The Terraces at Walnut Specific Plan

Draft Environmental Impact Report

SCH#2018011046

prepared by

City of Walnut
21201 La Puente Road
P.O. Box 682
Walnut, California 91789

prepared with the assistance of

Rincon Consultants, Inc.
250 East 1st Street, Suite 301
Los Angeles, California 90012

March 2019

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Table of Contents

Tables

Figures

Appendices

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Executive Summary

This document is an Environmental Impact Report (EIR) analyzing the environmental effects of The Terraces at Walnut Specific Plan (hereafter referred to as the "Specific Plan" or "proposed project"). This section summarizes the characteristics of the proposed project, alternatives, environmental impacts, and mitigation measures associated with the Specific Plan.

Project Synopsis

Project Applicant

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Industry, California 91789

Lead Agency Contact Person

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Project Description

This EIR has been prepared to examine the potential environmental effects of the Specific Plan (see Appendix A). The following is a summary of the full project description, which can be found in Section 2.0, *Project Description*. Table ES-1 summarizes the Specific Plan components.

The Specific Plan involves a mixed-use infill project that includes a mix of housing types, a commercial district, parks and recreation areas, and open space, such as landscaped slopes, on 49 acres of vacant land. Development would also include parking, streets, landscaping, and public infrastructure improvements, such as stormwater basins. The proposed recreation areas would consist of parks, trails, and walkways. The Specific Plan would require approval of entitlements for construction and operation of the proposed development.

The commercial district of the Plan Area would be three acres, with up to 30,000 square feet (sf), located on the western portion of the Plan Area and would consist of one- to two-story buildings and associated surface parking. The residential component would include up to 290 dwelling units on 23 acres. Three residential districts are proposed in the residential component of the Plan Area, consisting of an approximately 15-acre small-lot district, a five-acre townhome district, and a three-acre single-family district. The residences in the small-lot district would include up to 201 single-family units with a maximum allowed height of three stories or no more than 35 feet and includes various single-family housing sizes, on smaller lots. The townhome district would include up to 83 multiple-family units and would have a maximum allowed height of two stories or no more than 35 feet. The townhome district would provide a transitional density between the commercial district

and small-lot district to the north and the existing single-family residences to the northwest. The three-acre single-family residential district would be located at the northwest corner of the Plan Area and would provide both a buffer between the proposed small-lot district and the existing single-family residences located north and west of the Plan Area.

Parks and open spaces would be located along the Plan Area perimeter, as well as between the residential development areas, and would be used to separate the terraced residential uses. These spaces would be designed to increase public access and connectivity in the Plan Area and would provide shade structures, water features, outdoor furniture, and other furnishings. Lighting in the open space areas would include energy-efficient technologies and would be designed to avoid light spillage onto neighboring properties.

Table ES-1 Specific Plan Summary

Proposed Land Uses (by acre)			
Commercial District	3 (up to 30,000 sf)		
Residential Districts	23.2		
Single-Family	2.6 (of 23.2)		
Small-Lot	15.2 (of 23.2)		
Townhome	5.4 (of 23.2)		
Parks/Open Space	15.4		
Streets	7.4		
Total	**49.0**		
Land Use Plan			
Land Use	**Acreage**	**Dwelling Units (DU)/ Square Footage (sf)**	**Intensity**
Residential			
Single-Family District	2.6	12 DU	4.6 DU/acre
Small-Lot District	15.2	Up to 201 DU[1]	13.2 DU/acre
Townhome District	5.4	Up to 83 DU[1]	15.4 DU/acre
Residential Total	23.2	Up to 290 DU	12.5 DU/acre
Non-Residential			
Parks/Open Space	15.4	–	–
Commercial District	3	16,000 to 30,000 sf	0.15 FAR to 0.23 FAR
Public Streets	7.4	–	–
Total	49	Up to 290 DU and 30,000 sf	–

[1] The actual number of units built within these two districts may vary; however, the total number of units shall not exceed 290 dwelling units for the entire Specific Plan area. Thus, for purposes of analysis, the EIR assumes that a maximum of 290 dwelling units would be constructed.

Sustainable Design

Landscaping and open space within the Plan Area would be designed to promote walkability through a system of paths and trails. In addition, development under the Specific Plan would aim to integrate "green" design strategies to promote sustainability within the future community. Strategies would pertain to Plan Area planning, energy efficiency, materials efficiency, water efficiency, and occupant health and safety.

Project Objectives

- Implement the City's planned commercial and higher density residential districts facing the urban edge, consistent with the goals and policies of the City of Walnut General Plan
- Provide horizontal separation (buffer) from existing single-family homes abutting the site. Based on the provisions within this Specific Plan, dwelling units within the Specific Plan area will be a minimum of 85 feet from dwelling units within surrounding neighborhoods.
- Provide new financially viable infill commercial uses and housing on a vacant site
- Showcase distant views and vantage points with terracing and site orientation
- Design development to buffer existing single-family homes abutting the site
- Cluster development to promote walking and establish a strong sense of neighborhood
- Interconnect the residential districts by incorporating an internal trail network
- Reinforce a sense of place with iconic landmark and special identity signage
- Utilize the natural topography to define residential neighborhoods
- Enhance the hill top and terraces as a memorable and meaningful public realm, where residents have close access to the pocket park system described as a "string of pearls"

Alternatives

As required by the California Environmental Quality Act (CEQA), this EIR examines alternatives to the proposed project. Studied alternatives include the following five alternatives:

Alternative 1: No Project

The No Project Alternative assumes that the proposed project is not constructed and the Plan Area would remain in its current condition. As described in Section 2, Project Description, the Plan Area consists of undeveloped land covered primarily by a mix of non-native and native vegetation, much of which has been disturbed. The No Project Alternative also examines what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans, and consistent with available infrastructure and community services, otherwise referred to as the No Project/Development under Existing Zoning.

Alternative 2: Cluster Development

The Cluster Development Alternative would eliminate a portion of the small-lot district uses at the center area of the Plan Area to create a smaller development footprint in the Plan Area. The center of the Plan Area would remain as undeveloped open space. Development under this alternative would be concentrated at the northwestern, western, southern, and eastern boundaries of the Plan Area. Similar to the proposed project, this alternative would involve construction of a commercial

district with two retail plazas, a small-lot district, and open space areas located at the southern and western boundaries of the Plan Area. However, the Cluster Development Alternative would change the large-lot district located at the northwestern boundary of the Plan Area to a small-lot district. The proposed residential units associated with this alternative would consist of 33 two-story single-family units, 83 two-story townhomes with a density of 15 dwelling units per acre, and 111 two- and three-story townhomes with a density of 18 dwelling units per acre. The Cluster Development Alternative would involve a total of 226 residential units, or 64 fewer units as compared to the 290 residential units proposed by the Project. The net acreage of development under this alternative would be 14.3 acres with a net density of 15.8 units per acre. Although the net acreage would be less than the 24 acres of development associated with the proposed project, the Cluster Development Alternative would concentrate more dwelling units per acre when compared to the net density of 12 units per acre associated with the proposed project.

Alternative 3: Reduced Walls and Grading

The Reduced Walls Alternative would not involve construction of walls parallel to Pacer Court at the western boundary of the Plan Area. This alternative would also shift development of the proposed residential units in the small-lot district located at the southwestern boundary of the Plan Area to the center of the Plan Area and change the designation of the Townhome District to open space. In addition, the commercial district would include two retail plazas at the southern boundary of the Plan Area. Similar to the proposed project, this alternative would maintain the large-lot district, open space areas, small-lot district, and pedestrian connection path located at the northwestern and center areas of the Plan Area.

The proposed residential units associated with this alternative would consist of 33 two-story single-family units, 90 two-story townhomes with a density of 15 dwelling units per acre, 77 two- and three-story townhomes with a density of 18 dwelling units per acre, and 114 three-story townhomes with a density of 20 dwelling units per acre. This alternative would include a total of 314 residential units, which would be 24 more units when compared to the 290 residential units under the proposed project. The net acreage of development under this alternative would be 18.4 acres with a net density of 17.1 units per acre. Although the net acreage would be less than the 24 acres of development associated with the proposed project, this alternative would concentrate more dwelling units per developed acre when compared to the net density of 12.0 units per acre associated with the proposed project.

Alternative 4: Four-Story Units with Reduced Walls and Grading

Similar to the Reduced Walls Alternative (Alternative 3), the Four-Story Units with Reduced Walls Alternative would not involve walls parallel to Pacer Court at the western boundary of the Plan Area. This alternative would also shift development of the proposed residential units in the small-lot district located at the southwestern boundary of the Plan Area to the center of the Plan Area and change the designation of this small-lot district to open space. Similar to the proposed project, this alternative would maintain the large-lot district, open space areas, small-lot district, pedestrian connection path, and commercial district located at the northwestern, center, and southern areas of the Plan Area.

The proposed residential units associated with this alternative would consist of 12 large single-family dwellings, 147 two-story single-family units, and 77 four-story apartment flats with a density of 22 dwelling units per acre. The four-story residential units associated with the alternative would be located at the center of the Plan Area. Overall, the Four-Story Reduced Walls Alternative would

develop a total of 236 residential units, or 54 fewer units than the 290 residential units associated with the proposed project. The net acreage of development under this alternative would be 18.5 acres with a net density of 12.8 units per acre. Although the net acreage would be less than the 24 acres of development associated with the proposed project, the Four-Story Reduced Walls Alternative would concentrate slightly more dwelling units per developed acre when compared to the net density of 12.0 units per acre associated with the proposed project. This alternative would also include 3 acres of commercial development.

Alternative 5: Pacer Court Grading Alternative

The Pacer Court Grading Alternative would consist of the same Plan Area configuration as the proposed project. This alternative would also develop 290 dwelling units and a three-acre commercial district on the same footprint. The purpose of this alternative would be to share the graded soil from the slopes of Lots 17 and 18 of Tract 32158 with off-site areas that consist of Lots 79, 80, 81, 82, and 83 located along Pacer Court east of the Plan Area. A total of 6,000 cubic yards (cy) of soil would be relocated from the Plan Area and used as fill on Lots 79 through 83 to decrease overall soil export during construction by the same amount. Grading activities on Lots 79 through 83 would also include 4,000 cy of remedial grading of existing earthwork that is below grade on these properties. The existing soil would be removed, conditioned, and re-compacted prior to receiving the 6,000 cy of fill soil from the Plan Area. This alternative would reduce the length of the proposed wall parallel to Pacer Court at the western boundary of the Plan Area from 243 feet to 80 feet. The height of the reduced wall would range from 0 feet to 25 feet at its tallest.

Environmentally Superior Alternative

Of the development alternatives, Alternative 3 (Reduced Walls and Grading) would increase potential impacts overall in comparison to the proposed project. Alternative 5 (Pacer Court Grading) would develop the uses as the proposed project, but would result in a reduction of 6,000 cy of export soil. While some issue areas would be the same as the proposed project, Alternative 5 would incrementally decrease impacts associated with aesthetics, air quality, greenhouse gas emissions, and transportation and traffic and incrementally increase impacts associated with biological resources, cultural and tribal resources, geology and soils, and noise. Alternative 2 (Cluster Development) and Alternative 4 (Four-Story Units with Reduced Walls) would result in fewer impacts in comparison to the proposed project, and in comparison to each other, the impacts would be similar. However, Alternative 2 would include 10 fewer residences and 4.2 fewer acres of disturbance in comparison to Alternative 4. Therefore, Alternative 2 would result in fewer impacts than Alternative 4 and would be the environmental superior alternative.

Areas of Known Controversy

During the public comment period for the Notice of Preparation (NOP), commenters communicated concerns regarding the density of the Specific Plan as it related to impacts on population, noise, traffic and public services. Table 1-1 in Section 1, *Introduction* provides a list of commenters' areas of concerns, and where these concerns are addressed in the EIR. Concerns with respect to an increase in density are discussed in Section 4.10, *Population and Housing*, Section 4.8*, Land Use and Planning*, and Section 6, *Alternatives*. Section 4.11, *Public Services*, discusses impacts to fire, police, school and park services and facilities. Section 4.9, *Noise*, discusses short- and long-term noise impacts associated with the proposed project. Increased traffic generated from project operation is discussed under Section 4.13, *Transportation and Traffic*. With the exception of traffic impacts, which were found to be significant and unavoidable, impacts to the aforementioned areas of

concern were determined to be less than significant, or less than significant with incorporation of mitigation. In summary given that the City is mostly built-out and vacant land is limited, the increase in housing units and commercial area associated with the proposed Specific Plan would efficiently use buildable area to help meet the City's RHNA and simultaneously incorporate commercial use to increase the City's employment.

Issues to be Resolved

The primary issues to be resolved are whether or not the City should approve the requested amendments to the General Plan and Walnut Municipal Code (WMC). Among other discretionary actions, the Specific Plan requests a change to the General Plan designation for the Plan Area from the current designation of "Future Specific Plan No. 3" to "Specific Plan" on the City's General Plan Land Use Map. Additionally, the Specific Plan is requesting to change the Zoning of the entire property from the current Residential Planned Development (RPD) Zone with a Mixed-Use/Housing Opportunity Overlay (MU-HOO-3) to The Terraces at Walnut Specific Plan on the City's Zoning Map.

Issues Not Studied in Detail in the EIR

Table 1 in Section 1.4, *Introduction*, summarizes issues from the environmental checklist that were addressed in the Initial Study (Appendix B). As indicated in the Initial Study, there is no substantial evidence that significant impacts would occur to the following issue areas: Agricultural Resources, Hazards and Hazardous Materials, and Mineral Resources.

Summary of Impacts and Mitigation Measures

Table ES-2 summarizes the environmental impacts of the proposed project, proposed mitigation measures, and residual impacts after application of mitigation, if any. Impacts are categorized as follows:

- **Significant and Unavoidable.** An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per §15093 of the CEQA Guidelines.
- **Less than Significant with Mitigation Incorporated.** An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under §15091 of the CEQA Guidelines.
- **Less than Significant.** An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

Table ES-2 Summary of Environmental Impacts, Mitigation Measures, and Residual Impacts

Impact	Mitigation Measure (s)	Residual Impact
Impact AES-1 The residential and commercial uses developed under the Specific Plan would alter the character of the undeveloped Plan Area. However, the Specific Plan would be compatible with the existing residential development north of the site as well as commercial development southwest of the site along Valley Boulevard in comparison to the existing undeveloped site. In addition, although development under the Specific Plan would alter the character of views from areas outside of the Plan Area, development would be consistent with the visual character of residential uses in the surrounding area. Therefore, impacts would be less than significant.	None required.	Less than significant
Impact AES-2 The Specific Plan would not substantially alter levels of lighting or glare in the area surrounding the Plan Area and the increased building height would not substantially increase shading experienced by adjacent residences. Impacts to light and glare and shade and shadow would be less than significant.	None required.	Less than significant
Impact AQ-1 Implementation of the Specific Plan would not conflict with the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan (AQMP). Furthermore, the Specific Plan would not contribute substantially to population or employment growth; therefore, impacts would be less than significant.	None required.	Less than significant
Impact AQ-2 Construction of the Specific Plan would not generate air pollutant emissions that would exceed SCAQMD thresholds. Therefore, air quality impacts would be less than significant.	None required.	Less than significant
Impact AQ-3 Operation of the Specific Plan would generate air pollutant emissions in the long-term, but daily emissions associated with the Specific Plan would not exceed SCAQMD thresholds. Therefore, impacts would be less than significant.	None required.	Less than significant
Impact AQ-4 The Specific Plan would increase traffic along local roadways. However, increased traffic would not result in the creation of carbon monoxide (CO) hotspots. Additionally, the Specific Plan would not site sensitive receptors near sources of toxic air contaminants. Impacts related to exposing sensitive receptors to substantial pollutant concentrations would be less than significant.	None required.	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
Impact BIO-1 Implementation of the Specific Plan could result in direct or indirect impacts to California Gnatcatcher through removal of coastal sage scrub habitat and construction during the breeding season. Impacts would be less than significant with mitigation incorporated.	**BIO-1a Incidental Take Authorization** Authorization for impacts to the federally listed California gnatcatcher (incidental take) requires Incidental Take Authorization from the USFWS. Prior to issuance of a grading permit, the applicant shall provide a copy of a valid USFWS Incidental Take Authorization to the City for potential impacts to individual California gnatcatcher and gnatcatcher-occupied habitat present on the project site. The applicant shall adhere to the requirements of the Incidental Take Authorization, including any avoidance, minimization, or mitigation measures contained therein. **BIO-1b Take Avoidance Measures** Avoid impacts to California gnatcatcher during construction by implementing the following measures. These measures may be refined by the USFWS as part of the Incidental Take Authorization process. ▪ The applicant shall designate a USFWS-approved and permitted biologist who shall be responsible for overseeing compliance with avoidance measures (e.g., pre-construction surveys, buffers) for California gnatcatcher during construction. ▪ All initial vegetation clearing and earthwork within occupied California gnatcatcher habitat (defined as within 500 feet of any gnatcatcher sighting [USFWS 2007]) shall be conducted between September 1 and February 14, outside of the California gnatcatcher breeding season, if feasible. ▪ A pre-construction survey for California gnatcatcher shall be conducted by a USFWS-permitted biologist within 24 hours prior to initiating such activities within California gnatcatcher occupied habitat during the non-breeding season. If the pre-construction survey determines that California gnatcatcher(s) are not present on-site, initial vegetation clearing activities may continue and shall be monitored by a USFWS-approved biologist. If California gnatcatcher(s) are present on-site, a 300-foot no-construction buffer shall be established around the observation location and suitable habitat until such time as the USFWS-permitted biologist determines that the gnatcatcher is no longer present on-site. Encroachment into the buffer would occur only at the discretion of the USFWS-permitted biologist. ▪ If initial vegetation clearing and earthwork must occur during the breeding season within California gnatcatcher occupied habitat, three pre-construction surveys for the gnatcatcher shall be conducted by a USFWS-permitted biologist. The surveys shall be conducted approximately seven days apart with the last survey to occur no more than 72 hours prior to initiating such activities. If California gnatcatcher(s) are absent and no active nests are present, initial vegetation clearing activities may continue and shall be monitored by a USFWS-approved biologist. If or when California gnatcatcher(s) or an active California gnatcatcher nest is located, a 300-foot no-construction buffer shall be established around the observation location and suitable habitat and/or the nest site until such time as the USFWS-permitted	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
	biologist determines that the gnatcatcher is no longer present and/or that the nest is no longer active. Encroachment into the buffer would occur only at the discretion of the USFWS-permitted biologist. ▪ All surveys for California gnatcatcher shall follow the protocol survey method unless otherwise authorized by the USFWS in writing and shall be conducted within the disturbance footprint and a 500-foot buffer. Results of the surveys shall be reported within 24 hours to the City and USFWS. The methods and results of the pre-construction survey(s), any avoidance, minimization, and mitigation measures, and success of such measures will be documented in a letter report to the City and USFWS no later than five days following the completion of the surveys(s) and/or gnatcatcher monitoring activities. ▪ A USFWS-approved biological monitor shall be present during initial clearing, grading, and construction in suitable gnatcatcher habitat to ensure that avoidance measures are implemented. The biological monitor shall have the authority to halt construction to prevent or avoid take of gnatcatcher and/or to ensure compliance with all avoidance, minimization, and mitigation measures. **BIO-1c Compensate for Habitat Impacts** Mitigation shall be provided for permanent and temporary disturbance of on-site habitat occupied by coastal California gnatcatcher. Impacts to occupied habitat shall be mitigated at a 1:1 ratio, unless a higher ratio is required by the USFWS. Mitigation may take the form of permittee-responsible on-site or off-site mitigation to preserve suitable gnatcatcher habitat, or purchase of credits from an in-lieu fee program or an approved mitigation bank, subject to the approval of the USFWS. The applicant shall comply with the compensatory mitigation required by the USFWS. Proof of compliance shall be provided to the City.	
Impact BIO-2 Implementation of the Specific Plan could result in direct or indirect impacts to nesting birds and raptors, such as Cooper's Hawk, through removal or trimming of trees and vegetation. Impacts would be less than significant with mitigation incorporated.	**BIO-2 Nesting Bird Avoidance** Prior to issuance of grading permits, the following measures shall be implemented: To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and CFGC, activities related to the project, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through August 30). If construction must begin during the breeding season, then a pre-construction nesting bird survey shall be conducted no more than 3 days prior to initiation of construction activities. The nesting bird pre-construction survey shall be conducted on-foot inside the Project Boundary, including a 300-foot buffer (500-foot for raptors), and in inaccessible areas (e.g., private lands) from afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California. If nests are found, an avoidance buffer (300-feet for passerine species, 500-feet for raptors) shall be demarcated by a qualified biologist with bright orange	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
	construction fencing, flagging, construction lathe, or other means to mark the boundary. If nesting birds are located adjacent to the Plan Area and/or Off-site Fill Area with the potential to be affected by construction activity noise above 60 dBA Leq, a noise barrier shall be erected. If 60 dBA Leq is exceeded, the acoustician shall require the construction contractor to make operational and barrier changes to reduce noise levels to 60 dBA during the breeding season (February 1 through August 310). Noise monitoring would occur during operational changes and installation of barriers, as needed, to ensure their effectiveness. All construction personnel shall be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No parking, storage of materials, or construction activities shall occur within this buffer until the avian biologist has confirmed that breeding/ nesting is completed and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist.	
Impact BIO-3 No riparian habitat or sensitive community is present on-site. There would be no impact.	No mitigation required.	No impact
Impact BIO-4 Implementation of the Specific Plan could result in direct or indirect impacts to potentially jurisdictional waters located in the Plan Area. Impacts would be less than significant with mitigation incorporated.	**BIO-4 Compensatory Mitigation** The jurisdictional delineation identified potentially jurisdictional features on-site and impacts cannot be avoided; therefore, the project applicant shall be subject to the following provisions: i) Prior to ground disturbance activities that could impact these features, the project applicant shall consult with the agencies (Los Angeles RWQCB, CDFW, and/or USACE) anticipated to assert jurisdiction over the features, as evaluated in the jurisdictional delineation report. Based on such consultation, if permits are required for the project, they shall be obtained prior to disturbance of jurisdictional resources. In addition, compensatory mitigation for impacts to jurisdictional features shall be identified prior to disturbance of the features. Mitigation shall be provided at a 1:1 mitigation ratio, unless a higher ratio is required by the Los Angeles RWQCB, CDFW, and/or USACE. Mitigation may take the form of permittee-responsible on-site or off-site mitigation, or purchase of credits from an in-lieu fee program or an approved mitigation bank, subject to the approval of the agencies. The applicant shall comply with the compensatory mitigation required by the agencies. Proof of compliance, along with copies of permits obtained from Los Angeles RWQCB, CDFW, and/or USACE, shall be provided to the City prior to any ground disturbance activities impacting these features. ii) If mitigation is not purchased through an off-site mitigation bank or in-lieu fee program, a Compensatory Mitigation Plan shall be prepared that outlines the compensatory mitigation in coordination with the Los Angeles RWQCB, CDFW, and/or USACE. The Compensatory Mitigation Plan shall identify those portions of the site, such as relocated drainage	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
	routes, that contain suitable characteristics (e.g., hydrology) for restoration. Determination of mitigation adequacy shall be based on comparison of the restored feature(s) and habitat with similar, undisturbed features and habitat in the Plan Area vicinity. The Compensatory Mitigation Plan shall include remedial measures in the event that performance criteria are not met.	
Impact BIO-5 The Specific Plan would remove all 142 trees identified in the Plan Area and all 156 trees in the off-site fill area. None of the trees identified are oak or walnut trees and therefore are not protected by the City of walnut oak/walnut tree preservation ordinance. Therefore, the Specific Plan is consistent with local policies specifying protection of oak and walnut trees. The impact would be less than significant.	None required.	Less than significant
Impact CR-1 Construction of the Specific Plan would involve ground disturbing activities, including grading and excavation, which have the potential to impact unknown subsurface archaeological resources. Impacts would be less than significant with mitigation incorporated.	**CR-1a Workers Environmental Awareness Program Training** A qualified archaeologist, defined as an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology (NPS 1983; hereafter qualified archaeologist), shall be retained to perform all mitigation measures related to archaeological cultural resources for the project. Workers Environmental Awareness Program (WEAP) training shall be prepared and implemented to address cultural resources issues that may arise during ground disturbing work at the Plan Area. The WEAP should include information about the laws and regulations that protect cultural resources, the penalties for the disregard of those laws and regulations, what to do if cultural resources are unexpectedly uncovered during construction, and contact information for the qualified archaeologist who shall be contacted in the case of unanticipated discoveries. The WEAP should include project specific information regarding the potential for and types of cultural resources that may potentially be encountered. **CR-1b Archaeological Monitoring** An archaeological monitor, under the direction of the qualified archaeologist, shall be present to monitor all initial ground-disturbing activities associated with the project, including but not limited to: vegetation removal, grading, boring, trenching, and excavation within the Plan Area. Monitoring activities shall be coordinated with a Native American monitor, as presented under mitigation measure CR-4(a). If, during initial ground disturbance, the qualified archaeologist determines that ground disturbances would occur within culturally sterile soils, and that the ground disturbing activities have little or no potential to impact archaeological resources, the qualified archaeologist may recommend that monitoring may be reduced or eliminated. This decision will be made in consultation with the Native American monitor and the City of Walnut, and the final decision to reduce or eliminate monitoring will be at the discretion of the City. Monitoring may additionally be reduced to spot-checking; if this method is implemented, an archaeological monitor	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
	will spot-check in areas of new ground disturbances to verify if soils are still sterile. If cultural resources are encountered during ground disturbance, work within the immediate area must halt and the find must be evaluated for State and/or federal significance consistent with Mitigation Measure CR-1c. **CR-1c Unanticipated Discovery of Archaeological Resources** If archaeological resources are encountered during ground-disturbing activities, work in the immediate area and within a 50-foot radius of the discovery shall halt and the qualified archaeologist shall be contacted immediately to evaluate the find. The qualified archaeologist may recommend an extended Phase I (XPI) or Phase II subsurface testing program to determine the resource's boundaries, assess the integrity of the resource, and evaluate the resource's significance through a study of its features and artifacts. Construction activities can continue in areas 50 feet away from the find and in areas not associated with the cultural resource location. If the resource is determined to not be significant, no further archaeological investigation or mitigation shall be required. If the resource is determined to be significant, the qualified archaeologist in consultation with the Native American monitor and City shall develop a mitigation plan. If avoidance is not feasible, the parties shall evaluate whether the resource can be capped. If such capping occurs, the qualified archaeologist and Native American monitor shall monitor the placement of fill upon the resource. If capping is not feasible, the results and recommendations of the XPI/Phase II study shall determine the need for a Phase III data recovery program, designed to record and remove significant cultural materials that could otherwise be disturbed or impacted by project construction. If a Phase III data recovery program is warranted, a Cultural Resources Data Recovery Plan (CRDR Plan) shall be developed by the qualified archaeologist to outline excavation and laboratory procedures. The CRDR Plan shall be submitted to the City of Walnut for review and approval prior to proceeding. Upon completion of monitoring and any necessary XPI/Phase II and/or Phase III excavation, a report detailing the work performed shall be completed and submitted to the City of Walnut.	
Impact CR-2 Construction of the Specific Plan would involve ground-disturbing activities, including grading and excavation, which have the potential to impact unknown subsurface paleontological resources. Impacts would be less than significant with mitigation incorporated.	**CR-2a Paleontological Mitigation and Monitoring Program** Prior to construction activity, a qualified paleontologist shall prepare a Paleontological Mitigation and Monitoring Program (PMMP) to be implemented during ground disturbing activities related to development within the Plan Area. This program should outline the procedures for construction staff Worker Environmental Awareness Program (WEAP) training, paleontological monitoring extent and duration, salvage and preparation of fossils, the final mitigation and monitoring report, and paleontological staff qualifications. **CR-2b Paleontological Worker Environmental Awareness Program (WEAP**) Prior to the start of construction, the qualified	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
	paleontologist or his or her designee shall conduct training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. The WEAP shall be fulfilled at the time of a preconstruction meeting at which a qualified paleontologist shall attend. **CR-2c Paleontological Resource Construction Monitoring** Ground-disturbing construction activities (including grading, trenching, foundation work and other excavations) in undisturbed sediments with high paleontological sensitivity (i.e., the Yorba Member of the Miocene Puente Formation), determined in accordance with criteria set forth by SVP (2010), shall be monitored on a full-time basis by a qualified paleontological monitor during initial ground disturbance. The duration and timing of the monitoring will be determined by the qualified project paleontologist. If the qualified paleontologist determines that full-time monitoring is no longer warranted, he or she may recommend that monitoring be reduced to periodic spot-checking or cease entirely. The qualified paleontologist may reduce or cease monitoring if he/she determines that the lithology or fill present is not conducive to the preservation of fossils (based upon the criteria set forth by SVP [2010]). Monitoring shall be reinstated if any new or unforeseen deeper ground disturbances are required and reduction or suspension would need to be reconsidered by the qualified paleontologist. Ground-disturbing activities that do not occur in undisturbed sediments with high paleontological sensitivity would not require paleontological monitoring. If fossils are discovered, the qualified paleontologist shall recover them. Once salvaged, significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition and curated in a scientific institution with a permanent paleontological collection (such as the Natural History Museum of Los Angeles County), along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the qualified paleontologist. **CR-2d Final Paleontological Mitigation Report** Upon completion of ground-disturbing activities (and curation of fossils if necessary) the qualified paleontologist shall prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring program. The report shall include discussion of the location, duration and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils, and where fossils were curated.	
Impact CR-3 Construction of the Specific Plan would involve ground-disturbing activities, including grading and excavation, which have the potential to impact unknown subsurface human remains. Impacts would be less than significant.	No mitigation required.	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
Impact CR-4 No tribal cultural resources have been identified in the Plan Area. However, construction of the Specific Plan would involve ground-disturbing activities including grading and excavation, which have the potential to impact unknown subsurface tribal cultural resources. Impacts would be less than significant with mitigation incorporated.	**CR-4a Native American Monitoring** A Native American monitor shall be retained to monitor all initial ground disturbing activities associated with the project, including but not limited to: vegetation removal, grading, boring, trenching, and excavation within the Plan Area and shall work in coordination with the qualified archaeologist. The Native American monitor will complete monitoring logs on a daily basis which will provide descriptions of daily activities, construction locations, soil types, and cultural materials identified, if any. If, during initial ground disturbance, it is determined that ground disturbance would occur within culturally sterile soils, and that the ground-disturbing activities have little or no potential to impact cultural resources, monitoring may be reduced or eliminated. This decision will be made in consultation with the qualified archaeologist, Native American monitor, and the City of Walnut. The final decision will be made by the City of Walnut. **CR-4b Unanticipated Discovery of Tribal Cultural Resources** In the event that the Native American monitor identifies a tribal cultural resource during monitoring, the monitor shall be given the authority to temporarily halt construction in the immediate vicinity and within a 50-foot buffer of the discovery. The Native American monitor, in consultation with the City of Walnut, and the qualified archaeologist, shall determine whether the find qualifies as a tribal cultural resource under CEQA. If the resource is determined to be Native American in origin, the appropriate Native American tribe shall coordinate with the landowner regarding treatment of the resource(s). This may include preservation in place (i.e. avoidance), reburial, or collection and curation. Construction activities may resume in areas not associated with the location of the find. If the discovery proves to be significant, additional work such as testing and data recovery may be warranted. At the completion of monitoring and/or field work, all artifacts of Native American origin shall be returned to the appropriate Native American tribe.	Less than significant
Impact GEO-1 Development facilitated by the Specific Plan may result in exposure of people or structures to geologic hazards, including seismic ground shaking and landslides. This is a common hazard that is present throughout the region. However, the project would not increase the potential for such hazards or create new hazards. In addition, construction activities would comply with the recommended conditions of approval. Impacts would be less than significant with mitigation incorporated.	**GEO-1 Recommendations of the Geotechnical Report** The developer and all contractors shall follow all recommendations of the 2018 NMG Geotechnical report. Prior to the issuance of grading and building permits, the City Engineering Department and City Building and Safety Department shall review and approve the detailed construction plans to ensure such plans implement the recommendations specified in the project's geotechnical report prepared by NMG Geotechnical, Inc. in 2018 (Appendix G to the EIR) and the future detailed geotechnical report (for precise grading, foundations, and construction) required pursuant to the NMG Geotechnical geotechnical report (per recommendation No. 3.18). The following recommendations from the geotechnical investigation report shall be implemented: **Remedial Removals** Unsuitable earth materials shall be removed prior to placement of proposed fill. Unsuitable materials at the site include undocumented fills, topsoil, colluvium, and	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
	weathered bedrock. Estimated removal depths across the site are anticipated to vary on the order of 5 to 25 feet. The removal bottom shall expose competent bedrock material and shall be evaluated, mapped and accepted by the geotechnical consultant prior to scarification/recompaction and placement of compacted fill. **General Earthwork and Grading** Prior to commencement of grading operations, deleterious material (including highly organic material, vegetation, trash, unsuitable debris) shall be cleared from the site and disposed of offsite. Grading and excavations shall be performed in accordance with the City of Walnut Grading Code and the General Earthwork and Grading Specifications in Appendix E of the 2018 NMG Geotechnical report. Prior to placement of fill, removal bottoms shall be scarified a minimum of six inches, moisture-conditioned as needed, and compacted to a minimum 90 percent relative compaction. Where fills are greater than 40 feet thick (including remedial grading and behind MSE walls) fill materials shall be compacted to a minimum of 93 percent relative compaction. Relative compaction shall be based upon ASTM Test Method D1557. Moisture content of fill soil shall be over optimum moisture content. Consideration shall be given to placing fill at higher moisture contents to facilitate the subgrade presoaking process under slabs-on-grade. Native materials that are relatively free of deleterious material shall be suitable for use as compacted fill. Fill material shall be placed in loose lifts no greater than eight inches in thickness and compacted prior to placement of the next lift. Ground sloping greater than 5H:1V shall be prepared by benching into firm, competent material as fill is placed. **Slope Stabilization** *General Slope Stability* During grading, backcut and keyway excavations shall be mapped and evaluated by the geotechnical consultant to verify the anticipated conditions. If the conditions are different than anticipated, cross-sections shall be updated to perform slope stability analysis, and the remedial grading measures shall be modified, as necessary. The excavations shall be evaluated and accepted by the geotechnical consultant prior to placement of the subdrain and/or backfill. For surficial stability purposes, stabilization fills are recommended where bedrock is exposed. Where unfavorable conditions are anticipated, cross-sections shall be prepared and slope stability analysis performed to design the necessary buttresses for slope stabilization. MSE wall construction will require excavation of a backcut and keyway within bedrock (in design cut areas) for construction and placement of grid in the reinforced soil zone. Preparation of cross-sections depicting the bedrock structure and global slope stability analysis shall be performed to verify the adequacy of the geogrid type, embedment depth, spacing, and wall design. The reworked onsite soils are anticipated to provide adequate strength for the gross and surficial stability of	

Impact	Mitigation Measure (s)	Residual Impact
	the proposed fill slopes at 2H:1V inclinations or flatter. A base fill key shall be provided for the majority of these slopes. The depth of the key shall be a minimum of two feet into competent earth material, at least 15 feet wide, and have a one-foot tilt back into the slope. Fill slopes are anticipated to be stable as designed provided they are constructed in accordance with the details in the General Grading and Earthwork Specifications (Appendix E) of the NMG Geotechnical report. Slopes may be subject to erosion, and shall be planted as soon as practical. *Temporary Slope Stability* Temporary slopes will be created as a result of the backcuts for MSE wall construction, recommended stabilization fill keys (if any), as well as for remedial removals adjacent to natural slopes, adjacent property, or existing improvements. The actual stability of the backcuts will depend on many factors, including the geologic bedding, jointing, seepage (if any), and the amount of time the excavation remains exposed. Extra care and attention shall be provided while grading next to adjacent properties. Measures to mitigate potential backcut failure shall include the following: ▪ Excavations shall not be left open for long periods of time and shall be backfilled as soon as practical (i.e., backfilled prior to the weekend or holiday, if possible). ▪ The backcut and frontcut shall be carefully excavated at the recommended slope angles and "on grade" to reduce oversteepened areas. Cutting areas at steeper angles may result in slope failure. ▪ The backcut and frontcut shall be "slope-boarded" on a routine basis so that the geotechnical consultant can map the slope carefully during excavation and help to notify the project team of critically unstable areas. This will also allow those working below the excavation to observe any potential failures. ▪ If necessary, slope excavations may need to be constructed in sections (on the order of 100 to 200 feet long); smaller sections may be necessary if backcut failures occur. **MSE Walls** MSE walls ("Verdura") will be designed by soil retention, based on soil shear strength and site seismic design parameters provided by NMG Geotechnical. Cross-sections shall be prepared and global slope stability analysis shall be performed to confirm that the overall slopes with walls meet the required minimum factors of safety. Based on NMG Geotechnical's review of the site soil engineering characteristics, MSE walls are geotechnically feasible for this project. NMG Geotechnical's exploration and soil testing indicates that there are sufficient quantities of earth materials at the site which will meet the minimum soil property requirements for the MSE walls. The granular material meeting the MSE wall criteria is located in the southern half of the site. Select grading may be required to generate this backfill material. The walls should be constructed in accordance with the plans and specifications on the approved plans. The manufacturer's representative (Soil Retention) should be	

Impact	Mitigation Measure (s)	Residual Impact
	present during construction to verify the proper installation of the blocks and geogrid. Representatives of the geotechnical consultant should also be present to observe and test compacted fill and drainage systems. **Foundation Setbacks** The footings of structures located above descending slopes should be set back from the slope face in accordance with the minimum requirements of the City of Walnut and CBC criteria, whichever is greater. The setback distance is measured from the outside edge of the footing bottom along a horizontal line to the face of the slope. NMG Geotechnical understands that an alternative (reduced) foundation setback criteria was previously requested (GeoTek, 2018) and conceptually accepted by the City of Walnut. The reduced foundation setback will allow for the slope height (H) to be taken as the height of the slope above the top of the planned MSE walls. NMG Geotechnical generally concurs with the alternative setback criteria; however, additional geotechnical analysis should be anticipated to further evaluate the condition at 40-scale and for final City approval. Additionally, the geotechnical consultant should review planned top of slope improvements, foundation loads, and provide additional recommendations for deepened foundations, if required. The Structural Setback Requirements table provided in the geotechnical report summarizes the minimum setback criteria for structures above descending slopes. For freestanding walls and other structures that are sensitive to lateral movement (e.g., smooth stucco finish, glass screens, etc.), NMG Geotechnical recommends that the structural setback requirements in accordance with Case A above be followed or that additional design measures be used to help control the potential for cracking and displacements. Otherwise, typical freestanding walls may have a setback in accordance with Case B. **Groundwater** Groundwater and/or seepage lies relatively deep below the site and varies based on location within the site. NMG Geotechnical does not anticipate that groundwater will be encountered during grading and construction. However, if the site is graded after a significant rainy period/winter, perched groundwater could be encountered during grading. Also, nuisance seepage may be encountered locally within structural elements, such as faults and folds, which act as groundwater traps. **Liquefaction and Seismic Settlement** Potentially liquefiable layers may be present in the colluvium deposits at the site. Based on available information, the potential for liquefaction is low. Additionally, the preliminarily designed remedial grading will remove all existing colluvium and be replaced with compacted fill over bedrock. **Seismic Design Guidelines** The seismic design criteria for the project site are developed in accordance with ASCE 7-10 and 2016 CBC, as shown in the geotechnical report. The data is included	

Impact	Mitigation Measure (s)	Residual Impact
	in Appendix D of the geotechnical report. **Settlement Conditions and Monitoring** The proposed design fill, above the existing ground at the site, is up to 85 feet thick (100 feet, including remedial removals). Following completion of remedial removals at the site, NMG Geotechnical anticipates competent bedrock to be exposed at the removal bottoms prior to placement of fill materials. The anticipated settlement of the fill soils under its own weight can be on the order of several inches. A large portion of the settlement will likely occur during grading operations. NMG Geotechnical recommends monitoring of settlement upon completion of grading in locations where there is greater than 60 feet of total fill (including remedial grading). Settlement monuments should be installed at finish grade, based on the conditions observed during grading and the anticipated construction sequence for the future development. The monuments should be surveyed every two weeks for three months and monthly thereafter to initialize and monitor settlement trends. NMG Geotechnical does not expect the settlement monitoring to require more than three to six months. Survey data for settlement monuments shall be forwarded to the geotechnical consultant after each reading. The settlement devices shall be protected in-place to ensure integrity of the data collection. The settlement estimates and monitoring duration may be subject to revision based upon the collected monitoring data within settlement-prone areas. In general, long-term settlement shall not exceed one to two inches once an area is released from a geotechnical standpoint. Also, differential settlement shall not exceed one inch over a 30-foot span. **Rippability and Placement Of Oversize Material** The bedrock at the site includes dense sandstone and siltstone beds that may be locally difficult to rip in the deeper cuts. NMG Geotechnical anticipates that the rock will be rippable using D-9/D-10 bulldozers in the planned excavations (up to 100 feet deep). Locally, the planned cuts may produce oversize rock (greater than 12 inches in size) that may be placed in the deeper fills. The rock may be placed in fills deeper than 10 feet below design lot/pad grade and deeper than any planned utilities within streets. However, oversize rock shall not be placed within the geogrid reinforced fill associated with the planned MSE walls. The Grading and Earthwork Specifications in Appendix E of the geotechnical report includes the details of the placement of oversize rock. **Lot Capping/Overexcavation** The proposed grading is anticipated to expose cut and fill transitions at finish grade within some lots. The cut portions of pads and streets exposing bedrock should be overexcavated to a minimum depth of five feet and replaced with compacted fill to provide a uniform fill cap over each lot. In areas where hard rock is exposed at grade and cannot be easily excavated with equipment or backhoes,	

Impact	Mitigation Measure (s)	Residual Impact
	overexcavation shall be considered to facilitate future construction and utility installation. Additional lot overexcavation/capping may also be recommended during grading in areas were earth materials are very different within an individual lot, such as in areas where highly expansive claystone beds are encountered adjacent to sandstone. **Subdrainage** Canyon-type subdrains (nine cubic feet of gravel per linear foot, with one-inch, Schedule 40, perforated pipe wrapped in filter fabric) shall be placed on the removal bottom or sides of the canyons/swales and provided with outlets into the future storm drain systems. Backdrains (three cubic feet of gravel per linear foot, with four-inch, Schedule 40, perforated pipe wrapped in filter fabric) shall also be provided for stabilization fills at 30-foot-vertical intervals with outlets every 100 feet through the slope face. During grading, additional subdrains may be necessary for areas where seepage is encountered. **Expansion Potential and Sulfate Exposure** The expansion potential of the onsite soils ranges from "very low" to "very high," as classified by ASTM D4829. Grading and lot capping are likely to blend the soils so that at the completion of grading most of the residential lots shall fall within the "medium" range. During and at the completion of grading operations, soil samples shall be collected and tested for expansion potential to confirm anticipated conditions. Additional soil testing and analysis will also be required for structural design recommendations. Based on laboratory testing, soluble sulfate exposure in the onsite soils range in classification from "S0" to "S2" per Table 19.3.1.1 of ACI-318-14. At the completion of grading NMG Geotechnical anticipates that the sulfate classification will vary across the site. Soil samples shall be collected at finish grade and tested for soluble sulfate content at the completion of rough grading. **Surface Drainage** Surface drainage shall be carefully taken into consideration during all grading, landscaping, and building construction. Positive surface drainage shall be provided to direct surface water away from structures and slopes and toward the street or suitable drainage devices. Ponding of water adjacent to the structures shall not be allowed. Paved areas shall be provided with adequate drainage devices, gradients, and curbing to reduce run-off flowing from paved areas onto adjacent unpaved areas. The performance of foundations is also dependent upon maintaining adequate surface drainage away from structures. The minimum gradient within five feet of the structures will depend upon surface landscaping. In general, NMG Geotechnical recommends that unpaved lawn and landscape areas have a minimum gradient of two percent away from structures immediately adjacent to structures, and a minimum gradient of one percent for devices, such as swales, to collect this runoff and direct it toward the street or other appropriate collection points.	

Impact	Mitigation Measure (s)	Residual Impact
	Maintenance of Graded Slopes To reduce the erosion and slumping potential of the graded slopes, all permanent manufactured slopes shall be protected from erosion by planting with appropriate vegetation, or suitable erosion protection shall be applied as soon as is practical. Proper drainage shall be designed and maintained to collect surface waters and direct them away from slopes. A rodent-control program shall be established and maintained as well, to reduce the potential for damage related to burrowing. In addition, the design and construction of improvements and landscaping shall also provide appropriate drainage measures. **Protection of Existing Improvements** Existing utilities and improvements shall be located and marked during grading operations. Grading and construction activities near existing structures, streets, pipelines, etc., shall be performed with care and under the direction of the improvement or utility company. Stockpiling of soils over utility lines shall not be allowed without prior acceptance by the utility company. Excavations adjacent to existing improvements or utilities shall be performed with care, so as not to undermine or destabilize the adjacent ground. Where significant fill loading is planned, geotechnical analysis shall be performed to evaluate settlement impacts to adjacent properties. **Geotechnical Review of Future Plans** Future grading plans and any revisions/changes in the current plan for the site shall be reviewed and accepted by the geotechnical consultant prior to grading. A geotechnical report with recommendations specific to the grading plan and construction is anticipated at the 40-scale plan stage for submittal to the City and to be used as a basis for grading. The geotechnical consultant shall also review future precise grading and foundation plans. A geotechnical report with recommendations for design and construction shall be prepared. **Geotechnical Observation and Testing During Grading** The findings, conclusions and recommendations in this report are based upon interpretation of data and data points having limited spatial extent. Verification and refinement of actual geotechnical conditions during grading is essential, especially where slope stabilization is involved. At minimum, geotechnical observation and testing shall be conducted during grading operations at the following stages: ▪ During and following clearing and grubbing, prior to site processing; ▪ During and following remedial removals to evaluate and accept the removal bottom; ▪ During and following cutting of slopes and excavation of slope stabilization measures; ▪ During installation of subdrains; ▪ During placement of compacted fill; ▪ During abandonment of groundwater and/or oil wells; ▪ During construction of utility lines (if applicable);	

Impact	Mitigation Measure (s)	Residual Impact
	▪ During and upon completion of excavations for storm drain structures and during trench backfill; ▪ During pavement subgrade and aggregate base preparation for street pavements; and ▪ When any unusual or unexpected geotechnical conditions are encountered during grading and construction.	
Impact GEO-2 Construction activities would include temporary ground disturbance such as excavation and grading that would result in loose or exposed soil. This disturbed soil could be eroded by wind or during a storm event, which could result in the loss of topsoil. Compliance with applicable regulations, including the Clean Water Act and the Walnut Municipal Code, would minimize the potential for erosion and loss of topsoil. Impacts would be less than significant.	No mitigation required.	Less than significant
Impact GEO-3 Development of the Specific Plan may result in the construction of structures on expansive soils, which could create a substantial risk to life or property. However, all new development would be required to comply with the standards of the California Building Code, which would ensure that expansive soils are remediated or that foundations and structures are engineered to withstand the forces of expansive soil. The proposed Specific Plan would not exacerbate existing soil conditions in the Plan Area. Impacts would be less than significant.	No mitigation required.	Less than significant
Impact GHG-1 The Specific Plan would be consistent with the SCAG RTP/SCS and State Scoping Plan with implementation of mitigation. Impacts would be less than significant with mitigation incorporated.	**GHG-1a On-site Solar** All new residential construction in the Plan Area prior to the 2019 California Building Code cycle shall include solar photovoltaic arrays or alternative renewable energy generation to 2019 California Building Code standards, unless deemed infeasible due to site characteristics or roof space availability by the City of Walnut staff on a case-by-case basis. All new commercial buildings with anticipated electricity usage greater than 50,000 kilowatt hours yearly shall be required to maximize the installation of cost-effective solar photovoltaic systems to offset building energy use, where cost-effective is defined as a payback period of 10 years or less. **GHG-1b New Building Efficiency** All new buildings constructed in the Specific Plan Area shall be built to Cal Green Tier 1 standards as defined by the California Building Code.	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
Impact HWQ-1 Specific Plan Area development would be subject to federal, state, and local requirements for protecting water quality, as well as policies contained in the Specific Plan supporting stormwater management. Compliance with applicable regulations and policies would prevent violation of water quality standards or waste discharge requirements. Impacts would be less than significant.	No mitigation required.	Less than significant
Impact HWQ-2 The quantity of runoff from the Plan Area could potentially affect the ability of the existing storm drain system to handle stormwater flows. However, installation of stormwater runoff detention basins would ensure that the project would not increase peak runoff or otherwise adversely affect the local storm drain system. Impacts would be less than significant.	No mitigation required.	Less than significant
Impact LU-1 Upon approval of the Specific Plan, General Plan amendment, and zone change, the project would comply with applicable land use policies, plans and regulations. Potential conflicts with applicable land use plans, policies or regulations would be less than significant.	No mitigation required.	Less than significant
Impact N-1 Construction activities would generate short-term noise on and adjacent to the site that would affect existing noise-sensitive receptors near the Plan Area. However, impacts would be less than significant due to the temporary nature of project construction, and compliance with the City's noise ordinance. Although temporary noise impacts are less than significant, mitigation measures are incorporated to further reduce construction noise.	**N-1a Construction Hours** Construction activities shall not take place outside of the allowable hours specified by the WMC Section 3.40.030(A) (i.e., 7:00 a.m. and 8:00 p.m. on weekdays) with no construction permitted on Saturdays, Sundays or holidays. **N-1b Construction Notice** Two weeks prior to the commencement of construction at the Plan Area, notification shall be provided to the owners and tenants of adjacent residential properties within a 500-foot radius of the Plan Area, disclosing the planned construction schedule, including the various types of activities and equipment that would be occurring throughout the duration of the construction period. This notification shall also provide a contact name and phone number for these properties to call for construction noise-related complaints. All reasonable concerns shall be rectified within 24 hours of receipt. **N-1c Fixed Equipment Locations** The contractor shall provide staging areas onsite to minimize off-site transportation of heavy construction equipment. These areas shall be located to maximize the distance between activity and sensitive receptors. This would reduce noise levels associated with most types of idling construction equipment. Locate fixed and/or stationary equipment as far as possible from noise-sensitive receptors (e.g., generators, compressors, rock crushers, cement mixers). **N-1d Mufflers** During all project site excavation and grading, all construction equipment, fixed or mobile, shall be	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
	operated with closed engine doors and shall be equipped with properly operating and maintained mufflers consistent with manufacturers' standards capable of reducing engine noise by at least 15 dBA. **N-1e Electrically-Powered Tools and Facilities** Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or caretaker facilities. **N-1f Impact Tools and Power Equipment** Impact tools shall be shrouded or shielded. All intake and exhaust ports on power equipment shall be muffled or shielded. **N-1g Equipment Idling** Construction vehicles and equipment shall not be left idling for longer than five minutes when not in use. **N-1h Workers' Radios** All noise from workers' radios shall be controlled to a point that they are not audible at sensitive receptors near construction activity. **N-1i Smart Back-up Alarms** Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction.	
Impact N-2 Construction activities would generate temporary groundborne vibration that would affect existing noise-sensitive receptors near the plan area. However, impacts would be less than significant.	No mitigation required.	Less than significant
Impact N-3 Activities associated with operation of the Specific Plan would generate noise that may periodically be audible to existing noise-sensitive uses near the Plan Area and proposed noise-sensitive uses in the Plan Area. Operational noise sources would include recreation noise, vehicle circulation noise, residential noise, commercial/retail noise, and noise from deliveries, trash hauling, and HVAC. However, with adherence to the City's noise ordinance, impacts would be less than significant.	No mitigation required.	Less than significant
Impact N-4 Traffic generated by development of the Specific Plan would incrementally increase traffic-related noise on adjacent roadway under existing plus project and future plus project conditions. However, the change in noise levels would not exceed thresholds or be perceptible. Therefore, the increased traffic noise would result in a less than significant impact.	No mitigation required.	Less than significant.

Impact	Mitigation Measure (s)	Residual Impact
Impact N-5 Although the effect of ambient noise on a proposed project is not an analysis requirement under CEQA, the existing noise levels at the Plan Area are provided for public disclosure. The Plan Area would not be exposed to noise levels that exceed the City's land use compatibility standards. Impacts would be less than significant.	No mitigation required.	Less than significant
Impact PH-1 Development of the Specific Plan may directly and indirectly increase the City's population. However, this population growth would be consistent with and fall within the City's housing element and SCAG population forecasts. Therefore, the Specific Plan would not induce population growth beyond that already planned. Impacts related to inducement of substantial population growth would be less than significant.	No mitigation required.	Less than significant
Impact PS-1 Development associated with the Specific Plan would increase the City's population and, therefore, increase demand for fire protection services. However, the Specific Plan would not create the need for new or expanded fire protection facilities. Impacts to fire protection services would be less than significant.	No mitigation required.	Less than significant
Impact PS-2 Development associated with the Specific Plan would increase the City's population, which would increase the demand for parks and recreation facilities. However, the City's existing parkland would remain above the Quimby Act standard of three acres per 1,000 residents, substantial deterioration of the City's existing recreational facilities would not occur, and the proposed on-site parks recreation facilities would not adversely affect the environment. Therefore, impacts related to parks and recreation facilities would be less than significant.	No mitigation required.	Less than significant
Impact T-1 Implementation of the Specific Plan would generate traffic at study area intersections, resulting in significant impacts at two of the 13 study intersections. Implementation of mitigation at the Grand Avenue/La Puente intersection would reduce impacts to a less than significant level. However, project-generated traffic would cause the Grand Avenue/Valley Boulevard intersection to exceed the threshold under existing plus project traffic conditions. Because no feasible mitigation measures for the Grand Avenue/Valley Boulevard intersection were identified, impacts to this intersection would remain significant and unavoidable.	**T-1 Grand Avenue/La Puente Road** Project construction plans shall include installation of a right-turn overlap traffic signal phasing at the eastbound approach.	Significant and unavoidable

Impact	Mitigation Measure (s)	Residual Impact
Impact T-2 The project driveway would provide adequate site access and would not create hazardous traffic conditions with incorporation of circulation and access recommendations provided in the Traffic Study. Therefore, impacts associated with the Specific Plan would be less than significant.	No mitigation required.	Less than significant
Impact T-3 The Specific Plan does not include design features that would impede emergency vehicle access. However, potential impacts to emergency access may occur during the construction period. Potential impacts would be less than significant with mitigation incorporated.	**T-4a Construction Traffic Management Plan**	Less than significant
Impact T-4 Construction activities for the Specific Plan would result in traffic impacts due to haul truck traffic, equipment and material deliveries, worker traffic, worker parking, and a temporary lane closure along Valley Boulevard. Impacts associated with construction of the proposed project would be less than significant with mitigation incorporated.	**T-4a Construction Traffic Management Plan** The applicant shall create a Construction Traffic Management Plan to minimize traffic flow interference from construction activities. The Construction Traffic Management Plan shall be subject to review and approval by the Director of Community Development or his/her designee and shall include the following components at a minimum: ▪ Maintain existing access for land uses in the proximity of the Plan Area during project construction. ▪ Schedule deliveries and pick-ups of construction materials during non-peak travel periods, to the maximum extent feasible. ▪ Coordinate haul trucks, deliveries and pick-ups to reduce the potential for trucks waiting to load or unload for protracted periods of time; the project shall be limited to a certain number of truck trips per hour, to be identified by the Director of Community Development. ▪ Minimize obstruction of through-traffic lanes on Valley Boulevard. ▪ Designated transport routes for heavy trucks and haul trucks to be used over the duration of the proposed project. ▪ No staging of trucks shall occur within the public right-of-way within the City of Walnut; ▪ Establish requirements for loading/unloading and storage of materials on the Plan Area where parking spaces can be encumbered and length of time traffic travel lanes can be encumbered, and require sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses. ▪ Every stage of construction requires a traffic plan to be reviewed by the Director of Community Development or his/her designee. ▪ Coordinate with adjacent businesses and emergency service providers to ensure adequate access exists to the Plan Area and neighboring businesses. ▪ No construction worker parking at MDRS or Walnut-Diamond Bar Sheriff Station lots The Construction Traffic Management Plan shall be submitted and approved by the Director of Community Development or his/her designee prior to issuance of a grading permit.	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
	T-4b Construction Workers Parking Plan The applicant shall submit a Construction Workers Parking Plan identifying parking locations for construction workers prior to the issuance of a grading permit. To the maximum extent feasible, all worker parking shall be accommodated on the Plan Area. During construction activities when construction worker parking cannot be accommodated on the Plan Area, the Plan shall identify alternate parking locations for construction workers and specify the method of transportation to and from the Plan Area for approval by the Director of Community Development or his/her designee prior to issuance of a grading permit. The Construction Workers Parking Plan must include appropriate measures to ensure that the parking location requirements for construction workers will be strictly enforced. These include but are not limited to the following measure: ▪ All construction contractors shall be provided with written information on where their workers and their subcontractors are permitted to park and provide clear consequences to violators for failure to follow these regulations. This information will clearly state that no parking is permitted on residential streets including North Pacer Court, Timberland Drive, and Roundup Drive, or along Valley Boulevard.	
Impact T-5 The Specific Plan would not involve any disruptions to the local active transportation system and would not conflict with applicable policies associated with public transit. Therefore, impacts would be less than significant.	No mitigation required.	Less than significant
Impact T-6 Traffic conditions at all study intersections would generally worsen under implementation of the Specific Plan. Mitigation Measures would reduce potentially significant impacts to the Grand/La Puente (T-1) Pierre Road/Valley Boulevard (T6a) and the Grand Avenue/Garcia Lane (T6b) intersections. However, the improvements identified under measures T-6a and T-6b are for intersections that are outside of the jurisdiction of the City of Walnut. No feasible mitigation is available for the Snow Creek Drive/Grand Avenue and Valley Boulevard/Grand Avenue intersections due to right-of-way constraints. Impacts would remain significant and unavoidable.	**T-6a Pierre Road/Valley Boulevard** The City of Walnut shall coordinate with County of Los Angeles to implement the following intersection improvements: ▪ Construct the southbound approach to consist of one left-turn lane and one shared left/right-turn lane; ▪ Modify signal timing to provide exclusive pedestrian crossing phase for the east leg. ▪ Restripe the westbound approach to provide a third westbound through lane. **T-6b Grand Avenue/Garcia Lane** The City of Walnut shall coordinate with City of Industry to implement the following intersection improvements: ▪ Restripe the northbound approach to provide one additional northbound through lane.	Significant and unavoidable
Impact U-1 The San Jose Creek Water Reclamation Plant and Joint Water Pollution Control Plant would be able to adequately treat project-generated sewage and the treatment requirements of the RWQCB would not be exceeded. However, the Specific Plan would include extension of the existing sewer line along Valley Boulevard. Potential impacts would be temporary during the construction period, and the sewer line extension would not affect the function or capacity of the wastewater treatment plant. Therefore,	No mitigation required.	Less than significant

Impact	Mitigation Measure (s)	Residual Impact
potential impacts would be less than significant.		
Impact U-2 Development under the Specific Plan would increase water demand in the Plan Area by an estimated 158 acre-feet per year (AFY). A portion of water demand would be met with recycled water. Existing and projected water supplies would be adequate to serve the Specific Plan. Impacts would be less than significant.	No mitigation required.	Less than significant
Impact U-3 The Specific Plan would generate solid waste, but would not result in a substantial increase in waste processed by the Grand Central Recycling and Transfer Station, or be served by a landfill without sufficient capacity. Impacts would be less than significant.	No mitigation required.	Less than significant

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1 Introduction

This document is an Environmental Impact Report (EIR) for the proposed "Terraces at Walnut Specific Plan," which would govern development of a 49-acre site that consists of three parcels (APNs 8709-023-273, 8709-023-274, 8719-023-275) in the City of Walnut, California. The proposed Specific Plan (hereafter referred to as the "Specific Plan" or "project") would allow development of a site (hereafter referred to as "Plan Area") that is undeveloped, except for a small concrete V-ditch and several plastic utility boxes about 2x1x1 feet in size scattered in the southern portion of the Plan Area. The project would involve a mixed-use infill project that includes a mix of housing types, a commercial district, recreation areas, and open space. Development would also include parking, streets, landscaping, and public infrastructure improvements. The proposed recreation areas would consist of a neighborhood park, pocket parks, and accessible open space.

This section discusses (1) the project and EIR background; (2) the legal basis for preparing an EIR; (3) the scope and content of the EIR; (4) issue areas found not to be significant by the Initial Study; (5) the lead, responsible, and trustee agencies; and (6) the environmental review process required under the California Environmental Quality Act (CEQA). The proposed project is described in detail in Section 2, *Project Description*.

1.1 Environmental Impact Report Background

The City of Walnut distributed a Notice of Preparation (NOP) of a Draft EIR for a 30-day agency and public review period starting on January 26, 2018 and ending on February 26, 2018. In addition, the City held an EIR Scoping Meeting on February 12, 2018. The meeting, held from 6:00 PM to 8:00 PM, was aimed at providing information about the proposed project to members of public agencies, interested stakeholders, and residents/community members, and obtaining public comments regarding the scope of environmental issues that should be addressed by the City in the Draft EIR. The meeting was held at the City of Walnut Senior Center at 21215 La Puente Road.

The City received letters from five agencies and nine members of the public in response to the NOP during the public review period, as well as various verbal comments during the EIR Scoping Meeting. The NOP is presented in Appendix B of this EIR, along with the Initial Study that was prepared for the project and the NOP responses received. Table 1-1 on the following page summarizes the content of the letters and Scoping Meeting comments, and identifies where the issues raised are addressed in the EIR or in the Initial Study.

1.2 Purpose and Legal Authority

The proposed project requires the discretionary approval of the City of Walnut Planning Commission and City Council; therefore, the project is subject to the environmental review requirements of CEQA. In accordance with Section 15121 of the *CEQA Guidelines* (California Code of Regulations, Title 14), the purpose of this EIR is to serve as an informational document that:

> "...will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project."

This EIR has been prepared as a project EIR pursuant to Section 15161 of the *CEQA Guidelines*. A Project EIR is appropriate for a specific development project. As stated in the *CEQA Guidelines*:

> "This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project, including planning, construction, and operation."

This EIR is to serve as an informational document for the public and City of Walnut decision makers. The process will include public hearings before the Planning Commission and City Council. The City Council will consider certification of a Final EIR and approval of the proposed project.

Table 1-1 NOP Comments and EIR Response

Commenter	Commenter Affiliation	Areas of Concern	Where Concern is Addressed
Hassan Sassi	Resident	Cultural resources impacts/contact with tribal representatives	Section 4.4, *Cultural Resources,* and Section 4.14, *Tribal Cultural Resources*, discuss impacts to tribal resources and tribal consultation conducted for the project.
		Alternatives analysis including the No Project Alternative	Section 6, Alternatives, provides an analysis of the No Project Alternative and three project alternatives.
		Impacts to schools	Potential impacts to schools were found to be less than significant in Section 14, *Public Services*, of the Intial Study (Appendix B).
		City retention of peer reviewer for EIR analysis	This comment is noted, but is not required under CEQA.
Kyle Wilson	Resident	Increased population density and proximity to retail	The increase in density is discussed in Section 4.10, *Population and Housing*, and Section 4.8, *Land Use and Planning*, discusses the land use compatability associated with a mixed-use development.
Susan Song	Resident	Provision of public services including library, police, and fire services	Section 4.11, *Public Services*, discusses impacts to public services.
		Potential increased noise from development of the proposed project.	Section 4.9, *Noise*, discusses short- and long-term noise impacts associated with the proposed project.
Frances Lee	Caltrans District 7	Integrate transportation and land use in a way that reduces vehicle miles traveled (VMT) and GHG emissions	Proximity of development to existing land uses and impacts to the local transportation systems are discussed in Section 4.8, *Land Use and Planning*, and Section 4.13, *Transportation and Traffic.*
		Transportation Demand Management (TDM) strategies, Intelligent Transportation System (ITS) applications, and transit service and bicycle or pedestrian connectivity improvements	Implementation of TDM strategies and active transportation improvements are discussed in Section 4.13, *Transportation and Traffic*.

Commenter	Commenter Affiliation	Areas of Concern	Where Concern is Addressed
		Traffic impacts from project construction	Section 4.13, *Transportation and Traffic*, discusses traffic impacts from construction activities.
Gayle Totton	Native American Heritage Commission	▪ Consultation with California Native American tribes affiliated with the geographic area of the Plan Area ▪ Consult legal counsel regarding compliance with AB 52, SB 18, and any other applicable laws	Section 4.4, *Cultural Resources*, discusses tribal consultation conducted for the proposed project in compliance with AB 52 and SB 18.
Nicole Liu	Resident	City only provided an English version of the NOP and did not provide a Chinese version	This is not an issue under CEQA and does not pertain to the content or quality of the EIR.
Duke Chang	Resident	Population density resulting from development of the proposed condominiums	The increase in density is discussed in Section 4.10, *Population and Housing*.
Vijay Vakil	Resident	Housing density and proximity of small lots to single-family residents	The increase in density is discussed in Section 4.10, *Population and Housing*, and Section 4.8, *Land Use and Planning*, discusses the land use compatability associated with different kinds of residential development.
		Fire hazards associated from having only one driveway entrance to the Plan Area	Section 4.13, *Transportation and Traffic*, discusses emergency access to the Plan Area.
		▪ Lack of pedestrian trails in the Plan Area plans ▪ Lack of open space in the Plan Area plans ▪ No parks or pocket parks included in Plan Area plan	Section 4.12, *Recreation*, discusses open space features proposed for the Plan Area, including parks, pocket parks, and accessible open space.
		No buffer zone between existing residences and proposed townhomes	Section 4.8, *Land Use and Planning*, discusses compatibility between existing and proposed residences, and Section 4.1, *Aesthetics*, discusses use of open space areas as a visual buffer between existing and proposed development.
Adriana Raza	County Sanitation Districts, Los Angeles County	Because the proposed project may require a direct connection to the Mount San Antonio Trunk Sewer, the project may require a Trunk Sewer Connection Permit to be issued by the County Sanitation Districts (Districts)	Sewer connections for the proposed project are discussed in Section 4.15, *Utilities and Service Systems*.
		▪ The San Jose Creek Water Reclamation Plant currently processes an average flow of 65.1 million gallons per day ▪ The Districts should review the project plans to determine whether or not sufficient truck sewer capacity exists to serve	Required sewer capacity for the proposed project is discussed in Section 4.15, *Utilities and Service Systems*.

Commenter	Commenter Affiliation	Areas of Concern	Where Concern is Addressed
		each project and if the District's facilities will be affected by the project	
Lijin Sun, J.D.	South Coast Air Quality Management District (SCAQMD)	The City should use the SCAQMD Air Quality Handbook and CalEEMod land use emissions software for air quality analysis	Section 4.2, *Air Quality*, discusses the software used to model land use emissions.
		The City should use SCAQMD regional and localized significance thresholds to determine air quality impacts	Section 4.2, *Air Quality*, discusses the localized significance thresholds used for the air quality analysis.
		▪ Air quality analysis should identify any potential adverse air quality impacts that could occur during project construction and operation ▪ The City should use mitigation measures provided in SCAQMD online resources as needed to reduce potential air quality impacts	Section 4.2, *Air Quality*, discusses air quality impacts generated during construction and operation of the proposed project, and includes applicable mitigation measures.
		Recommend that the City perform a mobile source health risk assessment for vehicle trips generated by the proposed project	Health impacts from vehicle emissions generated during operation of the proposed project are discussed in Section 4.2, *Air Quality*.
		▪ The City should consider use of enhanced filtration units on the proposed residential units if needed to reduce exposure to air pollution from nearby industrial uses ▪ The City should include discussion of implementation and monitoring of enhanced filtration units in the EIR	The industrial uses located across Valley Boulevard from the Plan Area are a printing shop and a auto body shop, which are not included in California Air Resources Board's (CARB) *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) as uses that are specific sources of air pollution. It should also be noted that, per recent direction from the California Supreme Court decision in *California Building Industry Association v. Bay Area Air Quality Management District* in 2015, impacts of the existing environment (such as health risks) on a project are not significant environmental effects under CEQA.
		The EIR should include sufficient information about air quality impacts under each project alternative	Air quality impacts associated with the four project alternatives are discussed in Section 6, *Alternatives*.
		If the proposed project requires an SCAQMD permit, SCAQMD should be identified as a responsible agency for the proposed project	No permits from the SCAQMD would be required.
Olivia Lee	Resident	Project helps address the lack of housing and resulting housing affordability within the City	Section 4.10, *Population and Housing*, discusses compatibility of the proposed project with the City's housing goals.

Commenter	Commenter Affiliation	Areas of Concern	Where Concern is Addressed
George Song	Resident	Traffic generated by the proposed project would add to traffic on Grand Avenue and Valley Boulevard generated from nearby projects in the City of Industry	Cumulative impacts from project-generated traffic are discussed in Section 4.13, *Transportation and Traffic*.
		Potential crowding from addition of 290 residential units	Increased development and population density is discussed in Section 4.10, *Population and Housing*.
		Water supply impacts from increased population	Section 4.15, *Utilities and Service Systems*, discusses water supply impacts resultant from water demand generated by the proposed project.
Judy Serrano	Resident	Changes to crime rate from the proposed project	Section 4.11, *Public Services*, discusses impacts to demand for police services.
		Dust generated during project construction	Section 4.2, *Air Quality*, discusses dust generated from project construction activities.
		▪ Disturbing gophers and other critters ▪ Effects to Dotty's animals	Impacts to listed and/or endangered species are discussed in Section 4.3, *Biological Resources*. Animals that are not listed as endangered, threatened or special status species are not subject to the requirements of regulation protecting such species, and impacts to non-protected or unregulated species would not be considered significant impacts that would be addressed in an EIR.
		Provision and location of an access road	Section 4.13, *Transportation and Traffic*, discusses proposed access points for the Plan Area.
		Traffic impacts	Impacts to existing traffic conditions are discussed in Section 4.13, *Traffic*.
		Noise impacts	Noise impacts generated during construction and operation of the proposed Specific Plan are discussed in Section 4.9, *Noise*.
		Invasion of privacy and control the "lookie loos"	Privacy is not considered an environmental impact under CEQA. However, as shown in Figure 4.1-9, Wall Locations, in Section 4.1, *Aesthetics*, MSE walls would be located between single-family residences west of the Plan Area and proposed onsite residences. MSE walls along the western boundary would be tallest (25 feet) at the southern end and would decrease in height going north until becoming level with the existing topography at the northern end.
		Effects to views and privacy from existing residences	Changes to views from existing residences is discussed in Section 4.1, *Aesthetics*.
		Availability of additional information for the proposed project	Provision of project information is not an environmental consideration under CEQA. However, additional project information is available at the City of Walnut and can be provided upon request.

Commenter	Commenter Affiliation	Areas of Concern	Where Concern is Addressed
Bernie Wen	Resident	Concerns about increases in traffic	Impacts to existing traffic conditions are discussed in Section 4.13, *Traffic*.
		Concerns regarding increase in public services demand	Increased demand for public services generated by the proposed project is discussed in Section 4.13, *Traffic*.
		Wants more single family homes and less condos	Compatibility of proposed residential development with existing surrounding land uses is discussed in Section 4.8, *Land Use and Planning*; and Section 4.10, Population and Housing, discusses compatibility of the proposed project with the City's housing goals.
		Concerns about development height behind existing residence	Impacts from increased building heights are discussed in Section 4.1, *Aesthetics*.
Daryl Osby, Fire Warden	Los Angeles County Fire Department	▪ Changes to the fire station location and description ▪ Identifies the fire office that provides reviews for Plan Area plans to ensure inclusion of adequate fire protection safety features	Section 4.11, *Public Services,* provides the locations of fire stations that would service the Plan Area, which includes Fire Station 146 as noted in this comment. This section also discusses project compliance with fire code requirements.
		▪ General access requirements for public streets, specifically that public streets included in the project be in compliance with County of Los Angeles Title 21 ▪ General access requirements for private streets and driveways ▪ General requirements for fire hydrants in residential areas	Section 4.11, *Public Services*, includes discussion of Plan Area access and compliance with fire safety regulations.
		Approval of "Preliminary Fuel Modification Plan"	On July 16, 2018, Michael Baker International (MBI) contacted the Los Angeles County Fire Department (LACFD) regarding fuel modification requirements for the project. Robert Walton of LACFD's Fuel Modification Unit confirmed that the Plan Area is not within the very high fire risk zone and will not be subject to fuel modification plan review.
		Construction activity in proximity to high voltage transmission lines	Compliance of construction activities with State Fire Code requirements is discussed in Section 4.11, *Public Services*.
		Potential impacts to erosion control, watershed management, rare and endangered species, vegetation, fuel modification, archaeological and cultural resources, and the County Oak Tree Ordinance	Erosion and watershed impacts are discussed under Section 4.7, *Hydrology and Water Quality*, impacts to listed and endangered species and on-site trees are discussed under Section 4.3, *Biological Resources*, and potential impacts to cultural resources are discussed in Section 4.4, *Cultural Resources*.

Commenter	Commenter Affiliation	Areas of Concern	Where Concern is Addressed
Larry Lin	Resident	Believes hundreds of vehicles will invade the Snow Creek neighborhood	Increased traffic generated from project operation is discussed under Section 4.13, *Transportation and Traffic*.
		Annoying noises from people, vehicles, and barking dogs	Increased noise levels from new residents are discussed under Section 4.9, *Noise*.
		Excessive glare and lights from households, street lighting, and vehicles	Increased on-site light and glare generated from residential and commercial development is discussed in Section 4.1, *Aesthetics*.
		More robberies and burglaries "empowered" by close-by vehicle reads and easy in/out access	Impacts to demand for police protection service and access to the Plan Area are discussed in Section 4.11, *Public Services*.
		▪ Throngs of joggers and walkers coming "in and out day and night" ▪ Disturbing frolics of kids and pets playing or lingering around in Snow Creek	Increased noise levels from new residents are discussed in Section 4.9, *Noise*.
		Increased roadside trash and waste littered by human beings and pets	Impacts associated with solid waste are discussed in Section 4.13, *Utilities and Service Systems*. However, the analysis of impacts associated with trash outside of the Plan Area is not addressed under CEQA.
		Disappearance of existing view replaced by "studded" asphalt roads and multiple-floor buildings	Impacts to existing residential views from development of residential uses under the proposed Specific Plan are discussed in Section 4.1, *Aesthetics*.
		Suggests lowering development density by 50%	Compatibility of proposed increased density with existing development is discussed in Section 4.8, *Land Use and Planning;* and Section 4.10, Population and Housing, discusses compatibility of the proposed project with the City's housing goals.
		Limiting building height to below two floors	Impacts to existing views from increased building height are addressed in Seciton 4.1, *Aesthetics*.
		▪ Adding 24-hour stationed guards at Roundup Drive walkway ▪ Add 24-hour security patrols in areas within Snow Creek bordering the Terraces ▪ Install household surveillance system for residents on Roundup Drive	Impacts associated with increased demand for police protection are discussed under Section 4.11, *Public Services*.
		Plant tall and "beautiful" privacy trees between the Terraces and Snow Creek	Details of open space and landscaping proposed for the project are discussed in Section 2, *Project Description*.

Commenter	Commenter Affiliation	Areas of Concern	Where Concern is Addressed
David Chioang	Resident	▪ Concerns regarding obstructed backyard views from elevation of proposed development. Requests the developer to retain current street level grading with exisitng Valley Boulevard to reduce impacts to exiting lines of sight ▪ Concerns about three-story height of new homes that would reduce lines of site and value of existing Snow Creek homes adjacent to new development. Requests that the developer build only single or two-story homes and review existing planning codes for placement of three-story homes adjacent to one- and two-story homes; possibly set a precedent for future development	Impacts to existing residential views from increased site elevation and building height and visual compatibility of proposed development with existing residences is discussed under Section 4.1, *Aesthetics*.
		Asks if there is existing codes and/or regulations regarding privacy impacts from placement of three-story buildings adjacent to shorter residences. Attachment of pages 13 and 45 from the Initial Study indicating that the Land Use and Planning impacts are potentially significant.	Compliance of proposed development in proximity to existing residences with the goals and policies of the Walnut General Plan is discussed in Section 4.1, *Aesthetics*, and Section 4.8, *Land Use Planning*. As discussed in Section 10, *Land Use and Planning*, of the Initial Study, the development of the proposed Specific Plan would be compatible with the surrounding land uses and would not divide an established community. In addition, the Plan Area is not located within the boudaries of an adopted habitat conservation plans or natural community conservation plans. Therefore, based upon the CEQA Thresholds of Significance, there are no impacts associated with these specific land use and planning issues and are not addressed further in this EIR. This EIR, however, includes a thorough discussion of land use and planning, including consistency with existing development, in Section 4.8, *Land Use and Planning.*

1.3 Scope and Content

This EIR addresses impacts identified by the Initial Study to be potentially significant. The following issues were found to have potentially significant impacts and have been studied in detail in the EIR:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Hydrology/Water Quality
- Land Use/Planning
- Noise
- Population/Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Utilities/Service Systems

In preparing the EIR, use was made of pertinent City policies and guidelines, certified EIRs and adopted CEQA documents, and other background documents. A full reference list is contained in Section 7, *References and Preparers*.

The Alternatives section of the EIR (Section 6) was prepared in accordance with Section 15126.6 of the *CEQA Guidelines* and focuses on alternatives that are capable of eliminating or reducing significant adverse effects associated with the project while feasibly attaining most of the basic project objectives. In addition, the alternatives section identifies the "environmentally superior" alternative among the alternatives assessed. The alternatives evaluated include the CEQA-required "No Project" alternative and three alternative development scenarios for the project area.

The level of detail contained throughout this EIR is consistent with the requirements of CEQA and applicable court decisions. Section 15151 of the *CEQA Guidelines* provides the standard of adequacy on which this document is based. The *Guidelines* state:

> *"*An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of the proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection, but for adequacy, completeness, and a good faith effort at full disclosure."

1.4 Issues Not Studied in Detail in the EIR

Table 1-2 summarizes issues from the environmental checklist that were addressed in the Initial Study (Appendix B). As indicated in the Initial Study, there is no substantial evidence that significant impacts would occur in any of these issue areas.

Table 1-2 Issues Not Studied in the EIR

Issue Area	Initial Study Findings
Agricultural and Forest Resources	The Plan Area is in an urban area of Walnut that lacks agricultural lands or forests. No impact to agricultural and forest resources would occur.
Hazards & Hazardous Materials	Any hazardous wastes produced by construction activities would be subject to the City's requirements associated with proper storage locations and containers, and proper labeling. Operation of the proposed project would not involve the use, transport, or storage of large quantities of hazardous materials. Potential impacts associated with the routine transport, use, or disposal of hazardous materials would be less than significant. Tutor Time is located approximately 0.2 mile southwest of the Plan Area, which accepts children up to the 5th grade. Operation of the proposed project would not involve the use or transport of large quantities of hazardous materials. Potential impacts associated with hazardous emissions or the handling of hazardous materials within 0.25 mile of a school would be less than significant. The Plan Area does not appear on any lists of hazardous material sites, and the cleanups for the two Leaking Underground Storage Tank (LUST) sites in the vicinity of the Plan Area have been completed. Impacts would be less than significant. The Plan Area is not located in the vicinity of public or private airstrips. The closest airport is the Brackett Field Airport, located approximately seven miles northeast of the Plan Area. No impacts associated with public or private airstrips would occur. The project applicant would be required to comply with all applicable City codes and regulations pertaining to emergency response and evacuation plans maintained by the Los Angeles County Sherriff and Los Angeles County Fire Department. Construction activities may require temporary closure of lanes along Valley Boulevard. However, any lane closures would occur temporarily and would be coordinated with the Los Angeles County Sheriff and Fire Departments to ensure that sufficient emergency response is maintained and alternate emergency access routes are established. Potential impacts would be less than significant. The Plan Area is in an urban area that is not located in a wildland fire hazard area as defined by the Department of Forestry and Fire Protection. As stated in the Initial Study, no impact would occur to people or structures as a result of wildland fires. However, based on the December 2018 update to the CEQA Guidelines, this issue is discussed further in Section 5, *Other CEQA Required Discussions*, of the EIR.
Mineral Resources	No mineral resources of value to the region or the residents of the state have been identified within the Plan Area and the Plan Area is not suited for resource extraction given the urban location. No impact to mineral resources would occur.

1.5 Lead, Responsible, and Trustee Agencies

The *CEQA Guidelines* define lead, responsible and trustee agencies. The City of Walnut is the lead agency for the project because it holds principal responsibility for approving the project. To implement the project, the City of Walnut must take the following discretionary actions:

- General Plan Amendment (GPA). Amend the General Plan designation for the Plan Area from Commercial and Low Medium Density to "The Terraces at Walnut Specific Plan" on the City's General Plan Land Use Map;
- Specific Plan (SP) 2016-01. Adopt the Terraces at Walnut Specific Plan. The Specific Plan will be adopted by Resolution by the City of Walnut Planning Commission, with the Development Standards chapter adopted by Ordinance;

- Zone Change (ZC). Change the Zoning of the entire property from the current Residential Planned Development (RPD) Zone with a Mixed-Use/Housing Opportunity Overlay (MU-HOO-3) to The Terraces at Walnut Specific Plan on the City's Zoning Map;
- Tentative Tract Maps/Tentative Parcel Maps (TTMs/TPMs) TTM 78210;
- Development Agreement. A Development Agreement may be negotiated between the City of Walnut and applicant(s) that will establish vesting of development rights and entitlements, identify project improvements, timing of improvements, as well as the responsibilities and rights of both the City and the applicant(s). A Development Agreement is adopted by Ordinance by the City Council; and
- Site Plan/Architectural Review by the City of Walnut Planning Commission.

A responsible agency refers to a public agency other than the lead agency that has discretionary approval over the project. The following discretionary approvals from other agencies may be required for project implementation:

- **Los Angeles County Public Works** – Approve the proposed signal on Valley Boulevard where the proposed project would include a new street
- **City of Industry** – Approve the proposed signal on Valley Boulevard where the proposed project would include a new street
- **Los Angeles County Flood Control** – Approve infrastructure connections
- **Walnut Valley Water District** – Water service connections
- **Los Angeles County Fire Department** – Approve fire master plan
- **Los Angeles Regional Water Quality Control Board** – NPDES permit
- **Los Angeles County Sanitation Districts** – Approve sewer trunk main connection

A trustee agency refers to a state agency having jurisdiction by law over natural resources affected by a project. There are no trustee agencies for the proposed project.

1.6 Environmental Review Process

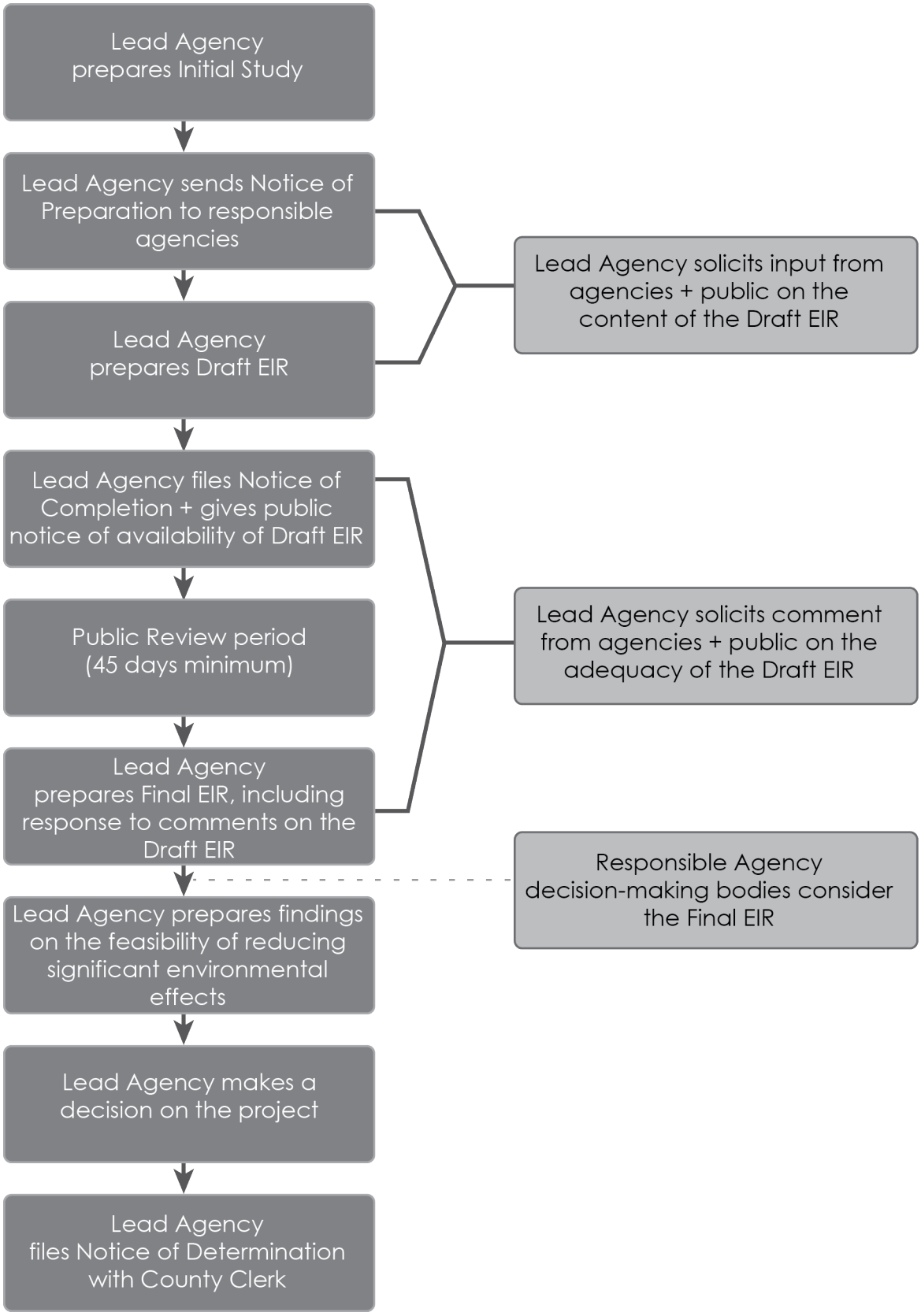
The environmental impact review process, as required under CEQA, is summarized below and illustrated in Figure 1-1. The steps are presented in sequential order.

1. **Notice of Preparation (NOP) and Initial Study**. After deciding that an EIR is required, the lead agency (City of Walnut) must prepare a NOP soliciting input on the EIR scope and file it with the State Clearinghouse, other concerned agencies, and parties previously requesting notice in writing (*CEQA Guidelines* Section 15082; Public Resources Code Section 21092.2). The NOP must be posted in the County Clerk's office for 30 days. The NOP may be accompanied by an Initial Study that identifies the issue areas for which the project could create significant environmental impacts.
2. **Draft EIR Prepared.** The Draft EIR must contain: a) table of contents or index; b) summary; c) project description; d) environmental setting; e) discussion of significant impacts (direct, indirect, cumulative, growth-inducing and unavoidable impacts); f) a discussion of alternatives; g) mitigation measures; and h) discussion of irreversible changes.
3. **Notice of Completion (NOC)/Notice of Availability (NOA).** The lead agency must file a NOC with the State Clearinghouse when it completes a Draft EIR and prepare a Public Notice of Availability

of a Draft EIR. The lead agency must place the NOC in the County Clerk's office for 30 days (Public Resources Code Section 21092) and send a copy of the NOC to anyone requesting it (*CEQA Guidelines* Section 15087). Additionally, public notice of Draft EIR availability must be given through at least one of the following procedures: a) publication in a newspaper of general circulation; b) posting on and off the Plan Area; and c) direct mailing to owners and occupants of contiguous properties. The lead agency must solicit input from other agencies and the public, and respond in writing to all comments received (Public Resources Code Sections 21104 and 21253). The minimum public review period for a Draft EIR is 30 days. When a Draft EIR is sent to the State Clearinghouse for review, the public review period must be 45 days unless the State Clearinghouse approves a shorter period (Public Resources Code 21091).

4. **Final EIR.** A Final EIR must include: a) the Draft EIR; b) copies of comments received during public review; c) list of persons and entities commenting; d) responses to comments; and e) any revisions made to the Draft EIR.
5. **Certification of Final EIR.** Prior to making a decision on a proposed project, the lead agency must certify that: a) the Final EIR has been completed in compliance with CEQA; b) the Final EIR was presented to the decision-making body of the lead agency; and c) the decision making body reviewed and considered the information in the Final EIR prior to approving a project (*CEQA Guidelines* Section 15090).
6. **Lead Agency Project Decision.** The lead agency may a) disapprove the project because of its significant environmental effects; b) require changes to the project to reduce or avoid significant environmental effects; or c) approve the project despite its significant environmental effects, if the proper findings and statement of overriding considerations are adopted (*CEQA Guidelines* Sections 15042 and 15043).
7. **Findings/Statement of Overriding Considerations**. For each significant impact of the project identified in the EIR, the lead agency must find, based on substantial evidence, that either: a) the project has been changed to avoid or substantially reduce the magnitude of the impact; b) changes to the project are within another agency's jurisdiction and such changes have or should be adopted; or c) specific economic, social, or other considerations make the mitigation measures or project alternatives infeasible (*CEQA Guidelines* Section 15091). If an agency approves a project with unavoidable significant environmental effects, it must prepare a written Statement of Overriding Considerations that sets forth the specific social, economic, or other reasons supporting the agency's decision.
8. **Mitigation Monitoring Reporting Program.** When the lead agency makes findings on significant effects identified in the EIR, it must adopt a reporting or monitoring program for mitigation measures that were adopted or made conditions of project approval to mitigate significant effects.
9. **Notice of Determination (NOD).** The lead agency must file a NOD after deciding to approve a project for which an EIR is prepared (*CEQA Guidelines* Section 15094). A local agency must file the NOD with the County Clerk. The NOD must be posted for 30 days and sent to anyone previously requesting notice. Posting of the NOD starts a 30 day statute of limitations on CEQA legal challenges (Public Resources Code Section 21167[c]).

Figure 1-1 Environmental Review Process



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2 Project Description

This section describes the Specific Plan, including the applicant, the Plan Area and surrounding land uses, major project characteristics, project objectives, and discretionary actions needed for approval.

2.1 Project Applicant

Sunjoint Development LLC
280 Machlin Court
Industry, California 91789

2.2 Lead Agency Contact Person

Chris Vasquez, Senior Planner
City of Walnut
(909) 595-7543 ext. 312

2.3 Project Location

The project area ("Plan Area") encompasses approximately 49 acres and includes three parcels (APNs 8709-023-273, 8709-023-274, 8719-023-275) in the City of Walnut (City), Los Angeles County. The Plan Area, which has no assigned street number, is approximately 1,300 feet east of the Valley Boulevard/Grand Avenue intersection. The west boundary of the Plan Area is adjacent to 21701 Valley Boulevard. Figure 2-1 shows the location of the Plan Area in the region and Figure 2-2 shows the Plan Area in its neighborhood context.

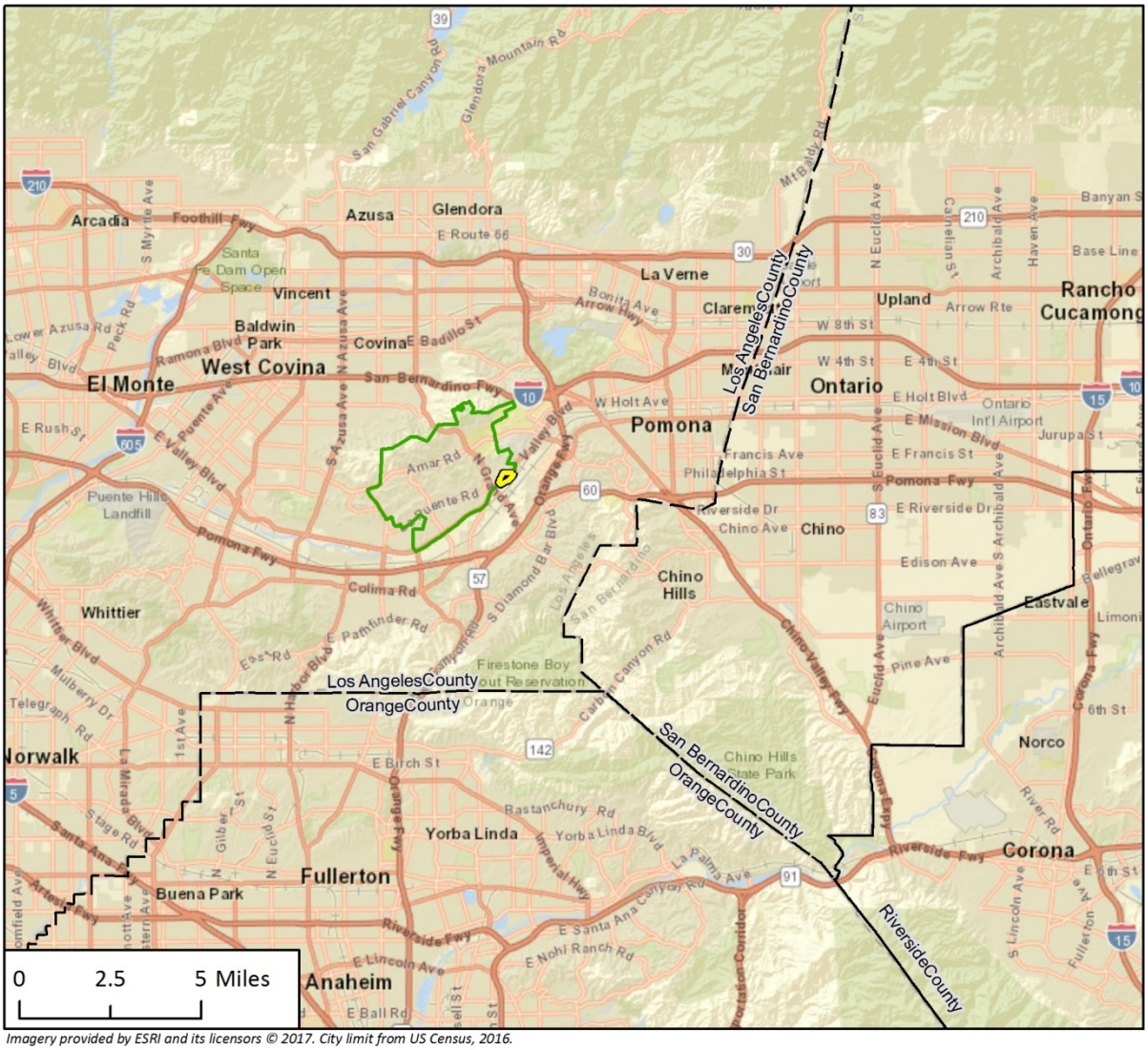
2.4 Existing Site Characteristics

The Plan Area consists of three vacant parcels that are undeveloped except for a small concrete V-ditch and several plastic utility boxes about 2x1x1 feet in size scattered in the southern portion of the Plan Area. The lots are partially fenced along Valley Boulevard (the southern boundary of the Plan Area). The Plan Area is covered primarily by a mix of non-native and native vegetation, much of which has been disturbed. Figure 2-3a-3d includes photos of the existing conditions of the Plan Area.

2.4.1 Current Land Use Designation and Zoning

The Plan Area has a General Plan land use designation of Commercial and Low Medium Density. The site is zoned R.P.D. – 16,800 – 2.2DU (Residential Planned Development with a minimum lot area of 16,800 and net acre density of 2.2 dwelling units per acre) and Heavy Commercial (C-3) with a Mixed-Use/Housing Opportunity Overlay Zone 3 (MU/HOO-3). Figure 2-4 shows the existing zoning.

Figure 2-1 Regional Location



Imagery provided by ESRI and its licensors © 2017. City limit from US Census, 2016.

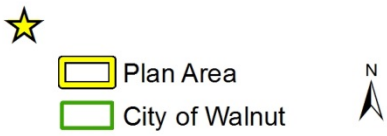


Fig 1 Regional Location

Figure 2-2 Plan Area Location

Imagery provided by Esri and its licensors © 2018.

Fig 2 Project Location Surrounding Uses

Figure 2-3a Site Photograph

View of the Plan Area looking west from the eastern corner of the Plan Area

Figure 2-3b Site Photograph

View of the Plan Area looking east from the eastern corner of the Plan Area

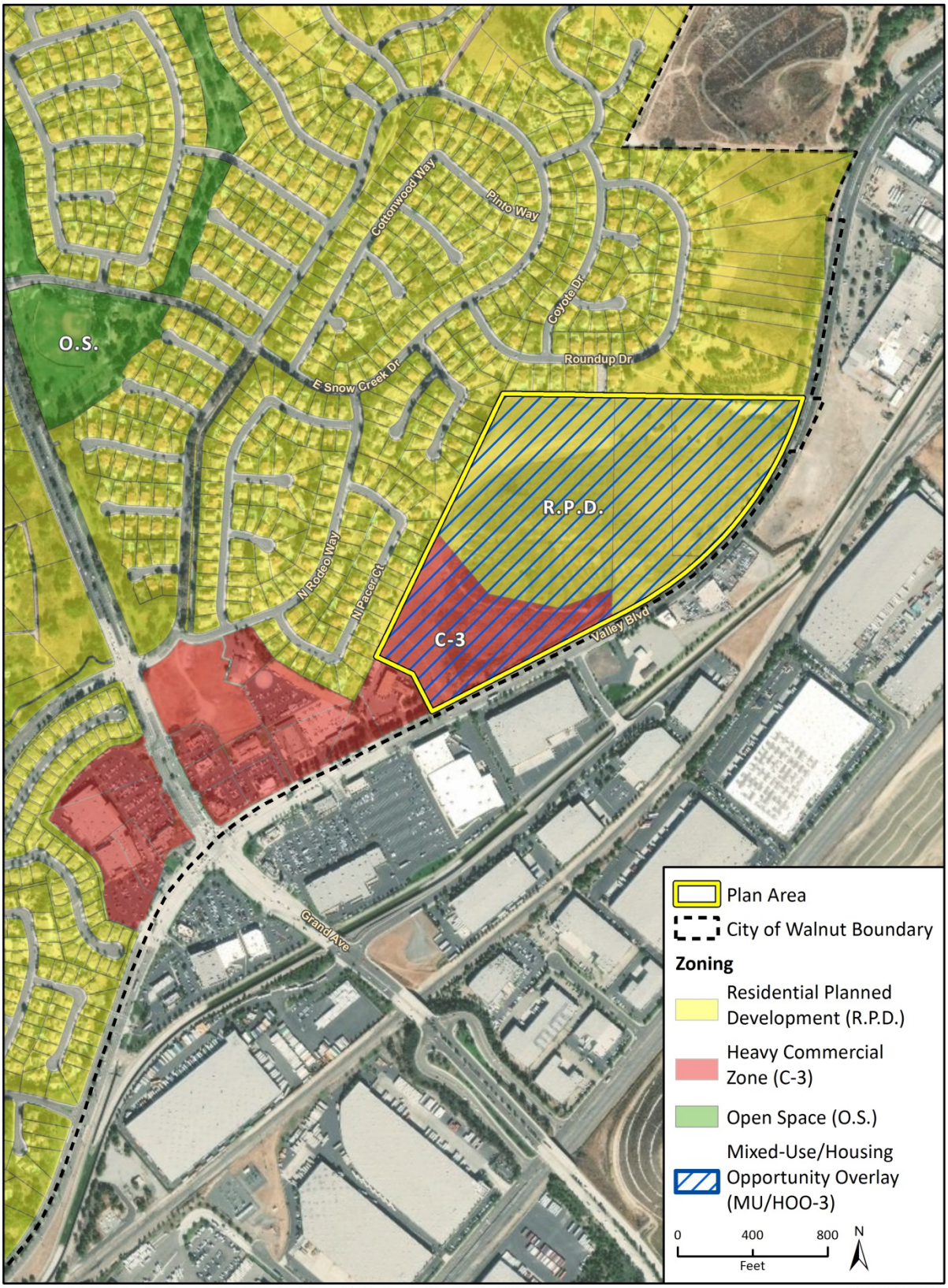
Figure 2-3c Site Photograph

View of the Plan Area looking south from the western boundary of the Plan Area

Figure 2-3d Site Photograph

View of the Plan Area looking north from the southwest corner of the Plan Area

Figure 2-4 Plan Area Existing Zoning



Imagery provided by Esri and its licensors © 2018; Zoning data provided by County of Los Angeles, 2013.

FigX Zoning 20190111

Pursuant to Chapter 6.20 of the Walnut Municipal Code (WMC), the purpose of the Mixed Use/Housing Opportunity Overlay Zone (MU/HOO) is to designate certain areas of the City as suitable for higher density residential uses to ensure that the City meets its state housing law RHNA (Regional Housing Needs Assessment) obligation and to provide a variety of commercial and retail uses that are integrated as a cohesive development with higher density residential uses. The Mixed Use/Housing Opportunity Overlay Zone encourages the production of affordable dwellings in addition to any uses permitted and existing in the underlying zone (WMC 2018).

2.4.2 Surrounding Land Uses

The Plan Area's northern and western boundaries are adjacent to residential uses, and its southern and eastern boundaries are adjacent to commercial and industrial areas. The Plan Area is located along the northern edge of Valley Boulevard at the intersection of Valley Boulevard and Faure Avenue. The Plan Area is generally bordered by two-story single-family residences along Roundup Drive, Timberland Lane and Pacer Court to the north and west. The southern and eastern boundaries of the site are located along Valley Boulevard and border the northeast boundary of the City of Industry. A residence located along the east side of the northern Plan Area boundary contains equestrian riding rings and other equestrian-related buildings and facilities on the north site of the property. Across Valley Boulevard are one- to two-story industrial buildings in the City of Industry. One- to two-story commercial uses and public services buildings are located adjacent to the southwestern corner of the Plan Area and include several restaurants, a local sheriff's station, and the community services building (known as the Maintenance Division Recreation Services Building [MDRS]) and City yard. There is a helipad at the north end of the sheriff's station, which is used only as needed (LASD 2019). Union Pacific and Metrolink rail lines are located approximately 450 feet east of the Plan Area at the closest point.

2.5 Project Characteristics

The Terraces at Walnut Specific Plan ("Specific Plan" or "project") involves a mixed-use infill project that includes a mix of housing types, a commercial district, parks and recreation areas, and open space, such as landscaped slopes, on 49 acres of vacant land. Development would also include parking, streets, landscaping, and public infrastructure improvements, such as stormwater basins. The proposed recreation areas would consist of parks, trails, and walkways. Table 2-1 summarizes the Specific Plan components. Table 2-1 summarizes the development standards. Figure 2-5 shows the configuration of proposed uses in the Plan Area and Figure 2-6 shows a more detailed tentative tract map for the Plan Area. The Specific Plan would require approval of entitlements for construction and operation of the proposed development; refer to Section 2.7 *Required Approvals*, below.

The commercial district of the Plan Area would be three acres, with up to 30,000 square feet (sf), located on the western portion of the Plan Area and would consist of one- to two-story buildings and associated surface parking. The residential component would include up to 290 dwelling units on 23 acres. Figure 2-7 through Figure 2-11 show renderings of the proposed project (additional renderings are discussed in Section 4.1, *Aesthetics*). Figure 2-7 shows the entrance of the Plan Area from Valley Boulevard between the commercial district and residential component. Three residential districts are proposed in the residential component of the Plan Area, consisting of an approximately 15-acre small-lot district, a five-acre townhome district, and a three-acre single-family district. The residences in the small-lot district would include up to 201 single-family units with a maximum allowed height of three stories or no more than 35 feet and includes various single-

family housing sizes, on smaller lots. The townhome district would include up to 83 multiple-family units and would have a maximum allowed height of two stories or no more than 35 feet. The townhome district would provide a transitional density between the commercial district and small-lot district to the north and the existing single-family residences to the northwest. Figure 2-8 shows a view of the Plan Area from Bridle Way, with a proposed single-family residence in the foreground and small-lot district in the background. The single-family district would include 12 units that would have a two-story height limit. Figure 2-9 shows the transition between the existing neighborhood in the foreground and proposed small-lot district in the background. The three-acre single-family residential district would be located at the northwest corner of the Plan Area and would provide both a buffer between the proposed small-lot district and the existing single-family residences located north and west of the Plan Area.

Parks and open spaces would be located along the Plan Area perimeter, as well as between the residential development areas, and would be used to separate the terraced residential uses. These spaces would be designed to increase public access and connectivity in the Plan Area and would provide shade structures, water features, outdoor furniture, and other furnishings. Lighting in the open space areas would include energy-efficient technologies and would be designed to avoid light spillage onto neighboring properties.

Table 2-1 Specific Plan Summary

Proposed Land Uses (by acre)			
Commercial District	3 (up to 30,000 sf)		
Residential Districts	23.2		
Single-Family	2.6 (of 23.2)		
Small-Lot	15.2 (of 23.2)		
Townhome	5.4 (of 23.2)		
Parks/Open Space	15.4		
Streets	7.4		
Total	**49**		
Land Use Plan			
Land Use	**Acreage**	**Dwelling Units (DU)/ Square Footage (sf)**	**Intensity**
Residential			
Single-Family District	2.6	12 DU	4.6 DU/acre
Small-Lot District	15.2	Up to 201 DU[1]	13.2 DU/acre
Townhome District	5.4	Up to 83 DU[1]	15.4 DU/acre
Residential Total	23.2	Up to 290 DU	12.5 DU/acre
Non-Residential			
Parks/Open Space	15.4	–	–
Commercial District	3	16,000 to 30,000 sf	0.15 FAR to 0.23 FAR
Public Streets	7.4		
Total	49	Up to 290 DU and 30,000 sf	

[1] The actual number of units built in these two districts may vary; however, the total number of units shall not exceed 290 dwelling units for the entire Specific Plan area. Thus, for purposes of analysis, the EIR assumes that a maximum of 290 dwelling units would be constructed.

