—	—	1B.2	Dicot perennial herb found in marshes and swamps. Prefers coastal salt marshes in clay, silt, and sand substrates. Blooming period: May–October 0–5m.	Unlikely to Occur: no suitable habitat or suitable soils are present within the project site.	No

Code Designations

[1] Federal Status: 2020 USFWS Listing	[2] State Status: 2020 CDFW Listing	[3] CNPS: 2020 CNPS Listing
FE = Listed as endangered under FESA FT = Listed as threatened under FESA FC = Candidate for listing (threatened or endangered) under FESA FD = Delisted in accordance with FESA — = Not federally listed	SE = Listed as endangered under CESA ST = Listed as threatened under CESA SSC = Species of Special Concern as identified by CDFW CFP = Listed as fully protected under Fish and Game Code (FGC) CR = Species identified as rare by CDFW — = Not State listed	1A = Plants species that presumed extinct in California. 1B = Plant species that are rare, threatened, or endangered in California and elsewhere. List 2 = Plant species that are rare, threatened, or endangered in California, but more common elsewhere. Blooming period: Months in parentheses are uncommon.

[4] Habitat description: Habitat description adapted from CNDDB (CDFW 2015) and CNPS online inventory (CNPS 2015).

Table 10: Special-status Wildlife Species Recorded within 1 Mile the Proposed Project

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Invertebrates					
Cicindela gabbii Western tidal-flat beetle	—	—	Inhabits estuaries and mudflats along the coast of Southern California. Generally is found on dark-colored mud in the lower zone; occasionally found on dry saline flats of estuaries.	Unlikely to Occur: no suitable habitat is present within the project site.	No
Cicindela latesignata Western beach tiger beetle	—	—	Inhabits mudflats and beaches in coastal Southern California.	Unlikely to Occur: no suitable habitat is present within the project site.	No
Reptiles					
Anniella stebbinsi Southern California legless lizard	—	SSC	Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces. Often can be found under leaf litter, rocks, boards, driftwood, and logs.	Unlikely to Occur: no suitable habitat is present within the project site.	No
Masticophis fuliginosus Baja California coachwhip	—	SSC	Inhabits scrub, coastal sand dunes, rocky arroyos, thorn forests, marshlands, and sandy flats. In California, found mainly in open areas such as grassland, shrubland, and coastal sand dunes.	Unlikely to Occur: no suitable habitat is present within the project site.	No
Arizona elegans occidentalis California glossy snake	—	SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing.	Unlikely to Occur: no suitable habitat is present within the project site.	No
Chelonia mydas green turtle	FT	—	Inhabits the shallow waters of lagoons, bays, estuaries, mangroves, eelgrass and seaweed beds. Prefers areas with abundant aquatic vegetation, such as pastures of sea grasses and algae, in shallow, protected water.	Unlikely to Occur: no suitable habitat is present within the project site. Project site is not located on or adjacent to beaches or the ocean	No
Phrynosoma blainvillii Coast horned lizard	—	SSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Requires open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Unlikely to Occur: no suitable habitat is present within the project site.	No

Table 10 (cont.): Special-status Wildlife Species Recorded within 1 Mile the Proposed Project

Scientific Name Common Name	Status		Habitat Description[3]	Potential to Occur and Rationale	Included in Impact Analysis
	USFWS[1]	CDFW[2]			
Birds					
Charadrius alexandrinus nivosus Western snowy plover	FT MBTA	SSC	Found in sandy beaches, salt pond levees, and shores of large alkali lakes. Requires sandy, gravelly, or friable soils for nesting.	Unlikely to Occur: no suitable habitat is present within the project site.	No
Pandion haliaetus Osprey	— MBTA	FP FGC	Inhabits ocean shore, bays, freshwater lakes, and larger streams. Builds large nests in tree tops within 15 miles of a good fish-producing body of water.	Low Potential to Occur: no suitable nesting habitat is present within the project site. Species was observed flying overhead during the January 2, 2020, site survey.	No
Passerculus sandwichensis beldingi Belding's savannah sparrow	— MBTA	SE	Inhabits coastal salt marshes from Santa Barbara County south through San Diego County. Nests in saltwort (*Salicornia* spp.) on and around margins of tidal flats.	Unlikely to Occur: no suitable habitat is present within the project site.	No
Rallus longirostris levipes Light-footed clapper rail	FE	SE FP	Found in salt marshes traversed by tidal sloughs, where cordgrass (*Spartina* spp.) and pickleweed (*Salicornia* spp.) are the dominant vegetation. Requires dense vegetation growth for nesting and escape cover. Feeds on mollusks and crustaceans.	Unlikely to Occur: no suitable nesting or foraging habitat is present within the project site.	No
Mammals					
Nyctinomops femorosaccus Pocketed free-tailed bat	—	SSC	Found in a variety of arid areas in southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, or desert riparian habitat. Prefers rocky areas with high cliffs.	Unlikely to Occur: no suitable habitat is present within the project site.	No

Code Designations

[1] Federal Status: 2020 USFWS Listing	[2] State Status: 2020 CDFW Listing
ESU = Evolutionary Significant Unit is a distinctive population. **FE** = Listed as endangered under FESA. **FT** = Listed as threatened under FESA. **FC** = Candidate for listing (threatened or endangered) under FESA. **FD** = Delisted in accordance with FESA. **FPD** = Federally Proposed to be Delisted. **MBTA** = protected by the Migratory Bird Treaty Act **—** = Not federally listed	**SE** = Listed as endangered under CESA. **ST** = Listed as threatened under CESA. **SSC** = Species of Special Concern as identified by the CDFW. **FP** = Listed as fully protected under FGC. **CFG** = FGC =protected by FGC 3503.5 **CR** = Rare in California. **—** = Not State listed

[3] **Habitat description**: Habitat description adapted from CNDDB (CDFW 2020a).

An FCS Biologist visited the project site on January 2, 2020, to evaluate the potential for sensitive biological resources to occur on-site. Wildlife observed within the surrounding area consists of species commonly found in an urban setting. Species observed during the FCS January 2020 site visit included, Anna's hummingbird (*Calypte anna*), rock dove (*Columba livia*), common raven (*Corvus corvax*), American crow (*Corvus brachyrhynchos*), California gull (*Larus californicus*), osprey (*Pandion haliaetus*), and western fence lizard (*Sceloporus occidentalis*).

As discussed in Appendix B, Biological Resources Summary Memorandum, due to the lack of suitable habitat present on-site, the project site is unlikely to contain 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 Wildlife (CDFW) or the USFWS. Despite the highly urbanized setting of the project site, there is potential for migratory birds and raptors protected under the Migratory Bird Treaty Act (MBTA) to utilize the few trees that are present on-site or immediately adjacent to the site for nesting. If construction is scheduled to occur during the nesting season (generally March 1–August 31), FCS recommends preconstruction surveys be conducted prior to construction in order to ensure that no nesting birds are adversely affected due to construction of the proposed project, as described in MM BIO-1. With the implementation of MM BIO-1, potential impacts to nesting birds from project implementation would be reduced to a less than significant level.

(b) No impact. According to the USFWS National Wetlands Mapper,[28] no known riparian habitat or other locally or regionally designated sensitive natural communities exist on or adjacent to the project site. As a result, no natural ecological communities are found on-site or in the surrounding area and no impact would occur. FCS confirmed there are no sensitive habitats found on the project site during the January 2, 2020, site visit. As such, the proposed project would have no impact on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations, or by the CDFW or USFWS.

(c) No impact. According to the USFWS National Wetlands Mapper, no wetlands occur on the project site; therefore, the proposed project is not anticipated to have direct or indirect impacts on State or federally protected wetlands as defined by Section 404 of the federal Clean Water Act.[29] The project site is previously developed and located in an urbanized area of the City of Chula Vista, surrounded by industrial and residential development. FCS confirmed there are no wetlands on the project site during the January 2020 site visit. As such, the proposed project would have no substantial adverse effect on federally protected wetlands through direct removal, filling, hydrological interruption, or other means.

[28] United States Fish and Wildlife Service (USFWS). 2019. National Wetlands Inventory. Website: https://www.fws.gov/wetlands/data/mapper.html. Accessed December 17, 2018.

[29] United States Fish and Wildlife Service. 2019. National Wetlands Inventory. Website: https://www.fws.gov/wetlands/data/mapper.html. Accessed December 12, 2019.

(d) No impact. The project site is located in an urbanized area of the City of Chula Vista and is surrounded by industrial and residential development. There is no native habitat on the project site, nor does the project site function as part of a wildlife corridor due to its urbanized and developed condition. As such, the proposed project is not anticipated to interfere substantially with or impede (1) the movement of any resident or migratory fish or wildlife species, (2) established resident or migratory wildlife corridors, or (3) the use of wildlife nursery sites. No impact would occur.

(e) No impact. The project site is located within a developed urban area and contains ornamental trees (Exhibit 9). The project site does not contain any protected biological resources or tree species that are considered sensitive. The City of Chula Vista has a Multiple Species Conservation Program (MSCP) Subarea Plan, stemming from the County of San Diego's MSCP; however, the project site is not located within the City of Chula Vista MSCP Subarea Plan.[30]

Additionally, the City does not have a tree preservation policy or ordinance; however, Chapter 15.04: Excavation, Grading, Clearing, Grubbing, and Fills, of the Chula Vista Municipal Code[31] does mention that the City of Chula Vista encourages, insofar as practical, retaining the maximum number of existing trees. As shown in Exhibit 7, the proposed project would include more trees than are currently located on the project site, including trees around the boundary of the project site and within the interior. Additionally, the proposed project would proceed through the City's plan check process, during which time the Project Applicant would work with City Staff to ensure compliance with Chapter 15.04 of the Chula Vista Municipal Code. As such, the proposed project would not conflict with any local policies or ordinances protecting or preserving biological resources and there would be no impact.

(f) No impact. As mentioned above in Impact 2.4(e), the proposed project will not impact an adopted or approved local, regional, or state habitat conservation plan because the proposed project is located in an urban area. The construction and operation of the proposed project will not affect any designated San Diego County Significant Ecological Area since the proposed project is not located within an MSCP area and is not located in either the San Diego County or the City of Chula Vista MSCP Subarea. As such, there would be no such impacts from the proposed project.

<u>Mitigation Measures:</u>

MM BIO-1 Construction activities that occur during the nesting season (generally March 1 to August 31) could disturb nesting sites for birds protected by the Migratory Bird Treaty Act (MBTA) and Fish and Game Code. No action is

[30] City of Chula Vista. 2003. City of Chula Vista MSCP Subarea Plan. Website: https://www.chulavistaca.gov/home/showdocument?id=7106. Accessed November 6, 2019.

[31] City of Chula Vista. 2019. City of Chula Vista Municipal Code. Title 15, Buildings and Construction. Chapter 15.04: Excavation, Grading, Clearing, Grubbing and Fills. Website: https://chulavista.municipal.codes/CVMC/15.04. Accessed November 6, 2019.

necessary if no active nests are found or if construction occurs during the non-breeding season (generally September 1 through February 14).

Implementation of the following avoidance and minimization measures would reduce impacts to nesting birds to a less than significant level.

- To prevent impacts to MBTA-protected birds, nesting raptors, and their nests, removal of trees will be limited to only those necessary to construct the proposed project.
- If any tree removal is necessary, then it will occur outside the nesting season, between September 1 and February 14. If trees cannot be removed outside the nesting season, pre-construction surveys will be conducted 3 days prior to tree removal to verify the absence of active nests.
- If an active nest is located during pre-construction surveys, the United States Fish and Wildlife Service (USFWS) and/or the California Department of Fish and Wildlife (CDFW) (as appropriate) shall be notified regarding the status of the nest. Construction activities shall be restricted as necessary to avoid disturbance of the nest until it is abandoned or the agencies deem disturbance potential to be minimal. Restrictions may include the establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100 feet around an active raptor nest and a 50-foot radius around an active migratory bird nest) or alteration of the construction schedule.
- A Qualified Biologist will delineate the buffer using Environmentally Sensitive Area (ESA) fencing, pin flags, and or yellow caution tape. The buffer zone will be maintained around the active nest site(s) until the young have fledged and are foraging independently.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
V. Cultural and Tribal Cultural Resources Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
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:				
d) 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	☐	☐	☐	☒
e) 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.	☐	☐	☒	☐

Comments:

The project site lies in an urbanized area of the City of Chula Vista. Currently and historically, the site has been used for industrial purposes; therefore, the ground surface and topsoil has been routinely disturbed by the construction and paving of the existing surfaces, existing industrial uses, and vehicular traffic.

The proposed project is expected to disturb the majority of the ground surface area, (±) 6.49 acres between 5–12 feet of depth, depending on the portion of the site. Project grading is expected to include 15,000 cubic yards of raw earthwork to be removed as these soils are not suitable for construction, and 10,000 cubic yards of imported earthwork fill.

The following analysis is based on the Phase I Cultural Resources Assessment (Phase I CRA) prepared by FCS on November 7, 2019, and the Historical Resources Evaluation Report prepared by GPA Consulting in January 2020. The Phase I CRA and Historical Resources Evaluation Report are included as Appendices C.1 and C.2 of the Draft Initial Study, respectively.

Environmental Evaluation

Cultural Resources

(a) Less than significant impact. CEQA Guidelines Section 15064.5 defines “historic resources” as resources listed in the California Register of Historical Resources (CRHR), or determined to be eligible by the California Historical Resources Commission for listing in the CRHR. The criteria for eligibility are generally set by the Historic Sites Act of 1935, which established the National Register of Historic Places

(NRHP) and which recognizes properties that are significant at the national, State, and local levels. To be eligible for listing in the CRHR, a district, site, building, structure, or object must possess integrity of location, design, setting, materials, workmanship, feeling and association relative to American history, architecture, archaeology, engineering, or culture.[32] In addition, unless the property possesses exceptional significance, it must be at least 45 years old to be eligible.

According to the Historic Resources Evaluation Report prepared for the proposed project and a review of historic aerials, there appears to be two structures within the project boundary that have reached a sufficient age to be evaluated as potential historical resources.[33] Based on the review of historic aerials, Assessor's records, and building permits, it was determined that the buildings located on the project site were completed on October 3, 1969. According to the Historic Resources Evaluation Report, these buildings on-site are not currently listed under any national, State, or local landmark or historic district programs, and were not identified during the most recent historic resources survey of the City in 2012. In addition, due to a lack of historical significance, these buildings do not qualify for the NRHP, the CRHR, or the Chula Vista Register of Historical Resources. The recommended California Historical Resource Status Code for the buildings is 6Z, "ineligible for designation at the national, state, and local levels through survey evaluation."

Because the existing buildings do not meet the definition of a historical resource according to CEQA Guidelines, the proposed project would have no direct impacts on historical resources. As such, no mitigation is required or recommended.

(b) Less than significant impact with mitigation incorporated. Section 15064.5 of the CEQA Guidelines defines significant archaeological resources as resources that meet the criteria for historical resources, as discussed above, or resources that constitute unique archaeological resources. A project-related significant adverse effect could occur if a project were to affect archaeological resources that fall under either of these categories.

The project site has not been the subject of any previous studies, and, therefore, the cultural resource sensitivity is unknown. As previously discussed, the project site is completely developed and paved, should any archaeological resources exist on the project site, they would be beneath the paved surface. Therefore, initial ground disturbances to the project area does not require archaeological monitoring. Although the project site is currently developed, there is still the potential for buried and/or surface prehistoric and historic resources within the project site. Per Senate Bill 18 (SB 18), a notice was sent to the appropriate Native American tribes with jurisdiction over the project site, however, no consultation was requested. Therefore, implementation of

[32] Guidelines for Completing National Register Forms, National Register Bulletin 16. 1986. United States Department of the Interior, National Park Service. September 30.

[33] HistoricAerials.com. 2019. Division of NETROnline.com by Nationwide Environmental Title Research, LLC. (NETR). Website: https://www.historicaerials.com/. Accessed November 6, 2019.

MM CUL-1 is required. MM CUL-1 states that in the event that any evidence of archaeological resources is encountered, all work within the vicinity of the find should stop until a qualified Archaeologist can assess the finds and make recommendations. Any resulting reports by the qualified Archaeologist should be submitted to the South Coastal Information Center (SCIC) at San Diego State University and appropriate Native American representatives as identified by the Native American Heritage Commission (NAHC).

With inclusion of MM CUL-1, potential project impacts to any previously undiscovered archaeological resources would be reduced to less than significant levels.

(c) Less than significant impact with mitigation incorporated. As discussed above, there is some potential for archaeological subsurface resources to occur on the project site. Similarly, there is a possibility that human remains could be interred underneath the project site. To address this possibility, MM CUL-2 is required. With inclusion of this measure, potential project impacts regarding inadvertent discovery of human remains would be reduced to less than significant levels.

Tribal Cultural Resources

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

(d) No impact. On October 26, 2018, FCS sent a letter to the NAHC in an effort to determine whether any sacred sites are listed on its Sacred Lands File for the proposed project. The response from the NAHC was received on December 21, 2018, and it indicated that the search of the Sacred Lands File was negative for cultural resources. A list of eight Native American tribal members who may have additional knowledge of the project area was included with the results. These tribal members were sent letters on December 26, 2018, asking for any information they might have concerning cultural resources on or near the project area. As of the date of this report, no responses have been received. As such, no impacts would occur.

(e) Less than significant impact. On October 26, 2018, FCS sent a letter to the NAHC in an effort to determine whether any sacred sites are listed on its Sacred Lands File for the proposed project. The response from the NAHC was received on December 21, 2018, and it indicated that the search of the Sacred Lands File was negative for cultural resources. A list of eight Native American tribal members who may have additional knowledge of the project area was included with the results. These tribal members were sent letters on December 26, 2018, asking for any information they might have concerning cultural resources on or near the project area. As of the date of this report, no responses have been received. As such, impacts would be less than significant.

Mitigation Measures:

MM CUL-1 Prior to the issuance of any demolition or grading permit, the Project Applicant shall demonstrate to the satisfaction of the City Development Services Department that a program related to potential archaeological resources uncovered during construction activities on-site has been established, the program shall include that:

1. The Project Applicant shall retain a qualified professional Archaeologist approved by the City to be present and monitor all ground-disturbing activities;
2. The Archaeologist shall halt work in the immediate area in the event that archaeological resources are identified until the Archaeologist has evaluated the find and determined if the find is a "unique cultural resource" as defined in Section 21083.2 (g) of the CEQA statutes;
3. The Project Applicant shall inform the City Development Services Department of the find;
4. If this determination is positive, the scientifically consequential information shall be fully recovered by the Archaeologist;
5. The Project Applicant shall stop work in the immediate location of the find until information recovery has been completed and a report has been filed with the City; the SCIC at San Diego State University; and, appropriate Native American representatives;
6. The Project Applicant may continue outside the area of the find; and,
7. The City Development Services Department shall ensure compliance.

MM CUL-2 Prior to the issuance of any demolition or grading permit, the Project Applicant shall demonstrate to the satisfaction of the City Development Services Department that a program related to any human remains that might be encountered during ground-disturbing activities on-site has been established, the program shall include:

1. The Project Applicant shall halt work in the immediate area of the find;
2. The Project Applicant shall contact the San Diego County Coroner, City Development Services Department, and Sherriff's Department;
3. The Project Applicant shall be responsible for ensuring that the Native American Heritage Commission (NAHC) and the appropriate Native American representatives are contacted and that the NAHC contacts the most appropriate most likely descendant (MLD) as maybe directed by either the San Diego County Coroner, City Development Services Department, or Sherriff's Department;
4. The City Development Services Department shall direct the treatment of the remains pursuant to Coroner and MLD recommendations.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
VI. Energy Would the project:				
c) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
d) Conflict with or obstruct a State or local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Comments:

(c) The County's Guidelines for Determining Significance do not explicitly address energy. Therefore, Appendix F of the CEQA Guidelines was used to assess the proposed project's impacts. Appendix F does not prescribe a threshold for the determination of significance. Rather, Appendix F focuses on reducing and minimizing inefficient, wasteful, and unnecessary consumption of energy. Therefore, a significant impact would occur if the project would result in the wasteful, inefficient or unnecessary use of energy.

Construction

Less than significant impact. During construction, the proposed project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for temporary buildings, lighting, and other sources. Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during demolition, grading, paving, and building construction. The types of equipment could include gasoline- and diesel-powered construction and transportation equipment, including trucks, bulldozers, frontend loaders, forklifts, and cranes. Based on CalEEMod estimations within the modeling output files used to estimate greenhouse gas (GHG) emissions associated with the proposed project, construction-related vehicle trips would result in approximately 582,063 VMT, and consume an estimated 37,016 gallons of gasoline and diesel combined during the construction phase (Appendix I).[34]

Limitations on idling of vehicles and equipment and requirements that equipment be properly maintained would result in fuel savings. California Code of Regulations Title 13, Sections 2449(d)(2) and 2485, limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. In addition, given the cost of fuel,

[34] Construction VMT was calculated based on CalEEMod estimations of worker, vendor, and hauling trip days and trip length per construction phase. Fuel economy values were calculated based on output data from the Emissions Factors Model (EMFAC) database for worker, vendor, and hauling vehicle categories (ARB 2019). Complete calculations used to estimate fuel consumption are included in Appendix I.

contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

Other equipment could include construction lighting, field services (office trailers), and electrically driven equipment such as pumps and other tools. As on-site construction activities would be restricted to the daytime hours between 7:00 a.m. and 7:00 p.m., it is anticipated that the use of construction lighting would be minimal. Singlewide mobile office trailers, which are commonly used in construction staging areas, generally range in size from 160 square feet to 720 square feet. A typical 720-square-foot office trailer would consume approximately 12,195 kilowatt hours (kWh) during the approximately 15-month construction phase (Appendix I). Due to the temporary nature of construction and the financial incentives for developers and contractors to use energy-consuming resources in an efficient manner, the construction phase of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy. As such, impacts would be less than significant.

Operation

Less than significant impact. The operational phase of the proposed project would consume energy as part of building operations and transportation activities. Building operations for the proposed project would involve energy consumption for multiple purposes including, but not limited to, building heating and cooling, lighting, and electronics, as well as parking lot lighting. Based on CalEEMod estimations within the modeling output files used to estimate GHG emissions associated with the proposed project, building operations, including parking lot lighting, would consume approximately 605,352 kWh per year (kWh/year) of electricity, and an estimated 1,047,450 kilo-British thermal units per year (kBTU/year) of natural gas (Appendix I). The proposed project's building would be designed and constructed in accordance with California Title 24 energy efficiency standards. These standards, widely regarded as the most advanced energy efficiency standards, would help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation.

Operational energy would also be consumed during vehicle trips associated with the project. Fuel consumption would be primarily related to vehicle use by residents, employees, and visitors associated with the proposed multi-family residential development. Based on the estimates contained in the CalEEMod output files, project-related vehicle trips would result in approximately 3.06 million VMT annually; vehicle trips associated with the existing industrial land use result in approximately 0.25 million VMT annually. Operational fuel consumption of the proposed project would be an estimated 123,933 gallons of gasoline and diesel combined on an annual basis; fuel consumption of the existing industrial land use is an estimated 9,928 gallons of gasoline and diesel combined on an annual basis (Appendix I).[35] Thus, net operational fuel

[35] The value for operational VMT comes from the CalEEMod output file included in Appendix A. Average fuel economy was calculated based on output data from the EMFAC database for all vehicle categories (ARB 2019); see Appendix I for complete calculations.

consumption would be an estimated 114,005 gallons of gasoline and diesel combined on an annual basis.[36] The Broadway and Moss Metropolitan Transit System (MTS) 932 bus stop is located 0.4 mile east of the project site, and the Palomar Trolley Center transit station is located 0.8 mile south of the project site, offering two nearby options for public transportation to and from the site. For these reasons, transportation fuel consumption would not be wasteful, inefficient, or unnecessary.

The City of Chula Vista further supports energy conservation through voluntary policies, measures, and recommendations contained within the City of Chula Vista Vision 2020 General Plan and Climate Action Plan (CAP). General Plan, Chapter 9, Environmental Element, contains the following policies relevant to this project:[37]

- **E 6.7:** Encourage innovative energy conservation practices and air quality improvements in new development and redevelopment projects consistent with the City's Air Quality Improvement Plan Guidelines or its equivalent, pursuant to the City's Growth Management Program.
- **E 6.13:** Encourage programs and infrastructure to increase the availability and usage of energy-efficient vehicles, such as hybrid electric vehicles, electric vehicles, or those that run on alternative fuels.
- **E 6.B.4:** Update the building code to support best practices in "green building" design, construction, and operations.
- **E 6.B.5:** Provide fast-track permitting for projects that implement "green building" design and construction.
- **E 6.B.6:** Encourage or require all new building construction to incorporate green roofs and encourage conversions of existing roof space to green roofs to reduce heat island effect.
- **E 7.1:** Promote development of regulations and building design standards that maximize energy efficiency through appropriate site and building design and through the use of energy-efficient materials, equipment, and appliances.
- **E 7.2:** Encourage and support the local research, development, generation, and use of non-fossil fuel based renewable sources of energy, including wind and solar resources, that meet local energy needs in an environmentally sensitive manner and reduce dependence on imported energy.
- **E 7.3:** Develop and provide pertinent information about the benefits of energy conservation and available energy conservation incentive programs to all segments of the community.
- **E 7.4:** Pursue and encourage the expansion of local energy conservation, energy efficiency, and related incentive programs.
- **E 7.5:** Pursue 40% City-wide electricity supply from clean, renewable resources by 2017.

[36] Net operational fuel consumption was calculated by subtracting existing fuel consumption from proposed fuel consumption.
[37] City of Chula Vista. 2019. City of Chula Vista Vision 2020 General Plan. Chapter 9: Environmental Element. Section 3b. Website: https://www.chulavistaca.gov/home/showdocument?id=9341. Accessed November 6, 2019.

- **E 7.6:** Encourage the construction and operation of green buildings, considering such TM programs as the Leadership in Energy and Environmental Design (LEED) Green Building Rating System.
- **E 7.7:** Support tree planting programs that will be implemented to reduce energy needs.
- **E 7.8:** Ensure that residential and non-residential construction complies with all applicable City of Chula Vista energy efficiency measures and other green building measures that are in effect at the time of discretionary permit review and Approval or building permit issuance, whichever is applicable.

In the City's CAP, the Climate Change Working Group (CCWG) selected the following measures, which were adopted by the City Council on April 1, 2008:[38]

- **Green Building Standard:** Through a building code revision, require new and renovated buildings to increase their energy efficiency and meet Statewide green building standards.
- **Solar and Energy Efficiency Conversion:** Provide a cost-effective, streamlined mechanism for property owners to implement solar and energy efficiency upgrades and create a municipal code requiring pre-wiring for solar electric systems; Passed "solar ready" ordinance in 2009 and created PACE financing programs in 2014.

The following are recommendations by the CCWG that were adopted by the City Council in 2014:

- **Renewable & Efficient Energy Recommendation 2: Clean Energy Sources, Part A—**Incorporate solar photovoltaic into all new residential and commercial buildings.
- **Renewable & Efficient Energy Recommendation 3: Energy Efficiency Upgrades, Part B—**Facilitate more energy upgrades in the community through incentives and permit streamlining.

These voluntary measures at the City level further support the required State standards, which ensure that the proposed project would not result in an inefficient, wasteful, or unnecessary use of energy. Operational energy impacts would be less than significant.

(d) A significant impact would occur if the project would conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Construction

Less than significant impact. As described above, the proposed project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for

[38] City of Chula Vista, September 2017. Chula Vista Climate Action Plan. Accessed February 27, 2020.

temporary buildings, lighting, and other sources. California Code of Regulations Title 13, Sections 2449(d)(3) and 2485 limit idling from both on-road and off-road diesel-powered equipment. The proposed project would be required to comply with these regulations, which are enforced by the ARB. The California Title 24 energy efficiency standards establish mandatory measures for non-residential buildings, including material conservation and efficiency. The proposed project would also be required to comply with these mandatory measures. The City's local planning documents contain no policies or measures directly applicable to construction-related energy consumption. Therefore, it is anticipated that the construction phase of the project would not conflict with or obstruct State or local plans for renewable energy or energy efficiency. Construction-related energy impacts would be less than significant.

Operation

Less than significant impact. The operational phase of the proposed project would consume energy as part of building operations and transportation activities. Building operations for the proposed project would involve energy consumption for multiple purposes including, but not limited to, building heating and cooling, lighting, and electronics, as well as parking lot lighting. The California Title 24 energy efficiency standards are widely regarded as the most advanced energy efficiency standards. These standards help reduce the amount of energy required for lighting, water heating, and heating and air conditioning in buildings and promote energy conservation. The proposed project would be required to comply with these standards.