Figure 2-5 Plan Area Land Use Map

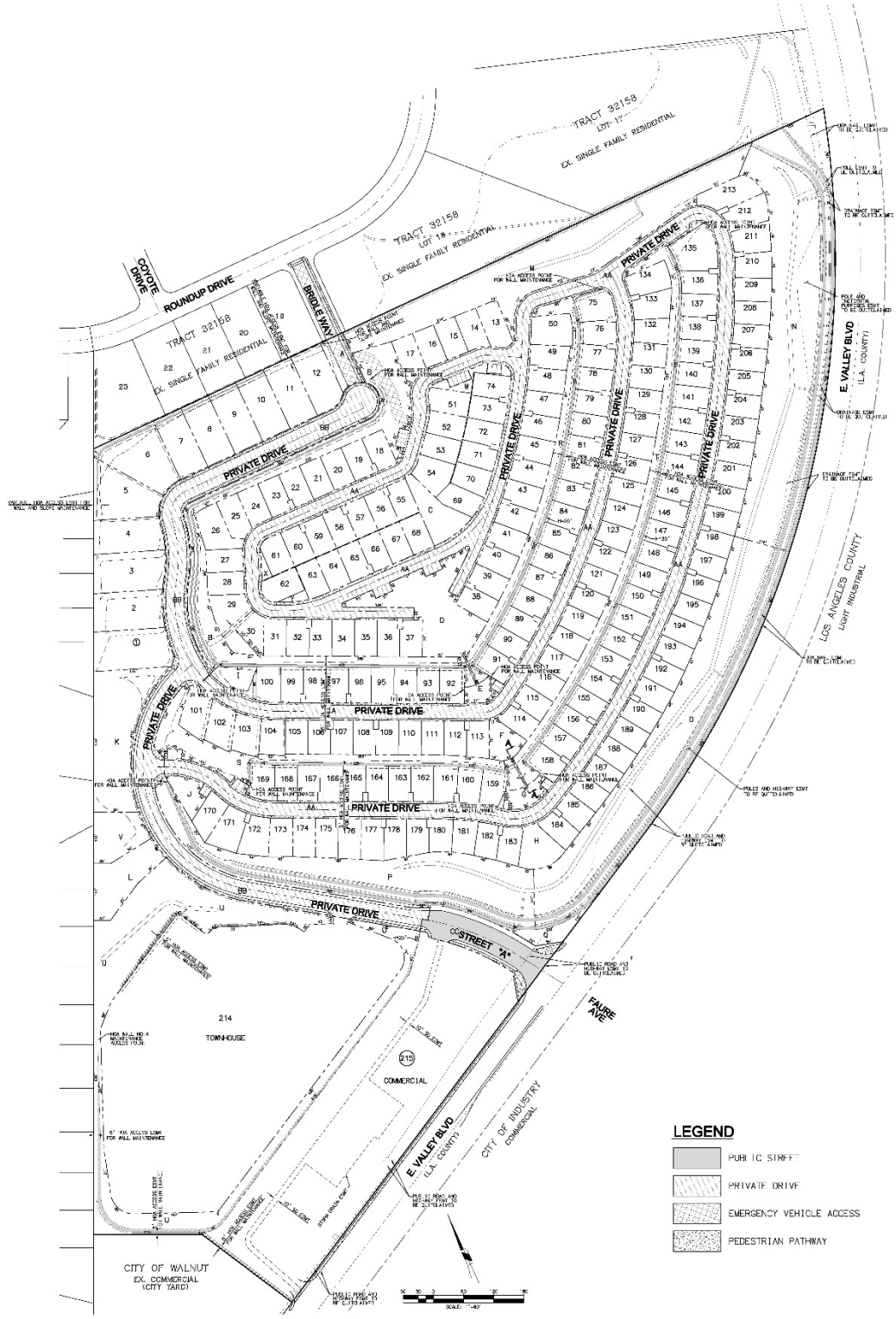
N. T. S.

Project Summary:

Commercial District:	3.0 Acres
Residential Districts (Single-Family, Small-Lot, and Townhome):	23.2 Acres
Public Parks and Slopes:	15.4 Acres
Public and Private Streets:	7.4 Acres
Total Acres:	49.0 Acres
Total Dwelling Units:	Up to 290 Units
Total Commercial Building Area:	Between 16,000 and 30,000 sq. ft.

Source: KTGY, Google

Figure 2-6 Plan Area Tentative Tract Map



Source: Michael Baker International, 2019

Figure 2-7 View of the Proposed Entrance from Valley Boulevard and Faure Avenue

Conceptual Project View from Valley Blvd. and Faure Ave.

Source: KTGY Group, Inc.

KEY MAP

Figure 2-8 View of Project from Bridle Way

Conceptual Project View from Bridle Way

Source: KTGY Group, Inc.

KEY MAP

Figure 2-9 View of Project from Roundup Drive

Conceptual Project View from Roundup Dr.

Source: KTGY Group, Inc.

KEY MAP

2.5.1 Development Standards

Setbacks

All single-family dwellings would have a varied front-yard setback. To qualify as a varied front setback, the front yard setback must be at least five feet more than the minimum required setback. All corner lots and reversed corner lots would maintain a triangular area for vision clearance purposes per Section 6.08.090 of the WMC. In the single-family and townhome districts, there would be a minimum setback of 35 feet to a single-family lot abutting the Plan Area. Detached accessory structures may encroach up to 20 feet into this setback, provided that the height of the accessory structure does not exceed one story or 15 feet in height. Unenclosed, attached accessory structures such as balconies and outdoor rooms may encroach up to 15 feet into this setback. Setback standards are shown below in Table 2-2.

Height

The height districts would limit the heights of the structures along sensitive edges and to differentiate the massing throughout the community. Additionally, detached accessory structures would have a maximum height of one story or 15 feet in all districts. The northern portion of the small-lot district would have a maximum allowable height of three stories (35 feet) and the southern portion of the small-lot district would have maximum allowable height of two stories (35 feet). The commercial, townhome and single-family districts would have a maximum allowable height of two stories (35 feet). Figure 2-10 depicts the height districts for the plan area.

Table 2-2 Development Standards

Standard	Single-Family District	Small-Lot District	Townhome District	Commercial District
Lot Criteria				
Minimum Lot Width	60 ft	35 ft	75 ft	60 ft
Minimum Lot Depth	120 ft	50 ft	100 ft	100 ft
Minimum Lot Frontage	40 ft	20 ft	20 ft	60 ft
Minimum Lot Area	7,200 sf	2,000 sf	9,000 sf	7,200 sf
Minimum Lot Area Per Unit	7,200 square feet	1,600 sf	1,600 sf	N/A
Minimum Setbacks (from Public/Private Right-of-Way or Property Line)				
Front	20 ft	5 feet	10 ft	15 ft
Garage (Front-Facing)	25 ft	20 feet	20 ft	N/A
Side	5 ft on one side, 10 ft on corner	4 ft	5 ft	If adjacent to residential, 10 ft; otherwise, 0 ft
Rear	35 ft[1]	5 ft except when at the toe of slope of a retaining or MSE wall in excess of 10 ft in height: 10 ft	10 ft	If adjacent to residential, 10 ft; otherwise 0 ft

Standard	Single-Family District	Small-Lot District	Townhome District	Commercial District
Minimum Building Separation				
Habitable Space to habitable Space	10 ft or per CBC	8 ft or per CBC	15 ft or per CBC	0 ft or per CBC
Minimum Floor Area				
Minimum Floor Area per Unit	1,500 sf	750 sf	750 sf	N/A
Lot Coverage				
Maximum Lot Coverage	40%	80%	80%	N/A
Maximum Private Open Space				
Minimum Open Space per Unit	900 sf enclosed in a yard and uncovered	60 sf (may be covered, i.e., porches)	60 sf (may be covered, i.e., porches)	N/A
Minimum Dimension	15 ft	6 ft	6 ft	N/A

ft – feet; sf = square feet; CBC = California Building Code

[1] Detached accessory structures (e.g., patio covers, fireplaces) may encroach up to 20 feet into this setback, provided that the height of the accessory does not exceed one story or 15 feet in height. Unenclosed, attached accessory structures such as balconies and outdoor rooms may encroach up to 15 feet into this setback. In no case shall the accessory structure(s) cover more than 20 percent of the required rear yard setback area.

Figure 2-10 Height Districts

N. T. S.

Source: KTGY, Google

2.5.2 Infrastructure

Water System

Walnut Valley Water District (WVWD) would provide domestic water service in the Plan Area via three pipeline connections. Two connections would connect to existing pipelines in the Valley Boulevard right-of-way at the southwestern portion of the Plan Area, and one connection would connect to an existing pipeline in the Roundup Drive right-of-way north of the Plan Area. This connection would serve the northern portion of the Plan Area.

WVWD would also provide recycled water service for irrigation in the Plan Area via an existing recycled water pipeline within the Valley Boulevard right-of-way. An on-site irrigation distribution system located within proposed Street A would connect to the existing pipeline and would include four pipelines to irrigate the public landscape areas. An irrigation pump would be installed near the intersection of Street A and Valley Boulevard to maintain pressurized service to the on-site irrigation system. The irrigation pump would be approximately 4 feet tall, 12 feet long, and 6 feet wide. The pump and related appurtenances would be screened from public view through various siting, installation, and landscaping techniques.

Sewer

The Los Angeles County Department of Public Works or the City of Walnut will provide and operate on-site gravity sewer systems in the Plan Area. The local 8” sewer line in the Valley Boulevard right-of-way will be extended to reach two service connections at the southwest boundary of the Plan Area. One connection would serve the proposed commercial district and the other would serve the residential districts. If the responsible agencies determine there is not sufficient capacity within the existing 8” sewer line along Valley Boulevard, a new 10” sewer line would be constructed along Valley Boulevard either parallel to or totally replacing to the existing 8” sewer. As shown in Figure 2-11, the new 10” sewer line would be located approximately 14 feet southeast of the centerline of Valley Boulevard and would extend from the proposed project’s limits approximately 1,400 linear feet (LF) to Grand Avenue where it would tie into the existing Los Angeles County Sanitation District sewer main. This would require the shutdown of the interior eastbound lane for the duration of the sewer installation plus occasional shut down of a second lane, refer to Section 4.11, *Transportation and Traffic*, for the impact analysis associated with the lane closure. For the purpose of the EIR analysis, the 10” sewer line has been included in the construction calculations.

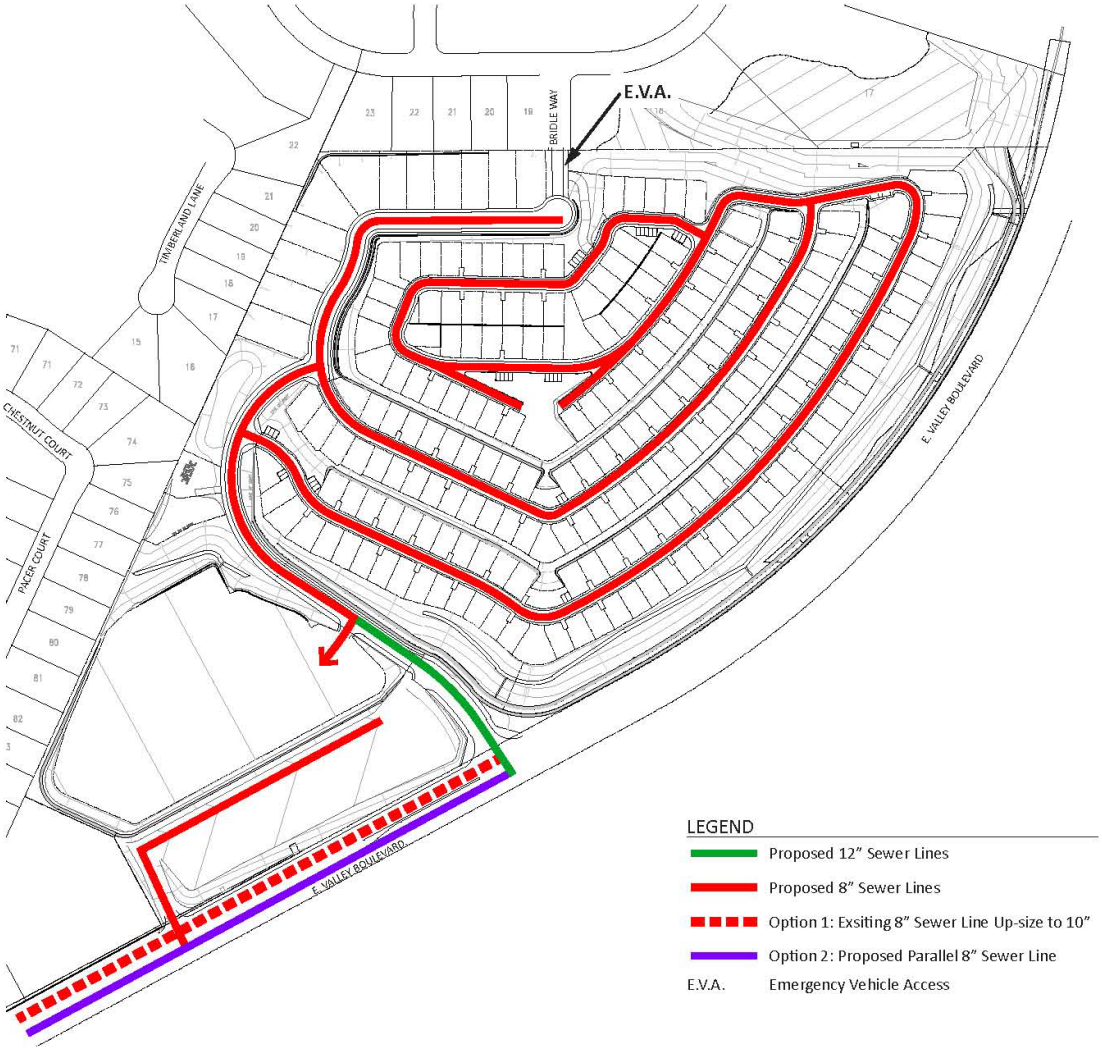
Drainage

As shown on Figure 2-12 the Plan Area would contain an on-site drainage system to capture stormwater flows from the sub-areas and direct them to an on-site treatment facility. Residential flows would be treated via a bioretention system located along the eastern side of the Plan Area and multiple propriety bioretention units located throughout the southern residential area. Runoff from the commercial district would be collected by on-site inlets and treated by two vaults. Flood control detention basins in the commercial district would be used to mitigate stormwater volumes.

Utilities

Frontier Communications or Charter Communications would provide telephone and internet service in the Plan Area, Southern California Gas Company would provide natural gas service via connections to existing gas lines within adjacent public rights-of-way, and Southern California Edison would provide electrical service.

Figure 2-11 Sanitary Sewer Plan



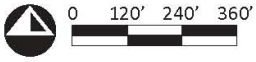
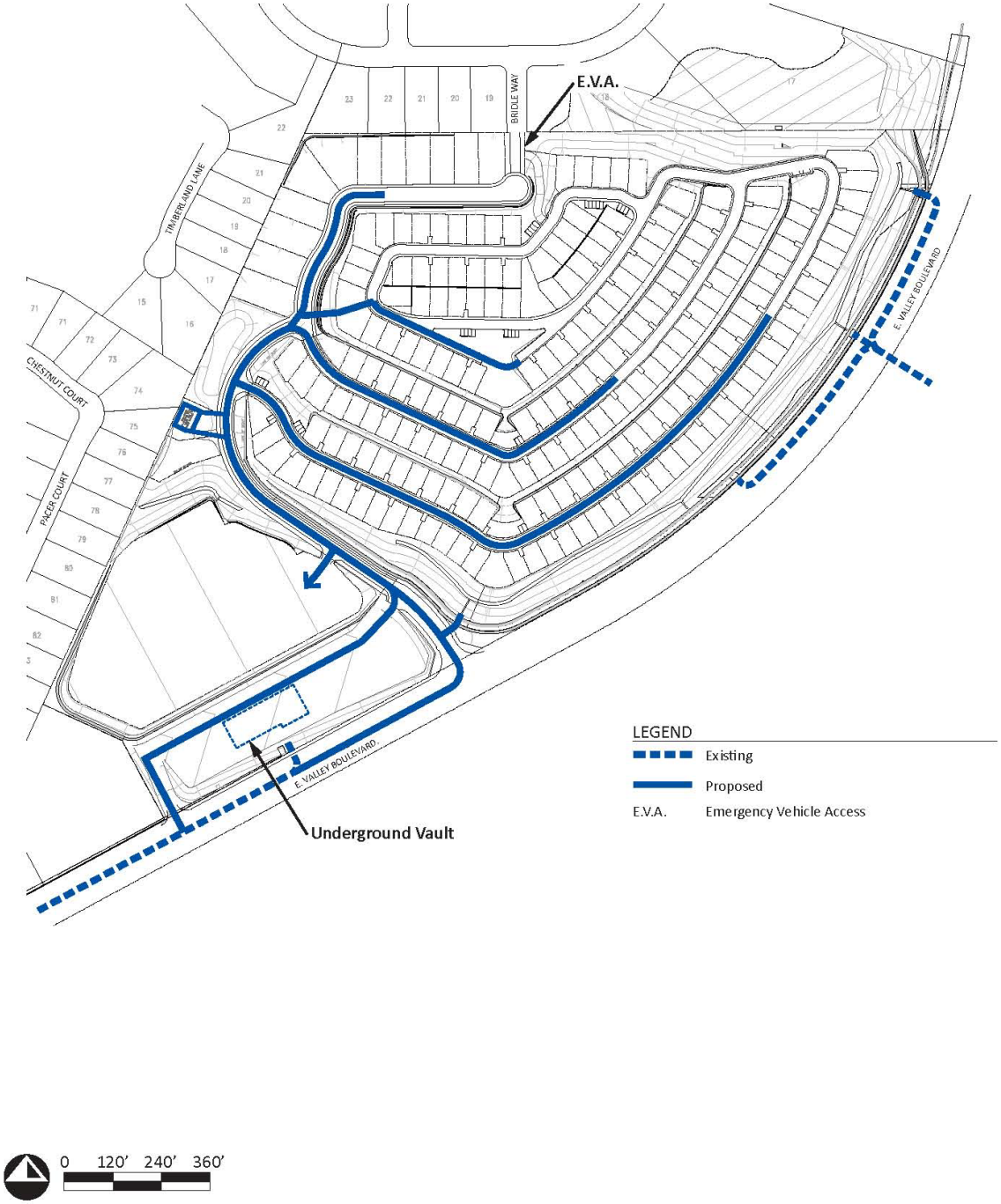


Figure 2-12 Storm Drainage Plan



2.5.3 Access and Parking

As shown in Figure 2-13, pedestrian entry and vehicular access to the Plan Area would be provided by a new street developed under the proposed project that would be located at existing intersection of Valley Boulevard and Faure Avenue in the City of Industry. This street would connect to other proposed streets in the Plan Area that facilitate circulation between the commercial and residential uses. Pedestrian access to the site would also be provided by a walkway from Roundup Drive on the northern boundary of the Plan Area.

Parking for residents would consist of private driveways, garages and pull in spaces. Parking for commercial uses would be provided via on-surface lots. The total amount of parking spaces in the Plan Area has not been determined; however, the Specific Plan identifies the minimum parking standards for the uses contemplated in the Plan Area. Final parking plans for the proposed development would be required to comply with the Parking Standards that will be provided in the Specific Plan.

2.5.4 Grading and Construction

Plan Area construction is expected to begin in late 2019 with full build-out estimated to occur in late 2024. As shown in Table 2-3, the actual build-out may vary depending on economic conditions; however, it is anticipated that the Plan Area would be constructed as follows:

Table 2-3 Construction Schedule

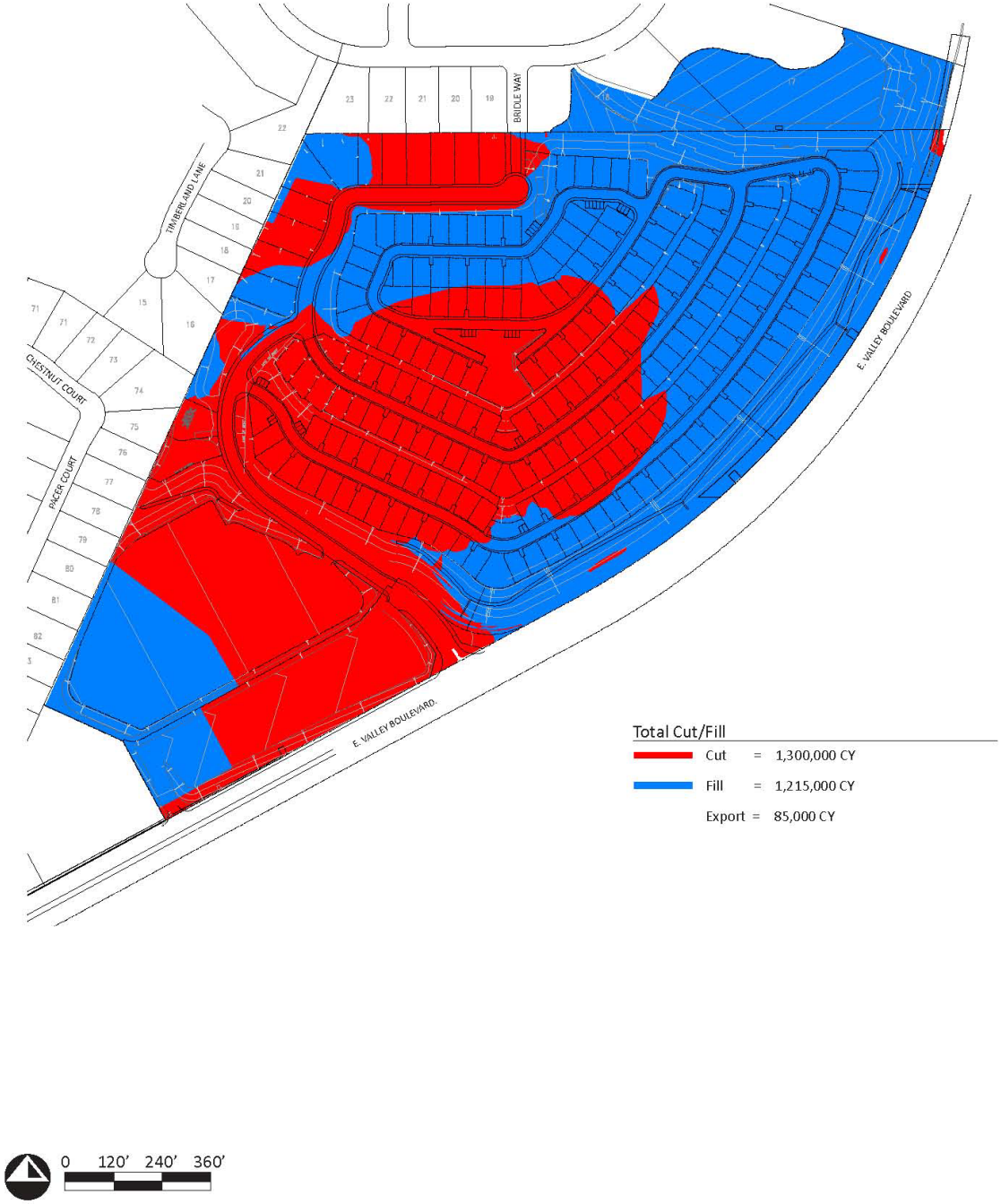
Phase	Duration (months)
Site Preparation and Grading	8
Building Construction (includes architectural coating)	45
Paving (Street Improvements)	3

The existing dome-shaped hill that is generally at the center of the Plan Area would be graded and altered to create developable terraces for residences. A series of retaining walls (mechanically-stabilized earth [MSE] walls) would be constructed to create the terraces. MSE walls would have a maximum height of 25 feet but may be organized in tiers with a minimum of five feet separating each wall. The combined wall system would be used to reduce export and prevent erosion by holding soil and allow for root penetration to further stabilize the hillside slopes. As shown in Figure 2-14 grading activities within the Plan Area consist of 1,300,000 (cy) of cut soil, where 1,215,000 cy of soil would be fill and 85,000 cy of soil would be export. The project includes off-site grading on a portion of Lots 17 and 18 of Tract 32158, along the northern property line. A natural canyon/swale is present along the property line that separates the two tracts. The off-site portion of the project is currently the respective homeowner's rear yard/lot that is used for storage, horse stables, and trails.

The project applicant has reached an agreement with the two residences on Lots 17 and 18 to the northeast to allow grading of slopes and pads on these properties as shown in the Tentative Tract Map in Figure 2-6, which reduces the soil export quantity of the proposed project to 85,000 cy. The off-site grading area would be limited to 156,000 cy of fill, which would be relocated from the Plan Area. Shared grading activities would be simultaneous with the on-site grading and would consist of clearing the surface of vegetation and debris, performing remedial grading to establish a competent fill surface, placing compacted fill, re-aligning the dirt access road, fine-grading the pads to drain, installing v-ditches to control runoff, installing erosion control, and constructing a tubular steel

Figure 2-13 Circulation Plan

Figure 2-14 Proposed Cut and Fill



fence along the shared property line. Grading plans for development within the Plan Area would be required to comply with the current City of Walnut standards and grading techniques would meet applicable City of Walnut codes and be consistent with the City General Plan. As summarized in the following subsections, results from a preliminary geotechnical engineering report and soil engineering investigation would be incorporated into the grading plan design (NMG Geotechnical 2018 [Appendix G]). These activities are discussed further in Section 4.5, *Geology*. The project would also include construction of Bridle Way to the north (0.2 acre) and improvements to Valley Boulevard to the east (1.8 acres). These two areas will be referred to as the Offsite Roadway Areas.

Remedial Removals

Unsuitable earth materials would be removed prior to placement of proposed fill. Unsuitable materials at the site include undocumented fills, topsoil, colluvium, and weathered bedrock. Estimated removal depths across the site are anticipated to vary on the order of 5 to 25 feet.

The removal bottom would expose competent bedrock material and would be evaluated, mapped and accepted by the geotechnical consultant prior to scarification/recompaction and placement of compacted fill.

General Earthwork and Grading

Prior to commencement of grading operations, deleterious material (including highly organic material, vegetation, trash, unsuitable debris) would be cleared from the site and disposed of offsite. Grading and excavations would be performed in accordance with the City's Grading Code and the General Earthwork and Grading Specifications in Appendix E of the geotechnical report prepared by NMG Geotechnical, Inc. in 2018. Prior to placement of fill, removal bottoms would be scarified a minimum of six inches, moisture-conditioned as needed, and compacted to a minimum 90 percent relative compaction. Where fills are greater than 40 feet thick (including remedial grading and behind MSE walls) fill materials would be compacted to a minimum of 93 percent relative compaction. Relative compaction would be based upon ASTM Test Method D1557. Moisture content of fill soil would be over optimum moisture content. Consideration would be given to placing fill at higher moisture contents to facilitate the subgrade presoaking process under slabs-on-grade.

Native materials that are relatively free of deleterious material would be suitable for use as compacted fill. Fill material would be placed in loose lifts no greater than eight inches in thickness and compacted prior to placement of the next lift. Ground sloping greater than 5H:1V would be prepared by benching into firm, competent material as fill is placed.

Slope Stabilization

General Slope Stability

During grading, backcut and keyway excavations would be mapped and evaluated by the geotechnical consultant to verify the anticipated conditions. If the conditions are different than anticipated, cross-sections would be updated to perform slope stability analysis, and the remedial grading measures would be modified, as necessary. The excavations would be evaluated and accepted by the geotechnical consultant prior to placement of the subdrain and/or backfill.

For surficial stability purposes, stabilization fills are recommended where bedrock is exposed. Where unfavorable conditions are anticipated, cross- sections would be prepared and slope stability analysis performed to design the necessary buttresses for slope stabilization.

MSE wall construction will require excavation of a backcut and keyway within bedrock (in design cut areas) for construction and placement of grid in the reinforced soil zone. Preparation of cross-sections depicting the bedrock structure and global slope stability analysis will need to be performed to verify the adequacy of the geogrid type, embedment depth, spacing, and wall design.

The reworked onsite soils are anticipated to provide adequate strength for the gross and surficial stability of the proposed fill slopes at 2H:1V inclinations or flatter. A base fill key would be provided for the majority of these slopes. The depth of the key would be a minimum of two feet into competent earth material, at least 15 feet wide, and have a one-foot tilt back into the slope. Fill slopes are anticipated to be stable as designed provided they are constructed in accordance with the details in our General Grading and Earthwork Specifications (Appendix E). Slopes may be subject to erosion, and would be planted as soon as practical.

Temporary Slope Stability

Temporary slopes will be created as a result of the backcuts for MSE wall construction, recommended stabilization fill keys (if any), as well as for remedial removals adjacent to natural slopes, adjacent property, or existing improvements. The actual stability of the backcuts will depend on many factors, including the geologic bedding, jointing, seepage (if any), and the amount of time the excavation remains exposed. Extra care and attention would be provided while grading next to adjacent properties. Measures to mitigate potential backcut failure may include the following:

Excavations would not be left open for long periods of time and would be backfilled as soon as practical (i.e., backfilled prior to the weekend or holiday, if possible).

The backcut and frontcut would be carefully excavated at the recommended slope angles and "on grade" to reduce oversteepened areas. Cutting areas at steeper angles may result in slope failure.

The backcut and frontcut should be "slope-boarded" on a routine basis so that the geotechnical consultant can map the slope carefully during excavation and help to notify the project team of critically unstable areas. This will also allow those working below the excavation to observe any potential failures.

If necessary, slope excavations may need to be constructed in sections (on the order of 100 to 200 feet long); smaller sections may be necessary if backcut failures occur.

2.5.5 Landscaping and Open Space

The Plan Area currently contains a dome-shaped hill over 200 feet in height in the central portion of the site with gently sloping topography in the southwestern portion of the property. The Plan Area is currently sparsely vegetated and without trees. Total landscaping within the Plan Area would be approximately 17 acres. According to the Landscape Design Guidelines provided in the Specific Plan, the overall community landscape within the Plan Area would be comprised of eight landscape zones. These zones would collectively create a landscape framework and include a system of paths and trails throughout the Plan Area and would be designed to be low water use. Landscape zones would include the following:

- Thematic Landscapes – Specific Plan Entries, Entry Road and Parks and Recreation Areas
- East Valley Boulevard Parkway Landscape

- Single-Family Residential Lots
- Small Single-Family Lots
- Commercial Center District
- Specific Plan Edge and Landscape Buffer
- Slope Landscaping and Erosion Control
- Storm Water Basins

A retaining wall would be constructed in the Slope Landscaping and Erosion Control area to hold soil in place along the southeastern boundary of the Plan Area and would accommodate planting on the face of the wall to help achieve the desired “hilltop village” aesthetic. Retaining walls would also be used in the northwestern boundary of the Plan Area adjacent to existing single-family residences. A landscaped buffer would also be incorporated in this area to provide a buffer and measure of privacy between the existing homes and new development.

Landscaping would also include approximately two acres that would consist of a neighborhood park, pocket parks, and accessible open space areas. As these open spaces would function as central gathering areas, irrigated turf grass and/or artificial turf would be used in areas anticipated for heavy pedestrian use. The pocket parks would incorporate large shade structures and palm trees and/or small gardens. In addition, landscaping improvements would generally include a plant palette that incorporates native and drought tolerant tree, shrubs, and groundcovers. A detailed species list of trees, shrubs, and groundcover plants intended to be used within the landscaping districts will be provided the Specific Plan.

Exact locations and layouts of Plan Area landscaping are not known at this time. Potential layouts are depicted as examples in the Specific Plan.

2.5.6 Sustainable Design

Landscaping and open space within the Plan Area would be designed to promote walkability through a system of paths and trails. In addition, development under the Specific Plan would aim to integrate “green” design strategies to promote sustainability within the future community. Strategies would pertain to Plan Area planning, energy efficiency, materials efficiency, water efficiency, and occupant health and safety. Generally, development under the Specific Plan would be encouraged to incorporate the following:

Plan Area Planning

- Provide physical linkages throughout the Specific Plan that promote walking
- Consider the use of pervious materials for walkways, trails, driveways, and parking lots
- Minimize the amount of paved areas for roads, parking, and patios where feasible
- Concentrate development near local services and amenities
- Encourage shared parking and ride share

Energy Efficiency

- Passive design strategies can dramatically affect building energy performance. These measures may include building shape and orientation, passive solar design, and the use of natural lighting
- Incorporate the use of Low-Emission windows or use Energy Star windows

- Use a properly sized and energy-efficient heating/ cooling system in conjunction with a thermally efficient building shell
- Consider utilizing light colors for wall finish materials
- Install high R-value wall and ceiling insulation
- Incorporate photovoltaic systems into building design
- Install high-efficiency lighting (LED, fluorescent lighting, etc.) where possible

Materials Efficiency

- Use dimensional planning and other material efficiency strategies. These strategies reduce the amount of building materials needed and lower construction costs
- Design adequate space to facilitate recycling collection and to incorporate a solid waste management program that reduces waste generation
- Establish a construction waste recycling program with a local waste management company, with a goal of recycling no less than 50 percent of the construction waste generated by construction of the Specific Plan. Excavated soil and land-clearing debris does not contribute to this requirement
- The waste disposal company would be responsible for providing recycle bin(s) to facilitate recycling

Water Efficiency

- Use ultra-low-flush toilets, low-flow shower heads and other water conserving fixtures and appliances
- Use state-of-the-art irrigation controllers and self-closing nozzles on hoses
- Minimize turf areas within the community
- Use drought-tolerant plants that require minimal or no irrigation
- Use reclaimed water for irrigation of common areas, wherever available

Occupant Health and Safety

- Choose construction materials and interior finish products with zero or low emissions to improve indoor air quality
- Provide effective drainage from the roof and surrounding landscape
- Install adequate ventilation in bathrooms
- Encourage the use of low VOC paints and wallpapers
- Encourage the use of low VOC Green Label carpet
- Development under the proposed Specific Plan would also comply with all applicable California Green Building Standards Code.

2.6 Project Objectives

- Implement the City's planned commercial and higher density residential districts facing the urban edge, consistent with the goals and policies of the City of Walnut General Plan.
- Provide horizontal separation (buffer) from existing single-family homes abutting the site. Based on the provisions within this Specific Plan, dwelling units within the Specific Plan area will be a minimum of 85 feet from dwelling units within surrounding neighborhoods.
- Provide new financially viable infill commercial uses and housing on a vacant site.
- Showcase distant views and vantage points with terracing and site orientation.
- Design development to buffer existing single-family homes abutting the site.
- Cluster development to promote walking and establish a strong sense of neighborhood.
- Interconnect the residential districts by incorporating an internal trail network.
- Reinforce a sense of place with iconic landmark and special identity signage.
- Utilize the natural topography to define residential neighborhoods.
- Enhance the hill top and terraces as a memorable and meaningful public realm, where residents have close access to the pocket park system described as a "string of pearls."

2.7 Required Approvals

The City is the lead agency with responsibility for approving the proposed Specific Plan and approving construction-related ministerial permits. The following entitlements are required from the City for the proposed development:

- General Plan Amendment (GPA). Amend the General Plan designation for the Plan Area from the current designation of "Future Specific Plan No. 3" to "Specific Plan" on the City's General Plan Land Use Map.
- Specific Plan (SP) 2016-01. Adopt the Terraces at Walnut Specific Plan. The Specific Plan will be adopted by Resolution by the City of Walnut Planning Commission, with the Development Standards chapter adopted by Ordinance
- Zone Change (ZC). Change the Zoning of the entire property from the current Residential Planned Development (RPD) Zone with a Mixed-Use/Housing Opportunity Overlay (MU-HOO-3) to The Terraces at Walnut Specific Plan on the City's Zoning Map
- Tentative Tract Maps/Tentative Parcel Maps (TTMs/TPMs) TTM 78210
- Development Agreement. A Development Agreement may be negotiated between the City of Walnut and applicant(s) that will establish vesting of development rights and entitlements, identify project improvements, timing of improvements, as well as the responsibilities and rights of both the City and the applicant(s)
- Site Plan/Architectural Review by the City of Walnut Planning Commission

The following discretionary approvals from other agencies may be required for project implementation:

- Los Angeles County Public Works – Approve the proposed signal on Valley Boulevard and where the proposed project would include new street

- City of Industry – Approve the proposed signal on Valley Boulevard where the proposed project would include a new street
- Los Angeles County Flood Control – Approve infrastructure connections
- Walnut Valley Water District – Water service connections
- Los Angeles County Fire Department – Approve fire master plan
- Los Angeles Regional Water Quality Control Board – NPDES permit
- Los Angeles County Sanitation Districts – Approve sewer trunk main connection

3 Environmental Setting

This section provides a general overview of the environmental setting for the proposed project. More detailed descriptions of the environmental setting for each environmental issue area can be found in Section 4, *Environmental Impact Analysis*.

3.1 Regional Setting

The Plan Area encompasses approximately 49 acres in the City of Walnut. The City is located near the eastern boundary of Los Angeles County in the San Gabriel Valley. The southern boundary of the Plan Area is located along the southeast boundary of the City. The cities of Industry and Pomona are adjacent to the southeastern boundary of Walnut. Figure 2-1 in Section 2, *Project Description*, shows the location of the Plan Area in the region. Figure 2-2 shows the location of the Plan Area in relationship to the surrounding neighborhood.

A network of east-west and north-south roadways, including arterials, collectors, and local streets, provide vehicular access throughout the City. Major roadways include Valley Boulevard, Grand Avenue, Lemon Avenue, Amar/Temple Avenue, and La Puente Road. The closest freeways are Route 60, Route 57 and Interstate 10 (I-10). The intersection of Route 60 and Route 57 is located 1.15 miles southeast of the Plan Area, and I-10 is located approximately 2.5 miles north of the Plan Area.

The Mediterranean climate of the region and the coastal influence produce moderate temperatures year-round, with rainfall concentrated in the winter months. Although air quality in the area has steadily improved in recent years, the Los Angeles region remains a nonattainment area for ozone (urban smog).

3.2 Plan Area Setting

The Plan Area, which has no assigned street number, is approximately 1,300 feet east of the intersection of Valley Boulevard and Grand Avenue. The west boundary of the Plan Area is adjacent to 21701 Valley Boulevard. The Plan Area is adjacent to residential, commercial and industrial uses. The Plan Area is located along the northern edge of Valley Boulevard at the intersection of Valley Boulevard and Faure Avenue. The Plan Area is generally bordered by predominantly two-story single-family residences along Roundup Drive, Timberland Land, and Pacer Court to the north and west. The southern and eastern boundaries of the Plan Area are located along Valley Boulevard and border the northeast boundary of the City of Industry. Across Valley Boulevard are one- to two-story industrial uses within the City of Industry. One- to two-story commercial uses and public services buildings are located outside the southwestern corner of the Plan Area and include several restaurants, a local sheriff's station, and a community services building (known as the City Maintenance Yard). Union Pacific and Metrolink rail lines are located approximately 450 feet east of the Plan Area at the closest point.

3.3 Cumulative Development

In addition to the specific impacts of individual projects, CEQA requires EIRs to consider potential cumulative impacts of the proposed project. CEQA defines “cumulative impacts” as two or more individual impacts that, when considered together, are substantial or will compound other environmental impacts. Cumulative impacts are the combined changes in the environment that result from the incremental impact of development of the proposed project and other nearby projects. For example, traffic impacts of two nearby projects may be less than significant when analyzed separately but could have a significant impact when analyzed together. Cumulative impact analysis allows the EIR to provide a reasonable forecast of future environmental conditions and can more accurately gauge the effects of a series of projects.

CEQA requires cumulative impact analysis in EIRs to consider either a list of planned and pending projects that may contribute to cumulative effects or a forecast of future development potential. Currently planned and pending projects in Walnut and surrounding areas, including the City of Diamond Bar and the City of Industry, are listed in Table 3-1. These projects are considered in the cumulative analyses in Section 4, *Environmental Impact Analysis*.

Table 3-1 Cumulative Projects List

Project No.	Project Location[1]	Land Use
City of Walnut		
1	Brookside	Single Family Homes
2	Lot 269	Single Family Homes
3	San Jose Hills Road	Single Family Homes
4	Shea Homes – Town Homes	Residential Condo/Townhouse
5	Shea Homes – Single Family	Single Family Homes
6	TTM 71977	Single Family Homes
7	TTM 49059	Single Family Homes
8	TTM 52324	Single Family Homes
9	TTM 53924	Single Family Homes
10	TTM 67960	Single Family Homes
11	West Valley Specific Plan	Varies
City of Diamond Bar		
12	K-Mart	Shopping Center
13	Multi-Family Condos	Apartments
City of Industry		
14	Global EGO Development Inc.	General Office
15	Colei Wellness and Beauty	Medical Dental Office
16	Carl's Jr.	Fast Food w/Drive Thru
17	Industry Business Center East	General Light Industrial
18	Industry Business Center West	Shopping Center/General Office
Mt. San Antonio College		
19	Future Enrollment Increase	Junior/Community College
City of Pomona		
20	22122 Valley Boulevard	General Light Industrial
21	Starbucks	Coffee/Donut Drive Thru
Cal Poly Pomona		
22	Future Enrollment Increase	University/College

[1] Cumulative project details were sourced from the Traffic Impact Analysis prepared for the project by Kunzman Associates, Inc. in January 2019 (see Appendix D). Appendix F-1 of the Traffic Impact Analysis provides a map of the listed cumulative projects.

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4 Environmental Impact Analysis

This section discusses the possible environmental effects of the proposed Specific Plan Project for the specific issue areas that were identified through the scoping process as having the potential to experience significant effects. "Significant effect" is defined by the *CEQA Guidelines* §15382 as:

> "…a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment, but may be considered in determining whether the physical change is significant."

The assessment of each issue area begins with a discussion of the environmental setting related to the issue, which is followed by the impact analysis. In the impact analysis, the first subsection identifies the methodologies used and the "significance thresholds," which are those criteria based on the State CEQA Guidelines and adopted by the City for its CEQA analysis to determine whether potential effects are significant. The next subsection describes each impact of the proposed project and evaluates those impacts for significance against the significance thresholds. If the impact is determined to be significant, mitigation measure(s) for significant impacts are identified, and the level of significance after mitigation is disclosed. Each effect under consideration for an issue area is separately listed in bold text with the discussion of the effect and its significance. Each bolded impact statement also contains a statement of the significance determination for the environmental impact following mitigation as follows:

- **Significant and Unavoidable**. An impact that cannot be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires a Statement of Overriding Considerations to be issued if the project is approved per §15093 of the CEQA Guidelines.
- **Less than Significant with Mitigation Incorporated**. An impact that can be reduced to below the threshold level given reasonably available and feasible mitigation measures. Such an impact requires findings under §15091 of the CEQA Guidelines.
- **Less than Significant**. An impact that may be adverse, but does not exceed the threshold levels and does not require mitigation measures. However, mitigation measures that could further lessen the environmental effect may be suggested if readily available and easily achievable.
- **No Impact.** The proposed project would have no effect on environmental conditions or would reduce existing environmental problems or hazards.

In cases where the mitigation measure for an impact could have a significant environmental impact in another issue area, this impact is discussed and evaluated as a secondary impact. The impact analysis concludes with a discussion of cumulative effects, which evaluates the impacts associated with the proposed project in conjunction with other planned and pending developments in the area listed in Section 3.0, *Environmental Setting*.

The Executive Summary of this EIR summarizes all impacts and mitigation measures that apply to the proposed project and identifies the level of significance of each impact after mitigation.

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4.1 Aesthetics

This section addresses potential aesthetic impacts related to the Specific Plan, including changes in public views and visual character, and consistency with adopted urban design policies.

4.1.1 Setting

a. Visual Character of the Plan Area Vicinity

The Plan Area is located a quarter-mile northeast of the intersection of Grand Avenue and Valley Boulevard approximately 26 miles northeast of the Pacific Ocean. The vicinity of the Plan Area is characterized by a mix of commercial, industrial, and residential development. Figure 2-2 in Section 2, *Project Description*, presents an aerial view of the Plan Area and surrounding uses. The Plan Area is generally bordered by two-story single-family residences to the north and west along Roundup Drive, Timberland Lane, and North Pacer Court; one- to two-story commercial and public service uses, including several restaurants, a local sheriff's station, and a community services department immediately southwest; and one- to two-story industrial uses to the south and east across Valley Boulevard. The Union Pacific and Metrolink rail lines are located approximately 450 feet east of the Plan Area at the closest point. See Figure 4.1-1a through Figure 4.1-1h for photos of the Plan Area and surrounding area. As shown, development in the immediate vicinity of the Area primarily consists of single-family residences with landscaped front lawns, tree-lined streets, such as Valley Boulevard, and commercial centers with several big box retail stores and large surface parking lots.

The topography of the area includes slopes and hills. The Plan Area is characterized by a single hill. The Plan Area is not located along or in the viewshed of a designated scenic corridor and views in the vicinity of the site are generally suburban in character. Figure 4.1-1a through Figure 4.1-1d provides photographs of the site from various vantage points in the immediate vicinity. Figure 4.1-1e through Figure 4.1-1h provides photographs of the visual setting and character of the surrounding area, including the design of single family homes located adjacent to the Plan Area and commercial areas along North Grand Avenue.

b. Visual Character of the Plan Area

The Plan Area is approximately 49 acres and consists of three vacant parcels that are undeveloped except for a small concrete V-ditch and several plastic utility boxes about 2x1x1 feet in size scattered in the southern portion of the Plan Area. The remainder of the Plan Area is covered by vegetation consisting primarily of chaparral, which includes grasses, bushes, and other plants. The Plan Area has a gently sloping topography in the southwestern portion of the property and a dome-shaped hill in the central portion that is over 200 feet in height. Elevations in the Plan Area range between approximately 620 and 855 feet above mean sea level (amsl). The Plan Area is adjacent to Valley Boulevard, a major thoroughfare, and the southern boundary of the Plan Area along Valley Boulevard is partially fenced and lined with street trees.

Figure 4.1-1a View of Plan Area Looking North from Valley Boulevard

Figure 4.1-1b View of Eastern Boundary of Plan Area Looking East

Figure 4.1-1c View of the Plan Area from Grand Avenue Looking East

Figure 4.1-1d View of Plan Area Looking East from La Puente Road

Figure 4.1-1e View of Single-Family Residences on Timberland Lane Looking South

Figure 4.1-1f View of Plan Area Looking East from Magnolia Street East

Figure 4.1-1g View of Commercial Uses on North Grand Avenue Looking East

Figure 4.1-1h View of Commercial Uses on North Grand Avenue Looking East

Scenic Resources

The Walnut General Plan lists the Buzzard Peak area and the Lemon Creek and Grand Avenue water course areas as specific areas of scenic beauty in the City (Walnut General Plan 2018). The Buzzard Peak area is approximately two miles northwest of the Plan Area, Lemon Creek is approximately two miles southwest, and the Grand Avenue watercourse area is approximately one mile north. Only the Buzzard Peak area is visible from in the Plan Area. The Plan Area is not currently accessible to the public, and no designated scenic views currently exist on or are available from the Plan Area. The mountains to the north of the site, which include Buzzard Peak, are visible from the Plan Area and the residential areas to the north and east of the Plan Area, but these views are generally limited by intervening homes and trees.

The Plan Area, itself, is undeveloped. It is zoned for residential and commercial development and is not recognized by the City as a scenic resource. There are no natural open spaces in the vicinity of the Plan Area. The nearest recreational amenity is a baseball field approximately 0.4 mile southeast of the site, and is not currently visible from areas surrounding the Plan Area. There are no significant natural features (e.g., rock outcroppings, bodies of water, or substantial stands of native vegetation) or native California trees of particular aesthetic value (e.g., oak trees) in the Plan Area or the immediate vicinity. The Plan Area is not located in proximity to a City or state designated scenic highway (Caltrans 2011).

Views at the intersection of Grand Avenue and Valley Boulevard are primarily of commercial development, including restaurants and retail stores. The highest points of the Plan Area are visible from this intersection while looking east along Valley Boulevard, but views of the majority of the Plan Area are blocked by commercial development and the residential development along Pacer Court and Shetland Way. As shown in Figure 4.1-1c and Figure 4.1-1d, above, farther north along Grand Avenue, between Village Drive and La Puente Road, views of the west side of the Plan Area are visible from Grand Avenue for approximately 500 feet. However, all views of the Plan Area from Grand Avenue are limited, with only the uppermost hillside of the Plan Area visible, and are interrupted by existing single-family homes, trees, and other natural and man-made features. Thus, because the Plan Area itself is not considered scenic and views of the Plan Area from Grand Avenue are obstructed by existing development, views from Grand Avenue are not considered to be scenic or of special value. Moreover, the currently vacant lot that provides a view towards the Plan Area is designated for development with an assisted-living facility, and development of that site in the future could further obstruct this view once the site is developed.

Existing Viewsheds

Viewsheds refer to the visual qualities of a geographical area that are defined by the horizon, topography, and other natural features that give an area its visual boundary and context, or by development that has become a prominent visual component of the area. Public views are those that can be seen from vantage points that are publicly-accessible, such as streets, freeways, parks, and vista points. These views are generally available to a greater number of persons than are private views that can be seen from vantage points located on private property.

Valley Boulevard is the primary public view corridor with the most direct views of the Plan Area. This roadway runs along the Plan Area from the eastern boundary to the southern boundary, and cars and businesses on the roadway have relatively unimpeded views of the site compared to views from other corridors and surrounding development. Existing view corridors in the vicinity of the Plan Area are defined primarily by single- and multi-story residential developments to the north and west

along Roundup Drive, Timberland Lane, and North Pacer Court, commercial and public service developments to the southeast, and industrial developments to the south and east. The Plan Area is undeveloped with a dome-shaped hill in the central portion of the site, as shown in Figure 4.1-1a through Figure 4.1-1d. Due to the elevation of the highest point in the Plan Area, distant views of the Angeles and San Bernardino National Forests, as well as Buzzard Peak, to the north are currently visible from within the site and uninhibited by surrounding residential development. However, as discussed above, the Plan Area is not currently open to the public and is not considered a public viewpoint. Southern views from the Plan Area are primarily of industrial development in the City of Industry and the City of Diamond Bar as well as partially-graded hillsides currently under development approximately 0.5 mile south of the Plan Area across Ferrero Parkway. Viewsheds from the residential areas north of the Plan Area are primarily of distant mountains to the north. The project would not obstruct these views. Views to the south of the residential area almost entirely consist of the hill slope in the center of the Plan Area. Some of the residential streets have partial views of industrial uses, undeveloped hillsides, and developments of cities to the south of the Plan Area across Valley Boulevard. Views of the San Gabriel Mountains to the north are limited along Valley Boulevard and Grand Avenue by existing topography and development in the Plan Area vicinity. Additionally, views of the San Gabriel Mountains, looking north from Valley Boulevard (south of the Plan Area) are entirely blocked by the existing topography of the Plan Area.

Light and Glare

The Plan Area is surrounded by a developed suburban area that is regularly exposed to existing glare during the daytime and light during the evening hours. Current sources of light and glare in the Plan Area result from existing residential uses to the north and west, commercial uses to the west, and industrial uses to the south and east across Valley Boulevard. Sources of lighting include interior and exterior lighting, street lights and signals, automobile headlights, and reflection of light from windows and other reflective surfaces primarily from adjacent residences. Sources of glare are primarily from sunlight reflecting off cars along Valley Boulevard and from windows on adjacent residences north and west of the Plan Area. Overall, the level of light and glare on-site is typical of a suburban area. The Plan Area is currently undeveloped, so there are no existing sources of light or glare in the Plan Area.

Existing Shade and Shadow

Shadow impacts are generated by developments and land uses that create sources of shade to nearby areas. In general, shadows cast by buildings are shortest on the summer solstice (June 21) and longest on the winter solstice (December 21).

Shadow-sensitive uses include routinely useable outdoor spaces associated with residential, recreational, or institutional land uses (e.g., schools, convalescent homes); commercial uses such as pedestrian-oriented outdoor spaces or restaurants with outdoor eating areas; nurseries; and existing solar collectors. These uses are considered sensitive because sunlight is important to their function, physical comfort, and/or commerce. Figure 4.1-1e through Figure 4.1-1h show the existing land uses around the Plan Area. The shadow-sensitive uses nearest to the Plan Area include residential uses to the north and west of the Plan Area along Roundup Drive, Timberland Lane, and North Pacer Court. Additional residential uses lie farther north beyond the Plan Area. The overall level of shade and shadow created by existing development is typical of a suburban area.

Regulatory Setting

City of Walnut General Plan

The Land Use Element and the Conservation, Open Space, and Recreation Element of the City General Plan provide the following policies to address visual resource protection:

LAND USE ELEMENT

Policy LCD-1.6. Commercial Compatibility with Residential Zones. Ensure that commercial uses are built and operated to minimize conflicts with adjacent residential uses. Operational activities to consider for compatibility include but are not limited to, hours of operation, intensity of operations, adequacy of security infrastructure, parking and traffic impacts, and lighting.

Policy LCD-1.7 Transitional Areas. Require developments in Mixed Use areas to incorporate pedestrian walkability/connectivity and to minimize and gradually reduce structure size and scale, activity intensity, and density closer to predominantly low-density residential neighborhoods.

Policy LCD-1.14 Unique Places. Promote and preserve Walnut's distinct neighborhoods, unique places, and overall rural character.

Policy LCD-6.4. Mixed-Use Building Transition. Provide design and development standards that require mixed-use buildings to be moderately scaled to transition to the scale of the surrounding area. Setbacks, landscaping, and/or building transitions should buffer abutting single-family residential areas, and all development lighting should be mitigated to not negatively affect adjacent uses.

Policy LCD-7.1 Small-Town, Rural Character. Apply design requirements that maintain and enhance Walnut's small-town, rural character

Policy LCD-7.4. Night Sky. Preserve the value of the community's night sky and avoid unnecessary light and spill-over of glare from signage, buildings, and landscape illumination and other sources of outdoor lighting.

CONSERVATION, OPEN SPACE, AND RECREATION ELEMENT

Policy COR-1.2 Community Identity. Use open spaces and parks to maintain Walnut's visual character and identity.

Policy COR-1.3 Enhanced Plantings. Add beneficial and strategic plantings in open space areas and hillsides to help maintain slopes, enhance habitat value, and improve community aesthetics. This should include planting on private slopes using easements whenever possible.

Policy COR-3.3 Natural Vegetation. When development is proposed near natural vegetation, encourage the landscaping to be consistent with the palette of vegetation found in the natural vegetation

Walnut Municipal Code

Chapter 6.84 (Site Plan and Architectural Review) of the Walnut Municipal Code (WMC) establishes procedures for review of development in the City. Architectural review is required prior to issuance of any building or use permit for construction, alteration or addition to any building or structure, including signs or outdoor advertising structures in any zone in the City (no permits can be approved until site plan and architectural approval, if required, has been obtained from the Planning Department).

The WMC further establishes standards for development that relate to visual quality. Development standards such as building heights, lot coverage, setbacks, landscaping, signage, lighting and access are identified for each zone. Existing and proposed zoning in the Plan Area are discussed in Section 4.8, *Land Use and Planning*, of this EIR. In addition, the WMC provides a citywide Oak/Walnut Tree Preservation ordinance that establishes standards for protection of the environmental, aesthetic, and cultural value of trees in the City. (WMC Chapter 6.52, Article V.) Section 4.3, *Biological Resources*, provides an analysis of the potential impacts associated with the removal of trees from the Plan Area.

4.1.2 Impact Analysis

a. Methodology and Significance Thresholds.

The assessment of aesthetic impacts involves qualitative analysis that is inherently subjective in nature. Different viewers react to viewsheds and aesthetic conditions differently. This evaluation measures the proposed Specific Plan against existing visual conditions, analyzing the nature of the anticipated change. The Plan Area and surrounding area were observed and photographically documented (Figure 4.1-1a through Figure 4.1-1h) to assist in the analysis.

Under Appendix G Section I (Aesthetics) of the State *CEQA Guidelines,* an impact is considered significant if the proposed Specific Plan would result in one or more of the following conditions:

1. Have a substantial adverse effect on a scenic vista.
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
3. Substantially degrade the existing visual character or quality of the site and its surroundings.
4. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

As discussed in the Initial Study prepared for the proposed Specific Plan (see Appendix B), the City of Walnut does not have designated scenic vistas in the Plan Area. Furthermore, the proposed project would not obstruct public views of the surrounding area or of the mountains north of the Plan Area and there are also no designated county or State scenic highways located in the Plan Area vicinity. Therefore, impacts related to scenic vistas and scenic resources in a state scenic highway, significance thresholds (1) and (2), are not discussed further in this section.

The City of Walnut does not currently have thresholds to assess project-related shade and shadow impacts. Therefore, the City of Los Angeles' thresholds are used to assess potential shade and shadow impacts generated by development of the proposed Specific Plan for a direct comparison to quantitative standards. These thresholds are further discussed under Impact AES-2.

In addition, potential aesthetic impacts could be generated by construction activities associated with the proposed Specific Plan. However, because of the temporary nature of construction, associated activities would not permanently degrade or modify the existing aesthetic image of the neighborhood or generate substantial long-term contrast with the visual character of the surrounding area. Also, any increases in light or glare generated by construction equipment would be temporary and would not add long-term sources of light or glare to the surrounding area. Therefore, construction impacts would be less than significant and are not discussed further in the following impact analysis.

b. Project Impacts and Mitigation Measures

Threshold 3	Substantially degrade the existing visual character or quality of the site and its surroundings

Impact AES-1 THE RESIDENTIAL AND COMMERCIAL USES DEVELOPED UNDER THE PROPOSED SPECIFIC PLAN WOULD ALTER THE CHARACTER OF THE UNDEVELOPED PLAN AREA. HOWEVER, THE PROJECT WOULD BE COMPATIBLE WITH THE EXISTING RESIDENTIAL DEVELOPMENT NORTH OF THE SITE AS WELL AS COMMERCIAL DEVELOPMENT SOUTHWEST OF THE SITE ALONG VALLEY BOULEVARD IN COMPARISON TO THE EXISTING UNDEVELOPED SITE. IN ADDITION, ALTHOUGH DEVELOPMENT UNDER THE PROPOSED SPECIFIC PLAN WOULD ALTER THE CHARACTER OF VIEWS FROM AREAS OUTSIDE OF THE PLAN AREA, DEVELOPMENT WOULD BE CONSISTENT WITH THE VISUAL CHARACTER OF RESIDENTIAL USES IN THE SURROUNDING AREA. THEREFORE, IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Visual Character of the Plan Area

The Plan Area is undeveloped except for a small concrete V-ditch and several plastic utility boxes scattered in the southern portion of the Plan Area. Development of the proposed Specific Plan would include a maximum of 290 dwelling units, up to 30,000 sf of commercial development, and 15.4 acres of open space, including slopes across the 49-acre Plan Area. Residential uses would consist of 12 single-family residences at the northwest corner of the Plan Area with a maximum two-story height limit, up to 83 townhome residences at the southwestern corner of the Plan Area with a maximum two-story height limit, and up to 201 small-lot residences primarily in the center of the Plan Area with a maximum height of 35 feet, or no more than three stories. These residences would be terraced to utilize the existing slope of the hill. This would cause the small-lot residences to be developed at varying heights in the center of the Plan Area.

Figure 2-9 under Section 2.5, *Project Characteristics*, shows a view from Roundup Drive of the proposed small-lot multi-family residences at varying heights in the Plan Area. Commercial uses would consist of one- to two-story buildings, with associated surface parking, in the southwestern corner of the Plan Area. Open space in the form of slopes and recreational facilities, including a neighborhood park, pocket parks, and accessible open space, would be dispersed throughout the Plan Area, specifically along the Plan Area perimeter as well as between the terraced residential uses for visual separation. Mechanically stabilized earth (MSE) walls would be used to create and support the terraced levels within the site as well as the terraced setbacks along the perimeter of the Plan Area, as shown in Figure 2.7 and Figure 2.8 under Section 2.5, *Project Characteristics*. Therefore, development of the proposed Specific Plan would permanently alter the character of the Plan Area.

The proposed single-family residences and commercial structures would be similar in height to adjacent residences and commercial development surrounding the site. Figure 4.1-2 depicts cross sections of the Plan Area. The current peak of the Plan Area is at an elevation of 854 feet and would be graded to an elevation of approximately 781. Other areas of the Plan Area would be filled with the highest pad having an elevation of 791 feet. The proposed residential units located in the upper tier of the Plan Area would have a maximum height of 35 feet; therefore, at the maximum height, the project would be 28 feet lower than the existing peak. The small-lot residences would have varying site elevations because of the maximum three-story height limit and the different heights of terraces used to accommodate the slope of the site. As a result, some of the small-lot residences would have greater height and density compared to the adjacent surrounding residences; however,

it should be noted that the maximum height limit allowed for both existing single-family and proposed small-lot residences are the same (35 feet). Figure 2-8 under Section 2.5, *Project Characteristics*, shows a view of the Plan Area from Bridle Way, with a proposed single-family residence in the foreground and small-lot district in the background at a higher elevation. However, the small-lot residences would be designed to have an architectural style consistent with that of existing residences in the site vicinity, and, as depicted in Figure 2-5 of the *Project Description,* 15.4 acres of open space and landscaping would be incorporated between districts, buildings and existing adjacent development to reduce/screen building massing. This would allow the small-lot residences to visually blend with the character of surrounding residences and help establish a cohesive visual transition between the existing single-family residences outside of the Plan Area and the small-lot residences proposed within the Plan Area. In addition, these changes would be consistent with the goals for development within the Commercial and Low Medium Density General Plan designation and the Residential Planned Development (R.P.D.) and Mixed-Use/Housing Opportunity Overlay Zone 3 (MU-HOO-3) zoning of the Plan Area.

The purpose of RPD/MU-HOO-3 zoning is to designate areas within the City that are suitable for higher density residential uses along with a variety of commercial and retail uses. The proposed Specific Plan would include a General Plan Amendment and Zone Change to change the land use designation and zoning to "The Terraces at Walnut Specific Plan." However, to ensure consistency with development of the Plan Area with surrounding development and existing zoning, the Specific Plan would provide development standards and requirements for the proposed uses consistent with the guidelines for development provided in the City zoning code regulations for the RPD zone, including utilizing the natural topography of the site for development, using variable lot sizes and setback variations to minimize grading, and installing vegetation to protect slope erosion and minimize the visual effects of grading. (WMC §6.24.040.) Upon approval of the General Plan Amendment land use designation and zone changes, the proposed Specific Plan would comply with the City's long-term goals for development in the Plan Area. Furthermore, the Plan Area does not contain any scenic vistas or prominent ridgelines, so the Specific Plan would not conflict with any policies related to preservation of such aesthetic resources.

Because the Plan Area is currently undeveloped, the project would affect views from surrounding development by changing the site from natural open space to a built environment. Specifically the development of residential and commercial uses under the proposed Specific Plan would alter existing southward views from the single-family residential area north of the Plan Area, as well as views of the Plan Area from the east, west, and the south from commercial and industrial uses, as shown in Figure 4.1-4 through Figure 4.1-6. Existing views of the Plan Area from area roadways, particularly Valley Boulevard, are largely of the uphill slope of the prominent hill in the middle of the Plan Area. Valley Boulevard's frontage along the Plan Area, for instance, is located more than 10-20 feet below the natural terracing/slope of the Plan Area's topography in some locations. The building proposed by the project would be similarly situated, with terraces extending from Valley Boulevard, and substantial open space setbacks separating structures from the adjacent roadway. As discussed above, grading would decrease the maximum height on the property by 73 feet and the proposed buildings on the site would have a maximum height of 35 feet, which would result in the structures approximately 28 feet lower that existing peak. The building design of the proposed residential and commercial uses would be consistent with those of surrounding residential and commercial development, and open space areas would be integrated and dispersed throughout the Plan Area. Overall, this would enhance the visual quality of the Plan Area.

The proposed single-family residences would be located along the northern corner of the Plan Area to provide a visual buffer between the existing single-family residences immediately to the north and the small-lot residential district in the center, and would be similar in height, massing, and architectural style to the existing residences. These residences would also generally obstruct close-up views of the small-lot district. This would be aided by the terraced intervals of buildings in the small-lot district. Although the small-lot residences would be of greater density than surrounding development, the use of terraces would vary building heights to reduce perceived building mass and create a "hilltop village" aesthetic with interspersed paths and trails to further separate building mass, as shown in Figure 2-9 under Section 2.5, *Project Characteristics*, and Figure 4.1-7 below. This pays tribute to the existing topography of the area, including adjacent residential developments (Snow Creek), which is characterized by natural slopes and undulations. The proposed commercial uses located at the southwestern corner of the site would also be similar in height and massing to existing commercial development in the vicinity, such as the restaurant and retail uses located at the Grand Avenue/Valley Boulevard intersection. The project's proposed commercial development would be screened from the single-family residences to the north by the Project's townhome district. As shown in Chapter 2, *Project Description*, Figure 2-10, the height districts limit the heights of the structures along sensitive edges and to differentiate the massing throughout the community. Additionally, detached accessory structures may have a maximum height of one story or 15 feet in all districts. The northern portion of the small lot district would have a maximum allowable height of three stories (35 feet) and the southern portion of the small lot district would have maximum allowable height of two stories (35 feet).

In addition, as described in Chapter 2, *Project Description*, Table 2-2, the building design of the residential and commercial uses would incorporate the required setbacks from adjacent surrounding development. All single-family dwellings would have a varied front-yard setback. To qualify as a varied front setback, the front yard setback must be at least five feet more than the minimum required setback. All corner lots and reversed corner lots would maintain a triangular area for vision clearance purposes per Section 6.08.090 of the WMC. In the single-family and townhome districts, there would be a minimum setback of 35 feet to a single-family lot abutting the Specific Plan area. Detached accessory structures may encroach up to 20 feet into this setback, provided that the height of the accessory structure does not exceed one story or 15 feet in height. Unenclosed, attached accessory structures such as balconies and outdoor rooms may encroach up to 15 feet into this setback.

Furthermore, open space areas integrated throughout residential and commercial development would provide visual separation through use of parks, accessible open space, and other public amenities including shade structures, water elements, and outdoor furnishings. This would reduce visual impacts from grading activities and partially preserve the natural vegetated character of the Plan Area. A privately-owned equestrian facility is located along the east side of the northern Plan Area boundary. This facility contains riding rings and other equestrian-related buildings and facilities on the north site of the property. Approximately 3.6 acres of the northern portion of this property would be used to spread approximately 156,000 cubic yards of excess fill from the Plan Area during construction, referred to as the Off-site Fill Area (see Figure 2-14 of Section 2, *Project Description*). The Off-site Fill Area contains a gentle south-facing slope ranging in elevation from 660 feet above MSL along the Plan Area boundary to 750 feet above MSL along its northern portion. Shared grading activities would be simultaneous with grading within the Plan Area and would consist of clearing the surface of vegetation and debris, performing remedial grading to establish a competent fill surface, placing compacted fill, re-aligning the dirt access road, fine-grading the pads to drain, installing v-ditches to control runoff, installing erosion control, and constructing a tubular steel fence along the

shared property line. Although this component of the project would alter the terrain and character of the Off-site Fill Area, the area would ultimately consist of graded soil within a fenced property, which would be consistent with the existing visual character of the surrounding area.

Views of MSE Walls

The MSE walls used to support the terraced levels both within the Plan Area and around the perimeter would contribute to altered views of the Plan Area. As discussed in Section 2.5.3, *Grading and Construction*, the project applicant reached an agreement with adjacent northeastern residential properties on Lots 17 and 18 to allow shared grading of slopes and pads on these properties, which eliminated the need for an MSE wall that was initially proposed along the northeastern boundary of the Plan Area. As shown in Figure 4.1-9, MSE walls that could alter existing views would be located along the western and southern boundaries of the site and on portions of the northern boundary. The walls that would be part of the proposed project would be up to 25 feet at various areas around the site perimeter. As shown in Figure 2-7, under Section 2.5, *Project Characteristics*, and in Figure 4.1-7 and Figure 4.1-8, of this section, MSE walls would be angled away from existing roadways and development, toward the Plan Area, and would be covered with vegetation to soften their appearance in proximity to adjacent structures. Furthermore, the heights would vary to match the existing natural topography of the Plan Area.

The southern boundary of the Plan Area along Valley Boulevard would have two levels of retaining MSE walls with two stacked 25-foot walls, as shown in Figure 2-7 under Section 2.5, *Project Characteristics*. As discussed above, this height is consistent with the existing topography of the site along Valley Boulevard, which sharply increases from the road's frontage. Along the west end of the Plan Area, near the proposed commercial area and townhome district, the angle of the four-foot walls along Valley Boulevard would match the existing slope of the site and would be covered with vegetation. This would reduce the overall dominance of the height of the walls when viewed along Valley Boulevard. Furthermore, the proposed Specific Plan would include landscaping and street trees along Valley Boulevard that would also intermittently screen views of the MSE walls. In addition, because no views to the north of the Plan Area are currently provided from Valley Boulevard, construction of the MSE walls would not block any existing views.

MSE walls along the western boundary would range from 10 feet to 25 feet at the southern end (see Figure 4.1-7 and Figure 4.1-8 for simulated views of the walls along Valley Boulevard) and would be 25 feet at the shared boundary with the residences along Pacer Court. However, the height would decrease going north until becoming level with the existing topography at the northern end. At the southern end of the western boundary, the walls, and the residences on the terraces above them, would change backyard views for residences along North Pacer Court, as shown in Figure 4.1-4 and Figure 4.1-5. The current backyard views are of the existing undeveloped site and partial views of industrial development across Valley Boulevard in the City of Industry and the City of Diamond Bar. Under the proposed Specific Plan, the backyards would have views of vegetated MSE walls and residences in the small-lot district and attached townhomes in this portion of the Plan Area. This would change the character of the existing backyard views because it would change the current views of a natural area and replace it with residential structures. However, development would be designed with integrated open space to be visually cohesive with other residential development in the surrounding area. The residents along Roundup Drive along the northern boundary of the Plan Area would be subject to the same visual changes. These residents currently have backyard views of a natural area that would be changed to be views of new residences under the proposed Specific Plan, as shown in Figure 4.1-4. As discussed above, while development of new residences would alter the character of existing backyard views, the changes would be consistent with the

development goals of the General Plan and the design and massing of the new residences would be visually compatible with that of the surrounding residences.

Development of new residences would also change the character of existing views along local roadway corridors, specifically along Valley Boulevard. Views looking east and west along Valley Boulevard near the Plan Area consist of industrial uses to the south, and commercial and residential uses to the north. At the portion of Valley Boulevard adjacent to the southern boundary of the Plan Area, views looking north consist of street trees and assorted vegetation. As discussed above, although development within the Plan Area would change existing views of a natural vacant lot, development would be designed to create visual separation between residences and commercial structures and maximize use of open space, as shown in Figure 2-9 under Section 2.5, *Project Characteristics*. Further, landscaping at the perimeter of the Plan Area along Valley Boulevard would be designed to replicate elements of the existing landscape character of the site. Two 25-foot vegetated retaining MSE walls would line the southern site boundary and would be set a minimum of 2 feet from the road right of way and 10 feet from curb. The right of way would be landscaped with planted trees, shrubs, ground covers, and/or vines to further soften the scale of the MSE retaining walls. This proposed design would limit views of development further north within the Plan Area from Valley Boulevard, especially as the small-lot residences would be set back and terraced away from the perimeter of the site. Therefore, as shown in Figure 4.1-7 and Figure 4.1-8, the proposed Specific Plan would maintain existing views of vegetation along Valley Boulevard and would not substantially alter the character of these views.

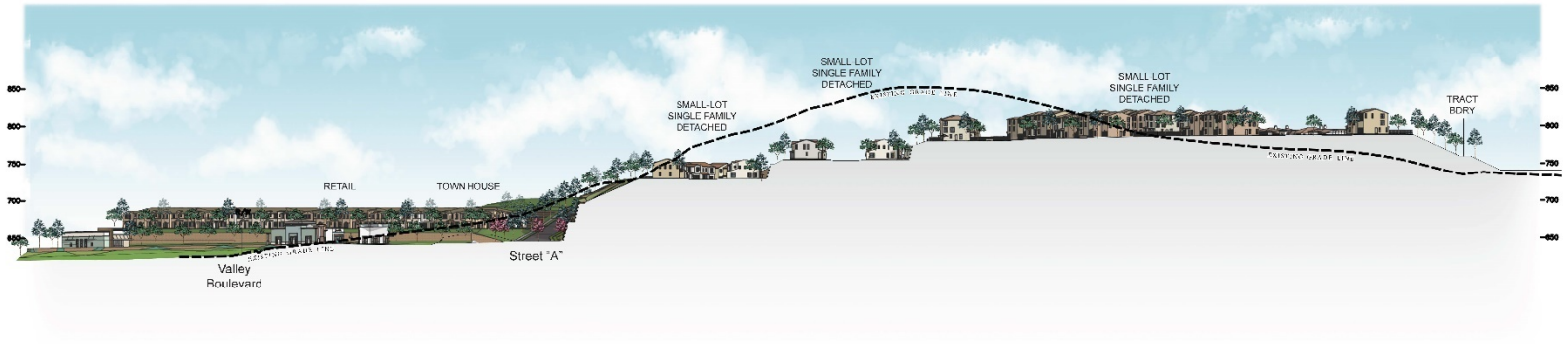
Overall, although development of commercial and residential uses under the proposed Specific Plan would constitute a change to the visual character and quality of the site, development would be generally consistent with the character of surrounding structures. The uses included in the proposed Specific Plan would contribute to existing residential development to the north and existing commercial development to the southwest along Valley Boulevard and would incorporate varied building lot sizes and spacing to conserve open space within the site and create visual breaks to reduce overall building massing. Therefore, impacts to the visual character and quality of the site would be less than significant.

Mitigation Measures

No mitigation required.

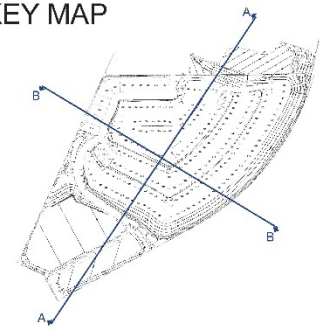
Figure 4.1-2 Project Cross Sections

SECTION A-A



SECTION B-B

KEY MAP



Source: MBI, KTGY Group, Inc.

Figure 4.1-3 View of Project from Roundup Drive

Conceptual Project View from Roundup Dr.

Source: KTGY Group, Inc.

KEY MAP

Figure 4.1-4 View of Project from North Pacer Court

Conceptual Project View from North Pacer Ct.

Source: KTGY Group, Inc.

KEY MAP

Figure 4.1-5 View of Project from North Pacer Court

Conceptual Project View from North Pacer Ct.

Source: KTGY Group, Inc.

KEY MAP

Figure 4.1-6 View of Project from Timberland Lane

Conceptual Project View from Timberland Ln.

Source: KTGY Group, Inc.

KEY MAP

Figure 4.1-7 View of Project from Valley Boulevard

Conceptual Project View from Valley Blvd.

Source: KTGY Group, Inc.

KEY MAP

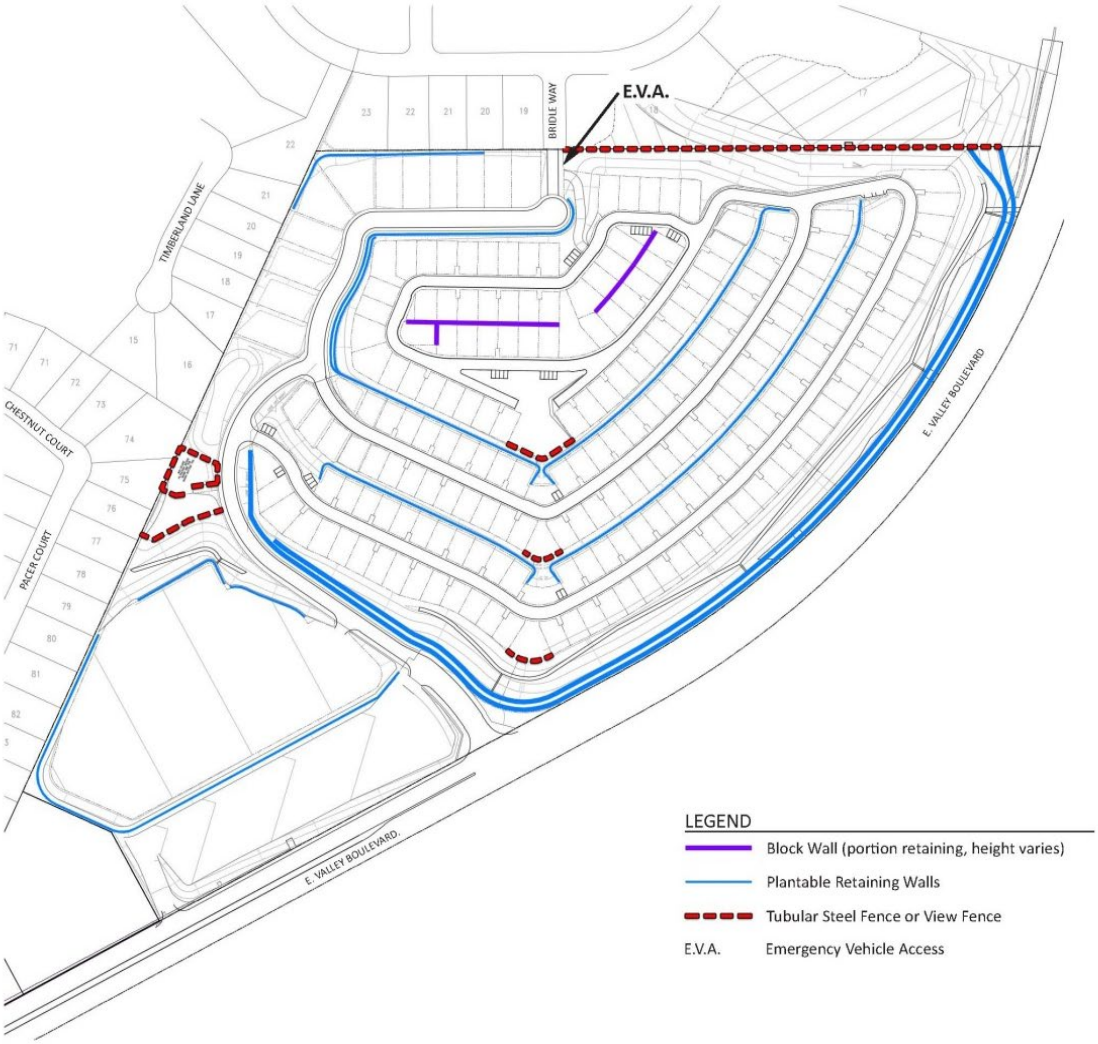
Figure 4.1-8 View of Project from Valley Boulevard towards Proposed Commercial District

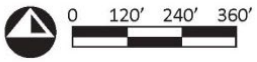
Conceptual Project View from Valley Blvd.

Source: KTGY Group, Inc.

KEY MAP

Figure 4.1-9 Wall Locations





Impact AES-2 THE PROPOSED PROJECT WOULD NOT SUBSTANTIALLY ALTER LEVELS OF LIGHTING OR GLARE IN THE AREA SURROUNDING THE PLAN AREA AND THE INCREASED BUILDING HEIGHT WOULD NOT SUBSTANTIALLY INCREASE SHADING EXPERIENCED BY ADJACENT RESIDENCES. IMPACTS TO LIGHT AND GLARE AND SHADE AND SHADOW WOULD BE LESS THAN SIGNIFICANT.

The Plan Area is located in a developed suburban area that includes various sources of light and glare, including street lights, security lighting, signage, reflective building windows, parked vehicles, and head- and tail-lights from moving vehicles. The Plan Area is generally undeveloped with no on-site sources of light or glare. Under the proposed Specific Plan, commercial development would be constructed in the southwestern portion of the Plan Area and residential uses would be constructed throughout the remainder of the site, with areas of open space. Commercial development would include accent and festive light features, outdoor dining areas, decorative lights, and storefront windows with muted natural and earth tone-colored exterior facades. Residential development design features would include windows and recessed windows with decorative treatments, porch lights, and other side lighting, and exterior facades would use architecturally consistent materials with muted natural and earth tone colors.

Glare Impacts

In comparison to existing conditions, windows on the proposed commercial and residential buildings would increase reflected sunlight during certain times of the day. Some of these windows, such as those on the terraced small-lot residences, would be at a greater height than the surrounding development, and retail buildings would likely have large panel windows characteristic of commercial development. However, retail and commercial buildings would be designed to include projections, overhangs, canopies, and recesses to provide sidewalk shading, which would reduce window light exposure and reflection. Residential buildings would also be designed to encourage use of recesses and would have non-reflective exterior materials, which would reduce the potential for reflected incident light or glare. The terraced levels of the small-lot district would also help reduce glare impacts. Each level would be set back from the one below to minimize building massing, which would create space to allow in light and stagger the proximity of residence windows. Furthermore, the project frontage along Valley Boulevard would have two 25-foot retaining walls with a landscape area between the back of curb and the wall. This landscape area would have trees, shrubs, and groundcovers to soften the scale of the wall, which would also provide a vegetative barrier between drivers on Valley Boulevard and potential reflected light from development within the Plan Area. With these design features, potential glare impacts would be less than significant.

Light Impacts

The proposed Specific Plan would create new sources of light from the Plan Area due to the new commercial and residential development, particularly in the evening hours when interior lights would be on in the inside of buildings. However, lighting associated with the retail structures would be similar to that of other commercial development along Valley Boulevard near its intersection with Grand Avenue. Also, the commercial component of the project would be buffered from existing residential uses by the townhome district of the Project. This would greatly reduce light impacts to the adjacent residential uses. Lighting associated with the proposed residential uses would be similar to existing residences north of the Plan Area. Furthermore, as discussed under the *Regulatory Setting* of this Section, the Walnut General Plan Land Use Element includes policies to address lighting and glare from onsite development, including Policy LCD-1.6, Commercial

Compatibility with Residential Zones, and Policy LCD-7.4, Night Sky. The project proposes substantial setbacks and landscaped setbacks from existing development that would further reduce potential lighting impacts. For instance, at the project's border with existing residential structures along the single-family and townhome district frontage, structures would be setback a minimum of 35 feet in accordance with the Specific Plan. Existing residential structures abutting the single-family and townhome districts include rear yards with landscaping that provide an additional setback from the Plan Area. The project applicant would be required to provide on-site lighting plans which would be reviewed by the Planning Commission prior to issuance of development permits. In addition, the exterior facades of both residential and commercial structures would be constructed with neutral, muted, and earth-tone colored non-reflective materials. Therefore, overall levels of light and glare associated with the residential and commercial buildings would not substantially alter levels of lighting or glare in the surrounding area.

As discussed in Section 4.5, *Traffic and Transportation*, the proposed project would generate an estimated 333 new evening peak hour trips in comparison to existing conditions. The lights from vehicles entering and exiting the Plan Area would occur in the access driveway on Valley Boulevard. However, the Plan Area is in a suburban area in proximity to industrial and commercial uses that experiences a consistent flow of traffic, and the additional 333 trips associated with the PM peak hour would occur during daylight hours for a substantial part of the year. Furthermore, according to the Traffic Impact Analysis prepared for the proposed Specific Plan, the additional trips would constitute two percent of the existing evening peak hour traffic volumes on Valley Boulevard, and therefore would generate a nominal increase in nighttime lighting from vehicle traffic (Kunzman 2019). Overall, the light impacts associated with cars under the proposed project would be less than significant.

Shade and Shadow Impacts

As previously stated, because the City of Walnut does not currently have thresholds for shade and shadow impacts within the City, thresholds from the City of Los Angeles CEQA Thresholds Guide were used in the analysis. The guidelines state that a project may have a significant impact if it includes light-blocking structures in excess of 60 feet in height above ground elevation located within a distance of three times the height of the proposed structure to the nearest shadow-sensitive use. The small-lot residences would be built to the highest elevation. They would be located in the center of the Plan Area and would be low- to mid-rise with a maximum height of 35 feet, and would be more than 105 feet away (three times their proposed maximum height) from existing shadow-sensitive uses adjacent to the Plan Area, which primarily include the single-family residences to the north, fronting Roundup Drive and Timberland Lane. In addition, as discussed under Impact AEI-1, and depicted in Figure 4.1-2, the current peak of the Plan Area is at an elevation of 854 feet and would be graded to an elevation of approximately 781. Other areas of the Plan Area would be filled with the highest pad having an elevation of 791 feet. The proposed residential units located in the upper tier of the Plan Area would have a maximum height of 35 feet; therefore, at the maximum height, the project would be 28 feet lower than the existing peak. The small-lot residences would have varying site elevations because of the maximum three-story height limit and the different heights of terraces used to accommodate the slope of the site. As such, shadows generated by the buildings at this height would not extend to the existing residences north of the Plan Area and in some areas, would be blocked by the proposed two-story single-family homes that would be located in the northern portion of Specific Plan area. Other areas of the Plan Area that would be developed would, with proposed grading, keep with the existing topography. The setbacks proposed from existing residences would also minimize shade or shadow impacts. In addition,

because the heights of the proposed commercial buildings and single-family residences would have a maximum height of two-stories, these uses would also not generate substantial increases in shading experienced by surrounding development. Therefore, overall shadows generated by the proposed buildings would not substantially increase shading levels outside of the Plan Area and impacts would be less than significant.

Mitigation Measures

No mitigation required.

c. Cumulative Impacts

The planned and pending projects in the vicinity of the Plan Area are listed in Table 3-1, in Section 3, *Environmental Setting*, which primarily include residential projects but also include retail projects, industrial projects, various office buildings, and anticipated school enrollment growth. The City of Walnut is largely built out with few remaining areas of undeveloped open space. Future development in the City has the potential to alter the visual quality and character of the surrounding community through use of new architectural styles and designs as well as increased building heights. However, future projects in the City of Walnut would be required to adhere to specific development standards in the City's zoning ordinance and General Plan designed to enhance the visual appeal of development and public views in the City. Additionally, there are no pending projects in any viewshed from which the Plan Area can be seen. The light-industrial project at 22122 Valley Boulevard in the City of Pomona is the closest proposed development within a 0.25-mile radius of the Plan Area, and the K-mart store at 239 South Diamond Bar Boulevard and the light industrial development at 339 Cheryl Lane are the closest proposed developments within a 1.5-mile radius from the Plan Area. The Plan Area is not visible from these locations since existing structures in the viewsheds of these potential developments obstruct views of the Plan Area. In addition, as discussed under Impact AES-1, the proposed project would not have a significant negative impact on the aesthetics of the Plan Area or its surroundings and therefore would not contribute to cumulative aesthetic impacts.

None of the cumulative projects in the area have views of the Plan Area. Therefore, any changes to light and glare and shadow conditions from new commercial and residential development within the Plan Area would not contribute to impacts with other potential projects in the cumulative projects list. Development under the proposed Specific Plan would increase light and glare in the immediate area and would increase shading within the Plan Area. However, shading would not extend to reach existing single-family residences to the north or west beyond the site boundaries. Further, new sources of light and glare generated under the proposed Specific Plan would not be in proximity to potential light and glare or shading from future development. Therefore, the proposed Specific Plan would not have the potential to create cumulative visual impacts with these projects or any other known development projects in the vicinity, and any potential increases to light and glare, or shadows generated by the proposed Specific Plan would not cumulatively contribute to those generated by these projects.

Although cumulative development may, over time, alter the visual character of this part of the City, it would be subject to the same policies and regulations as the proposed Specific Plan and no planned or pending developments are within the viewshed of the Plan Area. As a result, potential impacts related to aesthetics would not be cumulatively considerable and would be less than significant.

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4.2 Air Quality

This section discusses the project's potential impacts to regional and local air quality, including temporary impacts related to construction and long-term impacts associated with activities during the operation period. Traffic projections used in emissions estimates are based on the project's trip generation rates provided in the Traffic Impact Analysis conducted by Kunzman Associates, Inc. (2019), which is provided as Appendix D. Construction and operational emissions were calculated using the CalEEMod. The CalEEMod emissions output files are available in Appendix C to the EIR.

4.2.1 Setting

a. Regional Climate and Meteorology

The Plan Area is in the South Coast Air Basin (SCAB or Basin), which is bounded by the Pacific Ocean to the west and the San Gabriel, San Bernardino, and San Jacinto Mountains to the north and east, and includes all of Orange County and the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, in addition to the San Gorgonio Pass area in Riverside County. The regional climate in the SCAB is considered semi-arid and is characterized by warm summers, mild winters, infrequent seasonal rainfall, moderate daytime onshore breezes, and moderate humidity. Air quality is primarily influenced by meteorology and a wide range of emissions sources, such as dense population centers, substantial vehicular traffic, and industry.

Air pollutant emissions in the Basin are generated primarily by stationary and mobile sources. Stationary sources can be divided into two major subcategories: point and area sources. Point sources occur at a specific location and are often identified by an exhaust vent or stack. Examples include boilers or combustion equipment that produce electricity or generate heat. Area sources are widely distributed and include such sources as residential and commercial water heaters, painting operations, lawn mowers, agricultural fields, landfills, and some consumer products. Mobile sources refer to emissions from motor vehicles, including tailpipe and evaporative emissions, and are classified as either on-road or off-road. On-road sources may be legally operated on roadways and highways. Off-road sources include aircraft, ships, trains, and self-propelled construction equipment. Air pollutants can also be generated by the natural environment such as when high winds suspend fine dust particles.

b. Air Pollutants of Primary Concern

The State and federal Clean Air Acts mandate the control and reduction of certain air pollutants. Under these Acts, the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for certain "criteria" pollutants. Ambient air pollutant concentrations are affected by the rates and distributions of corresponding air pollutant emissions, as well as by the climactic and topographic influences discussed above. The primary determinant of concentrations of non-reactive pollutants (such as carbon monoxide and suspended particulate matter) is proximity to major sources. Ambient carbon monoxide (CO) levels in particular usually closely follow the spatial and temporal distributions of vehicular traffic. A discussion of primary criteria pollutants is provided below.

Ozone

Ozone is a colorless gas with a pungent odor. Most ozone in the atmosphere is formed as a result of the interaction of ultraviolet light, reactive organic gases (ROG), and oxides of nitrogen (NO_X). ROG (the organic compound fraction relevant to ozone formation, and sufficiently equivalent for the purposes of this analysis to volatile organic compounds [VOC]) is composed of non-methane hydrocarbons (with some specific exclusions), and NO_X is made of different chemical combinations of nitrogen and oxygen, mainly NO and NO_2. A highly reactive molecule, ozone readily combines with many different components of the atmosphere. Consequently, high levels of ozone tend to exist only while high ROG and NO_X levels are present to sustain the ozone formation process. Once the precursors have been depleted, ozone levels rapidly decline. Because these reactions occur on a regional rather than local scale, ozone is considered a regional pollutant. Short-term exposure to ground-level ozone can cause a variety of health effects, including inflammation of the lining of the lungs and other respiratory symptoms such as cough and chest pain (U.S. EPA 2015).

Carbon Monoxide

Carbon monoxide (CO) is an odorless, colorless, gas. CO causes a number of health problems including fatigue, headache, confusion, and dizziness. Exposure to CO reduces the capacity of the blood to carry oxygen, thereby decreasing the supply of oxygen to tissues and organs, such as the heart (U.S. EPA 2015). The incomplete combustion of petroleum fuels in on-road vehicles and at power plants is a major cause of CO. CO is also produced during the winter from wood stoves and fireplaces. CO tends to dissipate rapidly into the atmosphere; consequently, violations of the State CO standard are generally associated with major roadway intersections during peak hour traffic conditions.

Localized carbon monoxide “hotspots” can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal Ambient Air Quality Standards (AAQS) of 35.0 parts per million (ppm) or the State AAQS of 20.0 ppm.

Nitrogen Dioxide

Nitrogen dioxide (NO_2) is a by-product of fuel combustion, with the primary source being motor vehicles and industrial boilers and furnaces. The principal form of nitrogen oxide produced by combustion is nitric oxide (NO), but NO reacts rapidly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_X. Nitrogen dioxide is an acute irritant. A relationship between NO_2 and chronic pulmonary fibrosis may exist, and an increase in bronchitis in young children at concentrations below 0.3 ppm may occur. Nitrogen dioxide absorbs blue light and causes a reddish brown cast to the atmosphere and reduced visibility. It can also contribute to the formation of particulate matter (PM_{10}) and acid rain.

Suspended Particulates

Particulate matter-10 is small particulate matter measuring no more than 10 microns in diameter, while $PM_{2.5}$ is fine particulate matter measuring no more than 2.5 microns in diameter. Suspended particulates are mostly dust particles, nitrates and sulfates. They are a by-product of fuel combustion and wind erosion of soil and unpaved roads, and are directly emitted into the atmosphere through these processes. Suspended particulates are also created in the atmosphere through chemical reactions. The characteristics, sources, and potential health effects associated

with the small particulates (those between 2.5 and 10 microns in diameter) and fine particulates ($PM_{2.5}$) can be very different. The small particulates generally come from windblown dust and dust kicked up from mobile sources. The fine particulates are generally associated with combustion processes as well as being formed in the atmosphere as a secondary pollutant through chemical reactions. Fine particulate matter is more likely to penetrate deeply into the lungs and poses a serious health threat to all groups, but particularly to the elderly, children, and those with respiratory problems. More than half of the small and fine particulate matter that is inhaled into the lungs remains there, which can cause permanent lung damage. These materials can damage health by interfering with the body's mechanisms for clearing the respiratory tract or by acting as carriers of an absorbed toxic substance. Children, older adults, individuals with preexisting heart and lung disease (including asthma), and persons with lower socioeconomic status are considered to be among the groups most at risk for effects associated with PM exposures (U.S. EPA 2015).

Lead

Lead is a metal found naturally in the environment, as well as in manufacturing products. The major sources of lead emissions historically have been mobile and industrial sources. As a result of the phase-out of leaded gasoline, as discussed below, metal processing currently is the primary source of lead emissions. The highest level of lead in the air is generally found near lead smelters. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers.

Lead accumulates in bones, blood, and soft tissues of the body. Exposure to lead can affect development of the central nervous system in young children, resulting in neurodevelopmental effects such as lowered IQ and behavioral problems (U.S. EPA 2015). Therefore, in the early 1970s, the U.S. EPA set national regulations to gradually reduce the lead content in gasoline. In 1975, unleaded gasoline was introduced for motor vehicles equipped with catalytic converters. The most dramatic reductions in lead emissions occurred prior to 1990 due to the removal of lead from gasoline sold for most highway vehicles. U.S. EPA completed the ban prohibiting the use of leaded gasoline in highway vehicles in December 1995. As a result of U.S. EPA's regulatory efforts to remove lead from gasoline, lead concentrations have declined substantially over the past several decades. Lead emissions were further reduced substantially between 1990 and 2008, with reductions occurring in the metals industries at least in part as a result of national emissions standards for hazardous air pollutants (U.S. EPA 2013).

c. Current Ambient Air Quality

CARB and the U.S. EPA establish ambient air quality standards for major pollutants at thresholds intended to protect public health. Federal and State standards have been established for ozone, CO, NO_2, sulfur dioxide (SO_2), lead, and particulate matter (PM_{10} and $PM_{2.5}$). Standards have been set at levels intended to be protective of public health. California standards are more restrictive than federal standards for each of these pollutants except for lead and the eight-hour average for CO.

Local air districts and CARB monitor ambient air quality to assure that air quality standards are met, and if they are not met, to also develop strategies to meet the standards. Air quality monitoring stations measure pollutant ground-level concentrations (typically, ten feet above ground level). Depending on whether the standards are met or exceeded, the local air basin is classified as in "attainment" or "non-attainment." Some areas are unclassified, which means no monitoring data are available. Unclassified areas are considered to be in attainment. Table 4.2-1 summarizes the California Ambient Air Quality Standards (CAAQS) and the National Ambient Air Quality Standards (NAAQS) for each of these pollutants as well as the attainment status of the SCAB.

As shown in Table 4.2-1, the Basin is in nonattainment for the federal and State standards for ozone, as well as the State standard for particulate matter (PM_{10} and $PM_{2.5}$) and the federal standard for $PM_{2.5}$.

The SCAQMD monitoring station located nearest to the Plan Area is the Pomona monitoring station, located approximately 5.3 miles northeast of the Plan Area. Because this station only provides data for ozone and nitrogen dioxide levels, emissions data from the next closest station, the Azusa station located approximately nine miles northwest of the Plan Area, was used for the remainder of the pollutants. Data for carbon dioxide levels was not available at either of these stations or at any other local monitoring station. Table 4.2-2 indicates the number of days each of the standards has been exceeded at these stations in each of the last four years for which data is available. The State's ozone worst-hour standard was exceeded 22 times in 2014, 30 times in 2015, 20 times in 2016 and 18 times in 2017. The federal worst-hour ozone standard was exceeded once in 2014, twice in 2015, once in 2016, and five times in 2017, and the federal 8-hour ozone standard was exceeded 53 times in 2014 and 2015, 26 times in 2016 and 35 times in 2017. In addition, the State's PM_{10} 24-hour air quality standard was exceeded 21 times in 2014, 12 times in 2015 and 2016 and 7 times in 2017. Further, the federal $PM_{2.5}$ 24-hour air quality standard was exceeded twice in 2015, and was not exceeded in 2014, 2016 or 2017. The standards for NO_2 have not been exceeded in the last four years, and no data was available for carbon monoxide emissions.

Table 4.2-1 Ambient Air Quality and Basin Attainment Status

Criteria Pollutant	Federal Standard	Federal Attainment Status (A/N/U[1])	California Standard	California Attainment Status (A/N/U)
Ozone (1-Hour)	0.12 ppm	N (Extreme)	0.09 ppm	N
Ozone (8-Hour)	0.075 ppm (effective 2008)	N (Extreme)	0.070 ppm	N
	0.070 ppm (effective 2015)	Designation Pending		
Carbon Monoxide (1-Hour)	35 ppm	A	20 ppm	A
Carbon Monoxide (8-Hour)	9 ppm	A	9 ppm	A
Nitrogen Dioxide (1-Hour)	0.10 ppm	U	0.18 ppm	A
Nitrogen Dioxide (Annual)	0.053 ppm	A	0.030 ppm	A
Sulfur Dioxide (1-Hour)	0.075 ppm	U	–	–
Sulfur Dioxide (24-Hour)	0.14 ppm	U	–	–
Sulfur Dioxide (Annual)	0.03 ppm	U	–	–
PM_{10} (24-Hour)	150 µg/m[2]	A	50 µg/m	N
PM_{10} (Annual)	–	–	20 µg/m	N
$PM_{2.5}$ (24-Hour)	35 µg/m (effective 2006)	N (Serious)	–	–
$PM_{2.5}$ (Annual)	12.0 µg/m (effective 2012)	N (Serious)	12 µg/m	N
Lead (3-Months Rolling)	0.15 µg/m	N (Partial) [3]	–	–
Hydrogen Sulfide (1-Hour)	–	–	0.03 ppm/42 µg/m	A
Sulfates (24-Hour)	–	–	25 µg/m	A
Vinyl Chloride (24-Hour)	–	–	0.01 ppm/26 µg/m	A

[1] A=Attainment; N=Nonattainment; U=Unclassified

[2] mg/m^3=milligrams per cubic meter ppm=parts per million; $\mu g/m^3$=micrograms per cubic meter

[3]Partial Nonattainment designation – Los Angeles County portion of Basin only for near-source monitors

Note: A designation of "--"indicates that there are no applicable standards or status.

Source: SCAQMD 2016

Table 4.2-2 Ambient Air Quality Data

Pollutant	2014	2015	2016	2017
Ozone, ppm – Worst Hour[1]	0.123	0.136	0.127	0.147
Number of days of State exceedances (>0.09 ppm)	22	30	20	18
Number of days of Federal exceedances (>0.12 ppm)	1	2	1	5
Ozone, ppm – 8-Hour[1]	0.099	0.098	0.092	0.114
Number of days of Federal exceedances (>0.07 ppm)	53	53	26	35
Carbon Monoxide, ppm – Worst 8 Hours	*	*	*	*
Number of days of State/Federal exceedances (>9.0 ppm)	*	*	*	*
Nitrogen Dioxide, ppm – Worst Hour[1]	0.089	0.072	0.069	0.081
Number of days of State exceedances (>0.18 ppm)	0	0	0	0
Particulate Matter <10 microns, $\mu g/m^3$ Worst 24 Hours[2]	96.0	101.0	74.0	83.9
Number of samples of State exceedances (>50 $\mu g/m^3$)	21	12	12	7
Number of samples of Federal exceedances (>150 $\mu g/m^3$)	0	0	0	0
Particulate Matter <2.5 microns, $\mu g/m^3$ Worst 24 Hours[2]	32.4	70.3	32.1	24.9
Number of samples of Federal exceedances (>35 $\mu g/m^3$)	0	2	0	0

[1]Data from Pomona station.
[2] Data from Azusa station was used because it was not provided by the Pomona station.
* Insufficient data available to determine the value
Source: CARB, 2014-2017 Annual Air Quality Data Summaries available at http://www.arb.ca.gov/adam/topfour/topfour1.php

d. Regulatory Setting

The Federal Clean Air Act governs air quality in the United States. In addition to being subject to federal requirements, air quality in California is also governed by more stringent regulations under the California Clean Air Act. At the federal level, the U.S. EPA administers the Clean Air Act (CAA). The CAA is administered by CARB at the State level and by air quality management districts at the regional and local levels. The SCAQMD regulates air quality in the SCAB.

Federal

The U.S. EPA is responsible for enforcing the federal CAA. The U.S. EPA is also responsible for establishing the National Ambient Air Quality Standards (NAAQS). The NAAQS are required under the 1977 CAA and subsequent amendments. The U.S. EPA regulates emission sources that are under the exclusive authority of the federal government, such as aircraft, ships, and certain types of locomotives. The agency has jurisdiction over emission sources outside state waters (e.g. beyond the outer continental shelf) and establishes various emission standards, including those for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission standards established by the CARB.

State

In 1967, the California Legislature passed the Mulford-Carrell Act, which combined two Department of Health bureaus (the Bureau of Air Sanitation and the Motor Vehicle Pollution Control Board) to establish the California Air Resources Board (CARB). The CARB coordinates and oversees both State and federal air pollution control programs in California. It also oversees activities of local air quality management agencies and maintains air quality monitoring stations throughout the State in conjunction with the U.S. EPA and local air districts. The CARB has divided the State into 15 air basins based on meteorological and topographical factors of air pollution.

The CARB identified particulate emissions from diesel-fueled engines (diesel particulate matter [DPM]) as toxic air contaminants (TACs) in August 1998. Following the identification process, CARB was required by law to determine whether there is a need for further control. In September 2000, the CARB adopted the Diesel Risk Reduction Plan (Diesel RRP), which recommends many control measures to reduce the risks associated with DPM and to achieve the goal of 85 percent DPM reduction by 2020.

California Green Building Code

The California Green Buildings Standards Code (Cal Green Code) (California Code of Regulations [CCR], Title 24, Part 11) was adopted by the California Building Standards Commission in 2016 and became effective in January 2017. The Code applies to all new constructed residential, nonresidential, commercial, mixed-use, and State-owned facilities, as well as schools and hospitals. Cal Green Code is comprised of Mandatory Residential and Nonresidential Measures and more stringent Voluntary Measures (TIERs I and II).

Mandatory Measures are required to be implemented on all new construction projects and consist of a wide array of green measures concerning Plan Area design, water use reduction, improvement of indoor air quality, and conservation of materials and resources. The Cal Green Building Code refers to Title 24, Part 6 compliance with respect to energy efficiency; however, it encourages 15 percent energy use reduction beyond that required in Part 6. Voluntary Measures are optional, more stringent measures may be used by jurisdictions to enhance their commitment towards green and sustainable design and achievement of Assembly Bill (AB) 32 goals. Under TIERs I and II, all new construction projects are required to reduce energy consumption by 15 percent and 30 percent, respectively, below the baseline required under the California Energy Commission (CEC), as well as implement more stringent green measures than those required by mandatory code.

California Code of Regulations

In accordance with the California Code of Regulations (CCR), project construction and operation must comply with State standards including the Cal Green Code, engine idling regulations and fuel standards. CCR Section 2485 of Title 13 requires that idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location. CCR Section 93115 of Title 17 requires that operation of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emission standards.

Regional

The 1976 Lewis Air Quality Management Act established the SCAQMD and other air districts throughout California. The federal CAA Amendments of 1977 required that each state adopt an implementation plan outlining pollution control measures to attain the federal standards in

nonattainment areas of the state. The CARB is responsible for incorporating air quality management plans for local air basins into a State Implementation Plan (SIP) for U.S. EPA approval. Significant authority for air quality control within the local air basins has been given to local air districts that regulate stationary source emissions and develop local nonattainment plans.

Regional Air Quality Management Plan

The SCAQMD and the Southern California Association of Governments (SCAG) are responsible for formulating and implementing the Air Quality Management Plan (AQMP) for the Basin. Every three years, the SCAQMD prepares a new AQMP, updating the previous plan and having a 20-year horizon. The SCAQMD's latest AQMP, the 2016 AQMP, was adopted on March 3, 2017. The 2016 AQMP incorporates new scientific data and notable regulatory actions that have occurred since adoption of the 2012 AQMP, including the approval of the new federal 8-hour ozone standard of 0.070 ppm, finalized in 2015. The 2016 AQMP incorporates the latest scientific and technical information and planning assumptions, including the latest applicable growth assumptions, Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), and updated emission inventory methodologies for various source categories (SCAQMD 2017).

The 2016 AQMP builds on the approaches taken in the prior AQMP for the attainment of federal PM and ozone standards and highlights the significant amount of reductions to be achieved. It emphasizes the need for interagency planning to identify additional strategies to achieve reductions within the timeframes allowed under the federal CAA, especially in the area of mobile sources. The 2016 AQMP also includes a discussion of emerging issues and opportunities, such as fugitive toxic particulate emissions, zero-emission mobile source control strategies, and the interacting dynamics among climate, energy, and air pollution. Additionally, the 2016 AQMP demonstrates strategies for attainment of the new federal 8-hour ozone standard and vehicle miles traveled (VMT) emissions offsets, per recent USEPA requirements (SCAQMD 2016b).

The SCAQMD has three regulatory compliance measures related to the proposed project which are required to be implemented to mitigate emissions. Regulatory compliance measures are existing requirements and reasonably-anticipated standard conditions that are frequently required independently of CEQA review and serve to offset or prevent specific impacts. Regulatory compliance measures are not mitigation measures for the environmental clearance document since they are already required as part of the building permit issuance process.

SCAQMD Rule 403: Demolition, Grading, and Construction Activities

The project shall comply with all applicable standards of the Southern California Air Quality Management District (SCAQMD), including the following provisions of Rule 403:

- All unpaved demolition and construction areas shall be wetted at least twice daily during excavation and construction, and temporary dust covers shall be used to reduce dust emissions and meet SCAQMD Rule 403. Wetting could reduce fugitive dust by as much as 50 percent.
- The construction area shall be kept sufficiently dampened to control dust caused by grading and hauling, and at all times provide reasonable control of dust caused by wind.
- All clearing, earth moving, or excavation activities shall be discontinued during periods of high winds (i.e., greater than 15 mph), so as to prevent excessive amounts of dust.
- All dirt/soil shall be secured by trimming, watering, or other appropriate means to prevent spillage and dust.

- All dirt/soil materials transported off-site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- General contractors shall maintain and operate construction equipment so as to minimize exhaust emissions.
- Trucks having no current hauling activity shall not idle but be turned off.

SQAQMD RULE 1113: ARCHITECTURAL COATINGS

The project shall comply with SCAQMD Rule 1113 limiting the volatile organic compound (VOC) content of architectural coatings.

SCAQMD RULE 445: WOOD BURNING STOVES

In accordance with SCAQMD Rule 445, projects with a property line boundary within 150 feet of natural gas service and below an elevation of 3,000 feet are prohibited from the installation of any open or enclosed permanently installed wood burning devices. The average elevation of Walnut is 561 feet and the project will have natural gas service, requiring compliance with this rule.

e. Sensitive Receptors

The ambient air quality standards described above were established to represent the levels of air quality considered protective of public health and welfare. They are designed to protect that segment of the public most susceptible to respiratory distress, such as children under 14, the elderly over 65, persons engaged in strenuous work or exercise, and people with cardiovascular and chronic respiratory diseases. Therefore, the majority of sensitive receptor locations are schools and hospitals. Sensitive receptors likely to be affected by air quality impacts associated with project construction primarily include the single-family residences located north and west of the Plan Area. In addition, because the Specific Plan includes development of single-family and multi-family residences, these would also be considered as sensitive receptors.

4.2.2 Impact Analysis

a. Methodology and Significance Thresholds

Pursuant to the Appendix G Section III (Air Quality) of the CEQA Guidelines, air quality impacts would be considered significant if the project would:

1. Conflict with or obstruct implementation of the applicable air quality plan.
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
4. Expose sensitive receptors to substantial pollutant concentrations.
5. Create objectionable odors affecting a substantial number of people.

As discussed in the Initial Study (Appendix B), the project would not create objectionable odors. Therefore, impacts related to Threshold 5 would be less than significant and is not discussed below;

the analysis below focuses on the other remaining impact criteria listed above (Thresholds 1, 2, 3, and 4).

SCAQMD Emissions Thresholds

The SCAQMD is the main regulatory authority in the region and has developed specific numeric thresholds that apply to projects in the Basin. The SCAQMD has established the following significance thresholds for temporary construction activities and long-term operation of projects in the Basin.

Construction Emissions Thresholds

Impacts related to construction emissions associated with the project would be significant if the construction emissions exceeded the following thresholds:

- 75 pounds per day of ROG
- 100 pounds per day of NO_X
- 550 pounds per day of CO
- 150 pounds per day of PM_{10}
- 55 pounds per day of $PM_{2.5}$

Operational Emissions Thresholds

Impacts from direct and/or indirect operational emissions associated with the project would be significant if they exceeded the following daily or the annual emissions thresholds:

- 55 pounds per day of ROG
- 55 pounds per day of NO_X
- 550 pounds per day of CO
- 150 pounds per day of SO_X
- 150 pounds per day of PM_{10}

Localized Significance Thresholds

The SCAQMD has also developed Localized Significance Thresholds (LST) in response to the Governing Board's Environmental Justice Enhancement Initiative (1-4), which was prepared to update the *CEQA Air Quality Handbook*. LSTs were devised in response to concern regarding exposure of individuals to criteria pollutants in local communities. LSTs represent the maximum emissions from a project that will not cause or contribute to an air quality exceedance of the most stringent applicable federal or state ambient air quality standard at the nearest sensitive receptor, taking into consideration ambient concentrations in each source receptor area (SRA), project size, and distance to the sensitive receptor. However, LSTs only apply to emissions within a fixed stationary location, including idling emissions during both project construction and operation. LSTs have been developed for NO_X, CO, PM_{10} and $PM_{2.5}$. LSTs do not apply to mobile sources such as cars on a roadway (SCAQMD 2008). In addition, because the majority of operational emissions would be generated by cars on area roadways, this analysis does not apply LSTs for operational emissions to on-site development.

LSTs have been developed for emissions in construction areas up to five acres in size. The SCAQMD provides lookup tables for project sites that measure one, two, or five acres. The Plan Area is

approximately 49 acres and located in Source Receptor Area 10 (SRA-10). Although the Plan Area is considerably larger than five acres, it is unlikely that more than five acres of the site would be developed at a time (consistent with the assumed construction equipment mix, as outlined in Appendix C to the EIR). Moreover, a site larger than five acres would result in a greater area of dispersion of emissions, rather than concentrating emissions within a five-acre area. Therefore, LSTs for a five-acre site in SRA-10 were used to provide a conservative analysis. Furthermore, LSTs are provided for receptors at a distance of 82 to 1,640 feet (25 to 500 meters) from a project site boundary. As described in the *Setting* above, the sensitive receptors closest to the Plan Area are single-family residences located immediately adjacent to the northern and western boundaries of the Plan Area boundary. According to the SCAQMD's publication, *Final Localized Significant Thresholds Methodology*, projects with boundaries located closer than 82 feet to the nearest receptor should use the LSTs for receptors located at 82 feet. LSTs for construction on a five-acre site in SRA-10 at a distance of 82 feet are shown in Table 4.2-3. Given the size of the Plan Area and design of development, construction would occur within 82 feet of the nearest receptors for a limited portion of Plan Area construction.

Table 4.2-3 SCAQMD LSTs for Construction Emissions in SRA-10

Pollutant	Allowable Emissions (lbs/day) as a Function of Receptor Distance (82 feet) from a Five-Acre Site in SRA-10
Gradual conversion of NO_X to NO_2	236
CO	1,566
PM_{10}	12
$PM_{2.5}$	7

Source: SCAQMD 2009.

Carbon Monoxide Hotspot Analysis

An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the State one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. Hot spots are largely caused by vehicular emissions, primarily when idling at congested intersections. With the decrease in vehicular emissions due to advances in emissions control technologies and the introduction of cleaner fuels, CO concentrations in the air basin have steadily declined.

Toxic Air Contaminants (TACs)

The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* also recommends against siting sensitive receptors within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day. The primary concern with respect to heavy-traffic roadway adjacency is the long-term effect of TACs, such as diesel exhaust particulates, on sensitive receptors. The primary source of diesel exhaust particulates is heavy-duty trucks on freeways and high-volume arterial roadways.

Construction Emissions Methodology

The California Emissions Estimator Model (CalEEMod) version 2016.3.2 was used to estimate air pollutant emissions associated with project construction. Construction activities associated with this development would generate diesel emissions and dust. Construction emissions would result in temporary air quality impacts that may vary substantially from day to day, depending on the level of

activity, the specific type of operation, and the prevailing weather conditions. Construction equipment that would generate criteria air pollutants includes excavators, cement trucks, and drill rigs. This analysis conservatively assumes that all construction equipment used would be diesel-powered. Electrically-powered equipment would not result in criteria pollutant or ozone precursor emissions.

Operational Emissions Methodology

Operational emissions associated with proposed on-site development were estimated using CalEEMod. Operational emissions include mobile source emissions, energy emissions, and area source emissions. Mobile source emissions are primarily generated by the motor vehicle trips to and from a project site associated with operation of on-site development. Emissions attributed to energy use include natural gas consumption for space and water heating. Area source emissions are generated by landscape maintenance equipment, consumer products, and architectural coating. To determine whether a regional air quality impact would occur, the increase in emissions is compared to the SCAQMD's recommended regional thresholds for operational emissions.

b. Project Impacts and Mitigation Measures

Threshold 1	Conflict with or obstruct implementation of the applicable air quality plan

Impact AQ-1 IMPLEMENTATION OF THE PROPOSED SPECIFIC PLAN WOULD NOT CONFLICT WITH THE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT (SCAQMD) AIR QUALITY MANAGEMENT PLAN (AQMP). FURTHERMORE, THE PROJECT WOULD NOT CONTRIBUTE SUBSTANTIALLY TO POPULATION OR EMPLOYMENT GROWTH; THEREFORE, IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Pursuant to the methodology provided in Chapter 12 of the 1993 SCAQMD CEQA Air Quality Handbook, consistency with the Basin 2016 AQMP is affirmed when a project (1) does not increase the frequency or severity of an air quality standards violation or cause a new violation; and (2) is consistent with the growth assumptions in the AQMP. As discussed under Impact AQ-2, the project would not generate emissions exceeding any of the SCAQMD thresholds for operation or construction, and thus would not contribute to an air quality standard violation. Regarding growth assumptions, vehicle use, energy consumption, and associated air pollutant emissions are directly related to population growth. A project may be inconsistent with the AQMP if it would generate population, housing, or employment growth exceeding the forecasts used in the development of the AQMP, since the forecast assumptions by SCAG for the basis of the land use and transportation control portions of the AQMP. The proposed project would result in increased commercial and residential development on the Plan Area compared to currently undeveloped conditions, which would provide new housing and job opportunities that would contribute to population growth. As discussed in Section 4.10, *Population and Housing*, based on an existing average household size of 3.48 individuals (DOF 2017), the development of 290 units would generate approximately 1,009 new residents. The City's estimated 2018 population is 30,457 and is projected to grow to 32,900 residents by 2035 (an approximately eight percent increase, or 2,443 individuals) according to the SCAG's 2016 regional population forecasts (California DOF 2018; SCAG 2016). It should also be noted that the City of Walnut is largely built-out, with limited opportunities for substantial further residential development. Because the population growth generated by the proposed project would be within SCAG's forecasted population growth for the City, the proposed project would not substantially contribute to population growth and would not conflict with the SCAQMD AQMP.

The estimated number of employees generated by the project is based on employment density numbers for different land uses (SCAG 2001). As shown in Table 4.2-4, the commercial component of the project would generate approximately 71 new employees. According to SCAG's regional population forecasts, City employment was approximately 8,400 in 2012, and is projected to grow to 9,600 in 2035. This is an increase of approximately 14 percent, or 1,200 individuals. Because the employment growth generated by the proposed Specific Plan would not substantially contribute to employment growth in the City, it would not conflict with the SCAQMD AQMP.

Overall, because the residential population growth generated by the proposed project would be below SCAG regional projections and future employees would likely be sourced from within the City or surrounding area, the project would not contribute substantially to population growth in the South Coast and would not conflict with the SCAQMD AQMP. Potential impacts would be less than significant.

Table 4.2-4 Estimated Project Employment

Land Use	Area (sf)	Employment Density[1] (sf/employee)	Number of Employees
Commercial Space	30,000[2]	424[3]	71
Total			**71**

[1] Source: SCAG 2001
[2] Square footage reflects amount of commercial space included under the proposed Specific Plan.
[3] Employment density factor for other retail/services land use is used for the commercial space as this most closely reflects the activities of commercial development included in the proposed Specific Plan.

Mitigation Measures

No mitigation required.

Threshold 2	Violate any air quality standard or contribute substantially to an existing or projected air quality violation

Impact AQ-2 CONSTRUCTION OF THE PROPOSED PROJECT WOULD NOT GENERATE AIR POLLUTANT EMISSIONS THAT WOULD EXCEED SCAQMD THRESHOLDS. THEREFORE, AIR QUALITY IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Project construction would consist of grading, construction of terraced foundations, and development of single- and multi-family dwelling units and commercial structures. It would also include installation of a 10-inch sewer line along Valley Boulevard. These activities would generate temporary air pollutant emissions associated with fugitive dust (PM_{10} and $PM_{2.5}$), exhaust emissions from heavy construction vehicles, and ROGs that would be released during the drying phase after application of architectural coatings. The grading phase would involve the greatest degree of heavy equipment use. Estimated preliminary grading for the proposed project would include export of approximately 85,250 cubic yards (cy) of soil, which would require approximately 6,089 roundtrip (to and from combined) haul truck trips assuming 28 cy of tandem haul truck capacity with two beds of 14 cy each. The construction schedule was provided by the applicant and equipment was based on CalEEMod defaults. Over the course of the assumed 129 days of grading, there would be approximately 24 roundtrip haul trips per day.

The proposed project would be required to comply with SCAQMD Rule 403, which identifies measures to reduce fugitive dust and the implementation of which is required at all construction sites in the Basin. The following conditions are required to reduce fugitive dust in compliance with SCAQMD Rule 403. These conditions were included in CalEEMod calculations for the grading phase of construction.

- **Minimization of Disturbance.** Construction contractors shall minimize the area disturbed by clearing, grading, earth moving, or excavation operations to prevent excessive amounts of dust.
- **Soil Treatment.** Construction contractors shall treat all graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved onsite roadways to minimize fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll compaction as appropriate. Watering shall be done as often as necessary, and at least twice daily, preferably in the late morning and after work is done for the day.
- **Soil Stabilization.** Construction contractors shall monitor all graded and/or excavated inactive areas of the construction site at least weekly for dust stabilization. Soil stabilization methods, such as water and roll compaction and environmentally safe dust control materials shall be applied to portions of the construction site that are inactive for over four days. In addition, a wheel shaker/wheel spreading device made with raised dividers (rails, pipe, or grates) at least 24 feet long and 10 feet wide shall be used to remove bulk material from tires and vehicle undercarriages before vehicles exit the site. If no further grading or excavation operations are planned for the area, it shall be seeded and watered until landscape growth is evident or periodically treated with environmentally safe dust suppressants to prevent excessive fugitive dust.
- **No Grading During High Winds.** Construction contractors shall stop all clearing, grading, earth moving, and excavation operations during periods of high winds (20 miles per hour or greater, as measured continuously over a one-hour period).
- **Street Sweeping.** Construction contractors shall sweep all onsite driveways and adjacent streets and roads at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

The architectural coating phase typically results in the highest emissions of ROG. The CalEEMod emissions estimate accounts for the use of low-volatile organic compound (VOC) paint (50 g/L for non-flat coatings) as required by SCAQMD Rule 1113 (see Appendix C for the CalEEMod outputs).

Table 4.2-5 summarizes the estimated maximum daily emissions of pollutants during each year of the construction period with compliance with the above described requirements, but without any additional mitigation. Emissions also reflect the use of tandem trucks for hauling soil as a project design feature. As shown in Table 4.2-5 and Table 4.2-6, with adherence to the conditions listed above, as required by SCAQMD Rule 403, emissions of fugitive dust (PM_{10} and $PM_{2.5}$) and NO_X would not exceed SCAQMD regional or LST thresholds for these criteria pollutants. The maximum daily emissions shown in Table 4.2-5 and Table 4.2-6 are based on the following default parameters:

- Grading activities and associated haul truck trips would occur over a 129-day period (six months of grading based on applicant provided construction schedule)
- Haul trucks would be tandem single-axle with a capacity of 28 CY (two beds of 14 CY each)
- Haul truck fleet uses range of engine models with varying fuel emission factors

As shown in Table 4.2-5, project construction would not result in an exceedance of any of the applicable daily thresholds for any emissions type. Emissions resulting from construction of the project are not anticipated to have negative health consequences to nearby sensitive receptors and would not result in a significant impact. Therefore, no mitigation measures are required.

Table 4.2-5 Estimated Construction Daily Air Pollutant Emissions

	Estimated Emissions (lbs/day)					
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_X
2019 Maximum Daily Emissions	4.4	45.6	22.9	10.7	6.7	<0.1
2020 Maximum Daily Emissions	6.1	74.6	44.2	10.5	6.5	0.1
2021 Maximum Daily Emissions	4.0	28.4	32.4	6.0	2.3	0.1
2022 Maximum Daily Emissions	8.4	27.6	36.5	6.8	2.5	0.1
2023 Maximum Daily Emissions	8.1	23.8	33.7	6.6	2.3	0.1
2024 Maximum Daily Emissions	7.9	22.7	33.8	6.6	2.2	0.1
SCAQMD Regional Threshold	75	100	500	150	55	150
Threshold Exceeded?	No	No	No	No	No	No

Notes: All calculations were made using CalEEMod. See Appendix C for calculations. Grading, Paving, Building Construction, and Architectural Coating totals include worker trips, soil export hauling trips, construction vehicle emissions, and fugitive dust.

Source: CalEEMod Version 2016.3.2. See emissions calculations in Appendix C.

Table 4.2-6 Localized Significance Thresholds

	Estimated Emissions (lbs/day)					
	ROG	NO_X	CO	PM_{10}	$PM_{2.5}$	SO_X
2019 Maximum Daily Onsite Emissions	4.3	45.6	22.1	10.5	6.7	<0.1
2020 Maximum Daily Onsite Emissions	4.5	50.2	32.0	10.3	6.5	<0.1
2021 Maximum Daily Onsite Emissions	1.9	17.4	16.6	1.0	0.9	<0.1
2022 Maximum Daily Onsite Emissions	4.4	15.6	16.4	0.8	0.8	<0.1
2023 Maximum Daily Onsite Emissions	4.4	14.4	16.2	0.7	0.7	<0.1
2024 Maximum Daily Onsite Emissions	4.4	13.4	16.4	0.6	0.6	<0.1
Local Significance Threshold (LSTs)	N/A	236	1,566	12	7	N/A
Threshold Exceeded?	No	No	No	No	No	No

N/A = not applicable

Notes: All calculations were made using CalEEMod. See Appendix C for calculations. Grading, Paving, Building Construction, and Architectural Coating totals include worker trips, soil export hauling trips, construction vehicle emissions, and fugitive dust.

Source: CalEEMod Version 2016.3.2. See emissions calculations in Appendix C.

Mitigation Measures

No mitigation required.

Threshold 3	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)

Impact AQ-3 OPERATION OF THE PROPOSED PROJECT WOULD GENERATE AIR POLLUTANT EMISSIONS IN THE LONG-TERM, BUT DAILY EMISSIONS ASSOCIATED WITH THE PROPOSED PROJECT WOULD NOT EXCEED SCAQMD THRESHOLDS. THEREFORE, IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Long-term air pollutant emissions are those associated with stationary sources and mobile sources involving any project-related changes. Operation of the proposed project would result in an increase in both stationary and mobile source emissions. Stationary source emissions would come from additional natural gas consumption and electrical demand by onsite buildings. Mobile source emissions would come from project-related vehicle trips.

Operational emissions of the proposed project would increase air pollutant emissions compared to the current undeveloped state of the Plan Area. Table 4.2-7 summarizes the increase in emissions associated with operation of the project, which shows that operational emissions would not exceed SCAQMD thresholds for any criteria pollutant. Therefore, the project would not contribute substantially to an existing or projected air quality violation. Consequently, the project's operational impact on regional air quality would be less than significant.

Table 4.2-7 Estimated Project Operational Emissions

	Estimated Emissions (lbs/day)					
Sources	**ROG**	**NO_X**	**CO**	**PM_{10}**	**$PM_{2.5}$**	**SO_X**
Area	8.3	3.9	25.4	0.4	0.4	<0.1
Energy	0.1	1.1	0.5	<0.1	<0.1	<0.1
Mobile	4.9	20.8	41.2	12.8	3.5	0.2
Total Gross Emissions (lbs/day)	13.4	25.7	67.1	13.3	4.0	0.2
SCAQMD Thresholds	55	55	550	150	55	150
Threshold Exceeded?	No	No	No	No	No	No

Note: numbers may not add up due to rounding.

Source: CalEEMod Version 2016.3.2. See emissions calculations in Appendix C.

Mitigation Measures

No mitigation required.

Threshold 4	Expose sensitive receptors to substantial pollutant concentrations

Impact AQ-4 THE PROJECT WOULD INCREASE TRAFFIC ALONG LOCAL ROADWAYS. HOWEVER, INCREASED TRAFFIC WOULD NOT RESULT IN THE CREATION OF CARBON MONOXIDE (CO) HOTSPOTS. ADDITIONALLY, THE PROJECT WOULD NOT SITE SENSITIVE RECEPTORS NEAR SOURCES OF TOXIC AIR CONTAMINANTS. IMPACTS RELATED TO EXPOSING SENSITIVE RECEPTORS TO SUBSTANTIAL POLLUTANT CONCENTRATIONS WOULD BE LESS THAN SIGNIFICANT.

Areas with high vehicle density, such as congested intersections, have the potential to create high concentrations of CO, known as CO hot spots. A project's localized air quality impact is considered significant if CO emissions create a hot spot where either the California one-hour standard of 20 ppm or the federal and state eight-hour standard of 9.0 ppm is exceeded. This typically occurs at severely congested intersections (Level of Service grade "E" or worse).

A detailed CO analysis was conducted during the preparation of SCAQMD's 2003 AQMP. The locations selected for microscale modeling in the 2003 AQMP included high average daily traffic (ADT) intersections in the Basin, those which would be expected to experience the highest CO concentrations. The highest CO concentration observed was at the intersection of Wilshire Boulevard and Veteran Avenue on the west side of Los Angeles near the I-405 Freeway. The concentration of CO at this intersection was 4.6 ppm, which is below the 20-ppm 1-hour CO State standard. The Wilshire Boulevard/Veteran Avenue intersection has an ADT of approximately 100,000 vehicles per day. Average daily traffic volumes on Valley Boulevard are estimated at 43,600 vehicles per day at a maximum and the roadway has a capacity of 75,000 vehicles per day (Walnut General Plan). Because ADT for this street is considerably lower than that of the identified Wilshire Boulevard/Veteran Avenue intersection, and CO concentrations at that intersection are below the state standard, the intersections along Valley Boulevard would not have CO concentrations above the state standard. Further, the Draft EIR for the General Plan Update states that under full buildout, 46,497 additional vehicle trips would be generated by 2040, which would be distributed among all major city thoroughfares. Development included under the proposed project is anticipated under full buildout conditions of the General Plan Update (year 2040), including associated new traffic and vehicle trips. Even if all additional trips were incurred by Valley Boulevard, the combined ADT would not exceed 100,000 vehicle trips. Therefore, although the proposed project would increase traffic along local roadways, local mobile-source CO emissions would not result in or substantially contribute to concentrations that would exceed the one-hour or eight-hour ambient air quality standards for CO.

In addition to local CO hotspots, high concentrations of diesel particulate matter (DPM) produced by heavy-duty diesel-fueled vehicles can also create potential health risks for nearby land uses. If a project would generate or attract substantial heavy-duty diesel fueled vehicles trips, a mobile source health risk assessment may be necessary to ensure that the Project would not create a substantial health risk to nearby sensitive receptors. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* recommends against siting sensitive receptors (such as residences, hospitals, or schools, etc.) within 500 feet of a freeway, urban roads that carry 100,000 or more vehicles per day, or rural roads that carry 50,000 or more vehicles per day.

The project proposes residential and commercial uses. Industrial uses that would generate either mobile-source (truck traffic) TACs or point-source TACs would not be included, so the project would not be considered a significant source of TACs. As discussed above, the Plan Area is located along Valley Boulevard, which is currently anticipated to incur a maximum of approximately 43,600 average daily vehicle trips and expected to experience daily traffic volumes under 50,000 along any

portion of the street for future cumulative plus project conditions. In addition, the nearest freeway, SR-57, is located 0.9 mile east of the Plan Area, and operations associated with residential developments with complementary retail and commercial uses would not generate or attract substantial heavy-duty diesel fueled vehicles trip. Therefore, although the proposed Specific Plan would include development of residential uses, which are considered sensitive receptors, development would not occur within 500 feet of a rural road that carries 50,000 or more vehicles per day, which is consistent with CARB's buffer recommendations. Moreover, the nearest residences to be constructed by the project would be located approximately 250 feet from Valley Boulevard, further minimizing exposure to DPM/TACs. Therefore, the proposed Specific Plan would not expose sensitive receptors to substantial CO concentrations or TAC. Impacts related to these concerns would be less than significant.

During the project construction period, heavy-duty diesel-fueled vehicles operating would produce DPM adjacent to sensitive receptors north and west of the project site. However, as shown in Tables 4.2-5 and 4.2-6, no daily thresholds would be exceeded by using this equipment for any construction phase or emissions type. Project construction is therefore not considered a significant source of TAC and is not anticipated to pose a health risk to sensitive receptors. Potential impacts would be less than significant.

Mitigation Measures

No mitigation required.

c. Cumulative Impacts

The planned and pending projects in the vicinity of the Plan Area are listed in Table 3-1 (see Section 3, *Environmental Setting*), which include apartment or condominium projects; commercial, retail, or commercial/retail projects; light industrial projects; and anticipated school enrollment increases and specific plan buildout conditions. The Basin is a nonattainment area for the federal and State standards for ozone and $PM_{2.5}$ and the State standards for NO_2 and PM_{10}. Any growth in the Los Angeles metropolitan area could have the potential to contribute to the existing exceedances of ambient air quality standards when taken as a whole with current development. The SCAQMD's approach to determining whether a project's emissions of criteria air pollutants are cumulatively considerable is to first determine whether or not the proposed project would result in a significant project-level impact to regional air quality based on SCAQMD significance thresholds. If the proposed project does not generate emissions exceeding SCAQMD thresholds, then the lead agency needs to consider the additive effects of related projects only if the project is part of an ongoing regulatory program, such as SCAQMD's Air Toxics Control Plan and AB 2588 Program, aimed at reducing criteria pollutants from certain sources, or is considered in a Program EIR, and the related projects are within approximately one mile of the Plan Area. If there are related projects within a one-mile radius that are part of an ongoing regulatory program or are considered in a Program EIR, then the additive effect of the related projects should be considered.

The proposed Specific Plan is not part of an ongoing regulatory program and is not being studied as part of a Program EIR. Therefore, the SCAQMD recommends that project-specific air quality impacts should be used to determine the potential cumulative impacts to regional air quality. As discussed in Impact AQ-1, the proposed Specific Plan would not conflict with or obstruct implementation of the applicable AQMP. Furthermore, as discussed in Impact AQ-2, daily emissions of construction-related pollutants would not exceed SCAQMD regional significance thresholds or LSTs. As discussed in Impact AQ-3, the proposed Specific Plan would not result in an increase in daily operational

emissions that would exceed the SCAQMD cumulative operational thresholds. Therefore, the proposed Specific Plan's contribution to cumulative levels of any criteria pollutant would not be cumulatively considerable and would be less than significant.

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4.3 Biological Resources

This section assesses the impacts of the proposed Specific Plan on biological resources. This analysis is based on a site-specific biological survey of the Plan Area completed by Rincon Consultants on March 14, 2018; a focused rare plant survey of the Plan Area conducted by Rincon Consultants on May 18, 2018; non-breeding season protocol surveys for the federally threatened coastal California gnatcatcher (*Polioptila californica californica*) conducted by Kidd Biological, Inc. in 2018-2019 (Kidd Biological, Inc. 2019); a desktop vegetation analysis using aerial photography and site photographs for the Off-site Fill Area and Off-Site Roadways; a Tree Survey and Arborist Report for the Plan Area prepared by Golden State Land & Tree Assessment in December 2017; and a Tree Survey and Arborist Report for the Off-site Fill Area prepared by Golden State Land & Tree Assessment in May 2018. The Tree Reports and California gnatcatcher survey report are provided in Appendix E.

4.3.1 Setting

a. Regional Setting

The City of Walnut encompasses approximately nine square miles located in the greater Walnut Valley, which extends from the San Jose Hills to the north to the Puente Hills to the south. Prior to development, much of this area had a decades-long history of cultivation and/or grazing. In this context, the San Jose Hills have been a focus of the City's conservation efforts given their steep slopes, rugged terrain, canyons, drainages, and remnant native vegetation (e.g., oak groves, coastal sage scrub, sycamore woodlands, black walnut woodlands) that was once more widespread. Outside of the San Jose Hills, remnant native habitats exist in isolated pockets on a landscape of residential and commercial development. Undeveloped areas that were once farmland are now primarily characterized by invasive plant species that recolonized after the land was abandoned. The City's several small creeks (e.g., Snow Creek, Lemon Creek) flow south in between the developed parcels towards San Jose Creek, which then flows west into the San Gabriel River. Remnant native habitats in the San Jose Hills, in pockets throughout the City and along the creeks, provide the most value for supporting high diversity and abundance of wildlife. Species that have been able to adapt to human-dominated landscapes are able to take greatest advantage of the developed, landscaped, and remaining open areas in the region and City.

b. Plan Area Setting

The Plan Area is approximately 49 acres in size, located west of State Route (SR) 57 and between Interstate 10 to the north and SR-60 to the south. It is situated along the eastern border of the City of Walnut and two miles south of the San Jose Hills. Valley Boulevard is a major transportation corridor along the southern and eastern Plan Area boundary. A privately residence located along the east side of the northern Plan Area boundary contains equestrian riding rings and other equestrian-related buildings and facilities on the north site of the property. Approximately 3.6 acres of the southern portion of this property would be used to spread excess fill from the Plan Area during construction, referred to as the Off-site Fill Area. The project would also include construction access from Bridle Way to the north (0.2 acre) and improvements to Valley Boulevard to the east (1.8 acres). These two areas will be referred to as the Offsite Roadway Areas.

The Plan Area elevation ranges from about 650 feet above mean sea level (MSL) near the southwestern corner to about 850 feet above MSL at its highest point. The surrounding environment is primarily landscaped, single-family residential areas to the north and west with

commercial and industrial areas to the south and east across Valley Boulevard. A City of Walnut Community Services Building is located adjacent to the Plan Area on its southwestern boundary.

The Off-site Fill Area contains a gentle south-facing slope ranging in elevation from 660 feet above MSL along the Plan Area boundary to 750 feet above MSL along its northern portion.

Vegetation in the vicinity of the Plan Area and Off-site Fill Area consists primarily of non-native plant species, including ruderal and ornamental species (e.g., various non-native tree species that have been planted over the years). The Offsite Roadway Areas are either ruderal (Bridle Way) or developed (Valley Boulevard). While Snow Creek is approximately 0.4 mile northwest of the Plan Area and managed open space along equestrian trails is within 0.25-mile of the Plan Area, no creeks or managed open space occur within the Plan Area, Offsite Fill Area, or Offsite Roadway Areas specifically, although potentially jurisdictional waters are present on site.

Soils

The majority of the Plan Area, Offsite Fill Area, and Offsite Roadway Areas contain soils in the Zaca-Apollo, warm complex, 20 to 55 percent slopes, which have a large amount of clay. Small portions of the Plan Area in the southwestern and northwestern corners contain soils in the urban land-Biscailuz-Pico complex, 0 to 2 percent slopes, and the Counterfeit-Urban land complex, 10 to 35 percent slopes, terraced.

Vegetation

The Plan Area contains a hill with one prominent summit and one smaller summit to the northeast with steep slopes. As shown in Figure 4.3-1, the Plan Area is covered primarily with non-native vegetation. A history of disturbance has characterized the Plan Area since at least the late 1940s, including clearing activities and fire damage (HistoricAerials.com 2018). Regular fuel modification along the perimeter of the Plan Area and recent fires have likely contributed to the dominance of non-native, invasive species. Other vegetation communities that occur in relatively small and isolated amounts include coastal sage scrub and ornamental vegetation. The Plan Area is surrounded by residential and commercial development, including 1.8 acres of developed area associated with the southern Offsite Roadway Area (Valley Boulevard).

Ruderal vegetation currently dominates the Plan Area, Offsite Fill Area, and Offsite Roadway Area (Bridle Way), encompassing approximately 46.5 acres. It is characterized by continuous stands of mustard (*Brassica nigra*) on the central hill and Russian thistle (*Salsola tragus*) at the base of the south-facing slope with a mix of both where they overlap. Tocalote (*Centaurea melitensis*), wild cucumber (*Marah macrocarpa*), castor bean (*Ricinus communis*), milk thistle (*Silybum marianum*), and large blue elderberry shrubs (*Sambucus nigra* ssp. *caerulea*) are scattered throughout this area. A swath of ruderal vegetation approximately 100 to 150 feet in width along the northern, western, and southwestern Plan Area boundaries is disturbed, apparently by recent mowing (Figure 4.3-1). In addition, several dirt access roads were recently created through the ruderal vegetation to allow geotechnical equipment to access the site; the access roads start at the south end of the Plan Area, near the Community Services Center, wrap around the western side of the hill and to the north, and eventually to the east of the central summit.

Figure 4.3-1 Vegetation Map

Imagery provided by Esri and its licensors © 2019.
Streams from the National Wetland Inventory, 2015.

Fig X Off Site Fill Area Vegetation Communities

Remnant coastal sage scrub occurs in three relatively small and isolated areas on the hill, totaling approximately 1.3 acres. One patch on the north-facing slope is comprised entirely of densely-growing California sagebrush (*Artemisia californica*) with several dead individuals at the edge of the vegetation community. On the south-facing slope, the smallest patch of coastal sage scrub contains a mix of California sagebrush, low-stature prickly pear cactus (*Opuntia* sp.), and a couple blue elderberry trees. The third and largest patch is located on the south-facing slope in and above a prominent swale that contains a mix of California sagebrush, black sage (*Salvia mellifera*), blue elderberry shrubs, and large lemonade berry (*Rhus integrifolia*). All three patches also contain and are surrounded by densely-growing mustard, Russian thistle, and castor bean.

Ornamental landscaping occupies a thin strip of approximately 1.6 acres along Valley Boulevard and in the northeastern corner of the Plan Area, including thirty-six carrotwood trees (*Cupaniopsis anacardioides*) and a number of tree of heaven (*Ailanthus altissima*) (Golden State Land & Tree Assessment 2017). Mature Peruvian pepper trees (*Schinus molle*) are planted along the eastern edge of the northern Plan Area boundary with jimsonweed (*Datura wrightii*) in the understory. Tree of heaven has spread into the northeastern corner of the Plan Area just south of the pepper trees. A possible dumping area containing an abandoned couch and other debris was observed among the tree of heaven in this location.

The 3.6-acre Offsite Fill Area contains ornamental and ruderal vegetation (Golden State Land & Tree Assessment 2018). Ornamental vegetation consists of mature Peruvian pepper trees planted in rows, which covers approximately 2.4 acres. The remaining 1.2 acres of vegetation in and around these trees is sparse, ruderal and generally consists of non-native species. This area is disturbed and regularly maintained.

Trees

A December 2017 tree survey conducted by Golden State Land & Tree Assessment identified 142 trees in the Plan Area consisting of five species: carrotwood tree (*Cupaniopsis anacardiodes*), Chinese flame tree (*Koelreuteria bipinnata*), tree of heaven (*Ailanthus altissima*), blue elderberry (*Sambucus nigra* ssp. *caerulea*)[1], and Peruvian pepper tree (*Schinus molle*). Blue elderberry is the only native species. No California black walnut (*Juglans californica*) and oak species (*Quercus* sp.) are protected per WMC Section 6.52.240 et seq. (see discussion under *Regulatory Setting* of this section); neither of these species are present on-site. Of the 142 trees identified in the Plan Area, the tree survey determined that 111 should be removed due to their increased liability of failure, diseased status, poor structural integrity or vigor, reduced functionality, and poor aesthetics. The 2017 tree report also determined that the remaining 31 trees appeared to be in more viable states of health.

A May 2018 tree survey (Golden State Land & Tree Assessment 2018) of the Off-site Fill Area identified 156 ornamental trees consisting of carrotwood trees and Peruvian pepper trees. Ages of these 156 individuals range from mature to senescent while tree health ranges from rigorous to in significant decline. No California black walnuts or oak species protected per WMC Section 6.52.240 et seq. are present in the Off-site Fill Area. The Offsite Roadway Area in north at Bridle Way has one carrotwood tree and one Peruvian pepper tree.

[1] The tree report (Golden State Land & Tree Assessment 2017) identifies this species as Mexican elderberry (*Sambucus mexicana*), which is a misapplied synonym for blue elderberry (*Sambucus nigra* ssp. *caerulea*) (Jepson Flora Project 2018). Blue elderberry (*Sambucus nigra* ssp. *caerulea*) is used in this EIR.

General Wildlife

The Plan Area, Off-site Fill Area, Offsite Roadway Areas, and surroundings provide habitat for wildlife species that commonly occur in disturbed coastal sage scrub, ruderal habitats and residential areas of the region. Wildlife species observed, heard, or detected via sign during Rincon's reconnaissance field survey of the Plan Area on March 14, 2018 include house finch (*Haemorhous mexicanus*), dark-eyed junco (*Junco hyemalis*), Say's phoebe (*Sayornis saya*), yellow-rumped warbler (*Setophaga coronata*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), California towhee (*Melozone crissalis*), western kingbird (*Tyrannus verticalis*), common raven (*Corvus corax*), lesser goldfinch (*Spinus psaltria*), American goldfinch (*Spinus tristis*), American crow (*Corvus brachyrhynchos*), song sparrow (*Melospiza melodia*), Allen's hummingbird (*Selasphorus sasin*), coastal California gnatcatcher, cottontail rabbit (*Sylvilagus* sp.), and coyote (*Canis latrans*). Cooper's hawk and coastal California gnatcatcher were the only sensitive species observed during the field survey. They are discussed further under *Special-Status Species and Plant Communities.*

Special-status Species and Plant Communities

For the purposes of this document, special-status species includes those plants and animals listed, proposed for listing, or candidates for listing as threatened or endangered by the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) under the federal Endangered Species Act (FESA) (7 U.S.C. § 136, 16 U.S.C. § 1531 *et seq*.); those listed or candidates for listing as rare, threatened, or endangered by the California Department of Fish and Wildlife (CDFW) under the California Endangered Species Act (CESA) or Native Plant Protection Act; animals designated as "Fully Protected" by the California Fish and Game Code (CFGC); animals listed as "Species of Special Concern" (SSC), by the CDFW; those species on the *Special Animals List* (CDFW 2017); and/or those species on the *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2018b). This latter document includes the *California Native Plant Society (CNPS) Inventory of Rare and Endangered Vascular Plants of California, Eighth Edition* (CNPS 2018) as updated online. Those plants contained on the CNPS Rare Plant Rank (CRPR) Lists 1, 2, 3, and 4 are considered special-status species in this EIR, per the CNPS code definitions:

- **List 1A** = Plants presumed extinct in California;
- **List 1B.1** = Rare or endangered in California and elsewhere; seriously endangered in California (over 80 percent of occurrences threatened/high degree and immediacy of threat);
- **List 1B.2** = Rare or endangered in California and elsewhere; fairly endangered in California (20-80 percent occurrences threatened);
- **List 1B.3** = Rare or endangered in California and elsewhere, not very endangered in California (<20 percent of occurrences threatened or no current threats known);
- **List 2** = Rare, threatened or endangered in California, but more common elsewhere;
- **List 3** = Plants needing more information (most are species that are taxonomically unresolved; some species on this list meet the definitions of rarity under CNPS and CESA);
- **List 4.2** = Plants of limited distribution (watch list), fairly endangered in California (20-80 percent occurrences threatened); and
- **List 4.4** = Plants of limited distribution (watch list), not very endangered in California (<20 percent occurrences threatened or no current threats known).

To inform the discussion of special-status species in the Plan Area, Offsite Roadway Areas, and Off-site Fill Area, the California Natural Diversity Database (CNDDB) records and other studies within five miles were reviewed and a list of special-status plant and animal species previously documented in this area was compiled. The potential for each special-status species to occur in the Plan Area or Off-site Fill Area was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the Plan Area or Off-site Fill Area is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the Plan Area or Off-site Fill Area is unsuitable or of very poor quality. The species is not likely to be found in the Plan Area or Off-site Fill Area.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the Plan Area or Off-site Fill Area is unsuitable. The species has a moderate probability of being found in the Plan Area or Off-site Fill Area.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the Plan Area or Off-site Fill Area is highly suitable. The species has a high probability of being found in the Plan Area or Off-site Fill Area.
- **Present.** Species is observed or has been recorded (e.g., CNDDB, other reports) in the Plan Area or Off-site Fill Area recently (within the last five years).

Special-status Plants

Twelve special-status plants were identified in a search of the CNPS database (CNPS 2018) within the San Dimas quadrangle in which the Plan Area, Offsite Roadway Areas, and Off-site Fill Area are located and a query of the CNDDB database within five miles of the Plan Area and Off-site Fill Area (CNDDB 2018) (Table 4.3-1). No special-status plant species were observed during Rincon's reconnaissance field survey of the Plan Area on March 14, 2018 and none were observed during a focused rare plant survey of the Plan Area that was conducted on May 18, 2018. Based on the results of the surveys and the habitat assessment for each species, no special-status plant species are expected to occur within the Plan Area, Offsite Roadway Areas, or Off-site Fill Area.

Special-status Wildlife

Based on the database and literature review, 19 special-status wildlife species are documented within five miles of the Plan Area, Offsite Roadway Areas, and Off-site Fill Area (Table 4.3-1). Of these, two species were observed in the Plan Area during Rincon's reconnaissance field survey on March 14, 2018: Cooper's hawk, CDFW Watch List; and coastal California gnatcatcher, federally threatened and SSC. Coastal California gnatcatcher was observed again in the Plan Area during the May 18, 2018 rare plant survey conducted by Rincon Consultants and during 2018-2019 non-breeding season protocol surveys conducted by Kidd Biological (Kidd Biological, Inc. 2019).

A single Cooper's hawk was observed perched on a large blue elderberry shrub in non-native grassland on the southwest-facing slope of the Plan Area. Resident populations of this species occur in the area, typically in moderately dense woodlands, and also in suburban areas. It nests in riparian woodlands and mountain canyons, but is more widespread during the winter when it occurs in a variety of woodland and semi-open habitats. The Cooper's hawk was likely foraging in the Plan Area. There is moderate potential that it would nest in the Plan Area and/or Off-site Fill Area given the

presence of somewhat suitable nesting habitat in large trees and despite the proximity to development, noise, and human activities.

One coastal California gnatcatcher pair was observed in a stand of dried mustard at the edge of an old two-track path at the base of the south-facing slope on March 14, 2018. The male and female appeared to be foraging approximately 100 feet east of the largest patch of coastal sage scrub located in a prominent swale on the south-facing slope. Rincon's biologist observed their behavior for approximately 15 minutes while the male occasionally called and the pair moved through the ruderal vegetation. On May 18, 2018, a male California gnatcatcher was observed calling and exhibiting territorial behavior in a small area of coastal sage scrub on the south-facing slope west of the March 14 observation location. No female gnatcatcher was observed at that time. While California gnatcatcher is present and using the Plan Area habitats in some capacity, nesting was not confirmed nor was nesting behavior observed during the spring 2018 reconnaissance and rare plant surveys. One lone California gnatcatcher (unidentified gender) was detected foraging on-site during two of nine site visits (September 19, 2018 and November 14, 2018) that were part of non-breeding season protocol surveys conducted on-site by Kidd Biological in 2018-2019 (Kidd Biological, Inc. 2019). During the September 19, 2018 observation, the biologist noted that the bird flew off-site to the north. California gnatcatcher did not respond territorially to call playbacks during the protocol surveys, which is typical for the non-breeding season. No other individuals were observed on-site or in surrounding areas during the protocol surveys. Brown-headed cowbirds (*Molothrus ater*), considered to be nest parasites for California gnatcatcher, were not observed during any of the surveys conducted on-site. The coastal sage scrub habitat in the Plan Area is isolated and disturbed, though potentially still suitable to support California gnatcatcher nesting. California gnatcatcher territory is highly variable in size, ranging from one hectare to over nine hectares, with those in the inland region of California requiring larger territories than those on the coast (Mock 1998 and 2004 as cited in Kidd Biological 2019; USFWS 2007). Because of the small amount of suitable habitat, and the amount of habitat gnatcatcher pairs are documented to require, the Plan Area would likely not support more than one nesting pair. Critical habitat for the California gnatcatcher is not designated on-site (USFWS 2018a).

Nesting Birds

Under the provisions of the MBTA, it is unlawful to "take" any migratory birds except as permitted by regulations issued by the USFWS. The term "take" is defined by the USFWS regulation to mean to "pursue, hunt, shoot, wound, kill, trap, capture or collect" any migratory bird or any part, nest, or egg of any migratory bird covered by the MBTA, or to attempt those activities. In addition, Sections 3503, 3503.5, 3511, and 3513 of the CFGC describe unlawful take, possession, or destruction of birds, nests, and eggs. Fully protected birds (Section 3511) may not be taken or possessed except under specific permit. Section 3503.5 of the CFGC protects all birds of prey and their eggs and nests against take, possession, or destruction. While common birds are not special-status species, destruction of their eggs, nests, or nestlings is prohibited by law and must be avoided.

The Plan Area, Offsite Roadway Areas, and Off-site Fill Area contain habitat, such as trees and coastal sage scrub, that can support nesting birds, including raptors protected under the CFG Code Section 3503 and the Migratory Bird Treaty Act (MBTA) (16 U.S.C. §§ 703–712). Woody shrubs in the coastal sage scrub, blue elderberry shrubs, and ornamental trees that could provide suitable nesting habitat are present on and adjacent to the Plan Area and Off-site Fill Area. Birds may also nest on buildings and structures adjacent to the Plan Area and Off-site Fill Area.

However, the 49-acre Plan Area and 3.6-acre Off-site Fill Area have low native habitat diversity and are generally disturbed. The Plan Area and Off-site Fill Area are also cut off from other open spaces by surrounding development and roads. Other open space in the City of Walnut and surrounding area (such as the San Jose Hills to the north and Chino Hills to the southeast) provide comparatively larger expanses with native habitats for avian nesting and foraging.

Raptors generally require large home ranges, and individual foraging territories are often measured in terms of tens of acres to square miles. During breeding, demand for prey increases and additional habitat must be available for young birds to disperse from nesting locations and establish new territories. Loss of foraging habitat reduces prey abundance and availability, which reduces and limits the number of raptors a given area can support. In general, smaller populations are less resilient to environmental stress (*e.g.*, drought, disease, and fluctuations in prey availability). Similar to the discussion of foraging habitat for birds, above, the Plan Area and Off-site Fill Area offer moderate foraging habitat for raptors. Larger and more well-connected open spaces in the City and surrounding region provide higher value raptor foraging habitat.

Sensitive Plant Communities

Sensitive plant communities mapped in the vicinity of the Plan Area, Offsite Roadway Area, and Off-site Fill Area include California Walnut Woodland, Walnut Forest, and Southern Coast Live Oak Riparian Forest. None of these or other sensitive plant communities are present in the Plan Area, Offsite Roadway Area, or Off-site Fill Area.

Table 4.3-1 lists the special-status plant and wildlife species that have been documented within five miles of the Plan Area, Offsite Roadway Area, and Off-site Fill Area. The potential for these species to occur in the Plan Area or Off-site Fill Area are described in this table.

Table 4.3-1 Special-Status Species Potential to Occur in the Plan Area or Off-site Fill Area

Scientific Name **Common Name**	**Status** **Fed/State** **G-Rank** **CRPR**	**Habitat Requirements**	**Potential to Occur in Plan Area or Off-site Fill Area**	**Habitat Suitability/ Observations**
Plants				
Androsace elongata ssp. *acuta* California androsace	None/None G5/T3T4/S3S4 4.2	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland, meadows and seeps, pinyon and juniper woodland. Highly localized and often overlooked little plant. 150-1200 m. annual herb. Blooms Mar-Jun	Not Expected	Marginal habitat on-site in the coastal sage scrub; however, the species was not observed during the focused rare plant survey, which was conducted during the blooming period of the species.
Asplenium vespertinum western spleenwort	None/None G4/S4 4.2	Chaparral, cismontane woodland, coastal scrub. Rocky sites. 180-1000 m. perennial rhizomatous herb. Blooms Feb-Jun	Not Expected	No suitable rocky sites are present in the coastal sage scrub on-site.

Scientific Name Common Name	Status Fed/State G-Rank CRPR	Habitat Requirements	Potential to Occur in Plan Area or Off-site Fill Area	Habitat Suitability/ Observations
Calochortus catalinae Catalina mariposa-lily	None/None G3G4/S3S4 4.2	Valley and foothill grassland, chaparral, coastal scrub, cismontane woodland. In heavy soils, open slopes, openings in brush. 15-700 m. perennial bulbiferous herb. Blooms (Feb)Mar-Jun	Not Expected	Marginal habitat on-site in the coastal sage scrub; however, the species was not observed during the focused rare plant survey, which was conducted during the blooming period of the species.
Calochortus plummerae Plummer's mariposa-lily	None/None G4/S4 4.2	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60-2500 m. perennial bulbiferous herb. Blooms May-Jul	Not Expected	No suitable rocky or sandy sites of granitic or alluvial material are present in coastal sage scrub on-site.
Calochortus weedii var. *intermedius* intermediate mariposa-lily	None/None G3G4T2/S2 1B.2	Coastal scrub, chaparral, valley and foothill grassland. Dry, rocky open slopes and rock outcrops. 60-1575 m. perennial bulbiferous herb. Blooms May-Jul	Not Expected	No suitable dry, rocky open slopes and rock outcrops are present in the coastal sage scrub on-site.
Dudleya multicaulis many-stemmed dudleya	None/None G2/S2 1B.2	Chaparral, coastal scrub, valley and foothill grassland. In heavy, often clayey soils or grassy slopes. 15-790 m. perennial herb. Blooms Apr-Jul	Not Expected	Marginal habitat on-site in the coastal sage scrub; however, the species was not observed during the focused rare plant survey, which was conducted during the blooming period of the species.
Horkelia cuneata var. *puberula* mesa Horkelia	None/None G4T1/S1 1B.1	Chaparral, cismontane woodland, coastal scrub. Sandy or gravelly sites. 15-1645 m. perennial herb. Blooms Feb-Jul(Sep)	Not Expected	No suitable sandy or gravelly sites are present in the coastal sage scrub on-site. Both CNDDB records within 5 miles are historic (1900, 1921), and the former is identified as extirpated.
Lepidium virginicum var. *robinsonii* Robinson's pepper-grass	None/None G5T3/S3 4.3	Chaparral, coastal scrub. Dry soils, shrubland. 4-1435 m. annual herb. Blooms Jan-Jul	Not Expected	Marginal habitat on-site in the coastal sage scrub; however, the species was not observed during the focused rare plant survey, which was conducted during the blooming period of the species.
Phacelia hubbyi Hubby's phacelia	None/None G4/S4 4.2	Chaparral, coastal scrub, valley and foothill grassland. Gravelly, rocky areas and talus slopes. 0-1000 m. annual herb. Blooms Apr-Jul	Not Expected	No suitable gravelly, rocky areas and talus slopes are present in disturbed coastal sage scrub on-site.

Scientific Name Common Name	Status Fed/State G-Rank CRPR	Habitat Requirements	Potential to Occur in Plan Area or Off-site Fill Area	Habitat Suitability/ Observations
Quercus engelmannii Engelmann oak	None/None G3/S3 4.2	Cismontane woodland, chaparral, riparian woodland, valley and foothill grassland. 50-1300 m. perennial deciduous tree. Blooms Mar-Jun	Not Expected	No suitable habitat is present and this species was not observed on-site.
Senecio aphanactis chaparral ragwort	None/None G3/S2 2B.2	Chaparral, cismontane woodland, coastal scrub. Drying alkaline flats. 20-855 m. annual herb. Blooms Jan-Apr(May)	Not Expected	No suitable alkaline flats are present in the disturbed coastal sage scrub on-site. The CNDDB record within five miles is historic (1932).
Symphyotrichum defoliatum San Bernardino aster	None/None G2/S2 1B.2	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 2-2040 m. perennial rhizomatous herb. Blooms Jul-Nov	Not Expected	No suitable vernally mesic areas are present on-site. The CNDDB record within five miles is historic (1896) and identified as possibly extirpated.
Invertebrates				
Bombus crotchii Crotch bumble bee	None/None G3G4/S1S2	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	Not Expected	No suitable habitat or plants for foraging are present on-site.
Fish				
Gila orcuttii arroyo chub	None/None G2/S2 SSC	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave & San Diego river basins. Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	Not Expected	No streams or other permanent water courses are present on-site. The two CNDDB records within five miles are historical (1911, 1934).
Reptiles				
Arizona elegans occidentalis California glossy snake	None/None G5T2/S2 SSC	Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Low	Potentially suitable habitat within the disturbed coastal sage scrub on-site, though loose or sandy soils are lacking. The CNDDB record within five miles is dated 1961.

Scientific Name Common Name	Status Fed/State G-Rank CRPR	Habitat Requirements	Potential to Occur in Plan Area or Off-site Fill Area	Habitat Suitability/ Observations
Aspidoscelis tigris stejnegeri coastal whiptail	None/None G5T5/S3 SSC	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas. Ground may be firm soil, sandy, or rocky.	Low	No suitable habitat is present on-site.
Emys marmorata western pond turtle	None/None G3G4/S3 SSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Not Expected	No permanent water features are present on-site.
Birds				
Accipiter cooperii Cooper's hawk	None/None G5/S4 WL	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks.	Present	One Cooper's hawk was observed on-site, perched on a large blue elderberry shrub, during the field reconnaissance survey of the Plan Area on March 14, 2018. Nesting was not observed on-site.
Agelaius tricolor tricolored blackbird	None/ Candidate Endangered G2G3/S1S2 SSC	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Not Expected	No open water is present on-site. Low potential for foraging on-site given the isolation of the Plan Area and Off-site Fill Area from surrounding open spaces with suitable nesting habitat for this species.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	None/None G5T3/S3 WL	Resident in Southern California coastal sage scrub and sparse mixed chaparral. Frequents relatively steep, often rocky hillsides with grass and forb patches.	Low	Potentially suitable habitat in the disturbed coastal sage scrub on-site, though there is a lack of steep and rocky hillsides with grass and forb patches.
Falco columbarius merlin	None/None G5/S3S4 WL	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands & deserts, farms & ranches. Clumps of trees or windbreaks are required for roosting in open country.	Low	Potentially suitable habitat in the large Peruvian pepper trees on-site, though the Plan Area, Off-site Fill Area, and surrounding area do not meet the requirement of open country given the level of urbanization and isolation of the habitat within a developed landscape.

Scientific Name Common Name	Status Fed/State G-Rank CRPR	Habitat Requirements	Potential to Occur in Plan Area or Off-site Fill Area	Habitat Suitability/ Observations
Laterallus jamaicensis coturniculus California black rail	None/ Threatened G3G4T1/S1 FP	Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. Needs water depths of about one inch that do not fluctuate during the year and dense vegetation for nesting habitat.	Not Expected	No marshes, wet meadows or other open water areas are present on-site. The CNDDB record within five miles is dated 1931.
Polioptila californica californica coastal California gnatcatcher	Threatened/ None G4G5T2Q/S2 SSC	Obligate, permanent resident of coastal sage scrub below 2,500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Present	One pair was observed foraging in ruderal vegetation during the field reconnaissance survey of the Plan Area on March 14, 2018. A male gnatcatcher was observed calling during the rare plant survey of the Plan Area conducted on May 18, 2018. Non-breeding season protocol surveys documented presence of one lone gnatcatcher (unidentified gender) on-site on September 19, 2018 and November 14, 2018. Nesting was not observed during the surveys.
Setophaga petechia yellow warbler	None/None G5/S3S4 SSC	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	Not Expected	No riparian areas or montane habitats are present on-site.
Vireo bellii pusillus least Bell's vireo	Endangered/ Endangered G5T2/S2	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Not Expected	No riparian areas or open water areas are present on-site.
Mammals				
Antrozous pallidus pallid bat	None/None G5/S3 SSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	Not Expected	No suitable open, dry habitats with rocky areas for roosting are present on-site. The CNDDB record within five miles is dated 1951.

Scientific Name Common Name	Status Fed/State G-Rank CRPR	Habitat Requirements	Potential to Occur in Plan Area or Off-site Fill Area	Habitat Suitability/ Observations
Eumops perotis californicus western mastiff bat	None/None G5T4/S3S4 SSC	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	Not Expected	No suitable roosting habitat present on-site. The species is primarily crevice dwelling, requiring cliff faces or large boulders for roosting. Three CNDDB records located within five miles are dated 1925, 1952, and 1958.
Lasiurus xanthinus western yellow bat	None/None G5/S3 SSC	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Not Expected	No suitable riparian, desert, or palm oasis habitats are present on-site. No palms are present on-site in which the species might roost.
Nyctinomops femorosaccus pocketed free-tailed bat	None/None G4/S3 SSC	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. Rocky areas with high cliffs.	Not Expected	No suitable rocky areas with high cliffs for roosting are present on-site.
Nyctinomops macrotis big free-tailed bat	None/None G5/S3 SSC	Low-lying arid areas in Southern California. Need high cliffs or rocky outcrops for roosting sites. Feeds principally on large moths.	Not Expected	No suitable high cliffs or rocky outcrops for roosting are present on-site.
Taxidea taxus American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	Low	Potentially suitable habitat is present on-site in the ruderal vegetation, though open ground is only found in the areas that have been recently mowed.

Status: Federal/State
FE = Federal Endangered
FT = Federal Threatened
PFT = Proposed Federal Threatened
FDL = Federal Delisted
SE = State Endangered
ST = State Threatened
SR = State Rare
SDL = State Delisted
SSC = CDFW Species of Special Concern
FP = CDFW Fully Protected
WL = CDFW Watch List

CRPR (CNPS California Rare Plant Rank)
1A = Presumed Extinct in California
1B = Rare, Threatened, or Endangered in California and elsewhere
2 = Rare, Threatened, or Endangered in California, but more common elsewhere
3 = Need more information (a Review List)
4 = Plants of Limited Distribution (a Watch List)

CRPR Threat Code Extension
.1 = Seriously endangered in California (>80% of occurrences threatened/high degree and immediacy of threat)
.2 = Fairly endangered in California (20-80% of occurrences threatened)
.3 = Not very endangered in California (<20% of occurrences threatened)

Scientific Name Common Name	Status Fed/State G-Rank CRPR	Habitat Requirements	Potential to Occur in Plan Area or Off-site Fill Area	Habitat Suitability/ Observations

Other Statuses

G1 or S1	Critically Imperiled Globally or Subnationally (state)
G2 or S2	Imperiled Globally or Subnationally (state)
G3 or S3	Vulnerable to extirpation or extinction Globally or Subnationally (state)
G4/5 or S4/5	Apparently secure, common and abundant
GH or SH	Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

Additional notations may be provided as follows

T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)
Q – Questionable taxonomy that may reduce conservation priority
? – Inexact numeric rank

Jurisdictional Waters and Wetlands

A jurisdictional delineation was conducted by VCS Environmental on September 19, 2018. The Plan Area contains two drainages that are potentially jurisdictional non-wetland Waters of the United States (WOUS) and streambed Waters of the State (WOS). These drainages total 0.026 acres (1,403 linear feet) of WOUS and 0.052 acres (1,403 linear feet) of WOS. Please note that the status determination and these measurements have not been confirmed by regulatory agencies and will be subject to their review and comment during any permitting process needed. Drainage 1 is a concrete-lined ephemeral feature located at the southwest corner of the Plan Area. Drainage 2 is also an ephemeral feature and can be broken down into five different segments: segments A, B, and C are natural earthen drainages that are tributary to segment D, a concrete-lined v-ditch that parallels Valley Boulevard on the southeast-facing slope of the hill above the street. The final segment is a connectivity feature that conveys flows from segment A to segment D. The connectivity feature lacks an ordinary highwater mark and therefore is not considered a jurisdictional feature. The vegetation within the earthen portions of the drainages include primarily upland species and the v-ditches are regularly maintained. Based on the surrounding vegetation and hydrology, it was determined that neither Drainage 1 nor Drainage 2 support wetlands. Additionally, no potential jurisdictional features or areas defined as wetlands by federal, state, or local policy are mapped by the National Wetlands Inventory (USFWS 2018) in the Plan Area or Off-site Fill Area.

The drainages convey storm water to the South San Jose Creek/Thompson Wash, which is a diversion channel approximately 355 feet south of the southern boundary of the Project site. Valley Boulevard and industrial development along the south side of Valley Boulevard separate the creek from the Plan Area.

Wildlife Movement Corridors

Wildlife corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as between foraging and denning areas, or they may be regional in nature, allowing movement across the landscape. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Examples of barriers or impediments to movement include housing and other urban development, roads, fencing, unsuitable habitat, or open areas with little vegetative cover.

Much of the land in Walnut has been converted from open space to residential, commercial, and recreational uses, resulting in habitat fragmentation. At the regional scale, neither the Plan Area nor the Off-site Fill Area are in an Essential Connectivity Area or Natural Landscape block as identified in available studies, such as the *California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California* (Spencer *et al.* 2010). The Plan Area, Offsite Roadway Areas, and Off-site Fill Area are surrounded by residential and commercial development, fencing, and Valley Boulevard, and are not situated to form a link between blocks of intact habitat. No perennial sources of drinking water occur in the Plan Area or the Off-site Fill Area. Habitats existing in the Plan Area, Offsite Roadway Areas, and the Off-site Fill Area do not afford any high value or benefit to wildlife movement in the area due to the high level of disturbance. Considering this information, the Plan Area, Offsite Roadway Areas, and the Off-site Fill Area are not an important conduit for wildlife movement.

c. Regulatory Setting

The following is a summary of the regulatory context under which biological resources are managed at the federal, state, and local levels. A number of federal and state statutes provide a regulatory structure that guides the protection of biological resources. Agencies with responsibility for protection of biological resources in the Plan Area, Offsite Roadway Areas, and Off-site Fill Area include:

- U.S. Army Corps of Engineers (wetlands and other waters of the United States)
- U.S. Fish and Wildlife Service (federally listed species and migratory birds)
- California Department Fish and Wildlife (waters of the State, state listed and fully-protected species, and other sensitive plants and wildlife)
- Regional Water Quality Control Board (waters of the United States and State)

Federal

U.S. Army Corps of Engineers

Under Section 404 of the Clean Water Act, the USACE has authority to regulate activities that could discharge dredge or fill material into wetlands or other “waters of the United States.” Perennial and intermittent creeks and ephemeral drainages are considered waters of the United States if they are hydrologically connected to other jurisdictional waters. The USACE also implements the federal policy embodied in Executive Order 11990, which is intended to result in no net loss of wetland value or acres. In achieving the goals of the Clean Water Act, the USACE seeks to avoid adverse impacts and offset unavoidable adverse impacts on existing aquatic resources. Any fill or adverse modification of wetlands that are hydrologically connected to jurisdictional waters would require a permit from the USACE prior to the start of work. Typically, when a project involves impacts to waters of the United States, the goal of no net loss of wetland acres or values is met through compensatory mitigation involving creation or enhancement of similar habitats.

U.S. Fish and Wildlife Service

The USFWS implements the Migratory Bird Treaty Act (16 United States Code [USC] Section 703-711) and the Bald and Golden Eagle Protection Act (16 USC Section 668). The USFWS and National Marine Fisheries Service (NMFS) share responsibility for implementing the FESA (16 USC § 153 et seq.). The USFWS generally implements the FESA for terrestrial and freshwater species, while the NMFS implements the FESA for marine and anadromous species. Projects that would result in “take”

of any federally listed threatened or endangered species are required to obtain authorization from the USFWS or NMFS through either Section 7 (interagency consultation with a federal nexus) or Section 10 (Habitat Conservation Plan) of FESA, depending on the involvement by the federal government in permitting and/or funding of the project. The permitting process is used to determine if a project would jeopardize the continued existence of a listed species and what measures would be required to avoid jeopardizing the species. "Take" under federal definition means to harass, harm (which includes habitat modification), pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Proposed or candidate species do not have the full protection of FESA; however, the USFWS and NMFS advise project applicants that they could be elevated to listed status at any time.

State

California Department of Fish and Wildlife

The CDFW derives its authority from the Fish and Game Code of California. The CESA (CFGC Section 2050 *et. seq.)* prohibits take of state listed threatened or, endangered species. Take of fully protected species is prohibited under CFGC Sections 3511, 4700, 5050, and 5515. Section 86 of the CFGC defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, capture, or kill." This definition does not include indirect harm by way of habitat modification.

CFGC Sections 3503, 3503.5, and 3511 restrict the take, possession, and destruction of birds, nests, and eggs. Fully protected birds (Section 3511) may not be taken or possessed except under specific permit. Section 3503.5 of the CFGC protects all birds-of-prey and their eggs and nests against take, possession, or destruction.

Species of Special Concern (SSC) is a category used by the CDFW for those species that are considered to be indicators of regional habitat changes or are considered to be potential future protected species. Species of Special Concern do not have any special legal status except that which may be afforded by the CFGC, as noted above. The SSC category is intended by the CDFW for use as a management tool to include these species into special consideration when decisions are made concerning the development of natural lands.

The CDFW also has authority to administer the Native Plant Protection Act (NPPA) (CFGC Sections 1900 et seq.). The NPPA requires the CDFW to establish criteria for determining if a species, subspecies, or variety of native plant is endangered or rare. Under Section 1913(c) of the NPPA, the owner of land where a rare or endangered native plant is growing is required to notify the department at least 10 days in advance of changing the land use to allow for salvage of plant(s).

Perennial, intermittent, and ephemeral streams and associated riparian vegetation, when present, also fall under the jurisdiction of the CDFW. Section 1600 et seq. of the CFGC (Lake and Streambed Alteration Agreements) gives the CDFW regulatory authority over work within the bed, bank, and channel (which could extend to the 100-year flood plain) consisting of, but not limited to, the diversion or obstruction of the natural flow or changes in the channel, bed, or bank of any river, stream or lake.

Regional Water Quality Control Board

The State Water Resources Control Board (SWRCB) and the local Los Angeles RWQCB have jurisdiction over "waters of the State," with federal authority over "waters of the United States" under the Clean Water Act (CWA) Section 401 and State authority under the Porter-Cologne Water

Quality Control Act to protect water quality, which prohibits discharges to such waters. Waters of the State are defined as any surface water or groundwater, including saline waters, within the boundaries of the State.

Local

City of Walnut

Trees protected by the City of Walnut's Oak/Walnut Tree Preservation Ordinance (No. 03-05, §1; City of Walnut Municipal Code Section 6.52.240 et seq.), include "any oak tree of the genus Quercus including, but not limited to, Blue Oak (*Quercus douglasii*), California Black Oak (*Quercus kelloggi*), Valley Oak (*Quercus lobata*), California-Live Oak (*Quercus agrifolia*), Canyon Oak (*Quercus chrysolepia*), Interior Live Oak (*Quercus wislizenii*), Scrub Oak (*Quercus dumosa*), and California Black Walnut (*Juglans californica*)." The Ordinance and WMC sections state the following:

> "No person, partnership, firm, corporation, government agency, or other legal entity shall cut, prune, remove, relocate, endanger or damage any tree protected by this division on any land located within the incorporated areas of the City of Walnut except in accordance with the conditions of a valid tree permit issued by the city." (WMC Section 6.52.240)
>
> It shall be policy of the City of Walnut to require the preservation of all healthy trees unless compelling reasons justify the removal of such trees. This policy shall apply to the removal, pruning, cutting and/or encroachment into the protected zone of the trees. The community development department shall have the primary and overall responsibility to administer, evaluate and monitor this policy to assure strict compliance." (WMC Section 6.52.250)

4.3.2 Impact Analysis

a. Methodology and Significance Thresholds

Data used for this analysis included the following: aerial photographs, topographic maps, a CNDDB database query, accepted scientific texts to identify species, a review of previous biological studies, survey reports prepared for the Plan Area and the surrounding area, results of the March 14, 2018 reconnaissance field survey and May 18, 2018 rare plant survey of the Plan Area, and other available literature regarding the existing biological resources in and around the project area.

In accordance with Appendix G Section IV (Biological Resources) of the *State CEQA Guidelines*, the project would have a significant impact on biological resources if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or US Fish and Wildlife Service
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

Impacts to biological resources may be considered less than significant where there is little or no importance to a given habitat. For example, disturbance to cultivated agricultural fields, or small acreages of nonnative, ruderal habitat, would be considered less than significant.

As discussed in the Initial Study (Appendix B), the project would have no impact or a less-than-significant impact associated with the following thresholds, which are not discussed further in this EIR.

- **Threshold 4:** The Plan Area, Offsite Roadway Areas, and Off-site Fill Area are not located in any essential habitat connectivity areas mapped by the CDFW (CDFW 2018b). Urban development and paved roadways separate the Plan Area, Offsite Roadway Areas, and Off-site Fill Area from the nearest mapped essential habitat connectivity area, located approximately 2.7 miles to the northeast. The residential, commercial, and industrial development surrounding the Plan Area, Offsite Roadway Areas, and Off-site Fill Area limit their value for serving as a native resident or migratory wildlife corridor. Therefore, impacts would be less than significant.
- **Threshold 6:** The Plan Area, Offsite Roadway Areas, and Off-site Fill Area are not subject to an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan and, therefore, would have no impact with respect to these plans.

b. Project Impacts and Mitigation Measures

Threshold 1	Have a significant adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Impact BIO-1 IMPLEMENTATION OF THE SPECIFIC PLAN COULD RESULT IN DIRECT OR INDIRECT IMPACTS TO CALIFORNIA GNATCATCHER THROUGH REMOVAL OF COASTAL SAGE SCRUB HABITAT AND CONSTRUCTION DURING THE BREEDING SEASON. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

As described in the *Setting* above, California gnatcatcher was observed on-site during a reconnaissance field survey of the Plan Area on March 14, 2018, a rare plant survey of the Plan Area on May 18, 2018, and during 2018-2019 non-breeding season protocol surveys. While present and using the Plan Area habitats in some capacity, nesting was not confirmed nor was nesting behavior observed. Given the small amount of suitable habitat on-site relative to the amount of habitat gnatcatcher pairs are documented to require (Mock 1998 and 2004 as cited in Kidd Biological, Inc. 2019; USFWS 2007), the coastal sage scrub on-site would likely not support more than one nesting pair. Direct impacts from project activities could include harassment, injury to or mortality of

individuals, including through destruction of active nests, during vegetation trimming, or through nest failure from noise and other disturbance in the vicinity of a nest. Direct impacts would be considered "take" of a listed species (as described in *Regulatory Setting*, above) and would be significant. The Plan Area includes low quality coastal sage scrub and ruderal vegetation foraging habitat for California gnatcatcher. Indirect impacts to this species through loss of habitat include conversion of approximately 1.3 acres of coastal sage scrub to residential and commercial uses. Both potential direct and indirect impacts to California gnatcatcher due to project activities would be considered significant but mitigable.

Mitigation Measures

The following mitigation measures would be required to address potential impacts to California gnatcatcher.

BIO-1a Incidental Take Authorization

Authorization for impacts to the federally listed California gnatcatcher (incidental take) requires Incidental Take Authorization from the USFWS. Prior to issuance of a grading permit, the applicant shall provide a copy of a valid USFWS Incidental Take Authorization to the City for potential impacts to individual California gnatcatcher and gnatcatcher-occupied habitat present on the project site. The applicant shall adhere to the requirements of the Incidental Take Authorization, including any avoidance, minimization, or mitigation measures contained therein.

BIO-1b Take Avoidance Measures

Avoid impacts to California gnatcatcher during construction by implementing the following measures. These measures may be refined by the USFWS as part of the Incidental Take Authorization process.

- The applicant shall designate a USFWS-approved biologist who shall be responsible for overseeing compliance with avoidance measures (e.g., pre-construction surveys, buffers) for California gnatcatcher during construction.
- All initial vegetation clearing and earthwork within occupied California gnatcatcher habitat (defined as within 500 feet of any gnatcatcher sighting [USFWS 2007]) shall be conducted between September 1 and February 14, outside of the California gnatcatcher breeding season, if feasible.
- A pre-construction survey for California gnatcatcher shall be conducted by a USFWS-approved biologist within 72 hours prior to initiating such activities within California gnatcatcher occupied habitat during the non-breeding season. If the pre-construction survey determines that California gnatcatcher(s) are not present on-site, initial vegetation clearing activities may continue and shall be monitored by a USFWS-approved biologist. If California gnatcatcher(s) are present on-site, a 300-foot no-construction buffer shall be established around the observation location and suitable habitat until such time as the USFWS-permitted biologist determines that the gnatcatcher is no longer present on-site. Encroachment into the buffer would occur only at the discretion of the USFWS-permitted biologist.
- If initial vegetation clearing and earthwork must occur during the breeding season within California gnatcatcher occupied habitat, three pre-construction surveys for the gnatcatcher shall be conducted by a USFWS-permitted biologist. The surveys shall be conducted approximately seven days apart with the last survey to occur no more than 72 hours prior to initiating such activities. If California gnatcatcher(s) are absent and no active nests are present, initial

vegetation clearing activities may continue and shall be monitored by a USFWS-approved biologist. If or when California gnatcatcher(s) or an active California gnatcatcher nest is located, a 300-foot no-construction buffer shall be established around the observation location and suitable habitat and/or the nest site until such time as the USFWS-permitted biologist determines that the gnatcatcher is no longer present and/or that the nest is no longer active. Encroachment into the buffer would occur only at the discretion of the USFWS-permitted biologist.

- All surveys for California gnatcatcher shall follow the protocol survey method unless otherwise authorized by the USFWS in writing and shall be conducted within the disturbance footprint and an approximately 500-foot buffer or as determined in consultation with USFWS. Results of the surveys shall be reported within 24 hours to the City and USFWS. The methods and results of the pre-construction survey(s), any avoidance, minimization, and mitigation measures, and success of such measures will be documented in a letter report to the City and USFWS no later than five days following the completion of the surveys(s) and/or gnatcatcher monitoring activities.
- A USFWS-approved biological monitor shall be present during initial clearing, grading, and construction in suitable gnatcatcher habitat to ensure that avoidance measures are implemented. The biological monitor shall have the authority to halt construction to prevent or avoid take of gnatcatcher and/or to ensure compliance with all avoidance, minimization, and mitigation measures.

BIO-1c Compensate for Habitat Impacts

Mitigation shall be provided for permanent and temporary disturbance of on-site habitat occupied by coastal California gnatcatcher. Impacts to occupied habitat shall be mitigated at a 1:1 ratio, unless a higher ratio is required by the USFWS. Mitigation may take the form of permittee-responsible on-site or off-site mitigation to preserve suitable gnatcatcher habitat, or purchase of credits from an in-lieu fee program or an approved mitigation bank, subject to the approval of the USFWS. The applicant shall comply with the compensatory mitigation required by the USFWS. Proof of compliance shall be provided to the City.

Significance After Mitigation

Implementation of Mitigation Measures BIO-1a, BIO-1b, and BIO-1c would reduce potential impacts to California gnatcatcher and occupied California gnatcatcher habitat loss to a less-than-significant level through consultation with the USFWS, acquisition of Incidental Take Authorization, compliance with USFWS-approved avoidance and minimization measures, and compensation for loss of occupied California gnatcatcher habitat.

Impact BIO-2 IMPLEMENTATION OF THE SPECIFIC PLAN COULD RESULT IN DIRECT OR INDIRECT IMPACTS TO NESTING BIRDS AND RAPTORS, SUCH AS COOPER'S HAWK, THROUGH REMOVAL OR TRIMMING OF TREES AND VEGETATION. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

As detailed in *Regulatory Setting*, the nests of most native birds and raptors are state and federally protected. No nests were specifically identified during Rincon's reconnaissance field survey of the Plan Area in March 2018; however, it is likely birds use the Plan Area, Offsite Roadway Areas, and Off-site Fill Area for nesting (generally from early February through late August) given the presence of trees, shrubs, and ruderal habitats as well as the number of bird species and individuals observed during the survey.

The project has potential to result in direct and indirect impacts to nesting birds, including common passerine species protected under the MBTA, including Cooper's Hawk (a CDFW Watch List species), if they are nesting within the Plan Area, Offsite Roadway Areas, Off-site Fill Area, and/or immediate vicinity during construction activities. Construction would occur where ruderal vegetation, coastal sage scrub, and ornamental trees are present. Direct impacts from construction activities include ground disturbance and removal of trees, which could potentially contain birds' nests. Indirect impacts include construction noise, lighting, and fugitive dust. These impacts could lead to individual mortality or harassment that might reduce nesting success. Therefore, potential impacts would be significant but mitigable through implementation of Mitigation Measure BIO-2.

Non-native trees, native shrubs, and ruderal vegetation likely provide foraging habitat for raptors, including the Cooper's hawk. On an incremental basis, development of the project would result in the permanent loss of vegetation that could serve as foraging habitat. However, this area is not essential for successful breeding in the vicinity of the City of Walnut as there are other large open spaces in the area, including the San Jose Hills and the Puente Hills. Therefore, the impact of the project on foraging habitat and reproductive capacity of raptors through loss of foraging habitat would be less than significant and no mitigation is required.

Mitigation Measures

The following mitigation measure would be required to address potential impacts to nesting birds.

BIO-2 Nesting Bird Avoidance

Prior to issuance of grading permits, the following measures shall be implemented:

To avoid disturbance of nesting and special-status birds, including raptorial species protected by the MBTA and CFGC, activities related to the project, including, but not limited to, vegetation removal, ground disturbance, and construction and demolition shall occur outside of the bird breeding season (February 1 through August 30). If construction must begin during the breeding season, then a pre-construction nesting bird survey shall be conducted no more than three days prior to initiation of construction activities. The nesting bird pre-construction survey shall be conducted on-foot inside the Plan Area, including a 300-foot buffer (500-foot for raptors), and in inaccessible areas (e.g., private lands) from afar using binoculars to the extent practical. The survey shall be conducted by a biologist familiar with the identification of avian species known to occur in southern California. If nests are found, an avoidance buffer (300-feet for passerine species, 500-feet for raptors) shall be demarcated by a qualified biologist with bright orange construction fencing, flagging, construction lathe, or other means to mark the boundary.

If nesting birds are located adjacent to the Plan Area, Offsite Roadway Areas, and/or Off-site Fill Area with the potential to be affected by construction activity noise above 60 dBA Leq, a noise barrier shall be erected. If 60 dBA Leq is exceeded, the acoustician shall require the construction contractor to make operational and barrier changes to reduce noise levels to 60 dBA during the breeding season (February 1 through August 31). Noise monitoring would occur during operational changes and installation of barriers, as needed, to ensure their effectiveness. All construction personnel shall be notified as to the existence of the buffer zone and to avoid entering the buffer zone during the nesting season. No parking, storage of materials, or construction activities shall occur within this buffer until the avian biologist has confirmed that breeding/ nesting is completed and the young have fledged the nest. Encroachment into the buffer shall occur only at the discretion of the qualified biologist.

Significance After Mitigation

Implementation of Mitigation Measure BIO-2 would reduce potential direct and indirect impacts to nesting birds to a less-than-significant level.

Threshold 2	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

Impact BIO-3 NO RIPARIAN HABITAT OR SENSITIVE COMMUNITY IS PRESENT ON-SITE. THERE WOULD BE NO IMPACT.

Per review of biological resources information for the Plan Area, Offsite Roadway Areas, and Off-site Fill Area, and Rincon's reconnaissance field survey of the Plan Area on March 14, 2018 and rare plant survey of the Plan Area on May 18, 2018, no riparian habitats or sensitive plant communities are present on-site. Therefore, the project would have no impact to riparian habitats and sensitive plant communities.

Threshold 3	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

Impact BIO-4 IMPLEMENTATION OF THE SPECIFIC PLAN COULD RESULT IN DIRECT OR INDIRECT IMPACTS TO POTENTIALLY JURISDICTIONAL WATERS LOCATED IN THE PLAN AREA. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

The jurisdictional delineation performed on September 19, 2018, identified two potentially jurisdictional non-wetland WOUS and streambed WOS. Grading and landscaping associated with Specific Plan construction would directly impact these features. Upon completion of construction, stormwater and surface flows will be redirected to bioretention basins and units on-site before being delivered into the stormwater conveyance system (as described in Section 4.7). Impacts to potentially jurisdictional areas are considered to be significant but mitigable.

Mitigation Measures

The following mitigation measure would be required to address impacts to potentially jurisdictional waters of the United States and the State of California:

BIO-4 Compensatory Mitigation

The jurisdictional delineation identified potentially jurisdictional features on-site and impacts cannot be avoided; therefore, the project applicant shall be subject to the following provisions:

i) Prior to ground disturbance activities that could impact these features, the project applicant shall consult with the agencies (Los Angeles RWQCB, CDFW, and/or USACE) anticipated to assert jurisdiction over the features, as evaluated in the jurisdictional delineation report. Based on such consultation, if permits are required for the project, they shall be obtained prior to disturbance of jurisdictional resources. In addition, compensatory mitigation for impacts to jurisdictional features shall be identified prior to disturbance of the features. Mitigation shall be provided at a 1:1 mitigation ratio, unless a higher ratio is required by the Los Angeles RWQCB, CDFW, and/or USACE. Mitigation may take the form of permittee-responsible on-site or off-site

mitigation, or purchase of credits from an in-lieu fee program or an approved mitigation bank, subject to the approval of the agencies. The applicant shall comply with the compensatory mitigation required by the agencies. Proof of compliance, along with copies of permits obtained from Los Angeles RWQCB, CDFW, and/or USACE, shall be provided to the City prior to any ground disturbance activities impacting these features.

ii) If mitigation is not purchased through an off-site mitigation bank or in-lieu fee program, a Compensatory Mitigation Plan shall be prepared that outlines the compensatory mitigation in coordination with the Los Angeles RWQCB, CDFW, and/or USACE. The Compensatory Mitigation Plan shall identify those portions of the site, such as relocated drainage routes, that contain suitable characteristics (e.g., hydrology) for restoration. Determination of mitigation adequacy shall be based on comparison of the restored feature(s) and habitat with similar, undisturbed features and habitat in the Plan Area vicinity. The Compensatory Mitigation Plan shall include remedial measures in the event that performance criteria are not met.

Significance After Mitigation

Implementation of Mitigation Measure BIO-4 would reduce impacts to potentially jurisdictional waters to a less-than-significant level through obtaining the necessary resource agency permits and implementing compensatory mitigation.

Threshold 5	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Impact BIO-5 THE SPECIFIC PLAN WOULD REMOVE ALL 142 TREES IDENTIFIED IN THE PLAN AREA AND ALL 156 TREES IN THE OFF-SITE FILL AREA. NONE OF THE TREES IDENTIFIED ARE OAK OR WALNUT TREES AND THEREFORE ARE NOT PROTECTED BY THE CITY OF WALNUT OAK/WALNUT TREE PRESERVATION ORDINANCE. THEREFORE, THE SPECIFIC PLAN IS CONSISTENT WITH LOCAL POLICIES SPECIFYING PROTECTION OF OAK AND WALNUT TREES. THE IMPACT WOULD BE LESS THAN SIGNIFICANT.

Per the trees surveys prepared for the Plan Area and the Off-site Fill Area (Golden State Land & Tree Assessment 2017, 2018) and Rincon's reconnaissance field survey on March 14, 2018, no oak or California black walnut trees are present on-site. While implementation of the Specific Plan would remove all 142 trees in the Plan Area and 156 trees in the Off-site Fill Area identified by the tree reports, the project would have no impact to oak or walnut trees and would not conflict with the City of Walnut's Oak/Walnut Tree Preservation Ordinance (No. 03-05, §1; City of Walnut Municipal Code Section 6.52.240 et seq.). No protected trees would be removed or impacted within the Plan Area, Offsite Roadway Areas, or the Off-site Fill Area. Therefore, the impact would be less than significant.

Mitigation Measures

No mitigation required.

c. Cumulative Impacts

The following factors are considered with respect to analyzing cumulative impacts to biological resources:

- The cumulative contribution of other approved and proposed projects to fragmentation of open space in the project vicinity;
- The loss of sensitive habitats and species;

- Contribution of the project to urban expansion into natural areas; and
- Isolation of open space within the vicinity by proposed/future projects.

Cumulative impacts depend on the proximity of cumulative projects to the Plan Area, as well as impacts from past projects in the vicinity. Native vegetation communities and open areas were once more widespread in the vicinity and region of the Plan Area. Over the last half-century or more, naturally vegetated open areas diminished as the landscape surrounding the Plan Area has been built out with residential and commercial uses. The existing on-site assemblage of vegetation, particularly the coastal sage scrub, is small, low quality, and isolated. Larger and higher value habitat areas remain in the region, particularly in the San Jose Hills to the north and the Puente Hills to the south of the Plan Area.

This project, in conjunction with other nearby planned, pending, and potential future projects on undeveloped land listed in Section 3, *Environmental Setting*, would have the potential to adversely impact sensitive habitats and biological resources. Cumulative development in the region would continue to disturb areas with the potential to contain sensitive habitats and biological resources. It is anticipated that for other developments that would have significant impacts on these resources, similar mitigation measures described herein would be imposed on those other developments, along with requirements to comply with all applicable laws and regulations governing said resources. With the proposed mitigation measures identified in this section of the EIR, coupled with policies and regulations applying to this and other projects, such impacts to sensitive habitats and biological resources would be less than significant at the project level. As such, the proposed project would not contribute to cumulative impacts on sensitive habitats and biological resources outside the Plan Area, Offsite Roadway Areas, and Off-site Fill Area. In addition, individual development proposals are reviewed separately by the appropriate jurisdiction and undergo environmental review when it is determined that the potential for significant impacts exist. In the event that future cumulative projects would result in impacts to sensitive habitats and biological resources, impacts to such resources would be addressed on a case-by-case basis. Therefore, impacts related to sensitive habitats and biological resources would not be cumulatively considerable.

4.4 Cultural and Tribal Resources

This section assesses potential impacts to cultural resources, paleontological resources, and tribal cultural resources from the proposed project. Rincon conducted a cultural resources assessment for the project, which included a records search, Native American outreach, and a survey of the Plan Area. Rincon additionally conducted a paleontological resources assessment for the project which included a records search of the Plan Area. The results of these assessments inform the analyses presented herein.

4.4.1 Setting

a. Regulatory Setting

This section discusses applicable federal, State and local laws, ordinances, regulations and standards governing cultural resources, paleontological resources and tribal cultural resources that must be adhered to before and during implementation of the proposed project.

National Register of Historic Places

The National Register of Historic Places (NRHP) was established by the National Historic Preservation Act (NHPA) of 1966 as “an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (CFR 36 CFR 60.2). The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- A: It is associated with events that have made a significant contribution to the broad patterns of our history;
- B: It is associated with the lives of persons who are significant in our past;
- C: It embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction; and/or
- D: It has yielded, or may be likely to yield, information important in prehistory or history.

California Register of Historical Resources

CEQA requires a lead agency determine whether a project could have a significant effect on historical resources and tribal cultural resources (Public Resources Code (PRC) Sections 21084.1, 21084.2, and 21084.3.) A historical resource is a resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR) (PRC Section 21084.1), a resource included in a local register of historical resources (CEQA Guidelines, 14 Cal. Code of Regs. Section 15064.5(a)(2)), or any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant (Id. at Section 15064.5(a)(3)).

PRC Section 5024.1, Section 15064.5 of the *CEQA Guidelines*, and PRC Sections 21083.2 and 21084.1 were used as the basic guidelines for this cultural resources study. PRC Section 5024.1 requires an evaluation of historical resources to determine their eligibility for listing in the CRHR. The purpose of the register is to maintain listings of the state's historical resources and to indicate which properties are to be protected from substantial adverse change. The criteria for listing resources in the CRHR were expressly developed to be in accordance with previously established criteria developed for listing in the NRHP, as enumerated according to Section 15064.5 of the CEQA Guidelines, as follows:

(a)(3) Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code, § 5024.1, Title 14 CCR, Section 4852) including the following:

- (A) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- (B) Is associated with the lives of persons important in our past;
- (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- (D) Has yielded, or may be likely to yield, information important in prehistory or history.

(a)(4) The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code sections 5020.1(j) or 5024.1.

(b) A project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment.

In addition, if a project can be demonstrated to cause damage to a unique archaeological resource, the lead agency may require reasonable efforts to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC Section 21083.2(a)-(c)).

CEQA Section 21083.2(g) defines a unique archaeological resource as an artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

(1) Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;

(2) Has a special and particular quality such as being the oldest of its type or the best available example of its type; or

(3) Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Impacts to significant cultural resources that affect the characteristics of any resource that qualify it for the NRHP or adversely alter the significance of a resource listed in or eligible for listing in the CRHR are considered a significant effect on the environment. These impacts could result from physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired (*CEQA Guidelines* Section 15064.5(b)(1)). Material impairment is defined as demolition or alteration in an adverse manner [of] those characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR (*CEQA Guidelines* Section 15064.5(b((2)(A)).

California Public Resources Code

The PRC also protects paleontological resources in specific contexts. In particular, PRC Section 5097.5 prohibits "knowing and willful" excavation, removal, destruction, injury, and defacement of any paleontological feature on public lands without express authorization from the agency with jurisdiction. Violation of this prohibition is a misdemeanor and is subject to fine and/or imprisonment (PRC § 5097.5(c)), and persons convicted of such a violation may also be required to provide restitution (PRC § 5097.5(d)(1)). Additionally, PRC Section 30244 requires "reasonable mitigation measures" to address impacts on paleontological resources identified by the State Historic Preservation Officer.

Section 5097.5 of the PRC states, "[n]o person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor."

As used in this PRC section, "public lands" means lands owned by or under the jurisdiction of the State or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, local agencies are required to comply with PRC Section 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others.

Senate Bill 18

Enacted on March 1, 2005, California Senate Bill 18 (SB 18) (codified at California Government Code Sections 65352.3 and 65352.4) requires cities and counties to notify and consult with California Native American tribal groups and individuals regarding proposed local land use planning decisions for the purpose of protecting traditional tribal cultural places (sacred sites), prior to adopting or amending a General Plan or designating land as open space. Tribal groups or individuals have 90 days to request consultation following the initial contact. As noted in the State of California Tribal Consultation Guidelines, "The intent of SB 18 is to provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places (Governor's Office of Planning and Research 2005:3)."

Assembly Bill 52

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, "tribal cultural resources." AB 52 establishes that "A project with

an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment" (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3). PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe" and meets either of the following criteria:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

In recognition of California Native American tribal sovereignty and the unique relationship of California local governments and public agencies with California Native American tribal governments, and respecting the interests and roles of project proponents, it is the intent AB 52 to accomplish all of the following:

(1) Recognize that California Native American prehistoric, historic, archaeological, cultural, and sacred places are essential elements in tribal cultural traditions, heritages, and identities.
(2) Establish a new category of resources in CEQA called "tribal cultural resources" that considers the tribal cultural values in addition to the scientific and archaeological values when determining impacts and mitigation.
(3) Establish examples of mitigation measures for tribal cultural resources that uphold the existing mitigation preference for historical and archaeological resources of preservation in place, if feasible.
(4) Recognize that California Native American tribes may have expertise with regard to their tribal history and practices, which concern the tribal cultural resources with which they are traditionally and culturally affiliated. Because CEQA calls for a sufficient degree of analysis, tribal knowledge about the land and tribal cultural resources at issue should be included in environmental assessments for projects that may have a significant impact on those resources.
(5) In recognition of their governmental status, establish a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the level of required confidentiality concerning tribal cultural resources, at the earliest possible point in CEQA environmental review process, so that tribal cultural resources can be identified, and culturally appropriate mitigation and mitigation monitoring programs can be considered by the decision making body of the lead agency.
(6) Recognize the unique history of California Native American tribes and uphold existing rights of all California Native American tribes to participate in, and contribute their knowledge to, the environmental review process pursuant to CEQA.
(7) Ensure that local and tribal governments, public agencies, and project proponents have information available, early in CEQA environmental review process, for purposes of

identifying and addressing potential adverse impacts to tribal cultural resources and to reduce the potential for delay and conflicts in the environmental review process.

(8) Enable California Native American tribes to manage and accept conveyances of, and act as caretakers of, tribal cultural resources.

(9) Establish that a substantial adverse change to a tribal cultural resource has a significant effect on the environment.

AB 52 also establishes a formal consultation process for California tribes regarding those resources. The consultation process must be completed before a CEQA document can be certified. AB 52 requires that lead agencies "begin consultation with a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project." Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

Protection of Human Remains

The disposition of human remains is governed by Health and Safety Code Section 7050.5 and PRC Sections 5097.94 and 5097.98, and falls within the jurisdiction of the Native American Heritage Commission (NAHC). If human remains are discovered, the County Coroner must be notified within 48 hours and there should be no further disturbance to the site where the remains were found. If the remains are determined by the coroner to be Native American, the coroner is responsible for contacting the NAHC within 24 hours. The NAHC, pursuant to PRC Section 5097.98, will immediately notify those persons it believes to be most likely descended from the remains so they can inspect the discovery site and make recommendations for appropriate treatment and disposition of the remains.

b. Historical Background

Prehistory

During the twentieth century, many archaeologists developed chronological sequences to explain prehistoric cultural changes, including subsistence practices and changes in material culture patterns, within all or portions of Southern California (c.f., Moratto 1984; Jones and Klar 2007). Wallace (1955, 1978) devised a prehistoric chronology for the Southern California coastal region based on early studies and focused on data synthesis that included four horizons: Early Man (10,000 – 6,000 B.C.), Milling Stone (6,000 – 3,000 B.C.), Intermediate (3,000 B.C. – A.D. 500), and Late Prehistoric (A.D. 500 – Historic Contact). These horizons represent important transitions in native lifeways associated with growing populations and the exploitation of new biotic zones throughout Southern California.

Ethnography

The Plan Area is located in the traditional territory of the Native American group known as the Gabrieliño, Tongva or Kizh; though most contemporary descendants prefer to identify themselves as Tongva (Bean and Smith 1978:538; Johnston 1962; Kroeber 1976: Plate 57; McCawley 1996). The emergence of Tongva cultural traditions is marked by changes in material culture, burial practices, and subsistence focus that coincided with the westward migration of Uto-Aztecan language speakers from the Great Basin region to Los Angeles, Orange, and western Riverside counties (Sutton 2008; Potter and White 2009). This tradition manifested in the Los Angeles Basin and

adjacent areas as the Angeles Pattern of the Del Rey Tradition, which ultimately led to the ethnographic Tongva (Sutton 2008:36). Tongva territory included a large area in and around the Los Angeles Basin and San Gabriel Valley, as well as the southern Channel Islands and coastlines from Aliso Creek in the south to Topanga Creek in the north. Their territory encompassed several biotic zones, including coastal marsh, coastal strand, prairie, chaparral, oak woodland, and pine forest (Bean and Smith 1978; McCawley 1996).

History

The post-contact history of California is generally divided into three time spans: the Spanish period (1769 – 1821), the Mexican period (1821 – 1848), and the American period (1848 – present).

Spanish exploration of California began when Juan Rodriguez Cabrillo led the first European expedition into the region in 1542. For more than 200 years after his initial expedition, Spanish, Portuguese, British, and Russian explorers sailed the California coast and made limited inland expeditions, but they did not establish permanent settlements (Bean 1968; Rolle 1987). In 1769, Gaspar de Portolá and Franciscan Father Junipero Serra established the first Spanish settlement in what was then known as Alta (upper) California at Mission San Diego de Alcalá. It was during this time that initial Spanish settlement, and displacement of the native Tongva population, began in the project vicinity. Mission San Gabriel was the fourth of 21 missions established between 1769 and 1823 in Alta California, and the first permanent Euro-American settlement in Los Angeles County.

The Mexican Period commenced when news of the success of the Mexican War of Independence (1810 – 1821) against the Spanish crown reached California in 1822. This period saw the privatization of mission lands in California with the passage of the Secularization Act of 1833. This act federalized mission lands and enabled Mexican governors in California to distribute former mission lands to individuals in the form of land grants. In 1840, Mexican Governor Juan Alvarado granted 4,340 acres of land, including a portion of present day Walnut, to Jose De La Cruz Linares. This land became known as Rancho De Nogales, or Ranch of the Walnut Trees (City of Walnut 2018a).

During the 1880s and 1900s while the surrounding vicinity experienced growth and modern development, the Walnut area remained a farming and agricultural area (City of Walnut 1978). The City of Walnut, its named derived from its original Spanish denotation, was officially incorporated in 1959 “by local farmers who sought to protect the rural lifestyle” of the area (City of Walnut 2018b: COR-10). The current City population is approximately 30,000 people and encompasses an area of 8.9 square miles, though still maintains its “rural charm” (City of Walnut 2018c).

c. Paleontological Setting

The Plan Area is located in the Peninsular Ranges geomorphic province, one of 11 major provinces in California (California Geological Survey 2002). The Peninsular Ranges extend from the Los Angeles Basin to the Colorado Desert and south into Baja California (Norris and Webb 1990). Within the Peninsular Ranges geomorphic province, the Plan Area is located in the San Jose Hills within the northern part of the Puente Hills, a large group of hills situated between the Santa Ana and San Gabriel rivers. The eastern San Jose Hills are largely underlain by the Miocene Glendora Volcanic Rocks and Cretaceous quartz diorite. The western and central San Jose Hills are dominated by shale, sandstone, and conglomerate members of the Miocene Puente and Topanga Formations (Dibblee and Minch 2002).

The geology of the Plan Area is mapped by Dibblee and Minch (2002) and is underlain by Quaternary alluvium and the Yorba Shale Member of the Miocene Puente Formation (also referred to locally as the Miocene Monterey) Formation (Figure 4.4-1). The geology and paleontology of these geologic units is discussed below.

The Puente Formation

The late Miocene Yorba Member of the Puente Formation (Tmy) is exposed throughout the Plan Area. The Puente Formation was named for exposures in the Puente Hills, where the unit reaches a maximum thickness of 13,000 feet. It is composed of deep marine, submarine fan, and turbiditic deposits, which consist of locally diatomaceous, well-bedded, light gray siltstone and shale; well-bedded, very fine- to very coarse-grained sandstone; and interbedded pebble conglomerate (Yerkes and Campbell 2005). The Puente Formation is subdivided into four members, defined from youngest to oldest as the Sycamore Canyon Member, Yorba Member, Soquel Member, and La Vida Member (Morton and Miller 2006). The Yorba Member is a fine-grained deep basin deposit characterized by abundant diatomite and is generally considered to be coeval with the late Miocene part of the Monterey Formation. As such, it has been designated by Dibblee and Minch (2002) as the Yorba Shale Member of the Monterey Formation (Morton and Miller 2006). Locally, this unit consists of light gray, thinly bedded diatomaceous and semi-siliceous to clay shale, siltstone, and sandstone (Dibblee and Minch 2002).

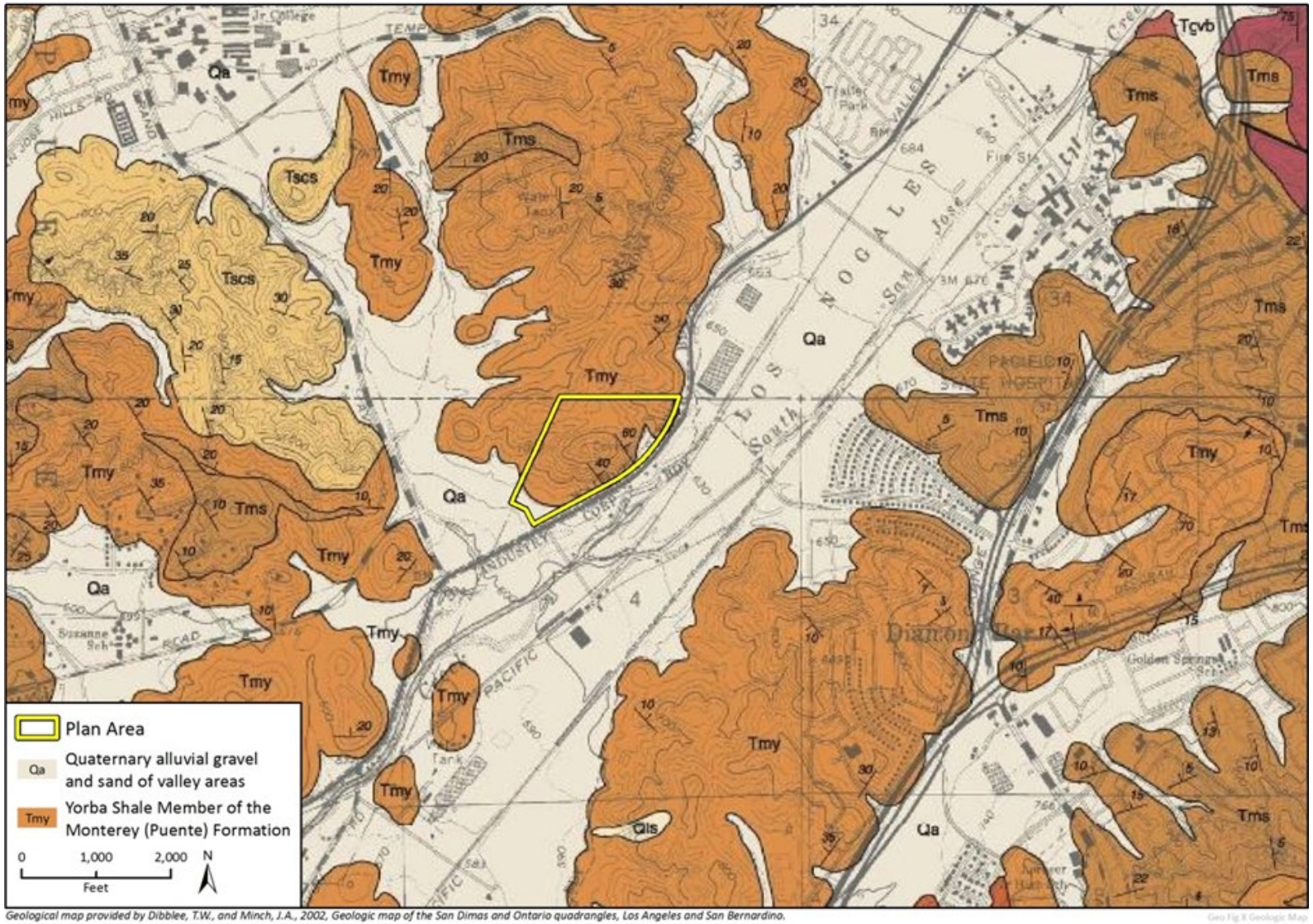
Numerous vertebrate localities have been documented from within the Puente Formation yielding specimens of marine and terrestrial fauna including whale, shark, bony fish, mastodon, rhinoceros, horse, rabbit, and rodent (Paleobiology Database 2018). In addition, several invertebrate, plant, and microfossil localities have been discovered within the Puente Formation and include specimens of insect, mollusk, sponge, algae, and foraminifera (Huddleston and Takeuchi 2006; University of California Museum of Paleontology [UCMP] 2018). The Cooper Center specimen catalog indicates that at least 35 vertebrate localities have been identified within the Puente Formation. The localities yielded over 250 vertebrate fossil specimens from within the Puente Formation, including terrestrial and marine mammals, fish, and shark (Cooper Center 2014).

In the vicinity of the Plan Area, the Natural History Museum of Los Angeles County (LACM) has previously recorded three vertebrate fossil localities within the Puente Formation. LACM 7153, located approximately one mile northeast of the Plan Area, yielded several specimens of the fossil pipefish included the holotype of *Syngnathus emeritus*. LACM 7190, located approximately 2.5 miles southeast of the Plan Area, yielded numerous fossil fish including deep sea smelts, Bathylagidae, lantern fish, Myctophidae, jacks, Carangidae, and herrings, *Ganolytes* and *Etringus*. Finally, LACM 6171, documented within the San Jose Hills approximately 1.5 miles northwest of the Plan Area, also yielded *Ganolytes* (McLeod 2017).

Quaternary Alluvium

As shown in Figure 4.4-1, Quaternary alluvium is mapped in the western and northeastern portions of the Plan Area and consists of gravel, sand, and silt of valleys and floodplains that dates from the Holocene to recent times. At the surface these sediments are too young to preserve fossil resources; however, they increase in age with depth, and therefore may become old enough to preserve fossil resources at an undetermined depth in the subsurface. Furthermore, these sediments overlie older, paleontologically sensitive sediments, such as Pleistocene older alluvium and the Puente Formation, at unknown but potentially shallow depths.

Figure 4.4-1 Geologic Units within the Plan Area



Geological map provided by Dibblee, T.W., and Minch, J.A., 2002, Geologic map of the San Dimas and Ontario quadrangles, Los Angeles and San Bernardino.

Alluvial sediments of Pleistocene age have a well-documented record of abundant and diverse vertebrate fauna throughout California, especially within the Los Angeles basin. Fossil specimens of whale, sea lion, horse, ground sloth, bison, camel, mammoth, dog, pocket gopher, turtle, ray, bony fish, shark, and bird have been reported (Bell et al. 2017). South of the Plan Area, LACM 8014 yielded a fossil specimen of bison, *Bison* from within Pleistocene age alluvial sediments (McLeod 2017).

4.4.2 Impact Analysis

a. Methodology and Significance Thresholds

The analysis of cultural resources, paleontological resources, and tribal cultural resources impacts are based on empirical research conducted for the proposed project. The methodologies and significance thresholds employed for the cultural, paleontological, and tribal cultural impact analyses are described below and in the *Regulatory Setting*, above.

In accordance with Appendix G Section V (Cultural Resources) of the State *CEQA Guidelines*, an impact to Cultural Resources is considered significant if the project would:

1. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5.
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5.
3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.
4. Disturb any human remains, including those interred outside of dedicated cemeteries.

Recent revisions to Appendix G of the State CEQA Guidelines include thresholds for potential impacts to Tribal Cultural Resources in compliance with the requirements of AB 52 discussed above. In accordance with Appendix G of the State CEQA Guidelines, an impact to Tribal Cultural Resources from the proposed project would be significant if the project would:

1. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
    b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

The Plan Area consists of undeveloped land and no historical resources are located in the Plan Area. Therefore, as stated in the Initial Study (Appendix B), there would be no impact to historical resources and potential impacts under Threshold 1 are not discussed further in this EIR.

The significance of an archaeological deposit and subsequently the significance of any impact are determined by the criteria established in the State *CEQA Guidelines,* as provided in the *Regulatory Setting*. If an archaeological resource does not meet either the historical resource or the more specific "unique archaeological resource" definition, impacts do not need to be mitigated [13 PRC 15064.5 (e)]. Where the significance of a site is unknown, it is presumed to be significant for the purpose of the EIR investigation.

The potential for impacts to significant paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units. The loss of paleontological resources that meet the criteria outlined in the *Setting* under *Paleontological Resources* would be considered a significant impact under CEQA, and the CEQA lead agency is responsible for ensuring that paleontological resources are protected in compliance with CEQA and other applicable statutes.

b. Project Impacts and Mitigation Measures

Threshold 2:	Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines §15064.5?

Impact CR-1 CONSTRUCTION OF THE PROPOSED PROJECT WOULD INVOLVE GROUND DISTURBING ACTIVITIES, INCLUDING GRADING AND EXCAVATION, WHICH HAVE THE POTENTIAL TO IMPACT UNKNOWN SUBSURFACE ARCHAEOLOGICAL RESOURCES. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

The Plan Area is approximately 49 acres of undeveloped land. Substantial ground disturbance is proposed for development of the Plan Area. The existing hill that comprises much of the Plan Area would be altered to create developable terraces. Grading activities are proposed to result in approximately 1,300,000 cubic yards (cy) of cut and approximately 85,000 cy of soil that would be exported from the Plan Area; and installation of the 10-inch sewer line along Valley Boulevard would result in approximately 250 cy of exported soil. Cut depths range from 0 to approximately 100 feet. Fill depths would range from 0 to approximately 90 feet. The project also includes offsite grading on a portion of Lots 17 and 18 of Tract 32158 (Off-site Fill Area), along the northern property line. A natural canyon is present along the property line that separates the two tracts. The Off-site Fill Area is currently the respective homeowner's rear yard/lot that is used for storage, horse stables, and trails. The Off-site Fill Area would be limited to 156,000 cy of fill. Shared grading activities would be simultaneous with the on-site grading and would consist of clearing the surface of vegetation and debris, performing remedial grading to establish a competent fill surface, placing compacted fill, re-aligning the dirt access road, fine-grading the pads to drain, installing v-ditches to control runoff, installing erosion control, and constructing a tubular steel fence along the shared property line. Due to significant proposed development, impacts to currently unknown subsurface archaeological resources were identified to be potentially significant.

Rincon performed a search of the California Historical Resources Information System (CHRIS) at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton on July 27, 2017. The search was conducted to identify previously identified archaeological resources that have been recorded on the Plan Area, as well as previously conducted cultural resources studies that have included a portion of the Plan Area and 0.5-mile radius. The CHRIS search additionally included a review of the NRHP and CRHR, as well as available historic maps and aerial photographs. No archaeological resources were identified on the Plan Area as a result of the records search. One historic resource (19-186112) was identified within a 0.5-mile radius of the Plan Area.

This resource is the Union Pacific Railroad located to the southeast of the Plan Area. Additionally, the records search identified 16 previously conducted cultural resources studies; of these, one study (LA-1268) included a portion of the Plan Area. This previous study did not identify any archaeological resources on the Plan Area (Appendix F).

Rincon contacted the Native American Heritage Commission (NAHC) on August 1, 2017 to request a Sacred Lands File (SLF) search of the Plan Area and a contact list of Native American groups and/or individuals who are culturally affiliated with the area and who may have knowledge of cultural resources that may be encountered during the project. The NAHC responded on August 3, 2017 stating that the SLF search was negative. The NAHC provided a list of six Native American contacts to be contacted for more information about potential resources in the project vicinity. Rincon sent letters to these contacts on August 3, 2017. Rincon received two responses from Native American contacts regarding the project. On August 10, 2017, Andrew Salas, Chairperson of the Gabrieleno Band of Mission Indians responded stating that Rincon should contact the lead agency with additional information regarding cultural resources issues for the project, so as not to interfere with AB 52 consultation. On August 31, 2017, Chris Devers, Cultural Liaison for the Pauma Band of Luiseno Indians responded stating that the Plan Area lies outside of the traditional area of the Pauma Band. He additionally asked to be informed if any cultural resources indicative of Luiseno culture are discovered during the project.

Rincon conducted an intensive pedestrian field survey of the Plan Area on August 23, 2017. The survey was performed using 15-meter transect intervals moving from west to east. Some areas towards the center of the Plan Area were unable to be surveyed due to steep slopes and dense vegetation; this area consisted of approximately 40 percent of the total Plan Area. Visibility during the survey was poor, approximately 20 percent due to dead vegetation cover throughout the Plan Area. All exposed ground surfaces were examined for artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools, ceramics, fire-affected rock), ecofacts (marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, soil depressions and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations), or historic debris (e.g., metal, glass, ceramics). No archaeological or historic resources were identified during the intensive pedestrian field survey.