At the local level, the City of Chula Vista has established policies, regulations, and measures to support renewable energy and energy efficiency. Chapter 20.04, Energy and Water Conservation Regulations, of the City's Municipal Code contains the following regulations applicable to the proposed project:

- **20.04.030:** Solar water heater pre-plumbing. All new residential units shall include at least the plumbing specifically designed to encourage the later installation of a system which utilizes solar energy as the primary means of heating domestic potable water. The purpose of this section is to facilitate the safe, cost-effective installation of residential solar water heating systems, while removing structural and regulatory barriers. No building permit shall be issued unless the plumbing required pursuant to this section and the Chula Vista Solar Water Heater Pre-Plumbing Installation Requirements are incorporated into the approved building plans.[39]
- **20.04.040:** Solar photovoltaic pre-wiring. All new residential units shall include at least the electrical conduit specifically designed to encourage the later installation of a system that utilizes solar photovoltaic or other renewable energy resource as a means of generating electricity. The purpose of this section is to facilitate the safe, cost-effective installation of renewable energy systems as residents' primary

[39] City of Chula Vista. 2019. City of Chula Vista Municipal Code. Title 20, Energy and Water Conservation. Chapter 20.04: Energy and Water Conservation Regulations. Section 20.04.030: Solar Water Heater Preplumbing. Website: https://chulavista.municipal.codes/CVMC/20.04.030. Accessed November 6, 2019.

electricity source, while removing structural and regulatory barriers. No building permit shall be issued unless the requirements of this section and the Chula Vista Photovoltaic Pre-Wiring Installation Requirements are incorporated into the approved building plans.[40]

The proposed project would be required to comply with these regulations established in the City's Municipal Code. As noted in Section 6c, the City of Chula Vista Vision 2020 General Plan and CAP contain multiple voluntary measures supporting renewable energy and energy efficiency. The proposed project would not conflict with or obstruct any of these local voluntary measures.

California's Renewables Portfolio Standard (RPS) requires that 33 percent of electricity retail sales be served by renewable energy sources by 2020. The proposed project would be served with electricity and gas provided by San Diego Gas & Electric (SDG&E).[41] SDG&E is required to meet California's RPS. SDG&E's 2017 power mix included 44 percent eligible renewable (2 percent biomass and waste, 21 percent solar, and 21 percent wind), 39 percent natural gas, and 17 percent unspecified sources of power.[42] SDG&E also offers an EcoChoice Mix that sources 100 percent of its power mix from eligible renewable energy sources (specifically, 100 percent solar).

The proposed project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Operational energy impacts would be less than significant.

Mitigation Measures: None.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
VII. Geology and Soils Would the project:				
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.	☐	☐	☐	☒

[40] City of Chula Vista. 2019. City of Chula Vista Municipal Code. Title 20, Energy and Water Conservation. Chapter 20.04: Energy and Water Conservation Regulations. Section 20.04.030: Solar Water Heater Preplumbing. Website: https://chulavista.municipal.codes/CVMC/20.04.030. Accessed November 6, 2019.

[41] San Diego Gas and Electric (SDG&E). 2019. Our Service Area. Website: https://webarchive.sdge.com/our-company/about-us/our-service-territory. Accessed November 7, 2019.

[42] California Energy Commission. 2018. 2017 Power Content Label San Diego Gas and Electric. July. Website: https://ww2.energy.ca.gov/pcl/labels/2017_labels/SDG_and_E_2017_PCL.pdf. Accessed November 7, 2019.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☒	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Comments:

The following analysis is based on the Preliminary Geotechnical Report prepared by LGC Valley, Inc. on July 13, 2018. The report is included as Appendix D of the Draft Initial Study.

(a)(i) No impact. The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act requires the State Geologist to establish regulatory zones, known as "Alquist-Priolo Earthquake Fault Zones," around the surface traces of active faults and to issue appropriate maps. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (typically 50 feet).

According to the California Department of Conservation's California Geological Survey, Earthquake Zones of Required Investigation mapping tool and the project-specific Preliminary Geotechnical Report (Appendix D), the site is not located within an identified Alquist-Priolo Earthquake Fault Zone.[43]

[43] California Department of Conservation. Alquist-Priolo Faults. Website: https://earthquake.usgs.gov/learn/topics/geologicmaps/apfaults.php. Accessed March 29, 2019.

The nearest Alquist-Priolo Earthquake Hazard Zone is located approximately 5.25 miles northwest. Therefore, the project would not directly or indirectly cause potential substantial adverse effects including the risk of loss, injury or death involving the rupture of a known fault. No impact would occur.

(ii) Less than significant impact. Seismic ground shaking is influenced by the proximity of the site to an earthquake fault, the intensity of the seismic event, and the underlying soil composition. As described above in Impact 7(a)(i), there are no active faults known that pass through the project site. The nearest non-Alquist-Priolo active fault is the Rose Canyon Fault Zone located approximately 3.8 miles west of the project site. While the proposed project would construct 141 dwelling units, those dwellings would be constructed in compliance with standard grading and soil engineering practices and would be required to adhere to State and local building code standards. Given these factors, and the fact that the site is not located on an earthquake fault, the risk from ground shaking would be less than significant.

(iii) Less than significant impact. According to the project-specific Preliminary Geotechnical Report, the potential for lurching or shallow ground rupture at the site is low as the native soils are generally dense. Additionally, the City of Chula Vista Vision 2020 General Plan Environmental Element Figure 9-7, Geologic Hazards Map, indicates the project site is located in an area in need of a detailed geotechnical liquefaction analysis. However, the project-specific Preliminary Geotechnical Report outlines that a subsurface investigation found that the potential for liquefaction is not a source of concern as the water table depth varies between 30 to 33 feet below ground surface and the type of soils on-site are less prone to liquefaction. As such, impacts from seismic-related ground failure, including liquefaction, would be less than significant.

(iv) No impact. The project site is flat and is not in the vicinity of slopes that would be susceptible to landslides. Additionally, the project-specific Preliminary Geotechnical Report outlines, “based on the relatively flat nature of the site and our review of the geologic literature pertinent to the site, there are no indications of landslides close to or within the limits of the site.” As such, there would be no impact.

(b) Less than significant impact. The project site lies in an urbanized area of the City of Chula Vista. Currently and historically, the site has been used for industrial purposes; therefore, the ground surface and topsoil has been routinely disturbed by the construction and paving of the existing surfaces, existing industrial uses, and vehicular traffic.

The proposed project is expected to disturb the majority of the ground surface area, (+/-) 6.49 acres between 5–12 feet of depth, depending on the portion of the site. Project grading is expected to include 15,000 cubic yards of raw earthwork to be removed as these soils are not suitable for construction, and 10,000 cubic yards of imported earthwork fill.

Projects that disturb one or more acres of land are required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit), issued by the California State Water Resources Control Board (State Water Board). The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must list Best Management Practices (BMPs) the project would implement to control erosion and prevent the conveyance of sediments off-site. Implementation of the conditions of the Construction General Permit would reduce erosion impacts resulting from project construction to less than significant. Once construction work is completed, the impervious surfaces and landscaping would minimize potential erosion and topsoil loss risks. As such, impacts to soil erosion and loss of topsoil would be less than significant.

(c) Less than significant impact with mitigation incorporated.

Liquefaction or Collapse: As outlined above in Impact 2.7(a)(iii), the City of Chula Vista Vision 2020 General Plan Environmental Element Figure 9-7, Geologic Hazards Map, shows the project site as a liquefaction hazard area in need of a detailed geotechnical liquefaction analysis. The project-specific Preliminary Geotechnical Report outlines that a subsurface investigation found that the potential for liquefaction is not a source of concern as the water table depth varies between 30 to 33 feet below ground surface and the type of soils on-site are less prone to liquefaction. As such, impacts from seismic-related ground failure, including liquefaction, would be less than significant.

Landslide: As outlined above in Impact 2.7(a)(iv), the project site is flat and is not in the vicinity of slopes that would be susceptible to landslides. Additionally, the project-specific Preliminary Geotechnical Report outlines, “based on the relatively flat nature of the site and our review of the geologic literature pertinent to the site, there are no indications of landslides close to or within the limits of the site.” As such, there would be no impact.

Lateral Spreading: As discussed in the response to liquefaction (see above) the site is not located in an identified liquefaction hazard area, is relatively flat, and is not in the vicinity of slopes that would be susceptible to liquefaction (e.g., slope areas that have sufficient height, slope ratio, and underlying geologic conditions that can result in liquefaction). Impacts from lateral spreading would be less than significant.

Subsidence: Site preparation will include demolition of the existing buildings, and removal of on-site trash and surface pavement. Earthwork at the site is anticipated to consist of removal and realignment of the on-site sewer and storm drain lines, with the exception of the box culvert in the center of the site, which we anticipate will remain in place. Earthwork will also include remedial removals of undocumented fill below the existing buildings and in the areas of the old drainage channel, as well as removing the top compressible layers of the young alluvial flood-plain deposits. Site grading will

include construction of slab-on-grade type foundations, installation of utilities, and placement of the driveways, parking spaces, and concrete flatwork around the proposed building.

The earthwork on-site is required to be performed in accordance with the recommendations in Appendix D, pursuant to MM GEO-1. The recommendations provided by the City of Chula Vista, and the General Earthwork and Grading Specifications for Rough Grading included in Appendix D. Implementation of MM GEO-1 would ensure that grading, building construction, and building materials are compliant with local, State, and federal code. In case of conflict, the recommendations in the following sections shall supersede those included as part of Appendix D. Therefore, by following the proposed project's Preliminary Geotechnical Report recommendations, as is required, impacts from subsidence would be less than significant. As such, impacts would be less than significant.

(d) Less than significant impact with mitigation incorporated. According to the project-specific Preliminary Geotechnical Report, the proposed project grading would include 15,000 cubic yards of raw earthwork to be removed and 10,000 cubic yards of import earthwork fill. The purpose of removing the 15,000 cubic yards of raw earthwork would be to remediate site soil conditions, as existing soils are unsuitable for construction which may settle under the addition of water, surcharge of fill and/or foundation loads. The 10,000 cubic yards of soil that will be brought onto the sight would have a very low to low expansion potential. Therefore, by following the proposed project's Preliminary Geotechnical Report recommendations, as is required and as included as MM GEO-1, impacts from expansive soils would be less than significant with mitigation incorporated.

(e) No impact. The project does not propose the use of septic tanks. The proposed project would connect to the City sanitary sewer system through existing lines for wastewater disposal. Therefore, implementation of the proposed project would have no impact to soils, as the project does not propose the use of septic tanks.

(f) Less than significant impact with mitigation incorporated. A significant adverse effect could occur if grading or excavation activities associated with a project would disturb paleontological resources or geologic features that presently exist within the project site.

According to the paleontological records search by staff at the San Diego Natural History Museum,[44] review of published geological maps of the project site indicated that the proposed project has the potential to impact late Pleistocene-to Holocene-age young alluvial flood plan deposits, and could also impact the underlying Pleistocene-age Bay Point Formation.

[44] FirstCarbon Solutions (FCS). 2019. Phase I Cultural Resources Assessment 676 Moss Street Project. (Appendix C)

The high paleontological sensitivity of the Bay Point Formation in San Diego County suggests the potential for construction of the proposed project to result in impacts to paleontological resources. Any proposed excavation activities that extend deep enough to encounter previously undisturbed deposits of this geologic unit have the potential to impact the paleontological resources preserved therein, and, in this case, implementation of a complete paleontological resource mitigation program during ground-disturbing activities is recommended.

The proposed project is expected to disturb the majority of the ground surface area, approximately 6.49 acres, between 5- to 12-feet of depth. If excavations extend into undisturbed high sensitivity geological units, or are greater than 10 feet below the ground surface, a Paleontological Monitor will be required as described in MM GEO-2.

However, if the project Construction Manager and City Development Services Department staff determines that the thickness of the low sensitivity surficial sediments underlying the project site exceeds the maximum cut depths proposed for construction of the project, paleontological mitigation is not recommended.

Mitigation Measures:

MM GEO-1 Prior to the issuance of grading permits, the Project Applicant shall demonstrate that all recommendations included in the Preliminary Geotechnical Report, included as Appendix D of the Draft Initial Study, shall be implemented during construction activities.

MM GEO-2 The City of Chula Vista assesses and mitigates the potential impacts of private development and public facilities and infrastructure to paleontological resources pursuant to the provisions of CEQA. Pursuant to Section 15065 of the CEQA Guidelines, a lead agency must find that a project may have a significant effect on the environment where the project has the potential to eliminate important examples of the major periods of California prehistory, which includes the destruction of significant paleontological resources.

With the implementation of Mitigation Measure (MM) GEO-2, impacts to any previously undiscovered paleontological resources would be less than significant.

Because excavations may extend into undisturbed high sensitivity geological units, and may be greater than 10 feet below the ground surface in certain areas of the project site, a Paleontological Monitor will be required.

Prior to the issuance of any demolition or grading permit, the Project Applicant shall demonstrate to the satisfaction of the City Development Services Department that a program related to paleontological resources potentially uncovered during ground-disturbing activities on-site has been established, the program shall include:

1. The Project Applicant shall halt work in the immediate area of the find;
2. The Project Applicant shall notify the City Development Services Department;
3. The Project Applicant shall retain a qualified professional paleontologist approved by the City:
   - The Paleontologist shall assess the discovered material(s).
   - The Paleontologist shall prepare a survey, study or report evaluating the find.
   - The Paleontologist's survey, study, or report shall contain a recommendation(s), if necessary, for the preservation, conservation, or relocation of the find.
   - The report shall be reviewed and approved by the City Development Services Department.
   - The Project Applicant shall comply with the recommendations of the report as approved by the City.
   - Project development activities in the immediate area of the find will resume when copies of the report are submitted in a manner acceptable to the City Department of Community Development.
   - A find(s) recovered should be deposited in a manner approved by the City Department of Community Development.

Prior to the issuance of any building permit, the Project Applicant shall submit a letter to the City Development Services Department indicating what, if any, paleontological reports have been prepared for the project site, or a statement indicating that no material was discovered.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
VIII. Greenhouse Gas Emissions Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒	☐	☐
b) Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

Comments:

(a) Less than significant impact with mitigation incorporated. Gases that trap heat in the atmosphere are referred to as greenhouse gases. The effect is analogous to the way a greenhouse retains heat. There have been significant legislative and regulatory activities that directly and indirectly affect climate change and GHGs in California. The

primary climate change legislation in California is Assembly Bill 32 (AB 32), the California Global Warming Solutions Act of 2006, focusing on reducing GHG emissions in California. The proposed project would generate a variety of GHG emissions during construction and operation, including several defined by AB 32 such as carbon dioxide (CO_2), methane (CH_4), and nitrous oxide.

To describe how much global warming a given type and amount of GHG may cause, the CO_2 equivalent (CO_2e) is used. The calculation of the CO_2 equivalent is a consistent methodology for comparing GHG emissions since it normalizes various GHG emissions to a consistent reference gas, CO_2. For example, CH_4's warming potential of 25 indicates that CH_4 has 25 times greater warming effect than CO_2 on a molecule-per-molecule basis. A CO_2 equivalent is the mass emissions of an individual GHG multiplied by its global warming potential.

Neither the State of California nor the San Diego County APCD has adopted emission-based thresholds of significance for GHG emissions under CEQA. This analysis uses thresholds of significance established based on meeting the 2020 GHG targets set forth in the AB 32 Scoping Plan. In addition, since operations would occur beyond 2020, the service population threshold of significance was adjusted to a "substantial progress" threshold that was calculated based on the SB 32 target of 40 percent below 1990 levels and the forecasted 2030 service population.[45] In the *Center for Biological Diversity v. California Department of Fish and Wildlife,* the California Supreme Court stated that "residential and commercial development, which are designed to accommodate long-term growth in California's population and economic activity, this fact gives rise to an argument that a certain amount of greenhouse gas emissions is as inevitable as population growth. Under this view, a significance criterion framed in terms of efficiency is superior to a simple numerical threshold because CEQA is not intended as a population control measure." Therefore, consistent with the California Supreme Court decision, this analysis uses a service population threshold to evaluate GHG emissions for the proposed project.

Consistent with recommendations provided by the City of Chula Vista, this analysis uses an efficiency threshold based on the total projected emissions for Chula Vista divided by the service population (residents plus employees) in 2020 and 2030. As provided in the 2012 Greenhouse Gas Emissions Inventory, the City's 1990 GHG emissions inventory totals approximately 847,166 metric ton (MT) CO_2e, and the projected 2020 emissions would be 1,138,431 MT CO_2e.[46] The City's service population has been estimated to be 370,126 in 2020.[47] Therefore, the efficiency threshold for year 2020 is equal to the 2020 emissions divided by the City's 2020

[45] Association of Environmental Professionals (AEP). Final White Paper Beyond 2020 and Newhall: A Field Guide to New CEQA Greenhouse Gas Thresholds and Climate Action Plan Targets for California. Website: https://www.califaep.org/images/climate-change/AEP-2016_Final_White_Paper.pdf. Accessed February 25, 2020.

[46] 2012 Greenhouse Gas Emission Inventory. City of Chula Vista, Cory Downs. Website: https://www.chulavistaca.gov/home/showdocument?id=5471

[47] San Diego Associations of Governments (SANDAG). 2013. Series 13: 2050 Regional Growth Forecast. October. Website: https://www.sandag.org/index.asp?classid=12&subclassid=84&projectid=503&fuseaction=projects.detail. Accessed October 25, 2019.

service population, which results in 3.1 MT CO_2e per service population. Consistent with the goals of SB 32, the City's 2030 GHG emission goal is 508,300 MT CO_2e[48] with an estimated service population of 389,979 (288,978 residents plus 101,001 employees).[49] Therefore, the efficiency threshold for year 2030 is 1.3 MT CO_2e per service population.

Although construction-related GHG emissions are temporary in nature, the total amount of emissions could have a substantial contribution to a project's total GHG emissions. Construction of the proposed project would result in GHG emissions, which are primarily associated with use of off-road construction equipment, on-road hauling and vendor trucks, and worker vehicles. Construction-related GHG emissions were modeled using the same assumptions in the Air Quality section discussed above. Table 11 presents the project's total construction-related GHG emissions and amortized construction emissions.

Table 11: Construction GHG Emissions

Construction Activity	Emissions (MT CO_2e)
Demolition	61
Grading	164
Building Construction-2019	63
Building Construction-2020	466
Paving	21
Architectural Coating	8
Total[1]	783
Amortized over 30 years[2]	*26*

Note:
MT CO_2e = metric tons of carbon dioxide equivalent.
1 Figures may not appear to add exactly due to rounding.
2 Construction GHG emissions are amortized over the 30-year life of the project (=783/30). The San Diego County APCD does not recommend assumptions for project lifetime length; therefore, a 30-year lifetime, consistent with the SCAQMD's GHG guidance, was assumed.
Source: South Coast Air Quality Management District (SCAQMD). 2008. Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold. Website: http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-6/ghg-meeting-6-guidance-document-discussion.pdf. Accessed August 19, 2019.
Source: CalEEMod Output (see Appendix A).

The construction schedule used in the analysis represents a reasonable "worst-case" analysis scenario since emission factors for construction equipment decrease as the

[48] Note: SB 32 states California plans to reduce GHG emissions 40 percent by 2030 at the 1990 level of emissions.
[49] San Diego Associations of Governments (SANDAG). 2011. Series 12: 2050 Regional Growth Forecast- Historical Projection. October. Website: https://www.sandag.org/index.asp?classid=12&subclassid=84&projectid=355&fuseaction=projects.detail. Accessed October 25, 2019.

analysis year increases, due to improvements in technology and more stringent regulatory requirements. Therefore, construction emissions would likely decrease if the construction schedule moves to later years.

Following buildout of the project, long-term operational emissions would be generated from area-, energy-, and mobile-source emissions. Indirect GHG emissions associated with water consumption and solid waste disposal would also be generated by the proposed residential development. The three existing buildings would be removed as part of the project; therefore, existing emissions were included in the analysis baseline to estimate the net increase in emissions. Table 12 shows existing emissions modeled using the 2021 operational year, and Table 13 shows existing emissions modeled using the 2030 operational year. Table 14 shows the project's annual operational emissions in year 2021 along with the amortized construction emissions. Table 13 shows the project's operational emissions in 2030 along with the amortized construction emissions.

Table 12: Existing Emissions—Year 2021

Emissions Source	Emissions (MT CO_2e)
Area	0
Energy	98
Mobile	99
Waste	26
Water	39
Total Existing Emissions[1]	262

Note:
MT CO_2e = metric tons of carbon dioxide equivalent
[1] Totals may not appear to add exactly due to rounding.
Source of emissions: CalEEMod Output (see Appendix A).

Table 13: Existing Emissions—Year 2030

Emissions Source	Emissions (MT CO_2e)
Area	0
Energy	89
Mobile	77
Waste	26
Water	36
Total Existing Emissions[1]	228

Note:
MT CO_2e = metric tons of carbon dioxide equivalent
[1] Totals may not appear to add exactly due to rounding.
Source of emissions: CalEEMod Output (see Appendix A).

Table 14: Annual Operational GHG Emissions—Year 2021

Emissions Source	Emissions (MT CO_2e)
Area	63
Energy	182
Mobile	1,241
Waste	33
Water	51
Amortized Construction	26
Total Project Emissions[1]	*1,596*
Existing Emissions	*(262)*
Annual Net Project Emissions	*1,334*
Project Service Population[2]	475
Service Person/Per Capita GHG Efficiency (MT CO_2e/SP)	2.8
City's proposed efficiency thresholds—2020 (MT CO_2e/SP)	3.1
Exceed Threshold?	No

Note:
MT CO_2e = metric tons of carbon dioxide equivalent
SP = Service Person
[1] Totals may not appear to add exactly due to rounding.
[2] The project service population (residents plus employees) is the number of new residents living in the proposed development. As noted in Section 1.4, the number of new residents (475) was calculated by multiplying 141 dwelling units by 3.37 persons/dwelling unit (the average household size in Chula Vista).
Source of emissions: CalEEMod Output (see Appendix A).

Table 15: Annual Operational Emissions—Year 2030

Emissions Source	Emissions (MT CO_2e)
Area	63
Energy	167
Mobile	961
Waste	33
Water	46
Amortized Construction	26
Total Project Emissions[1]	*1,295*
Existing Emissions	*(228)*
Annual Net Project Emissions	*1,067*

Table 15 (cont.): Annual Operational Emissions—Year 2030

Emissions Source	Emissions (MT CO_2e)
Project Service Population[2]	475
Service Person/Per Capita GHG Efficiency (MT CO_2e/SP)	2.3
City's proposed efficiency thresholds—2030 (MT CO_2e/SP)	1.3
Exceed Threshold?	Yes

Note:
MT CO_2e = metric tons of carbon dioxide equivalent.
[1] Totals may not appear to add exactly due to rounding.
[2] The project service population (residents plus employees) is the number of new residents living in the proposed development. As noted in Section 1.4.2, the number of new residents (475) was calculated by multiplying 141 dwelling units by 3.37 persons/dwelling unit (the average household size in Chula Vista).
Source of emissions: CalEEMod Output (see Appendix A).

As shown above, the proposed project's operational emissions would not exceed the applicable threshold in the 2021 operational year; however, the project's GHG generation would exceed the applicable efficiency threshold for 2030. The project would need to reduce its GHG emissions by approximately 35 percent in the 2030 operational year to reduce the GHG emissions to a less than significant level. However, approximately 78 percent of the project's operational emissions are from mobile sources. Therefore, since there are limited options to reduce mobile-source GHG emissions at the project level, the proposed project would be required to purchase carbon offsets to help reduce the operational emissions to less than significant level. Implementation of MM GHG-1 would require the purchase of voluntary carbon credits by the Project Applicant in the amount of approximately 450 MT CO_2e per year in 2030 through the remainder of the project's lifetime (Appendix A).[50] Total carbon offsets required for the project's lifetime would be approximately 9,450 MT CO_2e (Appendix A).[51] With the implementation of MM GHG-1, the project's GHG emissions would not exceed the City's energy efficiency threshold of significance. Impacts would be less than significant with mitigation incorporated.

(b) Less than significant impact. Significance for this impact is determined by project compliance to the ARB adopted AB 32 Scoping Plan and the ARB adopted 2017 Climate Change Scoping Plan Update. As described below, the proposed project's consistency with the City of Chula Vista's CAP is shown for informational purposes.

[50] The yearly amount of carbon offsets was calculated by multiplying the City's proposed efficiency threshold (1.30 MT CO_2e/SP) by the project's service population (475), and then subtracting this from the annual net project emissions (1,067 MT CO_2e).
[51] The total amount of carbon offsets was calculated by multiplying 450 MT CO_2e per year by 21 years, which is the remainder of the 30-year lifetime of the project after 2030. The "project life" of 30 years is consistent with the methodology used by the SCAQMD GHG guidance (SCAQMD 2008).

Consistency with City's Climate Action Plan

The City of Chula Vista adopted the CAP in September 2017. However, the CAP has not been adopted in a public process following environmental review; it is not considered a qualified GHG reduction plan. Therefore, the proposed project's consistency with the CAP is included only for informational purposes, and would not be used to determine significance. Table 16 identifies the measures within the CAP and the proposed project's consistency with them.

Table 16: Climate Action Plan Consistency Analysis

Category	Policy Objective or Strategy	Project Consistency
Waste Reduction		
Zero Waste Plan	Develop a Zero Waste Plan to supplement Statewide green waste, recycling, and plastic bag ban efforts.	Not applicable. The proposed project would not impair the ability to the City to develop a Zero Waste Plan.
Renewable and Energy Efficiency		
Energy Education and Enforcement	Expand education targeting key community segments and facilitating energy performance disclosure.	Not applicable. The proposed project would not impair the ability of the City to expand energy education.
Clean Energy Source	Incorporate solar photovoltaic into all new residential and commercial buildings (on a project level basis).	Consistent. The proposed residential land uses would be required to comply with the most current Title 24 and California Building Standards Code energy efficiency standards, which would require the proposed project to be either solar ready or would include the installation of solar photovoltaic systems, depending on the permit dates.
Energy Efficiency Upgrades	Expand the City's cool roof standards to include re-roofs and western areas.	Not applicable. The proposed project would not impair the ability of the City to expand the City's cool roof standards.
Energy Efficiency Upgrades	Facilitate more energy upgrades in the community through tax breaks, rebates, and more local energy efficiency programming.	Not applicable. The proposed project would not impair the ability of the City to incentivize additional energy upgrades in the community.
Robust Urban Forests	Plant more shade trees to save energy, address heat island issues, and improve air quality	Consistent. The proposed project would include shade trees on-site to save energy and reduce heat island issues.
Smart Growth and Transportation		
Complete Streets and Neighborhoods	Incorporate "Complete Streets" principles into the Bicycle and Pedestrian Master Plans and Capital Improvement Program.	Not applicable. The proposed project would not impair the ability of the City to incorporate "Complete Streets" principles into the Bicycle and Pedestrian Master Plans and Capital Improvement Program.

Table 16 (cont.): Climate Action Plan Consistency Analysis

Category	Policy Objective or Strategy	Project Consistency
Complete Streets and Neighborhoods	Encourage higher density and mixed-use development in Smart Growth areas, especially around trolley stations and other transit nodes.	Consistent. The proposed project would be located close to major urban residential areas. The proposed project would be located close to public transit and the I-5.
Transportation Demand Management	Utilize bike facilities, transit access/passes and other Transportation Demand Management and congestion management offerings.	Not applicable. The proposed project would not impair the ability of the City to use Transportation Demand Management and congestion management offerings.
Source: City of Chula Vista 2017 CAP.		

As shown above, the proposed project would be consistent with the applicable measures within the City's CAP.

Consistency with Scoping Plan

The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. It should be noted that the AB 32 Scoping Plan was developed at a Statewide level and thus many of its measures listed below are not applicable to individual projects. As shown in Table 17, the proposed project would be consistent with the applicable strategies, or the strategies have been determined to not be applicable to the proposed project.

Table 17: Scoping Plan Measures Consistency Analysis

Scoping Plan Reduction Measure	Project Consistency
1. California Cap-and-Trade Program Linked to Western Climate Initiative. Implement a broad-based California Cap-and-Trade program to provide a firm limit on emissions. Link the California Cap-and-Trade program with other Western Climate Initiative Partner programs to create a regional market system to achieve greater environmental and economic benefits for California. Ensure California's program meets all applicable AB 32 requirements for market-based mechanisms.	Not applicable. Although the cap-and-trade system has begun, the proposed project is not one targeted by the cap-and-trade system regulations and therefore this measure does not apply to the proposed project.
2. California Light-Duty Vehicle Greenhouse Gas Standards. Implement adopted standards and planned second phase of the program. Align zero-emission vehicle, alternative and renewable fuel and vehicle technology programs with long-term climate change goals.	Not applicable. The future residents would use vehicles subject to this measure. The reductions associated with this measure would occur regardless of the proposed project.
3. Energy Efficiency. Maximize energy efficiency building and appliance standards; pursue additional efficiency including new technologies, policy, and implementation mechanisms. Pursue comparable investment in energy efficiency from all retail providers of electricity in California.	Consistent. The proposed residential land uses would be required to comply with the most current Title 24 and California Building Standards Code energy efficiency standards.