Although project implementation is not expected to uncover archaeological resources, the possibility for the discovery of unknown resources exists during ground-disturbing construction activities. Therefore, impacts would be potentially significant.

Mitigation Measures

Mitigation Measures CR-1a through CR-1c are proposed to avoid impacts to archaeological resources.

CR-1a Workers Environmental Awareness Program Training

A qualified archaeologist, defined as an archaeologist who meets the Secretary of the Interior's Professional Qualification Standards for archaeology (NPS 1983; hereafter qualified archaeologist), shall be retained to perform all mitigation measures related to archaeological cultural resources for the project. Workers Environmental Awareness Program (WEAP) training shall be prepared and implemented to address cultural resources issues that may arise during ground disturbing work at the Plan Area. The WEAP should include information about the laws and regulations that protect cultural resources, the penalties for the disregard of those laws and regulations, what to do if cultural resources are unexpectedly uncovered during construction, and contact information for the

qualified archaeologist who shall be contacted in the case of unanticipated discoveries. The WEAP should include project specific information regarding the potential for and types of cultural resources that may potentially be encountered.

CR-1b Archaeological Monitoring

An archaeological monitor, under the direction of the qualified archaeologist, shall be present to monitor all initial ground-disturbing activities associated with the project, including but not limited to: vegetation removal, grading, boring, trenching, and excavation within the Plan Area. Monitoring activities shall be coordinated with a Native American monitor, as presented under Mitigation Measure CR-4(a). If, during initial ground disturbance, the qualified archaeologist determines that ground disturbances would occur within culturally sterile soils, and that the ground disturbing activities have little or no potential to impact archaeological resources, the qualified archaeologist may recommend that monitoring may be reduced or eliminated. This decision will be made in consultation with the Native American monitor and the City of Walnut, and the final decision to reduce or eliminate monitoring will be at the discretion of the City. Monitoring may additionally be reduced to spot-checking; if this method is implemented, an archaeological monitor will spot-check in areas of new ground disturbances to verify if soils are still sterile. If cultural resources are encountered during ground disturbance, work within the immediate area must halt and the find must be evaluated for State and/or federal significance consistent with Mitigation Measure CR-1c.

CR-1c Unanticipated Discovery of Archaeological Resources

If archaeological resources are encountered during ground-disturbing activities, work in the immediate area and within a 50-foot radius of the discovery shall halt and the qualified archaeologist shall be contacted immediately to evaluate the find. The qualified archaeologist may recommend an extended Phase I (XPI) or Phase II subsurface testing program to determine the resource's boundaries, assess the integrity of the resource, and evaluate the resource's significance through a study of its features and artifacts. Construction activities can continue in areas 50 feet away from the find and in areas not associated with the cultural resource location. If the resource is determined to not be significant, no further archaeological investigation or mitigation shall be required. If the resource is determined to be significant, the qualified archaeologist in consultation with the Native American monitor and City shall develop a mitigation plan. If avoidance is not feasible, the parties shall evaluate whether the resource can be capped. If such capping occurs, the qualified archaeologist and Native American monitor shall monitor the placement of fill upon the resource. If capping is not feasible, the results and recommendations of the XPI/Phase II study shall determine the need for a Phase III data recovery program, designed to record and remove significant cultural materials that could otherwise be disturbed or impacted by project construction. If a Phase III data recovery program is warranted, a Cultural Resources Data Recovery Plan (CRDR Plan) shall be developed by the qualified archaeologist to outline excavation and laboratory procedures. The CRDR Plan shall be submitted to the City of Walnut for review and approval prior to proceeding. Upon completion of monitoring and any necessary XPI/Phase II and/or Phase III excavation, a report detailing the work performed shall be completed and submitted to the City of Walnut.

Significance After Mitigation

Implementation of Mitigation Measures CR-1a through CR-1c would reduce impacts to previously unidentified archaeological resources to a less than significant level.

Threshold 3:	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Impact CR-2 CONSTRUCTION OF THE PROPOSED PROJECT WOULD INVOLVE GROUND-DISTURBING ACTIVITIES, INCLUDING GRADING AND EXCAVATION, WHICH HAVE THE POTENTIAL TO IMPACT UNKNOWN SUBSURFACE PALEONTOLOGICAL RESOURCES. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

The Society for Vertebrate Paleontology (SVP) broadly defines significant paleontological resources as follows (SVP 2010, page 11):

> "Fossils and fossiliferous deposits consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i.e., older than about 5,000 radiocarbon years)."

Significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, diagnostically important, or are common but have the potential to provide valuable scientific information for evaluating evolutionary patterns and processes, or which could improve our understanding of paleochronology, paleoecology, paleophylogeography or depositional histories. New or unique specimens can provide new insights into evolutionary history; however, additional specimens of even well represented lineages can be equally important for studying evolutionary pattern and process, evolutionary rates and paleophylogeography. Even unidentifiable material can provide useful data for dating geologic units if radiocarbon dating is possible. As such, common fossils (especially vertebrates) may be scientifically important, and therefore considered highly significant.

The SVP (2010) describes sedimentary rock units as having high, low, undetermined, or no potential for containing significant nonrenewable paleontological resources. This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present. Significant paleontological resources are fossils or assemblages of fossils, which are unique, unusual, rare, uncommon, diagnostically or stratigraphically important, and those which add to an existing body of knowledge in specific areas, stratigraphically, taxonomically, or regionally (Reynolds 1990). While these standards were specifically written to protect vertebrate paleontological resources, all fields of paleontology have adopted these guidelines. Paleontological sensitivity was evaluated according to the following SVP (2010) categories:

High Potential (Sensitivity)

Rock units from which significant vertebrate or significant invertebrate fossils or significant suites of plant fossils have been recovered are considered to have a high potential for containing significant non-renewable fossiliferous resources. These units include but are not limited to, sedimentary formations and some volcanic formations which contain significant nonrenewable paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils. Sensitivity comprises both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, or botanical and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic,

ecologic, or stratigraphic data. Areas which contain potentially datable organic remains older than Recent, including deposits associated with nests or middens, and areas that may contain new vertebrate deposits, traces, or trackways are also classified as significant.

Low Potential (Sensitivity)

Sedimentary rock units that are potentially fossiliferous, but have not yielded fossils in the past or contain common and/or widespread invertebrate fossils of well documented and understood taphonomic, phylogenetic species and habitat ecology. Reports in the paleontological literature or field surveys by a qualified vertebrate paleontologist may allow determination that some areas or units have low potentials for yielding significant fossils prior to the start of construction. Generally, these units will be poorly represented by specimens in institutional collections and will not require protection or salvage operations. However, as excavation for construction gets underway significant and unanticipated paleontological resources could be encountered and require a change of classification from Low to High Potential and, thus, require monitoring and mitigation if the resources are found to be significant.

Undetermined Potential (Sensitivity)

Specific areas underlain by sedimentary rock units for which little information is available are considered to have undetermined fossiliferous potentials. Field surveys by a qualified vertebrate paleontologist to specifically determine the potentials of the rock units are required before programs of impact mitigation for such areas may be developed.

No Potential

Rock units of metamorphic or igneous origin are commonly classified as having no potential for containing significant paleontological resources.

A fossil locality search was conducted at the LACM to assess the paleontological sensitivity of the Plan Area (see Appendix F). The geologic units underlying the Plan Area have a paleontological resource potential ranging from low to high in accordance with criteria set forth by SVP (2010). The Puente Formation has a high paleontological resource potential because it has proven to yield scientifically significant vertebrate fauna. The Holocene alluvium mapped within the Plan Area has been determined to have a low to high paleontological resource potential, increasing with depth. Although these sediments are generally too young to preserve fossilized remains, they may shallowly overlie older sensitive Pleistocene alluvial deposits and/or the Puente Formation. The geologic units underlying the Plan Area are shown in Figure 4.4-1.

Quaternary alluvium of Holocene age mapped at the surface within the Plan Area is too young in age to yield fossil remains and is considered to have low sensitivity for paleontological resources. However, older Quaternary alluvium at the subsurface and the Yorba Member of the Miocene Puente Formation are known to preserve scientifically important vertebrate fossils in the vicinity of the Plan Area and are considered to have a high paleontological sensitivity. Figure 4.4-1 shows that the majority of the Plan Area is within the Yorba Member of the Miocene Puente Formation. As such, project development in the Plan Area that would involve surface excavation (up to a depth of 100 feet in some areas) has the potential to unearth paleontological resources. Grading activities related to the proposed development in the Plan Area in areas with high paleontological resource sensitivity could potentially impact paleontological resources.

Mitigation Measures

Mitigation Measures CR-2a through CR-2d are proposed to minimize impacts to paleontological resources.

CR-2a Paleontological Mitigation and Monitoring Program

Prior to construction activity, a qualified paleontologist shall prepare a Paleontological Mitigation and Monitoring Program (PMMP) to be implemented during ground disturbing activities related to development within the Plan Area. This program should outline the procedures for construction staff Worker Environmental Awareness Program (WEAP) training, paleontological monitoring extent and duration, salvage and preparation of fossils, the final mitigation and monitoring report, and paleontological staff qualifications.

CR-2b Paleontological Worker Environmental Awareness Program (WEAP)

Prior to the start of construction, the qualified paleontologist or his or her designee shall conduct training for construction personnel regarding the appearance of fossils and the procedures for notifying paleontological staff should fossils be discovered by construction staff. The WEAP shall be fulfilled at the time of a preconstruction meeting at which a qualified paleontologist shall attend.

CR-2c Paleontological Resource Construction Monitoring

Ground-disturbing construction activities (including grading, trenching, foundation work and other excavations) in undisturbed sediments with high paleontological sensitivity (i.e., the Yorba Member of the Miocene Puente Formation), determined in accordance with criteria set forth by SVP (2010), shall be monitored on a full-time basis by a qualified paleontological monitor during initial ground disturbance. The duration and timing of the monitoring will be determined by the qualified project paleontologist. If the qualified paleontologist determines that full-time monitoring is no longer warranted, he or she may recommend that monitoring be reduced to periodic spot-checking or cease entirely. The qualified paleontologist may reduce or cease monitoring if he/she determines that the lithology or fill present is not conducive to the preservation of fossils (based upon the criteria set forth by SVP [2010]). Monitoring shall be reinstated if any new or unforeseen deeper ground disturbances are required and reduction or suspension would need to be reconsidered by the qualified paleontologist. Ground-disturbing activities that do not occur in undisturbed sediments with high paleontological sensitivity would not require paleontological monitoring.

If fossils are discovered, the qualified paleontologist shall recover them. Once salvaged, significant fossils shall be identified to the lowest possible taxonomic level, prepared to a curation-ready condition and curated in a scientific institution with a permanent paleontological collection (such as the Natural History Museum of Los Angeles County), along with all pertinent field notes, photos, data, and maps. Fossils of undetermined significance at the time of collection may also warrant curation at the discretion of the qualified paleontologist.

CR-2d Final Paleontological Mitigation Report

Upon completion of ground-disturbing activities (and curation of fossils if necessary) the qualified paleontologist shall prepare a final mitigation and monitoring report outlining the results of the mitigation and monitoring program. The report shall include discussion of the location, duration and methods of the monitoring, stratigraphic sections, any recovered fossils, and the scientific significance of those fossils, and where fossils were curated.

Significance After Mitigation

Implementation of Mitigation Measures CR-2a through CR-2d would reduce impacts to paleontological resources to a less than significant level by ensuring that potential resources are identified and either further avoided or recovered.

Threshold 4:	Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Impact CR-3 CONSTRUCTION OF THE PROPOSED PROJECT WOULD INVOLVE GROUND-DISTURBING ACTIVITIES, INCLUDING GRADING AND EXCAVATION, WHICH HAVE THE POTENTIAL TO IMPACT UNKNOWN SUBSURFACE HUMAN REMAINS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The discovery of human remains is a possibility during any ground-disturbing activities. If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the county coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the Los Angeles County Coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner is required to notify the NAHC, which would determine and notify a most likely descendant (MLD). The MLD must complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. With adherence to existing regulations relating to human remains, impacts would be less than significant.

Mitigation Measures

No mitigation required.

Threshold 5:	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, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision 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?

Impact CR-4 NO TRIBAL CULTURAL RESOURCES HAVE BEEN IDENTIFIED IN THE PLAN AREA. HOWEVER, CONSTRUCTION OF THE PROPOSED PROJECT WOULD INVOLVE GROUND-DISTURBING ACTIVITIES INCLUDING GRADING AND EXCAVATION, WHICH HAVE THE POTENTIAL TO IMPACT UNKNOWN SUBSURFACE TRIBAL CULTURAL RESOURCES. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

In accordance with the requirements of SB 18 consultation, the City of Walnut mailed letters to seven Native American tribes on August 29, 2017. Under SB 18, tribes have 90 days to respond and request consultation. The City of Walnut additionally mailed letters to the same seven Native American tribes on August 29, 2017 in conformance with the requirements of AB 52 consultation, of which the tribes have 30 days to respond. The City of Walnut followed up with contacts by phone on September 11, September 25, and October 2, 2017.

On September 11, 2017, the City of Walnut spoke with Andrew Salas, Chairperson of the Gabrieleno Band of Mission Indians – Kizh Nation, who stated he did not receive any correspondence requesting consultation; upon learning this, the City emailed Mr. Salas these materials. Mr. Salas stated that he was interested in reviewing the project plans and invited City staff to review historical maps and documents on the area. On October 11, 2017, the City of Walnut met with Mr. Salas and another individual at the office of the Kizh Nation to discuss the project. This meeting resulted in the Kizh Nation providing the City with mitigation measures they proposed for the project. The City did not object to this mitigation, and incorporated standard mitigation language for Tribal Cultural Resources, including measures recommended by the Kizh Nation, for the project (see Mitigation Measures CR-4a and CR-4b below).

On September 11, 2017, the City of Walnut spoke with Anthony Morales, Chairperson of the Gabrieleno/Tongva San Gabriel Band of Mission Indians, who stated he had received the letter, but did not have a chance to respond. Mr. Morales indicated that the area is culturally sensitive, and stated that he was interested in being involved in the project. He additionally asked for follow-up consultation once the project began, and requested that a representative from his tribe be present for project-related construction.

The City of Walnut spoke to Charles Alvarez of the Gabrielino-Tongva Tribe on September 25, 2017 who asked for the project information to be sent to him via email. City staff sent him the requested materials, but did not receive a response. On October 2, 2017, Robert Dorame, Chairperson of the Gabrielino Tongva Indians of California Tribal Council, asked if the project information could be sent to him electronically; the City sent these materials, but did not receive a response.

No additional responses were received from Native American tribes per SB 18 or AB 52. Copies of the SB 18 and AB 52 letters, the correspondence tracking table, and Kizh Nation mitigation measures are included in Appendix F.

Although project implementation is not expected to uncover tribal cultural resources, due to the grading involved with the proposed project, the possibility for the discovery of such resources exists. Therefore, impacts would be potentially significant.

Mitigation Measures

Mitigation Measures CR-4a and CR-4b are proposed to avoid impacts to tribal cultural resources.

CR-4a Native American Monitoring

A Native American monitor shall be retained to monitor all initial ground disturbing activities associated with the project, including but not limited to: vegetation removal, grading, boring, trenching, and excavation within the Plan Area and shall work in coordination with the qualified archaeologist. The Native American monitor will complete monitoring logs on a daily basis which will provide descriptions of daily activities, construction locations, soil types, and cultural materials identified, if any. If, during initial ground disturbance, it is determined that ground disturbance would occur within culturally sterile soils, and that the ground-disturbing activities have little or no potential to impact cultural resources, monitoring may be reduced or eliminated. This decision will be made in consultation with the qualified archaeologist, Native American monitor, and the City of Walnut. The final decision will be made by the City of Walnut.

CR-4b Unanticipated Discovery of Tribal Cultural Resources

In the event that the Native American monitor identifies a tribal cultural resource during monitoring, the monitor shall be given the authority to temporarily halt construction in the immediate vicinity and within a 50-foot buffer of the discovery. The Native American monitor, in consultation with the City of Walnut, and the qualified archaeologist, shall determine whether the find qualifies as a tribal cultural resource under CEQA. If the resource is determined to be Native American in origin, the appropriate Native American tribe shall coordinate with the landowner regarding treatment of the resource(s). This may include preservation in place (i.e. avoidance), reburial, or collection and curation. Construction activities may resume in areas not associated with the location of the find. If the discovery proves to be significant, additional work such as testing and data recovery may be warranted. At the completion of monitoring and/or field work, all artifacts of Native American origin shall be returned to the appropriate Native American tribe.

Significance After Mitigation

Through Native American monitoring of ground disturbance and evaluation of potential tribal cultural resources, should they be discovered, implementation of Mitigation Measures CR-4a and CR-4b would reduce impacts to tribal cultural resources to a less than significant level.

c. Cumulative Impacts

Although there are no known cultural resources in the Plan Area, this project, in conjunction with other nearby planned, pending, and potential future projects on undeveloped land listed in Section 3, *Environmental Setting*, would have the potential to adversely impact unknown cultural resources, paleontological resources, and tribal cultural resources. Cumulative development in the region would continue to disturb areas with the potential to contain cultural, paleontological, and tribal cultural resources. It is anticipated that for other developments that would have potentially significant impacts on these resources, similar mitigation measures described herein would be imposed on those other developments, along with requirements to comply with all applicable laws and regulations governing said resources. With the proposed mitigation measures identified in this section of the EIR, coupled with policies and regulations applying to this and other projects, such impacts to potential archaeological, paleontological, and tribal cultural resources would be less than significant at the project level. As such, the proposed project would not contribute to cumulative impacts on archaeological, paleontological, and tribal cultural resources outside the Plan Area. In addition, individual development proposals are reviewed separately by the appropriate jurisdiction and undergo environmental review when it is determined that the potential for significant impacts

exist. In the event that future cumulative projects would result in impacts to known or unknown cultural, paleontological, or tribal cultural resources, impacts to such resources would be addressed on a case-by-case basis. Therefore, impacts related to cultural resources, paleontological resources, and tribal cultural resources would not be cumulatively considerable.

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4.5 Geology and Soils

This section evaluates geology and soil-related impacts associated with the proposed Specific Plan. Topics addressed include the suitability of soil for development; geologic faults; and direct and indirect seismic hazards such as floods, erosion, subsidence, liquefaction, and landslides. This section was prepared utilizing documents and maps published by the United States Geological Survey (USGS), California Department of Conservation, California Geological Survey (CGS), and the City of Walnut. In March 2015, GeoTek conducted an onsite Geotechnical Evaluation, which is provided as Appendix G (GeoTek 2015). This analysis is further informed by geotechnical evaluations performed for the Plan Area by NMG Geotechnical, Inc. (NMG) in 2018 (Appendix G).

4.5.1 Setting

a. Regional Geology

The Plan Area is situated in the Los Angeles Basin in the Peninsular Ranges geomorphic province. The Peninsular Ranges province is one of the largest geomorphic units in western North America, extending approximately 975 miles from the Transverse Ranges geomorphic province southerly to the tip of Baja California. The province varies in width from about 30 to 100 miles. It is bound on the west by the Pacific Ocean, on the south by the Gulf of California, and on the east by the Colorado Desert Province.

The Peninsular Ranges are comprised of a series of northwest-southeast oriented fault blocks. Several major fault zones are found in this province. The Elsinore Fault zone and the San Jacinto Fault zone trend northwest-southeast and are found near the middle of the province. The Newport-Inglewood Fault zone is located in the western portion of the province and the San Andreas Fault zone borders the northeasterly margin of the province.

The Plan Area is north of the Puente Hills and northwest of San Jose Creek. Tertiary-age marine claystone, siltstone, and sandstone bedrock units are exposed throughout the Plan Area with Quaternary-age colluvium in-filling the swales and low-lying areas of the site (NMG 2018).

Local Geologic Setting

The Plan Area is located in the San Dimas Quadrangle, an area geologically mapped to be underlain mostly by Quaternary age alluvial deposits and Tertiary age sedimentary bedrock. The Plan Area is underlain by Late Miocene-age bedrock of the Puente Formation, Yorba Member. Overlying the bedrock are surficial units, including colluvium, and uncertified artificial fill). No known active faults are located in the immediate site vicinity of the Plan Area (NMG 2018).Small amounts of man-made undocumented fill materials are present along existing site access roads, and across a majority of the former agricultural (relatively flat lying) site areas in the Plan Area. The fill consists of native soils, which appear to have been either disced or pushed into their current configurations. Localized thicker accumulations of undocumented fill materials may be present in the unexplored areas of the Plan Area. Soil types within the Plan Area are shown in Figure 4.5-1.

The Plan Area is mantled with a thin to relatively thick layer of colluvial/alluvial materials, varying from approximately five to twenty feet in thickness. These materials are generally described as dark gray-brown, damp to moist, porous, silty clay to clayey silt. The colluvial/alluvial soils are susceptible to moderate consolidation and settlement (NMG 2018).

Tertiary age Puente Formation (Yorba Member) bedrock underlies the colluvial/alluvial deposits across the Plan Area. Additionally, these bedrock materials were locally observed to be exposed in the central (elevated) portion of the Plan Area and in the existing steep cut slopes in the eastern portion of the Plan Area along East Valley Boulevard. These bedrock materials generally consist of interbedded silty claystone to clayey siltstone, and silty fine sandstone, which is mostly olive gray to yellowish brown and moist to very moist.

The bedding structure across the majority of the Plan Area generally strikes east-west, and dips 38 to 63 degrees to the north. The structure changes abruptly near the north-northeast perimeter, where a series of folds trend east-northeast. Vertical and overturned bedding associated with the folds were encountered in numerous borings and trenches (NMG 2018) Bedrock materials were encountered in all exploratory borings drilled as a part of the site investigations, at depths that range between approximately 7.5 and 20 feet below the existing ground surface (bgs). The bedrock was also encountered in all exploratory trenches excavated at depths that range between the ground surface to approximately 12 feet bgs (NMG 2018).

b. Seismic Hazards

The geologic structure of the entire southern California area is dominated mainly by northwest-trending faults associated with the San Andreas system. The Plan Area is in a seismically active region. No active or potentially active fault is known to exist at this site nor is the site situated within an “Alquist-Priolo” Earthquake Fault Zone. Existing maps of the Plan Area [CGS, 2018 and Jennings, 2010] indicate that there are no faults in the Plan Area.

The Plan Area is subject to risks associated with potentially destructive earthquakes. The type and magnitude of seismic hazards with the potential to affect the Plan Area are dependent on the distance to the epicenter of the earthquake, the nature of the fault, on which the earthquake is located, and the intensity and magnitude of the seismic event.

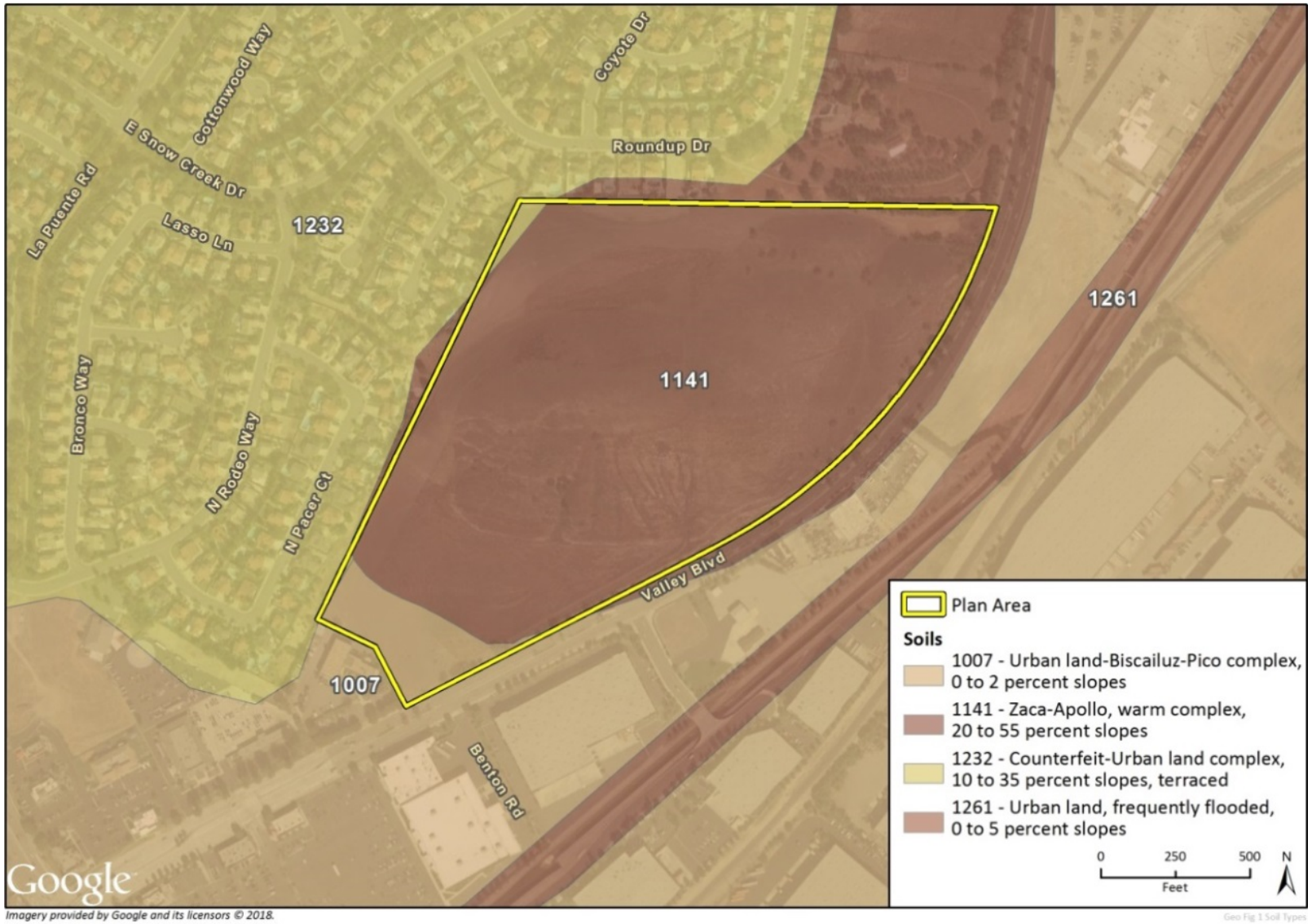
Faults

The Los Angeles Basin is located in a seismically active region of Southern California and is generally bounded by fault systems. A fault is classified as active if it has moved during Holocene time (during the last 11,000 years). A fault is classified as potentially active if it has experienced movement within Quaternary time (during the last 1.8 million years). Faults that have not moved in the last 1.8 million years are generally considered inactive. Surface displacement can be recognized by the presence of cliffs in alluvium, terraces, offset stream courses, fault troughs and saddles, the alignment of depressions, sag ponds, and the existence of steep mountain fronts.

Major active faults in the area include the San Andreas, Whittier-Elsinore, Newport-Inglewood, Hollywood, and Raymond Fault zones. In addition to these known faults, movement along buried blind thrust faults that have no obvious surface features can also occur.

As shown in Figure 4.5-2 there are no known faults in or adjacent to the Plan Area. The closest fault is the San Jose Fault, approximately one mile north of the Plan Area. The San Jose Fault is a northwest-dipping reverse fault that is thought to be approximately 13.6 miles in length (USGS 2017).

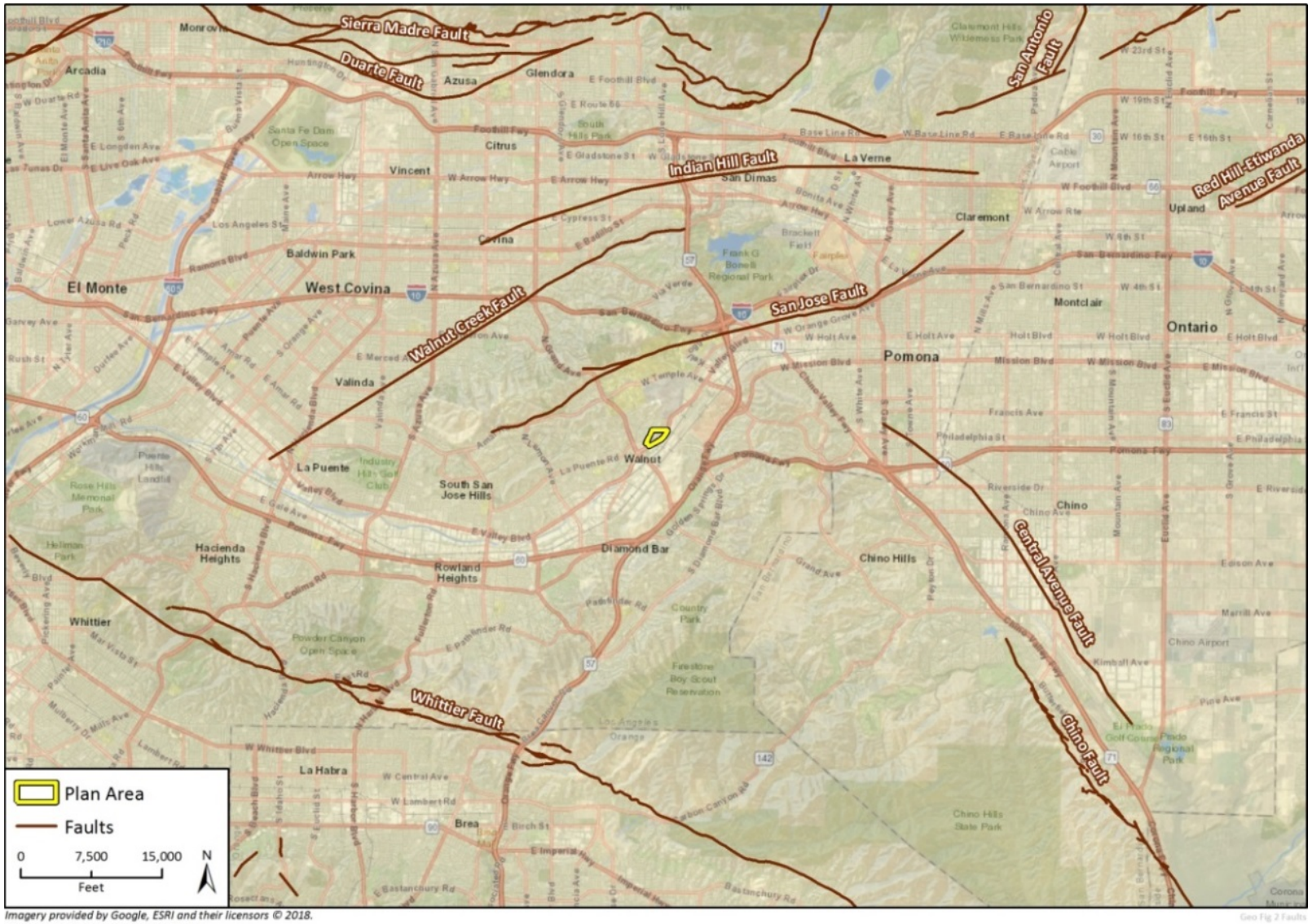
Figure 4.5-1 Soil Types



Imagery provided by Google and its licensors © 2018.
Additional data proided by USDA NRCS SSURGO, 2017.

Geo Fig 1 Soil Types

Figure 4.5-2 Local Faults



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Additional data proided by USGS, 2017.

Geo Fig 2 Faults

Ground Shaking and Surface Rupture

In general terms, an earthquake is caused when strain energy in rocks is suddenly released by movement along a plane of weakness. Faults generally produce damage in two ways: ground shaking and surface rupture. Seismically-induced ground shaking covers a wide area and is greatly influenced by the magnitude of the earthquake, the distance to the fault displacement, soil and bedrock conditions, and depth to groundwater. The energy released during an earthquake propagates in the form of seismic waves. The resulting strong ground motion from the seismic wave propagation can cause substantial damage to structures. Intensity is usually greater in areas underlain by unconsolidated material than in areas underlain by more competent rock. Earthquakes are characterized by moment magnitude, which is a quantitative measure of the strength of the earthquake based on strain energy released during the event.

In some cases, fault movement propagates upward through subsurface materials and causes displacement at the ground surface as a result of differential movement. Surface rupture is limited to areas very near the fault. Surface rupture usually occurs along traces of known or potentially active faults, although historic events have occurred on faults not previously known to be active. The Plan Area is located in eastern Los Angeles County, where ground shaking susceptibility is relatively high (California Seismic Safety Commission 2003).

Secondary Seismic Effects

Soil-disturbing activities such as grading, soil compaction, and cut and fill activities can create or exacerbate conditions that increase the chance of secondary seismic effects during or independent of seismic activity. In the Plan Area, potential hazards resulting from the secondary effects of ground-shaking include subsidence, liquefaction, and earthquake-induced landslides.

Subsidence

Subsidence is the sinking of the ground surface caused by the compression of soil layers. This compression is caused by deep-seated settlement of these soil layers, which in turn is caused by human activities or natural effects such as extraction of groundwater, oil and gas withdrawal, oxidation of organics, and the placement of additional fill over compressible layers. Seismically-induced subsidence occurs in loose to medium density unconsolidated soils above groundwater. These can compress when subject to seismic shaking, causing subsidence. This subsidence is exacerbated by increased loading, such as from the construction of structures. This hazard can be mitigated prior to development through removal and re-compaction of loose soils.

Liquefaction

Liquefaction describes a phenomenon in which cyclic stresses, produced by earthquake-induced ground motion, create excess pore pressures in relatively cohesionless soils. These soils may thereby acquire a high degree of mobility, which can lead to lateral movement, sliding and settlement of loose sediments, sand boils and other damaging deformations. This phenomenon occurs only below the water table, but after liquefaction has developed, the effects can propagate upward into overlying non-saturated soil as excess pore water dissipates.

The factors known to influence liquefaction potential include soil type and grain size, relative density, groundwater level, confining pressures, and both intensity and duration of ground shaking.

In general, materials that are susceptible to liquefaction are loose, saturated granular soils having low fines content under low confining pressures.

Relatively small portions of the Plan Area are located in areas identified by the State of California as having the potential for liquefaction. As shown in Figure 4.5-3, these areas are located in the southwest portion of the Plan Area and in the lower lying areas in the northeastern portion of the Plan Area where stormwater would drain. According to the State of California Special Publication 117A (CGS, 2008), *Guidelines for Evaluating and Mitigating Seismic Hazards in California*, a geotechnical investigation is required to evaluate the liquefaction potential for new residential structures proposed within a liquefaction hazard zone.

Landslides and Slope Instability

Seismic ground shaking can also result in landslides and other slope instability. Landslides occur when slopes become unstable and masses of earth material move downslope. Landslides are usually rapid events, often triggered during periods of rainfall or by earthquakes. Mudslides and slumps are a more shallow type of slope failure. They typically affect the upper soil horizons rather than bedrock features. Usually mudslides and slumps occur during or soon after periods of rainfall, but they can be triggered by seismic shaking.

As shown in Figure 4.5-3, one small portion of the Plan Area is identified by the State of California as having the potential for earthquake-induced landslides. The identified landslide zone is located in the east- southeast facing natural slope in the eastern portion of the Plan Area. This portion of the Plan Area is relatively steep (2:1 slope gradient or slightly steeper) and contains several drainage gullies directed to one central drainage gully (referred to as swales in the Section 4.3, *Biological Resources*), suggesting past surficial erosion. Evidence of ancient landslides or gross slope instabilities at this location was not observed during the geotechnical investigation. The regional bedrock structural orientation in the area is also anticipated to be generally favorable across the majority of the site, with respect to gross (global) slope stability.

Soil Hazards

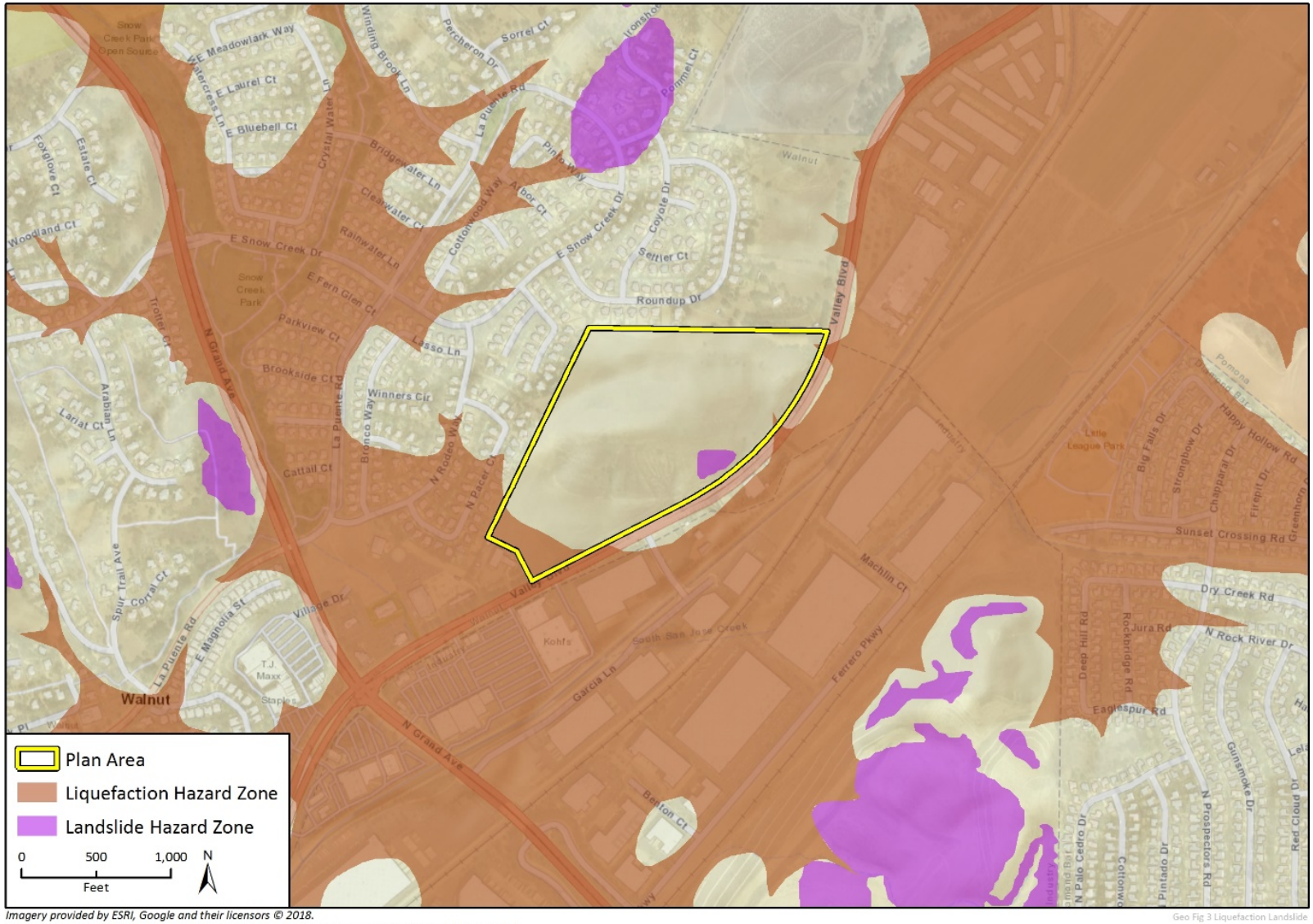
Problematic soils, such as those that are expansive or erosive, can damage structures and buried utilities and increase maintenance requirements. These soil hazards occur independently of seismic events.

Expansive Soils

Expansive soils swell or heave with increases in moisture content and shrink with decreases in moisture content. These soils usually contain high clay content. Foundations for structures constructed on expansive soils require special design considerations. Because expansive soils can expand when wet and shrink when dry, they can cause foundations, basement walls and floors to crack, causing substantial structural damage. As such, structural failure due to expansive soils near the ground surface is a potential hazard.

Based on the results of the laboratory testing performed on soil samples collected during both the 2008 and 2016 geotechnical evaluations conducted in the Plan Area, the expansion potential of the on-site earth materials is highly variable. The results of the laboratory testing generally indicated a “very low” (i.e., an expansion index between 0 and 20) to “very high” (i.e., an expansion index greater than 131) expansion potential when tested in accordance with ASTM Test Method D 4829 (NMG 2018).

Figure 4.5-3 Liquefaction and Landslide Risk



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Additional data proided by California Department of Conservation, California Geological Survey, 2017.

Geo Fig 3 Liquefaction Landslide

Soil Erosion

Erosion refers to the removal of soil by water or wind. The effects of erosion are intensified with an increase in slope (as water moves faster, it gains momentum to carry more debris), the narrowing of runoff channels (which increases the velocity of water), and by the removal of groundcover, which leaves the soil exposed. Within the Plan Area, there is potential for soil erosion because the ground surface is entirely unpaved and includes portions that are steeply sloped.

c. Regulatory Setting

Federal

International Building Code

The International Building Code (IBC) is published by the International Code Council (ICC). The scope of this code covers major aspects of construction and design of structures and buildings. The IBC has replaced the Uniform Building Code (UBC) as the basis for the California Building Code (CBC) and contains provisions for structural engineering design. The 2015 IBC addresses the design and installation of structures and building systems through requirements that emphasize performance. The IBC includes codes governing structural as well as fire- and life-safety provisions covering seismic, wind, accessibility, egress, occupancy, and roofs.

National Pollutant Discharge Elimination System (NPDES) Construction General Permit

Construction activities that disturb one or more acres of land surface are subject to the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (NPDES General Construction Permit) (Order No. 2012-0006-DWQ) adopted by the State Water Resources Control Board (SWRCB). Compliance with the permit requires each qualifying development project to file a Notice of Intent with the SWRCB. Permit conditions require development of a stormwater pollution prevention plan (SWPPP), which must describe the site, the facility, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control measures, maintenance responsibilities, and non-stormwater management controls. Inspection of construction sites before and after storms is also required to identify stormwater discharge from the construction activity and to identify and implement erosion controls, where necessary.

State

California Building Code

The California Building Code (CBC), Title 24, Part 2 provides building codes and standards for the design and construction of structures in California. The purpose of the CBC is to establish minimum standards to safeguard the public health, safety, and general welfare through structural strength, means of egress facilities, and general stability by controlling the design, construction, quality of materials, use and occupancy, location, and maintenance of building and structures. The CBC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control. Chapter 16 of

the CBC contains definitions of seismic sources and the procedure used to calculate seismic forces on structures.

The CBC is updated every three years by order of the legislature, with supplements published in intervening years. State Law mandates that local government enforce the CBC. In addition, a City, County, or City and County may establish more restrictive building standards reasonably necessary because of local climatic, geological, or topographical conditions. The 2016 CBC is based on the 2015 International Building Code with the addition of more extensive structural seismic provisions.

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (Public Resources Code Sections 2621-2630) was passed into law following the destructive February 9, 1971 M6.6 San Fernando earthquake. The Act provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the Act is to ensure public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute a potential hazard to structures from surface faulting or fault creep. Generally, siting of structures for human occupancy must be set back from the fault by approximately 50 feet. This Act groups faults into categories of active, potentially active, and inactive. Historic and Holocene age faults are considered active, Late Quaternary and Quaternary age faults are considered potentially active, and pre-Quaternary age faults are considered inactive.

Seismic Safety Act

The California Seismic Safety Commission was established by the Seismic Safety Act in 1975 with the intent of providing oversight, review, and recommendations to the Governor and State Legislature regarding seismic issues. The commission's name was changed to Alfred E. Alquist Seismic Safety Commission in 2006. Since then, the Commission has adopted several documents based on recorded earthquakes, such as the 1994 Northridge earthquake, 1933 Long Beach earthquake, the 1971 Sylmar earthquake, etc. Some of these documents are listed as follows:

- Research and Implementation Plan for Earthquake Risk Reduction in California 1995 to 2000, report dated December 1994;
- Seismic Safety in California's Schools, 2004, "Findings and Recommendations on Seismic Safety Policies and Requirements for Public, Private, and Charter Schools," report dated December 1994;
- Findings and Recommendations on Hospital Seismic Safety, report dated November 2001;
- Commercial Property Owner's Guide to Earthquakes Safety, report dated October 2006; and
- California Earthquake Loss Reduction Plan 2007–2011, report dated July 2007.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (the Act) of 1990 was passed into law following the destructive October 17, 1989 M6.9 Loma Prieta earthquake. The Act directs the CGS to delineate Seismic Hazard Zones. The purpose of the Act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards. Cities, counties, and State agencies are directed to use seismic hazard zone maps developed by CGS in their land-use planning and permitting processes. The Act requires site-specific geotechnical investigations prior to permitting most urban development projects in seismic hazard zones.

Local

City of Walnut General Plan – Public Safety Element

The Safety Element of the City's2018 General Plan provides policies to limit exposure and address potential risks of natural hazards, including seismic hazards and other geologic conditions. Relevant policies are described below.

Policy PS-3.2. Geotechnical Evaluation. Require geotechnical evaluation and recommendations prior to new development, as appropriate. Such geotechnical evaluation shall analyze the potential hazards from landslides, liquefaction, expansive soils, and mud and debris flow. Recommendations will include mitigation to avoid or minimize the identified hazards.

Policy PS-3.3: Landslide Hazards. Require that any site with a slope exceeding 10 percent be reviewed against current Landslide Hazard Potential Zone maps of the State of California to determine the need for geotechnical and structural analysis.

Policy PS-3.4: Seismic Building Codes. Require that all new development comply with the most recent State of California seismic building codes and the Seismic Hazards Mapping Act. As appropriate, require mitigation of potentially adverse impacts of geologic and seismic hazards.

4.5.2 Impact Analysis

a. Methodology and Significance Thresholds

This section describes the potential environmental impacts of the proposed project relevant to geology and soils. The impact analysis is based on an assessment of baseline conditions for the Plan Area, including topography, geologic and soil conditions, and seismic hazards, as described above under Subsection 4.5.1, *Setting*. This analysis identifies potential impacts based on the predicted interaction between the affected environment and construction, operation, and maintenance activities related to development predicted to occur under the proposed project. This section describes impacts in terms of location, context, duration, and intensity, and recommends mitigation measures, when necessary, to avoid or minimize impacts.

The following thresholds of significance are based on Appendix G Section VI (Geology and Soils) of the *CEQA Guidelines*. For the purposes of this EIR, implementation of the proposed project may have a significant adverse impact if it would do any of the following:

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
    a. 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;
    b. Strong seismic ground shaking;
    c. Seismic-related ground failure, including liquefaction;
    d. Landslides.
2. Result in substantial soil erosion or the loss of topsoil.
3. 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.

4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.
5. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.

As concluded in Section 6, *Geology and Soils*, of the Initial Study (Appendix B), based on seismic hazard mapping by CDMG (1999), the flat-lying western portions of the Plan Area are located within mapped areas of potential liquefaction. Site-specific investigation in this area indicates that the colluvial soils are generally 5 to 20 feet thick, overlying bedrock. Due to the shallow thickness, absence of groundwater, relatively clayey nature of the soils, and anticipated remedial grading the potential for liquefaction at the subject site is considered very low (NMG 2018). As such, no further analysis with respect to Threshold 1c is warranted in this section of the EIR. The Initial Study determined that the proposed project could result in potentially significant impacts related to Thresholds 1b, 1d, 2, and 4. As such, these issues are analyzed in this section of the EIR. The impact would be potentially significant under CEQA if the project would exacerbate a geologic or seismic hazard.

b. Project Impacts and Mitigation Measures

Thresholds 1b:	Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?
Thresholds 1d:	Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Impact GEO-1 DEVELOPMENT FACILITATED BY THE SPECIFIC PLAN MAY RESULT IN EXPOSURE OF PEOPLE OR STRUCTURES TO GEOLOGIC HAZARDS, INCLUDING SEISMIC GROUND SHAKING AND LANDSLIDES. THIS IS A COMMON HAZARD THAT IS PRESENT THROUGHOUT THE REGION. HOWEVER, THE PROJECT WOULD NOT INCREASE THE POTENTIAL FOR SUCH HAZARDS OR CREATE NEW HAZARDS. IN ADDITION, CONSTRUCTION ACTIVITIES WOULD COMPLY WITH THE RECOMMENDED CONDITIONS OF APPROVAL. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

Seismic Ground Shaking

No known faults cross the Plan Area and the Plan Area is not located in an Alquist-Priolo Earthquake Fault Zone. Nonetheless, the Plan Area is located in the highly seismic Southern California region where several fault systems are considered to be active or potentially active. Nearby active faults include the San Jose Fault (California Department of Conservation, 2010). The Plan Area may be subject to ground shaking in the event of an earthquake originating along one of the faults designated as active or potentially active in the vicinity of the Plan Area. This hazard is common throughout California and the proposed project would pose no greater risk to public safety or destruction of property than is already present for the region. First, all project buildings must comply with the California Building Code, which has specific, rigorous seismic standards/performance criteria for residential and commercial construction. Second, as required by Mitigation Measure GEO-1, implementation of the specific recommendations of the NMG Geotechnical Report (Appendix G to the EIR) ensure the Plan Area and future development would not be impacted by potential seismic ground shaking. Third, implementation of Mitigation Measure GEO-1 which requires that the recommendations of the NMG Geotechnical Report to prepare a

geotechnical report for precise grading, foundations and construction and comply with the specific recommendations to address seismic risk ensures that potential impacts associated with seismic groundshaking will be mitigated to less than significant. Compliance with Mitigation Measure GEO-1 also ensures consistency with General Plan Policy PS 3-2. Therefore, mandatory compliance with the California Building Code, which regulates development to withstand possible seismic ground shaking, as well as compliance with Mitigation Measure GEO-1 which requires adherence to the recommendations in the NMG Geotechnical (2018) geotechnical report (Appendix G) and any recommendations in the future geotechnical report prior to grading plan review would reduce project impacts due to seismic ground shaking to less than significant.

Landslides

The geologic character of an area determines its potential for landslides. Steep slopes, the extent of erosion, and the rock composition of a hillside all contribute to the potential for slope failure and landslide events. Disturbance of unstable slopes can cause them to fail. Common triggering mechanisms of slope failure include undercutting slopes by erosion or grading, saturation of marginally stable slopes by rainfall or irrigation; and, shaking of marginally stable slopes during earthquakes.

According the geotechnical analysis conducted by NMG Geotechnical (Appendix G), an east-southeast facing natural slope in the eastern portion of the Plan Area is identified by the State of California as having the potential for earthquake-induced landslides. This area is relatively steep (2:1 slope gradient or slightly steeper) and contains several drainage gullies directed to one central drainage gully (referred to as swales in the Section 4.3, *Biological Resources*), suggesting past surficial erosion. Evidence of ancient landslides or gross slope instabilities at this site was not observed during the investigation. The regional bedrock structural orientation in the area is also anticipated to be generally favorable with respect to gross (global) slope stability. In addition, the proposed topography at the completion of grading for the Plan Area would contain several level pads, 2:1 or flatter graded slopes, and mechanically stabilized earth (MSE) walls; thus, the potential for earthquake-induced landslides is considered low (NMG 2018). These improvements would serve to mitigate against future landslides by increasing land stability within the Plan Area. NMG Geotechnical investigated the site's potential for landslides in 2018, and concluded that certain grading and fill recommendations would reduce potential impacts associated with landslides.

To ensure any potential impacts associated with landslides would be minimized to a less than significant level, Mitigation Measure GEO-1 is required. With compliance with applicable regulations, such as the California Building Code, and Mitigation Measure GEO-1, the project's impacts associated with landslides would be less than significant.

Mitigation Measures

GEO-1 Recommendations of the Geotechnical Report

The developer and all contractors shall follow all recommendations of the 2018 NMG Geotechnical report. Prior to the issuance of grading and building permits, the City Engineering Department and City Building and Safety Department shall review and approve the detailed construction plans to ensure such plans implement the recommendations specified in the project's geotechnical report prepared by NMG Geotechnical, Inc. in 2018 (Appendix G to the EIR) and the future detailed geotechnical report (for precise grading, foundations, and construction) required pursuant to the NMG Geotechnical geotechnical report (per recommendation No. 3.18).

The following recommendations from the geotechnical investigation report shall be implemented:

Remedial Removals

Unsuitable earth materials shall be removed prior to placement of proposed fill. Unsuitable materials at the site include undocumented fills, topsoil, colluvium, and weathered bedrock. Estimated removal depths across the site are anticipated to vary on the order of 5 to 25 feet.

The removal bottom shall expose competent bedrock material and shall be evaluated, mapped and accepted by the geotechnical consultant prior to scarification/recompaction and placement of compacted fill.

General Earthwork and Grading

Prior to commencement of grading operations, deleterious material (including highly organic material, vegetation, trash, unsuitable debris) shall be cleared from the site and disposed of offsite. Grading and excavations shall be performed in accordance with the City of Walnut Grading Code and the General Earthwork and Grading Specifications in Appendix E of the 2018 NMG Geotechnical report. Prior to placement of fill, removal bottoms shall be scarified a minimum of six inches, moisture-conditioned as needed, and compacted to a minimum 90 percent relative compaction. Where fills are greater than 40 feet thick (including remedial grading and behind MSE walls) fill materials shall be compacted to a minimum of 93 percent relative compaction. Relative compaction shall be based upon ASTM Test Method D1557. Moisture content of fill soil shall be over optimum moisture content. Consideration shall be given to placing fill at higher moisture contents to facilitate the subgrade presoaking process under slabs-on-grade.

Native materials that are relatively free of deleterious material shall be suitable for use as compacted fill. Fill material shall be placed in loose lifts no greater than eight inches in thickness and compacted prior to placement of the next lift. Ground sloping greater than 5H:1V shall be prepared by benching into firm, competent material as fill is placed.

Slope Stabilization

GENERAL SLOPE STABILITY

During grading, backcut and keyway excavations shall be mapped and evaluated by the geotechnical consultant to verify the anticipated conditions. If the conditions are different than anticipated, cross-sections shall be updated to perform slope stability analysis, and the remedial grading measures shall be modified, as necessary. The excavations shall be evaluated and accepted by the geotechnical consultant prior to placement of the subdrain and/or backfill.

For surficial stability purposes, stabilization fills are recommended where bedrock is exposed. Where unfavorable conditions are anticipated, cross-sections shall be prepared and slope stability analysis performed to design the necessary buttresses for slope stabilization.

MSE wall construction will require excavation of a backcut and keyway within bedrock (in design cut areas) for construction and placement of grid in the reinforced soil zone. Preparation of cross-sections depicting the bedrock structure and global slope stability analysis shall be performed to verify the adequacy of the geogrid type, embedment depth, spacing, and wall design.

The reworked onsite soils are anticipated to provide adequate strength for the gross and surficial stability of the proposed fill slopes at 2H:1V inclinations or flatter. A base fill key shall be provided for the majority of these slopes. The depth of the key shall be a minimum of two feet into

competent earth material, at least 15 feet wide, and have a one-foot tilt back into the slope. Fill slopes are anticipated to be stable as designed provided they are constructed in accordance with the details in the General Grading and Earthwork Specifications (Appendix E) of the NMG Geotechnical report. Slopes may be subject to erosion, and shall be planted as soon as practical.

TEMPORARY SLOPE STABILITY

Temporary slopes will be created as a result of the backcuts for MSE wall construction, recommended stabilization fill keys (if any), as well as for remedial removals adjacent to natural slopes, adjacent property, or existing improvements. The actual stability of the backcuts will depend on many factors, including the geologic bedding, jointing, seepage (if any), and the amount of time the excavation remains exposed. Extra care and attention shall be provided while grading next to adjacent properties. Measures to mitigate potential backcut failure shall include the following:

- Excavations shall not be left open for long periods of time and shall be backfilled as soon as practical (i.e., backfilled prior to the weekend or holiday, if possible).
- The backcut and frontcut shall be carefully excavated at the recommended slope angles and "on grade" to reduce oversteepened areas. Cutting areas at steeper angles may result in slope failure.
- The backcut and frontcut shall be "slope-boarded" on a routine basis so that the geotechnical consultant can map the slope carefully during excavation and help to notify the project team of critically unstable areas. This will also allow those working below the excavation to observe any potential failures.
- If necessary, slope excavations may need to be constructed in sections (on the order of 100 to 200 feet long); smaller sections may be necessary if backcut failures occur.

MSE WALLS

MSE walls ("Verdura") will be designed by soil retention, based on soil shear strength and site seismic design parameters provided by NMG Geotechnical. Cross-sections shall be prepared and global slope stability analysis shall be performed to confirm that the overall slopes with walls meet the required minimum factors of safety.

Based on NMG Geotechnical's review of the site soil engineering characteristics, MSE walls are geotechnically feasible for this project. NMG Geotechnical's exploration and soil testing indicates that there are sufficient quantities of earth materials at the site which will meet the minimum soil property requirements for the MSE walls. The granular material meeting the MSE wall criteria is located in the southern half of the site. Select grading may be required to generate this backfill material. The walls should be constructed in accordance with the plans and specifications on the approved plans. The manufacturer's representative (Soil Retention) should be present during construction to verify the proper installation of the blocks and geogrid. Representatives of the geotechnical consultant should also be present to observe and test compacted fill and drainage systems.

FOUNDATION SETBACKS

The footings of structures located above descending slopes should be set back from the slope face in accordance with the minimum requirements of the City of Walnut and CBC criteria, whichever is greater. The setback distance is measured from the outside edge of the footing bottom along a horizontal line to the face of the slope.

NMG Geotechnical understands that an alternative (reduced) foundation setback criteria was previously requested (GeoTek, 2018) and conceptually accepted by the City of Walnut. The reduced foundation setback will allow for the slope height (H) to be taken as the height of the slope above the top of the planned MSE walls. NMG Geotechnical generally concurs with the alternative setback criteria; however, additional geotechnical analysis should be anticipated to further evaluate the condition at 40-scale and for final City approval. Additionally, the geotechnical consultant should review planned top of slope improvements, foundation loads, and provide additional recommendations for deepened foundations, if required. The Structural Setback Requirements table provided in the geotechnical report summarizes the minimum setback criteria for structures above descending slopes. For freestanding walls and other structures that are sensitive to lateral movement (e.g., smooth stucco finish, glass screens, etc.), NMG Geotechnical recommends that the structural setback requirements in accordance with Case A above be followed or that additional design measures be used to help control the potential for cracking and displacements. Otherwise, typical freestanding walls may have a setback in accordance with Case B.

GROUNDWATER

Groundwater and/or seepage lies relatively deep below the site and varies based on location within the site. NMG Geotechnical does not anticipate that groundwater will be encountered during grading and construction. However, if the site is graded after a significant rainy period/winter, perched groundwater could be encountered during grading. Also, nuisance seepage may be encountered locally within structural elements, such as faults and folds, which act as groundwater traps.

LIQUEFACTION AND SEISMIC SETTLEMENT

Potentially liquefiable layers may be present in the colluvium deposits at the site. Based on available information, the potential for liquefaction is low. Additionally, the preliminarily designed remedial grading will remove all existing colluvium and be replaced with compacted fill over bedrock.

SEISMIC DESIGN GUIDELINES

The seismic design criteria for the project site are developed in accordance with ASCE 7-10 and 2016 CBC, as shown in the geotechnical report. The data is included in Appendix D of the geotechnical report.

SETTLEMENT CONDITIONS AND MONITORING

The proposed design fill, above the existing ground at the site, is up to 85 feet thick (100 feet, including remedial removals). Following completion of remedial removals at the site, NMG Geotechnical anticipates competent bedrock to be exposed at the removal bottoms prior to placement of fill materials. The anticipated settlement of the fill soils under its own weight can be on the order of several inches. A large portion of the settlement will likely occur during grading operations. NMG Geotechnical recommends monitoring of settlement upon completion of grading in locations where there is greater than 60 feet of total fill (including remedial grading).

Settlement monuments should be installed at finish grade, based on the conditions observed during grading and the anticipated construction sequence for the future development. The monuments should be surveyed every two weeks for three months and monthly thereafter to initialize and monitor settlement trends. NMG Geotechnical does not expect the settlement monitoring to require more than three to six months. Survey data for settlement monuments shall be forwarded

to the geotechnical consultant after each reading. The settlement devices shall be protected in-place to ensure integrity of the data collection.

The settlement estimates and monitoring duration may be subject to revision based upon the collected monitoring data within settlement-prone areas. In general, long-term settlement shall not exceed one to two inches once an area is released from a geotechnical standpoint. Also, differential settlement shall not exceed one inch over a 30-foot span.

RIPPABILITY AND PLACEMENT OF OVERSIZE MATERIAL

The bedrock at the site includes dense sandstone and siltstone beds that may be locally difficult to rip in the deeper cuts. NMG Geotechnical anticipates that the rock will be rippable using D-9/D-10 bulldozers in the planned excavations (up to 100 feet deep).

Locally, the planned cuts may produce oversize rock (greater than 12 inches in size) that may be placed in the deeper fills. The rock may be placed in fills deeper than 10 feet below design lot/pad grade and deeper than any planned utilities within streets. However, oversize rock shall not be placed within the geogrid reinforced fill associated with the planned MSE walls. The Grading and Earthwork Specifications in Appendix E of the geotechnical report includes the details of the placement of oversize rock.

LOT CAPPING/OVEREXCAVATION

The proposed grading is anticipated to expose cut and fill transitions at finish grade within some lots. The cut portions of pads and streets exposing bedrock should be overexcavated to a minimum depth of five feet and replaced with compacted fill to provide a uniform fill cap over each lot.

In areas where hard rock is exposed at grade and cannot be easily excavated with equipment or backhoes, overexcavation shall be considered to facilitate future construction and utility installation.

Additional lot overexcavation/capping may also be recommended during grading in areas were earth materials are very different within an individual lot, such as in areas where highly expansive claystone beds are encountered adjacent to sandstone.

SUBDRAINAGE

Canyon-type subdrains (nine cubic feet of gravel per linear foot, with one-inch, Schedule 40, perforated pipe wrapped in filter fabric) shall be placed on the removal bottom or sides of the canyons/swales and provided with outlets into the future storm drain systems. Backdrains (three cubic feet of gravel per linear foot, with four-inch, Schedule 40, perforated pipe wrapped in filter fabric) shall also be provided for stabilization fills at 30-foot-vertical intervals with outlets every 100 feet through the slope face. During grading, additional subdrains may be necessary for areas where seepage is encountered.

EXPANSION POTENTIAL AND SULFATE EXPOSURE

The expansion potential of the onsite soils ranges from “very low” to “very high,” as classified by ASTM D4829. Grading and lot capping are likely to blend the soils so that at the completion of grading most of the residential lots shall fall within the “medium” range. During and at the completion of grading operations, soil samples shall be collected and tested for expansion potential to confirm anticipated conditions. Additional soil testing and analysis will also be required for structural design recommendations. Based on laboratory testing, soluble sulfate exposure in the onsite soils range in classification from “S0” to “S2” per Table 19.3.1.1 of ACI-318-14. At the

completion of grading NMG Geotechnical anticipates that the sulfate classification will vary across the site. Soil samples shall be collected at finish grade and tested for soluble sulfate content at the completion of rough grading.

SURFACE DRAINAGE

Surface drainage shall be carefully taken into consideration during all grading, landscaping, and building construction. Positive surface drainage shall be provided to direct surface water away from structures and slopes and toward the street or suitable drainage devices. Ponding of water adjacent to the structures shall not be allowed. Paved areas shall be provided with adequate drainage devices, gradients, and curbing to reduce run-off flowing from paved areas onto adjacent unpaved areas.

The performance of foundations is also dependent upon maintaining adequate surface drainage away from structures. The minimum gradient within five feet of the structures will depend upon surface landscaping. In general, NMG Geotechnical recommends that unpaved lawn and landscape areas have a minimum gradient of two percent away from structures immediately adjacent to structures, and a minimum gradient of one percent for devices, such as swales, to collect this runoff and direct it toward the street or other appropriate collection points.

MAINTENANCE OF GRADED SLOPES

To reduce the erosion and slumping potential of the graded slopes, all permanent manufactured slopes shall be protected from erosion by planting with appropriate vegetation, or suitable erosion protection shall be applied as soon as is practical. Proper drainage shall be designed and maintained to collect surface waters and direct them away from slopes. A rodent-control program shall be established and maintained as well, to reduce the potential for damage related to burrowing. In addition, the design and construction of improvements and landscaping shall also provide appropriate drainage measures.

PROTECTION OF EXISTING IMPROVEMENTS

Existing utilities and improvements shall be located and marked during grading operations. Grading and construction activities near existing structures, streets, pipelines, etc., shall be performed with care and under the direction of the improvement or utility company. Stockpiling of soils over utility lines shall not be allowed without prior acceptance by the utility company. Excavations adjacent to existing improvements or utilities shall be performed with care, so as not to undermine or destabilize the adjacent ground. Where significant fill loading is planned, geotechnical analysis shall be performed to evaluate settlement impacts to adjacent properties.

GEOTECHNICAL REVIEW OF FUTURE PLANS

Future grading plans and any revisions/changes in the current plan for the site shall be reviewed and accepted by the geotechnical consultant prior to grading. A geotechnical report with recommendations specific to the grading plan and construction is anticipated at the 40-scale plan stage for submittal to the City and to be used as a basis for grading. The geotechnical consultant shall also review future precise grading and foundation plans. A geotechnical report with recommendations for design and construction shall be prepared.

GEOTECHNICAL OBSERVATION AND TESTING DURING GRADING

The findings, conclusions and recommendations in this report are based upon interpretation of data and data points having limited spatial extent. Verification and refinement of actual geotechnical conditions during grading is essential, especially where slope stabilization is involved. At minimum, geotechnical observation and testing shall be conducted during grading operations at the following stages:

- During and following clearing and grubbing, prior to site processing;
- During and following remedial removals to evaluate and accept the removal bottom;
- During and following cutting of slopes and excavation of slope stabilization measures;
- During installation of subdrains;
- During placement of compacted fill;
- During abandonment of groundwater and/or oil wells;
- During construction of utility lines (if applicable);
- During and upon completion of excavations for storm drain structures and during trench backfill;
- During pavement subgrade and aggregate base preparation for street pavements; and
- When any unusual or unexpected geotechnical conditions are encountered during grading and construction.

Significance After Mitigation

Compliance with applicable regulations, such as the California Building Code, and Mitigation Measure GEO-1, would reduce the project's impacts associated with potential seismic ground shaking and landslides to a less than significant impact.

Threshold 2: Would the project result in substantial soil erosion or the loss of topsoil?

Impact GEO-2 CONSTRUCTION ACTIVITIES WOULD INCLUDE TEMPORARY GROUND DISTURBANCE SUCH AS EXCAVATION AND GRADING THAT WOULD RESULT IN LOOSE OR EXPOSED SOIL. THIS DISTURBED SOIL COULD BE ERODED BY WIND OR DURING A STORM EVENT, WHICH COULD RESULT IN THE LOSS OF TOPSOIL. COMPLIANCE WITH APPLICABLE REGULATIONS, INCLUDING THE CLEAN WATER ACT AND THE WALNUT MUNICIPAL CODE, WOULD MINIMIZE THE POTENTIAL FOR EROSION AND LOSS OF TOPSOIL. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Temporary erosion could occur during construction of the proposed Specific Plan. As discussed in Section 4.8, *Hydrology and Water Quality*, grading activities during construction would involve cut and fill soil to level some areas and create stepped terraces in others, which would alter current drainage patterns. However, construction activity would be required to comply with the development standards set forth in Title 2, Chapter 2.04 of the Walnut Municipal Code (WMC), which includes standards to regulate the mass grading and shaping of slopes to preserve the natural terrain and water courses to the extent possible (see *Regulatory Setting* under this Section).

Construction activities that disturb one or more acres of land surface are subject to the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Order No. 2012-0006-DWQ) adopted by the State Water Resources Control Board (SWRCB), which prohibits discharges of pollutants

other than storm water and non-storm water discharges authorized by the General Permit. The General Permit also prohibits discharges which contain a hazardous substance in excess of reportable quantities. Compliance with the permit requires each qualifying development project to file a Notice of Intent with the SWRCB. Permit conditions require development of a storm water pollution prevention plan (SWPPP), which must describe the site, the facility, erosion and sediment controls, runoff water quality monitoring, means of waste disposal, implementation of approved local plans, control of construction sediment and erosion control measures, maintenance responsibilities, and non-storm water management controls. Inspection of construction sites before and after storms is also required to identify storm water discharge from the construction activity and to identify and implement erosion controls, where necessary. Compliance with the Construction General Permit is reinforced through the WMC.

The project involves operation of a mixed-use infill development that includes a mix of housing types, a commercial district, parks and recreation areas, and open space, such as landscaped slopes. Development would also include streets, paved areas for street parking, a parking lot in the commercial district, and public infrastructure improvements, such as stormwater basins. The proposed recreation areas would consist of a neighborhood park, pocket parks, and accessible open space. The developed areas and paved would not result in loose or exposed soil. For the areas of open space, the WMC requires a landscaping plan for mitigation of grading results. Pursuant to Title 2, Chapter 2.04 of the WMC, these landscape plans must indicate sufficient permanent fire-resistant plantings (preferably native) with adequate root systems to protect slopes from erosion and slippage and to minimize the visual effects of grading and construction. Any new landscape materials introduced as transition plantings must be used to integrate the manmade and natural environments and to screen and soften the visual impact of development. Landscape materials must also provide diversity in the developed areas. The City guidelines are to be used in considering the appropriate plant material. Adherence to the requirements of the WMC would reduce the potential for new construction under the Specific Plan to cause erosion or the loss of topsoil by ensuring proper management of loose and disturbed soil. Therefore, operation of the project would not result in loose or exposed soil that could be eroded by wind or during a storm event. Mitigation beyond compliance with federal, state, and local erosion control regulations would not be required. Impacts would be less than significant.

Mitigation Measures

No mitigation required.

Threshold 4:	Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Impact GEO-3 DEVELOPMENT OF THE SPECIFIC PLAN MAY RESULT IN THE CONSTRUCTION OF STRUCTURES ON EXPANSIVE SOILS, WHICH COULD CREATE A SUBSTANTIAL RISK TO LIFE OR PROPERTY. HOWEVER, ALL NEW DEVELOPMENT WOULD BE REQUIRED TO COMPLY WITH THE STANDARDS OF THE CALIFORNIA BUILDING CODE, WHICH WOULD ENSURE THAT EXPANSIVE SOILS ARE REMEDIATED OR THAT FOUNDATIONS AND STRUCTURES ARE ENGINEERED TO WITHSTAND THE FORCES OF EXPANSIVE SOIL. THE PROPOSED SPECIFIC PLAN WOULD NOT EXACERBATE EXISTING SOIL CONDITIONS IN THE PLAN AREA. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

If new development is constructed on expansive soils, it would be subject to damage or could become unstable when the underlying soil shrinks or swells. The CBC includes requirements to address soil-related hazards. Typical measures to treat hazardous soil conditions involve removal, proper fill selection, and compaction. In cases where soil remediation is not feasible, the CBC requires structural reinforcement of foundations to resist the forces of expansive soils. In addition, development in the Plan Area would comply with Mitigation Measure GEO-1, which requires implementation of the recommended in the geotechnical study conducted by NMG Geotechnical, Inc. (Appendix G) and described under Impact GEO-1. Compliance with the requirements of the CBC and Mitigation Measure GEO-1 would reduce impacts related to expansive soils. Therefore, impacts would remain less than significant.

Mitigation Measures

No mitigation required.

c. Cumulative Impacts

Planned and pending projects (shown in Section 3, *Environmental Setting*) would increase structural development in the vicinity of the Plan Area. Such development would expose new residents and property to potential risks from seismic hazards in the area. Development of the proposed Specific Plan would incrementally contribute to the increase in exposure to geologic hazards. However, geologic hazards are site-specific and individual developments would not create additive impacts that would affect geologic conditions on other sites. Moreover, development projects would be subject to CEQA review. Potential impacts from future development would be addressed on case-by-case basis and would be required to comply with applicable provisions of the Municipal Code. Therefore, development of individual projects would not exacerbate existing geologic conditions and overall cumulative impacts would be less than significant.

4.6 Greenhouse Gas Emissions

This section discusses the project's potential impacts related to emissions of greenhouse gases (GHG) and climate change. Traffic projections used in emissions estimates are based on the *Walnut Ridge Specific Plan Traffic Impact Analysis* (TIA) prepared by Kunzman Associates, Inc. (Kunzman 2019). The traffic study is included as Appendix D.

4.6.1 Setting

a. Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. The baseline against which these changes are measured originates in historical records identifying temperature changes that have occurred in the past, such as during previous ice ages. The global climate is continuously changing, as evidenced by repeated episodes of substantial warming and cooling documented in the geologic record. However, scientists have observed acceleration in the rate of warming during the past 150 years. Per the United Nations Intergovernmental Panel on Climate Change (IPCC 2013), the understanding of anthropogenic warming and cooling influences on climate has led to a high confidence (95 percent or greater chance) that the global average net effect of human activities has been the dominant cause of warming since the mid-20th century (IPCC 2013).

Gases that absorb and re-emit infrared radiation in the atmosphere are called greenhouse gases. The gases that are widely seen as the principal contributors to human-induced climate change include carbon dioxide (CO_2), methane (CH_4), nitrous oxides (N_2O), fluorinated gases such as hydrofluorocarbons (HFCs) and perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6).

GHGs are emitted by both natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Emissions of CO_2 are largely by-products of fossil fuel combustion, whereas CH_4 results from off-gassing associated with agricultural practices and landfills. Observations of CO_2 concentrations, globally-averaged temperature, and sea level rise are generally well within the range of the extent of the earlier IPCC projections. The recently observed increases in CH_4 and N_2O concentrations are smaller than those assumed in the scenarios in the previous assessments. Each IPCC assessment has used new projections of future climate change that have become more detailed as the models have become more advanced.

Man-made GHGs, many of which have greater heat-absorption potential than CO_2, include fluorinated gases and sulfur hexafluoride (SF_6) (California Environmental Protection Agency [CalEPA] 2006). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO_2) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO_2e), and is the amount of a GHG emitted multiplied by its GWP. CO_2 has a 100-year GWP of one. By contrast, CH_4 has a GWP of 25, meaning its global warming effect is 25 times greater than CO_2 on a molecule per molecule basis (IPCC 2007). It is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere

beyond the level of naturally occurring concentrations. The following discusses the primary GHGs of concern.

Carbon Dioxide

The global carbon cycle is made up of large carbon flows and reservoirs. Billions of tons of carbon in the form of CO_2 are absorbed by oceans and living biomass (i.e., sinks) and are emitted to the atmosphere annually through natural processes (i.e., sources). When in equilibrium, carbon fluxes among these various reservoirs are roughly balanced (USEPA 2014). CO_2 was the first GHG demonstrated to be increasing in atmospheric concentration, with the first conclusive measurements being made in the second half of the 20th century. The global atmospheric concentration of CO_2 has increased from a pre-industrial value of about 280 ppm to 391 ppm in 2011 (IPCC 2007; NOAA 2010). Currently, CO_2 represents an estimated 74 percent of total GHG emissions (IPCC 2007). The largest source of CO_2 emissions, and of overall GHG emissions, is fossil fuel combustion.

Methane

CH_4 is an effective absorber of radiation, though its atmospheric concentration is less than that of CO_2 and its lifetime in the atmosphere is limited to 10 to 12 years. It has a GWP approximately 25 times that of CO_2. Over the last 250 years, the concentration of CH_4 in the atmosphere has increased by 148 percent (IPCC 2007), although emissions have declined from 1990 levels. Anthropogenic sources of CH_4 include enteric fermentation associated with domestic livestock, landfills, natural gas and petroleum systems, agricultural activities, coal mining, wastewater treatment, stationary and mobile combustion, and certain industrial processes (USEPA 2014).

Nitrous Oxide

Concentrations of N_2O began to rise at the beginning of the industrial revolution and continue to increase at a relatively uniform growth rate (NOAA 2010). N_2O is produced by microbial processes in soil and water, including those reactions that occur in fertilizers that contain nitrogen, fossil fuel combustion, and other chemical processes. Use of these fertilizers has increased over the last century. Agricultural soil management and mobile source fossil fuel combustion are the major sources of N_2O emissions. The GWP of nitrous oxide is approximately 298 times that of CO_2 (IPCC 2007).

Fluorinated Gases (HFCS, PFCS, and SF_6)

Fluorinated gases, such as HFCs, PFCs, and SF_6, are powerful GHGs that are emitted from a variety of industrial processes. Fluorinated gases are used as substitutes for ozone-depleting substances such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), and halons, which have been regulated since the mid-1980s because of their ozone-destroying potential and are phased out under the Montreal Protocol (1987) and Clean Air Act Amendments of 1990. Electrical transmission and distribution systems account for most SF_6 emissions, while PFC emissions result from semiconductor manufacturing and as a by-product of primary aluminum production. Fluorinated gases are typically emitted in smaller quantities than CO_2, CH_4, and N_2O, but these compounds have much higher GWPs. SF_6 is the most potent GHG the IPCC has evaluated.

Greenhouse Gas Emissions Inventory

Worldwide anthropogenic emissions of GHGs were approximately 46,000 million metric tons (MMT, or gigatonne) CO_2e in 2010 (IPCC 2014). CO_2 emissions from fossil fuel combustion and industrial processes contributed about 65 percent of total emissions in 2010. Of anthropogenic GHGs, CO_2 was the most abundant accounting for 76 percent of total 2010 emissions. CH_4 emissions accounted for 16 percent of the 2010 total, while nitrous oxide and fluorinated gases account for 6 and 2 percent, respectively (IPCC 2014).

Total United States GHG emissions were 6,511.3 million metric tons (MMT or gigatonnes) of CO_2e in 2016 (USEPA 2018). Total United States emissions have increased by 2.4 percent since 1990; emissions decreased by 1.9 percent from 2015 to 2016 (USEPA 2018). The decrease from 2014 to 2015 was a result of multiple factors, including: (1) substitution from coal to natural gas and other non-fossil energy sources in the electric power sector and (2) warmer winter conditions in 2016 resulting in a decreased demand for heating fuel in the residential and commercial sectors (USEPA 2018). Since 1990, U.S. emissions have increased at an average annual rate of 0.1 percent. In 2015, the industrial and transportation end-use sectors accounted for 29 percent each of GHG emissions (with electricity-related emissions distributed), respectively. Meanwhile, the residential and commercial end-use sectors accounted for 15 percent and 16 percent of CO_2e emissions, respectively (EPA 2018).

Based on the California Air Resource Board's (CARB) California Greenhouse Gas Inventory for 2000-2016, California produced 429.4 MMT of CO_2e in 2016 (CARB 2018a). The major source of GHGs in California is associated with transportation, contributing 41 percent of the state's total GHG emissions. The industrial sector is the second largest source, contributing 23 percent of the state's GHG emissions, and electric power accounted for approximately 16 percent (CARB 2018a). California emissions are due in part to its large size and large population compared to other states. However, a factor that reduces California's per capita fuel use and GHG emissions, as compared to other states, is its relatively mild climate. CARB has projected that statewide unregulated GHG emissions for the year 2020 will be 509 MMT of CO_2e (CARB 2018b). These projections represent the emissions that would be expected to occur in the absence of any GHG reduction actions.

Potential Effects of Climate Change

Globally, climate change has the potential to affect numerous environmental resources though potential impacts related to future air temperatures and precipitation patterns. Scientific modeling predicts that continued GHG emissions at or above current rates would induce more extreme climate changes during the 21st century than were observed during the 20th century. Long-term trends have found that each of the past three decades has been warmer than all the previous decades in the instrumental record, and the decade from 2000 through 2010 has been the warmest. The observed global mean surface temperature (GMST) for the decade from 2006 to 2015 was approximately 0.87°C (0.75°C to 0.99°C) higher than the average GMST over the period from 1850 to 1900. Furthermore, several independently analyzed data records of global and regional Land-Surface Air Temperature (LSAT) obtained from station observations are in agreement that LSAT as well as sea surface temperatures have increased. Due to past and current activities, anthropogenic GHG emissions are increasing global mean surface temperature at a rate of 0.2°C per decade. In addition to these findings, there are identifiable signs that global warming is currently taking place, including substantial ice loss in the Arctic over the past two decades (IPCC 2014 and 2018).

According to California's Fourth Climate Change Assessment, statewide temperatures from 1986 to 2016 were approximately 1°F to 2°F higher than those recorded from 1901 to 1960. Potential impacts of climate change in California may include loss in water supply from snow pack, sea level rise, more extreme heat days per year, more large forest fires, and more drought years (State of California 2018). While there is growing scientific consensus about the possible effects of climate change at a global and statewide level, current scientific modeling tools are unable to predict what local impacts may occur with a similar degree of accuracy. In addition to statewide projections, California's Fourth Climate Change Assessment includes regional reports that summarize climate impacts and adaptation solutions for nine regions of the state as well as regionally-specific climate change case studies (State of California 2018).

b. Regulatory Setting

California Regulations

The California Air Resources Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. California has numerous regulations aimed at reducing the state's GHG emissions. These initiatives are summarized below.

California Advanced Clean Cars Program

Assembly Bill (AB) 1493 (2002), California's Advanced Clean Cars program (referred to as "Pavley"), requires CARB to develop and adopt regulations to achieve "the maximum feasible and cost-effective reduction of GHG emissions from motor vehicles." On June 30, 2009, USEPA granted the waiver of Clean Air Act preemption to California for its greenhouse gas emission standards for motor vehicles beginning with the 2009 model year. Pavley I regulates model years from 2009 to 2016 and Pavley II, which is now referred to as "LEV (Low Emission Vehicle) III GHG" regulates model years from 2017 to 2025. The Advanced Clean Cars program coordinates the goals of the LEV, Zero Emissions Vehicles (ZEV), and Clean Fuels Outlet programs, and would provide major reductions in GHG emissions. By 2025, when the rules will be fully implemented, new automobiles will emit 34 percent fewer GHGs and 75 percent fewer smog-forming emissions from their model year 2016 levels (CARB 2011).

Assembly Bill 32

California's major initiative for reducing GHG emissions is outlined in AB 32, the "California Global Warming Solutions Act of 2006," signed into law in 2006. AB 32 codifies the statewide goal of reducing GHG emissions to 1990 levels by 2020, and requires CARB to prepare a Scoping Plan that outlines the main state strategies for reducing GHGs to meet the 2020 deadline. AB 32 requires CARB to adopt regulations to require reporting and verification of statewide GHG emissions. Based on this guidance, CARB approved a 1990 statewide GHG level and 2020 limit of 427 MMT CO_2e. The Scoping Plan was approved by CARB on December 11, 2008, and included measures to address GHG emission reduction strategies related to energy efficiency, water use, and recycling and solid waste, among other measures. Many of the GHG reduction measures included in the Scoping Plan (e.g., Low Carbon Fuel Standard, Advanced Clean Car standards, and cap-and-trade) have been adopted since approval of the Scoping Plan.

In May 2014, CARB approved the first update to the AB 32 Scoping Plan. The 2013 Scoping Plan update defines CARB's climate change priorities for the next five years and sets the groundwork to reach post-2020 statewide goals. The update highlights California's progress toward meeting the

"near-term" 2020 GHG emission reduction goals defined in the original Scoping Plan. It also evaluates how to align the State's longer-term GHG reduction strategies with other State policy priorities, such as for water, waste, natural resources, clean energy and transportation, and land use (CARB 2014).

Senate Bill 97

Senate Bill (SB) 97, signed in August 2007, acknowledges that climate change is an environmental issue that requires analysis in CEQA documents. In March 2010, the California Resources Agency (Resources Agency) adopted amendments to the *CEQA Guidelines* for the feasible mitigation of GHG emissions or the effects of GHG emissions. The adopted guidelines give lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and climate change impacts.

Senate Bill 375

SB 375, signed in August 2008, enhances the state's ability to reach AB 32 goals by directing CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles for 2020 and 2035. SB 375 directs each of the state's 18 major Metropolitan Planning Organizations (MPO) to prepare a "sustainable communities strategy" (SCS) that contains a growth strategy to meet these emission targets for inclusion in the Regional Transportation Plan (RTP). On September 23, 2010, CARB adopted final regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035.

Senate Bill 32

On September 8, 2016, Governor Brown signed SB 32 into law, extending AB 32 by requiring the state to further reduce GHGs to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, CARB adopted "California's 2017 Climate Change Scoping Plan" (the "2017 Scoping Plan"), which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program, and implementation of recently adopted policies and policies, such as SB 350 and SB 1383 (see below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends that local governments adopt policies and locally-appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) CO_2e by 2030 and two MT CO_2e by 2050 (CARB 2017). As stated in the 2017 Scoping Plan, these goals may be appropriate for plan-level analyses (regional, sub-regional, county, city levels), but not for specific individual projects because they include all emissions sectors in the state (CARB 2017).

Senate Bill 350

Adopted on October 7, 2015, SB 350 supports the reduction of GHG emissions from the electricity sector through a number of measures, including requiring electricity providers to achieve a 50 percent renewables portfolio standard by 2030, a cumulative doubling of statewide energy efficiency savings in electricity and natural gas by retail customers by 2030.

Senate Bill 100

In September 2018, Governor Brown signed SB 100, requiring California to generate 100 percent of its electricity from carbon-free sources by 2045. Additionally, the bill updated the State's Renewable Portfolio Standard targets for public utility power portfolios to 44 percent by 2024, 52 percent by 2027, and 60 percent by 2030.

Senate Bill 1383

Adopted in September 2016, SB 1383 requires the CARB to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants. The bill requires the strategy to achieve the following reduction targets by 2030:

- Methane – 40 percent below 2013 levels
- Hydrofluorocarbons – 40 percent below 2013 levels
- Anthropogenic black carbon – 50 percent below 2013 levels

The bill also requires the California Department of Resources Recycling and Recovery, in consultation with CARB, to adopt regulations that achieve specified targets for reducing organic waste in landfills.

CEQA Guidelines Section 15064.4

Section 15064.4 requires that, as part of the environmental review under CEQA, agencies should make a good-faith effort, based to the extent possible on scientific and factual data, to estimate the amount of GHG emissions resulting from a project. The lead agency has discretion to determine whether to use a model or methodology to quantify GHG emissions, and which model or methodology to use, or rely on a qualitative analysis or performance-based standards. The lead agency should consider the following factors when assessing the significance of impacts from GHG emissions on the environment.

- The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting
- Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project
- The extent which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project

Executive Order S-3-05

Executive Order (EO) S-3-05 establishes statewide GHG emissions reduction targets. EO S-3-05 provides that, by 2010, emissions shall be reduced to 2000 levels; by 2020, emissions shall be reduced to 1990 levels; and, by 2050, emissions shall be reduced to 80 percent below 1990 levels.

Executive Order B-55-18

Executive Order (EO) B-55-18 establishes a new statewide policy of achieving net zero carbon emissions by 2045 and to achieve and maintain net negative emissions thereafter. B-55-18 will be addressed in the next CARB scoping plan.

For more information on Senate and Assembly bills, Executive Orders, and reports discussed above, and to view reports and research referenced above, please refer to www.climatechange.ca.gov and www.arb.ca.gov/cc/cc.htm.

Regional Regulations

Southern California Association of Governments (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)

SCAG is the MPO for the six-county region that encompasses Los Angeles, Orange, Riverside, Ventura, San Bernardino, and Imperial counties. The 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) includes commitments to reduce emissions from transportation sources to comply with SB 375. Goals and policies included in the 2016-2040 RTP/SCS to reduce GHG emissions consist of adding density in proximity to transit stations, mixed-use development, and encouraging active transportation (i.e., non- motorized transportation such as bicycling). SCAG promotes the following policies and actions related to active transportation to help the region confront congestion and mobility issues and consequently reduce emissions:

- Implement Transportation Demand Management (TDM) strategies including integrating bicycling through folding bikes on buses programs, triple racks on buses, and dedicated racks on light and heavy rail vehicles;
- Encourage and support local jurisdictions to develop "Active Transportation Plans" for their jurisdiction if they do not already have one;
- Expand Compass Blueprint program to support member cities in the development of bicycle plans;
- Expand the Toolbox Tuesday's program to encourage local jurisdictions to direct enforcement agencies to focus on bicycling and walking safety to reduce multimodal conflicts;
- Support local advocacy groups and bicycle-related businesses to provide bicycle-safety curricula to the general public;
- Encourage children, including those with disabilities, to walk and bicycle to school;
- Encourage local jurisdictions to adopt and implement the proposed SCAG Regional Bikeway Network; and
- Support local jurisdictions to connect all of the cities within the SCAG region via bicycle facilities.

SB 375 requires CARB to develop regional CO_2 emission reduction targets for 2020 and 2025 for cars and light trucks for each MPO. SB 375 also requires that each MPO prepare SCS as part of the RTP to reduce CO_2 by better aligning transportation, land use, and housing. For SCAG, the targets are to reduce per capita emissions 8 percent below 2005 levels by 2020 and 13 percent below 2005 levels by 2035. The 2016- 2040 RTP/SCS states that the region will meet or exceed the SB 375 per capita targets, lowering regional per capita GHG emissions (below 2005 levels) by eight percent by 2020 and 18 percent by 2035. The 2016-2040 RTP/SCS also states that regional 2040 per capita emissions would be reduced by 22 percent, although CARB has not established a 2040 per capita emissions target.

South Coast Air Quality Management District (SCAQMD)

In 2008, SCAQMD released draft guidance regarding interim CEQA GHG significance thresholds. SCAQMD proposed the use of a percent emission reduction target (e.g., 30 percent) to determine significance for commercial/residential projects that emit greater than 3,000 metric tons (MT) of carbon dioxide equivalent (CO_2e) per year. On December 5, 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for stationary source/industrial projects where SCAQMD is the lead agency. However, SCAQMD has not adopted a GHG significance threshold for land use development or transportation projects.

Local Regulations

The City of Walnut has not adopted a local Climate Action Plan, Greenhouse Gas Reduction Plan[1], or other regulatory ordinance pertaining to GHG emissions generated in the City. However, the City is currently working on drafting a qualified CAP for future projects to tier from.

4.6.2 Impact Analysis

a. Methodology and Significance Thresholds

Based on the environmental checklist contained in Appendix G Section VII (GHG Emissions) of the CEQA Guidelines, impacts related to GHG emissions from the project would be significant if the project would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases

The majority of individual projects do not generate sufficient GHG emissions to directly influence climate change. However, physical changes caused by a project can contribute incrementally to cumulative effects that are significant, even if individual changes resulting from a project are limited. Therefore, the issue of climate change typically involves an analysis of whether a project's contribution towards an impact is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines, Section 15064[h][1]).

As discussed previously, the proposed Specific Plan is expected to be built out in 2024 (the year assumed to generate the greatest amount of GHGs due to complete buildout), several years after the GHG reduction target year of 2020 established in AB 32. As recommended by the Association of Environmental Professionals (AEP) in *Beyond Newhall and 2020: A Field Guide to New CEQA GHG Thresholds* (AEP 2016), the next statewide milestone target relative to the project's horizon is used for analysis, in this case the 2030 target established by SB 32.

The City of Walnut has not adopted a threshold of significance, a Climate Action Plan, or other qualified GHG reduction plan establishing a level below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable. Additionally, SCAQMD has not adopted a significance threshold for land use development projects and the industrial

[1] Qualified GHG reduction plan as defined by CEQA Guidelines §15183.5(b)

thresholds are not applicable to the proposed project. Therefore, the proposed Specific Plan will be evaluated through a consistency analysis with adopted regional and State GHG reduction plans with post-2020 horizon years.

To answer the Appendix G questions above, the following thresholds of significance are used to assess the environmental impacts associated with GHG emissions for the proposed Specific Plan:

1) Consistency with the CARB 2017 Climate Change Scoping Plan (SB 32 consistency)
2) Consistency with the SCAG 2016--2040 RTP/SCS (SB 375 consistency)

Additionally, proposed project's GHG emissions are estimated to characterize the emissions that could result from the proposed project. Consistency with the Scoping Plan and SCAGs RTP/SCS are evaluated qualitatively.

Study Methodology

Consistency with SB 32 is determined based on strategies implemented toward meeting the statewide goals, as described in Appendix B of the State Scoping Plan. SB 375 requires the preparation of an SCS in coordination with the RTP, and consistency with the 2016-2040 RTP/SCS is determined by evaluating the proposed Specific Plan's effect on regional growth relative to the availability of a sustainable transportation network.

CEQA Guidelines Section 15064.4(a) provides that lead agencies should make a good faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of GHG emissions resulting from the project. The discussion below provides the methodology as to how the proposed plan's GHG emissions were calculated. Although there is no adopted numerical threshold of significance to compare the proposed plan's emissions against to determine significance, it is provided to characterize the potential emission consistent with the CEQA Guidelines.

Calculations of CO_2, CH_4, and N_2O emissions are provided to identify the magnitude of potential effects from the proposed Specific Plan. The analysis focuses on CO_2, CH_4, and N_2O because these make up 98.9 percent of all GHG emissions by volume (IPCC 2007) and are the GHG emissions that the project would emit in the largest quantities. Fluorinated gases, such as HFCs, PFCs, and SF_6, were also considered for the analysis. However, because the Specific Plan involves commercial and residential development, the quantity of fluorinated gases would not be significant since fluorinated gases are primarily associated with industrial processes. Emissions of all GHGs are converted into their equivalent GWP in terms of CO_2 (CO_2e). Minimal amounts of other GHGs (such as chlorofluorocarbons [CFCs]) would be emitted; however, these other GHG emissions would not substantially add to the total calculated CO_2e amounts. Calculations are based on the methodologies discussed in the California Air Pollution Control Officers Association (CAPCOA) *CEQA and Climate Change* white paper (January 2008) and included the use of the California Climate Action Registry (CCAR) General Reporting Protocol (January 2009).

Construction Emissions Methodology

Although construction activity is addressed in this analysis, CAPCOA does not discuss whether any of the suggested threshold approaches adequately address impacts from temporary construction activity. As stated in the CAPCOA *CEQA and Climate Change* white paper, "more study is needed to make this assessment or to develop separate thresholds for construction activity" (CAPCOA 2008).

Nevertheless, air districts, such as the SCAQMD, have recommended amortizing construction-related emissions over a 30-year period.

Construction of the project would generate temporary GHG emissions primarily due to the operation of construction equipment and truck trips. Site preparation and grading typically generate the greatest amount of emissions due to the use of grading equipment and soil hauling. CalEEMod was used to estimate emissions associated with the construction period, based on parameters including the duration of construction activity, area of disturbance, and anticipated equipment used during construction. Complete results from CalEEMod and assumptions can be viewed in Appendix B.

Operational Emissions Methodology

CalEEMod provides operational emissions of CO_2, N_2O, and CH_4. Emissions from energy use include emissions from electricity and natural gas use. The emissions factors for natural gas combustion are based on EPA's AP-42, (Compilation of Air Pollutant Emissions Factors) and CCAR. Electricity emissions are calculated by multiplying the energy use times the carbon intensity of the utility district per kilowatt hour (CAPCOA 2017). The default electricity consumption values in CalEEMod are based on the CEC-sponsored California Commercial End Use Survey (CEUS) and Residential Appliance Saturation Survey (RASS) studies. The electricity emission factor for the project in 2024 was calculated by using the 2017 Southern California Edison emission factor and applying the Renewable Portfolio Regulation created under SB 100, which mandates all utilities reach 44 percent renewable energy by 2025. To do this, Rincon performed a linear regression from the utility's required renewable energy mix content in 2025 (44 percent) to their current renewable energy mix (32 percent) and identified the minimum expected emissions factor for 2024. Therefore, as shown in Table 4.6-1, by 2024 Southern California Edison's emission factor will drop from 0.25 MT of CO_2e per MWh to at least 0.21 MT of CO_2e per MWh.

Table 4.6-1 Derivation of SCE Emission Factor Through 2025

Year	Percent Renewable Energy	Emission Factor (MT of CO_2e/MWh)
2017[1]	32%	0.25
2018	34%	0.24
2019	35%	0.24
2020	37%	0.23
2021	38%	0.23
2022	40%	0.22
2023	41%	0.22
2024	**43%**	**0.21**
2025	44%	0.21

[1] 2017 SCE Corporate Sustainability Report: https://www.edison.com/content/dam/eix/documents/sustainability/eix-2017-sustainability-report.pdf

Emissions associated with area sources, including consumer products, landscape maintenance, and architectural coating utilize standard emission rates from CARB, USEPA, and district supplied emission factor values (CAPCOA2017).

Emissions from waste generation are based on the IPCC's methods for quantifying GHG emissions from solid waste using the degradable organic content of waste (SCAQMD 2017). Waste disposal

rates by land use and overall composition of municipal solid waste in California was primarily based on data provided by the California Department of Resources Recycling and Recovery (CalRecycle).

Emissions from water and wastewater use are based on the default electricity intensity from the CEC's 2006 Refining Estimates of Water-Related Energy Use in California using the average values for Northern and Southern California.

For mobile sources, CO_2 and CH_4 emissions from vehicle trips to and from the Plan Area were quantified using CalEEMod for VMT and CARB Mobile Source Emission Inventory Model (EMFAC) was used to determine the emissions at project build out. EMFAC includes both federal and state rulemakings which will increase the efficiency of the vehicle fleet. Once the emission factor was derived from the model, Rincon applied this to the VMT estimates provided by CalEEMod and the January 2019 Traffic Study. In addition, a bonus for distance to job center was applied to the project because the project is within a mile of a job center (CARB 2018).

Because CalEEMod does not calculate N_2O emissions from mobile sources, N_2O emissions were quantified using the California Climate Action Registry General Reporting Protocol (January 2009) direct emissions factors for mobile combustion (Appendix B). The estimate of total daily trips associated with the proposed project was based on the traffic study (see Appendix F) and was calculated and extrapolated to derive total annual mileage in CalEEMod. Emission rates for N_2O emissions were based on the vehicle fleet mix output generated by CalEEMod and the emission factors found in the California Climate Action Registry General Reporting Protocol.

b. Project Impacts and Mitigation Measures

Threshold 1:	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment
Threshold 2:	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases

IMPACT GHG-1 THE PROPOSED SPECIFIC PLAN WOULD BE CONSISTENT WITH THE SCAG RTP/SCS AND STATE SCOPING PLAN WITH IMPLEMENTATION OF MITIGATION. IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.

Consistency Analysis

Under the consistency analysis methodology, the proposed Specific Plan would be considered cumulatively considerable and have a significant impact if it were found to be inconsistent with the goals of the 2017 Scoping Plan or the SCAG RTP/SCS.

Appendix B of the 2017 Scoping Plan provides example GHG mitigation measures that can be incorporated at both the plan and project level. (See 2017 Scoping Plan p. 102 ["examples of on-site project design features, mitigation measures, and direct regional investments that may be feasible to minimize GHG emissions from land use development projects].) The measures identified are intended to help the State meet the 2030 GHG reduction target of AB 32. Because implementation of measures intended to assist the State in achieving its reduction goals is consistent with SB 32, a statewide GHG reduction standard intended to curb the impacts of global warming, a project's incorporation of such measures can serve as the basis for determining consistency with SB 32's reduction requirements and the Scoping Plan. The California Supreme Court, in *Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, recognized that the

Scoping Plan and an individual project's incorporation of GHG reduction and efficiency measures was an appropriate tool to analyze GHG impacts. "…the Scoping Plan – the state's roadmap for meeting AB 32's target – *assumes continued growth and depends on increased efficiency and conservation in land use* and transportation from all Californians." (*Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 220 (emphasis added).) "'To the extent a project incorporates efficiency and conservation measures sufficient to contribute its portion of the overall greenhouse reductions necessary, one can reasonably argue that the project's impact "is not cumulatively considerable," because it is helping to solve the cumulative problem of greenhouse gas emissions as envisioned by California law.'" (*Center for Biological Diversity v. California Department of Fish and Wildlife* (2015) 62 Cal.4th 204, 220.) [As stated in Appendix B, the plan level features are examples of local municipal code changes, zoning changes, or policy directions that could apply broadly to the community within the general plan or climate action plan area. Therefore, the plan level features do not apply at the project level and are not included in the consistency analysis.

Consistency with the State's long term GHG reduction goals and measures identified as potentially feasible to reduce GHGs, as codified in the 2017 Scoping Plan, is discussed below in Table 4.6-2.

Table 4.6-2 2017 Scoping Plan – Appendix B Example Mitigation Measures

Goals, Policies, and Actions	Project Consistency
B. Individual Project Level Measures	
Construction Actions	
1. Goal: Minimize waste and emissions from construction and materials a. Divert and recycle construction and demolition waste, and use locally-sourced building materials with a high recycled material content to the greatest extent feasible b. Utilize existing grid power for electric energy rather than operating temporary gasoline/diesel powered generators	**Consistent –** Section 4.9.3 of the proposed Specific Plan would establish a construction waste recycling program with a local waste management company, with the goal to achieve 50 percent waste diversion of waste generated by construction activities. In addition, most of the construction activities related to homebuilding would use power from the grid.
2. Goal: Promote use of lower-emission construction equipment and vehicles a. Enforce idling time restrictions for construction vehicles b. Require construction vehicles to operate with the highest tier engines commercially available c. Increase use of electric and renewable fuel powered construction equipment and require renewable diesel fuel where commercially available d. Require diesel equipment fleets to be lower emitting than any current emission standard	**Consistent –** As part of Regulatory Compliance Measures discussed in section 4.5, *Air Quality*, construction under the proposed Specific Plan must adhere to Section 2485 of Title 13 of the California Code of Regulations which includes limiting idling times of vehicles over 10,000 Gross Vehicle Weight Rating.
3. Goal: Promote carbon sequestration and mitigate on-site sequestration impacts a. Minimize tree removal, and mitigate indirect GHG emissions increases that occur due to vegetation removal, loss of sequestration, and soil disturbance	**Consistent –** Development of the proposed Specific Plan would require removal of trees and other vegetation in the Plan Area; however, a mandatory replacement ratio for removed trees is included in the Plan guidelines. Additionally, the project would include a minimum of 15.4 acres of open space that would include vegetation and tree plantings, which would help mitigate indirect GHG emissions increases.

Goals, Policies, and Actions	Project Consistency
Operational Actions	
4. Goal: Support EV, Hydrogen and Biogas Vehicle Use a. Require on-site EV charging capabilities for parking spaces serving the project to meet jurisdiction-wide EV proliferation goals b. Require the design of the electric boxes in new residential unit garages to promote electric vehicle usage c. Require electric vehicle charging station (conductive/ inductive) and signage for non-residential developments	**Not Consistent -** The proposed Specific Plan would not require additional EV or other alternative vehicle infrastructure beyond what is required under current legislation. Current building code was written prior to the publication of the State Scoping Plan and does not reflect the percent EV requirements needed to achieve 2030 State goals.
5. Goal: Decrease VMT a. Comply with lead agency's standards for mitigating transportation impacts under SB 743 b. Develop a rideshare program targeting commuters to major employment centers c. Require a transportation management plan for specific plans which establishes a numeric target for non-SOV travel and overall VMT d. Require the design of bus stops/shelters/express lanes in new developments to promote the usage of mass-transit	**Consistent -** While the Specific Plan is not a general plan which can set citywide policy, it has incorporated many features consistent with the intent of these plan level policies. The Specific Plan would support mixed-use, transit-oriented development, and be consistent with the 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy as shown in Table 4.6-3.
6. Goal: Manage parking more effectively to minimize driving demand and to encourage and support alternatives to driving a. Allow for new construction to install fewer on-site parking spaces than required by local municipal building code, if appropriate b. Dedicate on-site parking for shared vehicles c. Require preferential parking spaces for park and ride to incentivize carpooling, vanpooling, commuter bus, electric vehicles, and rail service use	**Consistent -** The site development standards included in the proposed Specific Plan (Section 5.8) guest parking is less than required minimums and on-street parking is not allowed for the majority of the project.
7. Goal: Accelerate Implementation of Bicycle & Pedestrian Plans a. Provide adequate, safe, convenient, and secure on-site bicycle parking and storage in multi-family residential projects and in non-residential project b. Provide on- and off-site safety improvements for bike, pedestrian, and transit connections, and/or implement relevant improvements identified in an applicable bicycle and/or pedestrian master plan c. Require the design of bike lanes to connect to the regional bicycle network	**Consistent –**The City of Walnut does not have any adopted Bicycle or Pedestrian Plans. The proposed Specific Plan design would allow for multiple pedestrian access points between the residential and commercial zoned uses as well as connect to existing regional pedestrian networks through Valley Boulevard and Bridle Way, thus providing for increased residential accessibility to commercial areas in the City.
8. Goal: Support electrification of buildings and equipment a. Require the installation of electrical outlets on the exterior walls of both the front and back of residences to promote the use of electric landscape maintenance equipment b. Provide electric outlets to promote the use of electric landscape maintenance equipment to the extent feasible on parks and public/quasi-public lands	**Consistent –** The proposed Specific Plan would include outdoor outlets, which would support electrification of buildings and equipment.

Goals, Policies, and Actions	Project Consistency
9. Goal: Facilitate energy efficiency in new and existing buildings a. Require cool roofs and "cool parking" that promotes cool surface treatment for new parking facilities as well as existing surface lots undergoing resurfacing b. Require new construction, including municipal building construction, to achieve third-party green building certifications, such as the GreenPoint Rated program or the LEED rating system c. Achieve Zero Net Energy performance targets prior to dates required by CALGreen d. Require the installation of energy conserving appliances such as on-demand tank-less water heaters and whole-house fans e. Require each residential and commercial building equip buildings with energy efficient AC units and heating systems with programmable thermostats/timers f. Require large-scale residential developments and commercial buildings to report energy use, and set specific targets for per-capita energy use	**Not Consistent –** The proposed Specific Plan encourages but does not require energy efficiency beyond applicable building code regulations.
10. Goal: Facilitate the growth of renewable energy a. Require on-site renewable energy generation	**Not Consistent –** Any residential building permits pulled prior to January 1st 2020 would be subject to the 2016 Title 24 building code and not required to include any renewable energy generation. Additionally, the proposed Specific Plan contains no requirements for non-residential buildings to include on-site renewable energy generation.
11. Goal: Facilitate reduction of residential wood smoke a. Prohibit wood-burning fireplaces in new development, and require replacement of wood-burning fireplaces for renovations over a certain size developments	**Consistent –** Consistent with SCAQMD Rule 445, wood-burning fireplaces would not be installed in the Specific Plan area.
12. Goal: Support water efficient appliances and design a. Require low-water landscaping in new developments. b. Require water efficient landscape maintenance to conserve water and reduce landscape waste. c. Incorporate water retention in the design of parking lots and landscaping d. Require each residential and commercial building to utilize low flow water fixtures such as low flow toilets and faucets	**Consistent –** Proposed projects above threshold requirements in the Plan Area would need to be consistent with the Walnut Water Efficient Landscaping Ordinance, as updated in the City of Walnut Planning and Zoning Codes Title IV, Chapter 25, Article XVI. Additionally, Walnut Valley Water District would require all public landscapes within the Project to be served from their recycled water system. Bioretention systems would be located in the area designated for water quality basin in TTM or as proprietary units next to catch basins. Additionally, bioretention systems would use compost and mulch and landscaping throughout would reduce impervious areas.
13. Goal: Facilitate urban heat reduction in building design and planning a. Require the landscaping design for parking lots to utilize tree cover	**Consistent** – The *Project Design Guidelines* (Section 4.7.3) specify that street trees shall be planted to create a continuous shade canopy in the public realm. Additionally, the design guidelines show possible locations where other trees could be planted to contribute to the City's tree canopy.

Goals, Policies, and Actions	Project Consistency
14. Goal: Enhance and expand urban forests and gardens a. Expand urban forestry and green infrastructure in new land development	**Consistent –** The *Project Design Guidelines* (Section 4.7.3) specify that street trees shall be planted to create a continuous shade canopy in the public realm. Additionally, the *Project Design Guidelines* show possible locations where other trees could be planted to contribute to the City's tree canopy.
15. Goal: Reduce organic waste disposal to landfills and promote organic waste reuse a. Require organic collection in new developments	**Consistent –** Per existing contract with the City of Walnut, the proposed Specific Plan waste management provider, Valley Vista Services, will provide organic waste pickup receptacles for all new residential construction. Additionally, mandatory organic pickup is required for all businesses creating 4 cubic yards of organic or solid waste per week, per AB 1826.