Table 17 (cont.): Scoping Plan Measures Consistency Analysis

Scoping Plan Reduction Measure	Project Consistency
4. Renewable Portfolio Standard. Achieve 50 percent renewable energy mix Statewide by 2050. Renewable energy sources include (but are not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas.	Not applicable. This is a Statewide measure that cannot be implemented by a project applicant or lead agency. Renewable energy as a percentage of SDG&E has achieved 43 percent in 2016, exceeding the State's renewable portfolio standards mandate of 33 percent by 2020. The proposed project would purchase power that is comprised of a greater amount of renewable sources.
5. Low Carbon Fuel Standard. Develop and adopt the Low Carbon Fuel Standard.	Not applicable. This measure would occur at the Statewide level and all fuel used by the project's vehicles would comply with the Low Carbon Fuel Standard.
6. Regional Transportation-Related Greenhouse Gas Targets. Develop regional GHG emissions reduction targets for passenger vehicles. This measure refers to SB 375.	Not applicable. The proposed project would not be related to developing GHG emission reduction targets.
7. Vehicle Efficiency Measures. Implement light-duty vehicle efficiency measures.	Not applicable. The standards would be applicable to the light-duty vehicles that would access the project site.
8. Goods Movement. Implement adopted regulations for the use of shore power for ships at berth. Improve efficiency in goods movement activities.	Not applicable. The proposed project would not change any maritime, rail, or intermodal facilities.
9. Million Solar Roofs Program. Install 3,000 megawatt of solar-electric capacity under California's existing solar programs.	Consistent. This measure is to increase solar throughout California, which is being done by various electricity providers and existing solar programs. The proposed project would be constructed pursuant to the Building Energy Efficiency Standards, which would require the proposed project to be either solar ready or would include the installation of solar photovoltaic systems, depending on the permit dates.
10. Medium/Heavy-Duty Vehicles. Adopt medium and heavy-duty vehicle efficiency measures.	Not applicable. This is a Statewide measure that cannot be implemented by a project applicant or lead agency.
11. Industrial Emissions. Require assessment of large industrial sources to determine whether individual sources within a facility can cost-effectively reduce GHG emissions and provide other pollution reduction co-benefits. Reduce GHG emissions from fugitive emissions from oil and gas extraction and gas transmission. Adopt and implement regulations to control fugitive CH_4 emissions and reduce flaring at refineries.	Not applicable. The proposed project would not be a stationary source targeted by this measure.
12. High Speed Rail. Support implementation of a high-speed rail system.	Not applicable. The proposed project would not preclude the implementation of this strategy.
13. Green Building Strategy. Expand the use of green building practices to reduce the carbon footprint of California's new and existing inventory of buildings.	Consistent. The proposed project would comply with the California Energy Code, and thus incorporate applicable energy efficiency features designed to reduce project energy consumption.
14. High Global Warming Potential Gases. Adopt measures to reduce high global warming potential gases.	Not applicable. This measure is applicable to the high global warming potential gases that would be used by sources with large equipment (such as in commercial refrigerators) that are not part of this residential project.
15. Recycling and Waste. Reduce CH_4 emissions at landfills. Increase waste diversion, composting, and commercial recycling. Move toward zero waste.	Consistent. The proposed project would utilize City of Chula Vista waste management and waste recycling services.

Table 17 (cont.): Scoping Plan Measures Consistency Analysis

Scoping Plan Reduction Measure	Project Consistency
16. Sustainable Forests. Preserve forest sequestration and encourage the use of forest biomass for sustainable energy generation.	Not applicable. The project site is not forested; therefore, no preservation is possible.
17. Water. Continue efficiency programs and use cleaner energy sources to move and treat water.	Consistent. The proposed project would comply with the California Energy Code and the California Updated Model Landscape Ordinance. With adherence to these regulations, the proposed project would consume energy and water in an efficient manner.
18. Agriculture. In the near-term, encourage investment in manure digesters and at the five-year Scoping Plan update determine if the program should be made mandatory by 2020.	Not applicable. The proposed project does not include any agricultural land uses. No grazing, feedlot, or other agricultural activities that generate manure occur on-site or are proposed to be implemented by the proposed project.
Source of ARB Scoping Plan Reduction Measure: California Air Resources Board (ARB) 2008. Source of project Consistency or Applicability: FirstCarbon Solutions (FCS) 2019.	

As shown above, the proposed project would be consistent with applicable AB 32 Scoping Plan measures.

In addition, SB 32 2017 Scoping Plan extends the goals of AB 32 and set a 2030 goal of reducing Statewide GHG emissions to 40 percent below 1990 levels by the year 2030. The 2017 Scoping Plan provides a path that will achieve California's 2030 target. As shown in Table 18, the 2017 Scoping Plan provides a high-level summary of the Climate Change Policies and Measures to achieve the 2030 target and discusses the proposed project's consistency with the recommended actions.

Table 18: Climate Change Policies and Measures with Consistency Analysis

Recommended Action	Project Consistency
Implement SB 350 by 2030:	
1. Increase the Renewable Portfolio Standard to 50 percent of retail sales by 2030 and ensure grid reliability.	Not applicable. This is a Statewide measure that cannot be implemented by a project applicant or lead agency. Renewable energy as a percentage of SDG&E has achieved 43 percent in 2016, exceeding the state's renewable portfolio standards mandate of 33 percent by 2020. The proposed project would purchase power that is comprised of a greater amount of renewable sources.
2. Establish annual targets for Statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of Statewide energy efficiency savings in electricity and natural gas end uses by 2030.	Consistent. The residential buildings would comply with the California Energy Code, and thus incorporate applicable energy efficiency features designed to reduce project energy consumption.
3. Reduce GHG emissions in the electricity sector through the implementation of Integrated Resource Plans to meet required GHG emissions reduction target.	Not applicable. This measure is specific to electricity utility companies and would not apply to the proposed project. The proposed project would purchase power that is comprised of a greater amount of renewable sources as a result of this measure.

Table 18 (cont.): Climate Change Policies and Measures with Consistency Analysis

Recommended Action	Project Consistency
Implement Mobile Source Strategy (Cleaner Technology and Fuels):	
4. At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025. 5. At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030. 6. Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Cars regulations. 7. Medium- and heavy-duty GHG Phase 2. 8. Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_X standard. 9. Last Mile Delivery: New regulation that would result in the use of low NO_X or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes zero emission vehicles comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.	Not applicable. These measures would be implemented at a Statewide level and would affect any new vehicles visiting or serving the proposed project.
10. Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming Statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."	
By 2019, adjust performance measures used to select and design transportation facilities. Harmonize project performance with emissions reductions, and increase competitiveness of transit and active transportation modes (e.g. via guideline documents, funding programs, project selection, etc.).	Not applicable. This is a Statewide measure that cannot be implemented by a project applicant or lead agency. In addition, the proposed project is not a public transit facility.
By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	Not applicable. This is a Statewide measure that cannot be implemented by a project applicant or lead agency.
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18 percent.	Not applicable. This is a Statewide measure that cannot be implemented by a project applicant or lead agency. The proposed project's vehicles would use fuel consistent with this measure.
Implement the Short-Lived Climate Pollutant Strategy by 2030: 1. 40 percent reduction in methane and hydrofluorocarbon emissions below 2013 levels. 2. 50 percent reduction in black carbon emissions below 2013 levels.	Not applicable. This is a Statewide measure that cannot be implemented by a project applicant or lead agency.

Table 18 (cont.): Climate Change Policies and Measures with Consistency Analysis

Recommended Action	Project Consistency
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink: 1. Protect land from conversion through conservation easements and other incentives. 2. Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity 3. Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments 4. Establish scenario projections to serve as the foundation for the Implementation Plan	Not applicable. This is a Statewide measure that cannot be implemented by a project applicant or lead agency.
Source: California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan. Chapter 5: Achieving Success. November 2017. Website: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf. Accessed November 9, 2019. Source of project consistency or applicability: FCS 2019.	

As shown above, the proposed project would be consistent with the Chula Vista CAP, AB 32, and SB 32 Scoping Plan. Therefore, impacts would be less than significant.

Mitigation Measures:

MM GHG-1 Prior to the occupancy of the proposed project, the Project Applicant shall provide for the purchase of voluntary carbon credits in a manner approved by the City Development Services Department pursuant to the following performance standards and requirements: i. the carbon offsets shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions as set forth in Cal. Health & Saf. Code Section 38562(d)(1); and ii. one carbon offset credit shall mean the past reduction or sequestration of one metric ton of carbon dioxide equivalent that is "not otherwise required" (CEQA Guidelines Section 15126.4(c)(3)). The purchase shall be from a verified greenhouse gas (GHG) emissions credit broker in an amount sufficient to offset operational GHG emissions of approximately 0 metric ton carbon dioxide equivalent (MT CO_2e) per year until 2030 and 450 MT CO_2e per year beginning in 2030 (or a total amount estimated over the lifetime of the proposed project, which is estimated to be 9,450 MT CO_2e). The purchase shall be verified as occurring prior to approval of occupancy permits. Copies of emission estimates and offset purchase contract(s) shall be provided to the City Development Services Department for review and approval.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
IX. Hazards and Hazardous Materials Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Comments:

The following analysis is based on the Phase I Environmental Site Assessment (Phase I ESA) and Phase II Environmental Site Assessment (Phase II ESA) prepared by Environmental Management Strategies, Inc. (EMS) in July 2018 and August 2018, respectively. Both the Phase I ESA and Phase II ESA are included as Appendix E of the Draft Initial Study.

(a) Less than significant impact with mitigation incorporated. The proposed project involves the demolition of three existing buildings, grading of the approximately 6.49-acre project site, asphalt/concrete paving of the site, construction of the private internal circulation system, and construction of 141 dwelling units.

A Phase I ESA was prepared for the project by EMS in July 2018 and is included in Appendix E. The Phase I ESA found that the buildings on-site were constructed prior to 1980; therefore, asbestos-containing building materials and lead based paint are still likely to be present on-site. The Phase I ESA recommended a Phase II ESA be performed at the individual properties of the site due to the presence of Recognized Environmental Conditions (RECs), Historical Environmental Conditions, and Vapor Encroachment Conditions.

A Phase II ESA was prepared by EMS on August 14, 2018, and is also included in Appendix E. A Supplemental Phase II ESA was also prepared by EMS on September 13, 2018. The findings of the Supplemental Phase II ESA do not indicate the site is unsuitable for the intended residential redevelopment, or that soil remediation is likely necessary prior to site redevelopment. However, a weak source of tetrachloroethene (PCE) may exist in soil beneath a clarifier and wash area at 676 Moss Street. It is anticipated that these structures will be removed as part of redevelopment earthwork. Implementation of MM HAZ-1 is therefore required. MM HAZ-1 requires soil samples to be collected from beneath these structures after removal for testing of VOCs. If present, soil containing elevated concentrations of VOCs must be excavated and removed from the site. Removal of impacted soil, if present, would likely eliminate the low potential risk of vapor intrusion that may be caused by this source.

Because the assessment of soil for contamination is dependent on, and limited by, discrete sampling at specific locations and depths, the possibility of encountering some soil containing petroleum hydrocarbons or other products during grading or construction that were not identified by previous sampling activities cannot be completely ruled out for an industrial site. Therefore, a Soil Management Plan (SMP) is required to be prepared under MM HAZ-2 to address potentially contaminated soil that may be encountered during building demolition, grading, or construction activities at the project site. The SMP would establish procedures for the identification, detection, excavation, removal, and disposal of any impacted soil discovered during demolition and grading. Using an SMP is a BMP that facilitates a cost-effective and efficient process for the removal of impacted soil with minimal impact to site construction and development activities. The SMP would be submitted to the County Department of Environmental Health as a part of the Voluntary Assistance Program (VAP) program, as stated in MM HAZ-3.

Five groundwater monitoring wells were installed on the project site. EMS recommends these wells remain in place should additional groundwater testing be necessary. These wells will require proper abandonment once they are no longer needed. All well-heads and covers should be protected from damage during any project construction, earthwork, or paving. A permit is required to be obtained from the San Diego County Department of Environmental Health Monitoring Well Program prior to abandonment under MM HAZ-1.

Construction Hazards

During construction of the residential area and related infrastructure, hazardous materials would be handled on the project site. These hazardous materials would include gasoline, diesel fuel, lubricants, and other petroleum-based products used to operate and maintain construction equipment and vehicles. This handling of hazardous materials would be a temporary activity and coincide with the short-term construction phase of the proposed project. Although hazardous materials associated with the operation and maintenance of construction equipment and vehicles may be stored on the project site, it is expected that only the amounts needed would be kept on-site, and any handling of such materials will be limited in both quantities and concentrations. Removal and disposal of hazardous materials from the project site would be conducted by a permitted and licensed contractor. The site buildings were constructed prior to 1980; therefore, asbestos-containing building materials and lead based paint are still likely to be present on-site. Any handling, transporting, use, or disposal would comply with applicable laws, policies, and programs set forth by various federal, State, and local agencies and regulations, including the EPA, Resource Conservation and Recovery Act (RCRA), California Department of Transportation (Caltrans), and the San Diego County Hazardous Materials Division. Required compliance with applicable hazardous material laws and regulations would ensure that construction-related hazardous material use would not result in significant impacts.

Operational Hazards

During the operational phase of the project, hazardous materials may be handled on the project site. Because of the nature of the project, hazardous materials used on-site may vary, but would likely be limited to fertilizers, herbicides, pesticides, solvents, cleaning agents, and similar materials used for daily residential operations and maintenance activities. These types of materials are common and represent a low risk to people and the environment when used as intended. Therefore, long-term operational impacts associated with hazardous materials would be less than significant.

(b) Less than significant impact. As noted above in Impact 2.8(a), the proposed project would involve the routine uses of common low-level hazardous materials associated with residential uses. Given the small quantities involved and the characteristics of use, the potential release of such materials is not considered a significant risk to human health or the environment. As such, impacts would be less than significant.

(c) No impact. The project site is not located within 0.25 mile of an existing or proposed school. The nearest school to the project site, Harborside Elementary School, is located approximately 0.26 mile south of the project site. Additionally, the proposed project, as a residential project, would not emit hazardous emissions or handle large quantities of hazardous materials. Spills or releases of hazardous materials on the project site would remain localized and would follow federal, State, and local guidelines for clean-up. As such, there would be no impact.

d) Less than significant with mitigation incorporated. The proposed project would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. To evaluate whether the proposed project would create a significant hazard to the public or the environment, EMS conducted Phase I, Phase II, and Supplemental Phase II ESAs on the project site (Appendix E). The findings and subsequent recommendations of each ESA is provided below.

Phase I ESA

The primary purpose of a Phase I ESA is to provide a detailed investigation into historic uses of the project site and conduct a review of reasonably ascertainable regulatory agency information including contacting regulatory agencies (pursuant to Government Code § 65962.5), in order to provide direction on any additional site investigation.

The findings of the Phase I ESA included RECs:

- Three diesel aboveground storage tanks (ASTs) were observed on the 680 Moss Street property and are a concern for subsurface contamination.
- The Hawthorne Cat equipment wash area at 680 Moss Street is a concern for subsurface contamination.
- The motor oil, transmission oil, and drive train oil and used oil storage area at 680 Moss Street is a concern for subsurface contamination.
- Soil staining was observed at the 676 Moss Street, Boat Yard San Diego property and is a concern for subsurface contamination.
- Housekeeping on the Boat Yard San Diego property was very poor with equipment and chemicals stored haphazardly throughout the yard and is a concern for subsurface contamination.
- The equipment wash area and clarifier located at the 676 Moss Street, Rapid Prep property are a concern for subsurface contamination.

The Phase I ESA recommended that a Phase II ESA be conducted to further analyze the findings.

A Phase II ESA was conducted, as outlined below.

Phase II ESA

The primary purpose of the Phase II ESA was to evaluate the potential impact to soil and soil vapor at the project site from the RECs outlined above. As such, soil boring was conducted throughout the project site to collect soil and soil vapor samples (Exhibit 10).

The findings of the Phase II ESA included the following:

- The concentrations of metals detected in soil at the locations and depths sampled do not appear to present a significant direct or indirect soil contact health risk to current or potential future human receptors at the project site.
- Soil at certain areas of the project site contain low concentrations of total petroleum hydrocarbons (TPH) as motor oil-range organics and lesser concentrations of diesel-range organics. The source of TPH may be from limited surface spillage at the project site or from asphalt debris in in shallow fill soil beneath the project site. The concentrations of TPH detected in soil at the locations and depths sampled do not exceed the San Diego Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs) for direct soil exposure to humans at residential sites and are not expected to present a significant direct or indirect soil contact health risk to current or potential future human receptors at the project site.
- VOCs were not detected in any of the soil samples collected by EMS as the project site. VOCs in soil matrix at the locations and depths sampled by EMS are not expected to present a significant direct or indirect soil contact health risk to current or potential future human receptors at the Site.
- Low concentrations of 22 VOCs were detected in soil vapor samples collected at the project site. The occurrence of VOCs in soil vapor is wide-spread across the project site. The most prevalent VOCs detected in soil vapor were acetone, 2-butanone (methyl ethyl ketone), BTEX compounds (benzene, toluene, ethylbenzene and xylene), and PCE. PCE detected in the soil vapor samples at probe locations SLF-5 and SLF-6-5 marginally exceed a future residential soil vapor screening level (SVSL) of 460 micrograms per cubic meter ($\mu g/m^3$) determined using current California Department of Toxic Substances Control (DTSC) 2011 VI Guidance and DTSC June 2018 HERO Note 3 indoor air screening levels. No other VOCs detected in soil vapor exceed future residential SVSLs based on current DTSC VI guidance.
- The wide-spread occurrence of benzene, toluene, ethylbenzene and xylene compounds (BTEX) in soil vapor suggest releases of gasoline product have occurred in the area of the project site. This may include on-site and off-site sources. EMS did not identify a soil source of BTEX, and the distribution of these VOCs in soil vapor did not identify a specific potential release area or “hot-spot” on-site. A gasoline underground storage tank (UST) was removed from the northeast corner of the site; however, the concentrations of BTEX detected in soil vapor at this location are similar to, or lower than, other areas of the project site suggesting the removed UST was not a source of VOCs detected in soil vapor.
- According to the State Water Board Geotracker online database, multiple sources of gasoline contamination to soil and groundwater are located up-gradient of the project site. Three of these release areas are located approximately 0.25 mile northeast of the project site at the intersection of Broadway and L Street (76 Station at 898 Broadway; Shell Station at 902 Broadway and Texaco Station at 903 Broadway). According to groundwater monitoring reports prepared for these cases,

groundwater flows southwest from the stations towards the project site. Groundwater beneath and down-grading of these stations has been impacted with free-phase floating gasoline product. Recent groundwater monitoring reports for these cases indicate free-phase floating product is still present on groundwater. The extents of groundwater contamination down-gradient from these sources, and other up-gradient sources, do not appear to have been completely defined. Groundwater is located at a depth of approximately 32 feet beneath the project site. Gasoline-impacted groundwater flowing beneath the project site from up-gradient sources could be contributing to BTEX compounds detected in soil vapor.

- The highest concentrations of PCE in soil vapor were detected at probe locations SLF-5 and SLF-6. These probes are located adjacent to an equipment wash area and three-stage clarifier at 676 Moss Street. The wash area and clarifier may have been a generally weak source for the relatively higher concentrations of PCE detected in soil vapor near this area. However, PCE, acetone and 2-butanone were detected in soil vapor across the project site suggesting other sources, including off-project-site sources, likely exist that may be contributing the detection of this VOC in soil vapor.

The Phase II ESA recommended that, while the project site is not unsuitable for a residential development, a Supplemental Phase II ESA be conducted to further analyze the wide-spread occurrence of generally low concentrations of VOCs detected in soil vapor, as contaminated groundwater from up-gradient sources may be an issue.

A Supplemental Phase II ESA was conducted, as outlined below.

Supplemental Phase II ESA

The primary purpose of the Supplemental Phase II ESA was to evaluate the potential impact to groundwater at the project site. As such, additional soil boring was conducted throughout the project site to collect soil and soil vapor samples, as well as the installation of groundwater wells to collect groundwater samples to test for distribution of VOCs (Exhibit 11).

The findings of the Supplemental Phase II ESA included the following:

- The concentrations of metals detected in soil at the locations and depths sampled are not expected to present a significant direct or indirect soil contact health risk to current or potential future human receptors at the site.
- Shallow soil at certain areas of the site contain low concentrations of TPH as motor oil-range organics and lesser concentrations of diesel-range organics. The source of TPH may be from limited surface spillage at the project site or from asphalt debris in shallow fill soil beneath the project site. The concentrations of TPH detected in soil at the locations and depths sampled do not exceed the San Diego RWQCB ESLs for direct soil exposure to humans at residential sites and are not expected to

present a significant direct or indirect soil contact health risk to current or potential future human receptors at the project site.

- VOCs were not detected in any of the soil samples collected by EMS as the project site. VOCs in soil matrix at the locations and depths sampled by EMS are not expected to present a significant direct or indirect soil contact health risk to current or potential future human receptors at the project site.
- Except for low concentrations of chloromethane, VOCs were not detected in groundwater samples collected from the five groundwater monitoring wells at the project site. Chloromethane is not considered a project site-related VOC or a contaminant of concern for this project site. These results demonstrate that this project site is not a source of VOC impact to groundwater and does not appear to have been impacted by potential un-gradient, off-project-site sources of VOC groundwater contamination.
- Low concentrations of 23 VOCs were detected in soil vapor samples collected at the project site. The occurrence of VOCs in soil vapor is wide-spread across the project site. EMS did not identify a soil source of VOCs and the distribution of these VOCs in soil vapor did not identify a specific potential release area or "hot-spot" on the project site. VOC detected in soil vapor may be from both on and off-project-site sources.
- PCE detected in two soil vapor samples at two locations (SLF-5 and SLF-6) near a clarifier and equipment wash area at 676 Moss Street marginally exceed a future residential SVSLs 460 micrograms per cubic meter ($\mu g/m^3$) determined using current DTSC 2011 VI Guidance and DTSC June 2018 HERO Note 3 indoor air screening levels. These results suggest soil beneath these structures may be a weak source of the relatively higher concentrations of PCE detected in soil vapor near this area. No other VOCs detected in soil vapor across the project site exceed future residential SVSLs based on current DTSC VI guidance. These results demonstrate the potential vapor intrusion risk to existing or future buildings from VOCs present in soil vapor beneath the project site is low.

The Supplemental Phase II ESA recommended that mitigation needs to be incorporated in order to ensure safety of the project site for development. Implementation of MM HAZ-2 would ensure that there is an SMP in place that establishes procedures in the event that soils containing petroleum hydrocarbons or other products are encountered during building demolition, grading or construction activities; the SMP would establish procedures for the identification, detection, excavation, removal and disposal of any impacted soil. MM HAZ-2 would ensure that, after the demolition of on-site structures, testing for VOCs be conducted on the soil the structures were on, if VOCs are present, soil containing elevated concentrations of VOCs would be excavated and removed from the project site; removal of impacted soil, if present, would likely eliminate the low potential risk of vapor intrusion that may be caused by this source. Additionally, the Supplemental Phase II ESA also recommended that the five groundwater

monitoring wells currently installed on the project site remain in place should additional groundwater testing be necessary. Implementation of MM HAZ-1 would require the project to retain the five groundwater monitoring wells on-site and ensure that the proper abandonment process occurs when they are no longer needed.

Therefore, the proposed project pursuant to Government Code Section 65962.5, with implementation of MM HAZ-1 and HAZ-2, impacts would be less than significant.

(e) No impact. The project site is neither located within an airport land use plan nor is it located within 2 miles of a public airport or public use airport. The closest public airport to the project site is Brown Field Municipal Airport in San Diego, approximately 5.82 miles to the southeast. Because of its distance from the airports runways, the project site is located well outside of the airport's 60 A-weighted decibel (dBA) community noise equivalent level (CNEL) noise contours. Therefore, implementation of the proposed project would not expose persons residing or working in the project site to excessive noise levels associated with public airport noise. As such, no impact would occur.

(f) No impact. The City of Chula Vista does not have an adopted emergency response plan or emergency evacuation plan. However, the City of Chula Vista Fire Department outlines the following scenarios that require disaster preparedness: wildfire, earthquakes, flood, terrorism, and tsunami. The only scenario with an evacuation routes map is the tsunami scenario. The evacuation routes for a tsunami are along the coast and direct evacuees to hear inland. The nearest evacuation route to the project site is J Street, located approximately 0.6 mile north of the project site. Additionally, according to the tsunami evacuation map, the project site would not be affected by a tsunami. Therefore, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As such, there would be no impact.

(g) No impact. According to the CAL FIRE California Fire Hazard Severity Zones Maps, the project site is not located in a Fire Hazard Severity Zone in neither a Local Responsibility Area, nor the State Responsibility, nor Federal Responsibility Area. The proposed project would be completely surrounded by urbanized areas and/or irrigated lands and no wildlands are adjacent to the project. Additionally, the proposed project's design would be subject to compliance with the requirements in the California Building Standards Commission California Fire Code. Therefore, the proposed project would not directly or indirectly expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. As such, there would be no impact.

Mitigation Measures:

MM HAZ-1 Prior to the issuance of any demolition or grading permit, the Project Applicant shall demonstrate to the satisfaction of the City Development Services

Department that the five groundwater monitoring wells on the project site will remain in place should additional groundwater testing be necessary. The Project Applicant will abandon the wells when they are longer needed in a manner approved by the City Development Services Department and San Diego County Department of Environmental Health Monitoring Well Program.

MM HAZ-2a Prior to the issuance of any grading permit and subsequent to the demolition of on-site structures, the Project Applicant shall conduct soil testing on the soils the structures were on. If volatile organic compounds (VOCs) are present, soil containing elevated concentrations of VOCs shall be excavated and removed from the project site. The excavation and removal of soil to be outlined in the Soil Management Plan (SMP) approved by the San Diego County Department of Environmental Health.

MM HAZ-2b Prior to issuance of any demolition permit, the Project Applicant shall obtain a permit from the San Diego County Hazardous Materials Division. The permits shall provide that hydrocarbons or "other products," including asbestos and lead based paints, that might be encountered during building demolition, grading, or construction activities, are disposed of in a manner approved by the City Development Services Department.

MM HAZ-3 Prior to the issuance of any site development permits (demolition, grading, building, construction), the Project Applicant shall enter into the County of San Diego Department of Environmental Health Voluntary Assistance Program (VAP). Written Confirmation of VAP participation and compliance shall be received from San Diego County Department of Environmental Health prior to any site development activities.

Issues:	**Potentially Significant Impact**	**Less than Significant Impact with Mitigation Incorporated**	**Less than Significant Impact**	**No Impact**
X. Hydrology and Water Quality Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater 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:	☐	☐	☒	☐

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
(i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
(iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
(iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☒	☐	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Comments:

Information and analysis for Hydrology and Water Quality impacts are based on the Priority Development Project Storm Water Quality Management Plan (SWQMP) prepared by Michael Baker International on November 19, 2018, included in Appendix F. The topography of the project site is relatively flat with current elevations that range from 37 feet on the north-westerly side of site to 32 feet on the south-easterly side. The existing drainage flows from northeast to west towards Industrial Boulevard. The project site is currently 1.3 percent pervious and 98.7 percent impervious. Implementation would increase the percentage of pervious area to 17 percent and reduce the impervious area to 83 percent. The proposed project would be designed to match the existing drainage conditions on-site via surface flow and on-site drainage system. Stormwater would be directed away from the proposed project and conveyed to the existing double box culvert that runs from east to west underneath the site. There also multiple inlets (some covered while others utilized) that connect to this underground culvert that can be found on-site.

(a) Less than significant impact. As part of Section 402 of the Clean Water Act, the EPA has established regulations under the National Pollutant Discharge Elimination System (NPDES) program to control direct stormwater discharges. In the City of Chula Vista, the San Diego RWQCB administers the NPDES permitting program and is responsible for developing NPDES permitting requirements. The NPDES program regulates industrial pollutant discharges, including construction activities. The below table outlines the City of Chula Vista Vision 2020 General Plan policies and objectives that the proposed project would be consistent with.