Source: CARB 2017

As shown in Table 4.6-2, the Specific Plan was found to be inconsistent with several GHG-reduction goals included in the 2017 Scoping Plan. SCAG's 2016-2040 RTP/SCS also provides land use and transportation strategies to reduce regional emissions. Table 4.6-3 summarizes the Specific Plan's consistency with applicable strategies in the *2016-2040 SCAG RTP/SC*S.

Table 4.6-3 2016 SCAG RTP/SCS Consistency

Reduction Strategy	Project Consistency
Land Use Actions and Strategies	
1. Reflect the Changing Population and Demands The SCAG region, home to about 18.3 million people in 2012, currently features 5.9 million households and 7.4 million jobs. By 2040, the Plan projects that these figures will increase by 3.8 million people, with nearly 1.5 million more homes and 2.4 million more jobs. High Quality Transit Areas (HQTA) will account for three percent of regional total land, but will accommodate 46 percent and 55 percent of future household and employment growth respectively between 2012 and 2040. The 2016 RTP/SCS land use pattern contains sufficient residential capacity to accommodate the region's future growth, including the eight-year regional housing need. The land use pattern accommodates about 530,000 additional households in the SCAG region by 2020 and 1.5 million more households by 2040. The land use pattern also encourages improvement in the jobs-housing balance by accommodating 1.1 million more jobs by 2020 and about 2.4 million more jobs by 2040.	**Consistent** The proposed Specific Plan would include the development of a 290-unit residential development. The project would also include a mix of residential and commercial uses, which would allow future residents to patronize the businesses in the Plan Area. Additionally, the project would be walking distance to a variety of commercial/retail, and restaurants along Valley Boulevard and Grand Avenue. Furthermore, the Plan Area would be approximately 0.25 mile from the nearest transit stop and one mile from an ARB designated Central Business District. The commercial land uses may provide employment opportunities for area residents, thus contributing jobs as well as residents. It should also be noted that the RTP/SCS projected a population growth of approximately 4,000 residents in the City of Walnut from 2012 to 2040. The City is largely built-out with limited opportunities for new development and the Specific Plan areas was programmed for a mix of commercial and residential development in the City's General Plan and Housing Elements. The Specific Plan is, therefore, consistent with the growth assumed by the RTP/SCS and the City's General Plan.

Reduction Strategy	Project Consistency
2. Focus New Growth Around Transit The 2016 RTP/SCS land use pattern reinforces the trend of focusing growth in the region's High-Quality Transit Areas (HQTAs). Concentrating housing and transit in conjunction concentrates roadway repair investments, leverages transit and active transportation investments, reduces regional life cycle infrastructure costs, improves accessibility, avoids greenfield development, and has the potential to improve public health and housing affordability. HQTAs provide households with alternative modes of transport that can reduce VMT and GHG emissions.	**Consistent** The proposed Specific Plan would involve construction of a mixed-use development with 290 housing units in an urban area that is served by public transit. The project involves single-family and multi-family residential development as well as 30,000 square feet of commercial space and 15.4 acres of parks, slopes, and open that is near public transportation. Specifically, Foothill Transit Line 194 stops are located within approximately 0.25 mile of the Plan Area boundary. The City of Walnut is
3. Plan for Growth Around Livable Corridors The Livable Corridors strategy seeks to revitalize commercial strips through integrated transportation and land use planning that results in increased economic activity and improved mobility options. Since 2006, SCAG has provided technical assistance for 19 planning efforts along arterial roadway corridors. These corridor planning studies focused on providing a better understanding of how corridors function along their entire length. Subsequent research has distinguished the retail density and the specific kinds of retail needed to make these neighborhood nodes destinations for walking and biking. From a land use perspective, Livable Corridors strategies include a special emphasis on fostering collaboration between neighboring jurisdictions to encourage better planning for various land uses, corridor branding, roadway improvements and focusing retail into attractive nodes along a corridor.	**Consistent** The proposed Specific Plan would involve a mixed-use development along an existing transportation network. The nearest transit stop is located within approximately 0.25 mile from the Plan Area, and US-60 and US-57 freeways, which provide access to the surrounding communities, are located approximately one mile south of the Plan Area. Likewise, the Plan Area is currently surrounded by a mix of residential, retail, and public service uses, and open space.
4. Provide More Options for Short Trips 38 percent of all trips in the SCAG region are less than three miles. The 2016 RTP/SCS provides two strategies to promote the use of active transport for short trips. Neighborhood Mobility Areas are meant to reduce short trips in a suburban setting, while "complete communities" support the creation of mixed-use districts in strategic growth areas and are applicable to an urban setting.	**Consistent** The proposed Specific Plan would involve a mixed-use development on Valley Boulevard, which is developed with a mix of commercial, industrial, and residential uses. Additional commercial establishments are located less than 0.3 mile from the site along the Grand Avenue corridor. Additionally, the development under the proposed Specific Plan would be encouraged to include bike racks. Walking or biking would be viable modes of transportation to reach numerous destinations or public transit.

Reduction Strategy	Project Consistency
5. Protect Natural and Farm Lands Many natural and agricultural land areas near the edge of existing urbanized areas do not have plans for conservation and they are susceptible to the pressures of development. Many of these lands, such as riparian areas, have high per-acre habitat values and are host to some of the most diverse yet vulnerable species that play an important role in the overall ecosystem.	**Consistent** As discussed in Section 2, *Agricultural Lands,* in the Initial Study, the Plan Area is not within or in proximity to State-designated Farmland, land enrolled in Williamson Act maps, or land that supports forest land or resources. Furthermore, as discussed in Section 4.3, *Biological Resources*, the Plan Area is currently covered with ruderal vegetation, such as coastal sage scrub, scattered native elderberry shrubs, and ornamental trees, that may provide limited habitat for the coastal California gnatcatcher and non-listed nesting birds. While this vegetation may have limited habitat value, the Plan Area is located within close proximity to residential and commercial development. In fact, it is almost entirely surrounded by development (an island), and, as such, is not located near the edge of an urbanized area. Although this vegetation would be removed and graded during construction activities for the proposed Specific Plan, implementation of Mitigation Measures BIO-1a, BIO-1b and BIO-2 would reduce potential impacts to a less than significant level.
Transportation Strategies	
6. Preserve Our Existing System Southern California's transportation system is becoming increasingly compromised by decades of underinvestment in maintaining and preserving our infrastructure. These investments have not kept pace with the demands placed on the system and the quality of many of our roads, highways, bridges, transit, and bicycle and pedestrian facilities are continuing to deteriorate. Unfortunately, the longer they deteriorate the more expensive they will be to fix in the future. Even worse, deficient conditions compromise the safety of users throughout the network. For all of these reasons, system preservation and achieving a state of good repair are top priorities of the 2016 RTP/SCS.	**Consistent** As discussed in Section 4.12, *Transportation and Traffic*, Mitigation Measures TRAF-1, TRAF-2, and TRAF-3 are recommended to improve circulation near the project site. Specifically, Mitigation Measure TRAF-1 recommends installing a right-turn overlap traffic signal phasing at the eastbound approach at the Grand Avenue/La Puente Road intersection, TRAF-2 provides fair share recommendations for the Pierre Road/Valley Boulevard intersection, including constructing the southbound approach to consist of one left-turn land and one shared left/right-turn lane, removing the existing crosswalk on the east leg and installing a crosswalk on the west leg, and constructing one additional westbound through lane, and TRAF-3 recommends restriping the northbound approach to provide one additional northbound through lane at the Grand Avenue/Garcia Lane intersection. In addition, the project access at the Faure Avenue/Valley Boulevard intersection would include installation of a traffic signal, constructing the southbound approach to consist of one left-turn land, one shared through/left-turn lane, and one exclusive right-turn lane with right-turn overlap traffic signal phasing, constructing one eastbound left-turn land, and constructing one exclusive westbound right-turn lane based on fair share contributions. Furthermore, the A Street/Shopping Center Driveway intersection would include the following traffic controls: installing STOP signs at the southbound and eastbound approaches, constructing the northbound approach to consist of one left-turn lane and one through lane, constructing the southbound approach to consist of one shared through/right-turn lane, constructing the eastbound approach to consist of one left-turn lane and on right-turn lane, and installing "KEEP CLEAR" markings and signage in the intersection for the southbound direction. Implementation of these measures would contribute to preservation of the transportation system surrounding the Plan Area.

Reduction Strategy	Project Consistency
7. Transit Since 1991, the SCAG region has spent more than $50 billion dollars on public transportation. This includes high profile investments in rail transit and lower profile, vital investments in operations and maintenance. Looking toward 2040, the 2016 RTP/SCS maintains a significant investment in public transportation across all transit modes and also calls for new household and employment growth to be targeted in areas that are well served by public transportation to maximize the improvements called for in the Plan.	**Consistent** The proposed Specific Plan would involve a mixed-use development with 290 housing units in a relatively urbanized area that is served by public transit. Specifically, Foothill Transit Line 194 Grand Avenue/Valley Boulevard stops are located approximately 0.25 mile of the project site boundary. Furthermore, shared parking and ride share would be encouraged for future residents and patrons.
8. Active Transportation The 2016 RTP/SCS includes $12.9 billion for active transportation improvements, including $8.1 billion in capital projects and $4.8 billion as part of the operations and maintenance expenditures on regionally significant local streets and roads. The Active Transportation portion of the 2016 Plan updates the Active Transportation portion of the 2012 Plan, which has goals for improving safety, increasing active transportation usage and friendliness, and encouraging local active transportation plans. It proposes strategies to further develop the regional bikeway network, assumes that all local active transportation plans will be implemented, and dedicates resources to maintain and repair thousands of miles of dilapidated sidewalks. To accommodate the growth in walking, biking and other forms of active transportation regionally, the 2016 Active Transportation Plan also considers new strategies and approaches beyond those proposed in 2012.	**Consistent** The proposed Specific Plan would be mixed-use and provide opportunities for future residents to utilize the on-site commercial components as well as adjacent off-site commercial uses. Additionally, the project would include provision of bike racks and is located approximately 0.25 mile from a number of commercial establishments. The proposed Specific Plan would also include 15.4 acres of on-site and open space opportunities. Therefore, walking or biking would be viable modes of transportation to reach numerous destinations or public transit.

Source: SCAG 2016

As shown above in Table 4.6-2 and Table 4.6-3, the proposed Specific Plan was found to be consistent with the various measures included in the 2016-2040 RTP/SCS but inconsistent with several goals of the 2017 State Scoping Plan. Therefore, impacts are potentially significant and mitigation measures are required.

Emissions Estimate

The following summarizes project-generated construction and operational emissions for informational purposes, per the requirements of CEQA. However, as noted above, the fact that the Specific Plan itself increases GHG emissions is not determinative of an impact because AB 32 and the Scoping Plan, and other GHG reducing measures and plans, assumed that California's population would continue growing. As such, a project's contribution to GHG impacts and global warming would only be significant if the project does not implement measures or features that contribute to the State's goal of GHG reduction consistent with AB 32, the Scoping Plan, and other reduction goals.

Construction Emissions

The regional construction emissions associated with development of the project were estimated using CalEEMod, based on the construction schedule provided under *Construction and Grading* in Section 2.0, *Project Description*. As shown in Table 4.6-4, construction activity for the project would generate an estimated 5,092 MT of CO_2e with mitigation. Following the SCAQMD's recommended methodology for amortizing construction emissions over a 30-year period (the assumed life of the project), construction of the project would generate approximately 170 MT of CO_2e per year.

Table 4.6-4 Estimated Construction Emissions of Greenhouse Gases

Emission Source	Annual Emissions MT CO2e/year
2019	22
2020	1,097
2021	1,113
2022	1,152
2023	1,184
2024	524
Total	**5,092**
Amortized over 30 years	170

Source: CalEEMod Version 2016.3.2. See emissions calculations in Appendix B

Operational Indirect and Stationary Direct Emissions

Long-term emissions relate to area sources, energy use, solid waste, water use, and transportation. Each of these sources is discussed below. Combined annual emissions are shown in Table 4.6-5.

Area Source Emissions

CalEEMod was used to calculate direct sources of air emissions located at the Plan Area. Landscape equipment and consumer product use are based on CalEEMod estimates and CARB Offroad Model given the land use and facility type, number of residences, and expected number of snow and summer days. Assuming 217 natural gas fireplaces are installed in residences and following required SCAQMD Rule 1113 for architectural coating (standard of 50g/L), area emissions are estimated at 57 MT of CO_2e per year.

Energy Use

Operation of on-site development would consume electricity and natural gas. The generation of electricity through combustion of fossil fuels emits CO_2, and to a lesser extent, N_2O and CH_4. As a part of the project design, construction is not expected to begin until late 2020, therefore the majority of the project will comply with the 2019 Code Cycle California Building Codes energy efficiency and mandatory solar on all residential buildings under three stories. Per CalEEMod modeling results (Appendix A), residential operations are expected to account for 80% of the electricity use under built out conditions of the project. The 2019 code cycle is designed to require solar panels sized to offset an efficient house's yearly energy usage, however we conservatively assumed an offset of only 50% of residential electricity use due to CEC publication indicating that

energy reductions may be closer to 53% over the 2016 code cycle.[2] The CEC also estimated the 2019 Title 24 California Building Code reduces commercial energy use by 30% over the 2016 cycle, which was also included in the modeling. These models are all considered conservative as some construction is anticipated to occur after the 2022 code cycle takes effect, which is expected to contain even more stringent energy efficiency requirements.

Electricity consumption associated with the project would result in approximately 231 MT of CO_2e per year. Natural gas use would result in approximately 224 MT of CO_2e per year. Thus, overall energy use at the Plan Area would generate an estimated 455 MT of CO_2e per year.

Solid Waste Emissions

In accordance with AB 939 and the adopted County of Los Angeles diversion rate, it was assumed that the project would achieve at least a 50 percent diversion rate. This is factored into the project design modeling, utilizing the CAPCOA *Quantifying GHG Mitigation Measures* SW-1, with estimated waste production for employees per year by commercial land use and residents per year by county average. Based on the estimated waste production and diversion rate, solid waste associated with the project would generate an estimated 87 MT of CO_2e per year.

Water Use Emissions

CalEEMod calculates water use emissions by project land use, electricity intensity factor for supply and utility GHG intensity factor. The electricity intensity factor reflects the California Energy Commission's 2006 *Refining Estimates of Water-Related Energy Use in California* average for Southern California, while SoCal Edison's CO_2e intensity factor of 452.2 lb/MWhr reflects its *2017 Sustainability Report* value. Based on land use types and the estimated amount of electricity generated to supply and convey water for the project, the project would generate an estimated 89 MT of CO_2e per year.

Transportation Emissions

Mobile source GHG emissions were estimated using the average daily trips for the project according to the project traffic study (see Appendix F for traffic study) and based on the total vehicle miles traveled (VMT) estimated in CalEEMod. From the traffic study trip generation rates provided by Gandini Associates, an annual VMT of approximately 5.2 million was modeled at buildout. As noted above, CalEEMod does not estimate N_2O emissions related to mobile sources. As such, N_2O emissions were estimated based on the project's VMT using calculation methods provided by the California Climate Action Registry *General Reporting Protocol* (January 2009). The project would result in an estimated 2,277 MT CO_2e per year from mobile sources.

Combined Construction, Stationary, and Mobile Source Emissions

Table 4.6-5 shows the combined construction, operational, and mobile GHG emissions associated with development of the proposed Specific Plan. As shown, the annual emissions would total approximately 3,135 MT of CO_2e.

[2] http://www.energy.ca.gov/title24/2019standards/documents/2018_Title_24_2019_Building_Standards_FAQ.pdf

Table 4.6-5 Combined Annual Emissions of Greenhouse Gases (2024)

Emission Source	Project Annual Emissions (MT of CO_2e)
Construction	170
Operational	
Area	57
Energy	455
Solid Waste	87
Water	89
Mobile	
CO_2 and CH_4	2,172
N_2O	105
Total	**3,135**

Source: CalEEMod Version 2016.3.2. See emissions calculations in Appendix B

Table 4.6-6 Consistency Summary

Plan	Goals, Policies, and Actions	Specific Plan Consistency
Scoping Plan	Goal 4: Support EV, Hydrogen and Biogas Vehicle Use	Not Consistent
Scoping Plan	Goal 9: Facilitate energy efficiency in new and existing buildings	Not Consistent
Scoping Plan	Goal 10: Facilitate the growth of renewable energy	Not Consistent

Mitigation Measures

To be consistent with the 2017 Scoping Plan and SCAG RTP/SCS, the following mitigation measures are required to reduce potentially significant impacts from the GHG construction and operation emissions from activities within the proposed Specific Plan.

GHG-1a On-site Solar

All new residential construction in the Plan Area prior to the 2019 California Building Code cycle shall include solar photovoltaic arrays or alternative renewable energy generation to 2019 California Building Code standards, unless deemed infeasible due to site characteristics or roof space availability by the City of Walnut staff on a case-by-case basis. All new commercial buildings with anticipated electricity usage greater than 50,000 kilowatt hours yearly shall be required to maximize the installation of cost-effective solar photovoltaic systems to offset building energy use, where cost-effective is defined as a payback period of 10 years or less.

GHG-1b New Building Efficiency

All new buildings constructed in the Specific Plan Area shall be built to Cal Green Tier 1 standards as defined by the California Building Code.

Emissions After Mitigation

Table 4.6-7 shows the combined construction, operational, and mobile GHG emissions associated with development of the proposed Specific Plan. No quantifiable construction mitigation measures

are included; therefore, construction emissions are expected to be the same as under the unmitigated scenario. As shown, the annual emissions would total approximately 3,063 MT of CO_2e with mitigation incorporated.

GHG-1a and GHG-1b mitigation measures are expected to achieve annual savings of at least 71 MT $CO2_e$ per year. GHG-1a is expected to save 35 MT CO_2e yearly by offsetting 50 percent of the commercial electricity use through the incorporation of solar panels on commercial activity centers. This is a conservative modeling as panels are frequently sized between 50 percent and 80 percent of a building's electricity usage.

GHG-1b is conservatively anticipated to save 36 MT CO_2e yearly through a 15 percent increase in efficiency over standard Title 24 requirements. Title 24 2019 is moving toward an Energy Design Rating (EDR) to allow for electrification and other GHG saving measures rather than efficiency percentages, however CalGreen Tier 1 has historically been approximately 15 percent over basic Title 24 and the 2019 EDR Tier 1 requirements are currently more than twice as efficient as the basic requirements under the current draft rules.

These GHG savings are conservative estimates and may be reduced as homes switch to electric-based appliances and electric vehicles increase market penetration. Additionally, due to the continual reduction of carbon intensity of electricity due to SB 100, the project will gradually decrease to zero emissions from the electricity sector over time.

Table 4.6-7 Proposed Plan Emissions After Mitigation

Emission Source	Project Annual Emissions (MT of CO_2e)
Construction	170
Operational	
Area	57
Energy	384
Solid Waste	87
Water	89
Mobile	
CO_2 and CH_4	2,172
N_2O	105
Total	**3,064**

Source: CalEEMod Version 2016.3.2. See emissions calculations in Appendix B

Significance After Mitigation

The following discussion explains the proposed Specific Plan's consistency with 2017 Scoping Plan goals after implementation of Mitigation Measures GHG-1a and GHG-1b.

Solar Generation

To be consistent with the 2017 Scoping Plan, all new construction within the Specific Plan Area must be constructed with on-site solar or renewable energy generation if feasible given the site-specific conditions (e.g. shading). Under the upcoming 2019 Building Energy Efficiency Standards (Title 24

2019) all residential buildings that are three stories and less must include solar photo voltaic (PV). Therefore, it is expected that a majority of the new construction developed in the Specific Plan would require solar. However, this mitigation measure will apply to all building types and building heights. This mitigation measure satisfies the goal of the 2017 Scoping Plan goal 10.

CalGreen Tier 1 Standards

To be consistent with the 2017 Scoping Plan, 100 percent of new construction within the Specific Plan Area must be constructed to be Title 24, Chapter 11 (CalGreen) Tier 1 standards. CalGreen offers a prescriptive-based approach for basic sustainability requirements and a performance-based approach to increasing energy efficiency in new buildings through the use of measures that are most appropriate to the local area. This measure increases the amount of spaces in commercial lots that must be EV-ready and incentivizes the use of electricity over natural gas in new construction, both necessary components of the state's long-term GHG reduction goals. This mitigation measure satisfies the goals of the 2017 Scoping Plan goal 4 and 9.

c. Cumulative Impacts

Analysis of GHG-related impacts is cumulative in nature as climate change is related to the accumulation of GHGs in the global atmosphere. To address cumulative impacts to GHG emissions and climate change, the State has mandated a 40 percent reduction in GHG emissions by 2030 and set a long-term goal of carbon neutrality by 2045. Numerous agencies around the state have adopted regulations aimed at meeting this goal. Additional regulations are expected to be adopted in decades ahead. While the path to long-term carbon neutrality is still unclear, laying the infrastructure now to take advantage of existing state programs such as SB 100 is important to show a fair share towards reaching these goals.

In Section 3, *Environmental Setting*, planned and pending developments in and around the City are listed. Such development would incrementally increase overall GHG emissions generated in Walnut and the region. Adhering to the goals and measures in the 2016-2040 RTP/SCS and 2017 State Scoping Plan would reduce these emissions to below the level where they would be considered cumulatively significant compared to the state's next GHG reduction targets. Additionally, these goals lay the foundation for the long-term carbon neutrality targets laid forth in EO B-55-18 as the grid produces greener energy and more electric vehicles are on the road. As indicated in *Significance after Mitigation*, the Specific Plan would be considered consistent with the 2017 Scoping Plan and 2016-2040 RTP/SCS, and GHG emissions associated with the project would be less than significant with implementation of mitigation measures related to GHG emissions reductions. Therefore, the proposed Plan's cumulative impacts to climate change would be less than significant after mitigation.

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4.7 Hydrology and Water Quality

This section addresses impacts to the City's water quality and hydrological resources from implementation of the Specific Plan. Watershed, groundwater, and water quality information was obtained from the City's *Watershed Management Plan* and the Walnut Valley Water District (WVWD) *2015 Urban Water Management Plan* (UWMP).

Technical studies conducted for the project were used for preparation of this analysis. In March 2015, GeoTek conducted an onsite Geotechnical Evaluation, which is provided as Appendix G (GeoTek 2015). This analysis is further informed by geotechnical evaluations performed for the Plan Area by NMG Geotechnical, Inc. (NMG) in 2018 (Appendix G). Flood and water quality recommendations were provided in a memorandum (memo) prepared by Michael Baker International (MBI), provided in Appendix H (MBI 2015). MBI also conducted a Preliminary Hydrology Analysis, provided in Appendix H (MBI 2018). A Standard Urban Stormwater Management Plan was prepared in September 2017 for the Specific Plan and is provided as Appendix J. The following analysis is based on information and analysis contained in these reports.

4.7.1 Setting

a. Surface Water Resources

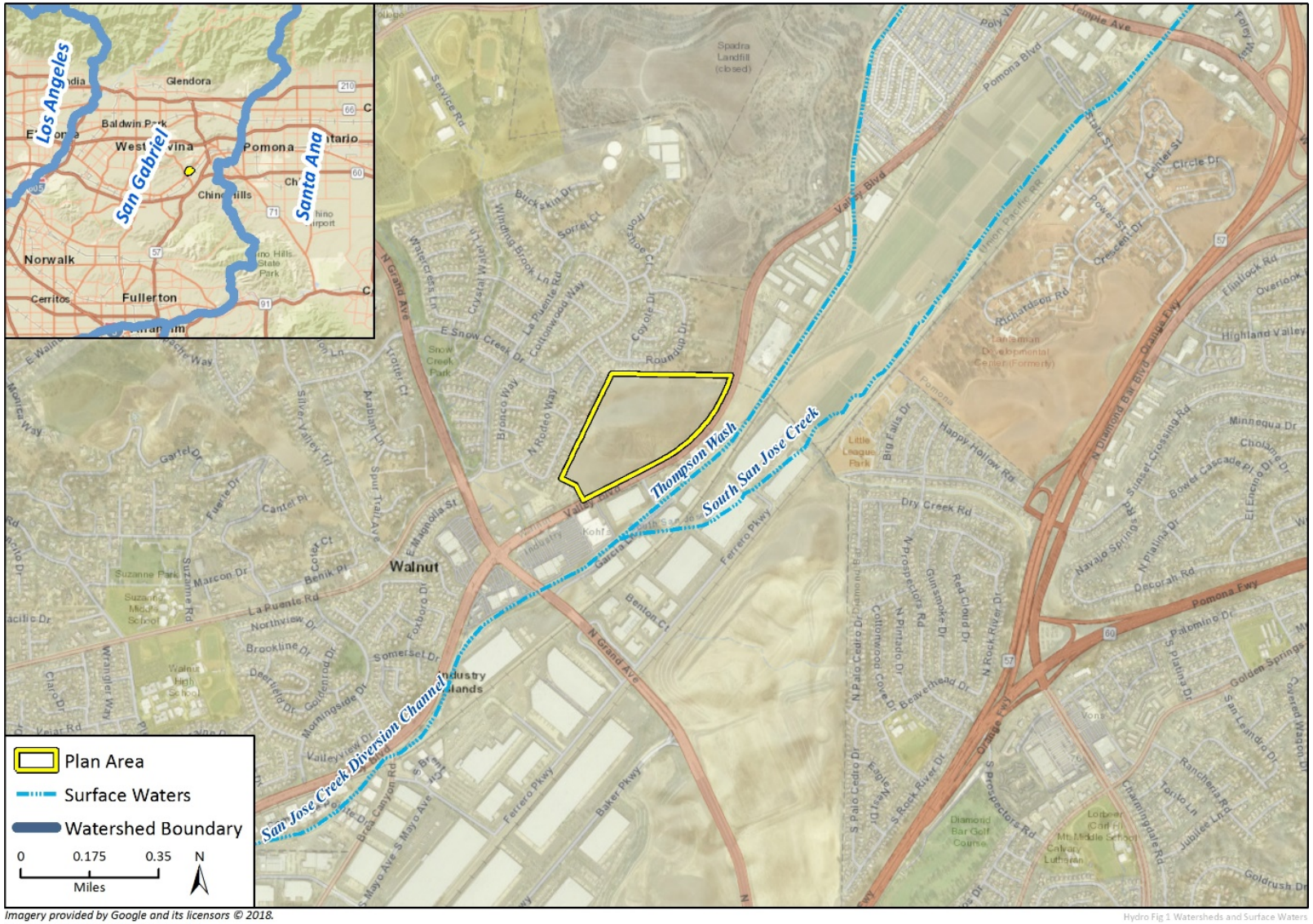
The Plan Area is located in the San Gabriel River Watershed and is part of the San Gabriel River Watershed Management Area (SGRWMA). The general region is a semi-arid, Mediterranean environment with mild winters, warm summers, and moderate rainfall, consistent with Southern California. The average monthly temperature ranges from approximately 52 to 78 degrees Fahrenheit (°F), with an annual average temperature of nearly 65°F. Records show that average annual rainfall is approximately 12 inches, with monthly averages ranging from zero to three inches. Most rainfall typically occurs during the period of November to January (WVWD 2016).

The Plan Area itself does not contain any perennial surface water features, streambeds or wetlands. However, as discussed in Section 4.3, *Biological Resources*, there are several ephemeral drainage features in the Plan Area. Rainfall in the Plan Area drains south to San Jose Creek (Watershed Management Plan 2014). Thompson Wash, which originates at the easterly limits of Los Angeles County, flows approximately 400 feet southwest of the Plan Area. South San Jose Creek, located approximately 1,000 feet southwest of the Plan Area, joins the Thompson Wash as tributary to the San Jose Creek Diversion Channel (also known as San Jose Creek). Figure 4.7-1 shows the surface waters in the vicinity of the Plan Area.

The City's storm drain system is comprised of 644 City-owned catch basins and 142 Los Angeles County Flood Control-owned catch basins, which are discussed in more detail in Section 4.10, *Utilities and System Services*. Most City storm drain system outlets flow directly into Reach 1 of San Jose Creek (Walnut General Plan 2018).

The Plan Area consists of approximately 49 acres of undeveloped land. Natural and concrete ditches convey flow to three corners of the Plan Area. The County of Los Angeles owns two 24-inch reinforced concrete pipeline systems along Valley Boulevard. The two drainage systems are designed for a 10-year storm event at about 24 cubic feet per second (cfs). Under existing conditions, storm water is conveyed by surface flow from the Plan Area to the existing storm drain

Figure 4.7-1 Surface Waters



Imagery provided by Google and its licensors © 2018.
Additional data proided by USGS, 2017.

Hydro Fig 1 Watersheds and Surface Waters

systems along Valley Boulevard and onto adjacent neighborhood property. There are four existing sub drainage areas, each with its own drainage path (MBI 2015).

b. Groundwater Resources

The Plan Area overlies the San Gabriel Valley Groundwater Basin (San Gabriel Basin). The San Gabriel Basin is located in eastern Los Angeles County, where it underlies most of the San Gabriel Valley and a portion of the upper Santa Ana Valley. Alluvial fan deposits, formed by outflow from the San Gabriel Mountains, comprise the basin. Groundwater levels generally follow topographic slope across the San Gabriel Basin; groundwater flows from the edges to the center of the basin, then southwestward to exit through a topographic low. (California Department of Water Resources [DWR] 2004.)

The San Gabriel Basin is divided into two main parts: the Main Basin and the Puente Basin. The Puente Basin, over which the Plan Area lies, is located southeast of the Main Basin and is tributary to it. The Main Basin and Puente Basin are hydraulically connected, but they are adjudicated and managed separately (Langridge et al. 2016, page 86).

A portion of the Puente Basin is locally referred to as the Spadra Basin. Figure 4.7-2 shows the boundaries of the San Gabriel Basin in relation to the Plan Area.

The Puente Basin is a shallow, unconfined basin that covers approximately 8,870 acres across the west end of San Jose Valley. The basin is naturally recharged via infiltration of rainfall on the valley floor and runoff from the nearby mountains. Additionally, the County Sanitation Districts of Los Angeles County and the Metropolitan Water District (MWD) use imported water to recharge the Puente Basin. (Langridge et al. 2016)

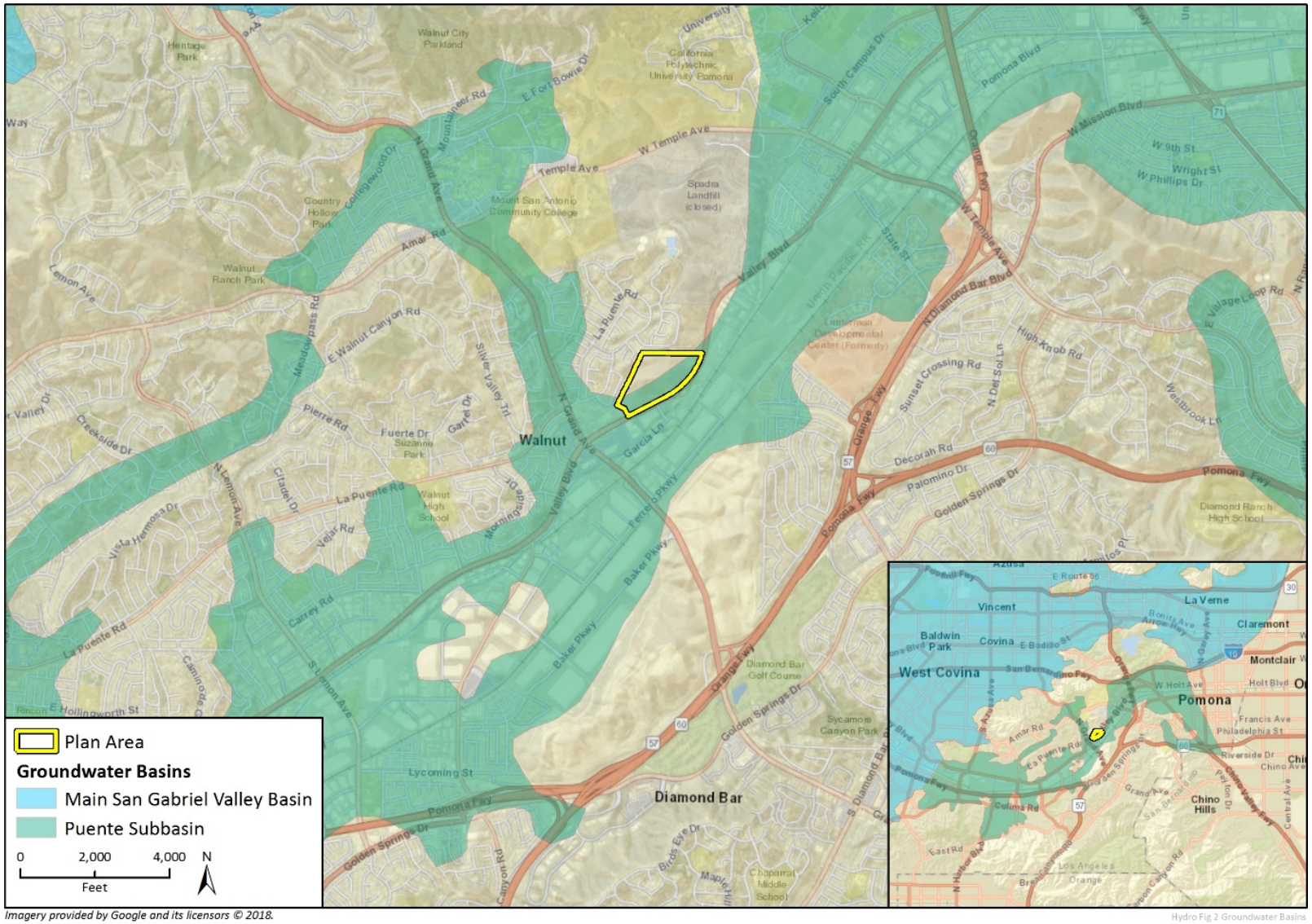
Poor water quality in the Puente Basin makes the local groundwater unsuitable for potable consumption. WVWD owns and operates six groundwater production facilities that pump from the Puente Basin and the Spadra Basin for distribution to the recycled, non-potable water system for outdoor irrigation applications. WVWD is currently in the process of launching three new projects that will allow WVWD to distribute potable groundwater from the San Gabriel Main Basin, Central Basin, and Six Basins. This additional groundwater supply is intended to allow WVWD to reduce its reliance on imported water (WVWD 2016).

In the hillside areas of the Plan Area are underlain by the Yorba Member bedrock, light to moderate seepage was encountered at a depth 76 feet, with standing groundwater at 88 feet. In the northerly canyon area of the Plan Area, light seepage was observed at a depth of 36.5 feet, with no standing groundwater observed at the completion of drilling (NMG 2018).

c. Water Quality

The primary sources of pollution to surface and groundwater resources enter the water system via stormwater runoff from paved areas. This urban runoff can contain hydrocarbons, sediments, pesticides, herbicides, toxic metals, and coliform bacteria. Leaking septic tanks can cause similar types of contamination. Illegal waste dumping can introduce contaminants such as gasoline, pesticides, herbicides and other harmful chemicals.

Figure 4.7-2 San Gabriel Valley Groundwater Basin



Imagery provided by Google and its licensors © 2018.
Additional data proided by Los Angeles County, 2014.

Hydro Fig 2 Groundwater Basins

There are two major classes of pollutants: point source and non-point source. Point-source pollutants can be traced to their original source and are discharged directly from pipes or spills. Raw sewage discharging directly into a stream is an example of a point-source water pollutant. Non-point-source pollutants cannot be traced to a specific original source. Non-point-source pollution is caused by precipitation runoff collecting natural and human-made pollutants before depositing them into various watersheds, including: lakes, rivers, wetlands, coastal waters, and groundwater. Non-point-source pollutants include, but are not limited to:

- Excess fertilizers, herbicides, and insecticides from agricultural lands and residential areas;
- Oil, grease, and toxic chemicals from urban runoff;
- Sediment from improperly managed construction sites, crop and forest lands, and eroding stream banks;
- Salt from irrigation practices; and
- Bacteria and nutrients from livestock, pet wastes, and faulty septic systems (Walnut 2018).

Surface water pollutants of primary concern for the City are summarized in Table 4.7-1.

Table 4.7-1 Surface Water Pollutants of Concern in Vicinity of Plan Area

Water Body	Primary Pollutant of Concern
San Jose Creek Reach 1 (including Thompson Wash)	Ammonia Indicator bacteria pH Total dissolved solids (TDS) Toxicity
South San Jose Creek	Ammonia pH Toxicity

Note: Pursuant to the Clean Water Act section 303(d), each state is required to submit to the US EPA a list identifying water bodies not meeting water quality standards. The water bodies listed in this table are on California's 2014/2016 303(d) list for the pollutants indicated.

Source: SWRCB 2017

Local shallow aquifers underlying the City contain high concentrations of total dissolved solids (TDS) and nitrate. Therefore, well production is distributed only through the recycled water distribution system, and is not used for potable consumption. (WVWD 2016)

d. Federal Regulations

Clean Water Act (CWA)

Congress enacted the Clean Water Act (CWA), formerly the Federal Water Pollution Control Act of 1972, with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). NPDES permitting authority is administered by

the California State Water Resources Control Board (SWRCB) and its nine RWQCBs. The Plan Area is in a watershed administered by the RWQCB Region 4 (Los Angeles Region).

Section 401 of the CWA (33 USC § 1341) requires that any activity that may result in discharges into a State waterbody must be certified by the RWQCB. This certification ensures that the proposed activity does not violate State and/or federal water quality standards. The limits of non-tidal waters extend to the Ordinary High Water Mark, defined as the line on the shore established by the fluctuation of water and indicated by physical characteristics, such as natural line impressed on the bank, changes in the character of the soil, and presence of debris. The USACE may issue either individual, site-specific permits or general, nationwide permits for discharge into U.S. waters.

Clean Water Act Section 303(d)

Section 303(d) of the CWA (33 USC § 1313(d)) requires states to identify "impaired" waterbodies as those which do not meet water quality standards. States are required to compile this information in a list and submit the list to the USEPA for review and approval. This list is known as the Section 303(d) list of impaired waters. As part of this listing process, states are required to prioritize waters and watersheds for future development of total maximum daily loads (TMDL). The SWRCB and RWQCBs have ongoing efforts to monitor and assess water quality, to prepare the Section 303(d) list, and to develop TMDL requirements. Water bodies in the City's watersheds that are on California's 2012 303(d) List are shown in Table 4.7-1 above.

National Pollutant Discharge Elimination System (NPDES)

The federal government also administers the NPDES permit program, which regulates discharges into surface waters. The primary regulatory control relevant to the protection of water quality is the NPDES permit administered by the SWRCB. The SWRCB establishes requirements prescribing the quality of point sources of discharge and water quality objectives. These objectives are established based on the designated beneficial uses (e.g., water supply, recreation, and habitat) for a particular surface water body or groundwater basin. The NPDES permits are issued to point source dischargers of pollutants to surface waters pursuant to Water Code Chapter 5.5 (Cal. Water Code § 13370 et seq.), which implements the Federal Clean Water Act. Examples include, but are not limited to, public wastewater treatment facilities, industries, power plants, and groundwater cleanup programs discharging to surface waters (23 Cal. Code of Regs. § 2200 et seq.) . The RWQCB establishes and regulates discharge limits under the NPDES permits.

e. State Regulations

Porter-Cologne Water Quality Control Act

The SWRCB regulates water quality through the Porter-Cologne Water Quality Control Act of 1969, which contains a complete framework for the regulation of waste discharges to both surface waters and groundwater of the State. RWQCB Region 4 (Los Angeles) regulates stormwater quality under authorities of the Federal Clean Water Act and California's Porter-Cologne Water Quality Control Act. The RWQCB oversees municipal separate storm sewer systems.

Municipal Regional Stormwater NPDES Permit

On November 8, 2012, the RWQCB adopted Order R4-2012-0175 (Waste Discharge Requirements for Municipal Separate Storm Sewer System) (MS4) Discharges within Coastal Watersheds of Los Angeles County (MS4 Permit). Order R4-2012-0175 became effective on December 28, 2013 and

serves as the NPDES permit for coastal watershed stormwater and non-stormwater discharges originating from the Los Angeles County Region. The permit covers the land areas in the Los Angeles County Flood Control jurisdiction, unincorporated areas of Los Angeles County, and 84 cities in the County. The City of Walnut is included in the MS4 Permit as a permittee under Order R4-2012-0175.

In coordination with permittees under MS4 Permit, RWQCB staff perform annual performance reviews and evaluations of the City's stormwater management program and NPDES compliance activities.

f. Local Regulations

Los Angeles County Department of Public Works Hydrology Manual

The Los Angeles County Department of Public Works Hydrology Manual (2006) contains the Standard Urban Stormwater Mitigation Plan (SUSMP) that applies to development and re-development projects in Los Angeles County. The SUSMP is described in detail below. The Hydrology Manual also includes TMDLs for pollutants per Section 303 of the Clean Water Act and BMPs for managing stormwater quality during construction. As the holder of the MS4 Permit, the RWQCB is responsible for enforcing these BMPs.

Los Angeles County Standard Urban Stormwater Mitigation Plan (SUSMP)

The SUSMP is a comprehensive stormwater quality program to manage urban stormwater and minimize pollution of the environment in Los Angeles County. The purpose of the SUSMP is to reduce the discharge of pollutants in stormwater by outlining BMPs that must be incorporated into the design plans of new development and redevelopment. The SUSMP requirements contain a list of minimum BMPs that must be employed to infiltrate or treat stormwater runoff, control peak flow discharge, and reduce the post-project discharge of pollutants from stormwater conveyance systems. The SUSMP requirements define, based upon land use type, the types of practices that must be included and issues that must be addressed as appropriate to the development type and size. The SUSMP requirements apply to all development and redevelopment projects that fall into one of the following categories:

- Single-family hillside residences
- One acre or more of impervious surface area for industrial/commercial developments
- Automotive service facilities
- Retail gasoline outlets
- Restaurants
- Ten or more residential units
- Parking lots of 5,000 square feet or greater or with 25 or more spaces
- Projects located in or directly discharging to an Ecologically Sensitive Area

The SUSMP requirements are enforced through the City's Building and Safety Department plan review and approval process. During the review process, individual development project plans are reviewed for compliance with stormwater requirements.

Since the Specific Plan development includes the creation and development of a commercial and residency lot with more than 10,000 square feet or more of impervious surface area, a SUSMP was prepared in September 2017 in accordance with the requirements of Order No. R4-2012-0175 and

the Los Angeles County Hydrology Manual. The project-specific SUSMP provides information about the proposed project and discusses how features incorporated into the project design meet the applicable Planning and Land Development Program requirements (Appendix J).

Los Angeles County Low Impact Development Standards Manual

The County of Los Angeles prepared the 2014 Low Impact Development Standards Manual (LID Standards Manual) to comply with the requirements of the NPDES MS4 Permit for stormwater and non-stormwater discharges from the MS4 within the coastal watersheds of Los Angeles County (CAS004001, Order No. R4-2012-0175). The LID Standards Manual serves as an update to the County's SUSMP Manual and provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects required to prepare a SUSMP under the County MS4 Permit, under which the City is a permittee.

Water Quality Control Plan for the Los Angeles Region (Basin Plan)

The County of Los Angeles is under the jurisdiction of RWQCB Region 4 (Los Angeles Region). The RWQCB provides permits for projects that may affect surface waters and groundwater locally, and is responsible for preparing the Water Quality Control Plan for the Los Angeles Region (Basin Plan). The Basin Plan designates beneficial uses of water in the region and establishes narrative and numerical water quality objectives. Water quality objectives, as defined by the CWA Section 13050(h), are the "limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses or the prevention of nuisance within a specific area." The State has developed TMDLs, which are a calculation of the maximum amount of a pollutant that a water body can have and still meet water quality objectives established by the region.

City of Walnut Watershed Management Plan

Conditions of the MS4 Permit require that all permittees develop a watershed management plan on an individual or joint basis that will address water quality issues in the permittee's jurisdictional area. In 2015, the City of Walnut submitted its Watershed Management Plan to the RWQCB. The Watershed Management Plan, along with an Integrated Monitoring Plan, serves as a guiding document for implementing water quality improving infrastructure, policies, and programs.

City of Walnut Low Impact Development Ordinance

On November 13, 2013, the Walnut City Council adopted a Low Impact Development (LID) Ordinance in compliance with the requirements of the MS4 Permit. The City uses the LID Ordinance to review and permit development and redevelopment projects that qualify under the triggering requirements of the ordinance. Qualifying development projects are directed to control pollutants, pollutant loads, and runoff volume to the maximum extent feasible by minimizing impervious surface area and controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention, and/or rainfall harvest and use. Under the City's LID Ordinance, LID standards shall be inclusive of the County's SUSMP requirements. Furthermore, qualifying development projects must also demonstrate compliance with the hydromodification requirements outlined in the County's LID Standards Manual.

City of Walnut General Plan

Table 4.7-2 contains relevant applicable policies that relate to hydrology and water quality from the 2018 General Plan. Each General Plan goal and policy is organized by General Plan Element.

Table 4.7-2 General Plan Goals and Policies Relating to Hydrology and Water Quality

Regulation/Policy	Description of Regulation/Policy
Policy COR-3.1 Preserve and Enhance	Preserve and enhance existing waterways and natural riparian areas to achieve natural states that support wildlife and that provide flood control and groundwater recharge functions.
Policy COR-7.1 Green Infrastructure	Require low-impact designs such as vegetated treatment systems (bioswales, drainage swale, vegetative buffers, constructed wetlands) and other green infrastructure improvements for stormwater discharge pollution removal.
Policy CFI-6.1 Storm Water and Drainage System	Implement best practices in storm water management to reduce demand on the drainage system and to remain law pollution impacts to the surface waters and Walnut's local creeks.
Policy CFI-6.3 Storm Water Runoff	Minimize the impact of development on the City's drainage system by reducing the amount of impervious surface associated with new development and encouraging low impact design features or landscaping that capture runoff.
Policy CFI-6.4 National Pollutant Discharge Elimination System (NPDES)	Encourage on-site retention of storm water and compliance with requirements of the NPDES.
Policy CFI-6.5 Local Creeks	Reiterates the City of Walnut's desire to "develop and implement management plans that provide appropriate management strategies and natural landscaping of local creeks."
Policy LCD-9.4 Building Design	Support building designs that assist with the management of stormwater runoff, preserve and enhance soil permeability, and reduce other negative effects of urban development.

Source: Walnut General Plan 2018

4.7.2 Impact Analysis

a. Methodology and Significance Thresholds

Based on the environmental checklist contained in Appendix G Section IX (Hydrology and Water Quality) of the CEQA Guidelines, a hydrology and water quality impact is considered significant if the proposed project would:

1. Violate any water quality standards or waste discharge requirements;
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site;

4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of a course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
5. 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;
6. Otherwise substantially degrade water quality;
7. Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
8. Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
9. 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; and/or
10. Expose people or structures to inundation by seiche, tsunami, or mudflow.

The Initial Study (Appendix B) determined that the proposed project could result in potentially significant impacts related to Thresholds 1, 3, 4, 5 and 6. As such, these issues are analyzed in this section of the EIR.

b. Project Impacts and Mitigation Measures

Threshold 1:	Would the project violate any water quality standards or waste discharge requirements?
Threshold 6:	Would the project otherwise substantially degrade water quality?

IMPACT HWQ-1 PLAN AREA DEVELOPMENT WOULD BE SUBJECT TO FEDERAL, STATE, AND LOCAL REQUIREMENTS FOR PROTECTING WATER QUALITY, AS WELL AS POLICIES CONTAINED IN THE SPECIFIC PLAN SUPPORTING STORMWATER MANAGEMENT. COMPLIANCE WITH APPLICABLE REGULATIONS AND POLICIES WOULD PREVENT VIOLATION OF WATER QUALITY STANDARDS OR WASTE DISCHARGE REQUIREMENTS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Construction and operation of the proposed Specific Plan would potentially impact water quality standards and waste discharge requirements. Development of Specific Plan would be subject to federal, State, and local standards and regulations protecting water quality and hydrological resources. In addition, the Specific Plan includes a number of policies to support storm-water management and improve water quality. The following discussion addresses potential impacts and applicable regulations associated with project construction and operation.

Construction

Grading, excavation, and other construction activities associated with Plan Area development could adversely affect water quality due to erosion resulting from exposed soils and the generation of water pollutants, including trash, construction materials, and equipment fluids.

Because the Plan Area totals more than one acre, associated construction activities would be subject to the NPDES Statewide General Construction Activity Stormwater Permit. Please refer to the discussion of the NPDES Statewide General Construction Activity Stormwater Permit in Section 4.5 *Geology and Soils*, of the EIR. Construction site operators would be responsible for preparing and implementing a SWPPP that outlines project-specific BMPs to control erosion, sediment release,

and otherwise reduce the potential for discharge of pollutants in stormwater, consistent with the requirements of the NPDES Statewide General Construction Permit. Typical BMPs include:

- Utilizing temporary de-silting basins to ensure that surface water flows do not carry significant amounts of onsite soils and contaminants downstream;
- Conducting construction vehicle maintenance in staging areas where appropriate controls have been established to ensure that fuels, motor oil, coolant, and other hazardous materials are not deposited into areas where they may enter surface water and groundwater;
- Restricting the use of chemicals that may be transferred to surface waters by storm water flows or leach to groundwater basins through water percolation into the soil;
- Requiring that permanent slopes and embankments be vegetated following final grading;
- Installation of silt fences, erosion control blankets;
- Proper handling and disposal of wastes; and
- Installation of anti-tracking pads at site exits to prevent off-site transport of soil material.

Implementation of construction BMPs would minimize surficial erosion and transport of pollutants, thereby protecting water quality both on- and off-site. Implemented BMPs would comply with NPDES and local requirements, and would be overseen for compliance by the City. Impacts would be less than significant.

Groundwater

Construction activities associated with the proposed project could also potentially involve dewatering. In the hillside areas underlain by the Yorba Member bedrock, light to moderate seepage was encountered at a depth 76 feet, with standing groundwater at 88 feet. In the northerly canyon, light seepage was observed at a depth of 36.5 feet, with no standing groundwater observed at the completion of drilling (NMG 2018).Depending on the method used for de-watering, displaced groundwater may need to be captured and discharged elsewhere, possibly into surface waters, such as the Los Angeles River. NPDES Order No. R42013-0095 establishes requirements for discharges of groundwater from construction dewatering to surface waters in coastal watersheds of Los Angeles and Ventura County. The permit sets criteria for the quality of discharges, such as a maximum daily concentration of 75 milligrams (mg) per liter of suspended solids per day and an acceptable water pH and temperature range, and criteria for the quality of the receiving water after it has received the discharge. The permit also requires that the discharger store potential pollutants in areas where they would not contribute to runoff and to contain, remove, and clean any spills of such materials immediately.

Operation

Plan Area development would increase the amount of paved, impervious surface area by converting undeveloped areas to hard surfaces such as roofs and pavement. This conversion would increase runoff potential and could affect water quality of the runoff. However, City of Walnut Low Impact Development (LID) standards require new developments to capture and treat 100 percent of the 85th percentile storm event.

According to the City of Walnut LID Ordinance, the Specific Plan is a “Planning Priority Project” because it is disturbing over an acre and adding more than 10,000 square feet of impervious surface area. Therefore, the project is required to develop a LID plan, which includes the County’s SUSMP

requirements. Pursuant to the County's LID Standards Manual and as outlined in the SUSMP prepared for the project, Plan Area development must comply with the following requirements:

Retain 100 percent of the stormwater quality design volume (SWQDv) on-site through infiltration, evapotranspiration, stormwater runoff harvest and use, or a combination thereof unless it is demonstrated that it is technically infeasible to do so. To meet these requirements:

- Conduct site assessment and identify design considerations, including determining the feasibility of on-site infiltration;
- Apply site-specific source control measures;
- Calculate the Stormwater Quality Design Volume;
- Implement stormwater quality control measures;
- Structural-type source control measures should be considered along with non-structural control measures (CASQA); and
- Implement alternative compliance measures, if necessary.

In general, all proposed projects must maximize on-site retention of the SWQDv or change in SWQDv through infiltration and/or bioretention. If it is not feasible to fully infiltrate or use bioretention to handle the SWQDv or stormwater runoff, harvest and use is the next preferred control measure. Project applicants must verify requirements for stormwater runoff harvest and use with the California Department of Public Health.

Operation of the proposed Specific Plan to comply with the Los Angeles County LID requirements would include drainage systems that would alter current discharge amount at existing discharge points in the Plan Area. The on-site drainage system would capture and convey stormwater flows from the sub-areas. Residential flows would be treated via a bioretention system located along the eastern side of the Plan Area and multiple proprietary bioretention units located throughout the southern residential area. Runoff from the commercial district would be collected by on-site inlets and treated by additional proprietary units. Underground flood control detention basins in the commercial district parking lot would capture stormwater and mitigate discharge volumes. The systems would be sized to treat the SWQDv as required by the Los Angeles County LID Manual. These calculations are shown in Table 3 of Appendix J.

The bioretention system would utilize vegetation, engineered media and gravel that would operate under high flow rates to remove pollutants. The vegetation would act as a key component for biological uptake of pollutants. The engineered media and the vegetation would work in conjunction to meet the necessary pollutant removal requirements for the Plan Area.

The proprietary bioretention units are pre-fabricated devices that are manufactured to mimic natural systems such as bioretention areas by utilizing vegetation and engineered media to provide treatment at higher flow rates or volumes to allow for a smaller footprint. The units are placed by inlets to allow stormwater flows to be filtered through prior to being delivered into the stormwater conveyance system.

The project-specific SUSMP (Appendix J) ensures that post-construction BMPs incorporated into the Specific Plan development will be maintained in perpetuity to reduce the discharge of pollutants from stormwater and urban runoff discharges to the maximum extent practicable.

Compliance with federal, State, and local regulations would ensure that stormwater runoff is captured and treated on-site, thereby protecting water quality both on- and off-site. Therefore,

implementation of the Specific Plan would not violate any water quality standards or waste discharge requirements, and impacts would be less than significant.

Mitigation Measures

Mitigation beyond compliance with federal, state, and local requirements is not required.

Threshold 3:	Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?
Threshold 4:	Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of a course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?
Threshold 5:	Would the project 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?

IMPACT HWQ-2 THE QUANTITY OF RUNOFF FROM THE PLAN AREA COULD POTENTIALLY AFFECT THE ABILITY OF THE EXISTING STORM DRAIN SYSTEM TO HANDLE STORMWATER FLOWS. HOWEVER, INSTALLATION OF STORMWATER RUNOFF DETENTION BASINS WOULD ENSURE THAT THE PROJECT WOULD NOT INCREASE PEAK RUNOFF OR OTHERWISE ADVERSELY AFFECT THE LOCAL STORM DRAIN SYSTEM. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

The Plan Area consists of undeveloped open space with a hill in the center of the site. Due to the topography, stormwater flow is conveyed via natural and concrete ditches to three corners of the Plan Area, where storm drains are present along Valley Boulevard and an adjacent property. From these systems, pipe flow enters San Jose Creek, a reinforced cement concrete channel. San Jose Creek eventually meets with the San Gabriel River west of the Plan Area (Sunjoint Development 2017). Based on the Preliminary Hydrology Analysis prepared by MBI (Appendix H), there are also existing sub drain areas, each with their own drainage path. In pre-development conditions, runoff from the northwestern corner of the Plan Area currently flows to the inlet in the residential area along Roundup Drive; runoff from and near the top of the current hill flows south to the storm drain at the southwestern corner of the Plan Area; and runoff from the central northern area of the Plan Area flow east to the storm drain system at East Valley Boulevard along the eastern boundary of the Plan Area.

The proposed development would generally direct flows in the same direction to the existing East Valley Boulevard storm drain system. The County of Los Angeles owns two 24-inch reinforced concrete pipeline systems along north and south Valley Boulevard and are designed for a 10-yr storm event at about 24 cubic feet per second (cfs) (MBI 2018). Due to the amount of grading and development, the Specific Plan would modify the current flow rates in the Plan Area without the construction of planned stormwater improvements.

The Preliminary Hydrology Analysis, provided in Appendix H, models the drainage nodes and flow paths under the pre- and post-development conditions. Under existing conditions, the Plan Area drains to three nodes: Node 100, Node 200, and Node 300. The Preliminary Hydrology Analysis utilizes Watershed Modeling System software to model on-site and off-site drainage and peak flow rates during 10- and 50-year storm events, under both pre- and post-development conditions. Table

4.7-3 shows the modeled hydrologic flows for Nodes 100, 200, and 300. Node 100 is located at the northwest corner of the Plan Area. Node 200 is located at the southwest corner of the Plan Area, near East Valley Boulevard. Node 300 is located near Valley Boulevard, where runoff flows toward the San Jose Creek Channel.

Table 4.7-3 Modeled Hydrological Flows

	Pre-Development Conditions		Post-Development Conditions	
Location	10-Year Peak Flow Rate (cfs)	50-Year Peak Flow Rate (cfs)	10-Year Peak Flow Rate (cfs)	50-Year Peak Flow Rate (cfs)
Node 100	3.9	5.6	0.5	1.4
Node 200	46.7	77.2	38.3	57.9
Node 300	41.9	67.6	10.2	29.7

cfs =cubic feet per second

Source: MBI 2018

According to the analysis in Appendix H, the proposed project would decrease peak flows at Node 100 and Node 300, by 75 percent and 56 percent, respectively, at the 50-year peak flow rate. Without the proposed flood retention chamber located in the southern corner of the commercial area, as outlined in Appendix H, the proposed development would have increased peak flow rates at Node 200. Appendix H shows that, under post-development conditions without the flood retention chamber, a 50-year storm event would have yielded a peak flow rate of 96.7 cfs at Node 200. This represents a 19.5 cfs (approximately 25 percent) increase from peak flow modeled under existing conditions.

As discussed in Appendix H and outlined in Table 4.7-3, the increased flow to Node 200 would be captured by a stormwater runoff detention basin located in the lower southern corner of the Plan Area in the proposed commercial area. The basin would be 1.08 acre in size and 6 feet in depth, with an orifice opening of 30 inches. The basin would capture flow from 36.3 acres of residential area (Area 1A) and 3 acres of commercial area (Area 3A). Under post-development conditions, the basin would reduce flow from the project area draining to Node 200 from 96.7 cfs to 57.9 cfs for the 50-year storm event. Construction of this stormwater runoff detention basin, along with treatment basins identified above, would reduce potential impacts related to the rate or amount of stormwater runoff to a level of less than significant.

Mitigation Measures

No mitigation required.

c. Cumulative Impacts

Planned and pending projects (shown in Table 3-1 in Section 3, *Environmental Setting*) would add residential units (including single- and multi-family building types), and commercial and industrial development. Specific Plan development, in conjunction with the nearby residential developments in the City of Walnut, would incrementally increase impervious surface area in the local watershed, thereby potentially increasing the amount of surface water entering area drainages. However, in compliance with the City's LID Ordinance and the NPDES permits for SUSMP, individual projects would provide their own water detention facilities to mitigate peak flows and downstream flooding. Compliance with existing regulatory requirements on all new development would ensure that increases in peak runoff would not occur and would reduce cumulative impacts to a less than

significant level. Because Specific Plan development would also comply with existing regulatory requirements for reducing stormwater flow from the Plan Area, its contribution to cumulative impacts would not be considerable.

Cumulative development could increase the discharge of urban pollutants to surface waters and groundwater. Stormwater concentrations of oil, grease, heavy metals, and debris could increase as the amount of urban development increases in the watershed. However, all new development would be subject to the water quality requirements of the RWQCB, the County of Los Angeles, and the City of Walnut. This would address any adverse cumulative impacts resulting from individual new developments and reduce cumulative impacts to a less than significant level. Because Specific Plan development would also comply with existing regulatory requirements related to water quality, its contribution to cumulative impacts would also not be cumulatively considerable.

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4.8 Land Use and Planning

This section analyzes the proposed Specific Plan's consistency with relevant policies of applicable local and regional plans, including the City of Walnut General Plan and City of Walnut Municipal Code (WMC).

4.8.1 Setting

a. Plan Area

The Plan Area includes three parcels located approximately 1,300 feet east of the Valley Boulevard/Grand Avenue intersection in the City of Walnut, Los Angeles County and encompasses approximately 49 acres. The Plan Area includes Assessor Parcel Numbers 8709-023-273, 8709-023-274, and 8719-023-275. As discussed in Section 2, *Project Description*, the Plan Area is undeveloped, except for small flood-control drain ditches or swales and several plastic utility boxes about 2x1x1 feet in size scattered in the southern portion of the Plan Area. Figure 2-2 in Section 2 shows the boundaries of Plan Area.

b. Surrounding Land Uses

The Plan Area is located in a primarily residential neighborhood adjacent to commercial and industrial uses, and generally bordered by predominantly two-story single-family residences along Roundup Drive, Timberland Land and Pacer Court to the north and west. The Plan Area is located along the northern edge of Valley Boulevard just east of the intersection of Valley Boulevard and Grand Avenue. The southern and eastern boundaries of the site are located along Valley Boulevard and also border the northeast boundary of the City of Industry, the northwest boundary of the City of Diamond Bar, and the southwest boundary of the City of Pomona. Across Valley Boulevard are one- to two-story industrial uses in the City of Industry. One- to two-story commercial uses and public services buildings are located adjacent to the southwestern corner of the public Plan Area and include several restaurants, a local sheriff's station, and a community services building (known as the Maintenance Division Recreation Services Building). Union Pacific and Metrolink rail lines are located approximately 450 feet east of the Plan Area at the closest point. Figure 2-3 in Section 2, *Project Description,* shows zoning for the Plan Area and surrounding properties.

c. Regulatory Setting

The City of Walnut General Plan and the WMC (Title IV, *Planning and Zoning*) serve as the primary land use planning tools for the City.

General Plan

The General Plan (adopted in May 2018) is the primary means for guiding future change in Walnut and provides a guide for land use decision-making. The General Plan includes the following elements: Land Use and Community Design, Circulation, Conservation, Open Space, and Recreation, Community Facilities and Infrastructure, Public Safety, Noise, and Housing. The Land Use and Community Design and Housing elements are described below.

Land Use and Community Design Element

The Land Use and Community Design Element establishes the framework for Walnut to manage strategic, targeted land use changes while preserving the predominantly low-intensity residential character of the City. The Land Use Element specifies the types of development intensities and land uses citywide. The Community Design section complements the Land Use discussion by providing guidance on how development will look with respect to the established community aesthetic, while also protecting natural and scenic resources, and supporting sustainable principles.

The 2018 General Plan designates the Plan Area as Low Medium Density (4.1 to 6.0 DU/AC) and Commercial in one-third of the western area of the site. The Land Use Plan also shows that a Specific Plan is required for the Plan Area.

Housing Element

The Housing Element (2013-2021) is intended to adequately plan for the existing and future housing needs of the Community, including a "fair share" of the regional housing need. The Housing Element identifies the Plan Area as allowing for the development of housing from 12 to 36 dwelling units per acre (DU/AC). As discussed further in Section 4.10, *Population and Housing*, California's Housing Element law requires that a local jurisdiction accommodate a share of the region's projected housing needs for the planning period. This share is called the Regional Housing Needs Allocation (RHNA). For the City's 2013-2021 Housing Element update, Walnut has a RHNA allocation of 908 units. In 2013, the City rezoned a number of properties to ensure adequate sites were available to meet the City of Walnut's 2014-2021 RHNA. The rezoned properties will have a total capacity of 1,252 housing units, the majority of which will be suitable for the development of housing affordable to lower-income households based on the allowed density (Walnut 2014). The Plan Area is identified as project site #3 in the City's Housing Element. In 2013, the City also adopted an additional Mixed Use/Housing Opportunity Overlay (MU/HOO3) for the Plan Area. The MU/HOO-3 Overlay partitions the total site into three areas:

- Area A encompasses approximately 8.0 acres and will allow for the development of low-density residential units with a maximum density of 2.2 units per acre.
- Area B encompasses approximately 26.0 acres and will allow for the development of high-density residential units with a maximum density of 36.0 units per acre.
- Area C encompasses approximately 15.0 acres and will be reserved for retail and commercial development

Walnut Municipal Code

The WMC contains the zoning requirements and ordinances for the City. The purpose of the zoning chapter (Title 6, Planning and Zoning) is to encourage, classify, designate, regulate, restrict and segregate the highest and best location and use of buildings, structures and land for agriculture, residence, commerce, trade, industry or other purposes in appropriate places.

The Plan Area is zoned R.P.D. – 16,800 – 2.2DU (Residential Planned Development with a minimum lot area of 16,800 and net acre density of 2.2 dwelling units per acre) and Heavy Commercial (C-3) with a Mixed-Use/Housing Opportunity Overlay Zone 3 (MU/HOO-3). The RPD – 16,800 – 2.2DU designation allows for residential development with greater flexibility for design than conventional development. The C-3 designation allows for business center uses, where a wide range of retail and service establishments are needed. The Plan Area is also within the MU/HOO-3 Overlay Zone, which is defined in the WMC as an area suitable for higher density residential uses and providing a variety

of commercial and retail uses that are integrated as a cohesive development with higher density residential uses. An overlay zone creates an additional set of development options to any uses permitted or existing in the underlying zones.

Title 6, Chapter 6.20, Mixed Use/Housing Overlay Zone, provides the requirements for a Specific Plan, which are the following:

6.20.080 Specific Plan Requirements

A. All mixed-use developments and higher density residential uses (multi-family) developments shall be subject to development standards that are established in a specific plan adopted by the Walnut city council. The format and content of each specific plan shall be based upon the needs of the area for which a specific plan is being prepared. The minimum content requirements of each specific plan shall be as established in Section 65450 of the California Government Code. A specific plan may reference the allowed use provisions and development standards of the base zoning district; however, in the event there are conflicts between the provisions, the specific plan shall prevail. Where a specific plan is silent regarding a citywide standard (e.g., sign regulations), the city standard shall apply. Where a specific plan establishes unique standards that are in conflict with the standards of the underlying zone, the specific plan standards shall prevail.

B. The specific plan is a mechanism to guide development within an area, insuring that a comprehensive land plan is adopted. Given the built-out character of the city, the majority of the land use locations, classifications and densities reflect the existing development patterns of the community. New commercial developments that are of a scale and character compatible with the residential character of the community are encouraged to serve the needs of the community and to provide services to residents of new affordable housing developments. A specific plan is a tool that the city can use to promote the development of a livable community.

C. **Content of Specific Plans.** Specific plans shall be prepared only under direct supervision of department and shall include the following information in the form of text and diagrams:

   (1) **Proposed Land Uses.** The distribution, location and extent of land uses proposed within the area covered by the plan, including open space areas and recreational areas;

   (2) **Infrastructure.** The proposed distribution, location, extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities to be located within the specific plan area and needed to support the proposed land uses;

   (3) **Land Use and Development Standards.** Standards and criteria shall be provided in the specific plan by which the development will proceed. The development standards shall provide for recreation and open space areas in each residential development with more than five dwelling units. Each dwelling unit shall have a private outdoor open space area of one hundred square feet or larger. Adequate parking provisions shall be provided in each multiple family residential development for guest parking, overflow parking, and storage of recreational vehicles. The architecture of the proposed development shall be consistent with the surrounding neighborhood. Retail and commercial services shall be integrated as a cohesive development with higher density residential uses. Retail and commercial developments shall be designed to provide services to the surrounding neighborhood.

(4) **Implementation Measures.** A program of implementation measures, including regulations, programs, public works projects, and financing measures necessary to carry out the proposed land uses, infrastructure, and development and conservation standards and criteria;

(5) **Additional Information.** The specific plan shall contain any additional information determined to be necessary by the city because of the characteristics of the area to be covered by the plan, applicable policies of the general plan, or any other issue determined to be significant.

(D) **Review and Adoption of Specific Plan**

(1) **Public Hearings.** A proposed specific plan shall be subject to public hearings before both the commission and council before its adoption, as follows:

a. **Commission.** The director shall schedule a public hearing on the proposed specific plan after completion of a staff report and any required environmental documents. The hearing shall receive public notice and be conducted in compliance with Section 6.80.040 (Public hearings). After the hearing, the commission shall forward a written recommendation to the council.

b. **Council.** After receipt of the commission recommendation, a public hearing on the specific plan shall be scheduled. The hearing shall be noticed and conducted in compliance with Section 6.80.040 (Public hearings). After the hearing, the council may adopt the specific plan, may disapprove the plan, or may adopt the plan with changes, provided that any changes to the plan that were not considered by the commission shall be referred to the commission for its recommendation. Failure of the commission to report within forty-five days after the referral, or any longer period set by the council shall be deemed a recommendation for the approval of the changes.

c. **Adoption.** The adoption of a proposed specific plan shall be entirely at the discretion of the council. The council shall adopt a specific plan only if it first determines that the plan:

i. Is consistent with the general plan; and

ii. Will not have a significant effect on the environment, or is subject to the overriding findings specified in CEQA Guidelines.

The specific plan shall be adopted by ordinance or by resolution of the council. (Ord. No. 13-11, § 2)

4.8.2 Impact Analysis

a. Methodology and Significant Thresholds

According to Appendix G Section 10 (Land Use and Planning) of the CEQA Guidelines, the effects of the proposed project on land use are considered to be significant if the proposed project would:

1. Physically divide an established community;
2. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, clean air plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; or

3. Conflict with any applicable habitat conservation plan or natural community

The Initial Study (see Appendix B) concludes that only Threshold 2 could potentially result in a significant impact. The proposed project would be constructed on an infill site in a suburban area. Therefore, it would not divide an established community. In addition, neither the project site nor the surrounding areas are subject to a habitat conservation plan or a natural community conservation plan. As such, the proposed project would have no impacts that would exceed Thresholds 1 and 3 and further discussion is not warranted in this EIR. The following section focuses on assessing Threshold 2, the proposed project's consistency with applicable land use plans, policies, and regulations.

b. Project Impacts and Mitigation Measures

Threshold 2:	Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including but not limited to the general plan, specific plan, local coastal program, clean air plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Impact LU-1 UPON APPROVAL OF THE PROPOSED SPECIFIC PLAN, GENERAL PLAN AMENDMENT, AND ZONE CHANGE, THE PROJECT WOULD COMPLY WITH APPLICABLE LAND USE POLICIES, PLANS AND REGULATIONS. POTENTIAL CONFLICTS WITH APPLICABLE LAND USE PLANS, POLICIES OR REGULATIONS WOULD BE LESS THAN SIGNIFICANT.

The City is the lead agency with responsibility for approving the entitlements for the proposed Specific Plan. The entitlements include the following:

- **General Plan Amendment (GPA).** Amend the General Plan designation for the Plan Area from Low Medium Density (4.1 to 6.0 DU/AC) and Commercial[1] to "The Terraces at Walnut Specific Plan" on the City's General Plan Land Use Map
- **Specific Plan (SP) 2016-01.** Adopt the Terraces at Walnut Specific Plan. The Specific Plan will be adopted by Resolution by the City of Walnut City Council, with the Development Standards chapter adopted by Ordinance
- **Zone Change (ZC).** Change the Zoning of the entire property from the current Residential Planned Development (RPD) Zone with a Mixed-Use/Housing Opportunity Overlay (MU-HOO-3) to The Terraces at Walnut Specific Plan on the City's Zoning Map

Upon adoption of the proposed amendments required as part of project approval and compliance with the mitigation measures and conditions of approval set forth by this discretionary review process, the proposed project would comply with the applicable land use requirements of the General Plan and the WMC. In addition, as shown in the Setting, Section 6.20.080 (Specific Plan Requirements), establish the requirements for preparation of a specific plan. The proposed Specific Plan has been prepared under the supervision of the City's Planning Department and includes the requirements for the proposed land uses, infrastructure, land use and development standards, and

[1] The Initial Study and Notice of Preparation (Appendix B) was released in February 2018, which states that General Plan land use designation for the Plan Area is Future Specific Plan No. 3 based on the 1978 Walnut General Plan. In May 2018, the City Council adopted the City of Walnut General Plan which shows that the land use designation for the Plan Area is now Low Medium Density (4.1 to 6.0 DU/AC) and Commercial. However, the General Plan Land Use Map also includes a note stating that a specific plan is required for development of the Plan Area.

implementation measures. Review of the Specific Plan, by the Planning Commission and City Council, as required by Section 6.20.080, will occur along with review of the EIR.

General Plan

The proposed Specific Plan would establish new permitted uses and development standards for the Plan Area that would be subject to consistency with the City's General Plan goals and policies. The proposed Specific Plan's consistency with applicable objectives, policies, and standards of the City's General Plan is analyzed in Table 4.8-1.

Table 4.8-1 Consistency with Applicable Policies and Land Use Designations in the City of Walnut General Plan

Policy	Consistency Analysis
Land Use and Community Design Element	
Goal LCD-1: A balanced community with a mix of land uses that supports thriving businesses, all modes of transportation, complete neighborhoods, and healthy lifestyles	
Policy LCD-1.1: Zoning Consistency. Revise and update the Zoning Code, Subdivision Code, Specific Plans, and other City regulations to ensure they are consistent with and support the Walnut General Plan Land Use and Community Design Element goals, vision, and policies.	**Consistent** The Specific Plan would require a General Plan Amendment, Zone Change, Tentative Tract Maps/Tentative Parcel Maps approval, Site Plan and architectural review, and a Development Agreement. With adoption of the proposed Specific Plan and approval of the proposed General Plan Amendment and Zone Change, the City of Walnut General Plan and Zoning Code would be consistent with the proposed project.
Policy LCD-1.3: Residential Planned Developments and Specific Plans. Keep residential planned developments and specific plan regulations current to ensure that development proposals encourage complete neighborhoods and integrated planned developments that include revenue and employment-generating uses, diverse housing types, parks and open spaces, and active transportation/pedestrian connectivity and facilities. Additionally, continue to prohibit the further subdivision of lots in Residential Planned Development in order to preserve the rural character of existing and future Residential Planned Developments Zones.	**Consistent** The Specific Plan proposes residential and commercial land uses. The project proposes two types of residential districts, with single-family and multi-family detached dwelling units. The Specific Plan also proposes 15.4 acres of parks and open space, and pedestrian facilities along each proposed roadway. The proposed General Plan Amendment and Zone Change would alter the zoning to be consistent with the proposed Specific Plan rather than propose uses consistent with the existing RPD zone.
Policy LCD-1.5: Sustainability. Promote land use and development projects that demonstrably reduce greenhouse gas emissions, water usage, and electricity and natural gas demand. **Policy LCD-9.3: Sustainable Building Features.** Require that development incorporate sustainability, including features that minimize energy and water use, limit carbon emissions, provide opportunities for local power generation and food production, and provide areas for recreation.	**Consistent** Development under the proposed Specific Plan would comply with all applicable California Green Building Standards. The Specific Plan would aim to integrate "green" design strategies to promote sustainability Refer to the *Sustainable Design* discussion in Section 2, *Project Description*, which lists the strategies that would pertain to Plan Area planning, energy efficiency, materials efficiency, water efficiency, and occupational health and safety. In addition, as discussed in Section 4.6, *Greenhouse Gas Emissions*, implementation of Mitigation Measures GHG-1a through GHG-1e would be required for consistency with the California Air Resources Board's 2017 Scoping Plan and goals of Executive Order B-55-18 (new statewide policy of achieving net zero carbon emissions by 2045). Moreover, by virtue of providing a mixture of residential and

Policy	Consistency Analysis
	commercial uses, as well as residential development near already existing commercial uses, the project is promoting sustainability.
Policy LCD-1.9: Neighborhood-Serving Commercial. Promote opportunities for smaller neighborhood-serving commercial uses as part of having complete neighborhoods. Such opportunities can include sit-down restaurants, local retail, public spaces within shopping centers, and neighborhood-oriented retail areas that provide goods and services to support daily life.	**Consistent** The proposed Specific Plan includes commercial land uses adjacent to proposed residential land uses. The commercial uses have not been assigned yet, but would provide retail and/or restaurant uses for the proposed and adjacent surrounding residences.
Policy LCD-1.15: Infill. Utilize land assembly strategies and incentives to promote compatible infill developments.	**Consistent** The proposed Specific Plan is an infill development that would consist of residential and commercial development that would be compatible with the existing single-family residences to the north and the commercial and industrial development to the south and west.
Policy LCD-5.8: Amenities that Promote Healthy Living. Encourage developments to provide access, facilities, and amenities that connect to trails, encourage walking, and/or other facilities that promote healthy living.	**Consistent.** The proposed Specific Plan includes pedestrian access around each proposed roadway, as well as approximately two acres that would consist of a neighborhood park, pocket parks, and accessible open space areas.
Policy LCD-7.2: Consistent Community Scale. Require new structures to be designed at a low-scale to reflect established residential neighborhoods, commercial centers, hillside terrain, open spaces, and natural areas.	**Consistent** The proposed Specific Plan includes development standards of no more than 35 feet in height for any development, and up to three stories for the small-lot residential district. The two-acre large-lot residential district would be located at the northwest corner of the Plan Area which would provide both a buffer and transition between the proposed small-lot district and the existing single-family residences located north and west of the Plan Area. Existing adjacent residential development is between one and two stories in height.
Conservation, Open Space, and Recreation Element	
Policy COR-5.8: Recycled Water. Support the expansion of recycled water use wherever possible and feasible.	**Consistent** The proposed Specific Plan includes use of recycled water for irrigation in the Plan Area via an existing Walnut Valley Water District pipeline located adjacent to the site, under Valley Boulevard right-of-way. An on-site irrigation distribution system located within proposed Street A would connect to the existing pipeline and would include four pipelines to irrigate the public landscape areas.
Policy COR-11.5: New Parks. Require that all new, large residential developments provide on-site park facilities, and ensure they provide connectivity to the existing Walnut trail system.	**Consistent** Total landscaping in the Plan Area would be 15.4 acres. The Specific Plan includes approximately two acres that would consist of a neighborhood park, pocket parks, and accessible open space areas.
Community Facilities and Infrastructure Element	
Policy CFI-6.4: National Pollutant Discharge Elimination System (NPDES). Encourage on-site retention of storm water and compliance with requirements of the NPDES.	**Consistent.** As discussed in Section 4.8, *Hydrology and Water Quality*, the Plan Area would contain an on-site drainage system to capture stormwater flows from the sub-areas and direct them to a treatment facility. Residential flows would be treated via a bioretention system located

Policy	Consistency Analysis
	along the eastern side of the Plan Area and multiple proprietary bioretention units located throughout the southern residential area. Runoff from the commercial district would be collected by on-site inlets and treated by additional proprietary bioretention units. Flood control detention basins at the southern corner of the Plan Area within the commercial district would be used to mitigate stormwater volumes and direct flows away from existing single-family residences north of the Plan Area. In addition, project approval requires a NPDES permit and implementation of BMPs would reduce runoff and increase retention in the Plan Area.
Housing Element	
Goal 1: Provide adequate sites for residential development	
Policy 1.1: Facilitate the development of vacant and underutilized parcels identified in the Housing Element residential site inventory.	**Consistent** The Plan Area is identified as project site #3 in the City's Housing Element. The Plan Area consists of 49 acres of undeveloped land and proposes the development of a mixed-use infill project that includes a mix of housing types, a commercial district, parks and recreation areas, and open space. The Housing Element notes that the City has a shortfall of Above Median income units (-259 units) based upon residential development capacity than it does lower income units. The project would facilitate achievement of the City's Above Median unit needs. Therefore, the proposed Specific Plan would use buildable area to help meet the City's RHNA and would be consistent with this policy.
Goal 2: Encourage the adequate provision of affordable housing to meet the existing and future needs of Walnut residents.	
Policy 2.1; Provide a variety of residential opportunities in the City including low density single-family homes, multi-family developments for families and seniors, and housing for persons with disabilities (including persons with developmental disabilities).	**Consistent** The Specific Plan proposes three types of residential districts, with large-lot single-family, small-lot single family and multi-family attached dwelling units. As discussed further in Section 4.10 *Population and Housing*, all of the Project's proposed units would fall under the above moderate-income group. Construction of 290 housing units would satisfy the City's need for above moderate units, which accounts for 40 percent of the RHNA. The City has a shortfall of sites for meeting its above moderate income RHNA (City of Walnut 2014). The Project's units would help the City remedy this deficiency by establishing units that meet this above moderate criteria. Therefore, given that the City is mostly built-out and vacant land is limited, the increase in housing units associated with the proposed Specific Plan would use buildable area to help meet the City's RHNA and would be consistent with this policy.

Source: Walnut General Plan 2018

Based on the consistency analysis provided in Table 4.8-1, the proposed project would be consistent with the City of Walnut General Plan. Assuming approval of all requests, permits and other mitigation measures in this EIR, impacts related to the City's land use plans, regulations, and policies would be less than significant.

Mitigation Measures

No mitigation required.

c. Cumulative Impacts

As discussed in Section 3, *Environmental Setting*, pending or planned development in the City consists of residential development, residential and commercial development in the City of Diamond Bar, commercial and industrial development in the City of Industry, future enrollment increases at Mt. San Antonio College and Cal Poly Pomona, and commercial and industrial development in the City of Pomona. Consistency with the City of Walnut General Plan and WMC or applicable Diamond Bar or Industry development standards would be addressed on a case-by-case basis. As discussed above, the project would be consistent with applicable City of Walnut General Plan plans, policies, and regulations upon approval of the requested land use entitlements. In addition, the Specific Plan would have no impact with respect to dividing an established community or conflicts with adopted habitat conservation plans. Therefore, the project's contribution to cumulative land use impacts would be less than significant.

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4.9 Noise

This section evaluates the Specific Plan's potential impacts on existing and future local noise conditions, including temporary construction noise and long-term noise generated by development of the Plan Area.

4.9.1 Setting

a. Fundamentals of Sound, Environmental Noise, and Sound Measurement

Noise level (or volume) is generally measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound power levels to be consistent with that of human hearing response, which is most sensitive to frequencies around 4,000 Hertz (about the highest note on a piano) and less sensitive to low frequencies (below 100 Hertz).

Sound pressure level is measured on a logarithmic scale with the 0 dBA level based on the lowest detectable sound pressure level that people can perceive (an audible sound that is not zero sound pressure level). Based on the logarithmic scale, a doubling of sound energy is equivalent to an increase of 3 dBA, and a sound that is 10 dBA less than the ambient sound level has no effect on ambient noise. Because of the nature of the human ear, a sound must be about 10 dBA greater than the reference sound to be judged as twice as loud. In general, a 3 dBA change in community noise levels is noticeable, while 1-2 dBA changes generally are not perceived. Quiet suburban areas typically have noise levels in the range of 40-50 dBA, while those along arterial streets are in the 50-60+ dBA range. Normal conversational levels are in the 60-65 dBA range, and ambient noise levels greater than 65 dBA can interrupt conversations.

Noise levels typically attenuate (or drop off) at a rate of about 6 dBA per doubling of distance from point sources, such as industrial machinery. Noise from lightly traveled roads typically attenuates at a rate of about 4.5 dBA per doubling of distance. Noise from heavily traveled roads typically attenuates at about 3 dBA per doubling of distance. Noise levels may also be reduced by intervening structures; generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm that breaks the line-of-sight reduces noise levels by 5 to 10 dBA. In addition, the manner in which buildings in California are constructed generally provides for an exterior-to-interior transmission loss of about 25 dBA with closed windows and doors (Federal Transit Administration [FTA] 2018).

In addition to the instantaneous measurement of sound levels, the duration of sound is important since sounds that occur over a long period of time are more likely to be an annoyance or cause direct physical damage or environmental stress. One of the most frequently used noise metrics that considers both duration and sound power level is the equivalent noise level (Leq). The Leq is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). Typically, Leq is summed over a one-hour period.

The time period in which noise occurs is also important because noise that occurs at night tends to be more disturbing than that which occurs during the daytime. Two commonly used noise metrics – the Day-Night average level (Ldn) and the Community Noise Equivalent Level (CNEL) – recognize this fact by weighting hourly Leqs over a 24-hour period. The Ldn is a 24-hour average noise level that adds 10 dBA to actual nighttime (10 PM to 7 AM) noise levels to account for the greater sensitivity

to noise during that time period. The CNEL is identical to the Ldn, except it also adds a 5 dBA penalty for noise occurring during the evening (7 PM to 10 PM).

The CNEL value will usually be about 1 dBA higher than the Ldn value (California State Water Resources Control Board [SWRCB], 1999). In practice, CNEL and Ldn are often used interchangeably. The relationship between peak hourly Leq values and associated CNEL values depends on the distribution of traffic over the entire day. There is no precise way to convert a peak hourly Leq value to CNEL value. However, in urban areas near heavy traffic, the peak hourly Leq value is typically 2-4 dBA lower than the daily CNEL value. In less heavily developed areas, such as suburban areas, the peak hourly Leq is often equal to the daily CNEL value. For rural areas with little nighttime traffic, the peak hourly Leq value will often be 3-4 dBA greater than the daily CNEL value.

b. Fundamentals of Groundborne Vibration

Vibrating objects in contact with the ground radiate energy through that medium; if a vibrating object is massive enough and/or close enough to the observer, its vibrations are perceptible. The ground motion, or groundborne noise, caused by vibration is measured in vibration decibels (VdB).

The background vibration velocity level in residential areas is usually around 50 VdB. The vibration velocity level threshold of perception for humans is approximately 65 VdB. A vibration velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels for many people (FTA 2018). Most perceptible indoor vibration is caused by sources within buildings such as the operation of mechanical equipment, movement of people, or the slamming of doors. Typical outdoor sources of perceptible groundborne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the groundborne vibration from traffic is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration velocity level, and 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. The general human response to different levels of groundborne vibration velocity levels is described in Table 4.9-1.

Table 4.9-1 Human Response to Different Levels of Groundborne Vibration

Vibration Velocity Level	Human Reaction
65 VdB	Approximate threshold of perception for many people.
75 VdB	Approximate dividing line between barely perceptible and distinctly perceptible. Many people find transit vibration at this level annoying.
85 VdB	Vibration acceptable only if there are an infrequent number of events per day.

Source: FTA 2018

c. Sensitive Receptors

Noise exposure goals for various types of land uses reflect the varying noise sensitivities associated with those uses. According to the City's General Plan Noise Element, residences, hospitals, rest homes, long-term medical care facilities, libraries, churches, schools, and outdoor recreation areas are generally more sensitive to noise than commercial and industrial uses (Walnut General Plan 2018). The land uses surrounding the Plan Area is characterized by a mix of residential, commercial, retail, and industrial uses. Noise-sensitive land uses near the Plan Area consist of single-family residences to the north and west. Single-family residences are also located approximately 0.25 mile

southwest of the Plan Area across North Grand Avenue. In addition, the proposed single- and multi-family residences associated with development of the Specific Plan would also be considered noise-sensitive receptors.

d. Existing Noise Conditions

The most common source of noise in the vicinity of the Plan Area is traffic on surrounding roads, primarily East Valley Boulevard and North Grand Avenue. Motor vehicle noise is a concern because it is characterized by a high number of individual events, which often create sustained noise levels. Ambient noise levels would be expected to be highest during the daytime and rush hour unless congestion slows speeds substantially. To determine ambient noise levels at nearby sensitive receptors, four 15-minute sound measurements were taken during the AM peak hour between 7:30 AM and 9:15 AM at the Plan Area on February 28, 2018, using an ANSI Type II integrating sound level meter (see Appendix I). Figure 4.9-1 shows the measurement locations and Table 4.9-2 lists the noise levels measured at these locations. The ambient sound level in the vicinity of the Plan Area ranges from 48.8 dBA Leq to 76.0 dBA Leq. This range in ambient noise characterizes the existing noise level at the western boundary of the site adjacent to existing single-family residences and the existing noise level at the eastern boundary of the site along East Valley Boulevard. In addition, the ambient sound level at existing single-family residences southwest of the Plan Area across North Grand Avenue was measured at 57.7 dBA Leq, while the ambient sound level along North Grand Avenue was measured at 70.0 dBA Leq.

Table 4.9-2 Sound Level Measurement Results

Measurement Number	Measurement Location	Primary Source of Noise	Approximate Distance to Centerline of Roadway	Sample Time[1]	Leq[15] (dBA)[2]
1	East Valley Boulevard, eastern boundary of Plan Area	East Valley Boulevard traffic	40 feet	7:37 AM – 7:52 AM	76.0
2	Cul-de-sac of Timberland Lane, west of Plan Area	Birds, Overflight aircraft	NA[3]	8:11 AM – 8:26 AM	48.8[4]
3	Cul-de-sac of Magnolia Street, southeast of Plan Area	North Grand Avenue traffic	NA[3]	8:33 AM – 8:49 AM	57.7
4	North Grand Avenue, south of Plan Area	North Grand Avenue traffic	55 feet	8:56 AM – 9:11 AM	70.0

See Figure 4.9-1 for a map of sound level measurement locations. See Appendix I for noise monitoring data.

[1] Because ambient noise levels would be expected to be highest during the daytime and rush hour (approximately 7:00 AM to 9:00 AM or 4:00 PM to 6:00 PM), noise measurements taken during these times are representative of worst-case ambient noise conditions.

[2] The equivalent noise level (Leq) is defined as the single steady A-weighted level that is equivalent to the same amount of energy as that contained in the actual fluctuating levels over a period of time (essentially, the average noise level). For this measurement, the Leq was over a 15-minute period (Leq[15]).

[3] The measurement was taken at a cul-de-sac to determine the ambient residential noise level; therefore, the distance to the centerline of the nearest roadway is not applicable.

[4] Although not taken directly at the boundary of the nearest residential uses to the Plan Area, this ambient noise measurement is considered a conservative representation of residential noise in the area. The cul-de-sac on Timberland Lane is within the existing residential subdivision and not significantly traveled due to its dead end. It is not located near substantial sources of noise that would make it not a conservative representative of residential noise in the area.

Source: Rincon Consultants, field measurements on February 28, 2018 using ANSI Type II Integrating sound level meter.

Figure 4.9-1 Noise Measurement and Noise-Sensitive Receptor Locations

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FigX Noise

e. Regulatory Setting

California Noise Insulation Standards

The Noise Insulation Standards of the California Building Code, contained in California Code of Regulations (CCR) Title 24 requires that interior CNEL attributable to exterior noise sources not exceed a CNEL of 45 dBA in any habitable room with windows closed.

Walnut General Plan

The City's General Plan Noise Element addresses noise that affects the community, explores noise reduction, identifies noise exposure strategies, and establishes noise/land use compatibility standards that seek to minimize noise effects. Consistent with noise guidelines established by the California Office of Planning and Research (OPR) General Guidelines 2017, Table 4.9-3 reflects the City's noise criteria for determining land use compatibility with existing noise level exposures. As shown in Table 4.9-3, noise exposure levels up to 60 dBA CNEL are normally acceptable and noise exposure levels between 60 dBA and 75 dBA CNEL are conditionally acceptable for medium-density residential development.

Table 4.9-3 Land Use Compatibility for Community Noise Environments

	Community Noise Equivalent(dBA CNEL)			
Land Use Category	**Normally Acceptable[1]**	**Conditionally Acceptable[2]**	**Normally Unacceptable[3]**	**Clearly Unacceptable[4]**
Very Low-and Low-Density Residential	<60	60-65	65-80	>80
Low Medium-Density Residential	<60	60-70	70-80	>80
Medium-Density Residential	<60	60-75	75-80	>80
Mixed Use	<65	65-80	80-85	>85
Commercial	<70	70-80	80-85	>85
Industrial	<80	NA	NA	>80
Schools and Public Institutional	<60	60-70	70-75	>75
Parks and Open Space	<80	NA	>80	NA

Notes: NA = Not Applicable

[1] Specified land use is satisfactory, assuming buildings are of conventional construction.

[2] New development should be undertaken only after detailed analysis of noise reduction requirements are made.

[3] New development should be generally discouraged, if not, a detailed analysis of noise reduction requirements must be made.

[4] New development should generally not be undertaken.

Source: Walnut General Plan 2018

The City's General Plan Noise Element (2018) also establishes the following policies that aim to maintain an environment with little excessive or harmful noise levels, which includes minimizing point-source and ambient noise as well as transportation-related noise:

- **Policy N-1.5: Commercial Delivery Areas.** Locate delivery areas for new commercial and industrial development away from existing or planned homes.
- **Policy N-1.6: Stationary Noise Sources.** Minimize stationary noise impacts on sensitive receptors, and require control of noise from construction activities, private developments/residences, landscaping activities, and special events.
- **Policy N-1.7: Noise Mitigation.** Require development projects to implement mitigation measures, where necessary, to reduce noise levels to meet adopted standards and criteria. Such measures may include, but are not limited to, berms, walls, and sound-attenuating architectural design and construction methods.
- **Policy N-1.8: Mixed Use.** Require that mixed use structures and areas be designed to minimize the transfer of noise from commercial uses to residential areas.

Walnut Municipal Code

Chapter 3.40, Noise, of the WMC states that no person shall make, or cause or suffer, or permit to be made upon any premises owned, occupied or controlled by such person, any unnecessary noises, sounds or vibrations which are physically annoying to persons of ordinary sensitiveness or which are so harsh or so prolonged or unnatural or unusual in their use, time or place as to occasion unnecessary discomfort to any person or persons within any neighborhood.

Under Section 3.40.030(A) of the WMC, construction activities (including operation of any tools, equipment, impact devices, derricks or hoists used in construction, drilling, repair, alteration, demolition or earthwork) may occur between the hours of 7:00 AM and 8:00 PM on weekdays. No construction activities are permitted outside of these hours or on Saturdays, Sundays and holidays, except with express written permission by a city manager to perform such work at times prohibited and only if certain conditions are met (e.g., work is in the public interest, emergency work).

Section 3.40.030(C)of the WMC states that the use of any radio, musical instrument, phonograph, television, or similar instrument or device for the production or reproduction of sound in volume that is plainly audible from a distance of fifty feet or more is prohibited between the hours of 10:00 PM and 7:00 AM.

According to Section 3.40.030(F)1, loading, unloading, opening, closing or handling of boxes, crates, containers, building materials, garbage cans, or other similar objects between the hours of 10:00 PM and 7:00 AM daily is prohibited for business services near residential neighborhoods.

Section 3.40.030(H), prohibits the daily use or operation of any mechanized machine or equipment used to clean, cut, blow, vacuum, or sweep grass, leaves, dirt and other debris off sidewalks, driveways, lawns and other surfaces (e.g., leaf blowers) between the hours of 8:00 PM and 7:00 AM for all land uses.

According to Section 3.40.050, the City's exterior noise levels apply to all receptor land uses as shown in Table 4.9-4.

Table 4.9-4 Exterior Noise Standards

Receptor Land Use	Time Interval	Noise Level (dBA)
Residential	10:00 PM to 7:00 AM	45
	7:00 AM to 10:00 PM	50
Commercial	10:00 PM to 7:00 AM	55
	7:00 AM to 10:00 PM	60
Industrial	Anytime	70

Source: WMC Section 3.40.050(A)

4.9.2 Impact Analysis

a. Methodology and Thresholds of Significance

According to Appendix G Section XII (Noise) of the State *CEQA Guidelines*, noise impacts related to construction or operation of the Specific Plan would be potentially significant if the project would:

1. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
2. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
3. A substantial permanent increase in ambient noise levels above those existing prior to implementation of the project.
4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above those existing prior to implementation of the project.
5. For a project located in 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.
6. For a project near a private airstrip, would it expose people residing or working in the project area to excessive noise.

As discussed in the Initial Study (Appendix B), the project site is not located in the vicinity of a private airstrip, nor is it located within two miles of an airport or in an airport land use plan. There would be no impacts related to airport noise. Therefore, thresholds 5 and 6 are not discussed further in this section.

Construction Noise and Vibration

Construction activities would occur in a single phase and would include site preparation, grading, paving, building construction, and the application of architectural coatings. Ground-borne noise and other types of construction-related noise impacts would typically occur during excavation activities of the grading phase. This phase of construction has the potential to create the highest levels of noise. Construction noise levels were modeled using the Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) Version 1.1 (2008) for the site preparation, grading, building construction, paving, and architectural coating phases. The RCNM uses baseline noise levels, distances to receptors, shielding information, and construction equipment utilized to

calculate the level of construction noise from each piece of construction equipment and overall construction noise at each receptor. To calculate noise generated by each piece of equipment, the model uses compiled construction noise data originating from USEPA noise level work and acoustical usage factors for equipment (i.e., the fraction of time each equipment is operating at full power) from the Empire State Electric Energy Research Corp. Guide (FHWA 2006). The RCNM provides estimates of construction noise in Leq (i.e., one-hour average noise level) and Lmax, which is the highest noise level during a noise event or time period.

The closest noise-sensitive land uses to the Plan Area are shown in Figure 4.9-1 and consist of single-family residences adjacent to the northern and western boundaries of the Plan Area. Additional single-family residences are located approximately 0.25 mile southwest of the Plan Area across North Grand Avenue. Construction activity would not operate exclusively along the boundary of the site. Rather, stationary construction activity would occur at various locations on the project site and mobile construction equipment would operate throughout the site. Given the 49-acre size of the Plan Area, construction noise was modeled at gradually increasing distances of 25 feet, 75 feet, 225 feet, 675 feet, and 1,325 feet (i.e., the distance between the Plan Area and single-family residences southwest of the Plan Area across North Grand Avenue) to determine a general range of construction noise levels. Modeled construction noise levels do not account for the presence of intervening structures, additional setbacks, or topography, which would reduce noise levels at receptor locations. Therefore, the noise levels presented herein are representative of worst-case construction noise.

The equipment list for each of the construction phases was estimated using the CalEEMod Version 2016.3.1. The estimated construction equipment list reflects CalEEMod equipment defaults for construction of a residential and retail/commercial mixed-use development. RCNM inputs and results, as well as the CalEEMod construction equipment list are provided in Appendix C. According to Section 3.40.030(A) of the WMC, construction activities (including operation of any tools, equipment, impact devices, derricks or hoists used in construction, drilling, repair, alteration, demolition or earthwork) may occur between the hours of 7:00 AM and 8:00 PM on weekdays. No construction activities are permitted outside of these hours or on Saturdays, Sundays and holidays. These permitted hours of construction are included in the WMC in recognition that construction activities undertaken during daytime hours are a part of living in a developed environment and do not cause a significant disruption in light of the range of other urban activities that are also occurring and contributing to ambient noise levels. Consistent with the WMC, construction noise would result in a significant impact if construction activities occur outside the hours permitted by the WMC (i.e., between 8:00 PM and 7:00 AM on weekdays, or at any time on Saturday, Sunday, or a public holiday). Furthermore, although exempted by the WMC, this noise section analyzes and discloses the potential noise generated from project construction, and how such activities could increase noise at nearby sensitive receptors. As discussed below, while noise from construction could increase existing noise at nearby homes, construction would occur within hours permitted by the City and concluded to be part of the urban environment, and construction would occur across the 49-acre Plan Area and would occur less than 50 feet from sensitive receptors during brief periods.

Excavation activities associated with grading activities would also require the use of hauling trucks, which would intermittently generate noise along roadways surrounding the project site as they travel to and from the site to remove debris, soil, and other items. Based on an estimated export of approximately 85,250 cy of soil, project construction would generate approximately 6,089 haul truckloads assuming 28 cy of tandem haul truck capacity with two beds of 14 cy each. Since the

duration of the grading period would be approximately 75 days, the proposed project would generate an average of 81 haul truckload trips per day. Therefore, excavation activities would generate approximately 162 daily truck trips (one trip to the site and one trip out of the site for each truckload) for soil export. Based on an eight-hour construction day, approximately 20 truck trips (one in/one out) would occur each hour. Two roadways in the vicinity of the Plan Area, Valley Boulevard and Grand Avenue, are listed as major arterial streets in the City with high average daily traffic volumes. Use of these roads for construction traffic would be necessary to access the Plan Area and additional haul truck trips along these roads would generate intermittent traffic noise increases. Rincon estimated the haul trip noise levels using the U.S. Department of Transportation, FHWA Traffic Noise Model Version 2.5 (TNM 2.5) and existing traffic volumes from the Traffic Impact Study prepared by Kunzman Associates, Inc. (Kunzman) (see Appendix D and Section 4.7, *Transportation and Traffic*). The Traffic Impact Study provided peak hour trip volumes for intersections, including Valley Boulevard/Grand Avenue (noise modeling data sheets are provided in Appendix I). The modeled noise level associated with the addition of 20 hourly haul trips during construction was compared to existing modeled noise levels at existing sensitive receptor locations on Valley Boulevard and Grand Avenue. Because hauling truck trips generated by construction of the proposed project would be part of the local street network, noise from haul truck trips is measured against the same FTA significance thresholds as project-generated operational traffic (see methodology for Long-Term Operational Noise below). Therefore, haul trip noise along Valley Boulevard and Grand Avenue would be significant if it would cause a noise increase exceeding the FTA noise levels indicated in Table 4.9-6.

Construction activities also utilize heavy equipment (i.e., rollers and bulldozers) that can generate ground-borne vibration near sensitive receptors, especially from grading and excavation of the Plan Area. Results from construction vibration can range from no perceptible effects at the lowest vibration levels, to perceptible vibration at moderate levels, to structure damage at the highest levels. This analysis uses the FTA's structural damage vibration standards from the FTA's *Transit Noise and Vibration Assessment* (2018) to determine whether ground-borne vibration would impact adjacent sensitive receptors. The types of construction vibration impacts include human annoyance and building damage. However, as with construction noise, construction vibration would only occur during hours permitted by the WMC and, as such, determined to be acceptable as part of the urban environment and not a public nuisance. Vibration levels exceeding 100 VdB could result in minor damage to fragile buildings (see Table 4.9-1).

Long-Term Operational Noise

The proposed Specific Plan would generate vehicle trips, thereby increasing traffic on area roadways. Rincon also estimated noise levels associated with existing and future traffic along local roadways at proposed and existing nearby residences using TNM 2.5 (noise modeling data sheets are provided in Appendix I) and traffic volumes from the Traffic Impact Study prepared by (Kunzman) (see Appendix D and Section 4.7, *Transportation and Traffic*). The Traffic Impact Study provided peak hour trip volumes for intersections, including Valley Boulevard/Grand Avenue. Using the trip data, existing traffic-generated noise levels along roadway segments with noise-sensitive receptors adjacent to the Plan Area were estimated using TNM 2.5. Roadway noise level estimates developed in TNM 2.5 account for noise attenuation due to distance, as well as topography and intervening structures. Table 4.9-5 shows the modeled traffic noise levels at the sound measurement locations on local roadways near the Plan Area that include noise sensitive receptors.

Table 4.9-5 Comparison of Measured and Modeled Traffic Noise Levels

Measurement Number	Measurement Location	Measured Ambient Sound in dBA Leq (1)	Modeled Traffic Noise in dBA Leq (2)	Difference in Sound Level (2 minus 1)
1	East Valley Boulevard, eastern boundary of Plan Area	76.0	74.9	1.1
3	Magnolia Street, west of Plan Area	57.7	58.8	1.1

Source: Rincon Consultants, field measurements on February 28, 2018 field using ANSI Type II Integrating sound level meter. See Appendix I for sound measurement data sheets and FHWA TNM 2.5 model results.

Modeled traffic noise levels in the Plan Area range from about 59 dBA Leq to 75 dBA Leq. Noise levels are greatest at Measurement Location 1, which is at the eastern boundary of the Plan Area adjacent to traffic on Valley Boulevard. According to the California Department of Transportation (Caltrans) *Technical Noise Supplement of the Traffic Noise Analysis Protocol* (2013), if modeled sound levels are within 3 dBA of measured sound levels, then the model accurately reflects site conditions. As shown in Table 4.9-5, the modeled Leq results are within 3 dBA of the measured peak hour Leq. Therefore, the model accurately reflects existing site conditions and is an appropriate tool for estimating existing and future ambient noise levels.

The City has not adopted thresholds for mobile noise sources. Therefore, this analysis uses thresholds contained in the FTA *Transit Noise and Vibration Impact* Assessment (2018) as guidance to determine whether or not a change in traffic would result in a significant permanent increase in roadway noise. Using the FTA criteria, the significance threshold is based on the existing ambient noise level. Roadways with lower ambient noise levels have a higher noise level increase threshold, while roadways with a higher ambient noise level have a lower noise level increase threshold. Traffic-related noise increases would result in a significant impact if roadway noise would increase by more than the levels indicated in Table 4.9-6.

Table 4.9-6 Significance of Changes in Operational Roadway Noise Exposure

Existing Noise Exposure (dBA Ldn or Leq)	Significant Noise Exposure Increase (dBA, Ldn or Leq)
45-50	7
50-55	5
55-60	3
60-65	2
65-74	1
75+	0

Source: FTA 2018

The project's operational noise may be periodically audible at adjacent uses. Noise associated with operation of the proposed project would be vehicle circulation and parking (e.g., car chirps, engine start-ups), trash hauling and delivery trucks, use of landscaping equipment (e.g., lawnmower), recreational activities at proposed park space (e.g., benches, playground equipment), and heating,

ventilation, and air conditioning (HVAC) equipment associated with commercial centers. As discussed under *Sensitive Receptors*, noise-sensitive land uses near the Plan Area consist of single-family residences to the north and west. Additional single-family residences are located approximately 0.25 mile southwest of the Plan Area across North Grand Avenue. Noise levels associated with operation of the project were calculated using the standard noise attenuation rate of 6 dBA per doubling of distance (line-of-sight method of sound attenuation for point sources of noise), and accounting for the distance between the noise source and nearby noise-sensitive receptors. Operational noise associated with the project would be significant if noise levels exceed the City's standards shown in Table 4.9-4. Existing residential uses would be impacted if exterior noise exceeds 45 dBA Leq[1] from 10:00 PM to 7:00 AM or 50 dBA Leq from 7:00 AM to 10:00 PM per Section 3.4.050(A) of the WMC.

b. Project Impacts and Mitigation

Threshold 1	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
Threshold 4	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above those existing prior to implementation of the project.

Impact N-1 CONSTRUCTION ACTIVITIES WOULD GENERATE SHORT-TERM NOISE ON AND ADJACENT TO THE SITE THAT WOULD AFFECT EXISTING NOISE-SENSITIVE RECEPTORS NEAR THE PLAN AREA. HOWEVER, IMPACTS WOULD BE LESS THAN SIGNIFICANT DUE TO THE TEMPORARY NATURE OF PROJECT CONSTRUCTION AND COMPLIANCE WITH THE CITY'S NOISE ORDINANCE. ALTHOUGH TEMPORARY NOISE IMPACTS ARE LESS THAN SIGNIFICANT, MITIGATION MEASURES ARE INCORPORATED TO FURTHER REDUCE CONSTRUCTION NOISE.

Construction of the proposed Specific Plan would generate temporary noise that would exceed existing ambient noise levels on and around the Plan Area, but would cease upon completion of construction. As discussed under *Methodology and Thresholds of Significance*, construction noise was modeled at gradually increasing distances of 25 feet, 75 feet, 225 feet, 675 feet, and 1,325 feet to determine a general range of construction noise levels given the 49-acre size of the Plan Area. Table 4.9-7 shows the expected construction noise levels (dBA, Leq) at various distances from the noise source based on the combined use of construction equipment anticipated to be used concurrently during each phase of construction in RCNM.

[1] Walnut Municipal Code does not specify dBA measurement. For the purposes of this analysis, it is assumed to be dBA Leq.