Table 19: Hydrology Consistency with the City Chula Vista Vision 2020 General Plan

General Plan Objective/Policy Number	Policy Objective or Strategy	Project Consistency
Policy E-2.4	Ensure compliance with current federal and state water quality regulations, including the implementation of applicable NPDES requirements and the City's Pollution Prevention Policy.	The proposed project would be consistent with the policy by integrating new stormwater BMPs to comply with all NPDES requirements and the City's Pollution Prevention Policy. The proposed project would benefit water quality by removing sources of heavy metals, oils, and chemicals on the site.
Policy E-2.5	Encourage and facilitate construction and land development techniques that minimize water quality impacts from urban development.	The proposed project would be consistent with this policy because it would reduce, minimize, and treat stormwater pollution through the use of permanent treatment control and temporary sediment control BMPs.
Source(s): Michael Baker International. 2019. 676 Moss Street General Plan Amendment Consistency Analysis. December 17. Michael Baker International. 2019. 676 Moss Street General Plan Amendment Justification Report. December 17. (Appendix J).		

Implementation of the proposed project would require compliance with all the NPDES requirements including the submittal and certification of plans and details showing both construction and post-construction BMPs that are integrated into the design of the project. Additionally, Appendix F of the Draft Initial Study contains an SWQMP, that outlines construction and non-stormwater discharge, erosion control, sediment controls (fiber rolls, gravel bags) and source control (construction waste management, litter control, stockpile pollutants) BMPs, which will be required to be integrated into the design of the proposed project. The SWQMP is required to be reviewed and approved by the City Engineer. Impacts related to water quality are considered to be less than significant with the compliance of all applicable permitting requirements.

(b) Less than significant impact. According to the San Diego County Water Authority's 2015 Urban Water Management Plan (2015 UWMP), which provides water to the Sweetwater Authority who in turn provides water to the project site area, the Sweetwater Authority's 2020 water supply is planned to come from a combination of 75.2 percent imported water (supplied by the Metropolitan Water District of Southern California) and 24.8 percent local water supply (approximately 4.1 percent of which is groundwater). The 2015 UWMP anticipates having adequate water supplies through the year 2040, with groundwater production remaining stable, groundwater recovery supplies increasing yearly, and groundwater replenishment increasing yearly.

The project site does not serve as a primary area of groundwater recharge in its current condition. The construction of the proposed project would create less impervious area (approximately 47,045 square feet) than what is currently on the site, as such, according the SWQMP the proposed project would include areas where stormwater will flow from impervious to pervious areas. The proposed project would comply with the conditions

set forth by the San Diego RWQCB NPDES permitting program. Additionally, the construction of stormwater facilities and the implementation of the WQMP will ensure that adverse project impacts to groundwater supplies will be less than significant.

(c)(i) Less than significant impact. The project site lies in an urbanized area of the City of Chula Vista. Currently and historically, the site has been used for industrial purposes; therefore, the ground surface has been routinely disturbed by vehicular traffic.

The proposed project is expected to disturb the majority of the ground surface area (+/-) 6.49 acres between 5–12 feet of depth, depending on the portion of the site. Project grading is expected to include 15,000 cubic yards of raw earthwork to be removed as these soils are not suitable for construction, and 10,000 cubic yards of imported earthwork fill.

Projects that disturb 1 or more acres of land are required to obtain coverage under the General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit), issued by the State Water Board. The Construction General Permit requires the development and implementation of a SWPPP. The SWPPP must list BMPs the proposed project would implement to control erosion and prevent the conveyance of sediments off-site. Implementation of the conditions of the Construction General Permit would reduce erosion or siltation impacts resulting from project construction to less than significant. Once construction work is completed, the impervious surfaces and landscaping would minimize potential erosion and topsoil loss risks.

In addition to the required permits and SWPPP, the City of Chula Vista has implemented objectives and policies, outlined within the City Chula Vista Vision 2020 General Plan. The proposed project's consistency with these objectives and policies is discussed in the following table:

Table 20: Hydrology Consistency with the City Chula Vista Vision 2020 General Plan

General Plan Objective/Policy Number	Policy Objective or Strategy	Project Consistency
Objective PFS-1	Ensure adequate and reliable water, sewer, and drainage service and facilities	The proposed project would be consistent with the objective because it would have access to adequate water and sewer service. The proposed project would implement stormwater treatment and retention BMPs to appropriately handle stormwater flows.
Policy PFS-1.4	For new development, require on-site detention of stormwater flows such that, where practical, existing downstream structures will not be overloaded. Slow runoff and maximize on-site infiltration of runoff.	The proposed project implements this policy by proposing a combination of stormwater detention and filtration BMPs. Drainage on the site would be improved from its current condition, which is nearly completely impervious.

Table 20 (cont.): Hydrology Consistency with the City Chula Vista Vision 2020 General Plan

General Plan Objective/Policy Number	Policy Objective or Strategy	Project Consistency
Policy PFS-2.2	As part of project construction and design, assure that drainage facilities in new development incorporate stormwater runoff and sediment control, including state-of-the-art technologies, where appropriate.	The proposed project implements this policy by proposing a combination of stormwater detention and filtration BMPs. Drainage on the site would be improved from its current condition, which is nearly completely impervious.
Source(s): Michael Baker International. 2019. 676 Moss Street General Plan Amendment Consistency Analysis. December 17. Michael Baker International. 2019. 676 Moss Street General Plan Amendment Justification Report. December 17. (Appendix J).		

Because the proposed project would be consistent with the above policies and objectives, and the proposed project would comply with the applicable permit requirements laid out by the City of Chula Vista, impacts to soil erosion or siltation would be less than significant.

(ii) Less than significant impact. The existing drainage conveyance is urban. According to the project-specific SWQMP, the existing site drainage patterns would not be altered and no diversion of flow is proposed. All proposed on-site storm drains would connect to an existing 12-foot-wide by 10-foot-deep double culvert channel that runs underneath the project site. Three on-site inlets collect stormwater and would drain from the double culvert to be conveyed into Telegraph Canyon Creek. The stormwater would ultimately be discharged north-westerly into the San Diego Bay and into the Pacific Ocean. Additionally, the proposed project would decrease the amount of impervious surfaces. Therefore, the proposed project would not increase the rate or amount of surface runoff that would result in flooding on or off-site, impacts would be less than significant.

(iii) Less than significant impact. According the site specific SWQMP, on-site stormwater runoff would flow towards inlets across the site, where the stormwater would be directed towards water quality detention vaults for treatment via a storm drain network. The project site runoff would be directed to proposed inlets and pipes via precise grading. Additionally, three proposed sub-grade proprietary BMPs (Bio Clean Modular Wetlands System [MWS] or similar) would be included for water quality treatment. After undergoing treatment via the proposed BMPs, project site runoff would be connected to the culvert from the proposed storm drain.

All proposed on-site storm drains would connect to an existing 12-foot-wide by 10-foot-deep double box culvert channel that runs underneath the site conveying stormwater along Telegraph Canyon Creek and ultimately discharging north-westerly into the San Diego Bay which is linked to the Pacific Ocean. Therefore, the proposed project would not create or contribute runoff water that would exceed capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; impacts are less than significant.

(iv) No impact. The proposed project would be comprised of relatively flat parcels located in an urbanized area surrounded by commercial, residential, and light industrial uses. Furthermore, the project site is located in Federal Emergency Management Agency (FEMA) Zone X: a zone that corresponds to areas outside of the 500-year flood or areas protected from the 100-year flood by levees. In other words, Zone X is defined as areas with a 0.2 percent annual chance of flood (i.e., a 500-year flood hazard area). These conditions preclude the possibility of subjecting people or structures to significant risks related to post-fire slop instability and landslides. Furthermore, the underground storm drain box culvert that transects the project site is classified as Zone A, a 100-year flood zone, and would be considered a Special Flood Hazard Area (SFHA). However, as outlined in the FEMA Flood Insurance Rate Map (FIRM), the 100-year flood would be contained in the underground storm drain box culvert, it is meant to operate as a flood channel. As the proposed project would not modify the underground box culvert and would allow the underground storm drain box culvert to operate in the same condition it currently does and remain in place, there would be no impact from project implementation.

Therefore, the proposed project would not 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 that would impede or redirect flood flows.

(d) Less than significant impact with mitigation incorporated. According to the City of Chula Vista Vision 2020 General Plan, Figure 9-8: Flood and Dam Inundation Hazards Map, the project site is not located in a dam inundation area. The nearest dam inundation area is located approximately 1.15 miles south of the project site, near Otay Valley Regional Park along the Otay River, which is a dam inundation area that would flood in the event of failure from the Savage (Lower Otay) Dam. Therefore, the proposed project would not expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam. Furthermore, the project site is not located in a flood hazard area as defined by the FEMA FIRMs (1997) as an SFHA inundated by a 100-year flood.

A tsunami is a sea wave generated by an earthquake, landslide, volcanic eruption, or even by a large meteor hitting the ocean. An event such as an earthquake creates a large displacement of water resulting in a rise or mounding at the ocean surface that moves away from this center as a sea wave. Tsunamis generally affect coastal communities and low-lying (low-elevation) river valleys in the vicinity of the coast. The site is located approximately 0.7 mile east from the San Diego Bay at an elevation of approximately 29–34 feet above sea level. Buildings closest to the ocean and near sea level are most at jeopardy. According to the project-specific Preliminary Geotechnical Report, due to the elevation of the site with respect to sea level and its distance from large open bodies of water, the potential of seiches is considered to be low. Additionally, according to the City of Chula Vista Disaster Preparedness “Your tsunami evacuation

map,"[52] the project site is not located in a Potential Tsunami Flood Area. As such, there would be no impact from inundation by tsunami.

Potential risk from mudflow (mudslide, debris flow) exists on sites where slopes are prevalent. However, the project site does not contain any significant slopes, in addition, standard grading and soil engineering practices would be required for compliance with State and local building code standards. As such, there would be no impact from inundation by tsunami.

A seiche is an earthquake or slide-induced wave that can be generated in an enclosed body of water. The nearest body of water to the project site is the San Diego Bay, located approximately 0.7 mile to the west. According to the project-specific Preliminary Geotechnical Report and City of Chula Vista Vision 2020 General Plan, due to the elevation (29–34 feet above mean sea level) of the site with respect to sea level and its distance from large open bodies of water, the potential of seiches is considered to be low. As such, there would be no impact from inundation by seiche.

Therefore, project implementation would not expose people or structures to potential hazards from inundation by flood hazard, seiche, or tsunami. Additionally, with implementation of MM HAZ-1 and HAZ-2, any pollutants on-site would be removed as part of redevelopment earthwork. Soil samples would be required to be collected from beneath the structures for testing of VOCs. If present, soil containing elevated concentrations of VOCs would be required to be excavated and removed from the site. Thus, impacts would be less than significant with mitigation incorporated.

(e) Less than significant impact. The proposed project would be served by the City's stormwater drainage system. Construction activities such as grading, paving, site improvements, and typical household activity could introduce additional pollutants and sediment into water runoff and flow into nearby storm drains. As part of the project, a SWQMP was prepared in compliance with the NPDES requirements of the Clean Water Act. The SWQMP contains proposed BMPs such as three proposed sub-grade proprietary BMPs (Bio Clean MWS or similar) that would be included for water quality treatment. The proposed project would also include construction and non-stormwater discharge, erosion control, sediment controls (fiber rolls, gravel bags) and source control (construction waste management, litter control, stockpile pollutants) BMPs, which will be required to be integrated into the design of the project. Finally, continuous use and operation of the site would not create or contribute runoff water that would exceed the capacity of existing stormwater drains on the project site with implementation of BMPs. Therefore, impacts would be less than significant.

Mitigation Measures: Implementation of MM HAZ-1 and MM HAZ-2 is required.

[52] City of Chula Vista. Disaster Preparedness. Website: https://www.chulavistaca.gov/departments/fire-department/emergency-management/disaster-preparedness. Accessed March 29, 2019.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XI. Land Use and Planning Would the project:				
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?	☐	☒	☐	☐

Comments:

(a) No impact. The physical division of an established community typically refers to the construction of a linear feature, such as an interstate highway or railroad tracks, or removal of a means of access, such as a local bridge that would impact mobility within an existing community of between a community and outlying area. The proposed project does not involve any such features and would not remove any means of access or impact mobility. Furthermore, no streets or sidewalks would be permanently closed as a result of the development of the project; the proposed project would instead connect the community through the inclusion of sidewalks on the north side of Moss Street. As such, the proposed project would not physically divide an established community. Thus, there would be no impact.

(b) Less than significant impact with mitigation incorporated. The proposed project would require approval of a General Plan Amendment from Limited Industrial to High Density Residential and a Zone Change from I-L to R-3. The project site is bounded by residential land uses to the south and east, and light industrial uses to the north and west. The proposed project would be compatible with the surrounding residential land uses. The southern portion of the Chula Vista Bayfront Master Plan Area is located approximately 1,000 feet to the west of the project site. The Bayfront Master Plan would develop an industrial business park and an RV park across the I-5 from the project site. Additional improvements proposed as a part of the Bayfront Master Plan would include hotels and offices, mixed use commercial parks, and open spaces. No features of this proposed project would conflict or interfere with the development of the Bayfront Master Plan.

Furthermore, according to the City Chula Vista Vision 2020 General Plan, the following objectives and policies apply to the proposed project. The following table outlines the project's consistency with these objectives and policies.

Table 21: Land Use and Planning Consistency with the City Chula Vista Vision 2020 General Plan

General Plan Objective/Policy Number	Policy Objective or Strategy	Project Consistency
Objective GPI-2	Provide consistency between the City of Chula Vista Vision 2020 General Plan and subsequent documents, plans, projects, and development.	The proposed project would be inconsistent with the designated zoning of the parcel. A zone change application would be submitted concurrently with the General Plan Amendment Application. If the zone change is completed successfully, the proposed project would be consistent with this objective. The proposed project would be compatible with potential redevelopment on the nearby limited industrial property. It would be compatible with and supportive of a potential trolley station at L Street and would act as an effective transitional use between the single-family residential and higher intensity transit-focused or commercial uses along L Street.
Policy GPI-2.1	Pursue zoning in the City that is consistent with the land use designations of the adopted City of Chula Vista Vision 2020 General Plan.	The proposed project would be consistent with the policy because a zone change would be processed at the same time. Upon successful processing of the General Plan Amendment and zone change, the land uses would align and be consistent with this policy.
Objective LUT-1	Provide a balance of residential and non-residential development throughout the City that achieves a vibrant development pattern, enhances the character of the City, and meets the present and future needs of all residents and businesses.	The proposed project would be consistent with and help provide additional, high-density residential units to meet the current and future housing demands in the City. The proposed project would help enhance the character of the neighborhood by creating more compatible land uses and improving the frontage of Moss Street.
Policy LUT-1.2	Coordinate planning activities and resources to balance land uses, amenities, and civic facilities in order to sustain or improve the quality of life.	The proposed project would be consistent with and create a more balanced set of land uses by adding high-density housing in an area with excellent access to existing and planned civic and public facilities.
Policy LUT-1.4	Seek to achieve an improved balance between jobs and housing in Chula Vista.	The proposed project would be consistent with the policy and directly help increase the availability of housing in the City. The proposed project would result in the removal of approximately 30 to 40 jobs and add 141 dwelling units, which would not be enough to significantly alter the jobs-housing balance in the City.
Policy LUT-1.5	Endeavor to create a mixture of employment opportunities for citizens at all economic levels.	The proposed project would remove some employment opportunities; however, the broader goals of the City of Chula Vista Vision 2020 General Plan are still implemented by providing an effective mix of land uses in the Southwest Planning Area.

Table 21 (cont.): Land Use and Planning Consistency with the City Chula Vista Vision 2020 General Plan

General Plan Objective/Policy Number	Policy Objective or Strategy	Project Consistency
Policy LUT-1.6	Attract and maintain land uses that generate revenue for the City of Chula Vista, while maintaining a balance of other community needs, such as housing, jobs, open space, and public facilities.	The proposed project would be consistent because it is expected to significantly increase revenues from existing levels. The existing property generates approximately $39,300 of net revenue for the City each year, while the project is anticipated to generate $76,100 of net revenue a year. The site currently generates roughly $48,100 in gross revenue, while the proposed project would generate roughly $302,300 in gross revenue, a six-fold increase.[53]
Policy LUT-1.7	Provide high-quality public facilities, services, and other amenities within close proximity to residents.	The proposed project would be consistent because it would be located within walking distance to transit, public services, and amenities, including schools, parks, bus stops, and other public facilities.
Policy LUT-1.8	Pursue higher density residential categories and retail demand that are not being met within the City.	The proposed project would directly implement this policy by providing high-density (20 dwelling units per acre), market-rate, for-sale housing in the City. Many of the nearby high-density developments are for-rent, and this proposed project would provide an additional option for those looking for high-density living with opportunities for homeownership.
Policy LUT-1.9	Provide opportunities for development of housing that respond to diverse community needs in terms of density, size, location, and cost.	The proposed project would directly implement this policy by providing a mix of unit types and sizes to accommodate diverse housing needs in the City. The variation in the number of bedrooms, bathrooms, options, and private open space all factor into providing a range of home prices and housing choices. The City's Housing Division has stated no affordable units are required in the development due to the high concentration of moderate to affordable housing in the area.
Policy LUT-1.10	Maintain an adequate supply of land designated and zoned for residential use at appropriate densities to meet housing needs, consistent with the objective of maintaining a balance of land uses.	The proposed project would directly implement this policy by creating new residential uses at densities compatible with the adjacent uses, strengthening the balance of land uses in the immediate surroundings. The RH designation represents the highest and best use of the site.
Policy LUT-1.19	Evaluate land use intensities in conjunction with the review of any zone change and/or General Plan Amendment to permit density or modify intensity. Factors to be considered	The proposed project would be consistent because there are no environmental, circulation, or other constraints. The proposed project would meet and match high-density

[53] Wery, D. K. (2019). 676 Moss Street General Plan Consistency Analysis, Revised December 17, 2019. Michael Baker International

Table 21 (cont.): Land Use and Planning Consistency with the City Chula Vista Vision 2020 General Plan

General Plan Objective/Policy Number	Policy Objective or Strategy	Project Consistency
	include, but are not limited to, the maximum intensity allowed for the applicable land use designation in the City of Chula Vista Vision 2020 General Plan, traffic circulation patterns, environmental constraints, and compatibility with surrounding land uses.	residential to the east and complement and strengthen the single-family neighborhood south of Moss Street. The proposed project would not have any direct growth inducing effects on the neighboring industrial properties because the properties do not share access or utilities. The high-density residential is compatible with adjacent limited industrial uses and would not create any environmental constraints for neighboring properties.
Objective LUT-4	Establish policies, standards, and procedures to minimize blighting influences and maintain the integrity of stable residential neighborhoods.	The proposed project would directly implement this objective because it would remove a blighted and incompatible industrial property adjacent to residential uses. The RH/R3 designation is naturally compatible with the existing RLM/R1 and RH/R3 residential developments adjacent to the site.
Policy LUT-4.2	Protect existing, stable, single-family neighborhoods through zoning or other regulations that discourage the introduction of higher density residential or other incompatible or potentially disruptive land uses and/or activities.	The proposed project would be consistent because it does not add an incompatible or potentially disruptive land use. The proposed project would be located across the street from a single-family neighborhood and would work to increase the integrity of the residential neighborhood by removing less compatible industrial uses and aligning residential uses on Moss Street.
Policy LUT-4.3	Require that new development, or redevelopment, through consideration of site and building design, and appropriate transition and edge treatments does not negatively affect the nature and character of nearby established neighborhoods or development.	The proposed project would be consistent with and implement this policy by creating a more natural transition to a residential neighborhood by removing industrial uses. The proposed project would ensure land uses on both sides of Moss Street are aligned, preventing isolated and illogical uses. The frontage improvements on Moss Street would improve the nature and character of the nearby established neighborhood. The existing industrial and multi-family uses would be adequately screened and buffered from the project site through fencing and landscaping.
Objective LUT-5	Designate opportunities for mixed use areas with higher density housing that is near shopping, jobs, and transit in appropriate locations throughout the City.	The proposed project would be consistent with this objective. While the project site is not within a mixed-use area, it would be located close to different shopping, transit, and other public services. The proposed project would be within 0.3 mile of the MTS 932 bus route and within 0.65 mile of the Palomar Street Trolley. The proposed project would be supportive of existing transit and mixed-use

Table 21 (cont.): Land Use and Planning Consistency with the City Chula Vista Vision 2020 General Plan

General Plan Objective/Policy Number	Policy Objective or Strategy	Project Consistency
		areas by adding residents within walking distance. The high-density housing would be supportive of the City of Chula Vista Vision 2020 General Plan South Broadway Corridor objectives and goals.
Objective LUT-6	Ensure adjacent land uses are compatible with one another.	The proposed project would be consistent with the objective because it would not create any new and incompatible land use transitions. The proposed project would create more compatible land uses on Moss Street by removing industrial lands and replacing it with high-density housing, which already occupies the eastern half of Moss Street. The proposed project would be compatible with the industrial use at 694 Moss Street, the single-family area south of Moss Street, and the multi-family Villa Marina Apartments to the east. The proposed project would create aligned land uses on both sides of Moss Street between Broadway and Industrial Boulevard.
Objective LUT-7	Appropriate transitions should be provided between land uses	The proposed project would be consistent with this policy. The proposed project would not create any new land use transitions and would minimize the inconsistency of land uses on the north side of Moss Street. The existing boundary from RH to IL would be shifted approximately 600 feet west (the width of the project site). Additionally, the proposed project would provide a natural transition from the single-family neighborhood to the limited industrial site north of the project site.
Policy LUT-7.2	Require new or expanded uses to provide mitigation or buffers between existing uses where significant adverse impacts could occur.	The proposed project would be consistent with this policy because it would not cause significant adverse impacts to the neighboring industrial sites or the adjacent apartment complex. Existing impacts that adversely affect the neighboring uses would be removed in favor of more compatible, residential uses. The proposed project would provide adequate fencing and landscaping as a buffer along the property line and would not affect the viability of adjacent industrial lands.

Table 21 (cont.): Land Use and Planning Consistency with the City Chula Vista Vision 2020 General Plan

General Plan Objective/Policy Number	Policy Objective or Strategy	Project Consistency
Objective LUT-11	Ensure that buildings and related site improvements for public and private development are well-designed and compatible with surrounding properties and districts	The proposed project would be consistent with this objective because it proposes thoughtful and modern architecture that would integrate well into the existing neighborhood. The provision of 346 parking spaces ensures the neighboring single-family homes would not be impacted by parking, and the improved frontage would increase pedestrian accessibility and mobility for residents in the area. Sixty-four guest spaces would be provided, as well as 282 private garage spaces.
Objective LUT-17	Plan and coordinate development to be compatible and supportive of planned transit.	The proposed project would be consistent with this policy. The high-density residential designation proposed for the project site is reflective of comparable land uses within 0.25 mile of the E and H Street Trolley Stations. If an L Street Station was proposed or desirable, the proposed condominiums at 676 Moss Street would complement and strengthen the viability of the station. The high-density residential would be compatible with other potential transit-supportive uses, such as Mixed-Use Transit Focus, Urban Core Residential, and Commercial Visitor.
Policy LUT-17.2	Direct higher intensity and mixed-use developments to areas within walking distance of transit, including San Diego Trolley Stations along E, H, and Palomar Streets, and new stations along future transit lines, including Bus Rapid Transit.	The proposed project would be consistent because it would be within 0.3 mile of an MTS 932 bus stop and within 0.65 mile (15-20 minute walk) of the Palomar Street Station.
Objective LUT-35	Revitalize and protect existing stable residential neighborhoods in the Southwest Planning Area from adverse land use impacts	The proposed project would directly implement the objective by enhancing the existing residential neighborhood through the replacement of less compatible land uses with more compatible land uses. The proposed General Plan Amendment would protect the adjacent residential communities from potentially noxious uses and would directly reduce adverse land use impacts. The proposed condominiums would be a better neighbor to both the neighboring industrial and the adjacent residential than the existing industrial uses.
Objective LUT-36	Provide additional housing opportunities to accommodate anticipated population needs.	The proposed project would directly implement the goal of providing additional housing opportunities by creating for-sale, high-density residential units in an area well served by public transit and retail facilities. The Housing Division has stated this proposed project is not required to include

Table 21 (cont.): Land Use and Planning Consistency with the City Chula Vista Vision 2020 General Plan

General Plan Objective/Policy Number	Policy Objective or Strategy	Project Consistency
		affordable housing nor pay the in-lieu affordable housing fee due to the concentration of affordable housing in the area and the objective of adding higher income households. Higher density housing is needed, and the site is an excellent location for it based on adjacency to other residential areas and its ability to act as a transitional use to industrial uses.
Policy GM 2.1	Achieve and maintain a balance of land uses within the City that assures residential development is complemented by expanded local employment opportunities, retail and commercial services, and recreation and entertainment venues; and that the City-wide mix of land uses provides fiscal balance between those that produce revenues and those that require public expenditures.	The proposed project would be consistent with the goal of achieving a balance of complementing land uses for employment and residential. While the proposed project removes land uses that are potentially revenue generating, the proposed reduction in industrially designated lands would be very small (less than 0.4 percent) and would not have a significant effect on the Citywide mix and balance of uses. The Fiscal Impact Assessment projected the high-density residential would produce approximately 90 percent more annual positive revenue for the City than the existing industrial uses. Annual gross revenue would increase from roughly $48,000 to $302,000. Additionally, the Chula Vista Bayfront Project is proposed immediately west-northwest of the site. The Bayfront Project would create 6,000 permanent jobs and designated spaces for entertainment, retail, and open space, ensuring a balance of land uses in the Southwest Planning Area. The high-density residential at 676 Moss Street would help support and complement the Bayfront Project by providing housing.
Objective GM-3	Create and preserve vital neighborhoods	The proposed project would directly implement the policy by increasing the integrity of the existing residential neighborhood through creating more compatible and consistent land uses along Moss Street. The residential neighborhood would be strengthened through the removal of the blighted and unsightly industrial uses. The proposed project would act as a natural transition from the single-family residential to the limited industrial north of the site. Additionally, the frontage improvement and sidewalk construction would make the neighborhood more accessible and friendlier to pedestrians.
Source: Michael Baker International. 2019. 676 Moss Street General Plan Amendment Consistency Analysis. December 17. Michael Baker International. 2019. 676 Moss Street General Plan Amendment Justification Report. December 17. (Appendix J).		

Therefore, with discretionary approval from the City, the proposed project would be consistent with surrounding land uses and impacts would be less than significant.

The analysis contained in this Draft Initial Study addresses the potential conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. Based on this analysis, it was determined that the proposed project would potentially have significant impacts on air quality, biological resources, cultural resources, geology and soils, and hazards and hazardous materials. The proposed project is located in the SCAQMD and MM AIR-1 is required to reduce emissions to below the maximum daily thresholds. MM BIO-1 is required to reduce impacts to nesting birds. MM CUL-1 and MM CUL-2 are required to reduce impacts to any inadvertent culturally significant discoveries. MM GEO-1 and MM GEO-2 are required to reduce impacts related to expansive soils and paleontological resources, respectively. MM GHG-1 is required purchase of voluntary carbon credits by the Project Applicant. MM HAZ-1, MM HAZ-2, and MM HAZ-3 are required to reduce the impacts of any potential hazardous materials on-site. MM NOI-1 is required to reduce traffic and railroad noise impacts to the proposed project. MM NOI-2 is required to reduce the impacts of construction noise. Therefore, based on the analysis conducted in the Draft Initial Study, it was determined that the proposed project was not in conflict with any adopted land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect.

Mitigation Measures:

Implementation of the following mitigation measures is required:

- MM AIR-1
- MM BIO-1
- MM CUL-1 and MM CUL-2
- MM GEO-1 and MM GEO-2
- MM GHG-1
- MM HAZ-1,MM HAZ-2, and MM HAZ-3
- MM NOI-1 and NOI-2
-

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XII. Mineral Resources Would the project:				
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?	☐	☐	☐	☒

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	☐	☐	☐	☒

Comments:

(a) No impact. According to the California Department of Conservation California Geological Survey and the City of Chula Vista Vision 2020 General Plan, Figure 9-4 MRZ-2 Area map, the project site is not located within a Mineral Resource Zone.[54,55] Therefore, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. As such, there would be no impact.

(b) No impact. As outlined above in Impact 2.11(b), the City of Chula Vista Vision 2020 General Plan, Figure 9-4 MRZ-2 Area Map, the project site is not located in a Mineral Resource Zone.[56] Therefore, the proposed project would not 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. As such, there would be no impact.

Mitigation Measures: None.

Issues :	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XIII. Noise Would the project result in:				
a) 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?	☐	☒	☐	☐
b) 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?	☐	☒	☐	☐

[54] California Department of Conservation. 1996. California Geological Survey, Urbanization of Designated Areas Otay Valley, Tijuana River, and Border Highlands Resource Area. Open File Report (OFR) 96-04, Plate 14. Website: ftp://ftp.consrv.ca.gov/pub/dmg/pubs/ofr/OFR_96-04. Accessed November 9, 2019.