Table 4.9-7 Construction Noise Levels by Phase

Construction Phase	Construction Equipment	Construction Noise Level (dBA, Leq) at Noise-Sensitive Receptors				
		25 Feet	75 Feet	225 Feet	675 Feet	1,325 Feet[1]
Site Preparation	Dozers (4), Tractors/, Loaders/ Backhoes (4)	94.1	84.5	75.0	65.4	59.6
Grading	Excavators (2), Grader, Dozer, Scrapers (2), Tractors/Loaders/Backhoes (2)	94.2	84.7	75.1	65.6	59.7
Building Construction	Crane, Forklifts (3), Generator Set, Tractors/Loaders/ Backhoes (3), Welder	95.4	85.8	76.3	66.7	60.9
Paving	Pavers (2), Paving Equipment (2), Rollers (2)	92.5	83.0	73.5	63.9	58.1
Architectural Coating	Air Compressor	79.7	70.2	60.6	51.1	45.2

See Appendix C for RCNM results and CalEEMod equipment list.

[1] Distance between single-family residences located approximately .25 mile southwest of the Plan Area across North Grand Avenue.

As shown in Table 4.9-7, construction would generate noise levels of approximately 80 dBA Leq to 95 dBA Leq at 25 feet from the source. In comparison, the ambient noise level at adjacent residences west of the Plan Area was measured at 48.8 dBA Leq (see Table 4.9-2), which is representative of the average ambient noise level at other residences adjacent to the Plan Area. First, it should be noted that construction activities would occur across the entire Plan Area, which is approximately 49 acres. While sensitive residential receptors are located at the boundary of the Plan Area, the majority of the site on which construction would occur is located beyond 225 feet from those receptors, which by virtue of distance alone would substantially reduce construction noise at the receptors. The commercial district of the project is, for instance, greater than 300 feet from the nearest sensitive receptor. Moreover, the construction noise identified in Table 4.9-7 do not account for changes in topography, natural features, or intervening structures that could further attenuate noise from construction. Second, per the WMC, project construction noise has been determined by the City to not to generate “unnecessary noises, sounds or vibrations which are physically annoying to persons of ordinary sensitiveness” because construction noise is part of the existing urban environment. (WMC Section 3.40.010.) Therefore, construction activities occurring within specific hours, and the noise generated by such activities, is exempt from the WMC’s noise regulations and has been determined to not cause a significant noise impact. All construction activity would comply with WMC Section 3.40.030(A) and would not expose receptors to construction noise during hours when people normally sleep. Notwithstanding this limitation, construction noise would exceed ambient noise levels at residences west and north of the Plan Area during the day. To further minimize construction noise generated by the project, Mitigation Measures N-1a through N-1i would be implemented to incorporate best management practices during construction, including the requirement for equipment mufflers. These measures would ensure that noise generated by project construction, although not considered significant due to the WMC’s noise provisions and the fact that construction will largely occur away from residences, would be minimized to the maximum extent possible.

As discussed in *Methodology and Significance Thresholds*, haul truck trips associated with temporary grading activities during construction would also generate noise along roadways surrounding the Plan Area. Due to the location of the access street, this analysis assumes that the estimated 20

hourly haul trips would use Valley Boulevard and Grand Avenue, which are two major arterial streets in the City with high average daily traffic volumes consisting of cars, medium-duty trucks, and heavy-duty trucks. Based on FTA significance criteria in Table 4.9-6, haul trip noise along Valley Boulevard and Grand Avenue would be significant if it would cause a noise increase exceeding 1 dBA at existing noise-sensitive receptors along Valley Boulevard and Grand Avenue. Table 4.9-8 compares modeled noise levels associated with existing volumes and existing volumes plus construction-generated haul trips based on traffic volumes from the Traffic Impact Analysis prepared by Kunzman for the project (Appendix D). For a conservative estimate of haul truck noise, all estimated 20 hourly truck trips were added to existing volumes at each modeled location.

Table 4.9-8 Haul Trip Noise at Adjacent Noise-Sensitive Receptors

		Modeled Noise Level (dBA, Leq)				
Noise-Sensitive Receptor[1]	Modeled Location	Existing Traffic [1]	Existing Plus Haul Trips [2]	Change in Noise Level [2] – [1]	Significance Threshold[3]	Significant?
Existing Single-Family Residences along Valley Boulevard	Valley Boulevard west of North Grand Avenue	66.3	67.0	+0.7	1	No
Existing Single-Family Residences on Magnolia Street adjacent to North Grand Avenue	Magnolia Street, west of Plan Area[2]	58.8	59.5	+0.7	3	No

[1] Noise-sensitive receptor locations nearest to the Plan Area are shown in Figure 4.9-1.

[2] Equivalent to Measurement Location 3 shown in Figure 4.9-1.

[3] Significance thresholds are from Table 4.9-6.

Source: TNM2.5, see Appendix I for noise model results.

As shown in Table 4.9-8, haul trip noise would not result in a significant increase in ambient noise at existing noise-sensitive receptors along the Valley Boulevard and Grand Avenue. In addition, California State law prohibits trucks from idling for longer than five minutes, which would further result in minor, intermittent sources of noise. Therefore, noise associated with haul trucks during the grading phase of project construction would be temporary and less than significant. Nonetheless, the following mitigation measures would be required to reduce noise impacts from on-site construction at nearby noise-sensitive receptors. Overall, construction noise impacts would be less than significant and implementation of the mitigation measures identified below would serve to further reduce construction noise to the maximum extent possible.

Mitigation Measures

The following mitigation measure would reduce construction-related noise at residences adjacent to the Plan Area.

N-1a Construction Hours

Construction activities shall not take place outside of the allowable hours specified by the Walnut Municipal Code Section 3.40.030(A) (i.e., 7:00 a.m. and 8:00 p.m. on weekdays) with no construction permitted on Saturdays, Sundays or holidays.

N-1b Construction Notice

Two weeks prior to the commencement of construction at the Plan Area, notification shall be provided to the owners and tenants of adjacent residential properties within a 500-foot radius of the Plan Area, disclosing the planned construction schedule, including the various types of activities and equipment that would be occurring throughout the duration of the construction period. This notification shall also provide a contact name and phone number for these properties to call for construction noise-related complaints. All reasonable concerns shall be rectified within 24 hours of receipt.

N-1c Fixed Equipment Locations

The contractor shall provide staging areas onsite to minimize off-site transportation of heavy construction equipment. These areas shall be located to maximize the distance between activity and sensitive receptors. This would reduce noise levels associated with most types of idling construction equipment. Locate fixed and/or stationary equipment as far as possible from noise-sensitive receptors (e.g., generators, compressors, rock crushers, cement mixers).

N-1d Mufflers

During all project site excavation and grading, all construction equipment, fixed or mobile, shall be operated with closed engine doors and shall be equipped with properly operating and maintained mufflers consistent with manufacturers' standards capable of reducing engine noise by at least 15 dBA.

N-1e Electrically-Powered Tools and Facilities

Electrical power shall be used to run air compressors and similar power tools and to power any temporary structures, such as construction trailers or caretaker facilities.

N-1f Impact Tools and Power Equipment

Impact tools shall be shrouded or shielded. All intake and exhaust ports on power equipment shall be muffled or shielded.

N-1g Equipment Idling

Construction vehicles and equipment shall not be left idling for longer than five minutes when not in use.

N-1h Workers' Radios

All noise from workers' radios shall be controlled to a point that they are not audible at sensitive receptors near construction activity.

N-1i Smart Back-up Alarms

Mobile construction equipment shall have smart back-up alarms that automatically adjust the sound level of the alarm in response to ambient noise levels. Alternatively, back-up alarms shall be disabled and replaced with human spotters to ensure safety when mobile construction equipment is moving in the reverse direction.

Significance After Mitigation

Given the close proximity of nearby noise-sensitive residential receptors to the Plan Area, temporary noise level increases from project construction would be experienced by these receptors. However, as discussed above, the WMC's noise regulations recognize construction noise as not resulting in a nuisance or impact when occurring within specified hours. Because such noise is part of the urban environment, the WMC specifies that construction activities may only occur during certain hours. Moreover, due to the large size of the Plan Area and the fact that residences border only limited areas of the Plan Area, construction, which would occur across the larger project site, will only be located within close proximity to sensitive receptors during limited periods. The majority of the Plan Area is greater than approximately 300 feet from residential uses, for instance. As such, noise emanating from construction and traveling to residential receptors will be minimized. Finally, implementation of Mitigation Measures N-1a through N-1i would further reduce noise levels associated with temporary construction activities by an estimated 10-20 dBA Leq. Industrial grade mufflers have been proven to reduce noise levels by at least 15 dBA at 50 feet of distance (see Appendix I for manufacturer specification sheet). According to estimated construction noise levels shown in Table 4.9-7, construction activities would generate noise levels up to 95 dBA Leq at 25 feet from the source. Assuming a reduction between 10 to 20 dBA Leq with mitigation, the project would result in construction noise levels between 75 dBA Leq and 85 dBA Leq. For construction activities 225 feet from residential receptors, mufflers would result in construction noise to approximately 35 to 50 dBA Leq. However, any exceedance in the ambient noise level due to construction activities would be temporary and limited to daytime hours per compliance with construction hours established in WMC 3.40.030(A). Therefore, noise from construction of the proposed project would be less than significant.

Threshold 2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

Impact N-2 CONSTRUCTION ACTIVITIES WOULD GENERATE TEMPORARY GROUNDBORNE VIBRATION THAT WOULD AFFECT EXISTING NOISE-SENSITIVE RECEPTORS NEAR THE PLAN AREA. HOWEVER, IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Operation of the proposed Specific Plan would not generate significant groundborne vibration since residential uses and commercial uses do not generate high vibration levels. Therefore, this analysis only considers vibration impacts from project construction. Construction activities associated with the project would create groundborne vibration from operation of heavy mechanical equipment, such as dozers, loaded trucks, and rollers. Similar to the modeled distances for the construction noise analysis, Table 4.9-9 lists groundborne vibration levels from a loaded truck, dozer and roller at 25 feet, 75 feet, 225 feet, 675 feet, and 1,325 feet from the source.

Table 4.9-9 Vibration Levels for Construction Equipment

	Vibration Level (VdB) at Noise-Sensitive Receptors				
Construction Equipment	25 Feet[1]	75 Feet	225 Feet	675 Feet	1,325 Feet[1]
Loaded Truck	86	71	57	43	34
Dozer	87	73	58	44	35
Roller	94	80	66	51	43

See Appendix I for vibration analysis.

[2] Distance between single-family residences located approximately .25 mile southwest of the Plan Area across North Grand Avenue.

As shown in Table 4.9-9, operation of a loaded truck, dozer, and roller would generate peak vibration levels at approximately 94 VdB at the nearest noise-sensitive receptors. Although vibration would exceed 75 VdB (the threshold between barely perceptible and distinctly perceptible), such events would be intermittent and relatively short in duration. Furthermore, according to Section 3.40.010 of the WMC, construction activity vibration is considered acceptable and not considered a public nuisance when it occurs between permitted hours: between 7:00 AM and 8:00 PM on weekdays and prohibited on Saturdays, Sundays, and national holidays. Compliance with the City's permitted hours of construction would ensure that adjacent noise-sensitive residential receptors are not disturbed by construction vibration during nighttime sleep hours. Also, as with construction noise, construction vibration would only occur in close proximity to sensitive receptors during limit periods of construction, with the majority of construction activities occurring a substantial distance from nearby residences. Moreover, ground-borne vibration would not reach levels that could cause damage (100 VdB) to structures in the vicinity of the Plan Area. Therefore, impacts from vibration would be less than significant.

Mitigation Measures

No mitigation required.

Threshold 1	Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
Threshold 3	A substantial permanent increase in ambient noise levels above those existing prior to implementation of the project.

Impact N-3 ACTIVITIES ASSOCIATED WITH OPERATION OF THE SPECIFIC PLAN WOULD GENERATE NOISE THAT MAY PERIODICALLY BE AUDIBLE TO EXISTING NOISE-SENSITIVE USES NEAR THE PLAN AREA AND PROPOSED NOISE-SENSITIVE USES IN THE PLAN AREA. OPERATIONAL NOISE SOURCES WOULD INCLUDE RECREATION NOISE, VEHICLE CIRCULATION NOISE, RESIDENTIAL NOISE, COMMERCIAL/RETAIL NOISE, AND NOISE FROM DELIVERIES, TRASH HAULING, AND HVAC. HOWEVER, WITH ADHERENCE TO THE CITY'S NOISE ORDINANCE, IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Noise sources associated with operation of the proposed Specific Plan would include vehicle circulation and parking (e.g., car chirps, engine start-ups), trash hauling and delivery trucks, use of landscaping equipment (e.g., lawnmower), recreational activities at proposed park space (e.g., benches, playground equipment), and HVAC equipment associated with commercial centers. As discussed under *Sensitive Receptors*, the nearest noise-sensitive land uses to the Plan Area consist of single-family residences to the north and west. The project's on-site operational noise may be periodically audible at adjacent uses along the northern and western boundaries of the Plan Area. Operational noise from the project would be significant if noise levels exceed the City's standards shown in Table 4.9-3. Existing residential uses would be impacted if exterior noise exceeds 45 dBA Leq from 10:00 PM to 7:00 AM or 50 dBA Leq from 7:00 AM to 10:00 PM per Section 3.40.050 of the WMC.

Vehicle Circulation and Parking

According to project plans, existing single-family residences would be located as close as 150 feet west of internal roadways associated with the proposed circulation infrastructure. Existing residences would potentially be exposed to noise from vehicle circulation and parking in the Plan

Area. However, vehicle circulation noise would be intermittent and the speed limit for vehicles moving throughout the Plan Area would be regulated through site design. According to the layout of the Specific Plan (see Figure 2-5 of Section 2, *Project Description*), some of the proposed residences along the northern boundaries of the Plan Area would be located between existing single-family residences and the proposed roadway. Those proposed residences would serve as sound barriers to reduce noise from vehicle circulation and parking in the Plan Area. Generally, local streets in the Plan Area that are sited near existing residences are anticipated to be used solely for residents of the Plan Area. Therefore, daily traffic volumes on these streets would be low and consistent with residential uses in the City. Nonetheless, potential traffic noise from the local street nearest to offsite residences at Timberland Lane west of the Plan Area was modeled using TNM 2.5 and compared to Noise Measurement 2 to determine whether internal traffic would create noise resulting in a significant noise increase noise-sensitive receptors adjacent. Trip generation volumes from the Traffic Impact Analysis (Appendix D) prepared by Kunzman were used to estimate the average number of trips that would use the local street nearest to off-site residences. Trips generated by the proposed commercial uses were not included in the analysis since the local street nearest to off-site residences would be predominately used by residents of the Plan Area. As shown in Table 4.12-5 of Section 4.12, *Transportation and Traffic*, the proposed project would generate 113 daily trips from single-family residences and 2,035 daily trips from multi-family residences. Therefore, for the purpose of this analysis, a total of 2,148 trips was used as a conservative estimate for the daily traffic volume at the local street nearest to offsite residences. Table 4.9-10 shows the resulting modeled noise level increase at Timberland Lane based on an estimated daily traffic volume of 2,148. As shown in Table 4.9-10, the Plan Area would increase the existing ambient noise level at residences along the Timberland Lane cul-de-sac by up to 1.2 dBA. However, the project would not exceed the applied FTA significance threshold of 7 dBA Table 4.9-6. Therefore, the project's vehicle circulation noise impacts would be less than significant.

Table 4.9-10 Comparison of Pre-Project and Post-Project Traffic Noise at Timberland Lane

	Noise Level at Timberland Lane Cul-de-Sac (dba, Leq)				
Noise-Sensitive Receptor[1]	Measured Ambient Noise Level [1]	Modeled Noise Level with Adjacent Plan Area Traffic [2]	Change in Noise Level [2] – [1]	Significance Threshold[3]	Significant?
Existing Single-Family Residences at Timberland Lane cul-de-sac, west of Plan Area	48.8[2]	50.0	+1.2	7	No

[1] Noise-sensitive receptor locations nearest to the Plan Area are shown in Figure 4.9-1

[2] Equivalent to Noise Measurement 2 shown in Table 4.9-2 and Figure 4.9-1.

[3] Significance thresholds are from Table 4.9-6.

Source: TNM2.5, see Appendix I for noise model results.

For the townhomes proposed as part of the project, the street would be private, further reducing vehicle access and noise. The townhomes would also serve as a noise buffer between existing residences and the commercial component, which would be located a substantial distance from existing residences. Furthermore, parking noise (e.g., car doors slamming, engines starting up, and car idling) would consist of instantaneous sound levels that may be periodically audible, but would

be similar to what already occurs in the adjacent single-family residential neighborhood and would also be partially masked by background noise from traffic along East Valley Boulevard. Overall, the Plan Area is surrounded by a developed suburban area and the vehicle circulation and parking associated with the project would not generate sources of noise that would be new to the existing community.

Trash Hauling and Delivery Trucks

The proposed project would require periodic delivery and trash hauling services. The Plan Area is located in a developed suburban area and is surrounded by existing single-family residences to the north and west, commercial uses to the south, and industrial uses to the east. Therefore, delivery and trash trucks are already a common occurrence in the vicinity of the Plan Area. Nonetheless, the average noise level for a single idling truck is generally 70 dBA at a distance of 25 feet (Charles M. Salter Associates, Inc. 2014). According to Specific Plan, existing single-family residences would be located as close as 150 feet west of roadways associated with the proposed circulation infrastructure. At this distance, and based on an attenuation rate of 4.5 dBA per doubling of distance, truck noise would be approximately 58 dBA at the nearest noise-sensitive receptor. According to Section 3.40.030(F)1 of the WMC, loading, unloading, opening, closing or handling of boxes, crates, containers, building materials, garbage cans, or other similar objects between the hours of 10:00 PM and 7:00 AM daily is prohibited near residential neighborhoods. Therefore, delivery and trash hauling services generated by the proposed project would not exceed 45 dBA Leq from 10:00 PM to 7:00 AM. While individual truck trips would potentially generate an audible noise in excess of 50 dBA Leq from 7:00 AM to 10:00 PM, such occurrences would be intermittent and would not result in an audible change in the daily ambient noise level at adjacent noise-sensitive receptors. In addition, California State law prohibits trucks from idling for longer than five minutes. Delivery and trash truck trips would be a periodic source of operational noise, but would not be different from what is generated by truck trips currently serving the existing community nor would result in a notable audible increase to the ambient noise level in the vicinity of the Plan Area. Therefore, operation of delivery and trash trucks would not disturb residences during recognized hours of sleep and would not be a new source to the existing suburban community.

Landscape Equipment

The Plan Area would also require regular landscape maintenance that would generate instantaneous noise from use of landscape equipment, such as leaf blowers and lawnmowers. The instantaneous noise level for an operating leaf blower is 100 dBA at a distance of 25 feet (RGD Acoustics 2016). Conservatively assuming that landscaping would occasionally occur along the project site boundaries, existing residences would be exposed to noise levels up to 100 dBA. However, Section 3.40.030(H) of the WMC prohibits the daily use or operation of any mechanized machine or equipment used to clean, cut, blow, vacuum, or sweep grass, leaves, dirt and other debris off sidewalks, driveways, lawns and other surfaces (e.g., leaf blowers) between the hours of 8:00 PM and 7:00 AM for all land uses. Therefore, on-site landscaping noise generated by the proposed project would not exceed 45 dBA Leq from 10:00 PM to 7:00 AM. While landscape maintenance activities would be an audible source of operational noise in excess of 50 dBA Leq from 7:00 AM to 10:00 PM, such occurrences would be intermittent and temporary and would not result in an audible change in the daily ambient noise level at adjacent noise-sensitive receptors. Therefore, operation of on-site landscaping equipment would not disturb residences during recognized hours of sleep and would not be new to the existing suburban community.

Recreational Activities

As discussed in Section 2.5.4, *Landscaping and Open Space*, outdoor uses associated with the proposed Specific Plan would consist of 2.15 acres of designated neighborhood parks, pocket parks, and open space areas, including trails adjacent to detention basins. Recreational park areas would function as central gathering areas open for passive recreational activities. Based on the Specific Plan layout, the majority of the park areas would potentially be surrounded by proposed residences, which would serve as sound barriers to reduce noise from recreational activities. However, proposed parks would be located as close as 150 feet to the nearest single-family residence outside of the Plan Area. According to a noise measurement taken by Rincon Consultants on April 9, 2017 at an existing park for the County of San Mateo Parks Department *Flood County Park Landscape Plan EIR*, recreation noise was measured at 58.6 dBA Leq at 25 feet from the source (Rincon 2017). Using this reference noise level and a noise attenuation of 6 dBA per doubling of distance, the proposed parks would generate a noise level up to 43 dBA Leq at the existing single-family residences approximately 150 from the nearest proposed park. Therefore, the proposed recreational uses would not generate noise levels in excess of 45 dBA Leq from 10:00 PM to 7:00 AM or 50 dBA Leq from 7:00 AM to 10:00 PM per Section 3.40.050 of the WMC.

Commercial HVAC Equipment

Operation of mechanical equipment in the Plan Area would include HVAC equipment associated with the proposed commercial use. This equipment, which typically has noise-shielding cabinets, is placed on the roof or in mechanical equipment rooms and is not usually a significant source of noise. Noise from HVAC equipment at commercial centers ranges from 60 to 70 dBA Leq at 15 feet from the source (Illingworth & Rodkin 2009). For a conservative estimate, this analysis assumes that HVAC equipment generates a noise level of 70 dBA Leq at 15 feet from the source. Based on the Specific Plan (see Figure 2-5 of Section 2, *Project Description*), the 30,000 square-foot commercial area would be located at the southeastern boundary of the Plan Area, a minimum of approximately 250 feet from existing single-family residences to the west. Using a noise attenuation of 6 dBA per doubling of distance, operation of commercial HVAC equipment would generate a noise level up to 45.6 dBA Leq at existing single-family residences, which would marginally exceed the City's nighttime noise standard of 45 dBA Leq from 10:00 PM to 7:00 AM. However, the proposed multi-family residences located between the proposed commercial use and existing single-family residences would serve as a noise barrier to block the direct line-of-sight and further reduce the estimated HVAC noise level of 45.6 dBA Leq to below the City's 45 dBA Leq standard.

Additional single-family residences are located approximately 0.25 mile southwest of the Plan Area across North Grand Avenue. However, operation of the proposed project would not result in significant noise levels at closer residences immediately north and west of the Plan Area; therefore, due to the farther distance, noise from operation of the Specific Plan would also not expose single-family residences located 0.25 miles southwest of the Plan Area to noise levels in excess of City standards as outlined by Section 3.40.050 of the WMC. Overall, noise sources associated with operation of the proposed Specific Plan would generate less than significant impacts on existing noise-sensitive single-family residences in the vicinity of the Plan Area.

Mitigation Measures

No mitigation required.

Impact N-4 TRAFFIC GENERATED BY DEVELOPMENT OF THE SPECIFIC PLAN WOULD INCREMENTALLY INCREASE TRAFFIC-RELATED NOISE ON ADJACENT ROADWAY UNDER EXISTING PLUS PROJECT AND FUTURE PLUS PROJECT CONDITIONS. HOWEVER, THE CHANGE IN NOISE LEVELS WOULD NOT EXCEED THRESHOLDS OR BE PERCEPTIBLE. THEREFORE, THE INCREASED TRAFFIC NOISE WOULD RESULT IN A LESS THAN SIGNIFICANT IMPACT.

The Specific Plan would increase the number of vehicle trips to and from the Plan Area which would increase traffic noise on roadways in the vicinity. To determine whether the Specific Plan would create traffic noise resulting in a significant noise increase, existing and potential future noise levels at sensitive receptor locations in the area were modeled based on traffic volumes from the Traffic Impact Analysis prepared by Kunzman for the project (Appendix D). The noise increases are shown in Table 4.9-11.

Table 4.9-11 Pre-Project and Post-Project Traffic Noise at Adjacent Roadways

		Modeled Noise Level (dBA, Leq)				
Noise-Sensitive Receptor[1]	Modeled Location	Existing [1]	Existing Plus Project [2]	Change in Noise Level [2] – [1]	Significance Threshold[4]	Significant?
Proposed Residences	East Valley Boulevard, eastern boundary of Plan Area[2]	69.0	69.0	0	1	No
Existing Single-Family Residences along Valley Boulevard	Valley Boulevard west of North Grand Avenue	66.3	66.4	+0.1	1	No
Existing Single-Family Residences on Magnolia Street adjacent to North Grand Avenue	Magnolia Street, west of Plan Area[3]	58.8	58.9	+0.1	3	No

[1] Noise-sensitive receptor locations nearest to the Plan Area are shown in Figure 4.9-1.

[2] Equivalent to Measurement Location 1 shown in Figure 4.9-1.

[3] Equivalent to Measurement Location 3 shown in Figure 4.9-1.

[4] Significance thresholds are from Table 4.9-6.

Source: TNM2.5, see Appendix I for noise model results.

As shown in Table 4.9-11, the Specific Plan would increase existing traffic-related noise by up to 0.1 dBA at sensitive receptors along Grand Avenue and Valley Boulevard. However, the project would not exceed the applied FTA significance thresholds at any receptor location near the Plan Area. Therefore, the project's traffic noise impacts would be less than significant.

Mitigation Measures

No mitigation required.

Impact N-5 ALTHOUGH THE EFFECT OF AMBIENT NOISE ON A PROPOSED PROJECT IS NOT AN ANALYSIS REQUIREMENT UNDER CEQA, THE EXISTING NOISE LEVELS AT THE PLAN AREA ARE PROVIDED FOR PUBLIC DISCLOSURE. THE PLAN AREA WOULD NOT BE EXPOSED TO NOISE LEVELS THAT EXCEED THE CITY'S LAND USE COMPATIBILITY STANDARDS. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Although the analysis of ambient noise on a project site is not a requirement under CEQA, the proposed project would be exposed to ambient traffic noise levels from East Valley Boulevard, which is the primary source of noise near the Plan Area. The proposed single-family residences would be new noise-sensitive receptors on the Plan Area. Proposed residences would also be exposed to other infrequent and temporary sources of noise, such as landscape maintenance noise from existing residences to the north and west and overhead aircraft noise from commercial planes. In addition, as discussed in Section 2, *Project Description*, there is a helipad at the north end of the sheriff's station adjacent to the southwestern corner of the Plan Area. However, the helipad is utilized on an intermittent, as–needed basis, and does not have a set schedule for use (LASD 2019). Therefore, infrequent use of the helipad would not substantially affect the daily noise environment at the Plan Area. Traffic noise levels from surrounding roadways, including East Valley Boulevard, remain the primary sources of noise near the Plan Area.

Existing ambient sound levels were measured during a site visit on February 28, 2018 (see Table 4.9-2 for measurement results). These measurements represent the average noise level (Leq) over a 15-minute time period during the AM peak traffic hour at the Plan Area and at nearby sensitive receptors (see Figure 4.9-1 for sound measurement locations). As shown in Table 4.9-2, measured noise levels in the vicinity of the Plan Area range from approximately 48.8 dBA Leq to 76.0 dBA Leq. Because the Plan Area is located in a suburban area, the peak hourly Leq at the Plan Area would be roughly equal to the daily CNEL value. Therefore, the current CNEL in the Plan Area vicinity ranges from about 49 dBA to 76 dBA.

Proposed residences and commercial uses would be exposed to noise levels from traffic on East Valley Boulevard. As shown in Table 4.9-2 , traffic noise along East Valley Boulevard was measured at 76.0 dBA Leq (or 76 dBA CNEL) at 40 feet from the centerline. According to the City's adopted exterior noise standards shown in Table 4.9-3, noise exposure levels up to 60 dBA CNEL are normally acceptable and noise exposure levels between 60 dBA and 75 dBA CNEL are conditionally acceptable for medium-density residential development. Based on the Specific Plan, proposed small-lot multi-family residences would be located approximately 150 feet from the centerline of East Valley Boulevard. At this distance, the traffic noise level from East Valley Boulevard would attenuate to approximately 70 dBA CNEL at the property line of these residences based on an attenuation rate of 3 dBA per doubling of distance for heavily traveled roads (FTA 2006). According to project plans (see Figure 2-5 of Section 2, *Project Description*), the proposed small-lot multi-family residences would also include six-feet tall perimeter walls with solid glass at backyards facing East Valley Boulevard. As discussed under Section 4.9.1, *Setting*, a solid wall that breaks the line-of-sight generally reduces noise levels by 5 to 10 dBA (FTA 2006). Using the United States Department of Housing and Urban Development (HUD) Barrier Performance Module, a six-foot solid wall at proposed residences would reduce traffic noise levels from Valley Boulevard by at least 10 dBA, which would result in a noise exposure level of 60 dBA CNEL (70 dBA minus 10 dBA) at on-site residences (HUD 2018). See Appendix I for HUD Barrier Performance Module calculations. Assuming that the residences facing East Valley Boulevard would be exposed to traffic noise levels up to 60 dBA CNEL, the proposed project could be exposed to normally acceptable noise levels. Although spontaneous traffic noise levels (e.g., vehicle honks and air-brakes) at proposed residences would be a potential annoyance for project occupants in outdoor areas, passing vehicles would generate an intermittent noise

source and occupants would have the option of retiring indoors. Furthermore, the manner in which buildings in California are constructed typically provides a reduction of exterior-to-interior noise levels of up to 25 dBA with closed windows (FTA 2006). Therefore, based on an exterior noise level up to 60 dBA CNEL, interior noise at would be approximately 35 dBA CNEL and compliant with the CCR Title 24 interior noise standard of 45 dBA CNEL. Impacts would be less than significant.

Mitigation Measures

No mitigation required.

c. Cumulative Impacts

The planned and pending projects in the vicinity of the Plan Area are listed in Table 3-1 (see Section 3, *Environmental Setting*), which primarily include residential projects but also include retail projects, industrial projects, various office buildings, and anticipated school enrollment growth. Cumulative construction noise impacts would consist of the combined noise impacts from the construction and of the proposed Specific Plan and other planned projects in the cities of Walnut, Diamond Bar, Industry, and Pomona, which would potentially generate noise levels in substantial excess of existing ambient noise levels. The nearest planned project consists of a proposed industrial development located at 22122 Valley Boulevard in the City of Pomona across Valley Boulevard east of the Plan Area. However, construction activity associated with the proposed Specific Plan and industrial development would comply with construction activity standards in the City of Pomona Municipal Code Section 18-305(3) (i.e., noise from construction exempted provided such activities occur between 7:00 AM and 8:00 PM on weekdays, and do not occur on Saturdays, Sundays, or national holidays) and WMC Section 3.40.040(A) (i.e., construction activity permitted between 7:00 AM and 8:00 PM on weekdays, and is prohibited on Saturdays, Sundays, and national holidays). Therefore, construction activity would occur during the daytime and would not expose receptors to construction noise during hours when people normally sleep, and would not result in significant vibration impacts. Although daytime construction noise would increase ambient noise levels at adjacent noise sensitive receptors, the City does not consider construction noise occurring within permitted hours to be a nuisance or result in an annoyance that is unique in an urban environment, and construction noise would occur across the Plan Area's 49 acres, the majority of which is located a substantial distance from residences. Finally, although compliance with the City's construction noise ordinance would reduce impacts to less than significant, implementation of Mitigation Measures N-1a through N-1i would reduce noise levels associated with temporary construction activities. Therefore, the proposed project would not substantially contribute to temporary cumulative construction noise and vibration impacts.

Cumulative operational noise impacts would consist of combined operational noise of the project in conjunction with planned projects in the vicinity of the Plan Area, which would result in potential increases in the ambient noise level. However, as discussed under Impact N-3, operation of the proposed Specific Plan would not result in a substantial permanent noise increase at the nearby sensitive receptors. Therefore, the project would not contribute considerably to cumulative operational noise increases in the project vicinity above ambient noise levels.

Cumulative traffic noise was calculated based on cumulative and cumulative plus project traffic volumes. The results in Table 4.9-12 indicate that the project would increase cumulative traffic-related noise by up to 1 dBA along East Valley Boulevard. However, the project would not have a substantial contribution to the cumulative traffic-related noise increases on area roadways. In addition, the project would not exceed the applied FTA significance thresholds at any modeled

receptor location near the Plan Area. Therefore, project's contribution to cumulative traffic noise impacts would not be considerable.

Table 4.9-12 Pre-Project and Post-Project Cumulative Traffic Noise at Adjacent Roadways

Noise-Sensitive Receptor[1]	Modeled Location	Modeled Noise Level (dBA, Leq)			Cumulative Change in Noise Level [3] – [1]	Project Specific Change [3] – [2]	Significance Threshold[4]	Significant?
		Existing [1]	Cumulative [2]	Cumulative Plus Project [3]				
Proposed On-Site Residences	East Valley Boulevard, eastern boundary of Plan Area[2]	69.0	70.0	70.0	1.0	0	1	No
Existing Single-Family Residences along Valley Boulevard	Valley Boulevard west of North Grand Avenue	66.3	67.1	67.2	0.8	0.1	1	No
Existing Single-Family Residences on Magnolia Street adjacent to North Grand Avenue	Magnolia Street, west of Plan Area[3]	58.8	59.7	59.8	0.9	0.1	3	No

[1] Noise-sensitive receptor locations nearest to the Plan Area are shown in Figure 4.9-1.

[2] Equivalent to Measurement Location 1 shown in Figure 4.9-1

[3] Equivalent to Measurement Location 3 shown in Figure 4.9-1.

[4] Significance thresholds are from Table 4.9-6.

Source: TNM2.5, see Appendix I for noise model results

4.10 Population and Housing

This section describes the existing and projected population and housing conditions within the City of Walnut and in the surrounding Los Angeles area. This section also describes anticipated growth in population and housing directly related to development under the proposed Specific Plan.

4.10.1 Setting

a. Regional

According to the California Department of Finance (DOF), the City's 2018 estimated population is 30,457 persons, a one percent increase from its 2017 population of 30,151 (California DOF 2018). Table 4.10-1 shows the State's 2018 estimates of population, households, and housing units for the City of Walnut and Los Angeles County.

Table 4.10-1 Population, Households, and Housing Unit Estimates (2018)

	City of Walnut	Los Angeles County
Population	30,457	10,283,729
Housing Units (Total)[1]	9,022	3,546,853
Housing Units (Occupied)[2]	8,749	3,338,658
Persons/Household Ratio[3]	3.48	3.03

[1] Estimated by adding new construction and annexations and subtracting demolitions, and adjusting for units lost or gained by conversions.
[2] Estimated by applying a derived civilian vacancy rate to the estimated civilian housing units. Vacancy rates are based on 2010 Census benchmark data, adjusted to incorporate the directional changes described by the latest available American Community Survey (ACS) data.
[3] Based on 2010 Census benchmark data and adjusted by raking the current county population series into these estimates.
Source: California DOF 2018

The City's 2018 population of 30,457 is approximately 0.3 percent of the countywide population of 10,283,729, and the City's 9,022 total housing units also constitute approximately 0.3 percent of the County's 3,546,853 total housing units. The average number of persons per household in the City in 2018 is 3.48, which is approximately 15 percent higher than the countywide average of 3.03 persons per household. Table 4.10-2 shows the City's employment, housing, and population estimates for the year 2012 and forecasts for the years 2020, 2035, and 2040 from the SCAG 2016-2014 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) Demographics & Growth Forecast in comparison to Los Angeles County.

Based on the SCAG estimates of employment (jobs) and households shown in Table 4.10-2, there were 0.97 jobs per household in the City in 2012. This ratio is approximately 24.4 percent lower than the SCAG estimate of 1.30 jobs per household for all of Los Angeles County in the same year, suggesting that Walnut is somewhat "jobs poor" when compared to the county as a whole. As shown in Table 4.10-2, this situation is expected to continue based on SCAG forecasts.

Table 4.10-2 SCAG Population, Housing, and Employment Forecasts

City of Walnut	2012	2020	2035	2040
Population	29,800	31,900	32,900	33,800
Housing Units	8,700	9,800	10,100	10,400
Employment	8,400	9,100	9,600	9,900
Employment/Housing Ratio	0.97	0.93	0.95	0.95
Los Angeles County	**2012**	**2020**	**2035**	**2040**
Population	9,923,000	10,326,000	11,145,000	11,514,000
Housing Units	3,257,000	3,494,000	3,809,000	3,946,000
Employment	4,246,000	4,662,000	5,062,000	5,226,000
Employment/Housing Ratio	1.30	1.33	1.33	1.32

Source: SCAG 2016

b. Regulatory Setting

Regional Housing Needs Assessment

California's Housing Element law requires that a local jurisdiction accommodate a share of the region's projected housing needs for the planning period. This share, called the Regional Housing Needs Allocation (RHNA), is important because State law mandates that jurisdictions provide sufficient land to accommodate a variety of housing opportunities for all economic segments of the community. Compliance with this requirement is measured by the jurisdictions' ability in providing adequate land to accommodate the RHNA. SCAG, as the regional planning agency, is responsible for allocating the RHNA to individual jurisdictions within the six-county region: Los Angeles, Orange, Riverside, San Bernardino, Ventura, and Imperial. For the 2013-2021 Housing Element, the RHNA period is from January 1, 2014 through October 31, 2021. The RHNA is distributed by income category (Walnut 2014).

Regional Transportation Plan/Sustainable Communities Strategy

SCAG's RTP/SCS is a long-range regional transportation and land use network plan that provides a vision of the region's mobility and housing needs over a projection of 20 years, with consideration to economic, environmental and public health goals. The RTP/SCS identifies major challenges as well as potential opportunities associated with growth, transportation finances, the future of airports in the region, and impending transportation system deficiencies that could result from growth that is anticipated in the region. SCAG adopted its current RTP/SCS in April 2016 (SCAG 2016).

Walnut 2013-2021 Housing Element

The City's Housing Element fulfills the 2013-2021 update for a jurisdiction within the SCAG region, which covers the planning period from October 15, 2013 through October 15, 2021. The Housing

Element ensures that the City establishes policies, procedures, and incentives in its land use planning and development activities that result in the maintenance and expansion of the housing supply to adequately accommodate households currently living and expected to live in Walnut. As required by State law, the Housing Element identifies strategies and programs that focus on: (1) conserving and improving existing affordable housing; (2) providing adequate housing sites to accommodate future housing needs for all income segments of the community; (3) assisting in the development of affordable housing; (4) removing governmental constraints to housing development; and (5) promoting equal housing opportunities for all Walnut residents (Walnut 2014). For the City's 2013-2021 Housing Element update, Walnut has a RHNA allocation of 908 units, as shown in Table 4.10-3. In 2013, the City rezoned a number of properties to ensure that adequate sites were available to meet the City of Walnut's 2014-2021 RHNA. The rezoned properties have a total capacity of 1,252 housing units, the majority of which are suitable for the development of housing affordable to lower-income households based on the allowed density (Walnut 2014). The Plan Area is identified as project site #3 in the City's Housing Element. As discussed in the Housing Element, based on the allowable density of the parcels within the Plan Area, the site was identified as possibly yielding up to 762 units, of which 748 units could contribute towards the City's lower income RHNA.

Table 4.10-3 Regional Housing Needs Assessment

Income Group	RHNA Allocation (units)	Percent of Total
Extremely Low/Very Low	246	27.1%
Low	144	15.9%
Moderate	155	17.1%
Above Moderate	363	40.0%
Total	**908**	**100.0%**

Source: Walnut 2014

4.10.2 Impact Analysis

a. Methodology and Thresholds of Significance

Impacts related to population are generally social or economic in nature. Under CEQA, a social or economic change generally is not considered a significant effect on the environment unless the changes can be directly linked to a physical change. Based on the environmental checklist contained in Appendix G Section 13 (Population and Housing) of the CEQA Guidelines, impacts related to population and housing would be potentially significant if development of the Specific Plan would:

1. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure).
2. Displace substantial amounts of existing housing, necessitating the construction of replacement housing elsewhere.

3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

As discussed in the Initial Study (Appendix B), the Plan Area is currently vacant and undeveloped. Therefore, no residences would be removed and the project would not displace housing or people. No impact related to the displacement of housing or people would occur. As such, thresholds 2 and 3 are not discussed further in this section.

For purposes of this analysis, "substantial" population growth is defined as growth exceeding SCAG forecasts for the City of Walnut. For additional discussion of impacts related to the Specific Plan's potential to induce growth, refer to Section 5, *Other CEQA-Required Discussions*.

b. Project Impacts and Mitigation

Threshold 1:	Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure).

Impact PH-1 DEVELOPMENT OF THE SPECIFIC PLAN MAY DIRECTLY AND INDIRECTLY INCREASE THE CITY'S POPULATION. HOWEVER, THIS POPULATION GROWTH WOULD BE CONSISTENT WITH AND FALL WITHIN THE CITY'S HOUSING ELEMENT AND SCAG POPULATION FORECASTS. THEREFORE, THE SPECIFIC PLAN WOULD NOT INDUCE POPULATION GROWTH BEYOND THAT ALREADY PLANNED. IMPACTS RELATED TO INDUCEMENT OF SUBSTANTIAL POPULATION GROWTH WOULD BE LESS THAN SIGNIFICANT.

The proposed Specific Plan would involve construction of a residential district consisting of 290 housing units. Based on the City's average household size of 3.48 persons (see Table 4.10-1), an increase of 290 housing units would generate a population increase of approximately 1,009 residents. As shown in Table 4.10-1 and Table 4.10-2, respectively, the City's estimated 2018 population is 30,457 while the City's forecasted 2020 population is 31,900 (California DOF 2018; SCAG 2016). Assuming linear growth, population is forecast to be 32,233 in 2025, an increase of about 1,776 persons. The addition of 1,009 new residents would increase the City's existing population to 32,233, which would be approximately six percent of the City's projected growth by 2025.

The proposed Specific Plan would also involve construction of a commercial district with 30,000 square feet of retail/commercial use, which would generate employees in the Plan Area. According to the SCAG Employment Density Study Summary, there is an average of one employee per 424 square feet of commercial area in Los Angeles County (SCAG 2001). Assuming that the Specific Plan would generate one employee per 424 square feet of on-site commercial use, the total increase in employees would be approximately 71 (30,000 square feet of commercial use/424 square feet per employee). It is assumed that not all employees would become new residents of Walnut (they may, for example, already live in the City or live outside of the City after they are hired); however, if they were new residents, generated employees would create an additional population growth of 71 residents for a total estimated population growth of 1,080 residents (1,009 plus 71). This would increase the City's estimated existing population of 30,457 to 31,537, which would still be within SCAG's 2025 population forecast of 32,233 from the 2016 RTP/SCS (SCAG 2016).

The City of Walnut is a built-out City and a few remaining vacant parcels are open for future development. According to the City's Housing Element, in 2013 the City rezoned a number of properties, including the Plan Area, to ensure that adequate sites were available to meet the City's

2013-2021 RHNA of 908 units (Walnut 2014). The City's Housing element identifies the Plan Area as having a development potential/capacity of up to 762 units, with the majority being lower income units. All of the project's proposed units would fall under the above moderate-income group. However; the Housing Element notes that the City has a greater shortfall of Above Median income units (-259 units) based upon residential development capacity than it does lower income units. Construction of 290 housing units would satisfy the City's need for above moderate units, which accounts for 40 percent of the RHNA. Therefore, given that the City is mostly built-out and vacant land is limited, the increase in housing units and commercial area associated with the proposed Specific Plan would efficiently use buildable area to help meet the City's RHNA and simultaneously incorporate commercial use to increase the City's employment.

Because the Specific Plan would be consistent with the City's Housing Element and no exceedance of the population forecast is anticipated, development of the Plan Area would not induce substantial population growth and impacts would be less than significant.

Mitigation Measures

No mitigation required.

c. Cumulative Impacts

As indicated in Table 4.10-2, Walnut is expected to incrementally grow in population, housing needs, and employment through 2040. The City's population is forecasted to grow from 31,900 in 2020 to 33,800 in 2040 (six percent), the number of households is forecasted to increase from 9,800 in 2020 to 10,400 in 2040 (six percent), and the number of jobs is forecasted to grow from 9,100 in 2020 to 9,900 in 2040 (nine percent). Cumulative development projects planned in the local area, described in detail in Section 3, *Environmental Setting*, would induce population growth in the cities of Walnut, Diamond Bar, Industry, and Pomona.

Based on the cumulative project's listed in Table 3-1 in Section 3, *Environmental Setting*, planned residential projects in Walnut and adjacent cities would generate an overall population increase of 1,230 residents (208 residential units multiplied by an average household size of 3.48 for the City of Walnut, and 160 residential units multiplied by an average household size of 3.16 for the City of Diamond Bar). Approximately 724 residents of these 1,280 residents would be specifically generated in the City of Walnut due to an increase of 208 residential units in the City. In addition, the proposed West Valley Specific Plan in the City of Walnut would result in a total net increase of up to 374 residential units, which would generate an additional direct population increase of 1,302 residents (374 residential units multiplied by an average household size of 3.48 for the City) (Walnut General Plan 2018). Furthermore, Mt. San Antonio College (Mt. SAC) in the City of Walnut anticipates an enrollment increase of 7,153 students, while California State Polytechnic University, Pomona (Cal Poly Pomona) in the City of Pomona anticipates a future enrollment increase of 8,889 students. However, Mt. SAC does not offer on-campus housing for its student population. Therefore, the student population at Mt. SAC would commute to and from campus and would not result in a direct population growth in the City of Walnut. According to data from Cal Poly Pomona, there are currently 25,326 students enrolled in the university and approximately 2,400 students live on campus, which is 9.5 percent of the total student population (Cal Poly Pomona 2018a; 2018b). Based on an enrollment increase of 8,889 students, approximately 8,045 students at Cal Poly Pomona would commute to and from campus while approximately 844 students would live on-campus. Therefore, assuming that 9.5 percent of the total enrollment increase at Cal Poly Pomona would live on-campus, the City of Pomona would experience an estimated direct population

increase of 844 residents. However, because Mt. SAC and Cal Poly Pomona are primarily commuter schools, expected increase in enrollment would not generate a substantial direct population increase in the area since a majority of students would commute to and from campus.

Cumulative development projects planned in the City of Walnut and adjacent cities would generate approximately 3,376[1] residents in addition to the estimated 1,080 generated by the proposed Specific Plan. According to the California DOF, the combined existing population of the cities of Walnut, Diamond Bar, Industry, and Pomona is 244,041 (California DOF 2018). According to the SCAG RTP/SCS growth projections from 2020 to 2035, the 2025 population forecast for the cities of Walnut, Diamond Bar, Industry, and Pomona is 9,833 (SCAG 2016)[2]. Therefore, the addition of 4,456 residents (3,376 plus 1,080 estimated residents generated by the proposed Specific Plan) would increase the existing population of 244,041 to 248,497, which would not exceed the SCAG's 2025 forecast.

Based on other development specifically planned in the City of Walnut, cumulative development combined with the proposed Specific Plan would generate an estimated population increase of 3,106[3]. This would increase the City's estimated existing population of 30,457 to 33,563, which would exceed SCAG's 2025 forecast of 32,233 by 1,330 residents (SCAG 2016). However, State laws require local governments to regularly assess and plan for future growth. Future SCAG forecasts would require adjustment to reflect current planned and pending development and the City's recently adopted 2018 General Plan. In turn, individual development projects that exceed zoning code and land use designation requirements would be assessed for consistency with SCAG projections through the environmental review process. Furthermore, as discussed above, implementation of the Specific Plan would have a less than significant impact related to growth inducement. Therefore, this impact would not be cumulatively considerable.

[1] Estimated cumulative population growth based on a sum of residents generated by planned residential projects in Walnut and adjacent cities (approximately 1,230 residents), the proposed West Valley Specific Plan in the City of Walnut (approximately 1,302 residents), and the estimated on-campus student population increase of 844 students at Cal Poly Pomona.

[2] Assumes linear growth with 2025 city populations respectively reaching 59,333 in Diamond Bar, 500 in Industry, 167,767 in Pomona and 32,233 in Walnut.

[3] Estimated cumulative population growth based on a sum of residents generated by planned residential projects in Walnut (approximately 724 residents), the proposed West Valley Specific Plan in the City of Walnut (approximately 1,302 residents), and the estimated population generated by the proposed Specific Plan (1,080 residents).

4.11 Public Services and Recreation

This section provides an overview of existing public services and evaluates potential environmental impacts resulting from the provision of public service facilities to accommodate development of the proposed project. Public services addressed include fire protection services and recreational facilities in the City, including parks, trails, and open space areas.

4.11.1 Setting

a. Fire Protection

The Los Angeles County Fire Department (LACoFD) provides fire protection services for the City of Walnut. LACoFD consists of 22 battalions and 173 fire stations (LACoFD 2016). There are two fire stations currently serving the City: Fire Station No. 61 located at 20011 La Puente Road, and Fire Station No. 146 located at 20604 Loyalton Drive. Apart from the City of Walnut, Fire Station No. 61 also serves the surrounding County areas, the City of Industry, and the City of Diamond Bar. This station has a paramedics unit (Squad 61) and a fire engine (Engine 61). They respond to all emergencies including accidents, fires, swift water rescues, and hazardous material spills. Fire Station No. 146 serves the City of Walnut including Mt. San Antonio College. This station has one fire engine (Engine 146) and a barn-type structure for equipment storage. This station is known as a Critical Station, which means that it provides mutual aid to other cities, including West Covina and Diamond Bar, as well as areas in Orange County, in addition to Walnut. In the event that a mutual aid emergency exceeds a period of one half-hour, another engine is deployed to this station to respond to other emergencies that might occur (Walnut General Plan 2018).

In addition to providing emergency response services and firefighting services, LACoFD also is responsible for enforcing fire codes, providing fire inspections, assisting in planning and enforcing development standards for Very High Fire Hazard Severity Zones (VHFHSZ), and implementing the Fuel Modification Plan Check Review (LACoFD 2018). The objective of the Fuel Modification Plan Check Review is to ensure that a defensible space necessary for effective fire protection is implemented in newly constructed or remodeled homes within the VHFHSZ. Fuel modification zones are strategically placed as a buffer to open space, or areas of natural vegetation and generally would occur surrounding the perimeter of a subdivision, commercial development, or isolated development of a single-family dwelling. The Fuel Modification Unit of the LACoFD is responsible for the approval of a landscape and irrigation plan for structures located in the VHFHSZ. The process of approval consists of reviewing aspects such as structure location and type of construction, topography, slope, amount and arrangement of vegetation and overall site settings (LACoFD 2018).

b. Parks and Recreation

The City's park system consists of 12 parks that provide recreational facilities and amenities for the residents of, and visitors to, the City. Overall, the City manages approximately 105 acres of developed and undeveloped parkland. Developed acres consist of parklands that have been improved with amenities such as outdoor sports fields, turf fields, and playgrounds. Undeveloped areas consist of natural vegetation areas with limited access (Walnut General Plan 2018). Table 4.11-1 lists each park, its location in the City, its associated facilities and amenities, and the number of acres the park covers. As shown in Table 4.11-1, the largest park in the City is the 46-acre Walnut Ranch Park, which is partially undeveloped.

Table 4.11-1 City of Walnut Park Facilities and Amenities

Park	Facilities and Amenities	Developed Acres[1]
Arroyo Park 19891 Camino Arroyo	2 covered picnic tables; 1 playground area; 1 barbeque grill; 1 drinking fountain	2.7
Butterfield Park 19370 Camino Arroyo	1 multi-purpose court; 2 covered picnic tables; 1 playground area; 1 back stop; 1 drinking fountain; 1 restroom; 1 barbeque grill	4.4
Country Hollow Park Country Hollow Drive/ Parker Canyon	5 picnic tables (2 covered); exercise equipment	6.4
Creekside Park 780 Creekside Drive	3 baseball fields (3 lighted); 1 restroom/snack bar; 1 playground area; 8 picnic tables; 3 barbeque grills; 3 drinking fountains; 2 park benches; 1 volleyball court; 1 exercise equipment area	14.3
Heidelberg Park 20406 Loyalton Drive	1 covered picnic table; 1 playground area; 1 drinking fountain; 1 park bench	0.1
Lemon Creek Park 130 Avenida Alipaz	12 shaded picnic tables; 1 playground area; 3 barbeque grills; 1 fire pit; 1 drinking fountain; 1 restroom; Rowland Ranch House	2.8
Norm Ashley Park 19711 Camino De Teodoro	2 half basketball courts; 2 covered picnic tables; 1 barbeque grill; 6 benches; 1 playground area	0.4
Snow Creek Park 20633 Snow Creek Drive	1 baseball field (lighted); 4 covered picnic tables; 2 barbeque grills; 1 playground area; 1 restroom/snack bar; 2 drinking fountains	9.5
Suzanne Park 625 Suzanne Road	4 softball fields (2 lighted); 3 restrooms; 2 snack bars; 16 picnic tables (8 covered); 6 benches; 1 equestrian area; 1 playground area; 5 drinking fountains; 6 barbeque grills	13.7
Walnut Hills Park 19475 Avenida Del Sol	2 covered picnic tables; 1 playground area; 1 set volleyball poles; 1 drinking fountain	2.0
Walnut Ranch Park 10101 Amar Road	9 picnic tables; 1 restroom/snack bar; 3 lighted tennis courts; 1 playground area; 5 drinking fountains; 3 park benches; 9 bleachers; 4 lighted soccer fields	45.6[2]
Walnut Ridge Park Morningside Drive/ Somerset Drive	Open lawn area; park benches	3.3
Total Acres of Parklands		**105.2**

[1] Developed acres consist of parklands that have been improved with amenities such as outdoor sports fields, turf fields, and playgrounds. Undeveloped areas consist of natural vegetation areas with limited access are classified under open space.

[2] Includes 28.68 acres of undeveloped parkland.

Source: Walnut General Plan 2018

In addition to the developed parklands, the City's Community Services Department manages a multi-use trail system of 23.5 miles for hikers, equestrians, and bikers. The trail system includes seven equestrian/rest stops that provide rest areas for horses and their riders, including picnic tables, horse corrals, rails to tie horses to, and trees for shade. Trails in the City are categorized into two types: improved trails and wilderness trails. Improved trails typically consist of decomposed granite surfaces or other similar surfaces and include protective posts and railings for equestrians. They are commonly located along streets. Wilderness trails consist of unimproved dirt paths through open space areas and between properties (Walnut General Plan 2018).

The City's trail system is also supplemented by the 30-mile-long Schabarum-Skyline Trail, a regional trail facility maintained by the County of Los Angeles that bisects the City and connects open spaces in the southern San Gabriel Valley with open spaces in the San Jose Hills along the northern City border. The Trail passes through open spaces and flood control channels, extending from Covina to Whittier. The Trail allows hiking, biking, and horse riding and connects to the Schabarum Grand Spur Trail north of City limits. Overall, the City provides approximately 33 acres of open spaces within the trail system (Walnut General Plan 2018).

The City also has joint-use agreements with the Walnut Valley Unified School District and the Rowland Valley Unified School District for the use of fields, pools, gymnasiums, and other facilities for classes and recreational activities (Walnut General Plan 2018).

c. Regulatory Setting

State Policies

California Fire Code (Title 24, Part 9, California Code of Regulations)

The California Fire Code prescribes regulations consistent with nationally recognized good practices for the safeguarding, to a reasonable degree, of life and property from the hazards of fire explosion. It also addresses dangerous conditions arising from the storage, handling, and use of hazardous materials and devices; conditions hazardous to life or property in the use or occupancy of buildings or premises; and provisions to assist emergency response personnel.

California Building Code

The 2016 California Building Code (CBC) became effective January 1, 2017, including Part 9 of Title 24, the California Fire Code. Section 701A.3.2 of the CBC requires that new buildings located in any Fire Hazard Severity Zone within State Responsibility Areas, any Local Agency Very-High Fire Hazard Severity Zone, or any Wildland-Urban Interface Fire Area designated by the enforcing agency for which an application for a building permit is submitted, comply with all sections of the Chapter.

California Health and Safety Code (Sections 13000 et seq.)

This Code establishes State fire regulations, including regulations for building standards (also set forth in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

State Public Park Preservation Act (California Public Resource Code Section 5400 – 5409)

The Public Park Preservation Act of 1971 (California Public Resources Code, Sections 5400-5409) requires that any jurisdiction acquiring parkland for non-park purposes must either pay compensation that is sufficient to acquire substantially equivalent substitute parkland or provide substitute parkland of comparable characteristics.

Quimby Act (California Government Code Section 66477)

The Quimby Act was enacted in an effort to promote the availability of park and open space areas in response to the need for such facilities by residential development. The Quimby Act authorizes cities and counties to enact ordinances requiring the dedication of land and/or the payment of fees for park and/or recreational facilities for projects involving residential subdivisions. The Quimby Act states that "the dedication of land or the payment of fees, or both, shall not exceed the proportionate amount necessary to provide three acres of park area per 1,000 persons residing within a subdivision subject to this section, unless the amount of existing neighborhood and community park area, as calculated pursuant to this subdivision, exceeds that limit, in which case the legislative body may adopt the calculated amount as a higher standard not to exceed five acres per 1,000 persons residing in a subdivision subject to this section." In addition to Quimby fees, facilities can be provided by grants, donations, user fees, community fund raising events, joint ventures, and joint use agreements.

Local Policies

Walnut General Plan

The Walnut General Plan Public Safety Element includes goals and policies that address the potential risks associated with all hazards, actions the City can take to reduce these risks, and ways the City and community can take more sustainable approaches for preventing or minimizing injuries to life and damages to property (Walnut General Plan 2018). The following policies related to wildfires and fire protection are established in the Public Safety Element:

- **Policy PS-2.1: Wildfire Hazards.** Minimize the intensity of new residential development in the Very High Fire Hazard Severity Zone. Require fire protection plans for any new development located within the Very High Fire Hazard Severity Zone.
- **Policy PS-2.2: Development Review.** Involve the Fire Department in the early design state of all projects requiring public review to ensure Fire Department input and appropriate modifications and fire safe design is incorporated in future development.
- **Policy PS-2.3: Emergency Access/Evacuation:** Ensure adequate emergency access and evacuation routes for all new hillside development, including adequate ingress and egress access.
- **Policy PS-2.4: Hillside Development:** Require that new hillside development have frequent grade breaks in access routes to ensure timely response from fire personnel in an emergency situation.
- **Policy PS-2.5: Public Education:** Conduct public education for residents of hillside properties and in high fire hazard areas to provide information about defensible space, evacuation routes, fuel modification, and legal brush clearance requirements.

- **Policy PS-2.6: Fuel Modification:** Continue to monitor and require short term and long-term maintenance of fuel medication zones and vegetation clearance for hillside development and public and private roads in and adjacent to the Very High Fire Hazard Severity Zone.
- **Policy PS-2.7: Roadway Vegetation Clearance:** Develop a program that requires ongoing maintenance of vegetation clearance on public and private roads within residential hillside areas and in the Very High Fire Hazard Severity Zone.

The Walnut General Plan Conservation, Open Space, and Recreation Element addresses the City's conservation, open space, and recreation resources consisting of parks, trails, and recreational services. The following policies related to parks and recreation facilities are established in the City's Conservation, Open Space, and Recreation Element:

- **Policy COR-11.1: Park System:** Develop and maintain parks, recreational, and cultural facilities that reflect the broadest range of interests, and that meet the needs, desires, and interests of the Walnut community
- **Policy COR-11.2: Additional Parks:** Explore ways to construct additional parks to ensure adequate open space/parks are provided within walking distance to all residential areas.
- **Policy COR-11.3: Pocket Parks:** Explore ways to add additional pocket parks throughout the City to provide additional recreation amenities within areas that lack access to parks.
- **Policy COR-11.5: New Parks.** Require that all new, large residential developments provide onsite park facilities, and ensure they provide connectivity to the existing Walnut trail system.

4.11.2 Impact Analysis

a. Methodology and Significance Thresholds

The following analysis focuses on determining whether implementation of the Specific Plan would result in adverse physical impacts to the City's public services, including fire protection services and parks, and recreational facilities. Based on the environmental checklist contained in Appendix G Section 14 (Public Services) of the CEQA Guidelines, impacts related to public services and recreational facilities from implementation of the Specific Plan would be significant if it would:

1. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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

Based on the environmental checklist contained in Appendix G Section 15 (Recreation) of the CEQA Guidelines, impacts related to public services and recreational facilities from implementation of the Specific Plan would be significant if it would:

2. 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?
3. 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?

As discussed in the Initial Study (Appendix B), the Specific Plan would have a less than significant impact with respect to police protection facilities, schools, and other public facilities (Thresholds 1b through 1e). Therefore, impacts to these services are not discussed further in this section. In addition, the parks and open space associated with the proposed Specific Plan would improve recreational facilities in comparison to the existing conditions, and therefore, would not have an adverse physical effect on the environment and Threshold 3 is not discussed further. However, impacts to fire protection services and parks and recreational facilities may be significant if implementation of the Specific Plan would result in a need for new or physically altered fire protection facilities, the construction of which might have adverse environmental impacts, or increase the use of existing parks and recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated.

b. Project Impacts and Mitigation

Threshold 1a:	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental fire protection facilities, or the need for new or physically altered fire protection facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives.

Impact PS-1 DEVELOPMENT ASSOCIATED WITH THE SPECIFIC PLAN WOULD INCREASE THE CITY'S POPULATION AND, THEREFORE, INCREASE DEMAND FOR FIRE PROTECTION SERVICES. HOWEVER, THE SPECIFIC PLAN WOULD NOT CREATE THE NEED FOR NEW OR EXPANDED FIRE PROTECTION FACILITIES. IMPACTS TO FIRE PROTECTION SERVICES WOULD BE LESS THAN SIGNIFICANT.

The Specific Plan would involve construction of up to 290 residential units and up to 30,000 square feet of commercial use on a 49-acre site. No additional fire protection facilities are proposed as part of the Specific Plan. As discussed in Section 4.7, *Population and Housing*, implementation of the Specific Plan would generate an estimated population growth of 1,080 residents and increase the City's existing population of 30,457 to 31,537 persons. Therefore, buildout of the Specific Plan would incrementally increase demand for fire protection services.

The LACoFD provides fire protection services in the City. The nearest fire station to the Plan Area is Fire Station 146, located approximately 1.7 miles northwest of the Plan Area at 20604 Loyalton Drive (Walnut General Plan 2018). The Plan Area is surrounded by other residential and commercial development and, therefore, is located in a currently served area of Walnut with existing access to fire protection services. The National Fire Protection Association recommends that 90 percent of fire departments respond to calls within six minutes of receiving the request for assistance. These time recommendations are based on the demands created by a structural fire. It is critical to attempt to arrive and intervene at a fire scene prior to the fire spreading beyond the room of origin. Total structural destruction typically starts within 8 to 10 minutes after ignition. Response time is generally defined as one minute to receive and dispatch the call, one minute to prepare to respond in the fire station or field, and four minutes (or less) travel time.

According to a representative of Fire Station 146, the average response time (i.e., the time between the dispatch call and arrival at the project site) for a fire unit would be five to six minutes. In addition, final project plans would be reviewed by the Land Development Unit of the LACoFD Fire Prevention Division to ensure that adequate access is provided on-site and applicable fire prevention requirements are met (LACoFD 2018). Fire protection services would be provided to the Plan Area by both the LACoFD; based on existing mutual and automatic aid agreements, other jurisdictions can provide support in responding to emergencies as necessary.

The City of Pomona Fire Department's Fire Station 187 is slightly closer to the Plan Area, approximately 1.5 miles northeast on 3325 West Temple Avenue. According to a representative of the Pomona Fire Department, Station 187 is staffed by four personnel and houses one ladder truck. They would not need to add services or facilities as a result of the Specific Plan, and either Station 187 or Station 146 would respond to emergencies at the Plan Area as determined by dispatch based on need and ease of access (Pomona 2017). Therefore, it is not anticipated that development of the Plan Area would result in a reduction in response times elsewhere in the City.

LACoFD is also responsible for enforcing fire codes, providing fire inspections, assisting in planning and enforcing development standards for VHFHSZ areas, and implementing the Fuel Modification Plan Check Review to ensure that a defensible space is incorporated into newly constructed homes within the VHFHSZ (LACoFD 2018). However, according to CAL FIRE, the Plan Area is not located within a VHFHSZ and would not be subject to fuel modification plan review (CAL FIRE 2011). Nonetheless, development carried out under the Specific Plan would be required to comply with all applicable fire code and ordinance requirements for construction, access, water mains, fire flows, and hydrants, and would be subject to review and approval by the LACoFD prior to building permit and certificate of occupancy issuance. Development with modern materials and in accordance with current standards, inclusive of fire-resistant materials, fire alarms and detection systems, automatic fire sprinklers, would enhance fire safety and would support fire protection services.

Because the Plan Area is located in an existing service area, the proposed Specific Plan would not result in the need to expand existing fire protection facilities. In addition, the Plan Area is not located within the VHFHSZ and would not be exposed to an increased risk of wildfires. With the continued compliance with the California Fire Code and California Building Code, the proposed Specific Plan would not significantly affect community fire protection services and would not result in the need for construction of new or expanded fire protection facilities, the construction of which could cause significant environmental impacts. Impacts would be less than significant.

Mitigation Measures

No mitigation required.

Threshold 1d:	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental parks and recreation facilities, or the need for new or physically altered parks and recreation facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives.
Threshold 2:	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?

Impact PS-2 DEVELOPMENT ASSOCIATED WITH THE SPECIFIC PLAN WOULD INCREASE THE CITY'S POPULATION, WHICH WOULD INCREASE THE DEMAND FOR PARKS AND RECREATION FACILITIES. HOWEVER, THE CITY'S EXISTING PARKLAND WOULD REMAIN ABOVE THE QUIMBY ACT STANDARD OF THREE ACRES PER 1,000 RESIDENTS, SUBSTANTIAL DETERIORATION OF THE CITY'S EXISTING RECREATIONAL FACILITIES WOULD NOT OCCUR, AND THE PROPOSED ON-SITE PARKS RECREATION FACILITIES WOULD NOT ADVERSELY AFFECT THE ENVIRONMENT. THEREFORE, IMPACTS RELATED TO PARKS AND RECREATION FACILITIES WOULD BE LESS THAN SIGNIFICANT.

The City of Walnut includes 12 parks that provide approximately 105 acres of developed and undeveloped parkland for the community. In addition to the parklands, the City's Community Services Department manages a multi-use trail system of 23.5 miles for hikers, equestrians, and bikers, which include improved and wilderness trails. The City's trail system is also supplemented by the 30-mile-long Schabarum-Skyline Trail, which passes through open spaces and flood control channels, extending from Covina to Whittier. Overall, the City provides approximately 33 acres of open spaces within the trail system. In addition, the City also has joint-use agreements with the Walnut Valley Unified School District and the Rowland Valley Unified School District for the use of fields, pools, gymnasiums, and other facilities for classes and recreational activities (Walnut General Plan 2018).

As discussed in Section 4.7, *Population and Housing*, implementation of the Specific Plan would generate an estimated population growth of approximately 1,080 residents and increase the City's existing population of 30,457 to 31,537 persons. The increase in population would increase the use of off-site parks and other recreational facilities. The off-site park nearest to the Plan Area is Snow Creek Park located approximately 2,000 feet to the northwest of the Specific Plan area. Snow Creek Park is an approximately 9.5-acre park that includes a baseball field, picnic tables, barbeque grills, and a playground area. The second closest is Suzanne Park, located approximately one mile from the Plan Area. Suzanne Park is an approximately 14-acre park that includes softball fields, picnic areas, an equestrian area, a playground area, and barbeque grills.

The increase in 1,080 residents would reduce the City's ratio of public parks to residents from 3.45 acres to 3.34 acres per 1,000 residents; however, parkland ratios would remain above the Quimby Act standard of three acres of parkland for every 1,000 residents. Additionally, as discussed in Section 2.5.5, *Landscaping and Open Space*, open space would also include approximately two acres of a neighborhood park, pocket parks, and accessible open space areas. Thus, based upon the anticipated population generated by the Project and amount of open space provided in the Plan Area, the City's ratio of public parks would be approximately 3.4 acres per 1,000 residents, which is above the Quimby Act standard. Therefore, the increase in population resulting from the proposed Specific Plan would be offset by open space provided in the Plan Area. Open spaces would function as central gathering areas, and pocket parks would incorporate large shade structures, palm trees, and/or small gardens. Implementation of additional on-site parks and recreation facilities would

help offset the increase in off-site usage such that substantial deterioration of existing parks and recreation facilities would not occur. Furthermore, the project would be subject to the payment of Park Impact In-Lieu fees as described in Section 6.04 of the WMC. Therefore, the proposed Specific Plan would not result in a need for new or expanded park facilities.

The proposed on-site parks and recreation facilities would be located within the Plan Area and constructed in concurrence with the rest of the Specific Plan. As discussed in previous sections of this EIR, construction of the Specific Plan would not result in significant and unavoidable impacts related to air quality, biological resources, cultural and tribal resources, greenhouse gas emissions, or noise. In addition, operational use of the on-site parks and recreation facilities would not generate additional vehicle trips in the City since these facilities would predominately be used by future residents, employees, and visitors that would already be living, working, or shopping in the Plan Area. Therefore, impacts associated with provision of the proposed parks and recreation facilities associated with the Specific Plan would be less than significant.

Mitigation Measures

No mitigation required.

c. Cumulative Impacts

Development associated with the Specific Plan would incrementally increase the demand for fire protection services, parks, and recreational facilities. Cumulative projects planned in the local area, described in detail in Section 3, *Environmental Setting*, would involve new development in the cities of Walnut, Diamond Bar, Industry, and Pomona. As calculated under *Cumulative Impacts* in Section 4.10, *Population and Housing*, cumulative development projects planned in the City of Walnut (including the proposed Specific Plan) combined with those of adjacent cities would generate approximately 4,456 residents. However, these cities are currently served by the LACoFD. Therefore, increased demand for fire protection services would be addressed by compliance with LACoFD fire inspections and development standards as well as general regulations from the California Fire Code and California Building Code. Cumulative development would be within the existing LACoFD service area and would not require the construction of new or expanded facilities. Moreover, each project would be evaluated against existing service standards to determine whether new personnel or facilities may be required. However, as discussed above, the Specific Plan would itself not result in the need for additional facilities or create a service deficiency. Therefore, the Project would not have a cumulatively considerable impact.

Cumulative development in the City of Walnut combined with development under the proposed Specific Plan would not result in the need for new or expanded parks and recreation facilities. As calculated under *Cumulative impacts* in Section 4.10, *Population and Housing*, cumulative development (including the proposed Specific Plan) in the City of Walnut would generate an estimated population increase of 3,106. This would increase the City's estimated existing population of 30,457 to 33,563 (California DOF 2018). To maintain the supply of City parklands above the Quimby Act standard of three acres of parkland for every 1,000 residents, additional population growth associated with cumulative development would be required to remain below an estimated 4,700 persons. Based on the City's existing supply of 105.2 acres of parklands, cumulative development would decrease the City's ratio of public parks from 3.45 acres per 1,000 residents to 3.13 acres per 1,000 residents, which would meet the Quimby Act standard. As discussed above, based upon the anticipated population generated by the Project and amount of open space provided in the Plan Area, the City's ratio of public parks would be approximately 3.4 acres per

1,000 residents, which is above the Quimby Act standard. Thus, the Project would not contribute to any parkland deficiency and would not have a cumulatively considerable impact. In addition, the built-out nature of the City would generally limit citywide growth that would generate a substantial future increased demand for fire protection services, parks, and recreational facilities. Therefore, cumulative impacts to public services would be less than significant.

4.12 Transportation and Traffic

This section presents the key assumptions, methods, and results of analysis for the transportation and circulation impacts of the proposed project. This analysis is primarily based on the *Walnut Ridge Specific Plan Traffic Impact Analysis* (TIA) prepared by Kunzman Associates, Inc. (Kunzman 2019). The TIA is included in Appendix D and contain the traffic counts, level of service (LOS) calculations, and a detailed description of the traffic forecasting done for the analysis.

4.12.1 Setting

a. Existing Street System

The Plan Area, which has no assigned street number, is approximately 1,300 feet east of the Valley Boulevard/Grand Avenue intersection. The west boundary of the Plan Area is adjacent to 21701 Valley Boulevard. Regional access to the Plan Area is provided by State Route 57/60 to the south, State Route 57 to the northeast, and Interstate 10 to the north. State Route 57/60 and Interstate 10 can be accessed via Grand Avenue, which intersects Valley Boulevard west of the Plan Area. State Route 57 can be accessed via Temple Avenue, which intersects Valley Boulevard to the northeast of the project site. Key north-south roadways providing local access include Pierre Road, Brea Canyon Road, and Faure Avenue. Key east-west roadways providing local access include Amar Road, Temple Avenue, Snow Creek Drive, La Puente Road, Valley Boulevard, and Garcia Lane.

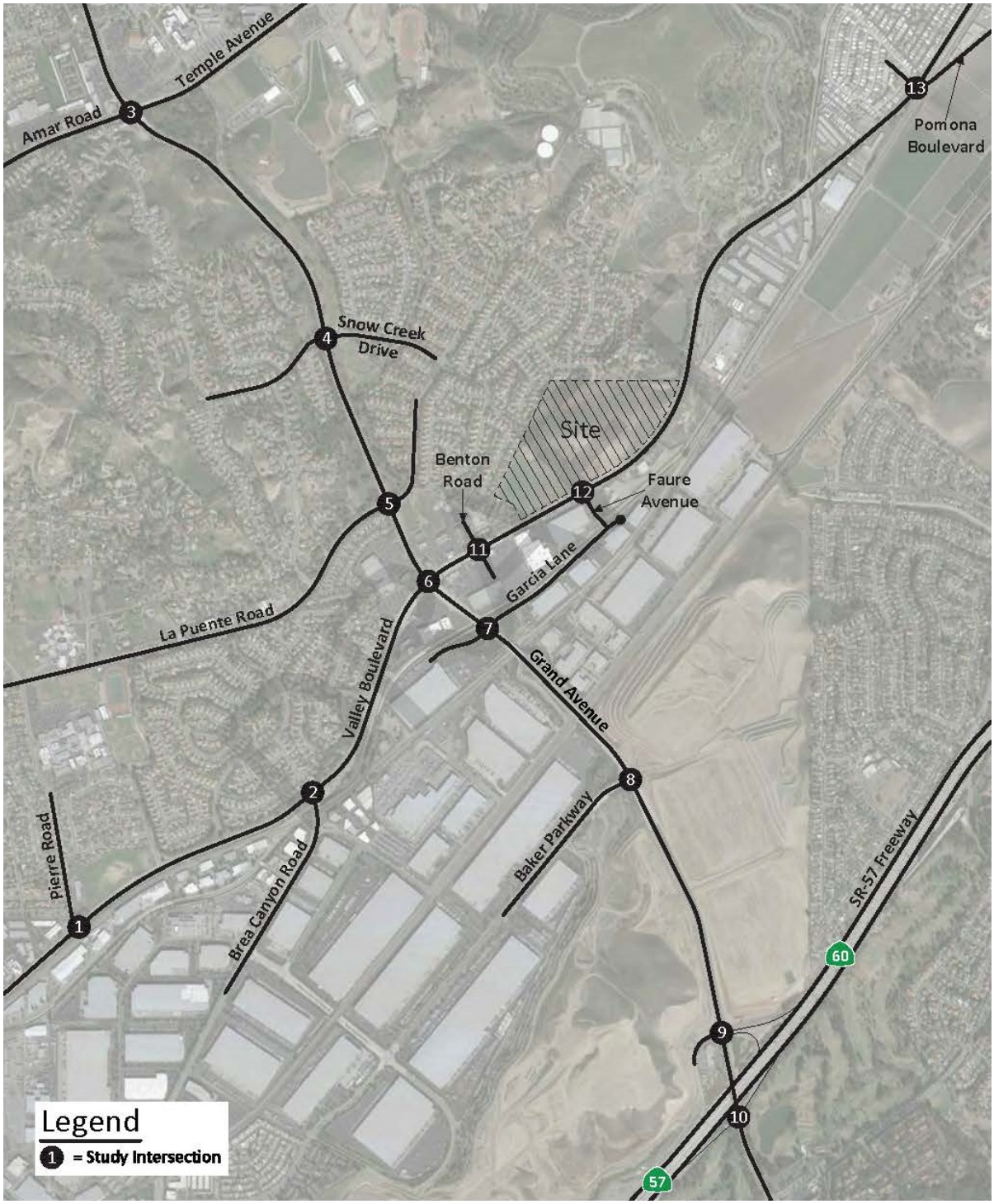
Based on scoping discussions with City staff, the study area consists of the following 13 study intersections within the City of Walnut, City of Industry, City of Pomona, Los Angeles County, and California Department of Transportation (Caltrans) jurisdiction (see Figure 4.12-1 for intersection locations):

1. Pierre Road (NS)[1] at Valley Boulevard (EW) – City of Walnut/ Los Angeles County
2. Brea Canyon Road (NS) at Valley Boulevard (EW) – Los Angeles County
3. Grand Avenue (NS) at Amar Road/Temple Avenue (EW) – City of Walnut
4. Grand Avenue (NS) at Snow Creek Drive (EW) – City of Walnut
5. Grand Avenue (NS) at La Puente Road (EW) – City of Walnut
6. Grand Avenue (NS) at Valley Boulevard (EW) – Los Angeles County
7. Grand Avenue (NS) at Garcia Lane (EW) – City of Industry
8. Grand Avenue (NS) at Baker Parkway (EW) – City of Industry
9. Grand Avenue (NS) at SR-60 Westbound Ramps (EW) – Caltrans[2]
10. Grand Avenue (NS) at SR-60 Eastbound Ramps (EW) – Caltrans
11. Benton Road (NS) at Valley Boulevard (EW) – Los Angeles County
12. Faure Avenue (NS) at Valley Boulevard (EW) – Los Angeles County
13. Pomona Boulevard (NS) at Valley Boulevard (EW) – Los Angeles County

Based on the criteria identified in the Los Angeles County Congestion Management Program (CMP), the study area includes key intersections (intersection of two roadways with collector or higher

[1] (NS) = North-South roadway; (EW) = East-West roadway
[2] SR-60 = State Route 60; also provides access to/from State Route 57

Figure 4.12-1 Traffic Study Intersections



classification) where the project is forecast to contribute 50 or more trips during the morning or evening peak commute periods. In accordance with CMP guidelines, roadway segments analysis is omitted since the Specific Plan is a long-range planning study where project definition is insufficient for meaningful intersection analysis. Here, the project is well-defined and permits analysis of the project's potential impacts on area intersections, as discussed below. Because the EIR can evaluate the project's impacts on intersections, an intersection analysis is the preferred method of evaluating roadway impacts per the CMP (see Section 5.2.4 of the CMP) and reflects potential impacts on the transportation system, roadway segments were not analyzed in this EIR. The study intersections are analyzed in accordance with the methodologies and significance criteria required by the respective jurisdictions.

Figure 2-2 in Section 2, *Project Description*, shows the location of the Plan Area and the surrounding roads in the study area. Most roadways in the project study area are local roadways and some are major arterials for the City of Walnut. The following describe the primary roadways in the study area as stated above.

Pierre Road

Pierre Road is a two-lane north-south roadway approximately 1.4 miles southwest of the Plan Area. The roadway provides one travel lane in each direction and has turn lanes at the intersection of Valley Boulevard. Land uses along Pierre Road are primarily residential with some institutional.

Brea Canyon Road

Brea Canyon Road is a four-lane north-south arterial roadway approximately 0.8 mile southwest of the Plan Area. The primary land uses along Brea Canyon near the Plan Area are industrial uses. This roadway provides two travel lanes in each direction with up to two additional continuous turn-lane pockets at the intersections.

Grand Avenue

Grand Avenue is a north-south arterial roadway approximately 0.25 mile west of the Plan Area and provides between five to six travel lanes. The roadway serves primarily residential uses north of the Valley Boulevard/Grand Avenue intersection and industrial uses south of that intersection. Grand Avenue provides between two and three travel lanes in each direction with up to two continuous turn lane pockets at intersections and protected right-turn lanes at some intersections.

Benton Road

Benton Road is a two-lane north-south roadway approximately 600 feet southwest of the Plan Area. The roadway functions as a primary driveway to the Los Angeles Sheriff's Department Walnut Office north of Valley Boulevard and to The Marketplace shopping center south of Valley Boulevard.

Faure Avenue

Faure Avenue is a two-lane north-south roadway branching south from Valley Boulevard at the south-east portion of the Plan Area. The roadway connects with Garcia Lane (running east-west) which provides access to industrial buildings approximately 500 feet south of the Plan Area.

Pomona Boulevard

Pomona Boulevard is an east-west roadway approximately 4,700 feet northwest of the Plan Area and provides four travel lanes with two lanes in each direction. The roadway branches off from Valley Boulevard to the east providing access to commercial uses west of Temple Avenue and industrial uses east of Temple Avenue.

b. Existing Public Transit

The following transit lines operate in or near the project study area with service provided by the Foothill Transit and Metropolitan Transportation Authority (Metro):

Foothill Transit Route 289

Line 289 provides service to the cities of Industry, Rowland Heights, Walnut, and Pomona. Destinations include Eastwood Village Shopping Center, Nogales high School, Walnut City Hall, Walnut Senior Center, Walnut Public Library, Mount San Antonia College, Cal Poly Pomona, and I-Poly High School. Most stops are one to two blocks apart and service is provided every hour on weekdays and bus headways are approximately two hours on weekends. The closest bus stop for Line 289 is at the Grand Avenue/La Puente Road intersection approximately 0.25 mile east of the Plan Area.

Foothill Transit Route 486

Line 486 provides service to the cities of El Monte, La Puente, Valinda, Walnut, and Pomona. Destinations include Cal Poly Pomona, I-Poly High School, Bonelli Regional County Park, Mt. San Antonio College, Galster Park, Industry Hills, Hacienda La Puente Adult Education School, El Monte Expo Center, El Monte Community Center, El Monte Senior Citizens Center, El Monte Public Library, and the Rio Hondo Bike Path. Most stops are located at every intersection along La Puente Road between Temple Avenue and Baldwin Park Boulevard. Service is provided every 15 to 25 minutes on weekdays and bus headways are approximately 30 minutes on weekends. The closest bus stop for Line 486 is at the Grand Avenue/La Puente Road intersection approximately 0.25 mile east of the Plan Area.

Metro Line 190

Foothill Transit began operating the discontinued LA Metro Line 190 in June 2016. Line 190 provides service to the cities of El Monte, Baldwin Park, Covina, and Pomona. Destinations include the Rio Hondo Bike Path, Sierra Vista High School, North Park High School, Baldwin Park High School, Kindred Hospital – San Gabriel Valley, Covina Square Shopping Center, Citrus Valley Intercommunity Hospital, Eastland Center, Mountain View High School, the San Gabriel River Trail, Mt San Antonio College, and Cal Poly Pomona. There are only five stops provided on the line. Service is provided every 30 to 40 minutes on weekdays and every 40 to 60 minutes on the weekends. The closest stop for Line 190 is at the Temple Avenue/Pomona Boulevard intersection approximately 1.3 miles northeast of the Plan Area.

Metro Line 194

Foothill Transit began operating the discontinued LA Metro Line 194 in June 2016. Line 194 provides service to the cities of El Monte, Industry, La Puente, Walnut, and Pomona. Destinations include Rio Hondo Bike Path, Five Points Plaza Shopping Center, Hacienda La Puente Adult Education School, La

Puente City Hall and Library, Mt. San Antonio College, and Cal Poly Pomona. There are five stops provided on the line. Service is provided between 20 and 40 minutes on weekdays and between 25 and 55 minutes on the weekends. The closest stop for Line 194 to the Plan Area is at the Temple Avenue/Pomona Boulevard intersection approximately 1.3 miles to the northeast.

c. Existing Bicycle Master Plan and Bicycle Facilities

Bicycle facilities generally consist of three types of facilities: Class I are multi-use or shared use paths; Class II are bike lanes; and Class III are bike routes or signed shared roadways. There are no bicycle facilities along Valley Boulevard within the project vicinity (Appendix D, Figure 8; Kunzman 2019).

d. Existing Pedestrian Facilities

A majority of the roadways in the study area have sidewalks and crosswalks, although there is currently no sidewalk provided on the north side of Valley Boulevard along the Plan Area frontage. The only other roadway that does not have lining sidewalks is Pomona Boulevard.

e. Existing Intersection and Roadway Volumes and Lane Configurations

Existing peak hour traffic volumes were based on morning and evening peak period intersection turning movement counts obtained in October 2015 and May 2016 during typical weekday conditions when local schools and universities were in session. Intersection counts were taken at all study intersections at the following times:

- Weekday morning peak-hour (7:00 AM to 9:00 AM)
- Weekday afternoon peak-hour (4:00 PM to 6:00 PM)

A traffic count comparison indicated the peak hour traffic volumes collected in October 2015 were approximately 11 percent and 15 percent greater during the morning and evening peak hours, respectively, than the traffic volumes collected in May 2016. Therefore, the morning and evening peak hour traffic volumes were increased by 11 percent and 15 percent, respectively, for locations that were only counted in May 2016. The greater peak hour traffic volumes were used for locations that were counted in both October 2015 and May 2016. An additional traffic volume comparison with more recent traffic counts collected in October 2016 demonstrated that the October 2015/adjusted May 2016 traffic volumes were higher. To provide a conservative analysis, the October 2015/adjusted May 2016 traffic volumes were used in this analysis. In addition, there have not been any major development projects surrounding the Plan Area that have contributed to substantial population growth or trip generation. Therefore, trip counts from 2016 are a reasonable reflection of current traffic patterns. Traffic count comparison and adjustment calculations are contained in Appendix C of the TIA (Appendix D of this EIR).

f. Existing Intersection Levels of Service

The operation of roadway facilities are described by the LOS, which is a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, with the least congested operating conditions, to LOS F, with the most congested operating conditions. LOS E represents “at-capacity” operations. Operations are designated as LOS F when volumes exceed capacity, resulting in stop-and-go conditions (see *Methodology and Significance Thresholds* for further explanation).

The study Intersection Capacity Utilization/Delay and LOS for existing traffic conditions have been calculated and are shown in Table 4.12-1. Existing LOS worksheets are provided in Appendix D of the TIA.

Table 4.12-1 Existing Intersection Level of Service

Intersection	Jurisdiction[1]	Control[2]	Peak Hour	ICU/Delay[3]	LOS[3]
Pierre Road (NS) at:	Walnut/LAC	TS	AM	0.866	D
Valley Boulevard (EW) - #1			PM	0.740	C
Brea Canyon Road (NS) at:	LAC	TS	AM	0.696	B
Valley Boulevard (EW) - #2			PM	0.878	D
Grand Avenue (NS) at:	Walnut	TS	AM	0.872	D
Amar Road/Temple Avenue (EW) - #3			PM	0.768	C
Snow Creek Drive (EW) - #4	Walnut	TS	AM	0.829	D
			PM	0.821	D
La Puente Road (EW) - #5	Walnut	TS	AM	0.936	E
			PM	0.885	D
Valley Boulevard (EW) - #6	LAC	TS	AM	0.828	D
			PM	0.918	E
Garcia Lane (EW) - #7	Industry	TS	AM	0.731	C
			PM	0.639	B
Baker Parkway (EW) - #8	Industry	TS	AM	0.818	D
			PM	0.554	A
SR-60 WB Ramps (EW) - #9	Caltrans	TS	AM	32.000	C
			PM	43.200	D
SR-60 EB Ramps (EW) - #10	Caltrans	TS	AM	24.700	C
			PM	20.600	C
Benton Road (NS) at:	LAC	TS	AM	0.464	A
Valley Boulevard (EW) - #11			PM	0.655	B
Faure Avenue (NS) at:	LAC	CSS	AM	>99.900	F
Valley Boulevard (EW) - #12			PM	>99.900	F
Pomona Boulevard (NS) at:	Pomona	TS	AM	18.900	B
Valley Boulevard (EW) - #13			PM	12.300	B

[1] Walnut = City of Walnut; LAC = Los Angeles County; Industry = City of Industry; Caltrans = California Department of Transportation; Pomona = City of Pomona

[2] TS = Traffic Signal; CSS = Cross Street Stop

[3] ICU = Intersection Capacity Utilization; LOS = Level of Service

Note: ICU/delay and LOS have been calculated using the following analysis software: Traffix (Version 7.9) and Vistro (Version 4.00-00). Per the Highway Capacity Manual, Level of Service is based on the average control delay of the overall intersection for intersections with traffic signal. For intersections with cross street stop control, Level of Service is based on the average delay of the worst individual lane.

Source: Kunzman 2019 (see Appendix D for the full TIA)

As shown in Table 4.12-1, a majority of the study intersections currently operate at acceptable LOS (as defined below) during the peak hours for existing traffic conditions, except for the following study intersections that operate at unacceptable LOS:

- Grand Avenue (NS) at:
  - La Puente Road (EW) - #5 (morning peak hour only)
  - Valley Boulevard (EW) - #6 (evening peak hour only)
- Faure Avenue (NS) at:
  - Valley Boulevard (EW) - #12 (both morning and evening peak hours)

As shown in Table 4.12-1, the unsignalized intersection of Faure Avenue/Valley Boulevard currently operates at LOS F during both peak periods. This is due to the relatively high volumes of free-flowing traffic on Valley Boulevard (traveling east-west), which makes it difficult to make left turns traveling westbound on Valley Boulevard into Faure Avenue, and very difficult to make eastbound right turns and westbound left-turns from Faure Avenue onto Valley Boulevard.

g. Regulatory Setting

This section includes a discussion of the applicable federal, state, and local laws, ordinances, regulations, and standards governing transportation and traffic, which must be adhered to before and during implementation of the proposed Specific Plan.

City of Walnut General Plan

The goals and policies provided in the City General Plain aim to maintain Walnut as an accessible community with well-managed traffic conditions that allows residents to easily traverse the City on safe streets and alternative access around all destinations (Walnut General Plan 2018):

Policy C-2.3: Pedestrian-enhanced Districts

Explore enhanced pedestrian designs, including but not limited to, way-finding, street trees, pedestrian-scaled street lighting, enhanced crosswalks at all legs of the intersection, automatic pedestrian signals, reduced crossing lengths, wider sidewalks, and specialty paving and seating areas.

Policy C-5.2: Transit Amenities

Require that development projects include amenities to support public transit use, such as bus stop shelters, space for transit vehicles, and pedestrian amenities (trash receptacles, signage, seating, and lighting).

Policy C-6.1: Reduce Vehicle Miles Traveled

Implement development and transportation improvements that help reduce greenhouse gas emissions by reducing per capita Vehicle Miles Traveled (VMT), reducing impacts on the City's transportation network and maintaining the desired levels of service for all modes of transportation.

Policy C-7.3: Adaptable Parking Areas

Plan for larger surface parking areas, including above or underground parking garages to have long-term development plans for land use recycling that could accommodate other beneficial land uses for the City as the expected demand for driving and parking spaces drop.

Policy C-11.1: Truck Routes

Ensure that regional truck traffic stays on designated truck routes and away from neighborhoods. Evaluate routing designations dynamically as the intensity of truck travel fluctuates over time. Establish that until a suitable alternative has been proposed or if it does not interfere with planned multimodal improvements, designated regional truck routes with weight limit restrictions are Grand Avenue, La Puente Road, Nogales Street, Temple Avenue, Valley Boulevard, and Lemon Avenue.

Policy C-11.2: Truck Deliveries

Consider pickup and delivery activities associated with various land uses when approving new development, implementing projects, and improving arterials and streets. Consider additional designation crafted for evolving delivery vehicle types, purpose, and operational hours that balance minimization of impacts and allow for more efficient deliveries.

Congestion Management Program (CMP)

In Los Angeles County, ICU intersection analysis methodology is used to analyze CMP operations. In June 1990, the passage of the Proposition 111 gas tax increase required urbanized areas in the state with a population of 50,000 or more to adopt a CMP. Metro is the Congestion Management Agency for the County. Metro has been charged with the development, monitoring, and biennial updating of Los Angeles County's CMP, which is intended to address the impact of local growth on the regional transportation system. The CMP Highway System includes specific roadways, including state highways, and CMP arterial monitoring locations/intersections. The CMP is also the vehicle for proposing transportation projects that are eligible to compete for the state gas tax funds.

New projects in the City of Walnut must comply with the Los Angeles County CMP. Appendix D-1 of the CMP includes Transportation Impact Assessment (TIA) guidelines. The TIA guidelines require analysis at monitored street intersections and segments, including freeway on- or off-ramp intersections where a project is expected to add 50 or more peak-hour vehicle trips. If a project does not add, but merely shifts, trips at a given monitoring location, the CMP analysis is not required. An evaluation of transit impacts is required by the CMP for all projects for which an EIR will otherwise be prepared.

State Senate Bill (SB) 743

California's SB 743 will eventually alter how transportation and traffic impacts are analyzed under State CEQA Guidelines. SB 743 requires the Office of Planning and Research to amend the *CEQA Guidelines* to provide an alternative to LOS as the metric for evaluating transportation impacts. A package of amendments to the CEQA Guidelines were approved on December 28, 2018 and will become effective as of April 27, 2019; however, the amendments required by SB 743 will not go into effect until July 2020. Furthermore, the amendments required by SB 743 cannot be assessed until the City of Walnut establishes or adopts new transportation study guidelines and thresholds, which is not expected to occur in the reasonably near future. Therefore, this EIR is based on the existing *CEQA Guidelines* and relies on the existing LOS criteria to evaluate potential transportation impacts.

4.12.2 Impact Analysis

a. Methodology and Significance Thresholds

The analysis of transportation system impacts employs a variety of methodologies, based on empirical research conducted by the Transportation Research Board and other authorities. The methodologies, analysis scenarios, and significance thresholds employed for the transportation and traffic impact analyses are described in the subsections below.

Intersection Capacity Utilization

Analysis of signalized intersections in the cities of Walnut and Industry, and the County of Los Angeles is based on the Intersection Capacity Utilization (ICU) methodology in accordance with guidance contained in the Los Angeles County Traffic Impact Analysis Report Guidelines (Public Works Department, January 1997). ICU methodology compares the volume of traffic using the intersection to the capacity of the intersection. The resulting ICU value represents that portion of the hour required to provide sufficient capacity to accommodate all intersection traffic if all approaches operate at capacity.

The volume to capacity (V/C) ratio is then correlated to a performance measure known as LOS based on the following thresholds. LOS is used to qualitatively describe the performance of a roadway facility, ranging from LOS A (free-flow conditions) to LOS F (extreme congestion and system failure). Table 4.12-2 describes the relationship between the various V/C ratios and the LOS for signalized intersections.

Table 4.12-2 Level of Service Definitions for Signalized Intersections (ICU)

Level of Service	Description	V/C Ratio
A	LOS A describes primarily free-flow operations at average travel speeds, usually about 90 percent of the free-flow speed for the arterial classification. Vehicles are completely unimpeded in their ability to maneuver within the traffic stream. Stopped delay at signalized intersections is minimal.	0.000-0.600
B	LOS B represents reasonably unimpeded operations at average travel speeds, usually about 70 percent of the free-flow speed for the arterial classification. The ability to maneuver within the traffic stream is only slightly restricted and stopped delays are not bothersome. Drivers are not generally subjected to appreciable tension.	0.601-0.700
C	LOS C represents stable operations; however, ability to maneuver and change lanes in mid-block locations may be more restricted that at LOS B, and longer queues, adverse signal coordination, or both may contribute to lower average speeds of about 50 percent of the average free-flow speed for the arterial classification. Motorists will experience appreciable tension while driving.	0.701-0.800
D	LOS D borders on a range in which small increases in flow may cause a substantial increase in delay and hence decreased in arterial speed. LOS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or some combination of these factors. Average travel speeds are about 40 percent of free-flow speed.	0.801-0.900
E	LOS E is characterized by significant delays and average travel speeds of one-third the free-flow speed of less. Such operations are caused by some combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.	0.901-1.000
F	LOS F characterized arterial flow at extremely low speeds below one-third to one-fourth of the free-flow speed. Intersection congestion is likely at critical signalized locations, with high delays and extensive queuing. Adverse progression is frequently a contributor to this condition.	> 1.000

Source: Kunzman 2019 (see Appendix D for the full Traffic Impact Study)

In accordance with the Los Angeles County Traffic Impact Analysis Report Guidelines (Public Works Department 1997), the ICU analysis uses the following parameters: 1,600 vehicles per hour per lane for through and turn lanes, 2,880 vehicles per hour for dual left-turn lanes, and a total yellow clearance time of 10 percent.

Highway Capacity Manual

The technique used to assess the performance of unsignalized intersections and intersections under the jurisdiction of Caltrans or the City of Pomona is known as the intersection delay method based on the procedures contained in the Highway Capacity Manual (HCM). The methodology compares the volume of traffic using the intersection to the capacity of the intersection to calculate the delay associated with the traffic control at the intersection. The intersection delay is then correlated to an LOS based on the thresholds provided in Table 4.12-3.

In accordance with the City of Pomona Traffic Impact Study Guidelines (Public Works Department, February 2012), the City of Pomona intersection analysis uses the following parameters: optimized signal timing, two second lost time per phase, 1,800 vehicles per hour per lane for through and right-turn lanes, 1,700 vehicles per hour per lane for left-turn lanes, and 1,600 vehicles per hour per lane for dual left-turn lanes. State Highway intersections are analyzed based on measured existing

peak hour factors, coordinated signal timing between freeway ramp intersections, and default saturation flow rates.

Table 4.12-3 Intersection Level of Service Definitions (HCM)

Level of Service (V/C ≤ 1.0)	Intersection Control Delay (Seconds/Vehicle)	
	Signalized Intersection	Unsignalized Intersection
A	≤ 10.0	≤ 10.0
B	> 10.0 to </= 20.0	> 10.0 to </= 15.0
C	> 20.0 to </= 35.0	> 15.0 to </= 25.0
D	> 35.0 to </= 55.0	> 25.0 to </= 35.0
E	> 55.0 to </= 80.0	> 35.0 to </= 50.0
F	> 80.0	> 50.0

Source: Kunzman 2019

Performance Standards

City of Walnut

The current City of Walnut General Plan does not identify the minimum acceptable LOS for intersections in the City of Walnut.

City of Industry

The City of Industry General Plan has established LOS D as the minimum acceptable peak hour intersection LOS for intersections in the City of Industry.

City of Pomona

The City of Pomona General Plan designates LOS targets based on the place/facility type. For the intersection of Pomona Boulevard/Valley Boulevard, LOS E is the applicable minimum acceptable LOS since Valley Boulevard is a major arterial located along a high volume vehicular corridor.

County of Los Angeles

The County of Los Angeles General Plan states that the acceptable LOS is determined on a case-by-case basis, but LOS D is generally the desired minimum acceptable LOS.

Caltrans

As stated in the Guide for the Preparation of Traffic Impact Studies (State of California, 2002), “Caltrans endeavors to maintain a target LOS [Level of Service] at the transition between LOS “C” and LOS “D” on State highway facilities.” Caltrans acknowledges this may not always be feasible and recommends consultation with Caltrans to determine the appropriate target LOS. For consistency with local requirements, this analysis defines LOS D as the minimum acceptable LOS for State Highway facilities.

Analysis Scenarios

As discussed under *Existing Intersection and Roadway Volumes and Lane Configurations*, traffic volumes and intersection counts obtained during May 2015 and October 2016 were taken during the weekday morning (7:00 AM to 9:00 AM) and evening (4:00 PM to 6:00 PM) peak hours for the following scenarios:

- **Existing (2015) Conditions.** The analysis of existing traffic conditions is intended to provide a basis for the remainder of the study. Traffic counts obtained in October 2015 and May 2016 during typical weekday conditions when local schools and universities were in session were used to establish the existing baseline trip generation.
- **Existing (2015) Plus-Project Conditions.** This traffic scenario provides projected traffic volumes and an assessment of operating conditions under existing conditions with the addition of project-generated traffic. The impacts of the proposed project on existing traffic operating conditions were then identified.
- **Future (2025) Without-Project Conditions.** Future traffic projections without the proposed project were developed for the year 2025, which is the year projected when the project will have been completed and generating trips at its ultimate potential. The objective of this analysis was to project future traffic growth and operating conditions that could be expected to result from regional growth and other developments in the vicinity of the Plan Area by the year 2025.
- **Future (2025) With-Conditions.** This traffic scenario provides traffic conditions at the study intersections with the addition of project-generated traffic for project completion in 2025. Traffic volumes for this scenario were derived by adding the project-only trips to the volumes defined for the future without-scenario. The impacts of the proposed project on future traffic operating conditions were then identified.

Significance Thresholds

Impacts related to transportation and circulation would be potentially significant if development facilitated by the proposed project would:

1. Conflict with an applicable plan, ordinance, or policy establishing a measure of effectiveness for the performance of a circulation system, taking into account all modes of transportation, including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit
2. Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways
3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks
4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)
5. Result in inadequate emergency access
6. Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities

7. Create a temporary, but prolonged impact due to lane closure, need for temporary signals, emergency vehicle access, traffic hazards to bicycles and/or pedestrians, damage to the roadbed, truck traffic on roadways not designated as truck routes, and other similar impediments to circulation during the construction period.

The Initial Study (Appendix B) determined that the proposed project would not result in impacts related to Threshold 3. Therefore, no further analysis of this threshold is necessary. Threshold 7 is not a question included in Appendix G of the CEQA Guidelines. However, construction is expected to occur for approximately 3.5 years, so this threshold has been included to analyze the potential traffic impacts during the construction period.

The County of Los Angeles CMP was created pursuant to Proposition 111 and implemented locally by Metro. The CMP for Los Angeles County requires that the traffic impacts of individual development projects of potentially regional significance be analyzed. Per CMP TIA Guidelines, a traffic impact analysis is conducted at CMP arterial monitoring intersections, where the proposed project would add 50 or more vehicle trips during either morning or afternoon weekday peak hours. The nearest CMP arterial monitoring station to the Plan Area is Station 1031 on SR 60 at South Brea Canyon Road approximately two miles southwest of the Plan Area. Based on project trip generation, none of the key intersections evaluated are CMP monitored intersections and the project would not add 50 or more peak hour trips to a CMP intersection. Furthermore, the proposed project is not forecast to contribute 150 or more peak hour trips to the nearest freeway mainline monitoring location. Therefore, further analysis of potential CMP impacts is not required.

Threshold of Impacts at Signalized Intersections

Study intersections are in the cities of Walnut, Industry, and Pomona. Significance criteria established by the respective Traffic Impact Study Guidelines for Los Angeles County, Caltrans, and the City of Pomona to assess the potential for significant project impacts at the intersections are described below.

City of Walnut, City of Industry, and Los Angeles County

As established in the Los Angeles County Traffic Impact Analysis Report Guidelines (Los Angeles County 1997), a project traffic impact is considered significant if the project-related increase in the volume to capacity ratio equals or exceeds the thresholds shown below in Table 4.12-4.

Table 4.12-4 Los Angeles County Volume to Capacity Thresholds

Pre-Project Conditions		Project-Related Volume/ Capacity Increase
LOS	Volume/Capacity	
C	0.71 - 0.80	0.04 or more
D	0.81 - 0.90	0.02 or more
E/F	0.91 - more	0.01 or more

City of Pomona

Based on the City of Pomona Traffic Impact Study Guidelines (Pomona 2012) and performance criteria established in the latest City of Pomona General Plan, a potentially significant traffic impact is defined to occur if:

- The addition of project-generated trips is forecast to cause the performance of a signalized study intersection to degrade from acceptable operation to deficient operation (i.e., Level of Service E or better degrades to Level of Service F for Pomona Boulevard/Valley Boulevard); or
- The addition of project-generated trips is forecast to increase the overall intersection delay at a signalized study intersection established to be operating deficiently under pre-project conditions.

Caltrans

Based on the Caltrans-established performance standards, a potentially significant traffic impact is defined to occur if the addition of project-generated trips is forecast to cause the performance of a State Highway study intersection to change from acceptable operation (LOS D or better) to deficient operation (LOS E or F).

If a project is forecast to cause a significant impact, feasible mitigation measures that will reduce the impact to a less than significant level will be identified. Mitigation measures can be in many forms, including the addition of lanes, traffic control modification, or demand management measures. If no feasible mitigation measures can be identified for a significantly impacted facility, the impact will remain significant and unavoidable and a statement of overriding considerations will be required.

b. Projects Impacts and Mitigation Measures

Threshold 1: Conflict with an applicable plan, ordinance, or policy establishing a measure of effectiveness for the performance of a circulation system, taking into account all modes of transportation, including mass transit and nonmotorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways, and freeways, pedestrian and bicycle paths, and mass transit

Threshold 2: Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways

City of Walnut/Industry/Los Angeles County

Quantitative Thresholds: For signalized intersections, an impact will be considered significant if traffic generated by a project causes an increase of:

- 0.040 or more on V/C with a pre-project LOS "C"
- 0.020 or more on V/C with a pre-project LOS "D"
- 0.010 or more on V/C with a pre-project LOS "E/F" or worse

City of Pomona

Quantitative Thresholds: For signalized intersections, an impact will be considered significant if:

- The addition of project-generated trips is forecast to cause the performance of a signalized study intersection to degrade from acceptable operation to deficient operation (i.e., Level of Service E or better degrades to Level of Service F for Pomona Boulevard/Valley Boulevard); or
- The addition of project-generated trips is forecast to increase the overall intersection delay at a signalized study intersection established to be operating deficiently under pre-project conditions.

Caltrans

Quantitative Thresholds A potentially significant traffic impact is defined to occur if the addition of project-generated trips is forecast to cause the performance of a State Highway study intersection to change from acceptable operation (LOS D or better) to deficient operation (LOS E or F).

Impact T-1 IMPLEMENTATION OF THE PROPOSED SPECIFIC PLAN WOULD GENERATE TRAFFIC AT STUDY AREA INTERSECTIONS, RESULTING IN SIGNIFICANT IMPACTS AT TWO OF THE 13 STUDY INTERSECTIONS. IMPLEMENTATION OF MITIGATION AT THE GRAND AVENUE/LA PUENTE INTERSECTION WOULD REDUCE IMPACTS TO A LESS THAN SIGNIFICANT LEVEL. HOWEVER, PROJECT-GENERATED TRAFFIC WOULD CAUSE THE GRAND AVENUE/VALLEY BOULEVARD INTERSECTION TO EXCEED THE THRESHOLD UNDER EXISTING PLUS PROJECT TRAFFIC CONDITIONS. BECAUSE NO FEASIBLE MITIGATION MEASURES FOR THE GRAND AVENUE/VALLEY BOULEVARD INTERSECTION WERE IDENTIFIED, IMPACTS TO THIS INTERSECTION WOULD REMAIN SIGNIFICANT AND UNAVOIDABLE.

Trip Generation and Distribution

As shown in Table 4.12-5, the proposed Specific Plan would generate an estimated 4,457 daily vehicle trips (including 339 AM peak hour and 333 PM peak hour). The project trip generation accounts for the effect of internal trips resulting from the proposed mix of commercial retail and residential land uses in the Plan Area. For example, a resident may walk to a restaurant in the Specific Plan. In this case, two vehicular trips would be reduced; one outbound trip from the residential land use and one inbound trip to the restaurant. Even if the trip is made by vehicle, it would not be added to any of the study area intersections. Internal trips during the morning and evening peak hours were calculated in accordance with procedures contained in the Institute of Transportation Engineers, Trip Generation Manual, 10th Edition (2017). The Trip Generation Manual procedures take into account inbound and outbound trips forecast to be generated by the proposed land uses to determine interaction percentages, which are then discounted from the trips generated by each individual land use. Internal trip capture worksheets are provided in Appendix B of the TIA (Appendix D of this EIR). The Specific Plan would develop up to 12 single-family detached residential dwelling units, 278 townhome residential dwelling units, and up to 30,000 square feet of commercial retail land uses. To provide a conservative analysis, the project trip generation assumes that in addition to the 12 large-lot residential dwelling units, the maximum of 201 small-lot residential dwelling units would be developed, since these generate more trips per dwelling unit compared to townhomes.