[55] City of Chula Vista. 2019. City of Chula Vista Vision 2020 General Plan. Chapter 9: Environmental Element. Website: https://www.chulavistaca.gov/home/showdocument?id=9341. Accessed November 9, 2019.

[56] Ibid.

Issues :	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
d) 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?	☐	☐	☐	☒

Comments:

This Noise Impact Analysis has been prepared by FCS to determine the off-site and on-site noise impacts associated with the proposed project. The noise monitoring locations, measurements, and modeling input and output files are included in Appendix G of this Draft IS/MND.

Characteristics of Noise

Noise is defined as unwanted sound. Sound levels are usually measured and expressed in decibels (dB), with 0 dB corresponding roughly to the threshold of hearing. Most of the sounds that we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. Noise is typically generated by transportation, specific land uses, and ongoing human activity.

The standard unit of measurement of the loudness of sound is the dB. The 0 point on the dB scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Changes of 3 dB or less are only perceptible in laboratory environments. A change of 3 dB is the lowest change that can be perceptible to the human ear in outdoor environments. While a change of 5 dBA is considered to be the minimum readily perceptible change to the human ear in outdoor environments.

Since the human ear is not equally sensitive to sound at all frequencies, the dBA was derived to relate noise to the sensitivity of humans, it gives greater weight to the frequencies of sound to which the human ear is most sensitive. The A-weighted sound level is the basis for a number of various sound level metrics, including the day/night sound level (L_{dn}) and the Community Noise Equivalent Level (CNEL), both of which represent how humans are more sensitive to sound at night. In addition, the equivalent continuous sound level (L_{eq}) is the average sound energy of time-varying noise over a sample period and the L_{max} is the maximum instantaneous noise level occurring over a sample period.

Existing Noise Sources

The proposed project would replace several industrial uses currently on the site. Surrounding the project site are commercial and industrial land uses to the north, a school bus parking lot to the northwest, multi-family residential homes to the east, single-family residential homes to the south (across Moss Street), and manufacturing land uses to the southwest. To the west of the site, running in north-south directions, are railroad tracks, Industrial Boulevard, and I-5.

The existing noise levels on the project site were documented through a noise monitoring effort performed at the project site. Noise monitoring location and measurements are described in detail in Appendix G. Three short-term noise measurements (15 minutes each) were taken on Wednesday, December 12, 2018, starting at 1:05 p.m. and ending at 2:36 p.m., during the midday peak noise hour.

The short-term measurement (ST-1) was conducted at the eastern boundary of the project site, approximately 250 feet north of Moss Street, at the northern end of the carport. The resulting measurement showed that ambient noise levels at this location averaged 60.1 dBA L_{eq}. As was observed by the technician at the time of the noise measurement, the dominant noise source in the project vicinity was heavy machinery operating on the adjacent industrial site.

The second short-term measurement (ST-2) was conducted at the southern boundary of the project site, on the southwest corner of Moss Street and Colorado Avenue. The resulting measurement showed that ambient noise levels at this location averaged 70.1 dBA L_{eq}. As was observed by the technician at the time of the noise measurement, the dominant noise sources in the project vicinity were from vehicular traffic along Moss Street and railway signals.

The short-term measurement (ST-3) was conducted on the western boundary of the project site, adjacent to the railroad approximately 280 feet north of Moss Street. The resulting measurement showed that ambient noise levels at this location averaged 69.6 dBA L_{eq}. As was observed by the technician at the time of the noise measurement, the dominant noise sources in the project vicinity were from vehicular traffic on I-5, Industrial Boulevard, and Moss Street, and train noise from the MTS.

Regulatory Framework

The project site is located within the City of Chula Vista. The City of Chula Vista addresses noise in the Noise Section of the Environmental Element of their Vision 2020 General Plan[57] and in the City of Chula Vista Municipal Code.[58]

City of Chula Vista Vision 2020 General Plan

The City of Chula Vista establishes Exterior Land Use/Noise Compatibility Guidelines (shown in Table 22) in its Vision 2020 General Plan. The land use category listed in the City's Exterior

[57] City of Chula Vista. 2005. City of Chula Vista Vision 2020 General Plan. Environmental Element. December. Website: https://www.chulavistaca.gov/departments/development-services/planning/general-plan. Accessed November 16, 2018.

[58] City of Chula Vista, 2018. Chula Vista Municipal Code. Website: https://www.codepublishing.com/CA/ChulaVista/#!/ChulaVistaNT.html. Accessed November 16, 2018.

Land Use/Noise Compatibility Guidelines that most closely applies to the proposed project is residential. Under this designation, 65 dBA CNEL is generally considered to be the noise level that is compatible for this type of new land use development. Furthermore, the consistency of the proposed project with the City of Chula Vista Vision 2020 General Plan policies and objectives is shown in Table 23.

Table 22: Exterior Land Use/Noise Compatibility Guidelines

Category	Annual CNEL in Decibels					
	50	55	60	65	70	75
Land Use						
Residential						
Schools, Libraries, Daycare Facilities, Convalescent Homes, Outdoor Use Areas, and Other Similar Uses Considered Noise Sensitive						
Neighborhood Parks, Playgrounds						
Community Parks, Athletic Fields						
Offices and Professional						
Places of Worship (excluding outdoor use areas)						
Golf Course						
Retail and Wholesale Commercial, Restaurants, Movie Theaters						
Industrial, Manufacturing						

Table 23: Noise Consistency with the City of Chula Vista Vision 2020 General Plan

General Plan Objective/Policy Number	Policy Objective or Strategy	Project Consistency
Objective E-21	Protect people from excessive noise through careful land use planning and the incorporation of appropriate mitigation techniques.	This proposed project is consistent with the objective of protecting people from excessive noise. Though there is a railroad adjacent to the site, setbacks and a soundwall will be employed to decrease noise impacts to the proposed development. The site is not anticipated to generate any permanent and significant sources of noise that will impact the neighboring residents. The proposed project will shield and reduce noise impacts for adjacent residential properties.
Source(s): Michael Baker. 2019. 676 Moss Street General Plan Amendment Consistency Analysis. December 17. Michael Baker. 2019. 676 Moss Street General Plan Amendment Justification Report. December 17.		

City of Chula Vista Municipal Code

The City of Chula Vista establishes its noise performance standards in the noise ordinances of its Municipal Code. The City has established an exterior noise limit of 50 dBA L_{eq} hourly average during nighttime hours, and a limit of 60 dBA L_{eq} hourly average during daytime hours for receiving multi-family residential land uses. However, the City provides an exemption to these noise standards for construction and demolition activities.

In addition, the Municipal Code restricts noise producing construction activities to the hours of 7:00 a.m. to 10:00 p.m. on Mondays through Fridays, and 8:00 a.m. to 10:00 p.m. on Saturdays and Sundays.

Impact Analysis

(a) Noise Land Use Compatibility

Less than significant impact with mitigation incorporated. The City of Chula Vista establishes Exterior Land Use-Noise Compatibility Guidelines in the Noise Element of its General Plan.[59] These guidelines reflect the levels of noise exposure that are generally considered to be compatible with various types of land uses. These standards are shown previously in Table 23. For a discussion of the characteristics of noise and further information regarding the applicable noise regulatory framework, refer to the Noise impact discussion in Section XIII of this document.

The land use category listed in the City's Exterior Land Use/Noise Compatibility Guidelines that most closely applies to the proposed project is "Residential." Under this designation, noise environments up to 65 dBA CNEL are generally considered compatible for this type of new land use development.

The dominant noise sources in the project vicinity were from vehicular traffic on I-5, Industrial Boulevard, and Moss Street, and train noise from the MTS. To document noise levels from these sources, an ambient noise monitoring effort was conducted and traffic noise modeling was performed.

The Federal Highway Administration (FHWA) highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate opening year and buildout traffic noise conditions in the vicinity of the project site. The projected traffic noise levels along roadways adjacent to the project site were analyzed to determine compliance with the City's land use compatibility standards. The resultant noise levels were weighed and summed over a 24-hour period in order to determine the CNEL values. The traffic noise modeling input and output files are included in Appendix G of this document. Table 24 shows a summary of the traffic noise levels for Existing, Existing Plus Project, year 2045 Without Project, and year 2045 Plus Project conditions as measured at 50 feet from the centerline of the outermost travel lane.

[59] City of Chula Vista. 2005. City of Chula Vista Vision 2020 General Plan. Environmental Element. December. Website: https://www.chulavistaca.gov/departments/development-services/planning/general-plan. Accessed November 16, 2018.

Table 24: Traffic Noise Model Results Summary

Roadway Segment	CNEL (dBA) 50 feet from Centerline of Outermost Lane			
	Existing (dBA) CNEL	Existing Plus Project (dBA) CNEL	Year 2045 Without Project (dBA) CNEL	Year 2045 Plus Project (dBA) CNEL
Industrial Boulevard—L Street to I-5 interchange	65.0	65.2	66.1	66.2
Industrial Boulevard—I-5 interchange to Moss Street	65.7	65.9	69.2	69.3
Industrial Boulevard—Moss Street to Naples Street	63.0	63.1	66.2	66.2
Moss Street—Industrial Boulevard to Colorado Avenue	60.0	60.0	60.4	60.4
Moss Street—Colorado Avenue to Woodlawn Avenue	59.7	59.7	60.1	60.1
I-5—north of Palomar Street	80.1	80.1	80.6	80.6

Note:
[1] Modeling results do not take into account mitigating features such as topography, vegetative screening, fencing, building design, or structure screening. Rather it assumes a worst case of having a direct line of site on flat terrain.
Source: FCS 2018.

The highest traffic noise levels on roadway segments adjacent to the project site would occur along Industrial Boulevard under year 2045 Plus Project traffic conditions. Under these traffic conditions, projected traffic noise levels along Industrial Boulevard between the I-5 interchange and Moss Street, would range up to 69.3 dBA CNEL as measured at 50 feet from the centerline of the outermost travel lane. Traffic noise levels from the I-5 adjacent to the project site would range up to 80.6 dBA CNEL as measured at 50 feet from the centerline of the outermost travel lane. The façade of the nearest proposed residential building at the project site would be setback approximately 140 feet from the centerline of Industrial Boulevard. In addition, the project proposes construction of a minimum 6-foot high soundwall along the entire western border of the project site. At this distance and with shielding provided by the soundwall, traffic noise levels from traffic on I-5 and Industrial Boulevard would range up to approximately 55 dBA CNEL at the ground floor façade of the nearest proposed residential building. However, second and third floor façades and balconies on this closest building unit would still have a direct line of sight to the roadway, and would be exposed to traffic noise levels ranging up to 61 dBA CNEL.

The MTS railroad line is also located west of the project site between Industrial Boulevard and the project site. The façade of the nearest proposed residential building at the project site would be setback approximately 55 feet from the centerline nearest through-travel of the railroad track. In order to provide a conservative estimate of the potential railroad noise impacts to the proposed project, the CREATE railroad noise model was used.[60] The model assumed a maximum of eight light rail train passings per

[60] HMMH, Inc., 2006. CREATE Noise Model Based on Federal Transit Administration (FTA) General Transit Noise Assessment, Developed for the Chicago CREATE Project.

hour during the day, and one freight train passing per hour every night. This is a conservative estimate, because, based on available data, there are typically only four freight train passings total per night. The modeling assumed trains traveling an average of 40 miles per hour (mph), with no shielding or barriers assumed. The modeling input/output data is provided in Appendix G of this document. The modeling results show that these modeled train activities would result in an average 67 dBA CNEL as measured at the nearest façade on the project site, without shielding.

The methodology of the FTA for calculating locomotive warning horn noise levels[61] was also used to calculate potential impacts from the freight train horn use on their approach to the Moss Street at-grade crossing. The modeling input/output files are provided in Appendix G of this document. The calculations assumed up to four freight train passings per night, The results show that the calculated train horn noise levels are 74.7 dBA CNEL as measured 50 feet from the railroad tracks, or 73.9 dBA CNEL at the nearest façade of the proposed project, with no reduction for shielding.

It should be noted that the project proposes to construct a 6-foot-high soundwall along the entire western border of the project site. This would effectively block the line of sight from roadway noise sources and the first floor (ground level) of the proposed residential units, resulting in a minimum 6 dBA reduction in traffic noise levels. However, because part of the noise source from trains is above the train tracks (engine noise, rail-car rattling noise, etc.) this wall would be expected to result in only a 5 dBA reduction in railroad noise levels as measured at the first floor level of the proposed residential units.

The combined traffic and railroad noise levels as measured at the nearest upper floor façades (second floors and above) and at the nearest ground floor façade, are summarized in Table 25 below.

Table 25: Combined Traffic and Railroad Noise Model Results Summary

Roadway/Railway Segment	Calculated CNEL (dBA) as Measured at the Nearest Upper Floor Façade	Calculated CNEL (dBA) as Measured at the Nearest Ground Floor Façade
Industrial Boulevard—I-5 interchange to Moss Street	61.3	55.3
I-5—north of Palomar Street	64.1	58.1
MTS and Freight-line Railroad Activity	67.0	62.0
Freight-line Railroad Horn Noise	73.9	68.9
Combined Traffic and Railroad Noise Levels	75.2	70.1
Source: FCS 2019.		

[61] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual, September.

Based on these results, the nearest ground-floor façades would be exposed to combined mobile source noise levels ranging up to 70.1 dBA CNEL. These calculated combined traffic and railroad noise levels are in excess of the City's exterior land use compatibility standard of 65 dBA CNEL. At a distance of 110 feet from the railroad centerline, these noise levels would attenuate to below 65 dBA CNEL as measured at ground-floor areas. Therefore, effective mitigation must be incorporated into the project for all ground level façades within 110 feet of the railroad tracks to ensure that the interior noise level standard of 45 dBA CNEL is achieved and maintained. Based on the EPA's Protective Noise Levels, with a combination of walls, doors, and windows, standard construction in accordance with building code requirements for multi-family residential developments would provide 25 dBA in exterior-to-interior noise reduction with windows closed and 15 dBA or more with windows open. With windows open, the interior noise levels of the proposed units nearest to and facing the railroad line would not meet the State's interior noise standard of 45 dBA CNEL for indoor sleeping areas (70.1 dBA–15 dBA = 55.1 dBA). Even inclusion of alternate ventilation systems such as mechanical air conditioning which would allow windows to remain closed for prolonged periods of time, would not sufficiently reduce traffic and railroad noise levels to meet the interior noise level standard of 45 dBA CNEL (70.1 dBA–25 dBA = 45.1 dBA). Therefore, upgraded wall and window assemblies would be required for all ground floor façades that face the railroad and that are located within 110 feet of the railroad tracks. The combined wall and window assembly should be upgraded from standard building code requirements to have a minimum Standard Transmission Class (STC) rating of 28-STC. This will provide sufficient noise reduction, with an adequate margin of safety, to ensure the 45 dBA CNEL interior noise level standard is maintained (70.1 dBA–28 dBA = 42.1 dBA). Prior to issuance of building permits, the applicant shall have a professional acoustic consultant review the final design plans to provide assurance to City staff that the design would provide the required STC rating.

Second and third floor façades of the closest building (Building 1 shown on Exhibit 12) with direct line of sight to the railroad tracks would be exposed to combined traffic and railroad noise levels ranging up to 75.2 dBA CNEL. These calculated unshielded combined traffic and railroad noise levels are in excess of the City's exterior land use compatibility standard of 65 dBA CNEL as measured at the nearest proposed façade of the residential units. At a distance of 180 feet from the railroad centerline, these unshielded noise levels would attenuate to below 65 dBA CNEL. Therefore, effective mitigation must be incorporated into the project for all upper level façades with a direct line of sight to and located within 180 feet of the railroad tracks (Buildings 1, 2, and 3 shown on Exhibit 12) to ensure that the interior noise level standard of 45 dBA CNEL is achieved and maintained. Based on the EPA's Protective Noise Levels, with a combination of walls, doors, and windows, standard construction in accordance with building code requirements for multi-family residential developments would provide 25 dBA in exterior-to-interior noise reduction with windows closed and 15 dBA or more with windows open. With windows open, the interior noise levels of the proposed units

nearest to and facing the railroad line would not meet the State's interior noise standard of 45 dBA CNEL for indoor sleeping areas (75.2 dBA–15 dBA = 60.2 dBA). Even inclusion of alternate ventilation systems such as mechanical air conditioning which would allow windows to remain closed for prolonged periods of time, would not sufficiently reduce traffic and railroad noise levels to meet the interior noise level standard of 45 dBA CNEL (75.2 dBA–25 dBA = 50.2 dBA). Therefore, upgraded wall and window assemblies would be required for all upper façades (second floor and above) that have a direct line of sight of the railroad tracks and that are located within 180 feet of the railroad tracks. The combined wall and window assembly should be upgraded from standard building code requirements to have a minimum STC rating of 33-STC. This will provide sufficient noise reduction, with an adequate margin of safety, to ensure the 45 dBA CNEL interior noise level standard is maintained (75.2 dBA–33 dBA = 42.2 dBA). Prior to issuance of building permits, the applicant shall have a professional acoustic consultant review the final design plans to provide assurance to City staff that the design would provide the required STC rating. Therefore, implementation of MM NOI-1 is required to ensure the project would not conflict with the City's adopted Exterior Land Use-Noise Compatibility Guidelines and policy and would reduce combined traffic and railroad noise impacts to the proposed project to be less than significant.

It should also be noted, as shown in Exhibit 12, proposed rooftop deck areas nearest to the railroad would be exposed to combined mobile source noise levels in excess of 65 dBA CNEL. The shielding provided by the proposed parapet wall that would block a direct line of sight to the outdoor use areas of these rooftop decks would reduce the combined mobile source noise levels to 69 dBA CNEL at the nearest rooftop deck. Combined mobile source noise levels would attenuate to below 65 dBA CNEL for rooftop decks located more than 90 feet from the railroad tracks. However, as indicated in the discussion above, implementation of MM NOI-1 would ensure that the interior noise level standard is met in all proposed residential units.

Finally, as is also shown in Exhibit 12, proposed ground-floor outdoor use areas nearest to the railroad would be exposed to combined mobile source noise levels ranging up to 70 dBA CNEL, exceeding the City's exterior land use compatibility standard of 65 dBA CNEL. At a distance of 110 feet from the railroad centerline, these noise levels would attenuate to below 65 dBA CNEL as measured at ground-floor outdoor use areas. As shown in Exhibit 12, these impacted areas have been excluded from the project's open space calculations.

However, all outdoor use areas located more than 110 feet from the railroad centerline would experience combined traffic noise levels below 65 dBA CNEL, meeting the City's exterior land use compatibility standard. In addition, all proposed courtyard areas and courtyard-facing patios and balconies within 110 feet of the railroad centerline would be shielded by the proposed structures and would experience combined traffic noise levels of less than 65 dBA CNEL, also meeting the City's exterior land use compatibility standard. Therefore, as shown in Exhibit 12, the calculated open space

areas that would meet the City's exterior noise standard totals 76,434 square feet (more than 542 square feet per home). The City's minimum requirement is 504 square feet per home.

Thus, the project provides more than the City's minimum required noise-protected outdoor use area and no mitigation is required for the attenuation of exterior noise impacts at outdoor use areas.

(b) Short Term Construction Impacts

Less than significant impact with mitigation incorporated. A significant impact would occur if construction activities would result in generation of a substantial temporary increase in ambient noise levels that would result in annoyance or sleep disturbance of nearby sensitive receptors. Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

Two types of short-term noise impacts would occur during site preparation and project construction. The first type would result from the increase in traffic flow on local streets, associated with the transport of workers, equipment, and materials to and from the project site. The transport of workers and construction equipment and materials to the project site would incrementally increase noise levels on access roads leading to the site. Because workers and construction equipment would use existing routes, noise from passing trucks would be similar to existing vehicle-generated noise on these local roadways. Typically, a doubling of the Average Daily Traffic (ADT) hourly volumes on a roadway segment is required in order to result in an increase of 3 dBA in traffic noise levels; which, as discussed in the characteristics of nose discussion above, is the lowest change that can be perceptible to the human ear in outdoor environments. Project-related construction trips would not be expected to double the hourly traffic volumes along any roadway segment in the project vicinity. For these reasons, short-term intermittent noise from trucks would be minor when averaged over an hour or longer intervals. Therefore, short-term construction-related noise impacts associated with worker commute and equipment transport to the project site would not exceed applicable significance thresholds and would be less than significant.

The second type of short-term noise impact is related to noise generated during construction on the project site. Construction noise levels are rarely steady in nature and, often, fluctuate depending on the type and number of equipment being used at any given time. In addition, there could be times where large equipment is not operating and noise would be at or near normal ambient levels. Construction is completed in discrete steps, each of which has its own mix of equipment and its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment,

similarities in the dominant noise sources and patterns of operation allow construction related noise ranges to be categorized by work phase.

The site preparation phase, which includes excavation and grading activities, tend to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery and compacting equipment, such as bulldozers, draglines, backhoes, front loaders, roller compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full power operation followed by 3 or 4 minutes at lower power settings.

Construction of the proposed project is expected to require the use of front-end loaders, excavators, haul trucks, water trucks, concrete mixer trucks, and pickup trucks. The maximum noise level generated by each concrete mixing truck is assumed to be 85 dBA L_{max} at 50 feet from this equipment.[62] Each front-end loader would also generate 85 dBA L_{max} at 50 feet. The maximum noise level generated by excavators is approximately 85 dBA L_{max} at 50 feet. Each doubling of sound sources with equal strength increases the noise level by 3 dBA.

A conservative reasonable assumption is that this equipment would operate simultaneously and continuously over at least a 1-hour period in the vicinity of the closest existing residential receptors, but would move linearly over the project site as they perform their earth moving operations, spending a relatively short amount of time adjacent to any one receptor. Assuming that each piece of construction equipment operates at some distance from the other equipment, a reasonable worst-case combined noise level during this phase of construction would be 90 dBA L_{max} at a distance of 50 feet from the acoustic center of a construction area. The acoustical center reference is used because construction equipment must operate at some distance from one another on a project site, and the combined noise level as measured at a point equidistant from the sources (acoustic center) would be the worst-case maximum noise level. These operations would be expected to result in a reasonable worst-case hourly average of 86 dBA L_{eq} at a distance of 50 feet from the acoustic center of a construction area.

The closest noise-sensitive receptors to the proposed project site are multi-family residences located directly east of the project site. The closest residence would be located approximately 110 feet from the acoustic center of construction activity where multiple pieces of heavy construction equipment would potentially operate at the project site. At this distance, worst-case construction noise levels could range up to approximately 83 dBA L_{max}, intermittently, and could have an hourly average of up to 79 dBA L_{eq}, at the façade of the nearest multi-family residential home.

The next closest noise-sensitive receptors to the proposed project site are single-family residences located directly south of the project site. The closest residence would be

[62] Federal Highway Administration (FHWA). 2006. Highway Construction Noise Handbook. August.

located approximately 130 feet from the acoustic center of construction activity where multiple pieces of heavy construction equipment would potentially operate at the project site. At this distance, worst-case construction noise levels could range up to approximately 82 dBA L_{max}, intermittently, and could have an hourly average of up to 78 dBA L_{eq}, at the façade of the nearest single-family residential home.

Although there could be a relatively high single event noise exposure potential causing an intermittent noise nuisance, the effect of construction activities on longer-term (hourly or daily) ambient noise levels would be small but could result in a temporary increase in ambient noise levels in the project vicinity that could result in annoyance or sleep disturbance of nearby sensitive receptors. Limiting construction activities to the daytime hours would reduce the effects of noise levels produced by these activities on longer-term (hourly or daily) ambient noise levels, and would reduce potential impacts that could result in annoyance or sleep disturbances at nearby sensitive receptors. Therefore, noise producing construction activities shall be restricted to the daytime hours of 7:00 a.m. to 10:00 p.m. on Mondays through Fridays, and 8:00 a.m. to 10:00 p.m. on Saturdays and Sundays. Restricting construction activities to these stated time-periods, as well as implementing the best management noise reduction techniques and practices outlined in MM NOI-2, would ensure that construction noise would not result in a substantial temporary increase in ambient noise levels that would result in annoyance or sleep disturbance of nearby sensitive receptors. Therefore, with implementation of MM NOI-2, temporary construction noise impacts would be reduced to less than significant.

Operational/Stationary Source Noise Impacts

Less than significant impact. A significant impact would occur if operational noise levels generated by stationary noise sources at the proposed project site would result in a substantial permanent increase in ambient noise levels in excess of any of the noise performance thresholds established in the City's Municipal Code. As noted in the characteristics of noise discussion, audible increases in noise levels generally refer to a change of 3 dBA or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. A change of 5 dBA is considered the minimum readily perceptible change to the human ear in outdoor environments. Therefore, for purposes of this analysis, an increase of greater than 3 dBA above existing ambient noise levels would be considered a substantial permanent increase in ambient noise levels.

The City has established an exterior noise limit of 50 dBA L_{eq} hourly average during nighttime hours, and a nose limit of 60 dBA L_{eq} hourly average during daytime hours, for receiving multi-family residential land uses. However, the City notes that if the existing ambient noise level exceeds these standards, the ambient noise level shall be considered the standard.

The proposed project would generate noise from parking lot activities and from new exterior mechanical equipment sources, such as mechanical ventilation systems on proposed multi-family residential uses.

Parking Lot Activities

Parking lot activities include vehicles cruising at slow speeds, doors shutting, or cars starting, would generate noise levels of approximately 60 dBA to 70 dBA L_{max} at 50 feet. A conversation between two persons at a distance of 3 to 5 feet apart would generate a noise level of 60 dBA L_{eq} at 5 feet, or approximately 40 dBA L_{eq} as measured at 50 feet. The closest noise-sensitive receptor to the proposed parking areas at the project site is a single-family residence located along Moss Street east of Colorado Avenue. This residence is located approximately 130 feet from the acoustic center of the nearest proposed parking area on the project site. At this distance, parking lot activity would result in intermittent noise levels ranging up to 62 dBA L_{max} at the property line of the nearest residence. The existing measured ambient noise level at the nearest residential receptor is documented by the short-term noise measurement ST-2 to range up to 70.1 dBA L_{eq}, with maximum noise levels of 92.3 dBA L_{max}. Therefore, parking lot noise levels would not exceed existing ambient noise levels as measured at the nearest residential receptor, and would not result in a substantial permanent increase in ambient noise levels in the project vicinity. Therefore, the impact of noise produced by project-related parking lot activities to off-site sensitive receptors would be less than significant.

Mechanical Equipment Operations

At the time of preparation of this analysis, details were not available pertaining to proposed mechanical ventilation systems for the proposed project; therefore, a reference noise level for typical mechanical ventilation systems was used. Noise levels from typical residential mechanical ventilation equipment are anticipated to range up to approximately 60 dBA L_{eq} at a distance of 25 feet. Proposed mechanical ventilation systems could be located as close as 70 feet from the nearest off-site noise-sensitive receptor, which are the multi-family residential homes located east of the project site. Additionally, the proposed 6-foot high soundwall around the project site will block the line of site between mechanical ventilation noise and the nearest residential receptor, providing a minimum 6 dBA of noise shielding attenuation. At this distance and with the attenuation provided by shielding, noise generated by mechanical ventilation equipment would be reduced to below 45 dBA L_{eq} at the nearest multi-family residential receptor. These noise levels would not exceed the City's nighttime noise performance threshold of 45 L_{eq} at the property line of the nearest existing noise-sensitive land use. In addition, the existing measured ambient noise level at the nearest residential receptor is documented by the short-term noise measurement ST-1 averaged 60.1 dBA L_{eq}. Therefore, noise levels from proposed mechanical ventilation equipment operations would not exceed existing ambient noise levels as measured at the nearest residential receptor, and would not result in a substantial permanent increase in ambient noise levels in the project vicinity. Therefore, the impact of noise produced by proposed

mechanical ventilation equipment operations to off-site sensitive receptors would be less than significant.

Operational/Mobile Source Noise Impacts

Less than significant impact. A significant impact would occur if implementation of the proposed project would result in a substantial increase in traffic noise levels compared with traffic noise levels existing without the project. As noted in the characteristics of noise discussion, audible increases in noise levels generally refer to a change of 3 dBA or more, as this level has been found to be barely perceptible to the human ear in outdoor environments. A change of 5 dBA is considered the minimum readily perceptible change to the human ear in outdoor environments. Therefore, for purposes of this analysis, an increase of greater than 3 dBA above existing traffic noise levels would be considered a substantial permanent increase in traffic noise levels.