The project trip generation shown in Table 4.12-5 also accounts for pass-by trips associated with the proposed commercial retail land uses. “Pass-by trips” is used to describe trips made by vehicles that access the Plan Area on their way to another destination. In accordance with procedures contained in the Trip Generation Manual, pass-by trips are subtracted from the gross trip generation forecast because these trips are currently on the roadway and would not be new trips generated by the Plan Area. However, pass-by trips are included at the project driveways and immediately adjacent intersections.

Trip distribution is dependent upon the land use characteristics of the project, the local roadway network, and the general locations of other land uses to which project trips would originate or terminate. The forecast project trip distributions were determined in consultation with City staff based on review of existing traffic data, surrounding land uses, and the local and regional roadway facilities in the project vicinity. Directional distributions of the project trips for the residential and commercial land uses are shown in Figure 10 and Figure 11 of the TIA. Figure 12 in the study shows the directional distribution of pass-by trips at the project access points.

Intersection Analysis

Impacts to intersections were analyzed by comparing the existing (2015) V/C ratio, vehicle delay, and LOS at each study intersection to the existing (2015) and existing (2015) plus project scenario

Table 4.12-5 Project Trip Generation Estimates

Land Use[1]	Units	Weekday						
		Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			In	Out	Total	In	Out	Total
Trip Generation Rates								
Shopping Center	Per 1,000 sf	88.37	3.43	2.10	5.53	3.57	3.87	7.43
Single-family Detached	Per du	9.44	0.19	0.55	0.74	0.62	0.37	0.99
Multi-family Housing	Per du	7.32	0.11	0.35	0.46	0.35	0.21	0.56
Commercial Trips Generated								
Shopping Center	30 tsf	2,651	103	63	166	107	116	223
Internal Capture[4]	–	-265	-1	-1	-2	-11	-30	-41
Subtotal with Internal Capture	–	2,386	102	62	164	96	86	182
Pass-By (10% AM, 34% PM, 10% Daily)	–	-239	-10	-6	-16	-3	-29	-62
Subtotal with Pass by Reduction	–	2,147	92	56	148	63	57	120
Residential Trips Generated								
Single-family Detached	213 du	2,011	40	118	158	132	79	211
Multi-family Housing	77 du	564	8	27	35	27	16	43
Residential Subtotal	–	2,575	48	145	193	159	95	254
Internal Capture[4]	–	-265	-1	-1	-2	-30	-11	-41
Subtotal with Internal Capture	–	2,310	47	144	191	129	84	213
Total New Trips		**4,457**	**139**	**200**	**339**	**192**	**141**	**333**

[1] Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition, 2017.

[2] du = Dwelling Units; sf = square feet; tsf = thousand square feet

[3] Shopping Center trip generation rates were derived from the following ITE regression equations, where T = trips and X = Thousand Square Feet:

Morning Peak Hour: T = 0.50 (X) + 151.78; 62% inbound, 38% outbound

Evening Peak Hour: Ln(T) = 0.74 Ln(X) + 2.89; 48% inbound, 52% outbound

Daily: Ln(T) = 0.68 Ln(X) + 5.57

[4] Internal trip capture during the morning and evening peak hours were calculated in accordance with procedures contained in the ITE Trip Generation Handbook, 3rd Edition, 2017 (approximately 1% AM, 17% PM). Daily internal capture is approximately 10% based on Trip Generation Handbook (2nd Edition).

Source: Kunzman Associates 2019

Table 4.12-6 Intersection Level of Service – Existing (2015) and Existing (2015) Plus Project

Intersection	Peak Hour	Existing ICU/ Delay[1]	Existing LOS[3]	Existing Plus Project ICU/ Delay	Existing Plus Project LOS	V/C Ratio/ Delay Change	Significant Impact?
Pierre Road (NS) at:	AM	0.866	D	0.876	D	0.010	No
Valley Boulevard (EW) - #1	PM	0.740	C	0.748	C	0.008	No
Brea Canyon Road (NS) at:	AM	0.696	B	0.707	C	0.011	No
Valley Boulevard (EW) - #2	PM	0.878	D	0.889	D	0.011	No
Grand Avenue (NS) at:	AM	0.872	D	0.874	D	0.002	No
Amar Road/Temple Avenue (EW) - #3	PM	0.768	C	0.779	C	0.011	No
Snow Creek Drive (EW) - #4	AM	0.829	D	0.842	D	0.013	No
	PM	0.821	D	0.830	D	0.009	No
La Puente Road (EW) - #5	**AM**	**0.936**	**E**	**0.958**	**E**	**0.022**	**Yes**
	PM	**0.885**	**D**	**0.909**	**E**	**0.024**	**Yes**
With Mitigation	AM	0.963	D	0.855	D	-0.081	No
	PM	0.885	E	0.782	C	-0.103	No
Valley Boulevard (EW) - #6	**AM**	**0.828**	**D**	**0.856**	**D**	**0.028**	**Yes**
	PM	**0.918**	**E**	**0.951**	**E**	**0.033**	**Yes**
Garcia Lane (EW) - #7	AM	0.731	C	0.767	C	0.036	No
	PM	0.639	B	0.660	B	0.021	No
Baker Parkway (EW) - #8	AM	0.818	D	0.827	D	0.009	No
	PM	0.554	A	0.571	A	0.017	No
SR-60 WB Ramps (EW) - #9	AM	32.00	C	40.00	D	8.000	No
	PM	43.20	D	49.60	D	6.400	No
SR-60 EB Ramps (EW) - #10	AM	24.70	C	26.60	C	1.900	No
	PM	20.60	C	21.50	C	0.900	No
Benton Road (NS) at:	AM	0.464	A	0.489	A	0.025	No
Valley Boulevard (EW) - #11	PM	0.655	B	0.673	B	0.018	No
Faure Avenue (NS) at:	AM	>99.9	F	0.725	C	n/a	No
Valley Boulevard (EW) - #12[2]	PM	>99.9	F	0.855	D	n/a	No
Pomona Boulevard (NS) at:	AM	18.90	B	19.00	B	0.100	No
Valley Boulevard (EW) - #13	PM	12.30	B	12.50	B	0.200	No

[1] ICU = Intersection Capacity Utilization; LOS = Level of Service; ICU/delay and LOS have been calculated using the following analysis software: Traffix (Version 7.9) and Vistro (Version 4.00-00). Per the Highway Capacity Manual, Level of Service is based on the average control delay of the overall intersection for intersections with traffic signal. For intersections with cross street stop control, Level of Service is based on the average delay of the worst individual lane.

[2] The LOS for Existing Plus Project scenario includes Project Design Features PDF T-2a and PDF T-2b, as further discussed below under Impact T-2, which includes Street A/Faure Avenue at Valley Boulevard traffic controls and Street A at Shopping Center Driveway traffic controls.

V/C ratio, vehicle delay, and LOS. Table 4.12-6 shows V/C ratios, vehicle delay in seconds, and LOS at the study area intersections under both scenarios using existing conditions as a baseline. Traffic impacts created by the proposed Specific Plan were calculated by subtracting the values in the "Existing" column from the values in the "Existing Plus Project" column, which shows that implementation of the proposed project would incrementally increase the V/C ratio and vehicle delay at the study intersections.

As shown in Table 4.12-6 above, implementation of the proposed Specific Plan would generally generate minor increases in V/C ratio or vehicle delay for study intersections, although some intersections would experience V/C ratio or vehicle delay reductions with incorporation of project design features T-2a and T-2b, as further discussed below under Impact T-2. The increases would not exceed applicable significance thresholds except for the following study intersections, which are projected to operate at generally unacceptable LOS (E or F):

- Grand Avenue (NS) at:
  - La Puente Road (EW) (both morning and evening peak hours) (City of Walnut)
  - Valley Boulevard (EW) (both morning and evening peak hours) (Los Angeles County)

The V/C ratio increases experienced at both of these intersections would be approximately between 0.02 and 0.03, which exceeds the City's threshold for V/C ratio increases that result in LOS D or E at study intersections.

Mitigation Measure

The following mitigation measure would reduce potentially significant impacts to the Grand Avenue/La Puente Road intersection. However, due to existing right-of-way constraints, there are no feasible mitigation measures (see Appendix D) for the Grand Avenue/Valley Boulevard intersection.

T-1 Grand Avenue/La Puente Road

Project construction plans shall include installation of a right-turn overlap traffic signal phasing at the eastbound approach.

Significance After Mitigation

As shown in Table 4.12-6, implementation of Mitigation Measure T-1 would improve the current LOS and reduce the change in V/C ratio at the Grand Avenue/La Puente Road. Without implementation of T-1, the V/C ratio at the Grand Avenue/La Puente Road intersection would result in an increase of approximately 2 percent for both AM and PM peak hours. With implementation of T-1, the V/C ratio at the Grand Avenue/La Puente Road intersection would result in a decrease of approximately 8 and 12 percent for the AM and PM peak hours, respectively. Therefore, with mitigation, impacts to this intersection would be reduced to a less than significant level. However, because no feasible mitigation measures for the Grand Avenue/Valley Boulevard intersection were identified due to right-of-way constraints, impacts to this intersection would remain significant and unavoidable.

Threshold 4:	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Impact T-2 **THE PROJECT DRIVEWAY WOULD PROVIDE ADEQUATE SITE ACCESS AND WOULD NOT CREATE HAZARDOUS TRAFFIC CONDITIONS WITH INCORPORATION OF CIRCULATION AND ACCESS RECOMMENDATIONS PROVIDED IN THE TRAFFIC IMPACT ANALYSIS. THEREFORE, IMPACTS ASSOCIATED WITH THE PROPOSED PROJECT WOULD BE LESS THAN SIGNIFICANT.**

Access to the Plan Area (Street A) would be provided on the north leg of the existing Faure Avenue/Valley Boulevard intersection. Street A would be designed with a 68-foot right-of-way and 28-foot curb-to-curb dimension, with no parking permitted on either side of the street. Street A would be a public street providing entry to the Plan Area, and would connect to other local streets and drives within the project site providing access to the proposed residential and commercial uses.

A driveway from Street A into the commercial center (approximately 190 feet north of Valley Boulevard), is the primary access to the commercial portion of the project. In addition, a right-in/right-out only commercial access would be provided at Valley Boulevard west of the Street A – Valley Boulevard intersection. A third access point to the Plan Area would be provided at the existing southern terminus of Bridle Way which would be used for emergency vehicle access only and would ensure more than one way of entering/exiting the project site in case of emergency.

Because development of the proposed Specific Plan would add approximately 4,457 new daily trips on local roadways and the project driveways, the project could generate hazardous traffic conditions resulting in potentially significant impacts to local site access and circulation. However, all roadway improvements within the Plan Area and required as mitigation or included as a project design features would be constructed consistent with applicable regulations/standards. The following project design features would further reduce impacts.

Project Design Features

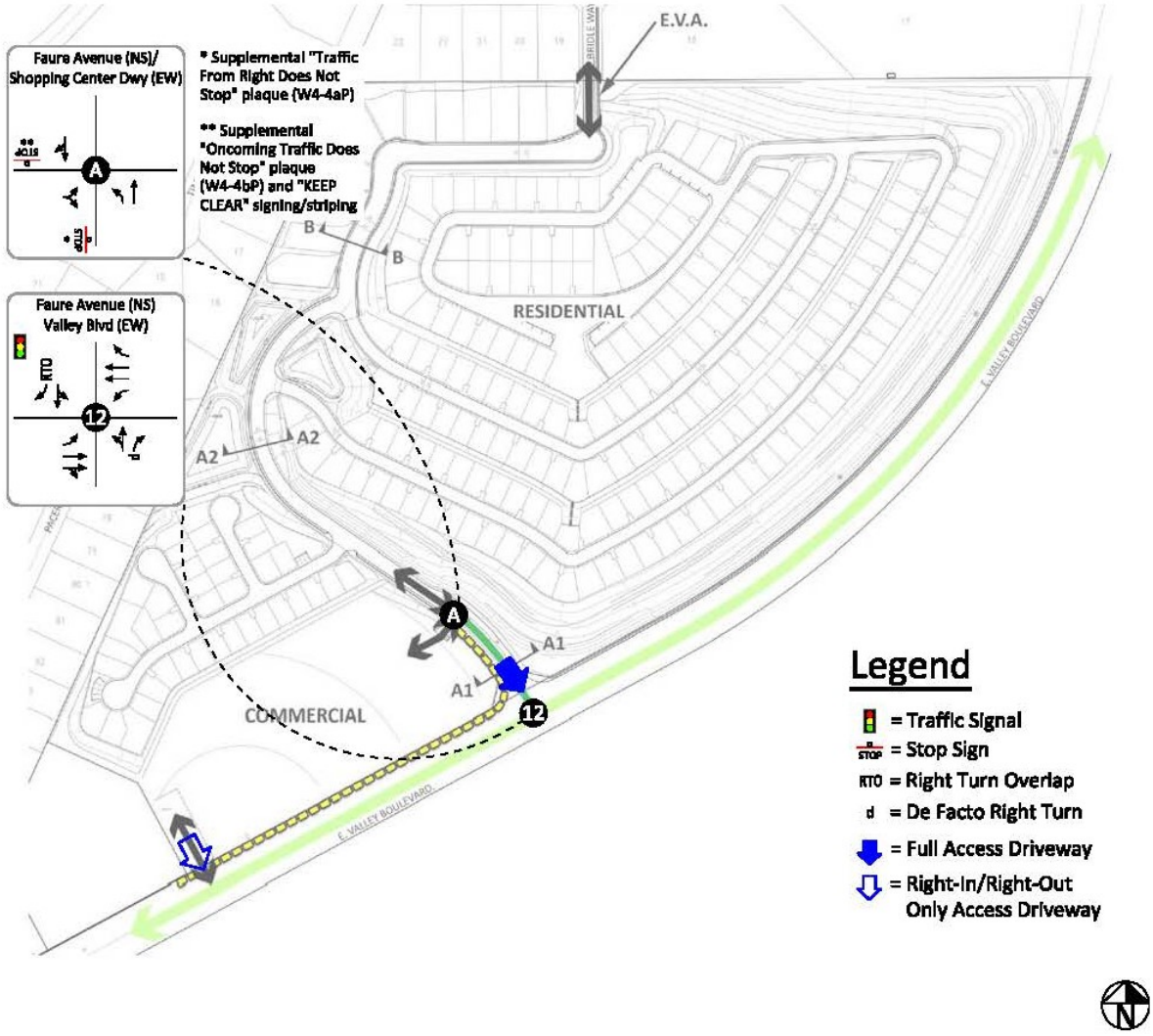
The following project design features would be implemented at (1) Faure Avenue/Street A at its - Valley Boulevard intersection and (2) the Street A - Shopping Center Driveway intersection to improve site access and circulation. Project design feature T-2a refers to the intersection of Faure Avenue/Street A at Valley Boulevard (Study Intersection #12). Project Design Feature T-2b refers to the intersection of the Shopping Center Driveway at Street A. Figure 4.12-2 depicts the circulation recommendations and site access.

T-2a Street A/Faure Avenue at Valley Boulevard Traffic Controls

The project access at Street A/Faure Avenue at Valley Boulevard shall be constructed with the following traffic control lane configuration:

- Install traffic signal;
- Construct the southbound approach to consist of one shared through/left-turn lane, and one exclusive right-turn lane with right-turn overlap traffic signal phasing;
- Construct one eastbound left-turn lane (the turn pocket length will be determined during plan check); and
- Construct one exclusive westbound right-turn lane.

Figure 4.12-2 Circulation Recommendations



Source: Kunzman Associates 2019

T-2b Street A at Shopping Center Driveway Traffic Controls

The Street A/Shopping Center Driveway intersection shall be constructed with the following traffic control and lane configuration:

- Install a STOP sign at the southbound approach supplemented with the "Oncoming Traffic Does Not Stop" plaque (W4-4bP);
- Install a STOP sign at the eastbound approach supplemented with the "Traffic From Right Does Not Stop" plaque (W4-4aP);
- Construct the northbound approach to consist of one left-turn lane and one through lane;
- Construct the southbound approach to consist of one shared through/right-turn lane;
- Construct the eastbound approach to consist of one shared left/right-turn lane; and
- "KEEP CLEAR" markings and signage should be installed in the intersection for the southbound direction.

T-2c Additional Improvements

The following improvements should be made to Valley Boulevard and proposed parking within the Plan Area:

- Re-strip Valley Boulevard to accommodate three lanes.
- Construct parkway improvements shall be provided, including modifications or enhancements to the existing median landscaping, as required by the City Traffic Engineer.
- On-site parking should be provided to meet City of Walnut parking code requirements or applicable standards as established by the Specific Plan.
- Sight distance at project access points shall comply with applicable City of Walnut sight distance standards.
- The final grading, landscaping, and street improvement plans shall demonstrate that sight distance standards are met. Such plans must be reviewed by the City and approved as consistent with this measure prior to issue of grading permits.
- On-site traffic signing and striping shall be implemented in accordance with detailed construction plans for the project and as approved by the City of Walnut.
- As is the case for any roadway design, the City of Walnut should periodically review traffic operations in the vicinity of the project once the project is constructed to assure that the traffic operations are satisfactory.

Significance After Mitigation

Incorporation of Project Design Features T-2a, T-2b, and T-2c would improve the proposed access and circulation in the Plan Area and prevent potential hazards from use of the project driveways. Therefore, impacts would be less than significant.

Threshold 5:	Result in inadequate emergency access
Threshold 7:	Create a temporary, but prolonged impact due to lane closure, need for temporary signals, emergency vehicle access, traffic hazards to bicycles and/or pedestrians, damage to the roadbed, truck traffic on roadways not designated as truck routes, and other similar impediments to circulation during the construction period.

Impact T-3 **THE PROPOSED SPECIFIC PLAN DOES NOT INCLUDE DESIGN FEATURES THAT WOULD IMPEDE EMERGENCY VEHICLE ACCESS. HOWEVER, POTENTIAL IMPACTS TO EMERGENCY ACCESS MAY OCCUR DURING THE CONSTRUCTION PERIOD. POTENTIAL IMPACTS WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.**

Valley Boulevard provides direct routes to the Plan Area for emergency vehicles. Primary access to the Plan Area would be through the proposed driveway at the proposed Street A (at the north end of Faure Avenue). Access to the commercial uses would be provided via private drives to the west. Residential uses would be accessed by traveling farther north along Street A until reaching the private drives to the east.

Construction of the proposed project has the potential to create temporary impacts to emergency access from additional construction related traffic (truck trips and construction workers). Impacts associated with construction activities are discussed under Impact T-4. Mitigation Measure T-4a requires preparation of a construction management plan that includes a traffic plan and coordination with emergency service providers. No additional mitigation is necessary for emergency access during the construction period.

The proposed Specific Plan would be required to conform to traffic and safety regulations that specify adequate emergency access measures. Plan Area development would also be required to meet the standards set forth by the City of Walnut Fire Department and Police Department. In addition, the project does not include any permanent street closures or changes in traffic flow. Therefore, impacts to emergency access during operation would be less than significant.

Mitigation Measures

Potential impacts to emergency access vehicles would be less than significant with implementation of Mitigation Measures T-4a during the construction period. Additional mitigation is not required.

Significance After Mitigation

Impacts during the construction period would be less than significant with implementation of mitigation.

Impact T-4 **CONSTRUCTION ACTIVITIES FOR THE PROPOSED SPECIFIC PLAN WOULD RESULT IN TRAFFIC IMPACTS DUE TO HAUL TRUCK TRAFFIC, EQUIPMENT AND MATERIAL DELIVERIES, WORKER TRAFFIC, WORKER PARKING, AND A TEMPORARY LANE CLOSURE ALONG VALLEY BOULEVARD. IMPACTS ASSOCIATED WITH CONSTRUCTION OF THE PROPOSED PROJECT WOULD BE LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.**

Construction traffic impacts associated with the proposed Specific Plan include trucks traveling to and from the Plan Area to remove debris, fill, and other items (haul trucks); equipment and material delivery and staging; worker traffic; and worker parking. These impacts would be limited to the approximately 4.5-year construction schedule.

Truck Traffic

Construction traffic impacts on roadway facilities would be significant if the construction creates prolonged impact due to lane closure, need for temporary signals, emergency vehicle access, traffic hazards to bicycles and pedestrians, damage to the roadbed, truck traffic on roadways not assigned as truck routes, and other similar impediments to circulation. During construction of the project, haul trucks would be regularly traveling to and from the Plan Area to remove debris and fill, and other items. The total amount of exported soil associated with excavation during construction would be approximately 85,250 cubic yards. Based on this estimate, project construction would generate approximately 3,044 truckloads throughout the grading phase assuming a 28 cy capacity of tandem haul trucks with two beds of 14 cy each. Since the eight-month grading period would be approximately 176 days (assuming 22 work days per month), the proposed project would generate an average of 17 truckloads per day, or 34 daily truck trips (to and from). Although there would be fewer trucks during the non-grading phases of construction, trucks used for transporting materials to and from the Plan Area would utilize the local street system to access and exit the Plan Area throughout the 4.5-year construction duration. The increase in truck traffic could potentially have a significant traffic impact on local roadways.

Two roadways in the vicinity of the Plan Area, Valley Boulevard and Grand Avenue, are listed as major arterial streets in the City with high average daily traffic volumes. Use of these roads for construction traffic would be necessary to access the Plan Area and frequent truck trips could significantly affect local traffic conditions.

Delivery and Staging of Material and Equipment

The transport of materials and equipment to the Plan Area would be another source of construction traffic. Some examples would be concrete, which would be needed for the proposed commercial buildings and construction of the MSE walls. Other materials could include plumbing supplies, electrical fixtures, and items used in furnishing the offices and lunchroom. These materials would have to be delivered and stored in the Plan Area. These deliveries would occur through variously sized vehicles including small delivery trucks to cement mixer trucks, and possibly 18-wheel trucks.

Heavy construction equipment would also have to be delivered to the Plan Area. This equipment would include cranes, bulldozers, excavators, and other large items of machinery. Most of the heavy equipment would be transported to the site on large trucks such as 18-wheelers or other similar sized vehicles, and the heavy equipment would remain on-site until it is no longer needed. The influx of this material and equipment could create significant impacts on the adjacent roadway network based on the following considerations:

- There may be intermittent periods when large numbers of material deliveries are required such as when concrete trucks will be needed for the commercial buildings.
- Some of the materials and equipment could require the use of large trucks (18-wheelers) that can create additional congestion on the adjacent roadways.
- Delivery vehicles may need to park temporarily on adjacent roadways such as Valley Boulevard as they deliver their items.

Worker Traffic

During the construction period, workers would generate vehicle trips along the adjacent roadways with an assumption that each employee would drive to and from work with some carpooling. Construction worker trips would temporarily add to existing daily trips along local roadways,

especially during morning and evening peak hours. It is assumed that all employees would arrive to the Plan Area during the morning peak and leave during the afternoon peak. Because local roadways in the vicinity of the Plan Area, including Valley Boulevard and Grand Avenue, are heavily traveled major arterials streets, additional worker traffic during peak hour traffic periods could significantly impact local traffic conditions. Based on the CalEEMod estimates, during the eight months of site preparation and grading there would be approximately 19 construction workers which would result in approximately 38 worker trips per day, and, as discussed above under *Truck Traffic*, there would be approximately 34 daily haul trips associated with grading. During the 45 months of building construction and architectural coating, approximately 153 workers would be onsite, which would result in approximately 566 daily worker and vendor trips. During the three months of paving, there would be approximately 9 workers, which would result in approximately 18 daily worker trips. See Appendix C for the CalEEMod data sheets. Based on these trips estimates, the trips associated with each phase of construction would be below the 4,457 daily trips, including 339 trips during the AM peak hour and 333 trips during the PM peak hour, forecast to be generated upon completion of the proposed project. In addition, as stated in Mitigation Measure T-4a, the Construction Traffic Management Plan would establish loading/unloading requirements, parking requirements, temporary lane closures, etc., and will be reviewed by the Community Development Director or their designee for each stage of construction. Such a Construction Traffic Management Plan will identify temporary traffic controls, as necessary, in accordance with State and Federal standards as prescribed in the California Manual on Uniform Traffic Control Devices.

Worker Parking

The number of workers in the Plan Area would vary through different phases of construction. Construction workers would require adequate parking on or near the Plan Area that would allow them to park for the duration of the work day. Workers parking outside of the Plan Area could impact parking in adjacent areas, including residential areas along North Pacer Court, Timberland Drive, and Roundup Drive, as well as parking for commercial uses along Valley Boulevard. This could potentially significantly affect circulation on these residential streets as workers could cause crowded parking conditions that would affect travel and access of existing residents through their neighborhood. Mitigation Measure T-4b would require the applicant to submit a Construction Workers Parking Plan identifying parking location for construction workers. To the maximum extent feasible, all worker parking shall be accommodated on the Plan Area. During construction activities when construction worker parking cannot be accommodated on the Plan Area, the Plan shall identify alternate parking locations for construction workers and specify the method of transportation to and from the Plan Area for approval by the Director of Community Development or his/her designee prior to issuance of a grading permit.

Installation of Sewer Line

As discussed in Section 4.13, *Utilities and Service Systems*, the Los Angeles County Department of Public Works or the City of Walnut would provide and operate on-site gravity sewer systems in the Plan Area. The local eight-inch sewer line along Valley Boulevard would be extended to reach two service connections at the southwest boundary of the Plan Area. One connection would serve the proposed commercial district and the other would serve the residential districts. If the responsible agencies determine there is not sufficient capacity within the existing eight-inch sewer line along Valley Boulevard, a new 10-inch sewer line would be constructed along Valley Boulevard either parallel to or totally replacing to the existing eight-inch sewer. As shown in Figure 2-11, in Section 2, *Project Description*, the new 10-inch sewer line would be located approximately 14 feet southeast of

the centerline of Valley Boulevard and would extend from the proposed project's limits approximately 1,400 linear feet to Grand Avenue where it would tie into the existing Los Angeles County Sanitation District sewer main. Construction activities would occur over a two-week period, which would require the shutdown of the interior eastbound lane for the duration of the sewer installation plus occasional shut down of a second lane; however, potential impacts associated with the lane closure for the sewer line extension would be less than significant with implementation of Mitigation Measure T-4a and limited to the temporary construction period.

Mitigation Measures

Mitigation Measures T-4a and T-4b would be required to address construction-related traffic and parking impacts.

T-4a Construction Traffic Management Plan

The applicant shall create a Construction Traffic Management Plan to minimize traffic flow interference from construction activities. The Construction Traffic Management Plan shall be subject to review and approval by the Director of Community Development or his/her designee and shall include the following components at a minimum:

- Maintain existing access for land uses in the proximity of the Plan Area during project construction.
- Schedule deliveries and pick-ups of construction materials during non-peak travel periods, to the maximum extent feasible.
- Coordinate haul trucks, deliveries and pick-ups to reduce the potential for trucks waiting to load or unload for protracted periods of time; the project shall be limited to a certain number of truck trips per hour, to be identified by the Director of Community Development.
- Minimize obstruction of through-traffic lanes on Valley Boulevard.
- Designated transport routes for heavy trucks and haul trucks to be used over the duration of the proposed project.
- No staging of trucks shall occur within the public right-of-way within the City of Walnut.
- Establish requirements for loading/unloading and storage of materials on the Plan Area where parking spaces can be encumbered and the length of time traffic travel lanes can be encumbered, and require sidewalk closings or pedestrian diversions to ensure the safety of the pedestrian and access to local businesses.
- Every stage of construction requires a traffic plan to be reviewed by the Director of Community Development or his/her designee.
- Coordinate with adjacent businesses and emergency service providers to ensure adequate access exists to the Plan Area and neighboring businesses.
- No construction worker parking at MDRS or Walnut-Diamond Bar Sheriff Station lots.

The Construction Traffic Management Plan shall be submitted and approved by the Director of Community Development or his/her designee prior to issuance of a grading permit.

T-4b Construction Workers Parking Plan

The applicant shall submit a Construction Workers Parking Plan identifying parking locations for construction workers prior to the issuance of a grading permit. To the maximum extent feasible, all worker parking shall be accommodated on the Plan Area. During construction activities when construction worker parking cannot be accommodated on the Plan Area, the Plan shall identify alternate parking locations for construction workers and specify the method of transportation to and from the Plan Area for approval by the Director of Community Development or his/her designee prior to issuance of a grading permit. The Construction Workers Parking Plan must include appropriate measures to ensure that the parking location requirements for construction workers will be strictly enforced. These include but are not limited to the following measure:

- All construction contractors shall be provided with written information on where their workers and their subcontractors are permitted to park and provide clear consequences to violators for failure to follow these regulations. This information will clearly state that no parking is permitted on residential streets including North Pacer Court, Timberland Drive, and Roundup Drive, or along Valley Boulevard.

Significance After Mitigation

Mitigation Measures T-4a and T-4b would minimize traffic interference from construction activities and potential parking impacts. Implementation of these measures would reduce impacts to a less than significant level.

Threshold 6:	Conflict with adopted policies, plans, or programs regarding public transit, bikeways, or pedestrian facilities, or otherwise substantially decrease the performance or safety of such facilities?

Impact T-5 **THE PROPOSED SPECIFIC PLAN WOULD NOT INVOLVE ANY DISRUPTIONS TO THE LOCAL ACTIVE TRANSPORTATION SYSTEM AND WOULD NOT CONFLICT WITH APPLICABLE POLICIES ASSOCIATED WITH PUBLIC TRANSIT. THEREFORE, IMPACTS WOULD BE LESS THAN SIGNIFICANT.**

Potential impacts to existing and planned transit service, bicycle facilities, and pedestrian facilities are discussed below.

Existing and Planned Transit Service

Existing transit service is provided along the project frontage on Valley Boulevard by Foothill Transit Routes 289/486 and Metro Routes 190/194. These routes also provide transit service along parts of Grand Avenue, Temple Avenue, Amar Road, and La Puente Road. There are currently no anticipated expansions of transit facilities in the vicinity of the Plan Area. The proposed driveway would be located approximately 0.25 mile north of the Grand Avenue/ Valley Boulevard intersection along Valley Boulevard. Therefore, the proposed Plan Area access to would not result in a disruption to existing transit service along Valley Boulevard or Grand Avenue.

Existing and Planned Bicycle Facilities

There are currently no bicycle facilities along Valley Boulevard in the vicinity of the Plan Area and the City of Walnut does not have a local bicycle plan. The proposed project would be required to install bike racks with commercial and residential development in the Plan Area. Therefore, there would be no impacts under the proposed Specific Plan.

Adopted Bicycle System Plans, Guidelines, Policies, or Standards

Because there are no existing or planned bicycle facilities along the project frontage, there would be no conflict with the adopted system, plan, or other standards, and no impact would occur under the proposed Specific Plan.

Existing and Planned Pedestrian Facilities

There are no existing sidewalks along the project frontage on Valley Boulevard, however the project would add a sidewalk along Valley Boulevard from the southwesterly corner of the site to the Street A intersection and would also provide a minimum of 15 feet expanse of landscaping between the proposed sidewalk and retail area. No sidewalk exists or is being provided north of Street A along Valley Boulevard since there is no sidewalk connection to the north. The proposed 68-foot wide drive at the Street A/ Faure Avenue/Valley Boulevard intersection that would provide access to the site would include a sidewalk on the left side of the driveway to connect to the existing curb along Valley Boulevard south of the driveway. This proposed sidewalk would provide pedestrian access along the roads in the Plan Area to the proposed commercial uses. Because the Plan Area is currently undeveloped, this would improve pedestrian connectivity to the surrounding community. Potential impacts would be less than significant.

Adopted Pedestrian System Plans, Guidelines, Policies, or Standards

There are no existing sidewalks along the project frontage on Valley Boulevard. There are no adopted plans to for new pedestrian facilities in or around the Plan Area. There would be no impact associated with the proposed Specific Plan.

Mitigation Measures

Mitigation is not required.

c. Cumulative Impacts

Cumulative development in the vicinity of the Plan Area would increase traffic on area roadways. Section 3, *Environmental Setting*, describes planned and pending projects in the vicinity of the Plan Area that were included in the cumulative traffic forecasts. A cumulative impacts analysis is a comparison of a Cumulative (2025) Plus Project traffic scenario to a Cumulative (2025) traffic scenario without the project. The Cumulative (2025) Plus Project peak periods turning movement volumes, corresponding lane configurations, and traffic control devices are shown in Figure 19 and Figure 20 of the TIA in Appendix D of this EIR. Raw traffic count data sheets are provided in Appendix B of the TIA. Table 4.12-7 summarizes Cumulative (2025) and Cumulative (2025) Plus Project intersection analysis.

As discussed in the analysis above,, although all study intersections are currently signalized, with the exception of Faure Avenue/Valley Boulevard which would be signalized under the proposed Specific Plan, the V/C ratio was utilized to evaluate some intersections and vehicle delay in seconds was utilized to evaluate others, including the SR-60 Ramps, Faure Avenue/Valley Boulevard, and Pomona Boulevard/Valley Boulevard.

As shown in Table 4.12-7, traffic conditions at all study intersections would generally worsen under implementation of the proposed Specific Plan. The following intersections would be projected to operate at generally unacceptable LOS (E or F) during the peak hours for Cumulative (2025) Plus Project conditions:

- **Pierre Road (NS) at:**
  - Valley Boulevard (EW) – AM and PM peak hours
- **Brea Canyon Road (NS) at:**
  - Valley Boulevard (EW) – PM peak hour
- **Grand Avenue (NS) at:**
  - Amar Road/Temple Avenue (EW) – AM and PM peak hours
  - Snow Creek Drive (EW) – AM and PM peak hours
  - La Puente Road (EW) – AM and PM peak hours
  - Valley Boulevard (EW) – AM and PM peak hours
  - Garcia Lane (EW) – PM peak hour
  - Baker Parkway (EW) – AM and PM peak hours

Although the study intersections listed above may experience worsened traffic conditions, significant impacts associated with the proposed Specific Plan would be limited to the following intersections:

- **Pierre Road (NS) at:**
  - Valley Boulevard (EW) – AM peak hour
- **Brea Canyon Road (NS) at:**
  - Valley Boulevard (EW) – PM peak hour
- **Grand Avenue (NS) at:**
  - Snow Creek Drive (EW) – AM peak hour
  - La Puente Road (EW) – AM and PM peak hours
  - Valley Boulevard (EW) –AM and PM peak hour
  - Garcia Lane (EW) – AM and PM peak hours

As shown in Table 4.12-7, although the LOS at the study intersections listed above would not change between Cumulative (2025) and Cumulative (2025) Plus Project conditions, the change in V/C ratios during the identified peak hour periods would exceed the threshold of significance, or vehicle delay would increase and result in an LOS E or F, which would exceed City of Walnut thresholds as well as other local thresholds, such as those of the City of Pomona, City of Industry and Los Angeles County.

Additionally, Caltrans is in the process of constructing the SR-57/SR-60 Confluence at Grand Avenue Project. This project includes modification and addition of freeway ramps at the Grand Avenue interchange, resulting in geometric changes to the State Highway study intersections. Figure 21 of the TIA (see Appendix D) shows the Year 2025 intersection geometry with the 57/60 confluence improvements. Figure 22 and Figure 23 of the TIA show Year 2025 Without Project With 57/60 Confluence Improvements morning and evening peak hour intersection turning movement volumes, respectively. Figure 24 and Figure 25 of the TIA show Year 2025 With Project With 57/60 Confluence Improvements morning and evening peak hour intersection turning movement volumes, respectively.

Mitigation Measures

Implementation of Mitigation Measure T-1 provided under Impact T-1, along with measures T-6a and T-6b below, would reduce potentially significant impacts to the Grand / La Puente (T-1) Pierre Road/Valley Boulevard (T6a) and the Grand Avenue/Garcia Lane (T6b) intersections. However, the improvements identified under measures T-6a and T-6b are for intersections that are outside of the jurisdiction of the City of Walnut. No feasible mitigation is available for the Snow Creek Drive/Grand Avenue, Valley Boulevard/Grand Avenue, and Brea Canyon Road/Valley Boulevard intersections due to right-of-way constraints.

T-6a Pierre Road/Valley Boulevard

The City of Walnut shall coordinate with County of Los Angeles to implement the following intersection improvements:

- Construct the southbound approach to consist of one left-turn lane and one shared left/right-turn lane.
- Modify signal timing to provide exclusive pedestrian crossing phase for the east leg.
- Restripe the westbound approach to provide a third westbound through lane.

T-6b Grand Avenue/Garcia Lane

The City of Walnut shall coordinate with City of Industry to implement the following intersection improvements:

- Restripe the northbound approach to provide one additional northbound through lane.

Significance After Mitigation

Implementation of Mitigation Measures T-1, T-6a, and T-6b would reduce impacts to less than significant at the following intersections:

- **Pierre Road (NS) at:**
  - Valley Boulevard (EW) – AM peak hour
- **Grand Avenue (NS) at:**
  - La Puente Road (EW) – AM and PM peak hours
  - Garcia Lane (EW) – AM and PM peak hours

Improvements to Pierre Road/Valley Boulevard and Grand Avenue/Garcia Lane would not fall under the jurisdiction of the City of Walnut. Mitigation would be implemented by the County of Los Angeles and the City of Industry, respectively. Therefore, the City of Walnut cannot mandate implementation of the identified improvements. Table 9 of the TIA (see Appendix D) shows the project fair share percentage of new traffic at the significantly impact intersections for which mitigation measure improvements have been identified. The project fair share is based on the proportion of project peak hour traffic contributed to the improvement location relative to the total new peak hour traffic volume. For the Pierre Road/Valley Boulevard intersection, the project fair share of the cumulative impact is 6.9% and 4.5% for the AM and PM peak hour, respectively. For the Grand Avenue/La Puente Road intersection, the project fair share of the cumulative impact is 11.8% and 8.1% for the AM and PM peak hour, respectively. For the Grand Avenue/Garcia Lane intersection, the project fair share of the cumulative impact is 5.1% and 3.3% for the AM and PM

peak hour, respectively. Traffic impacts generated by the proposed Specific Plan at these intersections would be significant and unavoidable.

In addition, improvements planned by others will result in acceptable operating conditions at the following intersections:

- SR-60 WB Ramps (EW) – AM and PM peak hours (due to planned improvements by Caltrans, see above)
- SR-60 EB Ramps (EW) – AM and PM peak hours (due to planned improvements by Caltrans, see above)

The project would not be responsible for the improvements identified above. The impacts at these intersections would remain significant and unavoidable until which time the improvements are constructed by Caltrans.

Due to existing right-of-way constraints, no feasible improvements could be identified for the intersections of Brea Canyon Road/Valley Boulevard, Snow Creek Drive/Grand Avenue and Valley Boulevard/Grand Avenue. Therefore, the impacts at these three intersections remain significant and unavoidable.

Table 4.12-7 Intersection Level of Service - Cumulative (2025) With Project and Without Project

		Cumulative (2025)		Cumulative (2025) Plus Project			
Intersection	Peak Hour	ICU/ Delay[1]	LOS	ICU/ Delay[1]	LOS	V/C Ratio/ Delay Change	Significant Impact?
Pierre Road (NS) at:	**AM**	**0.906**	**E**	**0.920**	**E**	**0.014**	**Yes**
Valley Boulevard (EW) - #1	PM	0.962	E	0.970	E	0.008	No
With Mitigation	AM	n/a	–	0.888	D	-0.018	No
	PM	n/a	–	0.859	D	-0.103	No
Brea Canyon Road (NS) at:	AM	0.814	D	0.825	D	0.011	No
Valley Boulevard (EW) - #2	**PM**	**0.969**	**E**	**0.979**	**E**	**0.010**	**Yes**
Grand Avenue (NS) at:	AM	0.999	E	1.001	F	0.002	No
Amar Road/Temple Avenue (EW) - #3	PM	0.932	E	0.937	E	0.005	No
Snow Creek Drive (EW) - #4	**AM**	**0.945**	**E**	**0.959**	**E**	**0.014**	**Yes**
	PM	1.076	F	1.085	F	0.009	No
La Puente Road (EW) - #5	**AM**	**1.022**	**F**	**1.042**	**F**	**0.020**	**Yes**
	PM	**1.056**	**F**	**1.072**	**F**	**0.016**	**Yes**
With Mitigation	AM	n/a	–	0.935	E	-0.087	No
	PM	n/a	–	0.948	E	-0.108	No
Valley Boulevard (EW) - #6	**AM**	**0.914**	**E**	**0.925**	**E**	**0.011**	**Yes**
	PM	**1.264**	**F**	**1.278**	**F**	**0.014**	**Yes**

Intersection	Peak Hour	Cumulative (2025) ICU/ Delay[1]	Cumulative (2025) LOS	Cumulative (2025) Plus Project ICU/ Delay[1]	Cumulative (2025) Plus Project LOS	V/C Ratio/ Delay Change	Significant Impact?
Garcia Lane (EW) - #7	**AM**	**0.861**	**D**	**0.896**	**D**	**0.035**	**Yes**
	PM	**1.179**	**F**	**1.200**	**F**	**0.021**	**Yes**
With Mitigation	AM	n/a	–	0.717	C	-0.144	No
	PM	n/a	–	0.883	D	-0.296	No
Baker Parkway (EW) - #8	AM	1.503	F	1.503	F	0.000	No
	PM	1.959	F	1.966	F	0.007	No
SR-60 WB Ramps (EW) - #9	**AM**	**364.7**	**F**	**>373.4**	**F**	**8.700**	**Yes**
	PM	**>1,775.6**	**F**	**>1,788.2**	**F**	**12.60**	**Yes**
With 57/60 Improvements[2]	AM	45.30	D	46.00	D	0.700	No
	PM	19.60	B	22.10	C	2.500	No
SR-60 EB Ramps (EW) - #10	**AM**	**>220.8**	**F**	**>230**	**F**	**9.200**	**Yes**
	PM	**>617.8**	**F**	**>623.9**	**F**	**6.100**	**Yes**
With 57/60 Improvements[2]	AM	46.40	D	47.90	D	1.500	No
	PM	43.20	D	46.30	D	3.100	No
Benton Road (NS) at:	AM	0.564	A	0.588	A	0.024	No
Valley Boulevard (EW) - #11	PM	0.762	C	0.780	C	0.018	No
Faure Avenue (NS) at:	AM	>99.9	F	0.873	D	n/a	No
Valley Boulevard (EW) - #12	PM	>99.9	F	0.900	D	n/a	No
Pomona Boulevard (NS) at:	AM	23.90	C	24.30	C	0.400	No
Valley Boulevard (EW) - #13	PM	14.90	B	15.30	B	0.400	No

[1] ICU = Intersection Capacity Utilization; LOS = Level of Service; ICU/delay and LOS have been calculated using the following analysis software: Traffix (Version 7.9) and Vistro (Version 4.00-00). Per the Highway Capacity Manual, Level of Service is based on the average control delay of the overall intersection for intersections with traffic signal. For intersections with cross street stop control, Level of Service is based on the average delay of the worst individual lane.

[2] Caltrans is in the process of constructing the SR-57/SR-60 Confluence at Grand Avenue Project. This project includes modification and addition of freeway ramps at the Grand Avenue interchange, resulting in geometric changes to the State Highway study intersections. Figure 21 of the Traffic Impact Analysis (see Appendix D) shows the Year 2025 intersection geometry with the 57/60 confluence improvements.

4.13 Utilities and Service Systems

This section analyzes potential impacts to utilities and service systems and evaluates the construction and operation impacts associated with the proposed project. Topics addressed include water and solid waste. Stormwater is discussed in detail in Section 4.8, *Hydrology and Water Quality*.

4.13.1 Setting

a. Wastewater

The Los Angeles County Department of Public Works (LACDPW) operates and maintains the City's wastewater infrastructure. The City of Walnut is a member of the Consolidated Maintenance District of Los Angeles County (CSMD). The collection system in the City consists of approximately 91 miles of sewer lines that discharge into the Los Angeles County Sanitation Districts' (LACSD) facilities for treatment and disposal. The system treats approximately 510 million gallons per day (mgd) (City of Walnut 2018).

Wastewater generated in the City is conveyed to the San Jose Creek Water Reclamation Plant (WRP) in unincorporated Los Angeles County near Whittier. Wastewater flows that exceed the capacity of the San Jose Creek WRP are diverted to the Joint Water Pollution Control Plant in Carson. The San Jose Creek WRP has a treatment capacity for up to 100 mgd of wastewater and on average treats 64.6 mgd of wastewater. The Joint Water Pollution Control Plant has a treatment capacity for up to 400 mgd of wastewater and in 2015 treated approximately 259 mgd of wastewater (City of Walnut 2018). Combined, these two facilities have capacity to treat 500 mgd and treat on average 323.6 mgd, and have a remaining capacity to treat 176.4 mgd of wastewater.

b. Water Supply

Four water providers serve the City of Walnut: (1) Walnut Valley Water District (WVWD) (2) Suburban Water Systems; (3) Golden State Water Company; and (4) Three Valleys Municipal Water District. Three Valleys Municipal Water District is a water wholesaler while the other three are retail providers. Each provider has adopted an Urban Water Management Plan (UWMP) pursuant to the requirements of the State of California Urban Water Management Planning Act and the Water Code. The Department of Public Works, in coordination with the water districts, helps implement the requirements of these UWMPs in Walnut.

The Plan Area is located wholly within the jurisdiction of WVWD. Figure 4.13-1 shows the service area boundaries for the WVWD in relation to the Plan Area. WVWD uses three sources of water: (1) imported water from Metropolitan Water District (MWD) and Three Valleys Municipal Water District; (2) local groundwater from the Puente and Spadra Basins, which is only used to supplement the recycled water system; and (3) recycled water from the Los Angeles County Sanitation Districts' Pomona Water Reclamation Plant. WVWD does not plan to use surface water or stormwater to meet local water supply demands (Walnut General Plan 2018). Recycled water is currently only used for irrigation and industrial applications.

Six existing groundwater production facilities located in the WVWD service area pump groundwater from the Puente and Spadra Basins. Potable quality groundwater is not available within the service area, as the local shallow aquifers contain high concentrations of total dissolved solids (TDS) and nitrate, so well water production is distributed within the recycled water system. The WVWD uses

one well to pump groundwater from the Spadra Basin and has five wells pumping from the Puente Basin. (WVWD 2016)

WVWD's 2015 UWMP utilizes population growth projections provided in SCAG's 2016 RTP/SCS to forecast water demand for its service area. Total projected water demand for areas served by WVWD is expected to be approximately 19,357 acre-feet per year (AFY) by 2020 and 21,462 AFY by 2035. Table 4.13-1 shows the actual and projected water demand for WVWD through 2035.

Table 4.13-1 Walnut Valley Water District (WVWD) Water Demand and Supply

	2015	2020 (Projected)	2025 (Projected)	2030 (Projected)	2035 (Projected)
Water Demand (AFY)	16,543	19,357	20,035	20,736	21,462
Water Supply (AFY)	16,603	20,074	20,777	21,505	22,258
Surplus (Supply – Demand) (AFY)	60	717	742	769	796

AFY: acre-feet per year
Source: WVWD 2016

In an effort to reduce its dependence on imported potable water, WVWD also operates a recycled water system for use in irrigating large landscaped areas such as parks and school grounds, which have traditionally placed a significant demand on WVWD's potable drinking water system. WVWD's recycled water distribution system originates from the Pomona Water Reclamation Plant and is entirely separate from the potable water distribution system. WVWD delivers an average of 537 million gallons annually of recycled water. The recycled water supply is augmented by groundwater from WVWD's recycled wells. WVWD requires all new developments to include irrigation meters where there may be a potential for the application of recycled water (WVWD 2016). Table 4.13-2 shows WVWD's recycled water demand projections through 2035.

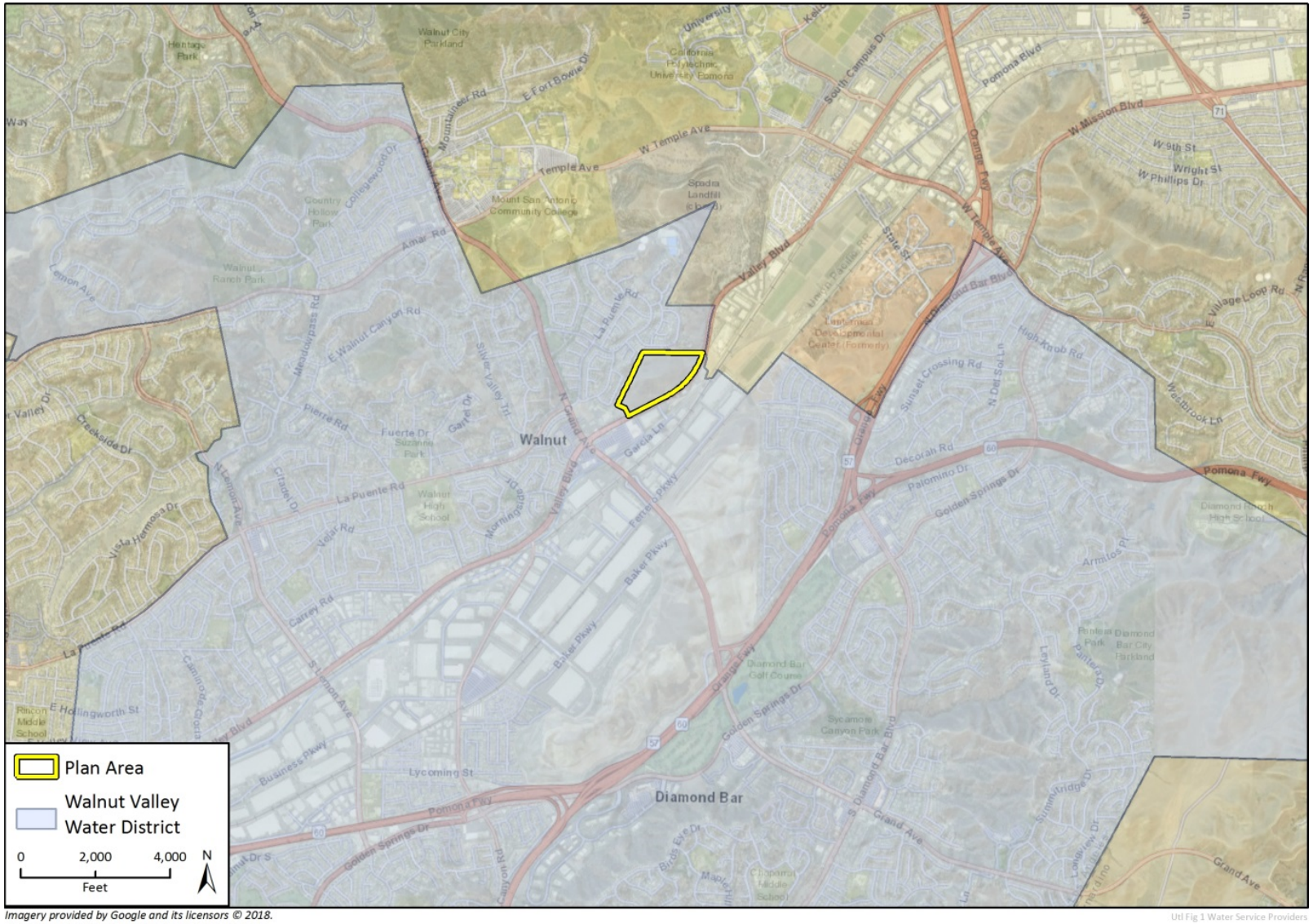
Table 4.13-2 Walnut Valley Water District (WVWD) Recycled Water Demand

	2015	2020 (Projected)	2025 (Projected)	2030 (Projected)	2035 (Projected)
Recycled Water Demand (AFY)	2,242	2,639	3,164	3,857	4,550

AFY: acre-feet per year
Source: WVWD 2016

WVWD's 2015 UWMP forecasts that water supplies will be available to meet the District's projected future water demands during normal and wet years through 2035, based on general growth estimates and supplier projections. During single- and multiple-dry years, the City expects reductions in available supply. This decrease in imported water is anticipated to be supplemented through implementation of WVWD's Water Shortage Supply Plan, which involves water efficiency measures and drought surcharges (WVWD 2016).

Figure 4.13-1 Walnut Valley Water District (WVWD) Service Area



c. Solid Waste

The City contracts with a private waste provider, Valley Vista Services, for solid waste pick up and recycling services. As part of the periodic review of solid waste contracting services, the City considers overall service capabilities of potential contractors. As landfills throughout the region near capacity and the opportunities for new landfill sites become increasingly scarce, the need to reduce solid waste generation increases as hauling trash to distant locations is costly. In response to State directives for waste reduction, the City and its contracted haulers have coordinated efforts to reduce the volume of refuse entering the waste stream. The City's foremost priority for solid waste is to reduce the volume of waste headed to landfills by ensuring contracted providers accommodate source reduction and recycling in the City. A secondary priority is to ensure efficient and cost-effective provision of services to City residents, businesses, and institutions. (Walnut General Plan 2018)

According to the California Department of Resources Recycling and Recovery (CalRecycle) Disposal Reporting System, the City of Walnut disposed 17,407 tons of solid waste in 2016, or about 3.2 pounds per day per resident according to the on-line disposal rate calculator. Over 90 percent of the solid waste generated in the City was sent to two landfills: Olinda Alpha and El Sobrante. The Olinda Alpha Sanitary Landfill, which has a remaining capacity of 34.2 million cubic yards and a permitted maximum throughput of 8,000 tons per day, received the most solid waste from the City (10,243 tons – 59 percent) (Olinda Alpha Sanitary Landfill 2018). The Olinda Alpha Sanitary Landfill receives an average daily throughput of 7,000 tons per day, leaving a daily capacity of approximately 1,000 tons per day (Orange County Waste & Recycling 2018). The El Sobrante Landfill (in Corona), which has a remaining capacity of approximately 145.5 million tons and a permitted maximum throughput of 16,000 tons per day, took in 5,806 (33 percent) tons from the City (El Sobrante Landfill 2018). The El Sobrante Landfill receives an average daily throughput of approximately 8,600 tons per day, leaving a daily capacity of approximately 7,400 tons per day (Riverside County Department of Waste Resources 2018). In 2016, the following three landfills each receive roughly two percent of the solid waste produced in the City: (1) Sunshine Canyon City/County Landfill in Sylmar (371 tons); (2) the Frank Bowerman Sanitary Landfill in Orange County (345 tons); and (3) The Azuza Land Reclamation County Landfill in Azusa (335 tons). The Mid-Valley Sanitary Landfill, in Rialto, accepted 267 tons in 2016 from The City. The following landfills each received 20 or less tons in 2016: (1) the Simi Valley Landfill and Recycling Center (20 tons); (2) the Antelope Valley Public Landfill in Palmdale (7 tons); (3) Chiquita Canyon Sanitary Landfill in Castaic (7 tons); (4) Prima Desheca Sanitary Landfill in Orange County (5 tons); (5) the Lancaster Landfill and Recycling Center (1 ton); and (7) the San Timoteo Sanitary Landfill in Redlands (1 ton). Three tons of waste were transformed for energy use at the Commerce Reuse to Energy Facility (Walnut General Plan 2018).

CalRecycle projected landfill capacity County-wide in 2011 in their Remaining Lifetime Landfill Capacity Analysis for Los Angeles County. Under a medium growth scenario, it projects 32 million tons of remaining capacity in 2025. The medium growth scenario assumes the following: (1) disposed material amounts increase due to population and medium economic growth; (2) no new facilities are built beyond those already planned, (3) no increase in recycling, and (4) current state regulations and policies continue without change (Walnut General Plan 2018).

Valley Vista Services, Inc. manages the collection of waste and provide recycling services in the City. Solid waste generated within the Plan Area would be sent to the Grand Central Recycling and Transfer Station located at 999 Hatcher Avenue in the City of Industry. This facility currently has an average annual capacity between 500,000 and 999,999 tons per year (CalRecycle 2014). Currently,

the facility has a maximum throughput of approximately 1,500 tons per day and averages around 1,000 tons per day (Grand Central Recycling and Transfer Station 2017).

d. Regulatory Setting

There are no additional federal regulations relevant to utilities and services systems. This section outlines State regulations associated with utilities and service systems.

Senate Bill 610 and SB 221

Senate Bill (SB) 610 (2002) amended California Water Code to require detailed analysis of water supply availability for certain types of development projects. The primary purpose of SB 610 is to improve the linkage between water and land use planning by ensuring greater communication between water providers and local planning agencies, and ensuring that land use decisions for certain types of development projects are fully informed as to whether sufficient water supplies are available to meet project demands. SB 610 requires the preparation of a Water Supply Assessment (WSA) for a project that is subject to CEQA and meets certain requirements, including residential developments of more than 500 dwelling units. Pursuant to SB 221, a water supply verification (WSV) would be required if the Project includes a tentative map for more than 500 dwelling units.

Urban Water Management Planning Act

In 1983 the California Legislature enacted the Urban Water Management Planning Act (Water Code Section 10610–10656). The Act states that every urban water supplier that provides water to 3,000 or more customers, or that provides over 3,000 AF annually, should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various categories of customers during normal, dry, and multiple dry years. The Act requires that urban water suppliers adopt an UWMP at least once every five years and submit it to the Department of Water Resources. Noncompliant urban water suppliers are ineligible to receive funding pursuant to Division 24 or Division 26 of the California Water Code, or receive drought assistance from the State, until the UWMP is submitted and deemed complete pursuant to the Urban Water Management Planning Act.

Assembly Bill 939 and Senate Bill 1016

The California Integrated Waste Management Act of 1989, or Assembly Bill (AB) 939, established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of all solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. In 2006, SB 1016 updated the requirements. The new per capita disposal and goal measurement system moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a factor, along with evaluating program implementation efforts. These two factors will help determine each jurisdiction's progress toward achieving its AB 939 diversion goals. The 75 percent diversion requirement is now measured in terms of per-capita disposal expressed as pounds per person per day.

Title 22 of California Code of Regulations

Title 22 regulates the use of reclaimed wastewater. Standards are prescribed for the use of treated wastewater for irrigation of parks, playgrounds, landscaping, and other non-agricultural irrigation. Regulation of reclaimed water is governed by the nine RWQCBs and the CDPH.

City of Walnut General Plan Update 2030

In May 2018, the City of Walnut approved and adopted a series of updates to all elements of its General Plan, except for the Housing Element, which was adopted in 2014 and is certified through 2021. The updates are intended to refine policies regarding long-term growth in the community through the year 2040 and to ensure that the General Plan reflects current State Law. Table 4.13-3 contains relevant General Plan policies that relate to utilities and service systems. Each General Plan goal and policy is organized by General Plan element.

Table 4.13-3 Applicable General Plan Policies Relating to Utilities and Service Systems

Regulation/Policy	Description of Regulation/Policy
Policy LCD-9.3 Sustainable Building Features	Require that development incorporate sustainability, including features that minimize energy and water use, limit carbon emissions, provide opportunities for local power generation and food production, and provide areas for recreation.
Policy COR-5.7 Water Supply	Allow new development only when it can be demonstrated that sufficient water is available over the long term to supply that development.
Policy CFI-1.2 New Development Impacts	Require that development projects fully address impacts to public facilities and services. Ensure new development pays proportional fair-share costs of public facilities through applicable fees and assessments. Ensure that existing residents and businesses are not burdened with the cost of financing facilities and services aimed at supporting new development or the intensification of existing development.
Policy CFI-1.3 Adequate Services and Facilities	Continue to allow new development and the intensification of existing development only where and when adequate public services and facilities can be provided.
Policy CFI-2.2 Mitigation Measures	Ensure that all major extensions of services, facilities, and utilities are comprehensively reviewed for related social, economic, and environmental impacts, and require that appropriate mitigation be identified and implemented.
Policy CFI-8.3 Collection and Recycling	Ensure that all development provide on-site collection facilities to meet the waste diversion requirements.
Policy CFI-8.4 Operations	Encourage public agencies and private property owners to design their operations to exceed regulatory waste diversion requirements.

Source: Walnut General Plan 2018

LCD – Land Use and Community Design (Chapter 2)

COR – Conservation, Open Space, and Recreation (Chapter 4)

CFI – Community Facilities and Infrastructure (Chapter 5)

4.13.2 Impact Analysis

a. Methodology and Significance Thresholds

Based on the environmental checklist contained in Appendix G Section XVIII, *Utilities and Service Systems*, of the CEQA Guidelines, a utilities and service systems impact is considered significant if the proposed project would:

1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
3. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
4. Not have sufficient water supplies available to serve the project from existing entitlements and resources, so that new or expanded entitlements are needed;
5. Not 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;
6. Not be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs; and/or
7. Not comply with federal, state, and local statutes and regulations related to solid waste.

Threshold 3 is addressed in Section 4.7, *Hydrology and Water Quality*. The Initial Study (Appendix B) determined that the proposed project could result in potentially significant impacts related to Thresholds 4, 6, and 7. As such, these issues are analyzed in this section of the EIR. As discussed in the Initial Study, impacts related to wastewater treatments facilities (Thresholds 1, 2 and 5) were found to be less than significant. However, plans for the expanded sewer line along Valley Boulevard were developed after the release of the Initial Study; therefore, potential impacts associated with the sewer line are discussed in the analysis under Impact U-1.

The City examined whether a water supply assessment (WSA) or water supply verification (WSV) would be required for the project pursuant to SB 610 and SB 221. A mixed-use project requires a WSA if it meets one or more of the SB 610 thresholds. A water supply verification would be required if the project includes a tentative map for more than 500 dwelling units. SB 610 requires a WSA if the project includes a commercial component of more than 250,000 sf, or a residential development of more than 500 dwelling units. The project's commercial component is 30,000 sf and the residential component proposes up to 290 dwelling units; therefore, a WSA is not required. Because the tentative map proposes less than 500 dwelling units, a WSV is not be required.

b. Project Impacts and Mitigation Measures

Threshold 1.	Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
Threshold 2.	Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
Threshold 5.	Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

IMPACT U-1 THE SAN JOSE CREEK WATER RECLAMATION PLANT AND JOINT WATER POLLUTION CONTROL PLANT WOULD BE ABLE TO ADEQUATELY TREAT PROJECT-GENERATED SEWAGE AND THE TREATMENT REQUIREMENTS OF THE RWQCB WOULD NOT BE EXCEEDED. HOWEVER, THE PROPOSED PROJECT WOULD INCLUDE EXTENSION OF THE EXISTING SEWER LINE ALONG VALLEY BOULEVARD. POTENTIAL IMPACTS WOULD BE TEMPORARY DURING THE CONSTRUCTION PERIOD, AND THE SEWER LINE EXTENSION WOULD NOT AFFECT THE FUNCTION OR CAPACITY OF THE WASTEWATER TREATMENT PLANT. THEREFORE, POTENTIAL IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Based on water demand estimates provided by CalEEMod, land uses under the proposed Specific Plan would generate a water demand of approximately 34.9 million gallons of water per year, or approximately 93,151 gallons per day (gpd). Assuming that wastewater generation is 80 percent of total water demand, the Specific Plan would generate approximately 74,521 gpd of wastewater. The Specific Plan's estimated wastewater would be about 0.04 percent of the remaining capacity of 176.4 mgd at the San Jose Creek WRP and Joint Water Pollution Control Plant. As such, the Specific Plan would not generate wastewater such that the two facilities would require the expansion of existing facilities. Therefore, impacts to wastewater facilities would be less than significant.

The Los Angeles County Department of Public Works or the City of Walnut would provide and operate on-site gravity sewer systems in the Plan Area. The local eight-inch sewer line along Valley Boulevard would be extended to reach two service connections at the southwest boundary of the Plan Area. One connection would serve the proposed commercial district and the other would serve the residential districts. If the responsible agencies determine there is not sufficient capacity within the existing eight-inch sewer line along Valley Boulevard, a new ten-inch sewer line would be constructed along Valley Boulevard either parallel to or totally replacing the existing eight-inch sewer. As shown in Figure 2-11, in Section 2, *Project Description*, the new ten-inch sewer line would be located approximately 14 feet southeast of the centerline of Valley Boulevard and would extend from the proposed project's limits approximately 1,400 linear feet to Grand Avenue where it would tie into the existing Los Angeles County Sanitation District sewer main. Construction activities would occur over a two-week period, which would require the shutdown of the interior eastbound lane for the duration of the sewer installation plus occasional shut down of a second lane. As discussed in Section 4.11, *Transportation and Traffic*, potential impacts associated with the lane closure for the sewer line extension would be less than significant with implementation of Mitigation Measure T-4a and limited to the temporary construction period.

The project site is located in the service area of the County of Sanitation Districts of Los Angeles County (Districts). Under the California Health and Safety Code, the Districts charge connection fees to the District's Sewerage System for increasing the strength or quantity of wastewater discharged

from connected facilities. This connection fee is a capital facilities fee that is imposed on proposed projects in an amount cumulatively sufficient to permit expansion of the Sewerage System as necessary to accommodate increased demand from proposed development. As such, the project applicant would be required to pay a sewer connection fee prior to the issuance of a sewer connection permit which would offset any project impacts to the sewer system.

Mitigation Measures

No mitigation measures are required.

Threshold 4:	Would the project not have sufficient water supplies available to serve the project from existing entitlements and resources, so that new or expanded entitlements are needed?

IMPACT U-2 DEVELOPMENT UNDER THE SPECIFIC PLAN WOULD INCREASE WATER DEMAND IN THE PLAN AREA BY AN ESTIMATED 158 ACRE-FEET PER YEAR (AFY). A PORTION OF WATER DEMAND WOULD BE MET WITH RECYCLED WATER. EXISTING AND PROJECTED WATER SUPPLIES WOULD BE ADEQUATE TO SERVE THE PROPOSED PROJECT. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Water use would increase in the Plan Area with the proposed development. The proposed project involves mixed-use development of up to 30,000 sf of commercial area and 290 residential units. Domestic water service in the Plan Area would be provided by WVWD via three pipeline connections.

WVWD would also provide recycled water service for irrigation in the Plan Area via an existing recycled water pipeline within the Valley Boulevard right-of-way. An on-site irrigation distribution system located within proposed Street A would connect to the existing pipeline and would include four pipelines to irrigate the public landscape areas. An irrigation pump would be installed to maintain pressurized service to the on-site irrigation system and would be located near the intersection of Street A and Valley Boulevard. The irrigation pump would be approximately four feet tall, 12 feet long, and six feet wide.

Based on water demand estimates provided by CalEEMod, land uses under the proposed Specific Plan would generate a water demand of approximately 34.9 million gallons of water per year, or approximately 107.1 AFY. Table 4.13-4 shows water demand by land use in the Plan Area.

Table 4.13-4 Estimated Water Demand

Land Use	Water Demand (Mgal/year)	Water Demand (AFY)
Residential – Single-Family	0.9	2.8
Residential – Multi-Family	20.9	64.1
Commercial District	2.5	7.7
Parks/Open Space	10.6	32.5
Total	34.9	107.1

AFY: acre-feet per year

Source: CalEEMod Version 2016.3.2. See emissions calculations in Appendix C

The project's estimated average water demand represents approximately 0.5 percent of the 21,995 AFY demand for potable WVWD water projected for 2020. WVWD's 2015 UWMP utilizes population growth projections provided in SCAG's 2016 RTP/SCS to forecast water demand for its service area. Population growth associated with Specific Plan development is accounted for in these population growth projections; it is therefore also accounted for in WVWD's water demand forecasts. As discussed in Section 4.10, *Population and Housing*, the project is within the SCAG growth projection for the City of Walnut. Thus, the project's anticipated water demand was accounted for in WVWD's UWMP projections, and can be served by WVWD. WVWD forecasts regional water demand to increase to approximately 26,012 AFY by the year 2035. The project's average demand would account for approximately 0.4 percent of the estimated 2035 WVWD water demand.

WVWD's 2015 UWMP forecasts that water supplies will be available to meet the projected future water demands during normal and wet years until 2035, based on general growth estimates and supplier projections. During single- and multiple-dry years, the City expects reductions in available supply. This decrease in available water is anticipated to be supplemented through implementation of WVWD's Water Shortage Supply Plan. WVWD's forecasted 2035 supply ranges from 27,524 acre-feet for an average weather year to 16,603 acre-feet for a third-consecutive dry weather year (WVWD 2016).

WVWD water service has sufficient existing water supply to serve the project and other planned growth during normal and multiple-dry water years. Additionally, the project would be subject to water conservation requirements imposed by WVWD during drought conditions, including drought rate surcharges and limited watering days. Therefore, implementation of the proposed project would not require new or expanded entitlements for water supplies. Impacts would be less than significant.

Additionally, domestic water serve for the project would be provided via parallel 12-inch and 24-inch pipelines existing in Valley Boulevard. The WVWD would require two connections to the 12-inch pipeline for direct service to the project. An 8-inch in-tract pipeline exists in Roundup Drive at Bridal Way and is the third proposed point of connection for the project at the north end of the Plan Area. The project would extend water lines into the site from each connection. The pipelines would be public, and owned and operated by the District. WVWD would also provide recycled water service for irrigation in the Plan Area via an existing recycled water pipeline in the Valley Boulevard right-of-way. Because WVWD water service has sufficient existing water supply to serve the project and other planned growth during normal and multiple-dry water years, existing water infrastructure would be capable of serving the project and no new off-site facilities would be required.

Mitigation Measures

No mitigation measures are required.

Threshold 6:	Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?
Threshold 7:	Would the project comply with federal, state, and local statutes and regulations related to solid waste?

IMPACT U-3 THE PROPOSED PROJECT WOULD GENERATE SOLID WASTE, BUT WOULD NOT RESULT IN A SUBSTANTIAL INCREASE IN WASTE PROCESSED BY THE GRAND CENTRAL RECYCLING AND TRANSFER STATION, OR BE SERVED BY A LANDFILL WITHOUT SUFFICIENT CAPACITY. IMPACTS WOULD BE LESS THAN SIGNIFICANT.

Solid waste generated within the Plan Area would be sent to the Grand Central Recycling and Transfer Station located at 999 Hatcher Avenue in the City of Industry. This facility currently has an average annual capacity between 500,000 and 999,999 tons per year (CalRecycle 2014). Currently, the facility has a maximum throughput of approximately 1,500 tons per day and averages around 1,000 tons per day, yielding an average daily capacity of approximately 500 tons per day (Grand Central Recycling and Transfer Station 2017). The Olinda Alpha Sanitary Landfill receives an average daily throughput of 7,000 tons per day, leaving a daily capacity of approximately 1,000 tons (Orange County Waste & Recycling 2018). The El Sobrante Landfill receives an average daily throughput of approximately 8,600 tons per day, leaving a daily capacity of approximately 7,400 tons (Riverside County Department of Waste Resources 2018).

Construction of the proposed project would generate construction waste, and operation of residential and commercial uses in the Plan Area would generate solid waste and recyclables in the long term.

As calculated in CalEEMod, construction activities associated with the Specific Plan would generate approximately 85,250 cubic yards of graded material that would be exported from the Plan Area. This would amount to 86,316[1] tons during the eight-month grading period, or an average of 490 tons per day (assuming 22 work days per month). Graded material from construction activities would be trucked to nearby recipient sites as well as landfills. Ninety percent of the City's solid waste is sent to the Olinda Alpha Sanitary Landfill and the El Sobrante Landfill, which have a combined average daily available capacity of 8,400 tons. The graded material generated by construction activities in the Plan Area could therefore be accommodated by regional landfills, and would account for approximately 5.8 percent of available landfill capacity at Olinda Alpha Sanitary and El Sobrante. Construction of the proposed project would also involve site preparation activities that would generate waste materials. However, construction would be temporary and the handling of all debris and waste generated during construction of the proposed project would be subject to the State's (AB 939) requirements for salvaging, recycling, and reuse of materials from construction activity on the project site. Therefore, compliance with existing waste reduction regulations would reduce any significant impacts or conflicts with statutes or regulations related to solid waste during construction.

Operational solid waste generation was calculated using solid waste generation rates from CalRecycle. Table 4.13-5 summarizes operational solid waste generation by land use development in the Plan Area.

[1] Based on estimated 1.0125 tons of dry soil per cubic yard (County of Los Angeles 2017b)

Table 4.13-5 Operational Solid Waste Generation

Land Use	Solid Waste Generation (tons per year)
Residential – Single-Family	13.9
Residential – Multi-Family	127.9
Commercial District	31.5
Parks/Open Space	1.4
Total	174.7

Source: CalEEMod Version 2016.3.2. See emissions calculations in Appendix C

Waste from operation of the proposed Specific Plan would be approximately 175 tons per year, or approximately 0.5 tons per day. The Olinda Alpha Sanitary Landfill has a remaining capacity of 19 million tons and an estimated lifespan of 8 years (Los Angeles County 2017). The Olinda Alpha Sanitary Landfill receives an average daily throughput of 7,000 tons per day, leaving a daily capacity of approximately 1,000 tons per day (Orange County Waste & Recycling 2018). The El Sobrante Landfill has a remaining capacity of approximately 141 million tons and an estimated lifespan of 54 years (Los Angeles County 2017a). The El Sobrante Landfill receives an average daily throughput of approximately 8,600 tons per day, leaving a daily capacity of approximately 7,400 tons per day (Riverside County Department of Waste Resources 2018). Combined the Olinda Alpha Sanitary Landfill and El Sobrante Landfill have a remaining capacity of 160 million tons. Operational solid waste generated in the Plan Area would therefore account for approximately 0.1 percent of Grand Central Recycling and Transfer Station's average daily available throughput capacity of 500 tons per day and approximately 0.01 percent of the combined average daily available capacity of 8,400 tons per day at Olinda Alpha Sanitary Landfill and El Sobrante Landfill. Therefore, the Specific Plan would be served by a landfill with sufficient capacity. Additionally, as discussed above under *Setting*, landfills that could also serve the project site include Sunshine Canyon City/County Landfill, Frank Bowerman Sanitary Landfill, Azuza Land Reclamation County Landfill, Mid-Valley Sanitary Landfill, Simi Valley Landfill and Recycling Center, Antelope Valley Public Landfill, Chiquita Canyon Sanitary Landfill, Prima Desheca Sanitary Landfill, Lancaster Landfill and Recycling Center, and San Timoteo Sanitary Landfill in Redlands. The Specific Plan development would adhere to Policy CFI-1.2 of the General Plan, which requires new development to pay proportional fair-share costs through applicable fees and assessments, and Policy CFI-8.3, which requires that all development provide on-site collection facilities to meet the waste diversion requirements. The Specific Plan development would not result in a substantial increase in waste landfilled or be served by a landfill without sufficient capacity. Therefore, impacts would be less than significant.

c. Cumulative Impacts

Wastewater

As described in Table 3-1 of Section 3, *Environmental Setting*, planned and pending projects in Diamond Bar, Industry, Walnut, and Pomona would add a total of approximately 368 residential units and five million square feet of commercial space. In addition, Mt. San Antonio College and Cal Poly Pomona have identified future enrollment increases totaling approximately 16,000 students. As indicated in Table 4.13-6 cumulative wastewater generation would total approximately 951,944 gpd. Total wastewater generation for the project is estimated at 93,151 gpd. The Specific Plan's and cumulative estimated wastewater generation, which would total approximately 1.04 mgd, would be

about 0.6 percent of the remaining capacity of 176.4 mgd at the San Jose Creek WRP and Joint Water Pollution Control Plant. Demand associated with cumulative development plus the Specific Plan wastewater generation would therefore be within San Jose Creek WRP and Joint Water Pollution Control Plant capacity. Project-generated sewage, in addition to current and projected generated sewage, would be adequately treated by existing wastewater facilities and the treatment requirements of the RWQCB would not be exceeded.

To the extent that new sewer pipeline upgrades would be necessary as planned and pending development occurs within the City, such upgrades would likely occur within existing utility easements and would not result in new areas of disturbance. Any such upgrades would be subject to subsequent environmental review, wherein potential impacts, if any, would be addressed accordingly. The City would require that localized system deficiencies are adequately addressed by the responsible project. Any future upgrades would be designed in accordance with applicable provisions of the City's Municipal Code and to the satisfaction of the City Engineer. Therefore, cumulative impacts to wastewater treatment and conveyance facilities would be less than significant.

Table 4.13-6 Estimated Cumulative Wastewater Generation

Land Use	Development Statistics	Demand Factor	Wastewater Generation (gpd)
City of Diamond Bar			
Multi-Family Residential	160 du	160 gpd/du	25,600
Commercial	91,390 sf	80 gpd/1,000 sf	7,311
City of Industry			
Industrial	1,977,796 sf	80 gpd/1,000 sf	158,224
Office	2,818,254 sf	150 gpd/1,000 sf	422,738
Restaurant	2,644 sf	300 gpd/1,000 sf	793
City of Walnut			
Single Family Residential	147 du	180 gpd/du	26,460
Multi-Family Residential	61 du	160 gpd/du	9,760
City of Pomona			
Industrial	145,900 sf	80 gpd/1,000 sf	11,672
Restaurant	2,100 sf	300 gpd/1,000 sf	630
Mt. San Antonio College			
Future Enrollment Increase	7,153 students	18 gpd/student	128,754
Cal Poly Pomona			
Future Enrollment Increase	8,889 students	18 gpd/student	160,002
Total Water Demand			951,944

gpd: gallons per day, AFY: acre-feet per year, du: dwelling units, sf: square feet
Generation factor source: City of Los Angeles 2006

Water

Planned and pending development would increase water demand within the WVWD service area. WVWD's service area includes Diamond Bar, portions of Walnut, Industry, West Covina, Pomona, and the eastern portion of the unincorporated area of Rowland Heights. Table 4.13-7 summarizes the water demand associated with planned and pending development from Section 3. Cumulative water demand would total approximately 1.14 million gallons per day (mgd), or approximately 1,280 AFY. The MVWD projects a future water demand of 21,462 AFY by 2035 – a 4,919 AFY increase over 2015 demand (WVWD 2016). Demand associated with cumulative development presented in Table 4.13-7, plus the Specific Plan development demand presented in Table 4.13-4, would fall within this projection. Cumulative water demand would account for approximately 26 percent of the projected demand increase described in the UWMP.

Table 4.13-7 Estimated Cumulative Water Demand

Land Use	Development Statistics	Demand Factor	Demand (gpd)	Demand (AFY)
City of Diamond Bar				
Multi-Family Residential	160 du	192 gpd/du	30,720	34
Commercial	91,390 sf	96 gpd/1,000 sf	8,773	10
City of Industry				
Industrial	1,977,796 sf	96 gpd/1,000 sf	189,868	213
Office	2,818,254 sf	180 gpd/1,000 sf	507,286	568
Restaurant	2,644 sf	360 gpd/1,000 sf	952	1
City of Walnut				
Single Family Residential	147 du	216 gpd/du	31,752	36
Multi-Family Residential	61 du	192 gpd/du	11,712	13
City of Pomona				
Industrial	145,900 sf	96 gpd/1,000 sf	14,006	16
Restaurant	2,100 sf	360 gpd/1,000 sf	756	1
Mt. San Antonio College				
Future Enrollment Increase	7,153 students	21.6 gpd/student	154,505	173
Cal Poly Pomona				
Future Enrollment Increase	8,889 students	21.6 gpd/student	192,002	215
Total Water Demand			**1,142,333**	**1,280**

gpd: gallons per day, AFY: acre-feet per year, du: dwelling units, sf: square feet

Generation factor source: City of Los Angeles 2006

Water demand is assumed to be 120 percent of wastewater generation, in order to account for landscape irrigation. Assumed residential wastewater generation factor for a 2-unit residence.

WVWD's 2015 UWMP forecasts that water supplies will be available to meet the its projected future water demands during normal and wet years until 2035, based on general growth estimates and supplier projections. During single- and multiple-dry years, the City expects reductions in available supply. This decrease in available water is anticipated to be supplemented through implementation of WVWD's Water Shortage Supply Plan, which involves water efficiency measures and drought surcharges. The Specific Plan development would be subject to the conservation measures implemented, as would all existing and planned development in the City. For these reasons, the water demand from the proposed project and existing and planned development in the City would not result in a significant cumulative water supply impact.

Solid Waste

Planned and pending development would also increase the generation of solid waste in the vicinity of the Plan Area. Table 4.13-8 summarizes solid waste generation associated with the cumulative projects list in Section 3. Specific Plan development, together with the planned and pending projects, would increase the generation of solid waste in the vicinity of the Plan Area. The Specific Plan development, together with the planned and pending projects, would increase the generation of solid waste in the cities of Diamond Bar, Industry, Walnut, and Pomona. In Walnut, where the Plan Area is located, planned and pending development will yield approximately 639 tons per year of solid waste, or approximately 1.75 tons per day. This would account for approximately 0.4 percent of Grand Central Recycling and Transfer Station's average daily available throughput capacity of 500 tons, or approximately 0.02 percent of the combined average daily available capacity of 8,400 tons per day at Olinda Alpha Sanitary Landfill and El Sobrante Landfill. Additionally, as discussed above under *Setting*, landfills that could also serve the project site and surrounding area include Sunshine Canyon City/County Landfill, Frank Bowerman Sanitary Landfill, Azuza Land Reclamation County Landfill, Mid-Valley Sanitary Landfill, Simi Valley Landfill and Recycling Center, Antelope Valley Public Landfill, Chiquita Canyon Sanitary Landfill, Prima Desheca Sanitary Landfill, Lancaster Landfill and Recycling Center, and San Timoteo Sanitary Landfill in Redlands. Therefore, the Specific Plan combined with cumulative development would be served by a landfill(s) with sufficient capacity.

Table 4.13-8 Estimated Cumulative Solid Waste Generation

Land Use	Development Statistics	Solid Waste Generation Factor	Solid Waste Generation (ppd)	Solid Waste Generation (tons per year)
City of Diamond Bar				
Multi-family Residential	160 du	12.23 lbs/du/day	1,957	357
Commercial	91,390 sf	2.5 lbs/1,000 sf/day	228	42
City of Industry				
Industrial	1,977,796 sf	62.5 lbs/1,000 sf/day	123,612	22,559
Office	2,818,254 sf	6 lbs/1,000 sf/day	16,910	3,086
Restaurant	2,644 sf	5 lbs/1,000 sf/day	13	2
City of Walnut				
Single Family Residential	147 du	12.23 lbs/du/day	1,798	328
Multi-family Residential	61 du	12.23 lbs/du/day	746	136
City of Pomona				
Industrial	145,900 sf	62.5 lbs/1,000 sf/day	9,119	1,664
Restaurant	2,100 sf	5 lbs/1,000 sf/day	11	2
Mt. San Antonio College				
Future Enrollment Increase	7,153 students	1 lb/student/day	7,153	1,305
Cal Poly Pomona				
Future Enrollment Increase	8,889 students	1 lb/student/day	8,889	1,622
Total Solid Waste Generation			**170,435**	**31,104**

ppd: pounds per day; sf: square feet

Generation factor source: CalRecycle 2016

5 Other CEQA Required Discussions

This section discusses growth-inducing impacts, irreversible environmental impacts, energy impacts, and the potential for wildfire impacts that could be caused by the proposed project.

5.1 Growth Inducement

Section 15126(d) of the CEQA Guidelines requires a discussion of a proposed project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. Therefore, the proposed project's growth inducing potential is considered significant if project-induced growth could result in significant physical effects in one or more environmental issue areas.

5.1.1 Population Growth

The proposed Specific Plan includes development of 290 residential units that would directly induce population growth. As discussed in Section 4.10, *Population and Housing*, the project would generate approximately 1,009 new residents based on the average household of 3.48 persons for the City of Walnut (California DOF 2018). As determined by the California DOF and SCAG, the current (2018) population of Walnut is approximately 30,457 and is projected to grow to 31,900 by 2020 and 32,900 by 2035. The proposed Specific Plan would have an anticipated full buildout year of 2024 with full operation in 2025. Assuming linear growth, the SCAG estimated population would be 32,233 in 2025, an increase of about 1,776 persons. The estimated population growth of 1,009 new residents under the proposed Specific Plan is approximately 57 percent of the City's projected growth by 2025 and is accounted for in the growth projections.

The proposed Specific Plan would also include up to 30,000 square feet commercial development in the form of retail and restaurant uses that would provide employment opportunities. As such, employment opportunities would likely be filled primarily by existing residents in the City or surrounding cities and would not directly induce population growth in the region. However, as shown in Table 5-1, if the commercial uses were entirely staffed by new employees that relocate to the area, this would generate an additional population growth of approximately 71 employees. When added to the anticipated residential population increase, the overall population increase generated would be 1,080. This combined increase is approximately 61 percent of the projected growth and is accounted for in the City's projected 2025 population increase of 1,776 persons.

Moreover, as discussed in Section 4.6, *Greenhouse Gas Emissions*, construction and operation of the proposed Specific Plan would generate GHG potentially significant emissions that would exceed applicable thresholds. However, the impacts would be reduced to less than significant levels with implementation of mitigation measures GHG-1a through GHG-1c, including on-site renewable energy generation and building efficiency. Similarly, as discussed in Section 4.3, *Biological Resources*, and Section 4.4, *Cultural Resources*, potentially significant impacts to biological and cultural resources would be reduced to less than significant with implementation of mitigation measures. There are no scenic resources, surface water, or other environmental resources that

would be significantly impacted by development of the Specific Plan. Therefore, any population growth associated with the project would not result in significant long-term physical environmental effects.

5.1.2 Economic Growth

The proposed project would generate temporary employment opportunities during construction. Because construction workers would be expected to be drawn from the existing regional work force, construction of the project would not be growth-inducing from a temporary employment standpoint. The proposed project would also add long-term employment opportunities associated with operation of the Plan Area commercial uses. As shown in Table 5-1, the proposed Specific Plan would result in an increase of approximately 71 jobs. It is anticipated that long-term employment opportunities generated from commercial development under the Specific Plan would draw workers from the existing regional work force.

Table 5-1 Employment Increase Resulting from Proposed Project

Commercial Land Use	Area (sf)	Employment Density[1] (sf/employee)	Number of Employees
Commercial Space	30,000[2]	424[3]	71
Total			71

[1] Source: SCAG 2001

[2] Square-footage reflects amount of commercial space included under the proposed Specific Plan.

[3] Employment density factor for other retail/services land use is used for the commercial space as this most closely reflects the activities of commercial development included in the proposed Specific Plan.

As shown in Table 4.10-2 under Section 4.10, *Population and Housing*, SCAG forecasts employment in the City to increase to 9,100 by 2020 and 9,600 by 2035. Assuming linear growth, the estimated employment would be 9,267 in the project's operational year of 2025. This is an increase of 867 jobs from SCAG's 2012 estimate of 8,400 jobs. If all new employees were used to staff the proposed project, the 71 employees generated would constitute approximately eight percent of the projected employment growth in the City. Therefore, even if the proposed project did not draw workers from the existing work force, generated employment growth would be consistent with City growth forecasts and would not be substantially growth-inducing and the proposed project would not be expected to induce substantial economic expansion to the extent that direct physical environmental effects would occur. Moreover, the environmental effects associated with any future development in or around Walnut would be addressed as part of the CEQA environmental review for such development projects.

5.1.3 Removal of Obstacles to Growth

The Plan Area is located in an urban area that is served by existing infrastructure. New connections to existing domestic water pipelines and to the City's existing recycled water pipeline along Valley Boulevard would be needed to provide domestic water to the site and circulate recycled water for the on-site irrigation system. Furthermore, new on-site sewer systems would require extensions to connect to the existing gravity sewer in Valley Boulevard, and natural gas service to the Plan Area would be provided via new connections to existing gas lines within public rights-of-way adjacent to the Plan Area. Lastly, on-site stormwater flows would flow through new connections to existing water quality vaults which would then direct and convey flows through existing drainage facilities to

a treatment facility. All of these infrastructure connections, however, are from the proposed Project to existing infrastructure, and are not themselves extensions of infrastructure that would remove an obstacle to future growth. Partial closures of Valley Boulevard would be required for installation of the utility connections. However, these closures would be temporary and would not present a barrier to growth in the City. Therefore, potential impacts associated with obstacles to growth would not be significant.

5.2 Irreversible Environmental Effects

The CEQA Guidelines require that EIRs examining plans and policies contain a discussion of significant irreversible environmental changes. This section addresses non-renewable resources, the commitment of future generations to the proposed uses, and irreversible impacts associated with the proposed project.

Construction and operation of the proposed Specific Plan would involve use of building materials and energy, some of which are non-renewable resources such as petroleum, to construct the 290 residential units and 30,000 sf of commercial space (not including parking areas). Consumption of these resources would occur with any development in the region and would not be unique to the proposed Specific Plan.

The proposed Specific Plan would also irreversibly increase local demand for non-renewable energy resources such as petroleum products and natural gas. It would involve the installation of 217 natural gas heated fireplaces in residences. However, increasingly efficient building design would offset this demand to some degree by reducing energy demands of the project. As discussed in Section 2, *Project Description*, development under the proposed Specific Plan would aim to integrate “green design” and energy efficiency strategies. These would include use of low-emissivity or Energy Star windows, high-efficiency lighting (such as LED), passive solar design and orientation of buildings, high R-value wall and ceiling insulation, photovoltaic systems, and thermally efficient building shells. In addition, development under the Specific Plan would be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations, *California’s Energy Efficiency Standards for Residential and Nonresidential Buildings*) and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations). The California Energy Code provides energy conservation standards for all new and renovated commercial and residential buildings constructed in California, and the Green Building Standards Code requires solar access, natural ventilation, and stormwater capture. Consequently, development under the Specific Plan would not use unusual amounts of energy or construction materials and impacts related to consumption of non-renewable and slowly renewable resources would be less than significant.

Additional vehicle trips associated with the proposed project would incrementally increase local traffic and regional air pollutant and GHG emissions. However, as discussed in Section 4.6, *Greenhouse Gas Emissions*, with implementation of mitigation measures GHG-1a through GHG-1c, development and operation of the project would not generate GHG emissions that would result in a significant impact. Additionally, as discussed in Section 4.12, *Transportation and Traffic*, most long-term impacts associated with the proposed project would either be less than significant or reduced to a less than significant level with implementation of mitigation measures. However, project-generated trips would cause the Grand Avenue/Valley Boulevard intersection to exceed the threshold under existing plus project traffic conditions even with incorporation of mitigation, as shown in Table 4.12-6. Similarly, project-generated trips would cause both the Grand Avenue/Valley

Boulevard and Snow Creek Drive/Grand Avenue intersections to exceed the thresholds under cumulative development plus project traffic conditions even with incorporation of mitigation, as shown Table 4.12-7. Therefore, these impacts would be significant and unavoidable.

Development of new residential and commercial uses would also require a commitment of law enforcement, fire protection, water supply, wastewater treatment, and solid waste disposal services. However, as discussed in Section 4.11, *Public Services and Recreation*, and Section 4.13, *Utilities and Service Systems*, impacts to these service systems would not be significant.

5.3 Energy Effects

Public Resources Code Section 21100(b)(2) and Appendix F of the CEQA Guidelines require that EIRs include a discussion of the potential energy consumption and/or conservation impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful or unnecessary consumption of energy.

The proposed Specific Plan would involve the use of energy during the construction and operational phases of the commercial and residential uses included in the Specific Plan. Energy use during the construction phase would be in the form of fuel consumption (e.g., gasoline and diesel fuel) to operate heavy equipment, light-duty vehicles, and machinery. In addition, temporary grid power may also be provided to any temporary construction trailers or electric construction equipment. Long-term operation of the commercial and residential uses would require permanent grid connections for electricity and natural gas service to power internal and exterior building lighting, and heating and cooling systems.

Southern California Edison (SCE) would provide electricity service for the proposed project. SCE's power mix consists of approximately 24 percent renewable energy sources (wind, geothermal, solar, small hydro, and biomass) (CEC 2016a). Gas service would be provided by Southern California Gas Company (SoCal Gas). According to SoCal Gas natural gas is available in abundance domestically, with sufficient natural gas, in its traditional form, to meet the country's demand for more than 100 years (SoCalGas 2016). New technologies also offer the potential to capture methane, the primary ingredient in natural gas, from existing waste stream sources to make a renewable form of natural gas.

California used 295,405 gigawatt-hours (GWh) of electricity in 2015 and 2,313 billion cubic feet of natural gas in 2012 (CEC 2016b and 2016c). Californians presently consume over 18 billion gallons of motor vehicle fuels per year (CEC 2016d).

CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and GHG emissions associated with both construction and operations from a variety of land use projects. The model quantifies direct emissions from construction and operation activities (including vehicle use), as well as indirect emissions, such as GHG emissions from energy use, solid waste disposal, vegetation planting and/or removal, and water use. Further, the model identifies mitigation measures to reduce criteria pollutant and GHG emissions along with calculating the benefits achieved from measures chosen by the user. Complete CalEEMod results and assumptions can be viewed in Appendix D. The estimated motor vehicle fuel use associated from development under the proposed Specific Plan as calculated from CalEEMod is shown in Table 5-2.

Total estimated energy usage, including motor vehicle fuel, is summarized and compared to statewide usage in Table 5-3. The proposed Specific Plan would result in increased weekday trips, and vehicle miles traveled (VMT) as compared to the current undeveloped site. However, development and operation of the commercial and residential uses under the proposed Specific Plan would make a minimal contribution to statewide energy consumption and would not adversely affect energy supplies.

Table 5-2 Estimated Project-Related Annual Motor Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips[1]	Annual Vehicle Miles Traveled[2]	Average Fuel Economy (miles/gallon)[3]	Total Annual Fuel Consumption (gallons)
Passenger Cars	55.39%	2,898,982	36.4	79,642
Light/Medium Trucks	36.13%	1,890,959	23.5	80,466
Heavy Trucks/Other	7.99%	418,099	7.7	54,299
Motorcycles	0.48%	25,687	50	514
Total	**100.00%**	**5,233,764**	**–**	**214,921**

[1] Percent of vehicle trips found in Table 4.3 "Trip Type Information" in CalEEMod output (see Appendix D)

[2] Mitigated annual VMT found in Table 4.2 "Trip Summary Information" in CalEEMod output (see Appendix D)

[3] Average fuel economy for light/medium trucks, heavy trucks/other, and motorcycles provided by the United States Department of Transportation, Bureau of Transportation Statistics (2010); average fuel economy for passenger vehicles provided by the United States Department of Transportation, Bureau of Transportation Statistics (2016).

Note: Totals may not add up due to rounding.

Table 5-3 Estimated Project-Related Energy Usage Compared to State-Wide Energy Usage

Form of Energy	Units	Annual Project-Related Energy Use	Annual State-Wide Energy Use	Project % of State-Wide Energy Use
Electricity	mWh	2,175[1]	295,405,000[2]	0.0007%
Natural Gas	kBTU	5,186,775[1]	2,313,000,000,000[3]	0.0002%
Motor Vehicle Fuels	gallons	331,117[4]	18,019,000,000[5]	0.002%

[1] Energy Use provided in the Initial Study (see Appendix B);

[2] California Energy Commission, California Energy Almanac, 2016. Total Electricity System Power, data as of July 2016. Available: http://www.energy.ca.gov/almanac/electricity_data/total_system_power.html.

[3] California Energy Commission, California Energy Almanac, Overview of Natural Gas in California – Natural Gas Supply. Available: http://www.energy.ca.gov/almanac/naturalgas_data/overview.html.

[4] See Table 5-2

[5] California Energy Commission, 2015 Integrated Energy Policy Report, Available at: http://docketpublic.energy.ca.gov/PublicDocuments/15-IEPR-01/TN212017_20160629T154354_2015_Integrated_Energy_Policy_Report_Small_File_Size.pdf.

As discussed previously, the proposed Specific Plan would be subject to the energy conservation requirements of the California Energy Code (Title 24, Part 6, of the California Code of Regulations, *California's Energy Efficiency Standards for Residential and Nonresidential Buildings)* and the California Green Building Standards Code (Title 24, Part 11 of the California Code of Regulations). The California Energy Code provides energy conservation standards for all new and renovated commercial and residential buildings constructed in California. The Code applies to the building envelope, space-conditioning systems, and water-heating and lighting systems of buildings and appliances. The Code provides guidance on construction techniques to maximize energy conservation. Minimum efficiency standards are given for a variety of building elements, including: appliances; water and space heating and cooling equipment; and insulation for doors, pipes, walls and ceilings. The Code emphasizes saving energy at peak periods and seasons, and improving the quality of installation of energy efficiency measures. In addition, the California Green Building Standards Code sets targets for: energy efficiency; water consumption; dual plumbing systems for potable and recyclable water; diversion of construction waste from landfills; and use of environmentally sensitive materials in construction and design, including ecofriendly flooring, carpeting, paint, coatings, thermal insulation, and acoustical wall and ceiling panels.

Development under the proposed Specific Plan is required to comply with Title 24 standards. Specific sustainability features to be incorporated into the project are described in Section 2, *Project Description*. Meeting Title 24 energy conservation requirements in combination with the Specific Plan's sustainability components would ensure that energy is not used in an inefficient, wasteful, or unnecessary manner per Public Resources Code Section 21100(b)(2).

5.4 Wildfire

Appendix G of the CEQA Guidelines was updated to address wildfire hazards and risks for projects that are in or near state responsibility areas or very high fire hazard severity zones. As discussed under Section 8, *Hazards and Hazardous Materials*, of the Initial Study (see Appendix A), the Plan Area is not located in a wildland fire hazard area as defined by the California Department of Forestry and Fire Protection (Cal Fire 2011). The Plan Area is not located in a State Responsibility Area (SRA) or High Fire Hazard Severity Zone (FHSZ) (Cal Fire 2019). The Plan Area is located less than a mile southwest of a Moderate FHSZ, and areas designated as Very High FHSZ are located approximately two miles northwest of the Plan Area in the San Jose Hills and southwest of the Plan Area in open space within the City of Diamond Bar (Cal Fire 2019). As discussed in the City's General Plan, expansive open spaces in the City, natural vegetation, hillside slopes, and severe drought conditions, create a high potential for wildfires in Walnut (City of Walnut 2018).

A significant impact could occur if a project is located in or near an SRA or lands classified as Very High FHSZ and would substantially impair an adopted emergency response plan or emergency evacuation plan. As discussed in Section 4.12, *Transportation and Traffic*, no roads would be permanently closed as a result of construction or operation of the proposed project, and the project would not involve development of structures that would potentially impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. However, construction of the new 10-inch sewer line would be located approximately 14 feet southeast of the centerline of Valley Boulevard and would occur over a two-week period, which would require the shutdown of the interior eastbound lane for the duration of the sewer installation plus occasional shut down of a second lane. Valley Boulevard provides direct routes to the Plan Area for emergency vehicles. Construction of the proposed project has the potential to create temporary impacts to emergency access from additional construction related traffic (truck trips and

construction workers). Potential impacts associated with construction and the lane closure for the sewer line extension would be less than significant with implementation of Mitigation Measure T-4a, which requires preparation of a construction management plan that includes a traffic plan and coordination with emergency service providers. No additional mitigation is necessary for emergency access during the construction period.

The proposed Specific Plan would be required to conform to traffic and safety regulations that specify adequate emergency access measures. The project would also be required to meet the standards set forth by the City of Walnut Fire Department and Police Department. Therefore, impacts to emergency access during operation would be less than significant.

In addition, based on the thresholds in Appendix G of the CEQA Guidelines, a significant impact could occur if the slope, prevailing winds, and other factors, exacerbate wildfire risks; require the installation or maintenance of associated infrastructure that may exacerbate fire risk; or would expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

The Plan Area's northern and western boundaries are adjacent to residential uses, and the southern and eastern boundaries are adjacent to commercial and industrial areas. As discussed in the geotechnical analysis conducted by NMG Geotechnical (Appendix G), the eastern portion of the Plan Area includes an east-southeast facing natural slope. This area is relatively steep (2:1 slope gradient or slightly steeper). Residential uses bordering the site to the west and northwest are downslope of the Specific Plan Area. However, as discussed in Section 2, *Project Description*, the existing dome-shaped hill that is generally at the center of the Plan Area would be graded and altered to create developable terraces for residences. A series of retaining walls (mechanically-stabilized earth [MSE] walls) would be constructed to create the terraces. Project cross sections showing existing and proposed grading are provide in Figure 4.1-2 in Section 4.1, *Aesthetics*. As discussed in Section 4.5 *Geology and Soils,* recommendations included in the geotechnical assessments provide measures related to site preparation, slope construction and site stability (see Appendix G). Compliance with applicable regulations, such as the California Building Code (CBC), and Mitigation Measure GEO-1, would reduce the project's impacts associated with slope construction and stability to a less than significant impact.

With respect to new infrastructure, as stated in the proposed Specific Plan, natural gas service would be provided by existing gas lines that are located within adjacent public streets rights-of-way, and electrical service to the Specific Plan area would be provided pursuant to the California Public Utilities Commission and Federal Energy Regulatory Commission regulations. As discussed in Section 4.13, *Utilities*, to the extent that the connection of existing, or installation of new sewer and or water lines are required for the Specific Plan, installation would occur underground within the public right-of -way of Valley Boulevard. Lastly, with respect to drainage changes, as discussed further in Section 4.7, *Hydrology and Water Quality*, the quantity of runoff from the Plan Area could potentially affect the ability of the existing storm drain system to handle stormwater flows. However, installation of stormwater runoff detention basins would ensure that the project would not increase peak runoff or otherwise adversely affect the local storm drain system. Therefore, implementation of the proposed grading plans, the stormwater runoff detention basin, regulatory building codes, and Mitigation Measure GEO-1, development of the Specific Plan would not result in adverse impacts related to wildfire hazards or risks.

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6 Alternatives

As required by Section 15126.6 of the *CEQA Guidelines*, this EIR examines a range of reasonable alternatives to the proposed project that would attain most of the basic project objectives but would avoid or substantially lessen the significant adverse impacts. As discussed in Section 2, *Project Description*, the objectives for the proposed project, are as follows:

- Buffer existing single-family homes abutting the Plan Area.
- Implement the City's planned commercial and higher density residential districts facing the urban edge, consistent with the goals and policies of the City of Walnut General Plan.
- Provide horizontal separation (buffer) from existing single-family homes abutting the site. Based on the provisions within this Specific Plan, dwelling units within the Specific Plan area will be a minimum of 85 feet from dwelling units within surrounding neighborhoods.
- Provide new infill commercial uses and housing on a vacant site.
- Showcase distant views and vantage points with terracing and site orientation.
- Cluster development to promote walking and establish a strong sense of neighborhood.
- Interconnect the residential districts by incorporating an internal trail network.
- Reinforce a sense of place with iconic landmark and special identity signage.
- Utilize the natural topography to define residential neighborhoods.
- Enhance the hill top and terraces as a memorable and meaningful public realm, where residents have close access to the pocket park system described as a "string of pearls."

Included in this analysis are five alternatives, including the CEQA-required "no project" alternative, that involve changes to the project that may reduce the project-related environmental impacts identified in this EIR. Alternatives have been developed to provide a reasonable range of options to consider that would help decision-makers and the public understand the general implications of revising or eliminating certain components of the proposed Specific Plan.

The following alternatives are evaluated in this EIR:

- Alternative 1: No Project
- Alternative 2: Cluster Development
- Alternative 3: Reduced Walls and Grading
- Alternative 4: Four-Story Units with Reduced Walls and Grading
- Alternative 5: Pacer Court Grading

Table 6-1 provides a summary comparison of the development characteristics of the proposed project and each of the alternatives considered. Descriptions of the alternatives are included in the impact analysis for each alternative. The potential environmental impacts of each alternative are analyzed in Sections 6.1 through 6.4.

Table 6-1 Comparison of Project Alternatives' Buildout Characteristics

Characteristic	Alternatives					
	Proposed Specific Plan	No Project (Alternative 1)	Cluster Development (Alternative 2)	Reduced Walls (Alternative 3)	Four-story Units with Reduced Walls (Alternative 4)	Pacer Court Grading with Reduced Walls (Alternative 5)
Residential (DU)						
Large SFD	12	0	0	0	12	12
Small SFD (2-Story)	139	0	33	33	147	139
Small SFD (3-Story)	62	0	0	0	0	62
15 DU/AC Townhome (2-story)	83	0	82	90	0	83
18 DU/AC Townhome (2- and 3-story)	0	0	111	77	0	0
20 DU/AC Townhome (3-story)	0	0	0	114	0	0
22 DU/AC Townhome (4-story)	0	0	0	0	77	0
Total DU (max)	**290**	**0**	**226**	**314**	**236**	**290**
Net Acreage	24.0	0	14.3	18.4	18.5	24.0
Net Density (DU/AC)	12.0	0	15.8	17.1	12.8	12.0
Residential (AC)	23.2	0	14.2	18.1	18.1	23.2
Commercial (AC)	3.0	0	3.0	3.0	3.0	3.0
Open Space/Slopes (AC)	13.4	49.0	26.9	18.5	18.5	13.4
Parks (AC)	2.4	0	1.0	2.0	2.0	2.0
Roadways (AC)	7.4	0	3.9	7.4	7.4	7.4

Characteristic	Proposed Specific Plan	No Project (Alternative 1)	Cluster Development (Alternative 2)	Reduced Walls (Alternative 3)	Four-story Units with Reduced Walls (Alternative 4)	Pacer Court Grading with Reduced Walls (Alternative 5)
		Alternatives				
Construction Earthwork (CY)						
Cut	1,300,000	0	875,000	1,200,000	1,175,000	1,300,000
Export	85,250	0	100,250	94,250	34,250	79,250
Offsite Grading (AC)	3.7	0	0	3.7	3.7	4.2

Notes: SFD = Single-Family Dwelling; DU = Dwelling Unit; AC = Acre

6.1 Alternative 1: No Project Alternative

6.1.1 Description

Consideration of the No Project Alternative is required by CEQA (CEQA Guidelines Section 15126.6[e]). The No Project Alternative assumes that the proposed project is not constructed and the Plan Area would remain in its current condition. As described in Section 2, *Project Description*, the Plan Area consists of undeveloped land covered primarily by a mix of non-native and native vegetation, much of which has been disturbed. This No Project Alternative analysis assumes no development would occur in the Plan Area. The No Project Alternative also examines what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans, and consistent with available infrastructure and community services, otherwise referred to as the No Project/Development under Existing Zoning. (CEQA Guidelines Section 15126.6(e)(3)(C).) The Plan Area has a General Plan land use designation of Commercial and Low Medium Density. The Plan Area is zoned RPD-16,800 – 2.2 du/acre and Heavy Commercial with a Mixed-Use/Housing Opportunity Overlay Zone 3. The Plan Area is identified in the City's Housing Element's sites inventory as Site #3 and is identified as having a development potential of 748 lower income units and 14 above moderate-income units for a total of 762 dwelling units. Given the existing zoning and housing overlay, the No Project Alternative also examines the potential for the site to be developed consistent with the existing zoning should the proposed project not be approved, as it is reasonably foreseeable that a future proposal that seeks to implement the existing land use designations and zoning could be brought forward consistent with the City's General Plan and zoning.

6.1.2 Impact Analysis

a. Aesthetics

The Plan Area is currently a vacant and undeveloped land that consists of a hill covered in non-native vegetation in a suburban area. Under the No Project Alternative, the site would remain undeveloped. No residential or commercial uses would be constructed, the Plan Area would not be graded to create stepped terraces, and no landscaped open space areas would be incorporated within the site. The natural character of the Plan Area would remain so residences along East Shetland Way, North Pacer Court, and Roundup Drive would retain their existing views of the site in its natural form. No new sources of light and glare would be introduced in the Plan Area under the No Project Alternative. Overall, no aesthetic impacts would occur under the No Project/No Development alternative scenario, and impacts would be less in comparison to changes associated with the proposed Specific Plan.