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate opening year and buildout traffic noise conditions in the project vicinity. The resultant noise levels were weighed and summed over a 24-hour period in order to determine the CNEL values. The traffic noise modeling input and output files are included in Appendix G of this document. Table 26 shows a summary of the traffic noise levels for Existing, Existing Plus Project, year 2045 Without Project, and year 2045 Plus Project conditions as measured at 50 feet from the centerline of the outermost travel lane.

Table 26: Traffic Noise Model Results Summary

Roadway Segment	CNEL (dBA) 50 feet from Centerline of Outermost Lane					
	Existing (dBA) CNEL	Existing Plus Project (dBA) CNEL	Increase over Existing (dBA) CNEL	Year 2045 Without Project (dBA) CNEL	Year 2045 Plus Project (dBA) CNEL	Increase over Year 2045 Without Project (dBA) CNEL
Industrial Boulevard—L Street to I-5 interchange	65.0	65.2	0.2	66.1	66.2	0.1
Industrial Boulevard—I-5 interchange to Moss Street	65.7	65.9	0.2	69.2	69.3	0.1
Industrial Boulevard—Moss Street to Naples Street	63.0	63.1	0.1	66.2	66.2	0.0
Moss Street—Industrial Boulevard to Colorado Avenue	60.0	60.0	0.0	60.4	60.4	0.0
Moss Street—Colorado Avenue to Woodlawn Avenue	59.7	59.7	0.0	60.1	60.1	0.0
I-5—north of Palomar Street	80.1	80.1	0.0	80.6	80.6	0.0

Note:
[1] Modeling results do not take into account mitigating features such as topography, vegetative screening, fencing, building design, or structure screening. Rather it assumes a worst case of having a direct line of site on flat terrain.
Source: FCS 2019.

The highest traffic noise level increase with project implementation would occur along Industrial Boulevard between L Street and Moss Street under Existing Plus Project conditions. Along this roadway segment, the proposed project would result in an increase of 0.2 dBA. This increase is below a 3 dBA increase that would be considered a substantial permanent increase in traffic noise levels compared with traffic noise levels that would exist without the project. Therefore, project-related traffic noise impacts on existing traffic noise levels in the project vicinity would be less than significant.

(c) Less than significant impact. A significant impact would occur if the project would generate groundborne vibration or groundborne noise levels in excess of established standards. The City of Chula Vista has not adopted criteria for groundborne vibration impacts. Therefore, for purposes of this analysis, the FTA's vibration impact criteria are utilized. The FTA has established industry accepted standards for vibration impact criteria and impact assessment. These guidelines are published in its Transit Noise and Vibration Impact Assessment Manual.[63]

Although groundborne vibration can be felt outdoors, it is typically only an annoyance to people indoors where the associated effects such as the shaking of a building can be notable. When assessing annoyance from groundborne vibration, vibration is typically expressed as root mean square (rms) velocity in units of decibels of 1 micro-inch per second. To distinguish these vibration levels referenced in decibels from noise levels referenced in decibels, the unit is written as "VdB."

In extreme cases, excessive groundborne vibration has the potential to cause structural damage to buildings. Common sources of groundborne vibration include construction activities such as blasting, pile driving and operating heavy earthmoving equipment. However, construction vibration impacts on building structures are generally assessed in terms of peak particle velocity (PPV). For purposes of this analysis, project related impacts are expressed in terms of PPV.

Short-term Construction Vibration Impacts

Of the variety of equipment that would be used during construction, large vibratory rollers would produce the greatest groundborne vibration levels. Impact equipment such as pile drivers is not expected to be used during construction of this project. Large vibratory rollers produce groundborne vibration levels ranging up to 0.201 inch per second (in/sec) PPV at 25 feet from the operating equipment.

The nearest off-site structures to the project site construction footprint are the Villa Marina Apartments located east of the project site. This nearest off-site structure would be located approximately 60 feet from the nearest construction footprint where the heaviest construction equipment would potentially operate. At this distance, groundborne vibration levels would range up to 0.054 in/sec PPV from operation of the

[63] Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September.

types of equipment that would produce the highest vibration levels. This is well below the FTA's Construction Vibration Impact Criteria of 0.2 in/sec PPV for buildings of non-engineered timber and masonry. Therefore, the impact of groundborne vibration levels on off-site receptors would be less than significant.

Operational Vibration Impacts

The proposed project does not include any permanent noise sources that would expose persons in the project vicinity to groundborne vibration levels that could be perceptible without instruments at any existing sensitive land use in the project vicinity. Existing sources of groundborne vibration in the project vicinity include railroad activity along the San Diego & Imperial Valley Railroad, located approximately 50 feet west of the façade of the closest proposed multi-family residential building at the project site.

According to the FTA's vibration impact assessment guidelines, the groundborne vibration impact criteria for residential land uses exposed to frequent (defined to be greater than 70) daily by-pass rail events is 72 VdB. The FTA's generalized ground surface vibration equation is as follows:

$$L_v = 92.28 + 14.81 \log(D) – 14.17 \log(D)^2 + 1.65 \mathrm{Log}(D)^3$$

Where L_v is the velocity level (VdB), and D is the distance in feet. The nearest façade is 55 feet from the railroad tracks. The above formula is for trains traveling at 50 mph, so the FTA adjustment for trains traveling at 40 mph is "-1.9." The FTA guidelines provide a further adjustment of "-5.0" for coupling to a building foundation for wood-frame structures.[64]

Utilizing the FTA's vibration impact screening methodology, the calculated vibration level at 55 feet from the rail line for the projected rail by-pass events (including freight train passings), with trains traveling up to 40 mph, would be 70.4 VdB. Therefore, projected groundborne vibration levels from rail activity adjacent to the project site would be less than the FTA's vibration impact screening criteria of 72 VdB as measured at the nearest proposed façade. Therefore, the impact of groundborne vibration levels from rail activity on proposed on-site receptors would be less than significant.

(d) No impact. The nearest airport to the project site is the Brown Field Municipal Airport, which is located more than 5.9 miles southeast of the project site. Because of its distance from the airport's runways, the project site is located well outside of the airport's 60 dBA CNEL noise contours. No private airstrips are located within 2 miles of the project site. Therefore, implementation of the project would not expose persons residing or working in the project site to excessive noise levels associated with private airstrip or public airport noise. No impacts would occur.

[64] See FTA reference pages in Appendix G, with annotated calculations for the project shown.

Mitigation Measures:

MM NOI-1 To reduce potential interior noise impacts, the Project Applicant shall demonstrate to the satisfaction of the City Development Services Department that:

- Each of the proposed multi-family residential units shall be supplied with **an alternative form of ventilation, such as air conditioning or noise-attenuated passive ventilation systems,** that would allow an occupant the option of controlling noise by keeping the windows shut (as the interior noise standard would not be met with open windows)**.**

- The Developer shall provide upgraded wall and window assemblies for all ground floor façades that directly face and that are located within 110 feet of the railroad tracks. The combined wall and window assembly shall be upgraded from standard building code requirements to have a minimum Standard Transmission Class (STC) rating of 28-STC.

- The Developer shall provide upgraded wall and window assemblies for all upper façades (second floor and above) that have a direct line of sight of the railroad tracks and that are located within 180 feet of the railroad tracks. The combined wall and window assembly shall be upgraded from standard building code requirements to have a minimum Standard Transmission Class (STC) rating of 33-STC. Prior to issuance of building permits, the applicant shall have a professional acoustic consultant review the final design plans to provide assurance to City staff that the design would provide the required STC rating.

MM NOI-2 To reduce potential construction noise impacts, the Project Applicant shall demonstrate to the satisfaction of the City Development Services Department that:

- The Construction Contractor shall ensure that all equipment driven by internal combustion engines shall be equipped with mufflers that are in good condition and appropriate for the equipment.
- The Construction Contractor shall ensure that unnecessary idling of internal combustion engines (i.e., idling in excess of 5 minutes) is prohibited.
- The Construction Contractor shall utilize “quiet” models of air compressors and other stationary noise sources where such market available technology exists.
- The Construction Contractor shall ensure that stationary noise-generating equipment shall be located as far as practicable from sensitive receptors and placed so that emitted noise is directed away from the nearest residential land uses at all times during project grading and construction.

- The Construction Contractor shall designate a Noise Disturbance Coordinator who would be responsible for responding to any local complaints about construction noise. The Noise Disturbance Coordinator would determine the cause of the noise complaints (starting too early, bad muffler, etc.) and establishment reasonable actions necessary to correct the problem. The Construction Contractor shall visibly post a telephone number for the Noise Disturbance Coordinator at the construction site.
- The Construction Contractor shall limit noise producing construction activities to the hours between 7:00 a.m. and 10:00 p.m. on Mondays through Fridays, and between 8:00 a.m. and 10:00 p.m. on Saturdays and Sundays.

Prior to the issuance of each certificate of occupancy, the Construction Contractor shall demonstrate, to the satisfaction of the City Development Services Department, compliance with MM NOI-2.

Condition of Approval

COA NOI-1 Prior to issuance of building permits, the Project Applicant shall submit a noise analysis to the City Development Services Department demonstrating that there are no impacts to surrounding properties from HVAC equipment.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XIV. Population and Housing Would the project:				
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?	☐	☐	☐	☒

Comments:

(a) Less than significant impact. The project proposes a residential development, consisting of 141 dwelling units, 97 3-story court townhomes and 44 3-story row townhomes.

The City of Chula Vista Vision 2020 General Plan outlines objectives and policies related to the expansion and maintenance of adequate housing within the City. Consistency with these policies and objectives is outlined in the table below:

Table 27: General Plan Consistency

General Plan Objective/Policy Number	Policy Objective or Strategy	Project Consistency
Objective H-1	Enforce maintenance of safe and decent housing, enhance the quality of existing housing, and maintain the integrity of residential neighborhoods.	The proposed project would directly implement the objective by enhancing the character of the existing residential neighborhood. The proposed project would increase the integrity of the neighborhood as residential by creating consistent land uses along Moss Street and removing noxious and blighted industrial uses from a residential neighborhood.
Policy H-5.2	Support efforts to increase homeownership rates, particularly in the Northwest and Southwest Planning areas, meeting or exceeding the regional average as a means to build individual wealth and stabilize existing residential neighborhoods.	The proposed project would directly support efforts to increase homeownership rates as a means to build wealth and stabilize existing residential neighborhoods by offering for-sale housing in the Southwest Planning Area.
Policy E-6.1	Encourage compact development featuring a mix of uses that locate residential areas within reasonable walking distance to jobs, services, and transit.	The proposed project would directly implement this policy through its location in a walkable and transit accessible neighborhood of the City. The project site would have easy access to bus stops serviced by the MTS 932 Line (0.25 mile away) as well as the Palomar and H Street MTS Trolley Stations (0.65 mile and 1 mile away, respectively). Additionally, it is within walking distance of the South Broadway mixed-use area and other retail locations (0.25 to 0.5 mile).
Source(s): Michael Baker International. 2019. 676 Moss Street General Plan Amendment Consistency Analysis. December 17. Michael Baker International. 2019. 676 Moss Street General Plan Amendment Justification Report. December 17. (Appendix J).		

According to the United States Census Bureau's 2013–2017 American Community Survey 5-year Estimates Tables DP05 and S2504, the population of the City of Chula Vista is 264,101 and the number of occupied housing units is 78,476, for an average household size of 3.37 persons per dwelling unit.[65] Therefore, as the proposed project would develop 141 dwelling units, the proposed project would increase the City of Chula Vista's population by 475; less than 0.2 percent of the City's current population. As the proposed project would increase the City's population by less than 0.2 percent, the proposed project would not induce substantial unplanned population growth in an area directly despite proposing new homes. Additionally, according to SANDAG, the anticipated population growth by 2020 is 267,418.[66] Thus, the increase in the population as a result of the implementation of the project is within the SANDAG anticipated population growth.

[65] United States Census Bureau. 2018. QuickFacts Chula Vista City, California. July 1. Website: https://www.census.gov/quickfacts/chulavistacitycalifornia. Accessed November 7, 2019.

[66] San Diego Association of Governments (SANDAG). 2011. Fast Facts Chula Vista. October. Website: https://www.sandag.org/resources/demographics_and_other_data/demographics/fastfacts/chul.htm. Accessed November 7, 2019.

While the proposed project would include an interior circulation system of roads and sidewalks, as well as associated residential infrastructure improvements (including, but not limited to electric, water, and sewer infrastructure) the improvements would be private in nature and only used by the proposed project's residents. As the proposed project's infrastructure improvements would be private in nature, the proposed project would not induce substantial population growth in an area indirectly through extension of roads or other infrastructure.

Lastly, while the proposed project includes the addition of a public sidewalk on the north side of Moss Street, where there currently is not a sidewalk, a sidewalk is not expected to induce a substantial unplanned increase in population.

As such, impacts would be less than significant.

(b) No impact. There are no existing dwelling units on the project site. Therefore, no existing people or housing would be displaced by the development of the proposed project. As such, no impacts would occur.

Mitigation Measures: None.

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

Comments:

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:

(a) Less than significant impact. The City of Chula Vista Fire Department (CVFD) currently provides fire protection to the project site and would continue to do so in the

future. The proposed project would develop 141 new dwelling units on the project site, which would add an estimated 475 persons to the City's population, which is less than 0.2 percent of the total current population of the City. CVFD Station No. 5 is located 1.3 miles from the project site at 391 Oxford Street. Using an average travel speed of 25 mph, it would take a fire engine less than 3 minutes and 7 seconds to reach the project site from CVFD Station No. 5.

According to the City of Chula Vista 2017 Growth Management Oversight Commission (GMOC) Recommendations/Implementing Actions Summary, the CVFD response time threshold standard is to respond to calls throughout the City within 7 minutes in at least 80 percent of the cases.[67] Currently, CVFD Station No. 5 is meeting the threshold, with 85 percent of all calls responded to within 7 minutes.

Given the proposed project's proximity to CVFD Station No. 5, the proposed project would be able to be served within the existing threshold standard without compromising response times, and impacts to service times would be less than significant.

The proposed project's design would be subject to compliance with the requirements in the California Building Standards Commission California Fire Code. The proposed project plans would be reviewed and approved by City Staff including CVFD Staff, which would ensure adequate emergency access, fire hydrant availability, and compliance with all applicable codes and standards. Furthermore, Policy PFS-6.1 within the City's General Plan, requires new development and redevelopment projects to demonstrate adequate access for fire and police vehicles. Compliance with the City's permit process and Municipal Code requirements would ensure that project implementation would result in a less than significant impact to fire protection services.

(b) Less than significant impact. The City of Chula Vista Police Department (CVPD) currently provides police protection to the project site and would continue to do so in the future. The proposed project would develop 141 new dwelling units on the project site, which would add an estimated 475 persons to the City's population, which is less than 0.2 percent of the total current population of the City. CVPD Headquarters is located 2.35 miles from the project site at 315 Fourth Avenue. Using an average travel speed of 25 mph, it would take a fire engine less 6 minutes to reach the project site from CVPD Headquarters.

According to the GMOC Recommendations/Implementing Actions Summary, the CVPD response time threshold standard is two-fold: (1) respond to at least 81 percent of Priority 1 calls within 7 minutes 30 seconds and maintain an average response time of 6 minutes or less; and (2) respond to all Priority 2 calls within 12 minutes or less. Currently, neither threshold is being met, with Priority 1 calls missing the standard by

[67] City of Chula Vista. Growth Management Oversight Commission. 2017. Website: https://www.chulavistaca.gov/departments/city-clerk/boards-commissions/boards-commissions-list/growth-management-oversight-commission. Accessed March 29, 2019.

31 seconds, and Priority 2 calls missing the standard by 1 minute and 50 seconds. The City has recommended the City Manager to support the CVPD in implementing their 2014 Strategic Plan to increase staffing levels and purchase new equipment in order to improve response times.

Included in the City of Chula Vista's Strategic Plan is Initiative 4.3.2 to restore and enhance public safety service capacity. The Strategic Plan recognizes that response time thresholds have not met GMOC standards. This is largely due to staffing issues, which have degraded the CVPD's capacity to provide quality public safety support. As a result, the City has engaged a consultant to thoroughly examine police staffing. The consultant's study was delivered in April 2012 and the City Council adopted a police budget based partly on its findings and recommendations. As such, hiring efforts are currently underway and will be continually monitored.[68]

The proposed project plans would be reviewed and approved by the City and the CVPD, which would ensure adequate safety and crime prevention measures are provided. Compliance with the City's discretionary review process would ensure that project implementation would result in a less than significant impact to police services.

c) Less than significant impact. The City of Chula Vista is served by the Chula Vista Elementary School District (CVESD) and the Sweetwater Union High School District (SUHSD). The proposed project would develop 141 new dwelling units on the project site, which would add an estimated 475 persons to the City's population, which is less than 0.2 percent of the total current population of the City. Using a standard student generation rate from the CVESD School Facilities Needs Analysis of 0.3141 student/multi-family dwelling unit, the proposed project would add 54 students to the CVESD and SUHSD.[69]

According to the GMOC Recommendations/Implementing Actions Summary, the threshold standard for potential impacts to schools would be whether or not the school districts can accommodate the population increase from the City's annual 5-year residential growth forecast. Both school districts reported to the GMOC that with current and ongoing improvements to schools in both districts, school facilities would be able to accommodate additional students from population increases. Therefore, impacts would be less than significant.

Additionally, impacts to schools would be offset through payment of fees in accordance with City of Chula Vista Municipal Code Chapter 17.11: School Facilities Dedication and Fees, with the total fee amounts to be determined by City Staff. As such, by providing fee payments, as required by the City, impacts would be less than significant.

[68] City of Chula Vista. 2019. Strategic Plan. Website: https://www.chulavistaca.gov/home/showdocument?id=2510. Accessed November 7, 2019.

[69] Chula Vista Elementary School District (CVESD). 2010. Special District Financing & Administration. School Facilities Needs Analysis. June. Website: http://schools.cvesd.org/district/district/Documents/Business%20Services%20and%20Support%20 (Lisa%20Brannen)/School%20Facilities%20Needs%20Analysis%20(2010).pdf. Accessed November 7, 2019.

(d) Less than significant impact. The proposed project would develop 141 new dwelling units on the project site, which would add an estimated 475 persons to the City's population, which is less than 0.2 percent of the total current population of the City. This would yield a nominal increase in demand for recreational facilities; however, additional parkland would be required to be consistent with the City of Chula Vista Parks and Recreation Master Plan to account for future park usage at build out inventory. Section 17.10.040 of the City of Chula Vista Municipal Code requires a parkland dedication of 341 square feet per unit or 1 acre per 128 units.[70] Therefore, the proposed project would generate parkland obligations and would be required to dedicate 1.103 acres of parkland through the payment of a park facility fee in accordance to the Chula Vista Park Land Development Ordinance, Chapter 17.10.070 of the City's Municipal Code.[71] As such, by providing fee payments, as required by the City, impacts would be less than significant.

According to the GMOC Recommendations/Implementing Actions Summary, the City's threshold for providing park facilities is to provide 3 acres of neighborhood and community parkland with appropriate facilities per 1,000 residents east of I-805. Currently, the City does not meet that threshold, falling short by 0.22 acre per 1,000 residents. However, one of the funding sources for parks includes City Fees and parkland obligations for new developments such as those outlined in Chapter 17.10: Parklands and Public Facilities of the City of Chula Vista Municipal Code, which the Project Applicant would provide payment for, as required. As such, impacts would be less than significant.

(e) Less than significant impact. The proposed project would develop 141 new dwelling units on the project site, which would add an estimated 475 persons to the City's population, which is less than 0.2 percent of the total current population of the City. This would be expected to yield an increase in demand for libraries and other public facilities. Additional development fees, as determined by the City of Chula Vista, such as development impacts fees (Chapter 3.56: Development Impact Fees in Western Chula Vista), would be paid by the Project Applicant to pay a fair-share for potential impacts from the proposed project.

As such, by providing fee payment, impacts would be less than significant.

Mitigation Measures: None.

[70] City of Chula Vista. 2014. City of Chula Vista Municipal Code. Title 17, Environmental Quality. Chapter 17.10: Parklands and Public Facilities. Section 17.10.040: Area to be Dedicated—Required When—Amounts for Certain Uses. Website: https://chulavista.municipal.codes/CVMC/17.10.040. Accessed November 7, 2019.

[71] City of Chula Vista. 2014. City of Chula Vista Municipal Code. Title 17, Environmental Quality. Chapter 17.10: Parklands and Public Facilities. Section 17.10.070: In-lieu Fees for Land Dedication and/or Park Development Improvements. Website: https://chulavista.municipal.codes/CVMC/17.10.070. Accessed November 7, 2019.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XVI. Recreation				
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?	☐	☐	☒	☐

Comments:

(a) Less than significant impact. As discussed above in Impact 2.15(d), the proposed project would develop 141 new dwelling units on the project site. The proposed project would provide approximately 75,111 square feet of open space, or 533 square feet per unit, including approximately 36,864 square feet of common open space area, which would include a community recreational area with barbeque counter, tot lot, and overhead structure with Americans with Disabilities Act (ADA) compliant seating for social gatherings and special events. The development of 141 new dwelling units would add an estimated 475 persons to the City's population. This would yield a nominal increase in the demand for recreational facilities; however, additional parkland would be required to be consistent with the City of Chula Vista Parks and Recreation Masterplan to account for future park usage at build out inventory.

Section 17.10.040 of the City of Chula Vista Municipal Code requires a parkland dedication of 341 square feet per unit or 1 acre per 128 units.[72] Therefore, the proposed project would generate parkland obligations and would be required to dedicate 1.103 acres of parkland through the payment of a park facility fee in accordance to the Chula Vista Park Land Development Ordinance, Chapter 17.10.070 of the City's Municipal Code.[73] As such, by providing fee payments, as required by the City, impacts would be less than significant.

(b) Less than significant impact. As outlined above in Impact 2.15(a), the proposed project would include private and common open space for residents. The proposed project would provide approximately 75,111 square feet of open space, or 533 square feet per unit, including approximately 36,864 square feet of common open space area, which would include a community recreational area with a barbeque counter, tot lot, and overhead structure with ADA compliant seating for social gatherings and special

[72] City of Chula Vista. 2014. City of Chula Vista Municipal Code. Title 17, Environmental Quality. Chapter 17.10: Parklands and Public Facilities. Section 17.10.040: Area to be Dedicated—Required When—Amounts for Certain Uses. Website: https://chulavista.municipal.codes/CVMC/17.10.040. Accessed: November 7, 2019

[73] City of Chula Vista. 2014. City of Chula Vista Municipal Code. Title 17, Environmental Quality. Chapter 17.10: Parklands and Public Facilities. Section 17.10.070: In-lieu Fees for Land Dedication and/or Park Development Improvements. Website: https://chulavista.municipal.codes/CVMC/17.10.070. Accessed: November 7, 2019.

events. These facilities would only be available to residents of the proposed project and would be maintained through private funds to ensure no adverse physical effect on the environment. As such, impacts would be less than significant.

Mitigation Measures: None.

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

Comments:

A TIA Report was prepared by LLG on April 15, 2020, to assess project-related impacts (Appendix H).[74] The purpose of the TIA was to identify potential traffic-related impacts associated with the proposed project.

(a) Less than significant impact.

The City Chula Vista Vision 2020 General Plan outlines multiple objectives and policies that aim to reduce traffic and promote the use of an organized and balanced transportation system within the City. The following objectives and policies are outlined within the City Chula Vista Vision 2020 General Plan and are pertinent to the proposed development. Project consistency with these objectives and policies is analyzed in the table below:

[74] Linscott, Law & Greenspan, Engineers (LLG). 2020. Transportation Impact Analysis 676 Moss Street. April 15.

Table 28: Transportation Consistency with the City Chula Vista Vision 2020 General Plan

General Plan Objective/Policy Number	Policy Objective or Strategy	Project Consistency
Objective LUT-18	Reduce traffic demand through Transportation Demand Management strategies, increased use of transit, bicycles, walking, and other trip reduction measures.	The proposed project would be consistent with this objective because it would be located within walking distance to many public facilities, transit stops, and commercial areas. The proposed project would improve the frontage along Moss Street and add a sidewalk, which would help encourage pedestrian travel throughout the neighborhood. The proposed project would be roughly a 5-minute walk or 2-minute bicycle ride to the MTS 932 bus stop and an 18-minute walk or 6-minute bicycle ride to the Palomar Street trolley station.
Objective LUT-23	Promote the use of a balanced transportation system that maximizes safe and non-polluting alternatives for mobility	The proposed project would directly implement the objective by improving pedestrian mobility on Moss Street. The proposed project would be located within walking distance to retail, transit, and public facilities.
Policy LUT-23.1	Encourage the use of bicycles and walking as alternatives to driving by providing safe routes.	The proposed project would implement the policy by creating high-density housing that would be accessible to transit, retail, and public facilities. The proposed project would connect the sidewalk on Moss Street, which would increase pedestrian access and safety for residents in the neighborhood.
Source: Michael Baker International. 2019. 676 Moss Street General Plan Amendment Consistency Analysis. December 17. Michael Baker International. 2019. 676 Moss Street General Plan Amendment Justification Report. December 17. (Appendix J).		

Existing Street Network

Moss Street is a 2-lane road with residential and industrial uses and is classified as a Class III Collector west of Broadway on the City of Chula Vista Circulation Plan. Between Industrial Boulevard and Broadway, curb, gutter, and sidewalks are generally provided.

I-5 is a north-south oriented freeway that extends from the U.S.-Mexico border to the U.S.-Canada border. In the project vicinity, I-5 consists of four mixed-flow travel lanes in each direction. I-5 has an interchange at Palomar Street. It also has interchanges at L Street and Main Street to the north and south of Palomar Street, respectively. The I-5 northbound ramps at L Street connect directly to Industrial Boulevard north of Palomar Street, while the southbound ramps connect directly to Bay Boulevard. A high-occupancy vehicle (HOV) lane was recently added to the I-5 northbound on-ramp at L Street/Industrial Boulevard.

Industrial Boulevard is a 2-lane north-south roadway running parallel to and on the west side of the railroad tracks. It is generally undivided except for the segment between Palomar Street and Ada Street where a median divider is provided. It is

classified as a Class II Collector in the City of Chula Vista Circulation Plan. On-street parking is not allowed on both sides north of Palomar Street and south of Ada Street. Between Palomar Street and Ada Street, on-street parking is allowed on the west side but not on the east side. Sidewalks are generally provided on the both sides. The posted speed limit is 40 mph. The west side of Industrial Boulevard between Palomar Street and Moss Street is generally fronted by motorhomes. South of Palomar Street, the west side of Industrial Boulevard has low- to medium-density residential areas.

Broadway is classified as a 4-lane Major Road to the south of L Street in the City of Chula Vista Circulation Plan. It is currently built as a 4-lane Major Road in the project vicinity. Curb, gutter and sidewalks are provided. Curbside parking is permitted.

Bay Boulevard is a 2-lane road with commercial uses and is classified as a Class II Collector on the City of Chula Vista Circulation Plan. Between L Street and Palomar Street, curb, gutter and sidewalks are generally provided on the east side. On-street parking is prohibited on both sides of Bay Boulevard between L Street and Palomar Street.

L Street is a 4-lane, east-west roadway with two-way left turn medians between Bay Boulevard and Broadway. It is classified as a 4-lane Gateway Street between Bay Boulevard and Broadway in the City of Chula Vista Circulation Plan. On-street parking is prohibited on both sides. Sidewalks are provided on both sides. The posted speed limit is 35 mph.

Existing Bicycle Network

Class 2 Bicycle Lanes are currently provided on both sides of Industrial Boulevard between the I-5 northbound ramp intersection and Ada Street; on both sides of Bay Boulevard within the project vicinity.

Existing Pedestrian Conditions

Pedestrian sidewalks are generally provided on both sides of Moss Street between Industrial Boulevard and Broadway, on both sides of Industrial Boulevard between Moss Street and Palomar Street, and on the west side of Industrial Boulevard between Moss Street and L Street.

Palomar Street Grade Separation Project

A Project Study Report was prepared by SANDAG, in conjunction with the City of Chula Vista, to grade separate the Palomar Street dual-track crossing of the Blue Line Light Rail Trolley (LRT) at Industrial Street. The LRT is operated by the MTS. The dual tracks are also used by freight trains.

This proposed grade separation would:

- Provide significant safety enhancements.

- Reduce vehicular delays and congestion.
- Increase multi-modal mobility.

The Palomar Street/Industrial Boulevard at-grade intersection would be eliminated and grade separated as part of the Palomar Street Grade Separation project.

The Palomar Street Grade Separation project would also reconfigure the Oxford Street Connector to eliminate its direct connection to Palomar Street and connect instead to the existing Palomar Village Driveway, thereby combining the Oxford Street Connector traffic with the Palomar Village Driveway traffic. The Palmar Street Grade Separation project would add wider sidewalks for pedestrians, provide direct access to the Trolley Station via ramps, stairs, and provide a pedestrian pathway across the new bridge. The following pedestrian facilities would mitigate any potential pedestrian circulation impacts due to grade separating Palomar Street and Industrial Boulevard:

- Pedestrian sidewalks would be provided on both sides of the Industrial Boulevard bridge and Palomar Street underpass. The sidewalks along the underpass will be elevated from the underpass street level to provide lower grades for the sidewalks and separation from vehicular traffic.
- Pedestrian stairs would be constructed to connect both sides of the Palomar Street underpass to the east side of the Trolley and Freight Tracks bridge.
- Pedestrian sidewalks would connect both sides of Palomar Street in the vicinity of Trenton Avenue to the west side of the Industrial Boulevard bridge.
- A pedestrian pathway on the east side of the Trolley and Freight Tracks bridge would connect the Trolley Station to the reconfigured Oxford Street Connector. A pedestrian ramp would connect the pathway from the bridge to the reconfigured connector.
- A pedestrian sidewalk would be constructed on the west/south side of the reconfigured Oxford Street Connector. The Build Alternative would also add Class 2 Bicycle Lanes along Palomar Street within the project footprint and maintain existing Class 2 Bicycle Lanes along Industrial Boulevard.

Another City of Chula Vista project would add Class 2 Bicycle Lanes (at-grade) along Palomar Street between Industrial Boulevard and Broadway, in addition to pedestrian signal upgrades to three traffic signals on Palomar Street: Transit Center Place (Murrell Drive), Plaza Entrance (Shopping Center Driveway) and Broadway. The Palomar Grade Separation project would restore the Class 2 Bicycle Lanes on the below-grade segment of Palomar Street within the project footprint.

(b) Less than significant impact. The TIA analyzed the potential transportation impacts due to the project on vehicle miles traveled (VMT) to satisfy the CEQA Guidelines, which utilize VMT as a measure of effectiveness. The project site is located approximately 1 mile north of

the Palomar Street Transit Center, and 0.2 mile west of Broadway, which is a commercial corridor identified as a "high quality transit corridor" (HQTC) in the City's VMT screening map. The project is located within the "Residential Projects" category, and OPR allows a screening map to be the basis of the VMT impact evaluation. As a residential project, the VMT is evaluated in terms of "VMT per capita." The project VMT per capita is obtained from the screening map, and then compared to VMT thresholds established by the City to determine the significance of the project's impacts.

Given that the City of Chula Vista has not yet adopted VMT thresholds, the OPR Advisory describes the analysis for the following circumstance, which was used for the project's VMT analysis:

- Residential Projects: A proposed project exceeding a level of 15 percent below existing VMT per capita may indicate a significant transportation impact. Existing VMT per capita may be measured as Regional VMT per capita or as City VMT per capita.

Thus, for this analysis, the minimum threshold of significance for determination of the project's transportation impact is 15 percent or less of the regional VMT per capita. Any reduction in comparative VMT more than 15 percent is considered not significant.

Prior to any detailed project-specific VMT modeling, OPR allows for the use of a "map-based screening" to identify if a project would result in a less than significant impact. The City of Chula Vista's screening map was utilized for the project. This map provides VMT per capita for census tracts throughout the City. VMT per capita is generally considered an efficiency metric representing land use mixture and density, transit availability and other considerations that may affect traffic generation and/or trip distance. In general, higher density and mix of land uses with access to mobility options are expected to generate lower VMT.

The City of Chula Vista's VMT Screening Tool is found online at:

http://cvgis.maps.arcgis.com/apps/webappviewer/index.html?id=f0d05a4a014841d588bb66891500b34d[75]

This screening map allows for a search by address of properties within the City of Chula Vista. The data presented in the screening map includes:

- Census Tract
- VMT per capita
- Percent of regional mean
- Residents
- Description of VMT results

[75] The data represented on this map follows the OPR guidance and displays VMT efficient areas that are 85 percent or less of the SANDAG regional average. The data shown is based on the SANDAG Activity Based Model #1 (ABM1) for the base year of the model (2012). Chula Vista is currently developing guidance for determining transportation impacts within Chula Vista and these maps may change to align with City specific guidance.

The VMT per capita at the project site is 10.80 miles, which is 61.36 percent of the regional average (17.60 miles). The result is that the project is greater than the 15 percent reduction over regional VMT per capita significance threshold.

Table 29 presents a summary of the screening map data.

Table 29: Project VMT Findings – City of Chula Vista Screening Tool

Scenario	Regional Baseline VMT per capita	Significance Threshold (85% of Regional Average VMT per capita)	676 Moss Street Project VMT per capita	Transportation Impact? (Over Threshold?)
Resident VMT per capita	17.60	14.96	10.80	No
Source: City of Chula Vista VMT Screening Tool (February 2020).				

Based on the screening map review and the project's location in a high efficiency area and the resultant 10.80 VMT per capita, the project is 61.36 percent of the regional average VMT per capita, which is below the 85 percent minimum threshold of significance. As an urban infill development, the project is consistent with the legislative intent of SB 743.

(c) Less than significant impact. Final project site plans would be subject to City review and approval, which would ensure that project driveway intersections and internal circulation are safe, with adequate sight distance, driveway widths and stop signs where necessary for entering and exiting the site. This would prevent any impacts due to a geometric design feature. The project site is surrounded by commercial/industrial and residential uses and would not create hazards due to incompatible uses. Impacts would be less than significant.

(d) Less than significant impact. Access to the project site would be provided via a single unsignalized driveway on Moss Street, located approximately 300 feet east of Industrial Boulevard. The project access driveway would be on the northern side of Moss Street and Colorado Street intersection. The project access driveway design (width, grade, slope, and vertical clearance) shall be provided to the City and/or Fire Authority for review and approval. As part of the review process, the local City Traffic Engineer would be required to be consulted for minimum width and parking restrictions to ensure compliance with minimum standard requirements for adequate access. Therefore, impacts would be less than significant.

Mitigation Measures: None.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XVIII. Utilities and Service Systems Would the project:				
a) 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 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 waste?	☐	☐	☒	☐

Comments:

The following analysis is based on the Priority Development Project SWQMP prepared by Michael Baker International on November 19, 2018, included in Appendix F.

(a) Less than significant impact. The proposed project would result in the construction of 141 single-family dwelling units. The increase in wastewater generation would result in an incremental increase in the demand for wastewater conveyance and treatment facilities. According to the Sweetwater Authority 2015 UWMP, the projected water demands are based on an assumed average water demand of 105 gallons per capita per day (GPCD).[76] As previously discussed in Section 2.14, the proposed project is anticipated to accommodate 475 residents. Thus, the proposed project would require 49,875 gallons of water a day. On an annual basis, this equates to 55.85 acre-feet. The UWMP indicates that annual water supplies are anticipated to range from 22,488-acre-feet to 26,218 acre-feet between 2020 and 2040. Thus, a "worst-case" water demand of

[76] RMC Water and Environment. 2016. Sweetwater Authority 2015 Urban Water Management Plan. June 27. Website: https://www.sweetwater.org/DocumentCenter/View/84/2015-Urban-Water-Management-Plan-PDF. Accessed November 7, 2019.

55.85 acre-feet would represent less than 0.1 percent of the project water supply totals forecasted under all water year scenarios between 2020 and 2040. Therefore, adequate water supplies would be available to serve the project from existing and planned supplies.

The increase in wastewater generation would result in an incremental increase in the demand for wastewater conveyance and treatment facilities. As discussed in Impact 2.17(a), the proposed project would generate 28,309 gallons of effluent on a daily basis. The Point Loma Wastewater Treatment Plan has an existing available capacity of 65 million gallons per day (mgd). Thus, the addition of 28,309 gallons of wastewater per day would represent less than 0.1 percent of the 65 mgd of available capacity. Therefore, the Point Loma Wastewater Treatment Plan has adequate remaining capacity to serve the proposed project. The project's wastewater would be carried off-site through connections with existing sewer system lines surrounding the project site.

Additionally, the Project Applicant would be required to pay Sewer Fees and additional Development Impact Fees in accordance with City of Chula Vista Municipal Code

As such, impacts related to relocation or expansion of existing water or wastewater treatment facilities would be less than significant.

As previously mentioned, all proposed on-site storm drains would connect to an existing 12-foot-wide by 10-foot-deep double culvert channel that runs underneath the project site. As such, the proposed project would not result in the construction or relocation of stormwater drainage facilities. Impacts would be less than significant. Consequently, the project would connect to existing facilities for electric power and natural gas through SDG&E. Telecommunications for the project would be served by existing facilities through AT&T. Therefore, the proposed project would not require the relocation or construction of new or expanded facilities for water, wastewater treatment, storm drainage, electric power, natural gas, or telecommunications. Impacts would be less than significant.

(b) Less than significant impact. According to the Sweetwater Authority's 2015 UWMP, the per capita usage of water in Western Chula Vista is 105 gallons per day, as the proposed project would add 475 people to the population, the proposed project would require 49,875 gallons of water a day. On an annual basis, this equates to 55.85 acre-feet.[77] (Note that these figures do not "net out" existing water use and, thus, overstate the actual increase in consumption.) The UWMP indicates that annual water supplies are anticipated to range from 22,488-acre-feet to 26,218-acre-feet between 2020 and 2040. Thus, a "worst-case" water demand of 55.85-acre-feet would represent less than 0.1 percent of the project water supply totals forecasted under all water year scenarios between 2020 and 2040.

[77] Calculation: 49,875 gallons per day/325,851 gallons in an acre foot = 0.153 acre-feet x 365 days a year = 55.845 acre-feet/year

Accordingly, adequate water supplies would be available to serve the project from existing and planned supplies. Impacts would be less than significant.

(c) Less than significant impact. As discussed in Impact 2.17(a), the proposed project would generate 28,309 gallons of effluent on a daily basis. According to the City of San Diego, the Point Loma Wastewater Treatment Plant, which serves the project site, has an additional capacity of 65 mgd. Thus, the addition of 28,309 gallons of wastewater per day would represent less than 0.1 percent of the available capacity of 65 mgd. Therefore, the existing wastewater treatment facilities would have adequate capacity to serve the project. As such, impacts would be less than significant.

(d) Less than significant impact. According to the City of Chula Vista's Recycling and Solid Waste Planning Manual, multi-family complexes, with bedrooms per unit of 2 to 4 bedrooms, generate 0.4 cubic yards of solid waste per unit per week. The proposed project would develop 141 single-family dwelling units. As such, implementation of the proposed project would generate 2,932.8 cubic yards of solid waste on an annual basis.[78] According to the City of Chula Vista, the City is served by the Otay Landfill. According to the San Diego County Integrated Waste Management Plan 5-Year Review Report 2017, approved on January 2018, solid waste from the City of Chula Vista is landfilled at the Otay Landfill (Closure Date 2030) after the closure of the Otay Landfill, the project site area will be served by the Sycamore Landfill (Closure Date: 2054, with plans to extend the date of closure through expansion). The two landfills have 131.1 million cubic yards of remaining capacity. Therefore, there is more than adequate landfill capacity in the region to serve the City of Chula Vista's disposal needs for the foreseeable future. The proposed project would not 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. Impacts would be less than significant.

(e) Less than significant impact. In 1989, the Legislature adopted the California Integrated Waste Management Act of 1989 (AB 939), in order to "reduce, recycle, and re-use solid waste generated in the state to the maximum extent feasible." AB 939 established a waste management hierarchy: Source Reduction, Recycling, Composting, Transformation, and Disposal. The law also required that each county prepare a new Integrated Waste Management Plan and each city prepare a Source Reduction and Recycling Element (SRRE) by July 1, 1991. The SRRE is required to identify how each jurisdiction will meet the mandatory State waste diversion goal of 50 percent by the year 2000. The Act mandated that California's 450 jurisdictions (cities, counties, and regional waste management compacts) implement waste management programs aimed at a 25 percent diversion rate by 1995 and a 50 percent diversion rate by 2000. If the 50 percent goal was not met by the end of 2000, the jurisdiction was required to submit

[78] Calculation: 141 single-family dwelling units x 0.4 cubic yards x 52 weeks a year = 2,932.8 cubic yards/year.

a petition for a goal extension to the California Department of Resources Recycling and Recovery (CalRecycle).

SB 2202 made a number of changes to the municipal solid waste diversion requirements under the Integrated Waste Management Act. These changes included a revision to the statutory requirement for 50 percent diversion of solid waste to clarify that local governments shall continue to divert 50 percent of all solid waste on and after January 1, 2000.

SB 1016 introduced a per capita disposal measurement system that measures the 50 percent diversion requirement using a disposal measurement equivalent. The Bill repealed the State Water Board's 2-year process, requiring instead that the Board make a finding whether each jurisdiction was in compliance with the Act's diversion requirements for calendar year 2006 and to determine compliance for the 2007 calendar year and beyond, based on the jurisdiction's change in its per capita disposal rate. The Board is required to review a jurisdiction's compliance with those diversion requirements in accordance with a specified schedule, which is conditioned upon the Board finding that the jurisdiction complies with those requirements or has implemented its SRRE and household hazardous waste element. The Bill requires the Board to issue an order of compliance if the Board finds that the jurisdiction has failed to make a good faith effort to implement its SRRE or its household hazardous waste element, pursuant to a specified procedure.

The per capita disposal rate is a jurisdiction-specific index, which is used as one of several "factors" in determining a jurisdiction's compliance with the intent of AB 939, and allows CalRecycle and jurisdictions to set their primary focus on successful implementation of diversion programs. Meeting the disposal rate targets is not necessarily an indication of compliance. CalRecycle reports that the City of Chula Vista's Disposal Rate Targets for Reporting Year 2017 are 5.3 pounds per day per resident and 22.8 pounds per day per employee.

The proposed project is expected to be serviced by Republic Services. Any changes in locations for trash carts and bulky pickup, sufficient clearance, and appropriate routing for trucks would be coordinated by the City and Republic Services.

Participation in the City's recycling programs during project construction and operation, including CalRecycle's requirements, would ensure that the project would not conflict with federal, State, and local management and reduction statutes and regulations related to solid waste. In addition, the proposed project would comply with the City of Chula Vista's Recycling and Solid Waste Planning Manual. Furthermore, the proposed project would meet or exceed standards set forth in California Green Building Standards Code (CCR, Title 24, Part 11—CALGreen). Additionally, please refer also to the discussion in Impact 17(f).

As such, impacts would be less than significant.

Mitigation Measures: None.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XIX. Wildfire				
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
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?	☐	☐	☐	☒

Comments:

(a) No impact. According to the CAL FIRE California Fire Hazard Severity Zones Maps, the project site is not located in a Fire Hazard Severity Zone in neither a Local Responsibility Area, nor the State Responsibility, nor Federal Responsibility Area.[79] The City of Chula Vista does not have an adopted emergency response plan or emergency evacuation plan. However, the City of Chula Vista Fire Department outlines the following scenarios that require disaster preparedness: wildfire, earthquakes, flood, terrorism, and tsunami. The only scenario with an evacuation routes map is the tsunami scenario. The evacuation routes for a tsunami are along the coast and direct evacuees to hear inland. The nearest evacuation route to the project site is J Street, located approximately 0.6 mile north of the project site. Additionally, according to the tsunami evacuation map, the project site would not be affected by a tsunami. Therefore, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As such, there would be no impact.

(b) No impact. According to the CAL FIRE California Fire Hazard Severity Zones Maps, the project site is not located in a Fire Hazard Severity Zone in neither a Local

[79] California Department of Forestry and Fire Protection (CAL FIRE). California Important Farmland Finder. Website: https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed February 27, 2020.

Responsibility Area, nor the State Responsibility, nor Federal Responsibility Area. Urban levels of fire protection would be provided to the project area. In addition, the project would adhere to building codes and any conditions included through review by the fire department. Therefore, the proposed project would not exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire and there would be no impact.

(c) No impact. According to the CAL FIRE California Fire Hazard Severity Zones Maps, the project site is not located in a Fire Hazard Severity Zone in neither a Local Responsibility Area, nor the State Responsibility, nor Federal Responsibility Area. The proposed project would demolish the existing light industrial use buildings to develop a new multi-family housing community. The proposed residential uses would not include any features that would have the potential to exacerbate fire risk or result in temporary or ongoing impacts to the environment. The proposed project would provide access with adjoining uses and suitable access for emergency vehicles. The project area will include a fire lane compliant with Fire Department requirements for adequate access. Emergency access to the site would be maintained during construction. As such, there would be no impact.

(d) No impact. According the CAL FIRE California Fire Hazard Severity Zones Maps, the project site is not located in a Fire Hazard Severity Zone in neither a Local Responsibility Area, nor the State Responsibility, nor Federal Responsibility Area. The proposed project is comprised of relatively flat parcels located in an urbanized area surrounded by commercial, residential and light industrial uses. The FEMA FIRM No. 06073C2152F. Furthermore, the project site is located in Zone X: a zone that corresponds to areas outside of the 500-year flood or areas protected from the 100-year flood by levees. In other words, Zone X is defined as areas with a 0.2 percent annual chance of flood (i.e., a 500-year flood hazard area). These conditions preclude the possibility of subjecting people or structures to significant risks related to post-fire slop instability and landslides. Furthermore, the underground storm drain box culvert that transects the project site is classified as Zone A, a 100-year flood zone, and would be considered a Severe Fire Hazard Area. However, as outlined in the FIRM Map, the 100-year flood would be contained in the underground storm drain box culvert, it is meant to operate as a flood channel. As the proposed project does not propose to modify the underground box culvert and would allow the underground storm drain box culvert to operate in the same condition it currently does and remain in place, there would be no impact from project implementation.

Therefore, the proposed project would not place structures within a 100-year flood hazard area, exposing people or structures to risks including downslope or downstream flooding or landslides. As such, there would be no impact.

Mitigation Measures: None.

Environmental Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XX. Thresholds				
Will the proposal adversely impact the City's Threshold Standards?				
a. Library The City shall construct 60,000 gross square feet (GSF) of additional library space, over the June 30, 2000 GSF total, in the area east of Interstate 805 by buildout. The construction of said facilities shall be phased such that the City will not fall below the city-wide ratio of 500 GSF per 1,000 population. Library facilities are to be adequately equipped and staffed.	☐	☐	☒	☐
b. Police				
i. Emergency Response: Properly equipped and staffed police units shall respond to 8% of "Priority One" emergency calls within seven (7) minutes and maintain an average response time to all "Priority One" emergency calls of 5.5 minutes or less.	☐	☐	☒	☐
ii. Respond to 57% of "Priority Two" urgent calls within seven (7) minutes and maintain an average response time to all "Priority Two" calls of 7.5 minutes or less.	☐	☐	☒	☐
c. Fire and Emergency Medical Emergency response: Properly equipped and staffed fire and medical units shall respond to calls throughout the City within 7 minutes in 80% of the cases (measured annually).	☐	☐	☒	☐
d. Traffic The Threshold Standards require that all intersections must operate at a Level of Service (LOS) "C" or better, with the exception that Level of Service (LOS) "D" may occur during the peak two hours of the day at signalized intersections. Signalized intersections west of I-805 are not to operate at a LOS below their 1991 LOS. No intersection may reach LOS "E" or "F" during the average weekday peak hour. Intersections of arterials with freeway ramps are exempted from this Standard.	☐	☐	☒	☐
e) Parks and Recreation Areas The Threshold Standard for Parks and Recreation is 3 acres of neighborhood and community parkland with appropriate facilities/1,000 population east of I-805.	☐	☐	☒	☐

Environmental Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Drainage The Threshold Standards require that storm water flows and volumes not exceed City Engineering Standards. Individual projects will provide necessary improvements consistent with the Drainage Master Plan(s) and City Engineering Standards.	☐	☐	☒	☐
g) Sewer The Threshold Standards require that sewage flows and volumes not exceed City Engineering Standards. Individual projects will provide necessary improvements consistent with Sewer Master Plan(s) and City Engineering Standards.	☐	☐	☒	☐
h) Water The Threshold Standards require that adequate storage, treatment, and transmission facilities are constructed concurrently with planned growth and that water quality standards are not jeopardized during growth and construction. Applicants may also be required to participate in whatever water conservation or fee off-set program the City of Chula Vista has in effect at the time of building permit issuance.	☐	☐	☒	☐

Comments

Refer to discussions above.

Mitigation: None.

Issues:	Potentially Significant Impact	Less than Significant Impact with Mitigation Incorporated	Less than Significant Impact	No Impact
XXI. Mandatory Findings of Significance				
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?	☐	☐	☒	☐

Comments:

(a) Less than significant with mitigation incorporated. With implementation of MM BIO-1, the proposed project would not substantially degrade the quality of the environment, substantially reduce the habitat of fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. Implementation of MM BIO-1 would reduce potential impacts to nesting birds from project implementation to a less than significant level.

With implementation of MM CUL-1 and MM CUL-2 the proposed project would not eliminate important examples of the major periods of California history or prehistory. Implementation of MM CUL-1 and MM CUL-2 would ensure that the historical integrity of important examples of major periods of California history are preserved.

(b) Less than significant with mitigation incorporated. The proposed project could result in potentially significant project-level impacts related to air quality, biological resources, cultural resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology, land use and planning, and noise. However, MM AIR-1, MM BIO-1, MM CUL-1, MM CUL-2, MM GEO-1, MM GEO-2, MM GHG-1, MM

HAZ-1, MM HAZ-2, MM HAZ-3, MM-NOI-1, and NOI-2 shall be implemented as part of the proposed project. These mitigation measures will, amongst other things, reduce impacts to nesting birds, reduce impacts to any inadvertent culturally significant discoveries, reduce impacts to expansive soils and paleontological resources, require the purchase of voluntary carbon credits by the Project Applicant, remove potential hazardous material release from past projects, and reduce noise impacts from the proposed project. The mitigation measures would reduce each impact to a level of less than significant.

All other impacts of the proposed project were determined either to have no impact or to be less than significant without the need for mitigation. Cumulatively, the proposed project would not result in any significant impacts that would substantially combine with impacts of other current or probable future impacts. Therefore, the proposed project, in conjunction with other future development projects, would not result in any cumulatively considerable impacts.

(c) Less than significant impact.

All potential impacts of the proposed project have been identified. Compliance with applicable existing laws and regulations and implementation of recommended mitigation (and improvement) measures would ensure that the project would not result in substantial adverse effects on human beings either directly or indirectly. Therefore, impacts would be less than significant and no additional mitigation measures are required.

Mitigation Measures: Implement MM AIR-1, MM BIO-1, MM CUL-1, MM CUL-2, MM GEO-1, MM GEO-2, MM GHG-1, MM HAZ-1, MM HAZ-2, MM HAZ-3, MM-NOI-1, and NOI-2.

XXII PROJECT REVISIONS OR MITIGATION MEASURES

Project mitigation measures are indicated above.

XXIII AGREEMENT TO IMPLEMENT MITIGATION MEASURES

By signing the line(s) provided below, the Project Applicant(s) and/or Operator(s) stipulate that they have each read, understood, and have their respective company's authority to and do agree to the mitigation measures contained herein, and will implement same to the satisfaction of the Environmental Review Coordinator. Failure to sign the line(s) provided below shall indicate the Project Applicant(s) and/or Operator(s) desire that the proposed project be held in abeyance without approval.

James O'Malley, Vice President – Development
Shopoff Land Fund-Moss Street, LLC

4-21-20

Date:

XXIV ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by the proposed project, involving at least one impact that is a "Potentially Significant Impact" or "Less Than Significant with Mitigation Incorporated" as indicated by the checklist on the previous pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural and Tribal 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	☐ Utilities/Services Systems
☐ Wildfire	☒ Mandatory Findings of Significance	

XXV Determination:

On the basis of this initial evaluation:

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

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the 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 measure 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 earlier **EIR** or **NEGATIVE DECLARATION**, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

City of Chula Vista

Date

XXVI List of Preparers

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Source: Census 2000 Data, The CaSIL

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5 2.5 0 5 Miles

Exhibit 1
Regional Location Map

34260024 • 03/2019 | 1_regional.mxd

CITY OF CHULA VISTA • 676 MOSS STREET
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

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Source: ESRI Aerial Imagery. San Diego County GIS Data.

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200 100 0 200 Feet

Exhibit 2
Assessor Parcel Numbers Map

34260024 • 04/2019 | 2_APN_map.mxd

CITY OF CHULA VISTA • 676 MOSS STREET
INITIAL STUDY/MITIGATED NEGATIVE DECLARATION

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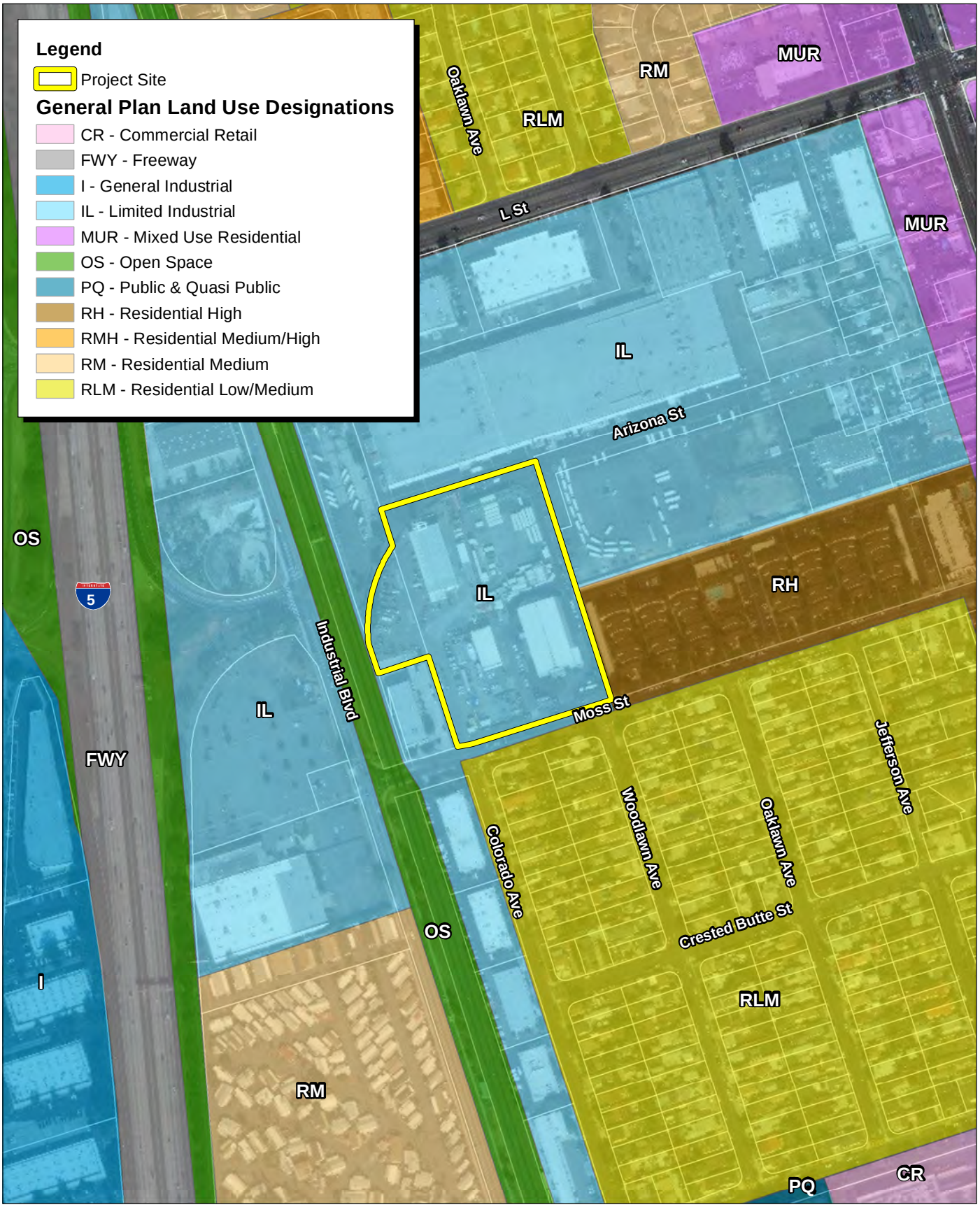

Source: ESRI Aerial Imagery. City of Chula Vista and San Diego County GIS Data.