Under the No Project/Development under Existing Zoning scenario, the Plan Area could be developed with a much higher density of residential development and commercial development in the future. It would be expected that the residential and commercial development, would have similar light and glare impacts as the proposed project as similar types of building material and lighting would be incorporated into the design of the development. As with the project, the Plan Area would be physically altered, i.e., graded, similar to the project; however, the additional density that is allowed under the Housing Overlay could result in structures greater in height than that proposed by the project which may result in greater view impacts than the proposed project. Under the No Project/No Development alternative, the impacts would be similar to or potentially greater as compared to the proposed Specific Plan.

b. Air Quality

The No Project Alternative would not include development of any of the land uses proposed in the Specific Plan, so no air pollution emissions from construction or operation activities would be generated. The Specific Plan requires implementation of mitigation measures to reduce significant impacts during construction activities to a less than significant level. In comparison, under the No Project Alternative no air quality impacts would be generated and mitigation measures would not be required.

The No Project/Development under Existing Zoning scenario would have increased construction emissions from the greater number of residences that could be constructed under existing zoning, and would generate more operational air emissions due to the increased number of houses that could be constructed pursuant to existing zoning. Therefore, under the No Project/Development under Existing Zoning scenario, air quality impacts would be greater than the proposed Specific Plan.

c. Biological Resources

As discussed in Section 4.3, *Biological Resources,* the proposed project would have the potential to have significant impacts related to the California gnatcatcher, nesting birds and raptors, and potentially jurisdictional waters, for which mitigation measures have been identified to reduce these potential impacts to less than significant. Under the No Project Alternative, development of the proposed Specific Plan would not occur. Because there would be no change from existing conditions under this alternative, no impact to biological resources would occur. Therefore, although proposed mitigation would reduce project impacts to a less than significant level, this alternative's impact would be less in comparison to the proposed Specific Plan and mitigation would not be required. Under the No Project/Development under Existing Zoning scenario, the footprint of development would be similar to the proposed Project, and the impacts to biological resources is expected to be similar to the proposed Specific Plan.

d. Cultural and Tribal Resources

As discussed in Section 4.4, *Cultural and Tribal Cultural Resources*, no known cultural or tribal cultural resources are present in the Plan Area, though ground disturbance in the Plan Area has the potential unearth or adversely impact previously unidentified archaeological and/or historic cultural resources. This alternative would involve no ground disturbance and would have no potential impacts to archaeological or tribal cultural resources. Impacts to paleontological resources are directly related to the extent and type of ground disturbance of a given project. Under the No Project Alternative, no new ground disturbance would occur as the result of project construction and the environmental setting would remain in current conditions. Therefore, this alternative's impact would be less than that of the proposed Specific Plan and would not require mitigation. Under the No Project/Development under Existing Zoning scenario, the footprint of development would be similar to the proposed Project, and the impacts to cultural resources is anticipated to be similar to the proposed Specific Plan.

e. Geology and Soils

Under the No Project Alternative, there would be no ground disturbance in the Plan Area. Consequently, there would be no potential for the loss of topsoil or soil erosion from wind or water, beyond that which would occur currently. Similarly, the No Project Alternative would not result in the construction of facilities crossing a known earthquake fault, as no faults cross the Plan Area.

With respect to seismic hazards, the potential for liquefaction at the Plan Area is considered very low; therefore, neither this alternative nor development of the proposed project would result in significant impacts related to liquefaction. However, one area of potential seismically-induced landsliding is mapped within the Plan Area. Under the proposed project, this area would be graded by cutting the hilltop and/or replacement with a MSE wall, which would remove the potential for hazards associated with landsliding. Impacts would be less than significant with mitigation incorporated. The No Project Alternative would not alleviate this potential because no remediation would occur. However, because the No Project Alternative would not make any physical changes to the site (baseline), like the proposed project, this alternative would not increase the potential for geological hazards or create new hazards. Overall, impacts associated with geology and soils under this alternative would be similar to those associated with the proposed project. Under the No Project/Development under Existing Zoning scenario, the footprint of development would be similar to the proposed Project, and the impacts of the implementing this alternative on geology and soils would be similar to the proposed Specific Plan.

f. Greenhouse Gas Emissions

The No Project Alternative would not include development of the residential units or commercial space proposed in the Specific Plan and, therefore, would not generate any GHG emissions. Therefore, although the Specific Plan would have less than significant impacts to GHG emissions with mitigation, this alternative's impacts regarding GHG emissions would be less than those of the proposed Specific Plan.

The No Project/Development under Existing Zoning scenario would have increased construction emissions from the greater number of residences that could be constructed under existing zoning and would generate more operational air emissions due to the increased number of houses that could be constructed pursuant to existing zoning. Therefore, under the No Project/Development under Existing Zoning scenario, the greenhouse gas emissions would be greater than the proposed Specific Plan.

g. Hydrology and Water Quality

Under the No Project Alternative, there would be no increase in runoff and existing conditions would persist. No improvements would occur on site to reduce current run-off volumes or effluent from entering the storm drains. Although development under the proposed Specific Plan would potentially increase pollutants in stormwater during construction and increase surface runoff due to increased impervious surface area, development in the Plan Area would be required to comply with current NPDES and associated local requirements and impacts would be less than significant. Overall hydrology and water quality impacts under this alternative would be similar to the proposed Specific Plan.

Under the No Project/Development under Existing Zoning scenario, the footprint of development would be similar to the proposed Project, and the impacts of the implementing this alternative on hydrology and water quality would be similar to the proposed Specific Plan.

h. Land Use and Planning

Under the No Project Alternative, the Plan Area would remain vacant and the entitlements requested for the proposed Specific Plan would not be required. Therefore, there would be no potential for conflicts with any applicable land use plans or policies under this alternative. Development of the proposed Specific Plan would require a General Plan Amendment and zone

change. Upon approval of these entitlements, the proposed project would be compliant with applicable land use plans and policies and impacts would be less than significant. Because these entitlements are required to implement the project, impacts to land use and planning would be less under the No Project Alternative when compared to the proposed Specific Plan. It should be noted that the Project site is designated for Low Medium Density residential development with a portion of the site designated for Commercial uses. Therefore, through the plan for development proposed by the Project, the Project site would be developed for residential and commercial uses consistent with the goals of existing General Plan and zoning. Land use and planning impacts would be similar to the proposed project.

Under the No Project/Development under Existing Zoning scenario, development would occur consistent with the General Plan and zoning, and would be compliant with applicable land use plans and policies. Because this alternative would also potentially provide affordable housing to satisfy the City's RHNA obligations, it may be considered more consistent with achieving the land use and planning goals of the City than the proposed Specific Plan.

i. Noise

Because the No Project Alternative would not include any of the physical development proposed in the Specific Plan, it would have no impact related to project construction or operational noise. Although the proposed Specific Plan's impacts related to long-term operation or temporary construction and vibration would be less than significant or less than significant with incorporation of mitigation, the No Project Alternative's noise impacts would be less than those of the proposed Specific Plan.

The No Project/Development under Existing Zoning scenario would have increased construction noise compared to the proposed Project as a result of the greater number of residences that could be constructed under existing zoning and would generate more operational noise impacts due to the increased number of houses and more commercial development that could be constructed pursuant to existing zoning. Therefore, under the No Project/Development under Existing Zoning scenario, noise would be greater than the proposed Specific Plan.

j. Population and Housing

The No Project Alternative would not include any of the physical development proposed in the Specific Plan; therefore, it would have no direct impact to population and housing growth. However, it also would not provide housing that would help meet the City's 2013-2021 RHNA goal of 908 housing units. The City rezoned a number of properties, including the Plan Area, to ensure that adequate sites were available to meet the City's 2013-2021 RHNA goal of 908 units (Walnut 2014). Construction of 290 housing units associated with the proposed Specific Plan would satisfy approximately 32 percent of the 908-unit goal and would help alleviate the demand for housing in the City while remaining within the SCAG forecasts for population growth. Based on the allowable density of the parcels within the Plan Area, the site could yield approximately 762 units (City of Walnut 2014). Therefore, the No Project alternative would not provide needed new housing as compared to the proposed Specific Plan. Overall, the No Project Alternative's impact on population and housing would be greater than the proposed Specific Plan because it would result in greater inconsistency with the City's land use plans than the proposed Specific Plan.

The No Project/Development under Existing Zoning scenario would implement the existing zoning and land uses and would have a greater number of residences than the proposed Specific Plan, and would result in increased population and housing growth. Because this would help the City fulfill its

land use and housing goals under its RHNA obligations, the No Project/Development under Existing Zoning scenario would reflect greater consistency with the City's RHNA goals than the proposed Specific Plan.

k. Public Services and Recreation

Because the No Project Alternative would not include the physical development proposed in the Specific Plan, it would have no impact related to public services. Therefore, although the impact of the proposed Specific Plan would be less than significant, the No Project Alternative's impact related to public would be less than that of the proposed Specific Plan.

The No Project/Development under Existing Zoning scenario would require public services, but similar to the proposed Specific Plan would also provide recreational opportunities commensurate with the amount of development that could be implemented under this alternative. Under the No Project/Development under Existing Zoning scenario, public services and recreation impacts would be similar to the proposed Specific Plan.

l. Transportation and Traffic

Under the No Project Alternative, no increase in traffic would occur and traffic would remain at current levels. Temporary traffic delays associated with construction activities under the proposed Specific Plan would not occur and there would be no increase in vehicle trips during the operation period. In comparison, the proposed project would result in significant traffic impacts at the intersection of Grand Avenue and Valley Boulevard, which would be unavoidable. Implementation of the proposed Specific Plan would generally generate increases in V/C ratio or vehicle delay for study intersections, although some intersections would experience V/C ratio or vehicle delay reductions with incorporation of project design features at Faure Avenue at its intersection with Valley Boulevard and Shopping Center Driveway to improve site access and circulation. With mitigation required by the project, the intersection of Grand Avenue and La Puente Road would also be improved. Therefore, impacts under this alternative would be less than under the proposed Specific Plan and project mitigation would not apply.

The No Project/Development under Existing Zoning scenario would have increased construction trips and long-term operational trips resulting from the greater number of residences that could be constructed under existing zoning. Similar to the proposed Specific Plan, the No Project/Development under Existing Zoning scenario would be required to implement mitigation measures to address potential impacts on traffic and circulation. Therefore, the No Project/Development under Existing Zoning scenario would have similar impacts to the proposed Specific Plan.

m. Utilities and Service Systems

No impact to utilities or service systems would occur under this alternative. As discussed in Section 4.9, *Utilities and Service Systems*, proposed development in the Plan Area would increase water demand and solid waste generation. However, such increases would not exceed system capacity and impacts would be less than significant. Nevertheless, this alternative's impact would be less in comparison to the proposed Specific Plan.

The No Project/Development under Existing Zoning scenario would require connections to utilities and service systems to serve the commercial and residential components of this alternative. Because the level of development was contemplated under the City's General Plan and Housing

Element, it is anticipated that build out of the site consistent with the existing General Plan and zoning would not exceed system capacity for the various utilities. As such, potential impacts to utilities and service systems would be similar to the proposed Specific Plan.

6.2 Alternative 2: Cluster Development

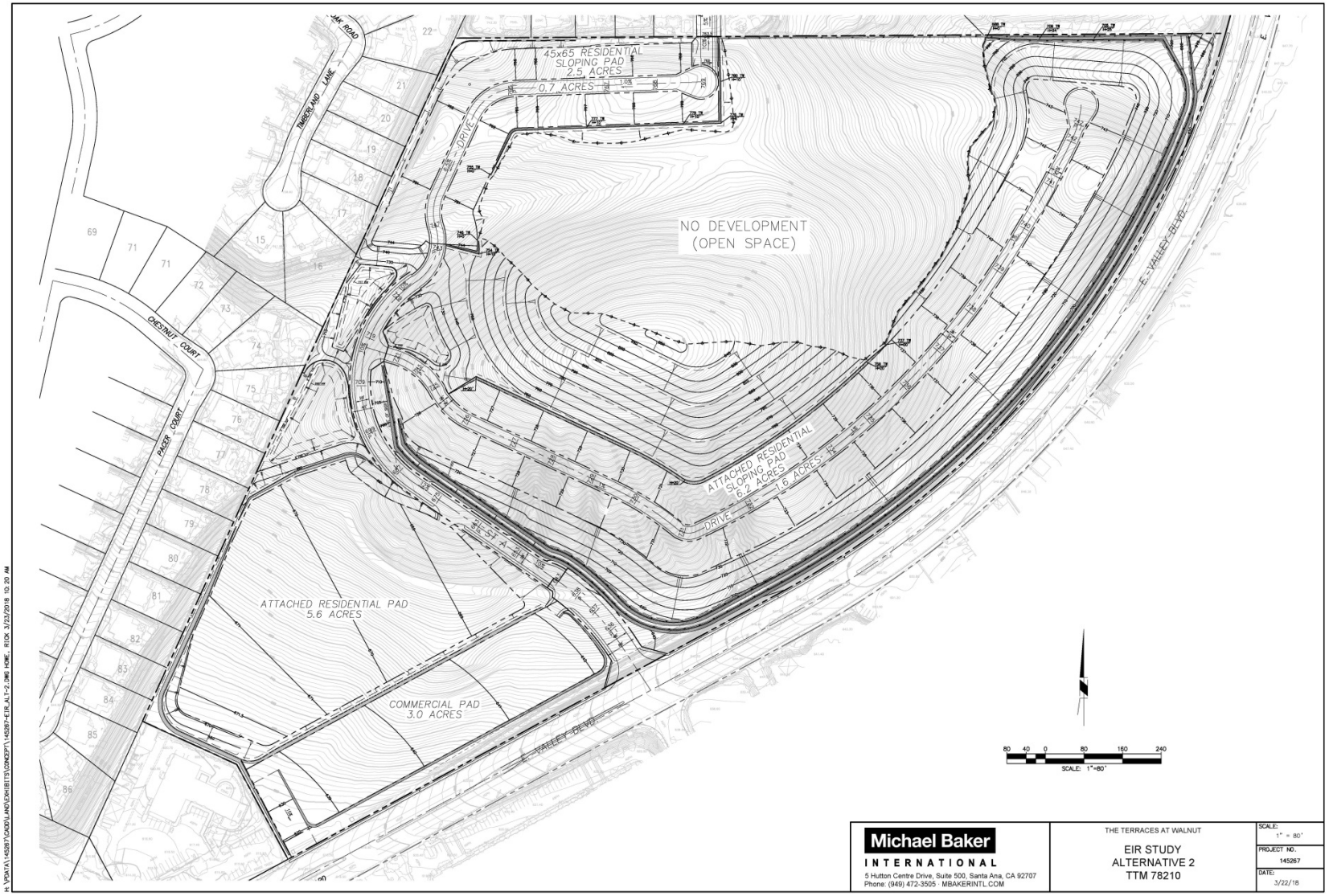
6.2.1 Description

The Cluster Development Alternative would eliminate a portion of the small-lot district uses at the center area of the Plan Area to create a smaller development footprint in the Plan Area. The center of the Plan Area would remain as undeveloped open space. As shown in Figure 6-1, development under this alternative would be concentrated at the northwestern, western, southern, and eastern boundaries of the Plan Area. Similar to the proposed project, this alternative would involve construction of a commercial district with two retail plazas, a small-lot district, and open space areas located at the southern and western boundaries of the Plan Area. However, the Cluster Development Alternative would change the large-lot district located at the northwestern boundary of the Plan Area to a small-lot district. As shown in Figure 6-1, the proposed residential units associated with this alternative would consist of 33 two-story single-family units, 83 two-story townhomes with a density of 15 dwelling units per acre, and 111 two- and three-story townhomes with a density of 18 dwelling units per acre. The Cluster Development Alternative would involve a total of 226 residential units, or 64 fewer units as compared to the 290 residential units proposed by the Project. Due to this reduction in units, Alternative 2 would not meet the project's Objectives related to consistency with the City of Walnut General Plan and Housing Element to the same extent as the proposed Project. Alternative 2 would also not include single-family, large-lot homes along the Plan Area's northern boundary (along Timberland Lane and Roundup Drive), thus not buffering the existing single-family homes abutting the Plan Area to the same extent as the project. The net acreage of development under this alternative would be 14.3 acres with a net density of 15.8 units per acre. Although the net acreage would be less than the 24 acres of development associated with the proposed project, the Cluster Development Alternative would concentrate more dwelling units per acre when compared to the net density of 12 units per acre associated with the proposed project.

Construction of the Cluster Development Alternative would require approximately 875,000 cubic yards of cut soil from the Plan Area and an export of approximately 100,250 cubic yards of soil, which would decrease the amount of cut soil by 33 percent but would increase the amount of exported soil by 18 percent compared to the proposed project.

Similar to the proposed project, pedestrian entry and vehicular access to the project site would be provided by a new street located at the southern boundary of the Plan Area off East Valley Boulevard. The project would also include installation of a public sidewalk along the frontage of East Valley Boulevard between the southern boundary and the Street A/Faure Avenue/Valley Boulevard intersection. Pedestrian access would also be provided by a walkway from Roundup Drive on the northern boundary of the Plan Area.

Figure 6-1 Alternative 2: Cluster Development



Parking for residents would consist of private driveways and garages, and pull-in spaces. Parking for commercial uses would be provided via on-surface lots. The total amount of parking spaces within the Plan Area has not been determined. Final parking plans for the proposed development would be required to comply with the Parking Standards that will be provided in the Specific Plan.

6.2.2 Impact Analysis

a. Aesthetics

The Cluster Development Alternative would include the same amount of commercial development as the proposed Specific Plan, but fewer residential units that would be constructed with a smaller overall building footprint. Commercial development would be located in the southwestern portion of the Plan Area. Residential development would be focused along the eastern and southern/ southwestern boundaries of the Plan Area, with single-family residences constructed at the northwestern corner. However, no development or grading would occur in the center of the Plan Area, which currently consists of a large vegetated hill. Under this alternative, the central portion of the Plan Area would remain in its current state and development would occur in the disturbed areas of the hill, which would be visible from surrounding neighborhoods. However, three-story townhomes would block some distant views of the remaining portions of hill.

Because residential development under this alternative would be located in proximity to existing residences along Pacer Court, Timberland Lane, and Roundup Drive, development would result in a change in visual character similar to that of the proposed Specific Plan. Backyard views from residences would change from views of a natural area to views of residential development with townhome residences proposed adjacent to Pacer Court and small lot residences proposed adjacent to Timberland Lane. However, as under the proposed Specific Plan, landscaped open space areas would be integrated throughout development to reduce building massing and maintain the existing vegetative character of the Plan Area. In addition, some backyard views would be altered under this alternative compared to the proposed Specific Plan. The residences along Timberland Lane and Roundup Drive would not have views of large lot homes but instead would see two story small-lot residences in the foreground with vegetated and undeveloped land in the background. It should be noted that the height of the hill would remain at the same level as it currently exists (854 AMSL). The proposed Specific Plan would lower the hill and the maximum height of the highest house would be at 827 AMSL, which is 27 feet lower than this alternative.

Similar to the proposed Specific Plan, windows on the proposed commercial and residential buildings under Alternative 2 would increase reflected sunlight during certain times of the day as compared to existing conditions in the Plan Area. Additionally, like the project, Alternative 2 would create new sources of light from the Plan Area due to the new commercial and residential development, particularly in the evening hours when interior lights would be on in the inside of buildings. However, Alternative 2 would result in fewer residential units and a smaller overall building footprint, as compared to the proposed Specific Plan. Still, Alternative 2 would, like the project, develop residential uses near existing residential uses, which would increase lighting in the vicinity of existing residences. Impacts resulting from light and glare would be similar to the proposed project. Overall, changes under this alternative would be similar to those of the proposed Specific Plan, and impacts would be less than significant.

b. Air Quality

Development under this alternative would occupy 10 fewer acres than development under the Specific Plan. Construction of the Cluster Development Alternative would require approximately 875,000 cubic yards of cut soil from the Plan Area and an export of approximately 100,250 cubic yards of soil, which would decrease the amount of cut soil by 33 percent and increase the amount of exported soil by 18 percent compared to the proposed project. This would increase the number of haul trips associated with grading activities by approximately 536 tandem haul truck loads or 1,071 round trips (in and out).

Alternative 2 would also reduce the overall area of construction from the proposed project, incrementally reducing the duration and scope of construction. As such, fewer emissions would be generated during the construction period. Ozone precursors NOx and VOC, as well as carbon monoxide (CO), would be still emitted by operation of construction equipment such as graders, backhoes, and generators, and fugitive dust (PM10) would still be emitted by activities that disturb the soil, such as grading and excavation and building construction. However, similar to the proposed project, standard emission control measures required by the SCAQMD would still apply. Therefore, construction impacts would be less than significant under this alternative and incrementally less when compared to the proposed project.

In addition, because 64 fewer residential units would be developed, operation of this alternative would generate approximately758 fewer project-generated daily trips, which would generate fewer vehicle emissions. Therefore, this alternative's impacts to air quality during operation would be less than those of the proposed Specific Plan. Impacts would also be less than significant.

c. Biological Resources

This alternative would result in a smaller development footprint (14.3 acres) than under the proposed Specific Plan (24 acres). Preservation of the northeastern portion of the Plan Area would involve less ground disturbance. Nevertheless, this alternative would still involve disturbance to areas that consist of coastal sage scrub. While the coastal sage scrub in the Plan Area is degraded and isolated, it is still able to provide some habitat function and was found to be utilized by California gnatcatcher. Therefore, impacts to the gnatcatcher would be similar to the project, and this impact would still be considered significant and would require mitigation. Implementation of Mitigation Measures BIO-1a through BIO-1c would reduce this alternative's impacts to California gnatcatcher to a less than significant level similar to the proposed Project.

This alternative would result in the removal of fewer trees than the proposed project and it would not impact all of the coastal sage scrub, resulting in reduced potential impacts on nesting birds and raptors than the proposed project. Nevertheless, this alternative would still involve disturbance to trees, a portion of the coastal sage scrub, and ruderal vegetation that could be used for nesting. Any direct impacts to nesting birds would be significant. Implementation of Mitigation Measure BIO-2 would reduce impacts to nesting birds to a less than significant level under this alternative. Like the project, this alternative would include grading and landscaping that would directly impact the Plan Area's potentially jurisdictional features. Implementation of Mitigation Measure BIO-4 would ensure impacts t to potential jurisdictional features are reduced to a less than significant level. Overall, this alternative's impact on biological resources would be incrementally less than those of the project and similar to the Project would be less than significant with mitigation incorporated.

d. Cultural and Tribal Resources

As discussed in Section 4.4, *Cultural and Tribal Cultural Resources*, no known cultural resources are present on the Plan Area; however, ground disturbance in the Plan Area has the potential to unearth or adversely impact previously unidentified archaeological, historic cultural, or tribal cultural resources. Although development would be reduced to a smaller footprint and scale, and no development would occur in the center of the Plan Area, this alternative could potentially disturb previously unidentified resources. Therefore, like the proposed project, this alternative would require Mitigation Measures CR-1a through CR-1c and CR-4a and CR-4b to reduce impacts to a less than significant level.

This alternative would reduce the risk of disturbance or destruction of significant paleontological resources compared to the proposed Specific Plan. Similar to the proposed project, the potential to discover paleontological resources during construction within the Plan Area ranges from low to high, depending on the location and depth of ground disturbance. Development under this alternative would be concentrated at the ridgeline of the Plan Area, or the northwestern, western, and southern boundaries of the Plan Area in areas determined to have a high paleontological sensitivity. Impacts would be similar to those of the proposed project and implementation of Mitigation Measures CR-2a through CR-2e would avoid or substantially lessen significant adverse impacts to paleontological resources.

e. Geology and Soils

The Cluster Development Alternative would create a smaller project footprint in the Plan Area, yielding only 14.3 acres of development as opposed to the 24 acres of development associated with the proposed project. Construction of this alternative would require approximately 875,000 cubic yards of cut soil from the Plan Area and an export of approximately 100,250 cubic yards of soil. This would be less than the proposed Specific Plan, which would require approximately 1,300,000 cubic yards of cut soil. However, the amount of exported soil would be greater in comparison to approximately 85,250 cubic yards under the proposed project. As with the proposed project, Mitigation Measure GEO-1, the erosion control plans, and construction BMPs would be implemented and a SWPPP would be prepared under this alternative to reduce potential erosion. Development under this alternative would comply with all applicable federal, state, and local construction and design standards to minimize risks to life and property. Therefore, similar to the proposed project, impacts would be less than significant with implementation of the mitigation; however, the smaller project footprint in the Plan Area would incrementally reduce impacts compared to the proposed project.

f. Greenhouse Gas Emissions

As discussed under Air Quality, because this alternative would have higher density development with a smaller building footprint, less grading cut and fill quantities and construction would be required, which would result in fewer short- term emissions from construction equipment and truck trips compared to the proposed Specific Plan. In addition, because this alternative would involve development of 64 fewer residential units compared to the proposed Specific Plan, there would be fewer emissions from building energy use generated during project operation. Like the proposed Specific Plan, this alternative would also implement a majority of the emission mitigation measures included in ARB's 2017 Scoping Plan Update and would be consistent with the emission reduction strategies included in SCAG's RTP/SCS. Overall, this alternative would have incrementally less GHG-

related impact than the proposed Specific Plan and, like the proposed Project, impacts would be less than significant with mitigation incorporated.

g. Hydrology and Water Quality

The Cluster Development Alternative would create a smaller project footprint in the Plan Area that would consist of 14.3 acres of development as opposed to the 24 acres of development associated with the proposed project. Nonetheless, similar to the proposed project, this alternative would increase the impervious surface area in the Plan Area, thereby increasing surface runoff and changing drainage patterns, though the overall amount of ground disturbance and new impervious surface area would be lower. Like the proposed project, development of the Cluster Development Alternative would be required to comply with current NPDES and associated local requirements; therefore, potential impacts to hydrology and water quality would be similar to the proposed project and would also be less than significant.

h. Land Use and Planning

The Cluster Development Alternative would include the same land uses but on a smaller project footprint in the Plan Area in comparison to the proposed project. Therefore, it would require the same entitlements as the proposed Specific Plan, which include a General Plan Amendment, adoption of the Specific Plan, and a zone change (refer to Section 2.7, *Required Approvals*, for the details). This alternative also implements the goals of the MU-HOO-3 zoning overlay but to a lesser degree as compared to the proposed Specific Plan. Upon approval of the requested entitlements, either this alternative or the proposed Specific Plan would comply with applicable land use plans and policies and impacts would be less than significant. The City rezoned a number of properties, including the Plan Area, to ensure that adequate sites were available to meet the City's 2013-2021 RHNA goal of 908 units (Walnut 2014). The Cluster Development Alternative would involve development of 226 residential units, or 64 fewer units when compared to the 290 residential units associated with the proposed project. Construction of 290 housing units associated with the proposed project would satisfy approximately 32 percent of the 908-unit goal, whereas construction of 226 units would satisfy approximately 25 percent. This alternative would address a lesser percentage of the City's housing shortage when compared to the proposed project. Nonetheless, land use and planning impacts would generally be the same as those of the proposed Specific Plan.

i. Noise

Temporary construction-related noise and vibration associated with this alternative would be incrementally less than that of the proposed project because this alternative would develop 226 residential units, or 64 fewer units than the 290 residential units associated with the proposed project. Project residential units and general construction activities would occur largely in the same proximity to existing sensitive receptors. But, due to the lesser number of overall units, the construction schedule would be incrementally shorter. Similar to the proposed project, this alternative would comply with the construction hours permitted by Section 3.40.030(A) of the WMC, and resulting vibration levels would not exceed thresholds and would not cause damage to structures surrounding the Plan Area. However, construction noise levels would still exceed low ambient noise levels at residences west and north of the Plan Area during the day. Therefore, as with the proposed project, Mitigation Measures N-1a through N-1i would be required to implement best management practices during construction to minimize construction noise impacts. Overall, impacts associated with construction noise and groundborne vibration would be incrementally less

than those of the proposed project, and as with the proposed project, would be less than significant or less than significant with mitigation incorporated.

Similar to the proposed project, this alternative would involve construction of a commercial area, small-lot residences, and open space areas located at the southern and western boundaries of the Plan Area apart from residential uses. Therefore, operational noise under this alternative would be similar to that of the proposed project. Although the proposed project would not have a significant traffic noise impact, traffic noise increases associated with this alternative would be incrementally lower than those of the proposed project due to the 64-unit decrease in residences and associated reduction in motor vehicle trips. Therefore, noise impacts under this alternative would be incrementally less than those of the proposed project and would be less than significant.

j. Population and Housing

Alternative 2 would involve development of 226 residential units, or 64 fewer units when compared to the 290 residential units associated with the proposed project. Therefore, its contribution to population and housing growth would be incrementally reduced when compared to the proposed Specific Plan. Population growth under the proposed Specific Plan would be within SCAG's 2020 population forecast of 31,900 from the 2016 RTP/SCS (SCAG 2016). Under this alternative, population growth would be less than the proposed Specific Plan and, therefore, also within the SCAG projection. As with the proposed project, impacts would be less than significant.

The City rezoned a number of properties, including the Plan Area, to ensure that adequate sites were available to meet the City's 2013-2021 RHNA goal of 908 units (Walnut 2014). Construction of 290 housing units associated with the proposed project would satisfy approximately 32 percent of the 908-unit goal, whereas construction of 226 units would satisfy approximately 25 percent. The Cluster Development Alternative would address a lesser percentage of the City's housing shortage when compared to the proposed project. All the proposed units under Alternative 2 would fall under the above moderate-income group. Construction of 226 housing units would satisfy the City's need for above moderate units, which accounts for 40 percent of the RHNA. The City has a shortfall of sites for meeting its above moderate income RHNA (City of Walnut 2014). Therefore, although this alternative would provide needed new housing, the decrease in housing units as compared to the proposed Specific Plan would reduce the benefits in this regard. Overall, similar to the proposed project, impacts under Alternative 2 would be less than significant.

k. Public Services and Recreation

The Cluster Development Alternative would reduce the number of residential dwelling units from 290 units to 226 units. Therefore, this alternative would create less demand for public services (such as fire protection services and recreational facilities) because it would generate approximately 64 fewer residences than the proposed Specific Plan. As discussed in Section 4.8, *Public Services and Recreation*, the proposed project's impact related to public services would be less than significant. In addition, the proposed Specific Plan would not result in a decrease of the City's ratio of public parks to residents below the Quimby Act standard of three acres of parkland for every 1,000 residents. This alternative's impact would be incrementally less than that of the proposed project, and impacts would also be less than significant.

l. Transportation and Traffic

As shown in Table 6-2, this alternative would generate an estimated 3,699 ADT, including 260 AM peak hour trips and 233 PM peak hour trips. This is 758 fewer ADT, 79 fewer AM peak hour trips,

and 100 fewer PM peak hour trips as compared to the proposed Specific Plan. As a result, overall daily traffic impacts and impacts at study intersections and road segments during peak hours would be less than those of the proposed Specific Plan. Nevertheless, because some intersections currently operate or are forecasted to operate at an unacceptable LOS, and this alternative would generate new vehicle trips, it would require similar mitigation measures as the proposed Specific Plan to reduce impacts to the local transportation system. Furthermore, even with incorporated mitigation, due to existing right-of-way constraints, traffic impacts would remain significant and unavoidable at the Grand Avenue/Valley Boulevard intersection. Similar to the proposed Specific Plan, due to existing right-of-way constraints, no mitigation would reduce traffic impacts at this intersection to a less than significant level. Therefore, although this alternative would generate fewer vehicle trips and traffic impacts than the proposed Specific Plan, impacts would remain the same as the proposed project and would result in a significant and unavoidable impact the Grand Avenue and Valley Boulevard intersection.

Table 6-2 Alternative 2 – Trip Generation Comparison

	Proposed Specific Plan	Alternative 2: Cluster Development	Difference (Alternative 2 - Proposed)
Average Daily Traffic (ADT)	4,457	3,699	-758
AM Peak Hour Trips	339	260	-79
PM Peak Hour Trips	333	233	-100

Note: Trip generation rates for land uses Trip Generation, 10th Edition, Institute of Transportation Engineers (ITE), 2017

m. Utilities and Service Systems

The Cluster Development Alternative involves fewer residential dwelling units than the proposed project and an increase in open space. Table 6-3 compares water demand and solid waste generation associated with this alternative to those of the proposed project. The analysis for this alternative conservatively assumes that the undeveloped open space in the center of the Plan Area would be irrigated, in addition to the proposed residences and landscaped open space, so the demand for water would increase by approximately 85 acre-feet per year (AFY), or 80 percent more, than the proposed project. This alternative's estimated average water demand represents approximately 0.7 percent of the estimated 2035 Walnut Valley Water District (WVWD) water demand of 26,012 AFY. Therefore, implementation of the Alternative 2 would not require new or expanded entitlements for water supplies. Alternative 2 would generate approximately 105 tons per year less of solid waste, or 17 percent less, as compared to the proposed project. Operational solid waste generated in the Plan Area under Alternative 2 would therefore account for approximately 0.02 percent of the combined average daily available capacity of 8,400 tons per day at Olinda Alpha Sanitary Landfill and El Sobrante Landfill. As with the proposed project, impacts under Alternative 2 would be less than significant, and mitigation would not be required.

Table 6-3 Water Demand and Solid Waste Generation of Alternative 2

	Proposed Specific Plan	Cluster Development Alternative	Difference
Water Demand	107 AFY	192 AFY	85 AFY
Solid Waste Generation	623 tons per year	518 tons per year	-105 tons per year

AFY: acre-feet per year
Estimates for the proposed Specific Plan are from Section 4.9, *Utilities and Service Systems*. Estimates for the Cluster Development Alternative are based on the number of residential dwelling units shown in Table 6-1.
Numbers in table have been rounded.

6.3 Alternative 3: Reduced Walls

6.3.1 Description

The Reduced Walls Alternative would not involve construction of walls parallel to Pacer Court at the western boundary of the Plan Area. As shown in Figure 6-2, this alternative would also shift development of the proposed residential units in the small-lot district located at the southwestern boundary of the Plan Area to the center of the Plan Area and change the designation of the Townhome District to open space. In addition, the commercial district would include two retail plazas at the southern boundary of the Plan Area. Similar to the proposed project, this alternative would maintain the large-lot district, open space areas, small-lot district, and pedestrian connection path located at the northwestern and center areas of the Plan Area.

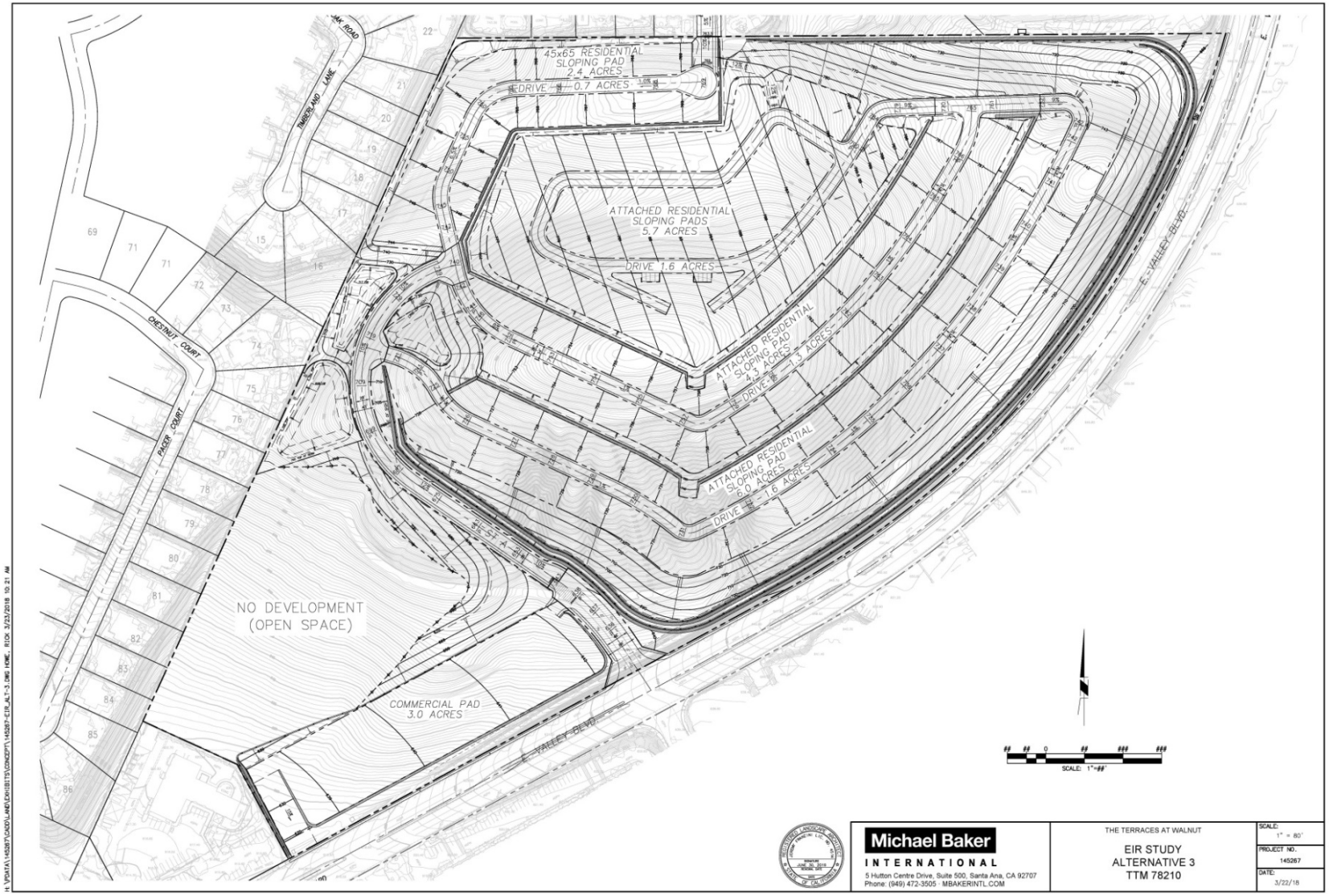
As shown in Table 6-1, the proposed residential units associated with this alternative would consist of 33 two-story single-family units, 90 two-story townhomes with a density of 15 dwelling units per acre, 77 two- and three-story townhomes with a density of 18 dwelling units per acre, and 114 three-story townhomes with a density of 20 dwelling units per acre. This alternative would include a total of 314 residential units, which would be 24 more units when compared to the 290 residential units under the proposed project. The net acreage of development under this alternative would be 18.4 acres with a net density of 17.1 units per acre. Although the net acreage would be less than the 24 acres of development associated with the proposed project, this alternative would concentrate more dwelling units per developed acre when compared to the net density of 12.0 units per acre associated with the proposed project.

Construction of the Reduced Walls Alternative would require approximately 1,200,000 cubic yards of cut soil from the Plan Area and an export of approximately 94,250 cubic yards of soil, which would decrease the amount of cut soil by approximately eight percent and increase the amount of exported soil by approximately 11 percent in comparison to the proposed project.

Similar to the proposed project, pedestrian entry and vehicular access to the project site would be provided by a new street located at the southern boundary of the Plan Area off East Valley Boulevard. The project would include installation of a public sidewalk along the commercial frontage of East Valley Boulevard in between the southern boundary of the Plan area and the Street A/Faure Avenue/Valley Boulevard intersection. Pedestrian access would also be provided by a walkway from Roundup Drive on the northern boundary of the Plan Area.

Parking for residents would consist of private driveways and garages, and pull in spaces. Parking for commercial uses would be provided via on-surface lots. The total amount of parking spaces under this alternative has not been determined. However, final parking plans for the proposed development would be required to comply with the Parking Standards that will be provided in the Specific Plan.

Figure 6-2 Alternative 3: Reduced Walls



6.3.2 Impact Analysis

a. Aesthetics

Development under the Reduced Walls Alternative would include the same amount of commercial development, but an additional 24 residences compared to the proposed Specific Plan. The residential development would be concentrated in the central portion of the Plan Area and no residences would be located in the southwestern corner of the Plan Area. No MSE walls would be constructed in this area, and this area would remain undeveloped open space.

Since no walls or residential development would be constructed in the southwest corner of the Plan Area under this alternative, the views from the backyards of the residences along Pacer Court would as see across a natural hill to the commercial development on Valley. However, the visual changes in character of the Plan Area from residences along Timberland Lane and Roundup Drive would be slightly greater under this alternative due to the increased building heights of the two-story single-family residences and three-story townhomes along the northwestern corner of the Plan Area. Nonetheless, all development would be designed to be visually consistent with surrounding residential development and open space would be incorporated throughout development to reduce building massing. Overall, maintaining a portion of the Plan Area in its existing condition would reduce changes to the character of the area in comparison to the proposed Specific Plan, and impacts would be less than significant.

Light and glare impacts under this alternative would be similar to but slightly greater than the proposed Specific Plan due to the 24 additional residences, which would increase the amount sources of light and glare (windows, cars, etc.) in the Plan Area. However, the project would be required to comply with applicable standards and lighting plans would be reviewed by the Architectural Commission and/or Planning Commission prior to issuance of development permits, and the exterior facades of both residential and commercial structures would be constructed with neutral muted and earth tone colored non-reflective materials. Therefore, although levels of lighting and glare under this alternative would slightly increase in comparison to the proposed Specific Plan, impacts would be less than significant. Nonetheless, taking into consideration the reduction in impacts associated with the changes in character, the aesthetic impacts would be less than the proposed Specific Plan under this alternative.

b. Air Quality

As mentioned under Section 6.3.1, *Description*, construction of the Reduced Walls Alternative would require approximately 1,200,000 cubic yards of cut soil from the Plan Area and an export of approximately 94,250 cubic yards of soil, which would decrease the amount of cut soil by eight percent and increase the amount of exported soil by 11 percent in comparison to the proposed project.

This would increase the required number of haul truck roundtrips to transport excavated soil by 321 tandem haul truck loads or 643 round trips, which would increase emissions. Specifically, NO_X emissions generated from haul truck trips would slightly exceed regulatory thresholds during one of the six construction years. Although this alternative would include development of 24 more residential units, and therefore would generate slightly greater emissions from construction equipment, emissions for other pollutants would remain below threshold levels. With inclusion of the tandem truck requirement, high-efficiency engines, and a slight modification to the construction schedule involving a lengthened grading phase as compared to the proposed project timeline, all air

quality impacts during construction under this alternative would be mitigated to less than significant. Nonetheless, air quality impacts would be greater under this alternative in comparison to the proposed project.

This Alternative would result in 180 fewer single-family residences and 204 more townhome residences, as compared to the proposed project. Therefore, operational activities under this alternative would generate approximately 178 fewer daily resident vehicle trips and result in less vehicle emissions due to the development of fewer single-family residences. However, this alternative would incorporate the same sustainability features as the proposed Specific Plan related to trip reduction, as well as building energy use, which would reduce total emissions to levels below the threshold. Therefore, overall impacts to air quality during operation period would be incrementally less than those of the proposed Specific Plan, but be less than significant level.

c. Biological Resources

This alternative would result in a smaller development footprint (18.4 acres) than under the proposed Specific Plan, with the preservation of the southwestern portion of the Plan Area. Therefore, this alternative would involve a decrease in the land disturbance to the Plan Area than under the proposed Specific Plan. Nevertheless, this alternative would involve disturbance to areas that have the potential to support special-status species (see Table 4.3-1 of Section 4.3, *Biological Resources*). This alternative would remove all of the coastal sage scrub on-site, like the proposed project, which may be utilized by California gnatcatcher. Any direct impacts to the species would be significant. Implementation of Mitigation Measures BIO-1a through BIO-1c would reduce impacts to California gnatcatcher to a less than significant level under this alternative.

This alternative would impact less of the habitat on-site, resulting in reduced potential impacts on nesting birds than the proposed project. Nevertheless, this alternative would still involve disturbance to trees, coastal sage scrub, and ruderal vegetation that could be used for nesting. Implementation of Mitigation Measure BIO-2 would reduce impacts to nesting birds to a less than significant level under this alternative. Like the Project, this alternative would include grading and landscaping that would directly impact the Plan Area's potential jurisdictional features. Implementation of Mitigation Measure BIO-4 will ensure impacts t to potential jurisdictional features are reduced to a less than significant level.

Overall, this alternative's impact on biological resources would be less than those of the proposed Specific Plan, and similar to the proposed Project, would be less than significant with mitigation incorporated.

d. Cultural and Tribal Resources

As discussed in Section 4.4, *Cultural and Tribal Cultural Resources*, no cultural or tribal cultural resources are known to be present on the Plan Area; however, ground disturbance in the Plan Area has the potential unearth or adversely impact previously unidentified archaeological and/or historic cultural resources. Although development would be reduced to a smaller footprint, impacts would be similar to those of the proposed project and this alternative would require Mitigation Measures CR-1a through CR-1c to reduce impacts to a less than significant level.

The net acreage of development under this alternative would be less compared to the proposed project, and consequently would the risk of disturbance or destruction of significant paleontological resources compared to the proposed project would be reduced. Similar to the proposed project, the potential to discover paleontological resources during construction ranges from low to high,

depending on the location and depth of ground disturbance. This alternative would shift portions of the project footprint to the center of the Plan Area, which is determined to have a high paleontological sensitivity. As with the proposed project, implementation of Mitigation Measures CR-2a through CR-2e would reduce potential impacts to paleontological resources to a less than significant level.

e. Geology and Soils

The Reduced Walls Alternative would create a smaller project footprint in the Plan Area (18.4 acres of development as opposed to the 24 acres of development associated with the proposed Specific Plan). Construction of this alternative would require approximately 1,200,000 cubic yards of cut soil from the Plan Area and an export of approximately 94,250 cubic yards of soil. This would be less than the proposed Specific Plan, which would require approximately 1,300,000 cubic yards of cut soil and would export approximately 85,250 cubic yards. Like the proposed Specific Plan, Mitigation Measure GEO-1, erosion control plans and construction BMPs would be implemented and a SWPPP would be prepared under this alternative to reduce potential erosion. Development under this alternative would comply with applicable federal, state, and local construction and design standards to minimize risks to life and property. The Reduced Walls Alternative would have a smaller project footprint in the Plan Area which would result in incrementally less impact to geology and soils compared to the proposed project. As with the proposed project, and potential impacts would be less than significant with implementation of mitigation.

f. Greenhouse Gas Emissions

As discussed under *Air Quality*, because development under this alternative would have a higher development density with a smaller total building footprint in the Plan Area, less grading cut and fill quantities would be required. Thus, this alternative would result in fewer emissions during the excavation phase. However, more haul truck trips would be required to transport the excess graded material. Additionally, because 24 more residential units would be included under this alternative, construction activities would generate slightly greater emissions from construction equipment compared to the proposed Specific Plan. The additional residences under this alternative would also generate incrementally more emissions from building energy use but less resident vehicle trips during project operation. This alternative would employ the same sustainability features as the proposed Specific Plan, which would help reduce operational emissions. This alternative would also incorporate a majority of the mitigation measures provided in CARB's 2017 Scoping Plan Update, and would be consistent with the goals and policies of SCAG's 2016 RTP/SCS. Although 24 more residential units would be constructed under this alternative, like the Project, the alternative would implement various GHG-reducing measures consistent with the Scoping Plan, AB 32 and other applicable plans and goals. GHG impacts would be less than significant, but would increase in comparison to the proposed project due to an increased housing capacity.

g. Hydrology and Water Quality

The Reduced Walls Alternative would create a smaller project footprint in the Plan Area (18.4 acres of development as opposed to the 24 acres under the proposed Specific Plan). Similar to the proposed project, this alternative would increase the impervious surface area in the Plan Area, thereby increasing surface runoff and changing drainage patterns. Development of this alternative would be required to comply with current NPDES and associated local requirements. In comparison

to the proposed Specific Plan, impacts to hydrology and water quality would similar under this alternative and would be less than significant.

h. Land Use and Planning

The Reduced Walls Alternative would include the same land uses, but on a smaller project footprint compared to the proposed project. Therefore, this alternative would require the same entitlements as the proposed project and would comply with the applicable plans and policies. The proposed Specific Plan would require the following entitlements: General Plan Amendment, adoption of the Specific Plan, and a zone change (refer to Section 2.7, *Required Approvals*, for the details). Upon approval of the requested entitlements, the proposed Specific Plan would comply with applicable land use plans and policies and impacts would be less than significant. This alternative also implements the goals of the MU-HOO-3 zoning overlay. The City rezoned a number of properties, including the Plan Area, to ensure that adequate sites were available to meet the City's 2013-2021 RHNA goal of 908 units (Walnut 2014). The Reduced Walls Alternative would involve development of 24 more units compared to the proposed Specific Plan Construction of 290 housing units. The proposed project would satisfy approximately 32 percent of the 908-unit goal, whereas construction of 314 units would satisfy approximately 36 percent. The Reduced Walls Development Alternative would address a greater percentage of the City's housing shortage when compared to the proposed project. However, land use and planning impacts associated with this alternative would be generally the same as the proposed Specific Plan and would be less than significant.

i. Noise

The Reduced Walls Alternative would develop 24 more units in comparison to the proposed Specific Plan, which would result in an incremental increase in construction noise. However, less grading quantities would occur under this alternative (100,000 cubic yards less than the proposed project), so overall construction noise impacts would be similar to the proposed project. In addition, similar to the proposed project, this alternative would comply with the construction hours permitted by Section 3.40.030(A) of the WMC, and vibration levels would not exceed thresholds and would not cause damage to structures surrounding the Plan Area. However, construction noise levels would still exceed low ambient noise levels at residences west and north of the Plan Area during the day. Therefore, as with the proposed project, Mitigation Measures N-1a through N-1i would be required to implement best management practices during construction to minimize construction noise impacts. Therefore, similar to the proposed project, overall construction-related noise and vibration would remain less than significant or less than significant with mitigation incorporated.

Similar to the proposed project, this alternative would involve construction of a commercial district with two retail plazas, small-lot district, and open space areas located at the southern and western boundaries of the Plan Area. Therefore, operational noise under this alternative would be similar to the proposed project. This Alternative would result in 180 fewer single-family residences and 204 more townhome residences, as compared to the proposed project. Therefore, traffic noise associated with this alternative would be incrementally less than those of the proposed project due to the development of fewer single-family residences and associated motor vehicle trips. However, traffic-generated noise from Plan Area development under this alternative would remain under thresholds. Although noise impacts under the Reduced Walls Alternative would be incrementally greater than those of the proposed project, impacts would remain less than significant.

j. Population and Housing

The Reduced Walls Alternative would involve development of 24 more units compared to the proposed Specific Plan. Therefore, this alternative's contribution to population and housing growth would be incrementally more when compared to the proposed Specific Plan. The proposed Specific Plan would increase the City's estimated existing population of 30,457 to 31,537, which would be within SCAG's 2020 population forecast of 31,900 from the 2016 RTP/SCS (SCAG 2016). Under this alternative, the population would further increase by approximately 84 persons (24 housing units multiplied by the City's average household size of 3.48) for an estimated City population growth of 31,621. However, total population growth would still be within the SCAG projection and impacts would remain less than significant.

The City rezoned a number of properties, including the Plan Area, to ensure that adequate sites were available to meet the City's 2013-2021 RHNA goal of 908 units (Walnut 2014). Construction of 290 housing units associated with the proposed project would satisfy approximately 32 percent of the 908-unit goal, whereas construction of 314 units would satisfy approximately 36 percent. All the proposed units under Alternative 3 would fall under the above moderate-income group. Construction of 314 housing units would satisfy the City's need for above moderate units, which accounts for 40 percent of the RHNA. The City has a shortfall of sites for meeting its above moderate income RHNA (City of Walnut 2014). The Reduced Walls Alternative would address a greater percentage of the City's housing shortage when compared to the proposed project. Overall, similar to the proposed project, impacts under Alternative 3 would be less than significant.

k. Public Services and Recreation

The Reduced Walls Alternative would increase the number of residential dwelling units from 290 units to 314 units. Therefore, this alternative would create incrementally more demand for public services (such as fire protection services and recreational facilities). However, an increase of 24 residential units would not create the need for new or expanded fire or police protection facilities. Under the Reduced Walls Alternative, the population would further increase by approximately 84 persons (24 housing units multiplied by the City's average household size of 3.48) for an estimated population growth of 30,457 to 31,621. Based on the City's existing supply of approximately 105 acres of parkland, the increase in 1,164 residents under this alternative would result in the City's ratio of public parks to residents decreasing from 3.45 acres to 3.33 acres per 1,000 residents. However, the ratio would remain above the Quimby Act standard of three acres of parkland for every 1,000 residents and this alternative would, like the project, include parks and open space. Similar to the proposed project, this alternative would require the payment of Quimby Act Fees to offset park impacts. Therefore, the proposed Specific Plan would not result in a need for new or expanded park facilities. Overall, impacts to public services would be incrementally greater than those of the proposed Specific Plan due to the increase in on-site population and residential units. However, as with the proposed Specific Plan, impacts would remain less than significant.

l. Transportation and Traffic

As shown in Table 6-4, this alternative would generate an estimated 4,279 ADT, including 300 AM peak hour trips and 274 PM peak hour trips. This is 178 fewer ADT, 39 fewer AM peak hour trips, and 59 fewer PM peak hour trips as compared to the proposed Specific Plan. As a result, overall daily traffic impacts and impacts at study intersections and road segments during peak hours would be slightly less than under the proposed Specific Plan. Because some intersections currently operate at and/or are forecasted to operate at an unacceptable LOS, the increased vehicle trips generated

under this alternative would further worsen LOS conditions at these intersections. Mitigation similar to measures T-1 through T-6b required for the proposed Specific Plan would be needed to reduce potential effects to the local transportation system. However, as with the proposed Specific Plan, due to existing right-of-way constraints at the intersection of Grand Avenue and Valley Boulevard intersection, the traffic impact would remain significant and unavoidable at that location. Although this alternative would result in less vehicle trips, as with the proposed project, impacts associated with this alternative would be significant and unavoidable.

Table 6-4 Alternative 3 – Trip Generation Comparison

	Proposed Specific Plan	Alternative 3: Reduced Walls	Difference (Alternative 3-Proposed)
Average Daily Traffic (ADT)	4,457	4,279	-178
AM Peak Hour Trips	339	300	-39
PM Peak Hour Trips	333	274	-59

Note: Trip generation rates for land uses Trip Generation, 10th Edition, Institute of Transportation Engineers (ITE), 2017

m. Utilities and Service Systems

The Reduced Walls Alternative involves 24 more residential dwelling units than the proposed project. Additionally, this alternative involves more park and slope area than the proposed project. This analysis assumes that parks and slopes would be irrigated. Table 6-5 compares water demand and solid waste generation associated with this alternative to those of the proposed project. Water demand under this alternative would increase by approximately 84 acre-feet per year (AFY), or 79 percent more, than the proposed project. This alternative's estimated average water demand represents approximately 0.7 percent of the estimated 2035 Walnut Valley Water District (WVWD) water demand of 26,012 AFY. Therefore, implementation of the Alternative 3 would not require new or expanded entitlements for water supplies. Alternative 3 would generate approximately 92 tons per year more of solid waste, or 15 percent more, as compared to the proposed project. Operational solid waste generated in the Plan Area under Alternative 3 would therefore account for approximately 0.02 percent of the combined average daily available capacity of 8,400 tons per day at Olinda Alpha Sanitary Landfill and El Sobrante Landfill. As with the proposed project, impacts under Alternative 3 would be less than significant and mitigation would not be required.

Table 6-5 Water Demand and Solid Waste Generation of Alternative 3

	Proposed Project	Reduced Walls Alternative	Difference
Water Demand	107 AFY	191 AFY	+84 AFY
Solid Waste Generation	623 tons per year	715 tons per year	+92 tons per year

AFY: acre-feet per year

Estimates for the proposed project are from Section 4.9, *Utilities and Service Systems*. Estimates for the Reduced Walls Alternative are based on the number of residential dwelling units shown in Table 6-1. Demand and generation factors used for calculations can be found in Section 4.9, *Utilities and Service Systems*.

Numbers in table have been rounded.

6.4 Alternative 4: Four-Story Units with Reduced Walls

6.4.1 Description

Similar to the Reduced Walls Alternative (Alternative 3), the Four-Story Units with Reduced Walls Alternative would not involve walls parallel to Pacer Court at the western boundary of the Plan Area. As shown in Figure 6-3, this alternative would also shift development of the proposed residential units in the small-lot district located at the southwestern boundary of the Plan Area to the center of the Plan Area and change the designation of this small-lot district to open space. Similar to the proposed project, this alternative would maintain the large-lot district, open space areas, small-lot district, pedestrian connection path, and commercial district located at the northwestern, center, and southern areas of the Plan Area.

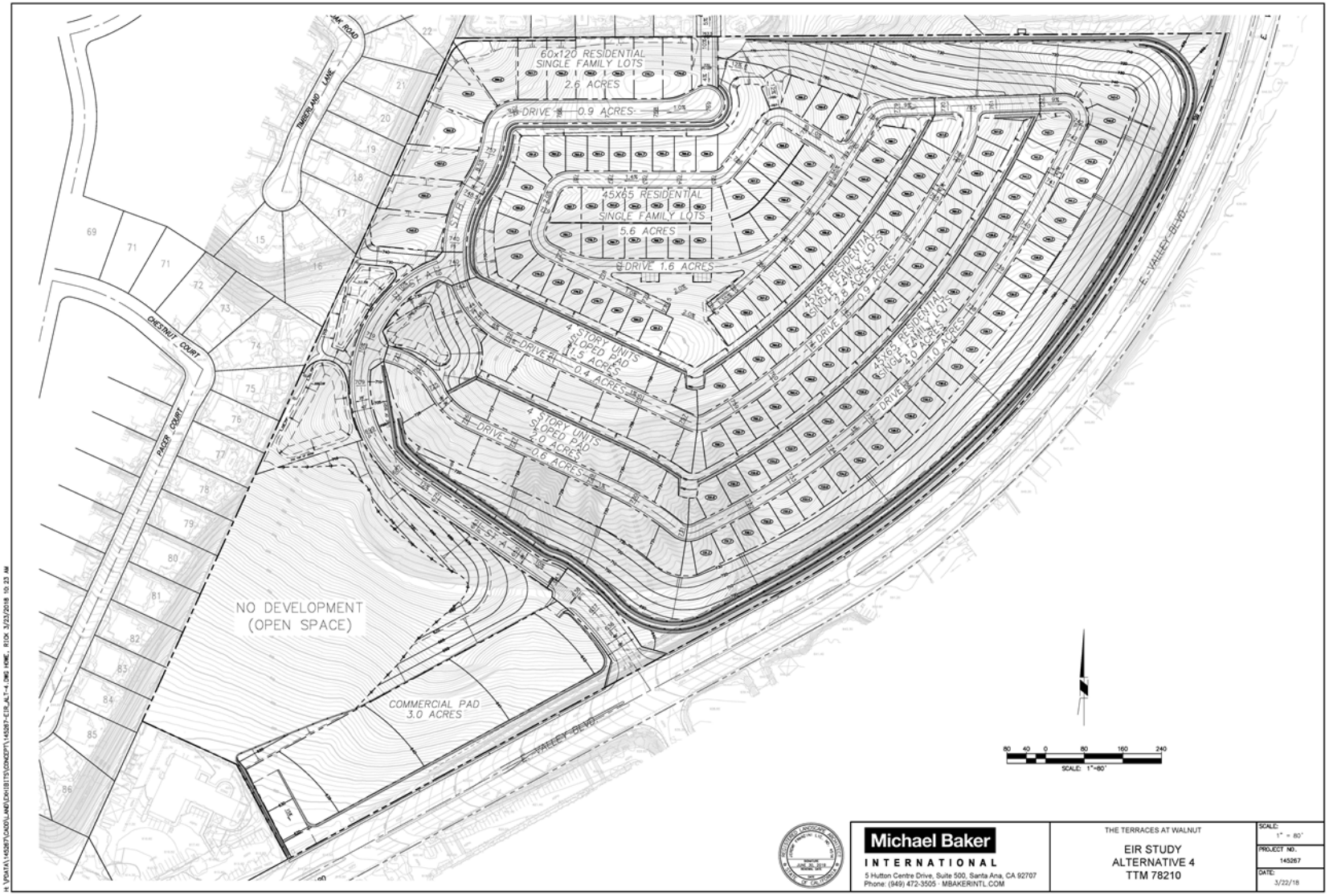
As shown in Table 6-1, the proposed residential units associated with this alternative would consist of 12 large single-family dwellings, 147 two-story single-family units, and 77 four-story apartment flats with a density of 22 dwelling units per acre. The four-story residential units associated with the alternative would be located at the center of the Plan Area. Overall, the Four-Story Reduced Walls Alternative would develop a total of 236 residential units, or 54 fewer units than the 290 residential units associated with the proposed project. The net acreage of development under this alternative would be 18.5 acres with a net density of 12.8 units per acre. Although the net acreage would be less than the 24 acres of development associated with the proposed project, the Four-Story Reduced Walls Alternative would concentrate slightly more dwelling units per developed acre when compared to the net density of 12.0 units per acre associated with the proposed project. This alternative would also include 3 acres of commercial development.

Construction of the Four-Story Reduced Walls Alternative would require approximately 1,175,000 cubic yards of cut soil from the Plan Area and an export of approximately 34,250 cubic yards of soil, which would decrease the amount of cut soil by 10 percent and decrease the amount of exported soil by 60 percent in comparison to the proposed project.

Similar to the proposed project, pedestrian entry and vehicular access to the project site would be provided by a new street located at the southern boundary of the Plan Area off East Valley Boulevard. The project would include installation of a new public sidewalk along the frontage of East Valley Boulevard in between the southern boundary of the Plan Area and the A Street/Faure Avenue/Valley Boulevard intersection. Pedestrian access would also be provided by a walkway from Roundup Drive on the northern boundary of the Plan Area.

Parking for residents would consist of private driveways and garages, and pull in spaces. Parking for commercial uses would be provided via on-surface lots. The total amount of parking spaces under this alternative has not been determined. However, final parking plans for the proposed development would be required to comply with the Parking Standards that will be provided in the Specific Plan.

Figure 6-3 Alternative 4: Four-Story Units with Reduced Walls



6.4.2 Impact Analysis

a. Aesthetics

This alternative would not include walls or residential development in the southwest corner of the Plan Area. In comparison to the proposed project, this would reduce the visual impacts associated with the change character of the Plan Area from the single-family residences along Pacer Court. The proposed four-story townhomes would still be visible from these homes; however, the townhomes would not alter any existing scenic views. In addition, and similar to the proposed project, development would be designed with integrated open space to be visually cohesive with other residential development in the surrounding area. Under the proposed project, residential uses would consist of 12 single-family residences at the northwest corner of the Plan Area with a maximum two-story height limit, up to 83 townhome residences at the southwestern corner of the Plan Area with a maximum two-story height limit, and up to 213 small-lot multi-family residences primarily in the center of the Plan Area with a maximum height of 35 feet, or no more than three stories. Under the proposed project, the proposed single-family residences and commercial structures would be similar in height to adjacent residences and commercial development surrounding the site. Impacts to the character of Plan Area from residences along Timberland Lane and Roundup Drive would be similar to the proposed Specific Plan because one-story single-family lots would be constructed along the northwestern corner of the Plan Area with the small-lot homes in the distance. However, the four-story townhomes farther south would not be visible from these residences, and therefore the increased building height under this alternative would not obstruct existing residential views. Furthermore, all townhomes would be designed to be visually consistent with surrounding residential development, and open space would be incorporated throughout development to reduce building massing. Therefore, visual impacts would be less than the proposed Specific Plan and would be less than significant.

Because this alternative would include 54 fewer residences than the proposed Specific Plan, light and glare impacts under this alternative would be similar to but slightly less than the proposed Specific Plan due to the reduced amount of light sources such as windows and car windshields. Furthermore, the exterior facades of both residential and commercial structures would be constructed with neutral muted and earth tone colored non-reflective materials, similar to the proposed Specific Plan. Therefore, overall levels of lighting and glare associated with the residential and commercial buildings under this alternative would be less than the proposed Specific Plan, and would be less than significant.

b. Air Quality

The Four-Story Units with Reduced Walls Alternative would involve development of residential and commercial uses in a smaller overall building footprint and would focus all development in the center of the Plan Area, leaving the southwestern portion as undeveloped open space. Because development under this alternative would occupy less overall acreage, less grading would be required. Approximately 51,000 fewer cubic yards of graded material would be exported from the site, resulting in approximately 1,821 fewer haul truck trip loads and 3,642 round trips (one in/one out) transporting the exported material, which would generate fewer emissions during the construction period. Ozone precursors NOx and VOC, as well as carbon monoxide (CO), would be still emitted by operation of construction equipment such as graders, backhoes, and generators, and fugitive dust (PM10) would still be emitted by activities that disturb the soil, such as grading and excavation and building construction. However, similar to the proposed project, standard emission

control measures required by the SCAQMD would still apply. Therefore, construction impacts would be less than significant under this alternative and incrementally less when compared to the proposed project. In addition, as 54 fewer residential units would be constructed, during operation approximately 451 fewer project-generated trips would occur. Overall, air quality impacts during construction and operation of this alternative would be less than the proposed project and would be less than significant.

c. Biological Resources

Similar to the Reduced Walls Alternative (Alternative 3), this alternative would result in a smaller development footprint (18.5 acres) than proposed under the project, with the preservation of the southwest portion of the site. Therefore, this alternative would involve a decrease in disturbance to the project site than under the proposed project. Nevertheless, this alternative would involve disturbance to areas that have the potential to support special-status species (see Table 4.3-1 of Section 4.3, *Biological Resources*).

Like the proposed project, this alternative would remove all of the coastal sage scrub on-site, which may be utilized by California gnatcatcher. Any direct impacts to the species would be significant. Implementation of Mitigation Measures BIO-1a through BIO-1c would reduce impacts to California gnatcatcher to a less than significant level under this alternative.

This alternative would disturb less of the habitat in the Plan Area, resulting in reduced potential impacts on nesting birds compared to the proposed project. Nevertheless, this alternative would involve disturbance to trees, coastal sage scrub, and ruderal vegetation that could be used for nesting. Implementation of Mitigation Measure BIO-2 would reduce impacts to nesting birds to a less than significant level under this alternative. Like the Project, this alternative would include grading and landscaping that would directly impact the Plan Area's potential jurisdictional features. Implementation of Mitigation Measure BIO-4 will ensure impacts t to potential jurisdictional features are reduced to a less than significant level.

Overall, this alternative's impact on biological resources would be incrementally less than those of the project and would be less than significant with mitigation incorporated.

d. Cultural and Tribal Resources

As discussed in Section 4.4, *Cultural and Tribal Cultural Resources*, no known cultural or tribal cultural resources are present on the Plan Area; however, ground disturbance during construction has the potential to unearth or adversely impact previously unidentified archaeological and/or historic cultural resources. Although development would be reduced to a smaller footprint and would designate open space, this alternative would also require Mitigation Measures CR-1a through CR-1c to reduce cultural and tribal cultural resource impacts to a less than significant level.

The net acreage of development under this alternative would be less compared to the proposed project, and consequently the risk of disturbance or destruction of significant paleontological resources would be reduced. Similar to the proposed project, the potential to discover paleontological resources during construction ranges from low to high, depending on the location and depth of ground disturbance. This alternative would shift portions of the project footprint to the center of the Plan Area, which is determined to have a high paleontological sensitivity. As with the proposed project, implementation of Mitigation Measures CR-2a through CR-2e would reduce impacts to paleontological resources to a less than significant level.

e. Geology and Soils

The Four-Story Reduced Walls Alternative would create a smaller project footprint in the Plan Area that would consist of 18.5 acres of development as opposed to the 24 acres under the proposed project. Construction of this alternative would require approximately 1,175,000 cubic yards of cut soil from the Plan Area and an export of approximately 34,250 cubic yards of soil. This would be less than the proposed Specific Plan, which would require approximately 1,300,000 cubic yards of cut soil and would export approximately 85,250 cubic yards. As with the proposed project, Mitigation Measure GEO-1, erosion control plans and construction BMPs would be implemented and a SWPPP would be prepared under this alternative to reduce potential erosion. Development under this alternative would comply with all applicable federal, state, and local construction and design standards to minimize risks to life and property. The Four Story Reduced Walls Alternative would incrementally decrease impacts to geology and soils compared to the proposed project, and impacts would be less than significant with implementation of mitigation.

f. Greenhouse Gas Emissions

Less grading quantity and construction would be required under this alternative because 54 fewer residential units would be developed and total development would have a smaller building footprint. This would result in fewer emissions from construction equipment and truck trips compared to the proposed Specific Plan. While not currently required under the base California Building Code, the 77 new four-story buildings in this alternative would need to include on-site renewable energy mitigation measures discussed as discussed in the main project to satisfy the goals of the State Scoping. The overall operational energy use would decrease due to decreased number of residents and increased density. Due to a decreased number of residents, fewer emissions from residential vehicle trips would also occur. Like the proposed Specific Plan, this alternative would also incorporate a majority of the emission mitigation measures included in ARB's 2017 Scoping Plan Update and would be consistent with the emission reduction strategies of SCAG's 2016 RTP/SCS. Overall, this alternative would generate fewer GHG emissions during project construction and operation compared to the proposed Specific Plan. As with the proposed project, impacts would be less than significant.

g. Hydrology and Water Quality

The Four-Story Reduced Walls Alternative would create a smaller project footprint (18.5 acres of development as opposed to the 24 acres under the proposed project). Similar to the proposed project, this alternative would increase the impervious surface area in the Plan Area, thereby increasing surface runoff and changing drainage patterns. Like the proposed project, development of the Four-Story Reduced Walls Alternative would be required to comply with current NPDES and associated local requirements. Potential impacts to hydrology and water quality would be similar to the proposed project and impacts would be less than significant.

h. Land Use and Planning

The Four-Story Reduced Walls Alternative would include the same land uses, but on a smaller project footprint in the Plan Area in comparison to the proposed project. The proposed Specific Plan would require the following entitlements: General Plan Amendment, adoption of the Specific Plan, and a zone change (refer to Section 2.7, *Required Approvals*, for the details). Upon approval of the requested entitlements, the proposed Specific Plan would comply with applicable land use plans and policies and impacts would be less than significant. This alternative also implements the goals of

the MU-HOO-3 zoning overlay. The City rezoned a number of properties, including the Plan Area, to ensure that adequate sites were available to meet the City's 2013-2021 RHNA goal of 908 units (Walnut 2014). The Reduced Walls Alternative would involve development of 54 fewer units compared to the proposed Specific Plan Construction of 290 housing units. The proposed project would satisfy approximately 32 percent of the 908-unit goal, whereas construction of 236 units would satisfy approximately 26 percent. Alternative 4 would address a lesser percentage of the City's housing shortage when compared to the proposed project. However, land use and planning impacts associated with this alternative would be generally the same as the proposed Specific Plan and would be less than significant. This alternative would require the same entitlements and would comply with the applicable plans and policies. Therefore, land use and planning impacts would be generally the same as the proposed Specific Plan.

i. Noise

Temporary construction-related noise and vibration associated with this alternative would be less than that of the proposed project because this alternative would develop 236 residential units, or 54 fewer units compared to the proposed project. Similar to the proposed project, this alternative would comply with the construction hours permitted by Section 3.40.030(A) of the WMC, and resulting vibration levels would not exceed thresholds and would not cause damage to structures surrounding the Plan Area. However, construction noise levels would still exceed low ambient noise levels at residences west and north of the Plan Area during the day. Therefore, as with the proposed project, Mitigation Measures N-1a through N-1i would be required to implement best management practices during construction to minimize construction noise impacts. Therefore, similar to the proposed project, overall construction-related noise and vibration would be less than significant or less than significant with mitigation incorporated.

Similar to the proposed project, this alternative would involve commercial uses, a small-lot residential district, and open space areas located at the southern and western boundaries of the Plan Area apart from residential uses. Therefore, operational noise under this alternative would be similar to the proposed project. Although the proposed project would not have a significant traffic noise impact, traffic noise increases associated with this alternative would be incrementally lower than those of the proposed project due to the 54-unit reduction in residences and associated motor vehicle trips. Overall noise impacts under the Four-Story Units with Reduced Walls Alternative would be incrementally less than those of the proposed project. As with the proposed project, impacts would be less than significant.

j. Population and Housing

The Four-Story Units with Reduced Walls Alternative would involve development of 54 fewer units compared to the 290 residential units under the proposed project. The proposed Specific Plan would increase the City's estimated existing population of 30,457 to 31,537. This population growth would be within SCAG's 2020 population forecast of 31,900 from the 2016 RTP/SCS (SCAG 2016). Impacts of the Specific Plan related to directly inducing population growth beyond projections would be less than significant. Under the Four-Story Units with Reducing Walls Alternative, the population growth would be less than the proposed Specific Plan and, therefore, also within the SCAG projection. As with the proposed project, impacts would be less than significant.

The City rezoned a number of properties, including the Plan Area, in order to ensure that adequate sites were available to meet the City's 2013-2021 RHNA goal of 908 units (Walnut 2014). The 290 housing units associated with the proposed project would satisfy approximately 32 percent of the

908-unit goal, whereas the 236 units would satisfy approximately 26 percent. This alternative would address a lesser percentage of the City's housing shortage when compared to the proposed project. All the proposed units under Alternative 4 would fall under the above moderate-income group. Construction of 236 housing units would satisfy the City's need for above-moderate units, which accounts for 40 percent of the RHNA. The City has a shortfall of sites for meeting its above moderate income RHNA (City of Walnut 2014). Overall, similar to the proposed project, impacts under Alternative 4 would be less than significant.

k. Public Services and Recreation

The Four-Unit Reduced Walls Alternative would reduce the number of residential dwelling units from 290 units to 236 units. Therefore, this alternative would create less demand for public services (such as fire protection services and recreational facilities) because it would not generate the same increase in population growth and residential units when compared to the proposed Specific Plan. As with the proposed project, this alternative would not generate the need for expanded fire protection facilities. In addition, the proposed Specific Plan would not result in a decrease of the City's ratio of public parks to residents below the Quimby Act standard of three acres of parkland for every 1,000 residents. Overall, impacts to public services under this alternative would be less than the proposed Specific Plan due to the decrease in population and residential units. As with the proposed project, impacts would be less than significant.

l. Transportation and Traffic

As shown in Table 6-6, this alternative would generate an estimated 4,006 ADT, including 299 AM peak hour trips and 283 PM peak hour trips. This is 451 fewer ADT, 40 fewer AM peak hour trips, and 50 fewer PM peak hour trips as compared to the proposed Specific Plan. As a result, overall daily traffic impacts and impacts at study intersections and road segments during peak hours would be slightly lower than those of the proposed Specific Plan. However, because some intersections currently operate and/or are forecasted to operate at an unacceptable LOS and this alternative would generate new vehicle trips, mitigation would be needed to reduce impacts to the local transportation system. Although, even with implementation of the improvements under Mitigation Measures 1 through 6b, due to existing right-of-way constraints at the intersection of Grand Avenue and Valley Boulevard, traffic impacts would remain significant and unavoidable at this intersection. Therefore, although this alternative would generate fewer vehicle trips and fewer traffic impacts than the proposed Specific Plan, impacts would remain significant and unavoidable.

Table 6-6 Alternative 4 – Trip Generation Comparison

	Proposed Specific Plan	Alternative 4: Four-Story Units with Reduced Walls	Difference (Alternative 4 - Proposed)
Average Daily Traffic (ADT)	4,457	4,006	-451
AM Peak Hour Trips	339	299	-40
PM Peak Hour Trips	333	283	-50

Note: Trip generation rates for land uses Trip Generation, 10th Edition, Institute of Transportation Engineers (ITE), 2017

m. Utilities and Service Systems

The Four-Story Reduced Walls Alternative involves 54 fewer residential dwelling units than the proposed project. This alternative involves more park and slope area than the proposed project. This analysis assumes that parks and slopes would be irrigated. Table 6-7 compares water demand and solid waste generation associated with this alternative to those of the proposed project. This alternative would generate a demand of approximately 83 AFY more, or 78 percent more water as compared to the proposed project. This analysis assumes that parks and slopes would be irrigated, so the higher water demand can be attributed to the larger park and slope area under this alternative as compared to the proposed project. This alternative's estimated average water demand represents approximately 0.7 percent of the estimated 2035 Walnut Valley Water District (WVWD) water demand of 26,012 AFY. Therefore, implementation of Alternative 4 would not require new or expanded entitlements for water supplies. Alternative 4 would generate approximately 83 tons per year less of solid waste, or 13 percent more, as compared to the proposed project. Operational solid waste generated in the Plan Area under Alternative 4 would therefore account for approximately 0.02 percent of the combined average daily available capacity of 8,400 tons per day at Olinda Alpha Sanitary Landfill and El Sobrante Landfill. Similar to the proposed project, impacts under Alterative 4 would be less than significant, and mitigation would not be required.

Table 6-7 Water Demand and Solid Waste Generation of Alternative 4

	Proposed Project	Four-Story Reduced Walls Alternative	Difference
Water Demand	107 AFY	190 AFY	+83 AFY
Solid Waste Generation	623 tons per year	540 tons per year	-83 tons per year

AFY: acre-feet per year

Estimates for the proposed project are from Section 4.9, *Utilities and Service Systems*. Estimates for the Four-Story Reduced Walls and Grading Alternative are based on the number of residential dwelling units shown in Table 6-2. Demand and generation factors used for calculations can be found in Section 4.9, *Utilities and Service Systems*.

Numbers in table have been rounded.

6.5 Alternative 5: Pacer Court Grading

6.5.1 Description

The Pacer Court Grading Alternative would consist of the same Plan Area configuration as the proposed project. This alternative would also develop 290 dwelling units and a three-acre commercial district on the same footprint, as shown in Table 6-1. The purpose of this alternative would be to share the graded soil from the slopes of Lots 17 and 18 of Tract 32158 with off-site areas that consist of Lots 79, 80, 81, 82, and 83 located along Pacer Court east of the Plan Area, see Figure 6-4 and Figure 2-14 in Section 2, *Project Description*. A total of 6,000 cy of soil would be relocated from the Plan Area and used as fill on Lots 79 through 83 to decrease overall soil export during construction by the same amount. Grading activities on Lots 79 through 83 would also include 4,000 cy of remedial grading of existing earthwork that is below grade on these properties. The existing soil would be removed, conditioned, and re-compacted prior to receiving the 6,000 cy of fill soil from the Plan Area. This alternative would reduce the length of the proposed wall parallel to Pacer Court at the western boundary of the Plan Area from 243 feet to 80 feet. The height of the reduced wall would range from 0 feet to 25 feet at its tallest.

Figure 6-4 Pacer Court Grading of Lots 79, 80, 81, 82, and 83

Source: Michael Baker International, 2018

Overall, construction of the Pacer Court Grading Alternative would require approximately 1,300,000 cy of cut soil from the Plan Area and export of approximately 79,250 cy of soil, which would reduce the amount of exported soil by approximately seven percent in comparison to the proposed project. The additional disturbed area at Lots 79 through 83 would be less than 0.5 acre, would occur roughly in the mid-point of Plan Area grading, and would last approximately one week.

Similar to the proposed project, shared grading activities under this alternative would be simultaneous with the on-site grading and would consist of clearing the surface of vegetation and debris, performing remedial grading to establish a competent fill surface, placing compacted fill, re-aligning the dirt access road, fine-grading the pads to drain, installing v-ditches to control runoff, installing erosion control, and constructing a tubular steel fence along the shared property line. Grading plans for development in the Plan Area would be required to comply with the current City of Walnut standards and grading techniques would meet applicable City of Walnut codes and would be consistent with the City General Plan.

6.5.2 Impact Analysis

The Pacer Court Grading Alternative would not change the land use characteristics or configuration of the Plan Area when compared to the proposed project. This alternative would also develop 290 dwelling units and a three-acre commercial district on the same footprint, as shown in Table 6-1. As such, the Pacer Court Grading Alternative would not cause a change in operational impacts when compared to the proposed project. Therefore, impacts to the following issue areas are not studied further in this analysis:

- **Hydrology and Water Quality.** Implementation of this alternative would not increase the impervious surface area in the Plan Area. Although transferring soil fill form the Plan Area to Lots 79 through 83 would change the drainage features (i.e., concrete V-ditch at the rear of these lots), the surface runoff discharge pattern would be maintained. This alternative would also be required to comply with current NPDES and associated local requirements, and impacts would be less than significant.
- **Land Use and Planning.** Implementation of this alternative would require the same entitlements as the proposed project (i.e., General Plan Amendment, Specific Plan adoption, and zone change) and would comply with the applicable plans and policies. Impacts would be less than significant.
- **Population and Housing.** The purpose of this alternative is to share graded soil at the northwest portion of the Plan Area. Therefore, potential impacts to population and housing would be the same as the proposed project and would be within SCAG projections. Impacts would be less than significant.
- **Public Services and Recreation.** Implementation of this alternative would result in the same demand for public services as the proposed project (such as fire protection services and recreational facilities). This alternative would not generate the need for expanded fire protection facilities or result in a decrease of the City's ratio of public parks to residents below the Quimby Act standard of three acres of parkland for every 1,000 residents. Impacts would be less than significant.
- **Utilities and Service Systems.** Implementation of this alternative would result in the same energy use, water demand, and wastewater and solid waste generation as the proposed project. This alternative would not require new or expanded facilities to service the Plan Area. As with the proposed project, impacts would be less than significant.

a. Aesthetics

This alternative would reduce the length of the proposed wall parallel to Pacer Court at the western boundary of the Plan Area from 243 feet to 80 feet. The height of the reduced wall would range from 0 feet to 25 feet at its tallest. In comparison to the proposed project, this would reduce the visual impacts associated with the change character of the Plan Area from the single-family residences along Pacer Court. The proposed two-story townhomes would still be visible from these homes; however, the townhomes would not alter any existing scenic views. In addition, development would be designed with integrated open space to be visually cohesive with other residential development in the surrounding area. Because this alternative would include the same land uses as the proposed project, all other aesthetic impacts (i.e., light, glare, and shadow impacts) under this alternative would remain less than significant. However, because views of the wall would be reduced at the western boundary of the Plan Area, this alternative would have incrementally less aesthetics impact than the proposed Specific Plan. Nonetheless, as with the proposed project, overall impacts would remain less than significant.

b. Air Quality

Like the proposed project, the Pacer Court Grading Alternative would also develop 290 dwelling units and a three-acre commercial district on the same 24-acre footprint. This alternative would not change the land uses or configuration of uses in the Plan Area. Therefore, during operation, this alternative would not generate a change in vehicle trips and associated mobile source emissions when compared to the proposed project and long-term operational impacts would remain less than significant. Because development under this alternative would involve shared grading activities on Lots 79 through 83, less soil export would be required. Approximately 6,000 fewer cubic yards of graded material would be exported from the site, resulting in approximately 214 fewer haul truckloads and approximately 429 fewer round trips (one in/ one out) transporting the exported material, which would generate fewer emissions during the construction period. Therefore, air quality impacts during construction would be incrementally less than the proposed project. However, as with the proposed project, construction would remain less than significant and mitigation would not be required.

c. Biological Resources

This alternative would involve the same development footprint as the proposed project; however, this alternative would involve 4,000 cy of remedial grading on Lots 79 through 83, which would consist of removing, reconditioning, and re-compacting existing earthwork on the adjacent properties. Therefore, this alternative would incrementally increase disturbance adjacent to the Plan Area. In January 2019, VCS Environmental surveyed the land on Lots 79 through 83 and found only non-native vegetation and trees and confirmed that no jurisdictional drainages are present. Nevertheless, this alternative would involve disturbance to areas that have the potential to support special-status species (see Table 4.3-1 of Section 4.3, *Biological Resources*). Like the proposed project, this alternative would remove all of the coastal sage scrub on-site, which may be utilized by California gnatcatcher. Any direct impacts to the species would be significant. Implementation of Mitigation Measures BIO-1a through BIO-1c would reduce impacts to California gnatcatcher to a less than significant level under this alternative.

This alternative would increase disturbance to trees and vegetation adjacent to the Plan Area that could be used for nesting, resulting in increased potential impacts on nesting birds compared to the proposed project. However, as with the proposed project, implementation of Mitigation Measure

BIO-2 would reduce impacts to nesting birds to a less than significant level. Like the Project, this alternative would include grading and landscaping that would directly impact the Plan Area's potential jurisdictional features. Implementation of Mitigation Measure BIO-4 would reduce or avoid impacts to potential jurisdictional features to a less than significant level.

Overall, this alternative's impact on biological resources would be incrementally greater than those of the project, but would remain less than significant with mitigation incorporated.

d. Cultural and Tribal Resources

This alternative would involve 4,000 cy of remedial grading on Lots 79 through 83, which would consist of removing, reconditioning, and re-compacting existing earthwork on the adjacent properties. As discussed in Section 4.4, *Cultural and Tribal Cultural Resources*, no known cultural or tribal cultural resources are present in or adjacent to the Plan Area; however, ground disturbance during construction has the potential to unearth or adversely impact previously unidentified archaeological and/or historic cultural resources. As with the proposed project, this alternative would also require Mitigation Measures CR-1(a) through CR-1(c) to reduce cultural and tribal cultural resource impacts to a less than significant level.

The net acreage of development under this alternative would be the same as under the proposed project; however, this alternative includes sharing graded soil at the northwest portion of the Plan Area. Therefore, the risk of disturbance or destruction of significant paleontological resources would be incrementally higher compared to the proposed project. Similar to the proposed project, the potential to discover paleontological resources during construction ranges from low to high, depending on the location and depth of ground disturbance. As with the proposed project, implementation of Mitigation Measures CR-2a through CR-2e would reduce impacts to paleontological resources to a less than significant level.

e. Geology and Soils

This alternative would involve export of approximately 79,250 cubic yards of soil. This is incrementally less than under the proposed Specific Plan, which would export approximately 85,250 cubic yards. Grading activities on Lots 79 through 83 under this alternative would also include 4,000 cy of remedial grading of existing earthwork that is below grade on these properties. The existing soil would be removed, conditioned, and re-compacted prior to receiving the 6,000 cy of fill soil from the Plan Area. As with the proposed project, Mitigation Measure GEO-1, erosion control plans and construction BMPs would be implemented and a SWPPP would be prepared under this alternative to reduce potential erosion. Development under this alternative would comply with all applicable federal, state, and local construction and design standards to minimize risks to life and property. Due to the increase in disturbed land, the Pacer Court Grading Alternative would incrementally increase impacts to geology and soils compared to the proposed project. Nonetheless, as with the proposed project, impacts would be less than significant with implementation of mitigation.

f. Greenhouse Gas Emissions

This alternative would not change the land uses or configuration of such uses in the Plan Area. Therefore, this alternative would generate the same greenhouse gas emissions from building energy use and vehicle trips during project operation. During construction, less grading export would be required under this alternative because 6,000 cy of cut soil would be transferred from the Plan Area to adjacent residential properties (i.e., Lots 79 through 83). This would result in fewer emissions

from construction truck trips compared to the proposed project. Like the proposed project, this alternative would also incorporate a majority of the emission mitigation measures included in ARB's 2017 Scoping Plan Update and would be consistent with the emission reduction strategies of SCAG's 2016 RTP/SCS. Overall, this alternative would generate slightly fewer GHG emissions during project construction compared to the proposed Specific Plan and, as with the proposed project, impacts would be less than significant with mitigation.

g. Noise

Long-term operational noise would be the same as the proposed project. However, additional grading activities at Pacer Court would bring construction noise closer to residences at Lots 79 through 83. Therefore, construction noise would be slightly greater under this alternative. However, this alternative would also comply with the construction hours permitted by Section 3.40.030(A) of the WMC and construction noise would not disturb residences during sensitive nighttime hours. In addition, as with the proposed project, Mitigation Measures N-1a through N-1i would be required to implement best management practices during construction to minimize construction noise impacts. Furthermore, as analyzed in Section 4.9, *Noise*, resulting vibration levels would not exceed thresholds or cause damage to surrounding structures and vibration impacts would be less than significant. Overall, this alternative would result in an incremental increase in construction noise when compared to the proposed project. However, as with the proposed project, construction noise impacts would be less than significant with mitigation incorporated.

h. Transportation and Traffic

Overall daily traffic impacts and impacts at study intersections and road segments during peak hours would not increase during operation of this alternative. Implementation of this alternative would require the same traffic improvements under Mitigation Measures T-1 through T-6b. In addition, due to existing right-of-way constraints at the intersection of Grand Avenue and Valley Boulevard, traffic impacts would remain significant at this intersection. Therefore, similar to the proposed project, operational traffic impacts under this alternative would remain significant and unavoidable. However, due to the reduction of 6,000 cy in soil export, this alternative would reduce truck trips when compared to the proposed project. Assuming a 14 cy of soil haul truck capacity, this alternative would result in a reduction of approximately 429 haul truckloads, or approximately 848 truck trips (one trip to the site and one trip out of the site for each truckload). Therefore, construction traffic generated by this alternative would be incrementally less than the proposed project. Nonetheless, as with the proposed project, construction under this alternative would implement Mitigation Measures T-4a and T-4b to minimize traffic interference from construction activities and potential parking impacts.

6.6 Alternatives Considered but Rejected

Section 15126.6 (c) of the CEQA Guidelines requires that an EIR identify those alternatives that were considered, but rejected by the lead agency because they either did not meet the objectives of the project, were considered infeasible, or could not avoid or substantially lessen one or more significant effects of the proposed project. Three alternatives that were considered but rejected are discussed further below.

6.6.1 Single-Family Development Alternative

During the public comment period for the Notice of Preparation, several commenters were concerned about the density of the proposed Specific Plan and requested that only single-family residences are developed under the proposed Specific Plan. However, as discussed in 4.8, Land Use, and 4.10, Population and Housing, the City's Housing Element (2013-2021) is intended to adequately plan for the existing and future housing needs of the Community, including a "fair share" of the regional housing need. For the City's 2013-2021 Housing Element update, Walnut has a RHNA allocation of 908 units. In 2013, the City rezoned a number of properties in order to ensure that adequate sites were available to meet the City of Walnut's 2014-2021 RHNA. The rezoned properties will have a total capacity of 1,252 housing units, the majority of which will be suitable for the development of housing affordable to lower-income households based on the allowed density (Walnut 2014). The Plan Area is identified as project site #3 in the City's Housing Element. In 2013, the City also adopted an additional Mixed Use/Housing Opportunity Overlay (MU/HOO3) for the Plan Area. The MU/HOO-3 Overlay partitions the total site into three areas:

- Area A encompasses approximately 8.0 acres and will allow for the development of low-density residential units with a maximum density of 2.2 units per acre.
- Area B encompasses approximately 26.0 acres and will allow for the development of high-density residential units with a maximum density of 36.0 units per acre.
- Area C encompasses approximately 15.0 acres and will be reserved for retail and commercial development

The Specific Plan proposes two types of residential districts, with single-family and multi-family detached dwelling units. All of the proposed units would fall under the above moderate-income group. However; construction of 290 housing units would satisfy the City's need for above moderate units, which accounts for 40 percent of the RHNA. (City of Walnut 2014) The Project's units would help the City remedy this deficiency by establishing units that meet this above moderate criteria. Therefore, given that the City is mostly built-out and vacant land is limited, the increase in housing units and commercial area associated with the proposed Specific Plan would efficiently use buildable area to help meet the City's RHNA and simultaneously incorporate commercial use to increase the City's employment. Therefore, this Alternative, which would result in substantially fewer units being constructed, would be less consistent with the Specific Plan's objective to implement the City's planned commercial and higher density residential districts facing the urban edge, consistent with the goals and policies of the City of Walnut General Plan and certified Housing Element and was not pursued for further analysis.

6.6.2 Second Traffic Access Point Alternative

Commenters stated concern about one access point on Valley Boulevard and asked for a second access point to be considered. The County Fire Department reviewed the proposed Specific Plan and found that one access point is adequate. Also, the traffic study identifies adequate capacity for the project at the A Street/Faure Avenue/Valley Boulevard intersection. Therefore, this alternative was not pursued for further analysis.

6.6.3 Reduced Traffic Impacts Alternative

As discussed in Section 4.12, *Transportation and Traffic*, significant and unavoidable impacts at the intersection of Valley Boulevard and Grand Avenue would occur due to the existing right-of-way

constraints. Based on an analysis provided by Kunzman Associates, the project would have to be reduced to 10,000 square feet of commercial space (excluding restaurants), 12 single-family dwelling units, and 100 multi-family dwelling units to eliminate the significant and unavoidable traffic impact (the trip generation for this scenario is provided in Appendix L). This scenario would substantially decrease the commercial and residential development to a degree that it would not fulfill the project objectives or the City's housing needs. This Alternative would be less consistent with the Specific Plan's objectives to implement the City's planned commercial and higher density residential districts facing the urban edge, consistent with the goals and policies of the City of Walnut General Plan and certified Housing Element; provide new financially viable infill commercial uses and housing on a vacant site; and cluster development to promote walking and establish a strong sense of neighborhood. Therefore, this alternative was not pursued for further analysis.

6.7 Environmentally Superior Alternative

CEQA requires the identification of the environmentally superior alternative among the options studied. When the No Project alternative is determined to be environmentally superior, CEQA also requires identification of the environmentally superior alternative among the development options.

The No Project Alternative would not fulfill the Project Objectives, primarily because this alternative would not implement the City's planned commercial and higher density residential districts that would be consistent with the goals and policies of the City of Walnut General Plan. Alternatives 2, 3 and 4 would meet most but not all of the project objectives. Each of the alternatives would reduce but not avoid the proposed Specific Plan's significant, unavoidable impact related to traffic impacts.

Table 6-8 indicates whether each alternative's environmental impact is greater than, less than, or similar to those of the proposed Specific Plan. When taking every environmental impact area into account, the No Project Alternative is the environmentally superior alternative. Of the development alternatives, Alternative 3 (Reduced Walls) would increase potential impacts in comparison to the proposed project and would not be the environmentally superior alternative. Alternative 5 (Pacer Court Grading) would develop the uses as the proposed project, but would result in a reduction of 6,000 cy of export soil. While some issue areas would be the same as the proposed project, Alternative 5 would incrementally decrease impacts associated with aesthetics, air quality, greenhouse gas emissions, and transportation and traffic and incrementally increase impacts associated with biological resources, cultural and tribal resources, geology and soils, and noise. Alternative 2 (Cluster Development) and Alternative 4 (Four-Story Units with Reduced Walls) would result in fewer impacts in comparison to the proposed project, and in comparison to each other, the impacts would be similar. However, Alternative 2 would include 10 fewer residences and 4.2 fewer acres of disturbance in comparison to Alternative 4. Therefore, Alternative 2 would result in fewer impacts than Alternative 4 and would be the environmental superior alternative.

Table 6-8 Summary of Impacts Under Alternatives Relative to the Proposed Project

Issue Area	Proposed Project Impact Classification	Alternative 1: No Project/ Existing Zoning	Alternative 2: Cluster Development	Alternative 3: Reduced Walls	Alternative 4: Four-Story with Reduced Walls	Alternative 5: Pacer Court Grading
Aesthetics	Less than Significant	**No Project** Less than the proposed project: The No Project Alternative would involve less development and disturbed open space than under the proposed project **Existing Zoning** Greater than the proposed project: Under Existing Zoning scenario, the Plan Area could be developed with a greater height and a much higher density of development in the future.	Same as the proposed project: Alternative 2 would involve a smaller project footprint and disturbed open space than under the proposed project. However, under this alternative the maximum height of the highest house would be 27 feet higher than the Specific Plan. Overall, impacts under Alternative 2 would be similar to the Specific Plan.	Less than the proposed project: Alternative 3 would involve less disturbed open space than under the proposed project and no walls or residential development would be constructed in the southwest corner of the Plan Area.	Less than the proposed project: Alternative 4 would involve less development and disturbed open space than under the proposed project.	Less than the proposed project: Alternative 5 would involve less development and disturbed open space than under the proposed project.
Air Quality	Less than Significant with Mitigation Incorporated	**No Project** Less than the proposed project: The No Project Alternative would involve less development and disturbed open space than under the proposed project **Existing Zoning** Greater than the proposed project: The Existing Zoning scenario would have increased construction emissions from the greater number of residences that could be constructed and would generate more construction and operational air emissions.	Less than the proposed project: Alternative 2 would involve less development and would generate fewer construction and operation emissions.	Greater than the proposed project: Alternative 3 would result in fewer single-family residences and more townhome residences, as compared to the proposed project. Overall, air quality impacts would be greater under this alternative in comparison to the proposed project.	Less than the proposed project: Alternative 4 would involve less development and would generate fewer construction and operation emissions.	Less than the proposed project: Alternative 5 would involve less soil export and would generate fewer construction emissions.

Issue Area	Proposed Project Impact Classification	Alternative 1: No Project/ Existing Zoning	Alternative 2: Cluster Development	Alternative 3: Reduced Walls	Alternative 4: Four-Story with Reduced Walls	Alternative 5: Pacer Court Grading
Biological Resources	Less than Significant with Mitigation Incorporated	**No Project** Less than the proposed project: The No Project Alternative would involve less development and disturbed open space than under the proposed project **Existing Zoning** Same as the proposed project: Under Existing Zoning scenario, the footprint of development would be similar to the proposed Project, and the impacts to biological resources is expected to be the same as the proposed Specific Plan.	Less than the proposed project: Alternative 2 would involve less development and disturbed open space than under the proposed project.	Less than the proposed project: Alternative 3 would involve less disturbed open space than under the proposed project.	Less than the proposed project: Alternative 4 would involve less development and disturbed open space than under the proposed project.	Greater than the proposed project: Alternative 5 would involve more disturbed open space than under the proposed project.
Cultural Resources	Less than Significant with Mitigation Incorporated	**No Project** Less than the proposed project: The No Project Alternative would involve less development and disturbed open space than under the proposed project **Existing Zoning** Same as the proposed project: Under the Existing Zoning scenario, the footprint of development would be similar to the proposed Project, and the impacts to biological resources is expected to be similar to the proposed Specific Plan.	Less than the proposed project: Alternative 2 would involve less development and disturbed open space than under the proposed project.	Less than the proposed project: Alternative 3 would involve less disturbed open space than under the proposed project.	Less than the proposed project: Alternative 4 would involve less development and disturbed open space than under the proposed project.	Greater than the proposed project: Alternative 5 would involve more disturbed open space than under the proposed project.

Issue Area	Proposed Project Impact Classification	Alternative 1: No Project/ Existing Zoning	Alternative 2: Cluster Development	Alternative 3: Reduced Walls	Alternative 4: Four-Story with Reduced Walls	Alternative 5: Pacer Court Grading
Geology and Soils	Less than Significant with Mitigation Incorporated	**No Project** Less than the proposed project: The No Project Alternative would involve less development and disturbed open space than under the proposed project **Existing Zoning** Same as the proposed project: Under Existing Zoning scenario, the footprint of development would be similar to the proposed Project, and the impacts of the implementing this alternative on geology and soils would be similar to the proposed Specific Plan.	Less than the proposed project: Alternative 2 would involve less development and disturbed open space than under the proposed project.	Less than the proposed project: Alternative 3 would involve less disturbed open space than under the proposed project.	Less than the proposed project: Alternative 4 would involve less development and disturbed open space than under the proposed project.	Greater than the proposed project: Alternative 5 would involve more disturbed open space than under the proposed project.
Greenhouse Gas Emissions	Less than Significant	**No Project** Less than the proposed project: The No Project Alternative would involve less development and disturbed open space than under the proposed project **Existing Zoning** Greater than the proposed project: The Existing Zoning scenario would have increased construction and operation emissions from the greater number of residences that could be constructed pursuant to existing zoning. Greenhouse gas emissions would be greater than the proposed Specific Plan.	Less than the proposed project: Alternative 2 would involve less development and would generate fewer construction and operation emissions.	Greater than the proposed project: Alternative 3 would involve more development and generate increased construction and operation emissions.	Less than the proposed project: Alternative 4 would involve less development and would generate fewer construction and operation emissions.	Less than the proposed project: Alternative 5 involve less soil export and would generate fewer construction emissions.

Issue Area	Proposed Project Impact Classification	Alternative 1: No Project/ Existing Zoning	Alternative 2: Cluster Development	Alternative 3: Reduced Walls	Alternative 4: Four-Story with Reduced Walls	Alternative 5: Pacer Court Grading
Hydrology and Water Quality	Less than Significant	**No Project** Same as the proposed project: The No Project Alternative would involve less development and disturbed open space than under the proposed project **Existing Zoning** Same as the proposed project: Under the Existing Zoning scenario, the footprint of development would be similar to the proposed Project, and the impacts of the implementing this alternative on hydrology and water quality would be similar to the proposed Specific Plan.	Same as the proposed project: Although the overall amount of ground disturbance and new impervious surface area would be less as compared to the proposed project, Alternative 2 would increase the impervious surface area in the Plan Area, thereby increasing surface runoff and changing drainage patterns, Overall, impacts under Alternative 2 would be similar to the proposed project.	Same as the proposed project: Although the overall amount of ground disturbance and new impervious surface area would be less as compared to the proposed project, Alternative 3 would increase the impervious surface area in the Plan Area, thereby increasing surface runoff and changing drainage patterns, Overall, impacts under Alternative 3 would be similar to the proposed project.	Same as the proposed project: Although the overall amount of ground disturbance and new impervious surface area would be less as compared to the proposed project, Alternative 4 would increase the impervious surface area in the Plan Area, thereby increasing surface runoff and changing drainage patterns, Overall, impacts under Alternative 4 would be similar to the proposed project.	Same as the proposed project: Alternative 5 would involve the same footprint and would develop the same uses as the proposed project.

Issue Area	Proposed Project Impact Classification	Alternative 1: No Project/ Existing Zoning	Alternative 2: Cluster Development	Alternative 3: Reduced Walls	Alternative 4: Four-Story with Reduced Walls	Alternative 5: Pacer Court Grading
Land Use and Planning	Less than Significant	**No Project** Same as the proposed project: The No Project Alternative would involve less development and disturbed open space than under the proposed project **Existing Zoning** Less than the proposed project: Under the Existing Zoning scenario, development would occur consistent with the General Plan and zoning and would be compliant with applicable land use plans and policies. Because this alternative would also potentially provide affordable housing to satisfy the City's RHNA obligations, it may be considered more consistent with achieving the land use and planning goals of the City than the proposed Specific Plan.	Same as the proposed project: Alternative 2 would include the same land uses and would require the same entitlements as the proposed project.	Same as the proposed project: Alternative 3 would include the same land uses and would require the same entitlements as the proposed project.	Same as the proposed project: Alternative 4 would include the same land uses and would require the same entitlements as the proposed project.	Same as the proposed project: Alternative 5 would include the same land uses and would require the same entitlements as the proposed project.
Noise	Less than Significant	**No Project** Less than the proposed project: The No Project Alternative would involve less development and disturbed open space than under the proposed project **Existing Zoning** Greater than the proposed project: The Existing Zoning scenario would have increased construction and operation noise compared to the proposed Project as a result of the greater number of residences that could be constructed under existing zoning. Under the Existing Zoning scenario, noise would be greater than the proposed Specific Plan.	Less than the proposed project: Alternative 2 would involve less development and would generate decreased construction noise, on-site operational noise, and off-site vehicle noise.	Greater than the proposed project: Alternative 3 would involve more development and would generate increased construction noise, on-site operational noise, and off-site vehicle noise.	Less than the proposed project: Alternative 4 would involve less development and would generate decreased construction noise, on-site operational noise, and off-site vehicle noise.	Greater than the proposed project: Alternative 5 would bring construction activities, and resulting construction noise, closer to residences along Pacer Court when compared to the proposed project.

Issue Area	Proposed Project Impact Classification	Alternative 1: No Project/ Existing Zoning	Alternative 2: Cluster Development	Alternative 3: Reduced Walls	Alternative 4: Four-Story with Reduced Walls	Alternative 5: Pacer Court Grading
Population and Housing	Less than Significant	**No Project** Greater than the proposed project: The No Project alternative would not provide needed new housing as compared to the proposed Specific Plan. The No Project alternative would not provide needed new housing as compared to the proposed Specific Plan. The No Project Alternative's impact on population and housing would be greater than the proposed Specific Plan. **Existing Zoning** Less than the proposed project: The Existing Zoning scenario would implement the existing zoning and land uses and would have a greater number of residences than the proposed Specific Plan and would result in increased population and housing growth. Because this would help the City fulfill its land use and housing goals under its RHNA obligations, the Existing Zoning scenario would reflect greater consistency with the City's RHNA goals than the proposed Specific Plan.	Greater than the proposed project: Alternative 2 would involve less residential development and would address a lesser percentage of the City's housing shortage.	Less than the proposed project: Alternative 3 would involve more residential development and would address a larger percentage of the City's housing shortage.-	Greater than the proposed project: Alternative 4 would involve less residential development and would address a lesser percentage of the City's housing shortage.-	Same as proposed project: Alternative 5 would include the same land uses, generate the same population growth, and address the same percentage of the City's housing shortage.

Issue Area	Proposed Project Impact Classification	Alternative 1: No Project/ Existing Zoning	Alternative 2: Cluster Development	Alternative 3: Reduced Walls	Alternative 4: Four-Story with Reduced Walls	Alternative 5: Pacer Court Grading
Public Services and Recreation	Less than Significant	**No Project** Less than the proposed project: The No Project Alternative would involve less development and disturbed open space than under the proposed project **Existing Zoning** Same as the proposed project: The Existing Zoning scenario would require public services but would also provide recreational opportunities commensurate with the amount of development that could be implemented under this alternative. Under the Existing Zoning scenario, public services and recreation impacts would be similar to the proposed Specific Plan.	Less than the proposed project: Alternative 2 would involve less development and would demand less on public services and facilities.	Greater than the proposed project: Alternative 3 would involve more development and would demand more on public services and facilities.	Less than the proposed project: Alternative 4 would involve less development and would demand less on public services and facilities.	Same as proposed project: Alternative 5 would involve the same development and would create the same demand on public services and facilities.
Transportation and Traffic	Significant and Unavoidable	**No Project** Less than the proposed project: The No Project Alternative would involve less development and disturbed open space than under the proposed project **Existing Zoning** Same impacts to the proposed Specific Plan. The Existing Zoning scenario would have increased construction trips and long-term operational trips resulting from the greater number of residences that could be constructed under existing zoning. The Existing Zoning scenario would be required to implement mitigation measures to address potential impacts on traffic and circulation. The Existing Zoning scenario would have same impacts to the proposed Specific Plan.	Less than the proposed project: Alternative 2 would involve less development and would generate decreased vehicle trips and demand on transportation facilities.	Less than the proposed project: Alternative 3 would involve more development but would generate less vehicle trips and demand on transportation facilities.	Less than the proposed project: Alternative 4 would involve less development and would generate decreased vehicle trips and demand on transportation facilities.	Less than the proposed project: Alternative 5 involve less soil export and would generate fewer construction truck trips.

Issue Area	Proposed Project Impact Classification	Alternative 1: No Project/ Existing Zoning	Alternative 2: Cluster Development	Alternative 3: Reduced Walls	Alternative 4: Four-Story with Reduced Walls	Alternative 5: Pacer Court Grading
Utilities and Service Systems	Less than Significant	**No Project** Less than the proposed project: The No Project Alternative would involve less development and disturbed open space than under the proposed project **Existing Zoning** Same as the proposed Specific Plan. Build out of the site under this scenario would be consistent with the existing General Plan and zoning would not exceed system capacity for the various utilities. Impacts to utilities and service systems would be similar to the proposed Specific Plan.	**Water** Greater than the proposed project: Alternative 2 would involve a smaller footprint but more undeveloped open space that would require irrigation. **Solid Waste** Less than the proposed project: Alternative 2 would involve less residential development and would generate less waste.	Greater than the proposed project: Alternative 3 would involve a smaller footprint but more undeveloped open space that would require irrigation; Alternative 3 would also involve more residential development which would generate more waste.	**Water** Greater than the proposed project: Alternative 4 would involve a smaller footprint but more undeveloped open space that would require irrigation **Solid Waste** Less than the proposed project: Alternative 4 would involve less residential development and would generate less waste.	Same as proposed project: Alternative 5 would involve the same footprint and residential development; therefore, irrigation requirements and solid waste generation would not change.

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