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360 180 0 360 Feet

Exhibit 3
City of Chula Vista
General Plan Land Use Map

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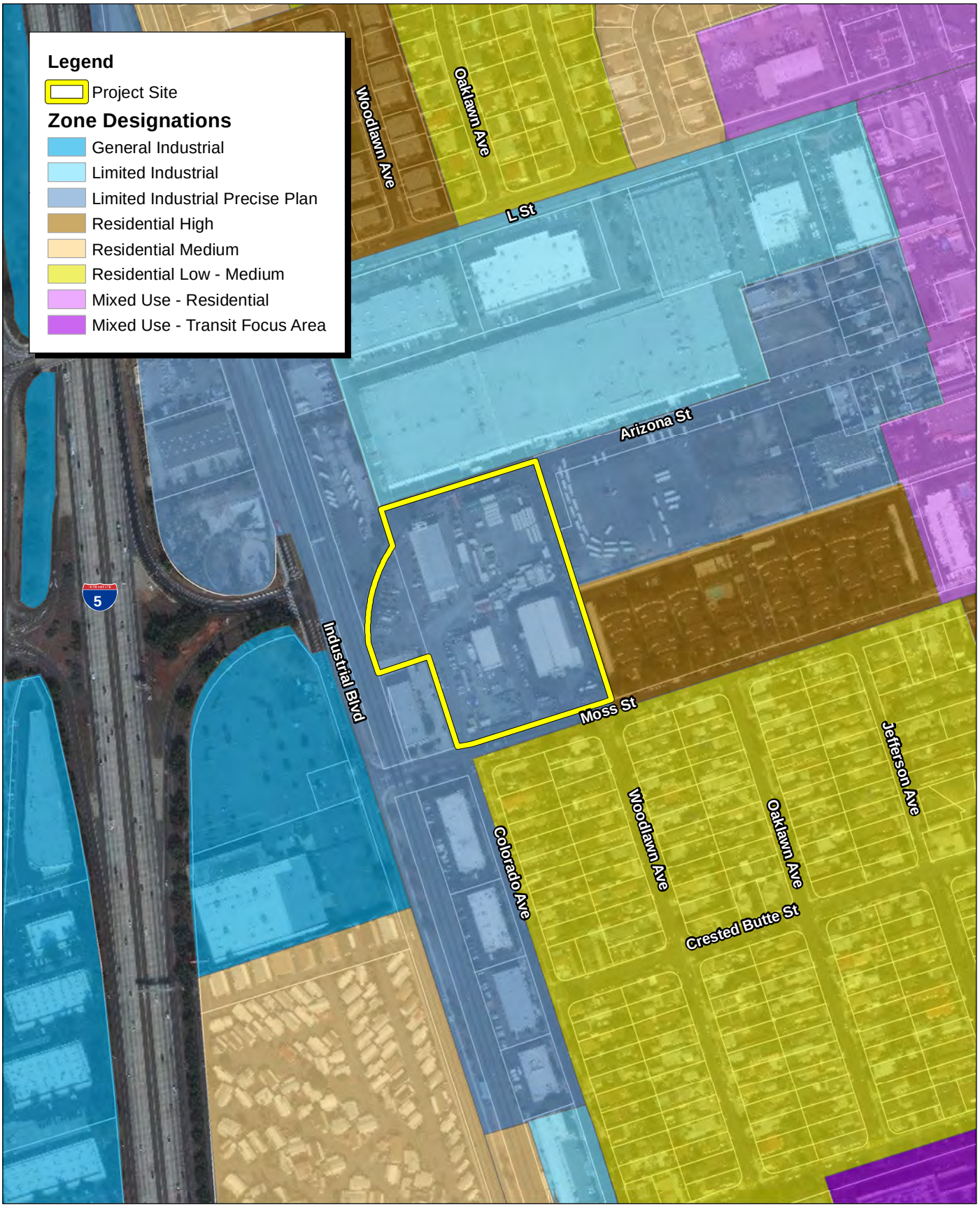

Source: ESRI Aerial Imagery. City of Chula Vista and San Diego County GIS Data.

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360 180 0 360 Feet

Exhibit 4
City of Chula Vista Zoning Map

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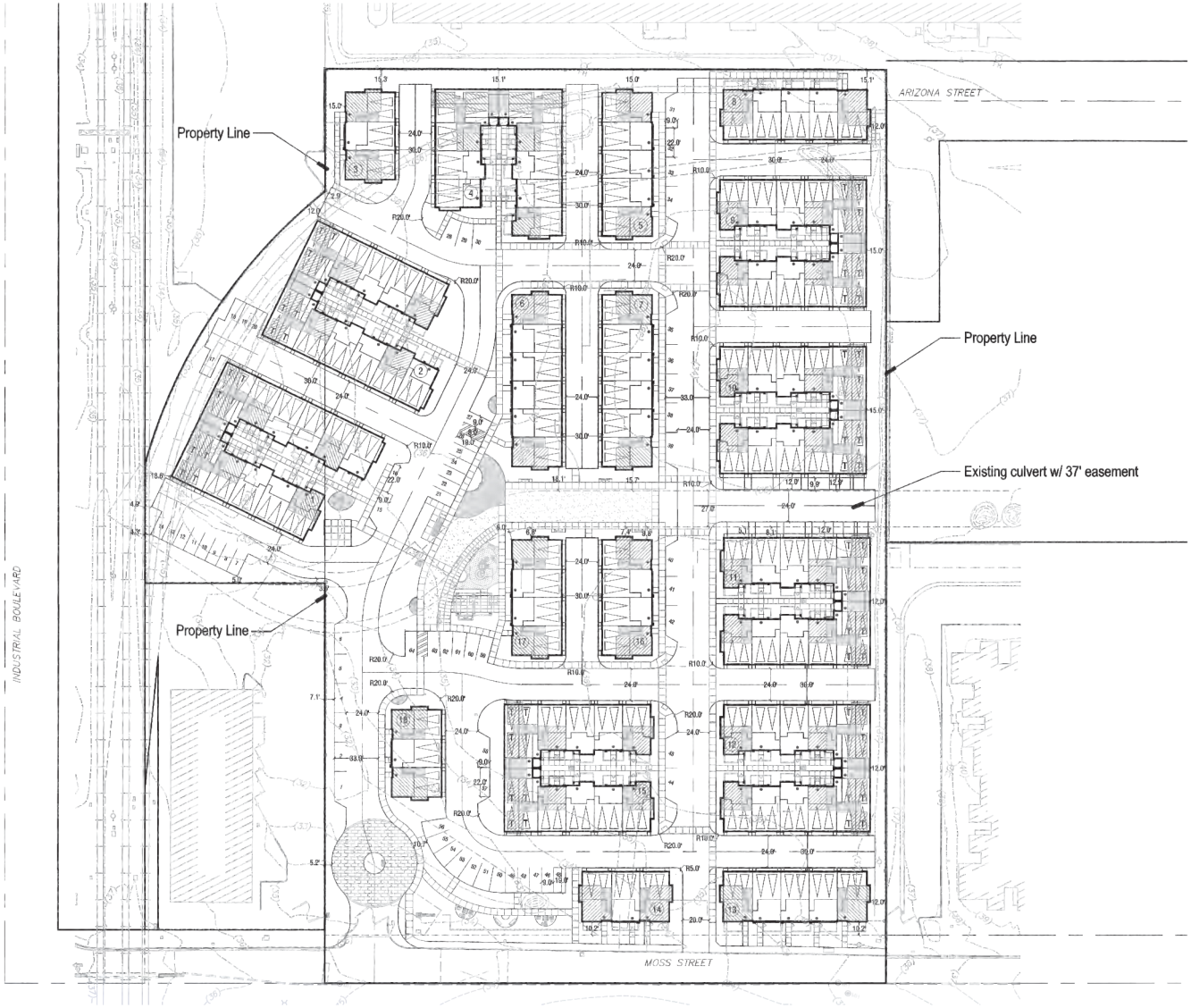

Project Summary

Total Site Area: ± 6.94 Acres (± 302,254 SF)

Total Units: 141 Homes
- (97) 3-Story Court Towns
  - (16) Plan 1: ± 1,196 SF, 2 Bed, 2.5 Bath (Tandem)
  - (16) Plan 2: ± 1,235 SF, 2 Bed, 2.5 Bath (Tandem)
  - (34) Plan 3: ± 1,652 SF, 3 Bed, 2.5 Bath, Den
  - (31) Plan 4: ± 1,758 SF, 4 Bed, 3.5 Bath, Opt. Den
- (44) 3-Story Row Towns
  - (24) Plan 5: ± 1,838 SF, 3 Bed, 2.5 Bath, Den, Opt. Bed 4
  - (20) Plan 6: ± 2,002 SF, 4 Bed, 3.5 Bath, Opt. Den

Density: 20.4 Homes per Acre

Parking:

Required: 282 Spaces (2.0 spaces per home)
- (141) Homes x 2.0 Spaces = 282 Spaces
- (141) Guest x 0.0 Spaces = 0 Spaces

Provided: 346 Spaces (2.45 spaces per home)
- Garage: 282 Spaces (64 Tandem spaces identified with 'T')
- Head In: 40 Spaces (9' x 19')
- Parallel: 24 Spaces (9' x 22')

Open Space:

Required: 71,120 SF Total (± 504 SF per home, 6' min. dimension)

Provided: 75,111 SF Total (± 533 SF per home)

Lot Coverage: 35% of site (± 104,416 SF)

Zoning Summary

Existing General Plan: Limited Industrial
Proposed General Plan: High Density

Existing Zoning: Limited Industrial Precise Plan
Proposed Zoning: R-3

Lot Area per Unit: ± 2,143 SF per home (min. 1,590 for 4-bed units)

Building Setbacks: Front Yard: 15'
Interior Side Yard: 7'
Rear Yard: 17'

Proposed Setbacks: Front Yard: 10'*
Interior Side Yard: 12'
Rear Yard: 15'*
* Variance will be requested from Planning Commission

Building Separation: 10' minimum

Max. Building Height: 45' and 3 Stories

Max. Lot Coverage: 50%

Notes:

1. Site plan is for conceptual purposes only.
2. Site plan must be reviewed by planning, building, and fire departments for code compliance.
3. Base information per civil engineer.
4. Civil engineer to verify all setbacks and grading information
5. Building Footprints might change due to the final design elevation style.
6. Open space area is subject to change due to the balcony design of the elevation.
7. Building setbacks are measured from property lines to building foundation lines.

Source: WHA Architects, Planners, Designers, February 18, 2020.

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Exhibit 5
Conceptual Site Plan

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Project Summary

Total Site Area: ± 6.94 Acres (± 302,254 SF)

Total Units: 141 Homes
- (97) 3-Story Court Towns
  - (16) Plan 1: ± 1,196 SF, 2 Bed, 2.5 Bath (Tandem)
  - (16) Plan 2: ± 1,235 SF, 2 Bed, 2.5 Bath (Tandem)
  - (34) Plan 3: ± 1,652 SF, 3 Bed, 2.5 Bath, Den
  - (31) Plan 4: ± 1,758 SF, 4 Bed, 3.5 Bath, Opt. Den
- (44) 3-Story Row Towns
  - (24) Plan 5: ± 1,838 SF, 3 Bed, 2.5 Bath, Den, Opt. Bed 4
  - (20) Plan 6: ± 2,002 SF, 4 Bed, 3.5 Bath, Opt. Den

Density: 20.4 Homes per Acre

Open Space:

Required: 71,120 SF Total (± 504 SF per home, 6' min. dimension)
- (32) 2 Bedroom x 400 SF = 12,800 SF
- (34) 3 Bedroom x 480 SF = 16,320 SF
- (75) 4 Bedroom x 560 SF = 42,000 SF

Provided: 76,434 SF Total* (+ 542 SF per home)
- Common: ± 36,864 SF
- Private Ground: ± 8,041 SF (6' Min. Dimension)
- Decks: ± 10,283 SF (6' Min. Dimension)
- Roof Decks: ± 21,246 SF (6' Min. Dimension)

Additional open space areas not counted towards total:
- Landscape Area: ± 45,381 SF
- Private Ground: ± 1,166 SF (less than 6' Min. Dimension)

* All open spaces counted towards the total provided open space meet the General Plan's exterior land use/noise compatibility threshold of 65 dB CNEL for new residential development.

Decks/Roof Decks eliminated from provided o.s. due to noise disqualification. Decks/Roof Decks locations are shown, but not included in above total.
- Roof Decks within 90' of the railroad centerline are excluded from the Open Space calculation due to noise disqualification.
- Decks within 180' and direct line of site to the railroad centerline are excluded from the Open Space calculation due to noise disqualification.

0 20 40 80

Source: WHA Architects, Planners, Designers, March 26, 2020.

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Exhibit 6
Conceptual Open Space Plan

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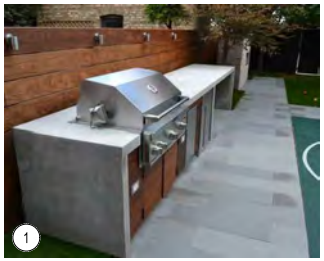


*Conceptual imagery only

LANDSCAPE CONCEPT STATEMENT:

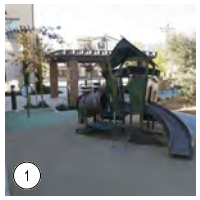
The overall landscape concept for the Chula Vista project is to provide this new residential community and adjacent existing communities with an attractive walking experience while adding visual interest, social functionality and minimal strain on local resources.

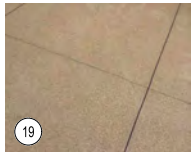
The Design Objective:
A five foot wide, pedestrian walkway system will meander through the community connecting it to Moss street - as well as the proposed attractive amenities like the central shade structure, tot lot, active lawn & smaller seating nodes. These amenity areas will allow for local residents to walk their dogs, stroll, hold small social gatherings as well as larger group events.

The use of low maintenance and water wise plants will be incorporated and designed to be attractive, using dramatic and unique succulents and grasses in mass groupings with a mix of contrasting groundcovers. The overall landscape will be compliant with the City of Chula Vista's Chapter 20.12 Chula Vista Landscape Water Conservation Ordinance.

LEGEND

1. Community recreational area with bbq counter, Tot lot, overhead structure with ADA compliant seating for social gatherings and special events.
2. Proposed wall, fence and gate, per Wall & Fence Plan.
3. Enhanced vehicular entry, with precast pavers.
4. Proposed tree, per Planting Plan.
5. Public concrete sidewalk, per Civil and City Standards.
6. 5' wide community sidewalk, natural color concrete with light broom finish & narrow trowel joints.
7. 4' wide residential unit entry walkways, natural color concrete with light broom finish & narrow tooled joints.
8. Private patio/yard, homeowner maintained & installed.
9. Common area landscape, HOA maintained.
10. Natural color concrete driveway with light broom finish.
11. Guest parking and accessible parking stall per City Standards
12. Public utilities, water, sewer and gas line per Civil Plans.
13. Property line.
14. Mailbox CBU boxes (per USPS approval).
15. City R.O.W.
16. Short term bike parking (6 bike racks to accommodate 12 bike stalls).
17. Existing box Culvert per Civil Plans.
18. Community dog bag station (black in color), for pet owners.
19. Enhanced color paving at open space/with .05 top cast finish & sawcut joints
20. Proposed illuminated site plan/directory on painted precision cmu wall.
21. Proposed bulk trash pickup area.
    *Entry monuments, per separate permit / submittal.





*Conceptual imagery only

Community recreational area. Fire pit with seating

0 20' 40' 80'
Scale: 1" = 40'-0"

Source: WHA Architects, Planners, Designers, February 18, 2020.

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Exhibit 7
Conceptual Landscape Plan

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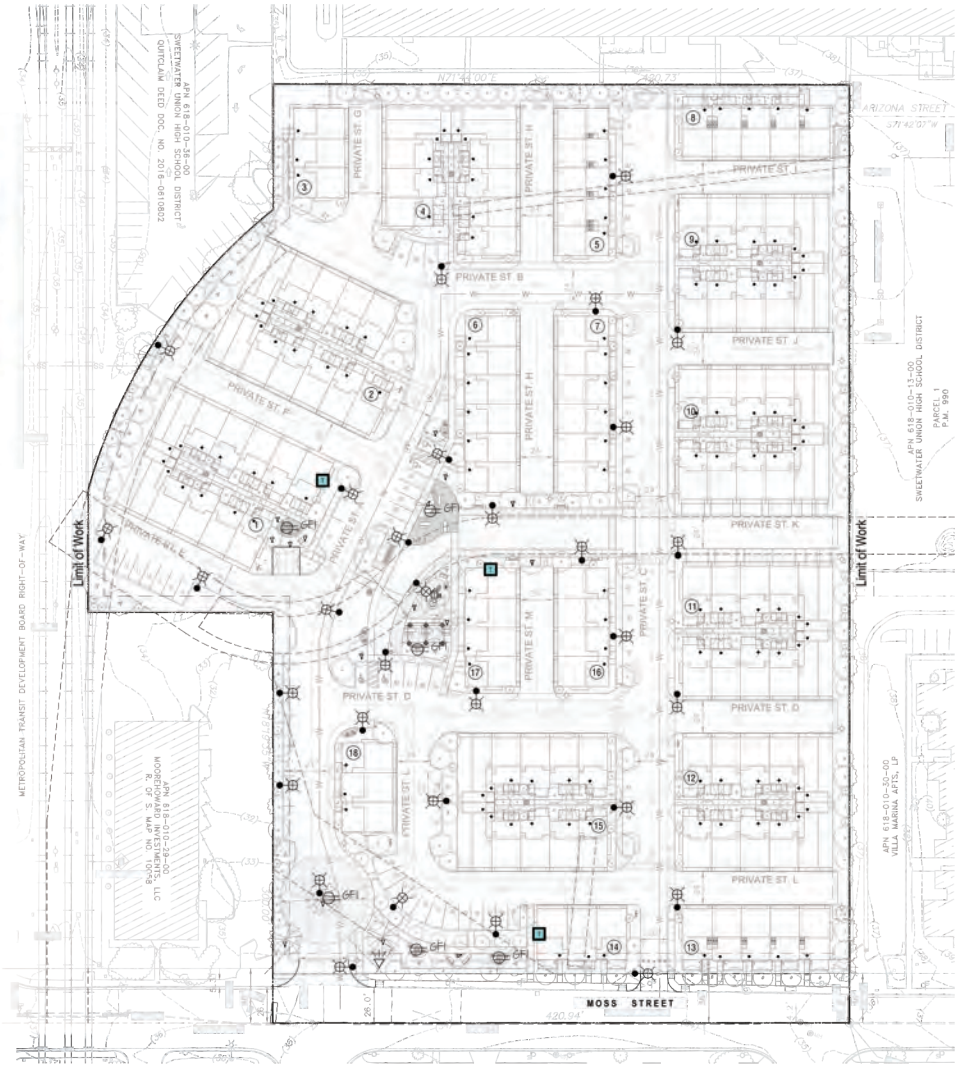
*Conceptual images (provided herein are conceptual and subject to change)



LIGHTING SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY
	Spectra Lighting, Element Series / Model: ELE - FLT/T. Modern Street Post Light. Provide lamp shields to minimize light spillage into adjacent properties. Cast Aluminum, Powdercoat, DBZ (Dark Bronze), Pole, 12' to15' Post Height - Per Elec. Eng. Dark Bronze Colo Lamp: Per Elec. Eng., Per Elec. Eng., Per Elec. Eng.	31
	Shade Structure Downlight - Kichler model #16017AZT27 Cast Aluminum, Textured Architectural Bronze, Surface Mounted Bracket Lamp: LED, 5.25 W-12W, 2700K Warm White	6
	Tree uplight, Staked - Kichler model VLO #16018-16020 Order #16019AZT27 (35Flood) Cast aluminum, Textured Architectural Bronze, Staked Lamp: LED, 5.25 W-12W, 2700K Warm White	16
	Wall-Accent Up-light. Kichler VLO 12V LED Flood Variable Lumen AZT 16022AZT27. Brass, Textured Architectural Bronze, Surface Lamp: LED	1
	Kichler model #15PR75 AZT. L.V. Transformer. Low-voltage transformer. Install in HOA building cabinet where possible. Cast Aluminum, Textured Architectural Bronze, Wall 75	3
GFI	Exterior Electrical GFI Outlet To be coordinated with Electrical Engineer. Exterior Grade., Exterior Grade., Per Manufact.	6

NOTES:

1. Site Lighting & Landscape lighting (landscape up-lights, path lights/bollards, etc.), proposed herein, to be coordinated with Electrical Engineer in future Construction Document phase. Photometric Plan to be provided by Electrical Engineer in future phase and to conform to local City lighting standards.
2. All site lighting to have shield covers to minimize light spillage into neighboring properties.

*Conceptual images (provided herein are conceptual and subject to change)

0 20' 40' 80'
Scale: 1" = 40'-0"

Source: Studio Pad Landscape Architecture, February 19, 2020.

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Exhibit 8
Project Lighting Plan

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Source: Google Earth Aerial Imagery.

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130 65 0 130 Feet

Exhibit 9
Vegetation Map

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Map Key

- 5 ft. Soil and Soil Vapor Sampling Location
- 15 ft. Soil and Soil Vapor Sampling Location

Approximate Scale

0 80 160 ft.

Aerial Image Source: Google Earth Pro, 2018

N

Source: Environmental Management Strategies, Inc., August 2018.

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Exhibit 10
Phase II ESA Soil and Soil Vapor Sampling Locations

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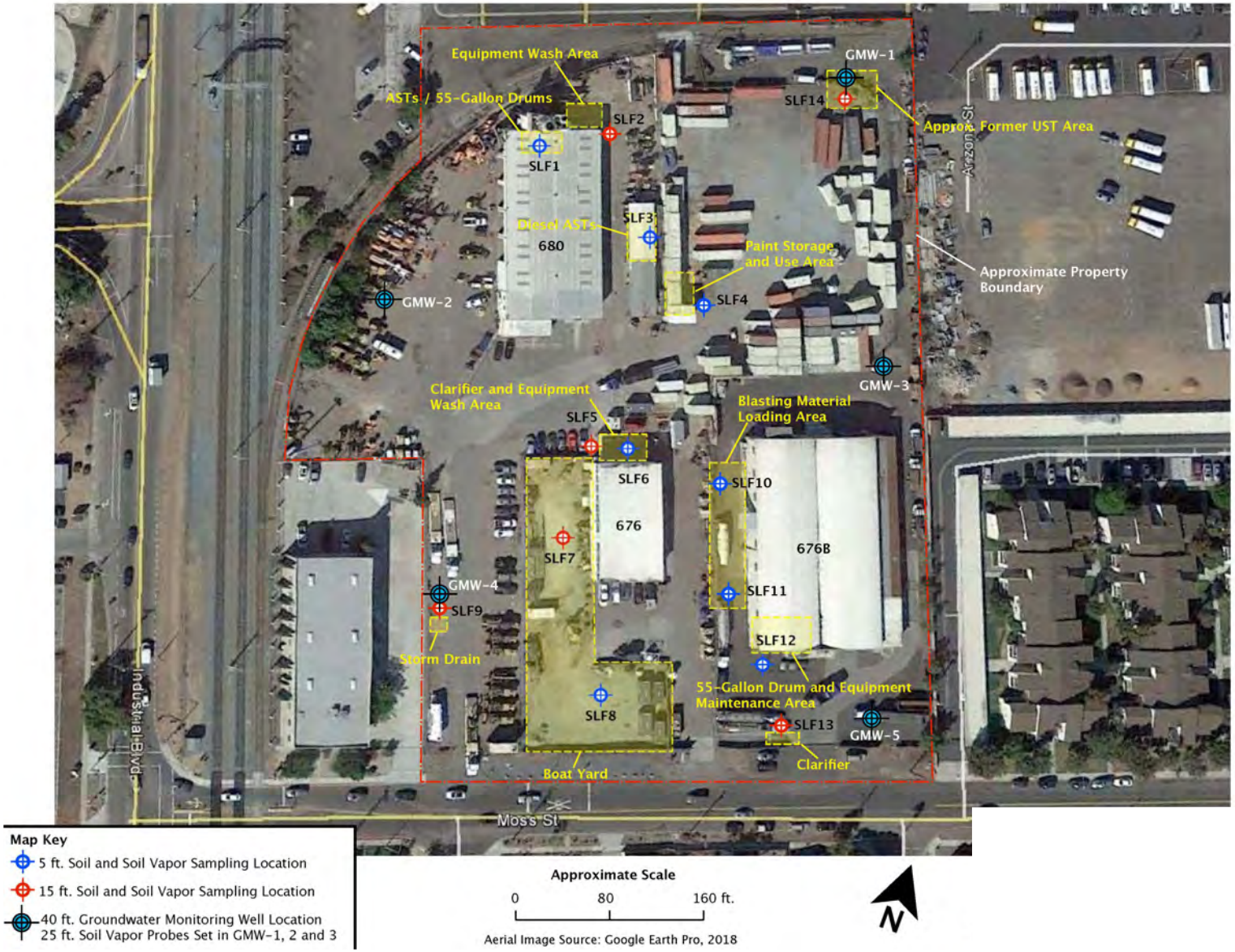

Source: Environmental Management Strategies, Inc., August 2018.

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Exhibit 11
Supplemental Phase II ESA Soil, Soil Vapor, and Groundwater Sampling Locations

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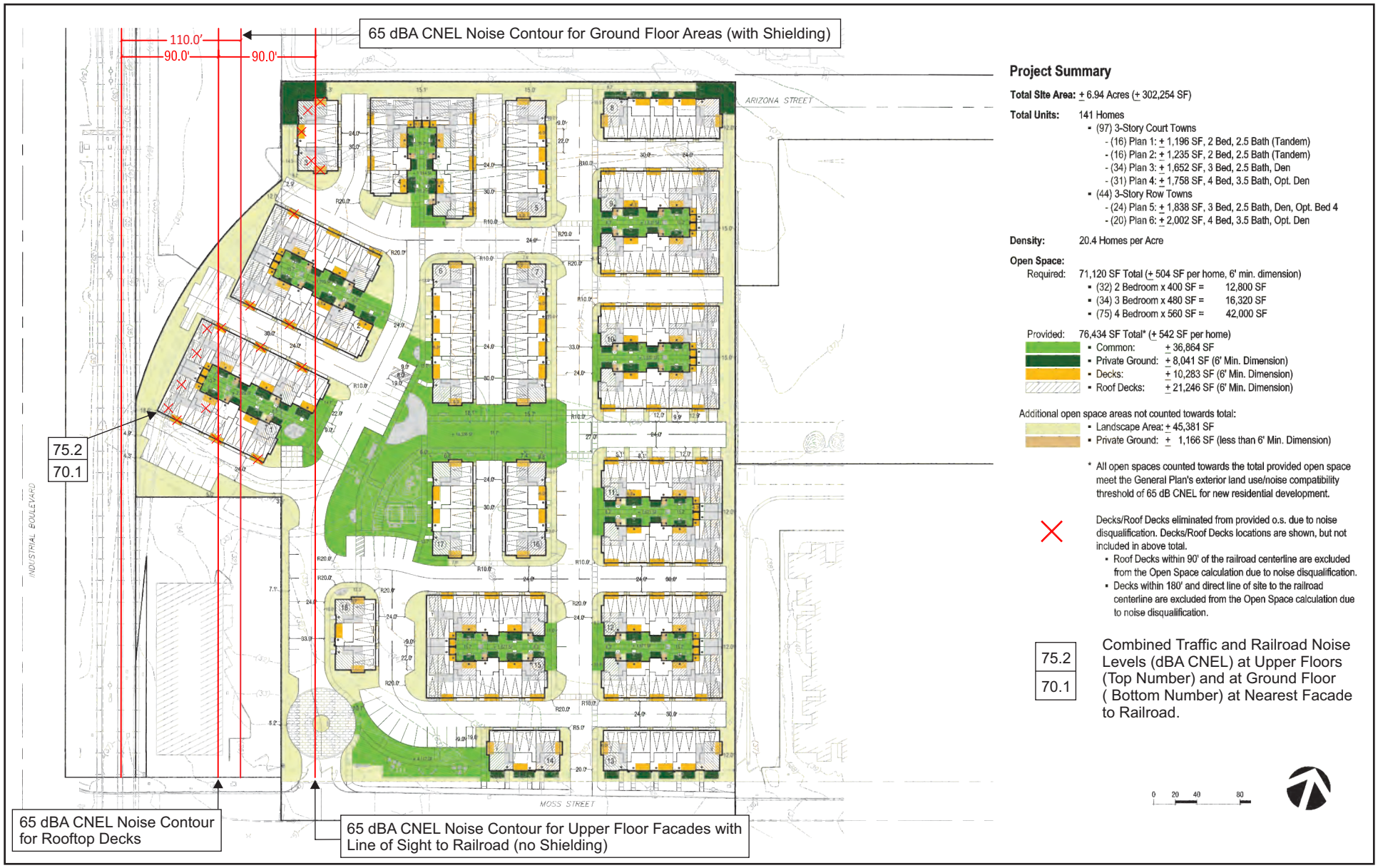

Source: WHA Architects, Planners, Designers, March 26, 2020.

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Exhibit 12
Combined Mobile Source Noise Contours

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